



ERSA2023 - Abstract Book

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The abstracts are listed in alphabetical order of author's names (submitter).
Presenters are in bold and underlined.

The Digital Layer: Alternative Data for Regional and Innovation Studies

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Alicante-G10-O1 Technological Change and Diversification, 0-D04, August 30, 2023, 11:00 AM - 1:00 PM

The lack of large-scale data revealing firms' interactions has constrained empirical studies. Utilizing relational web data has remained unexplored to remedy this data problem. We constructed a Digital Layer by scraping the inter-firm hyperlinks of 600,000 German firms and linked the Digital Layer with several traditional indicators. We showcase the use of this developed dataset by testing whether the Digital Layer data can replicate several theoretically motivated and empirically supported stylized facts. The results show that the intensity and quality of firms' hyperlinks are strongly associated with firms' innovation capabilities and, to a lesser extent, with hyperlink relations to geographically distant and cognitively close firms. Finally, we discuss the implications of the Digital Layer approach as an evidence-based assessment of sectoral and place-based innovation policies.

Atypical combination of technologies in regional co-inventor networks

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Alicante-G54-Urban studies, 0-C02, August 30, 2023, 4:45 PM - 6:30 PM

We generate novel combinations of technologies from existing knowledge via collaborative work. Albeit inventors and their respective communities tend to be specialised, inventor collaborations across differently specialised peers have the potential to generate co-inventor networks that provide access to a diverse set of knowledge and facilitate the production of radical novelty. Previous research has demonstrated that short access in large co-inventor networks enables innovative outcomes in regional economies. However, how connections in the network across different technological knowledge domains matter and what impact they might generate is still unknown. The present investigation focuses on 'atypical' combinations of technologies as indicated in patent documents. In particular, the role of technological specialisations linked in co-inventor networks that result in radical innovation in European regions is analysed. It is confirmed that the share of atypical patents is growing in regions where bridging ties establish short access to and across cohesive co-inventor sub-networks. Furthermore, the evidence suggests that the strong specialisation of co-inventor communities in regions fosters atypical combinations because these communities manage to increase the scale and scope of novel combinations. Thus, bridges between communities that are specialised in different technologies favour atypical innovation outcomes. The work shows that not diversity per se, but links across variously specialised inventor communities can foster radical innovation.

The Effect of Situational and Personal Factors on Firm Performance in Emerging Markets

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Alicante-G18-O2 Institutions, Political and Decisional Processes, 0-D02, August 31, 2023, 4:45 PM - 6:30 PM

Managers in the dynamic environment of emerging markets have a choice to either conduct some economic activities in the informal economy or not. This choice is governed by their ability to take risks. One of the established theories that help explain why some individuals are risk takers while others are risk averse is the regulatory focus theory (RFT). Prior research have studied the relationships between RFT and firm performance, RFT and the use of informal economy, and the use of informal economy and firm performance. In this paper, we bundle all previous findings and theorize that the use of informal economy partially mediates the relationship between RFT and firm performance. That is, we fill a gap in the literature by studying the effect of personal and environmental factors together on firm performance in the dynamic environments of emerging markets. Using a sample of 362 Lebanese managers, we found support for our theorizing. We found that the use of informal economy partially mediates the positive relationship between promotion focus mindset and firm performance, and the negative relationship between prevention focus mindset and firm performance.

Role of universities in regional graduate entrepreneurship ecosystems: enablers or constrainters of ‘missing’ graduate entrepreneurs?

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Alicante-S09-S1 University impacts on the local and regional economy, 1-C14, August 30, 2023, 11:00

AM - 1:00 PM

We explore how regional entrepreneurship ecosystems enable or constrain the entrepreneurial activities of university graduates, with a focus on ‘missing’ entrepreneurs with non-mainstream characteristics who are currently underrepresented. We argue that today’s University, with its emphasis on equality, diversity, and inclusivity, combined with its social mobility and civic missions, is an important vehicle for enabling this ‘missing’ entrepreneurship and its associated local and regional economic impacts. Our analysis is based on 15 years of data from the UK’s Destinations of Leavers from Higher Education survey (2002-2017), and two waves of the more recent Graduate Outcomes survey (2017-2019), which provide detailed micro data on university graduates. We combine this with university-level data on policies and engagement with external organisations, as well as information on staff characteristics and financial investment in knowledge-exchange activities. Our results indicate that regional entrepreneurship ecosystems centred around universities are critical drivers of entrepreneurship among non-conventional graduate entrepreneurs.

Where and how to locate a new population? Inverse location models in response to rural development challenges.

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Alicante-YS01 People-based Development and Policies - EPAINOS, August 31, 2023, 11:00 AM - 1:00 PM

The growing need for housing in France is a challenge under several constraints. Legally, construction is subject to the Local Urban Plan (“Plan Local d’Urbanisme”) and the law of zero net artificialization (“Zero Artificialisation Nette”) created to fight against urban sprawl. Theoretically, building new housing means introducing a new population into the area. This population must then have access to the best possible range of facilities (healthcare, for example). The traditional location models deal with finding the optimal location of new facilities respect to given criteria such as minimizing time, cost or distanced between the given client points and facilities. The inverse and reverse models try to modify the parameters of the problem, such that one or several points becomes optimal, or according to a budget, respectively. This paper focuses on modifying the users’ weights (locating a new population) by introducing two models. Firstly, The New Population Problem (NPP) aims to locate an additional population under the same objectives by maximizing entropy. Secondly, The Regret Minimization Problem aims to minimize the regret, i.e., the difference of the value of the median objective function with the new and the current users’ weights. An application for each model based on real data in Dijon Métropole (France) is proposed. We assume the new weights to be optimal according to the location of health facilities. Results show that the new population is located near the facilities and are relevant with the Local Urban Plan.

Municipal categories in Colombia: how to advance to an asymmetric decentralization

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Alicante-S27-S2 Applications of Advanced and Innovative Methods in Regional Science, 1-C13,
September 1, 2023, 11:00 AM - 1:00 PM

Colombia is characterized by its regional disparities. The wealthiest territories have income per capita around six times that observed in the least developed territories. One strategy implemented by Colombia to reduce such economic disparities is through an asymmetric decentralization system implemented since the Constitution of 1991. The national government uses a typological classification of the municipalities in the country to assort financial allocations across the country. The aim of these monetary transfers is to gain local autonomy and minimize the social and economic disparities between areas. Yet, within the last decades, regional disparities are still wide. We argue the current norm of decentralization has been sufficient and justified to reduce the important inequalities observed within the country. This paper takes advantage of new advances in machine learning and an enhanced information system in Colombia to propose an interpretable clustering strategy to bundle municipalities based on more than fifty annual territorial variables. We follow the proposal of Bertsimas et al. (2020), which proves to be superior to the standard k-means strategies.

The spatial repartition of special needs students in regular classes in Neamț County (Romania) – who and where are they?

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Online-G03-O1 Demographic Change, Population and Migration, August 28, 2023, 11:00 AM - 1:00 PM

Neamț county is a medium size administrative unit in the North-East of Romania and the evolution of this school network after the fall of communist regime in Romania was marked by a special moment in 2011, when the National Education Act specifically required to enrol special needs students in regular classes.

Integrating special needs students in regular classes is a long-time desire for their parents and the educational system in Romania. Although, huge efforts have been made by the system and especially by the parents of these special needs students, they continue to be poorly represented in the total number of school population. Since 2011, the number of special needs students integrated in regular classes have increased constantly, but the general perception is that they need to be maintained in special institutions instead of adapting the schools to their needs.

The integration of students with special needs is the subject of a very extensive literature, but the approach to this phenomenon is done only from the perspective of educational sciences. This communication is focused on analyzing the spatial repartition of special needs students in schools from Neamț County, Romania, in this scholar year (2022-2023). This is the first geographical analysis of special needs students in regular schools in Neamț County. The main interest of the research is to identify if there are any points in the school network that prove a ‘higher’ concentration of special needs students and what type of special need they have.

For the present research was analysed a statistic required by the Neamț School Inspectorate regarding the type of special need and the number of students with special needs enrolled in regular classes in Neamț County. Also, it is very important to state that no personal data of the students was requested during this research. The data was provided by the educational institutions belonging to the school network in Neamț county. This data was compared with a personal research of the authors among the schools in Neamț county regarding the total number of students with special needs enrolled in regular schools and the year when each school has registered the first student with special needs.

This analysis is necessary in order to know how to distribute the educational resources at the territory level so that they are useful to students, parents and teachers

Spatial concentration and neighbourhood effects in Indian service industries: Evidence from micro-level data

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Online-S27 Applications of Advanced and Innovative Methods in Regional Science, August 28, 2023,
4:45 PM - 6:30 PM

This paper explores whether the industrial agglomeration measures suited to areal data consider neighbourhood effects for service industries at an Indian district level. Using the 2013 Economic Census data, we quantify the spatial concentration for 120 service industries by applying the spatially weighted Ellison-Glaeser (EG) vs unweighted EG index. Empirical results reveal that the spatially weighted EG index does not adequately control the weighted attributes while considering India's macro-aggregate analysis for highly-concentrated service industries. It suggests that the spatial attributes of the neighbourhood impact the concentration of employment of the workers overshadowing while considering all industries and covering all states in India. This leads us to consider another spatial structure where we measure geographical concentration within India's top three highly employable Indian states. The results reveal that the neighbourhood effect plays an essential role in the geographic concentration of industries. It implies that when measuring geographical concentration within Indian states, out of 120 service industries, there are specific industries for which the neighbourhood effect is prevalent. The results suggest that Indian policymakers consider each industry differently within Indian states, as they show spillover effects across various districts. At last, results show spatially weighted Ellison Glaeser index better accounts for neighbourhood effects when quantifying geographical concentration within Indian states.

Spatial Okun's Law for a Set of Islands? The Case of Indonesia

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Alicante-G35-R Regional and Urban Labour Markets and Entrepreneurship, 1-B03, August 30, 2023,

11:00 AM - 1:00 PM

This paper estimates the Okun's law using a spatial panel approach for Indonesian's districts over the period 2009-2020. Given the geography of the archipelago, we deviate from the traditional definitions of neighbors and use instead a Thiessen polygons structure to capture the spillovers from neighboring regions. Our results show that the Okun's Law relies heavily on the regional economic and industrial structure, revealing a differentiated Okun's coefficient for eastern (agrarian) and western (industrialized) provinces. The magnitude of the spillovers supports the appropriateness of using the Thiessen polygons structure to build the weight matrix.

Assessing Logistics Performance in Africa: A Multi-Dimensional Approach

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Alicante-G15-O3 Trade and Global Value Chains, 0-D01, September 1, 2023, 9:00 AM - 10:30 AM

This paper examines the logistics performance of African countries using a multi-dimensional approach. For that examination, we will start by a comparison in terms of variation a Multi-dimensional logistics Performance Indicator (MLPI) across Africa's countries during 2016 and 2018 using ESDA. We propose an index that will help us to classify the countries based on their performance on logistics using four dimensions: infrastructure, institutions, human capital factors and technology. Finally, we employ a gravity model that may help us to estimate the volume of trade of the African countries in order to test our index and see if there is any link between volume of trade and the proposed indicator. For validation purposes, China will be used as a reference in our model. The results from this study can inform policymakers and practitioners in developing targeted interventions to enhance logistics performance in Africa, which can contribute to economic growth and development in the region.

Global flows and local implications: a systematic literature review of land-sea interactions in European port cities

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Alicante-S05 Economic development of coastal towns: challenges and opportunities, 1-C11, August 30, 2023, 4:45 PM - 6:30 PM

Port-city interface characterises the land-sea interaction, where ‘spaces of flows’ are developed and affected by maritime activities. This interface is ‘an area in transition’ that connects the port infrastructure and city through a threefold dimension of changes: spatial, economic and ecological. Abundant discipline-oriented literature already exists on port geography and port-city development. Within the framework of the EU-funded project ‘RePortFlows’ (<https://cordis.europa.eu/project/id/101066680>), this paper seeks a twofold aim: to provide a comprehensive overview of the state-of-the-art knowledge of European port cities with a focus on conceptualising the interaction between global maritime flows, the hinterland and region affected by the port; to frame a research agenda for sustainable development of the ‘spaces of flows’ affected by maritime activities in the European Region. A systematic literature review is based on the methodological approach of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). By applying the PRISMA checklist, this study reviews cross-studies published between 1960-2023, considering three main clusters: (i) socio-economic and environmental effects of maritime activities, (ii) type of spaces created by and for maritime flows and port-related activities, (iii) governance and management (including urban and port planning systems). From a theoretical perspective, on the one hand, this systematic approach can integrate studies from various disciplines and shed light on European port cities as important laboratories for sustainable development. On the other hand, the findings highlight the key role of the range of stakeholders and policymakers in determining the nature of land-sea interactions.

Dutch female-centred coworking spaces: co-constructing a sense of community

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Alicante-S10-S1 Geographies of New Ways of Working, 1-C12, August 31, 2023, 2:30 PM - 4:15 PM

Whereas in the past, offices were required to accommodate employees with business activities, mobile technology and changing attitudes towards work made it possible to work anywhere, at any time. On the other hand, The Covid-19 pandemic has accelerated teleworking and new ways of working, therefore seeking alternative solutions for traditional office settings. This impact is, however, different in gender; some studies have shown that working from home has imposed disproportionate burdens on female entrepreneurship and women workers in general, also considering the work/life balance, well-being and community.

In this transition and growing demand for flexible working, the phenomenon of coworking has been widely applied and discussed over the past decade. A shift towards working environment preferences led to a new and sparsely researched concept of female-centred and female-only coworking spaces. This explorative and qualitative study aims to contribute to further knowledge that stems from Dutch female-centred coworking locations. Through 17 semi-structured interviews with providers and users, the determinants of users' choice of female-only coworking spaces are sought. Results show that whereas rental costs are expected to be most important in the choice to work at a coworking space, motives were more often related to social interaction, atmosphere décor and location in the female-only coworking spaces. However, only for a small part of the women, the female-only aspect is the main reason to work where they work.

The effects of business innovation modes on eco-innovation: Where do environmental benefits materialise?

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Online-G27 Innovation and Sustainable Development, August 28, 2023, 11:00 AM - 1:00 PM

This paper explores the relationship between business innovation cooperation modes and eco-innovation (EI). We analyse the effectiveness of the different innovation modes, based on STI (Science and Technology-based Innovation) and DUI (Innovation based on learning-by-Doing, by-Using, and by-Interacting) cooperation practices, in generating firm-level EIs leading to environmental benefits within the firm and during use or consumption by the end user. The empirical analysis uses a propensity score weighting method based on data from 968 Basque firms during the period 2018-2020. Our findings indicate that the STI cooperation has greater impact (than DUI) on product EI leading to environmental benefits inside the firm. Also, DUI cooperation is likely to have greater impact (than STI) on product EI leading to environmental benefits obtained during use or consumption by the end user. Finally, DUI cooperation shows greater impact (than STI) on process EI. Results shed light on the recent body of literature that has examined the relationship between EI and collaboration through the lens of the modes of innovation and emphasise the importance for theory and practice of distinguishing among collaboration partners, contingent on the underlying typology of EI. We discuss important implications for theory and practice.

New trends in tourism: digital transformation and drivers of tourism platforms

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Online-S11 Opportunities, risks and challenges of the digital transformation in tourism, August 28, 2023, 11:00 AM - 1:00 PM

Tourism is an engine of socioeconomic progress and cultural development. The sector contributes significantly to the world GDP, creates job opportunities, drives exports, and generates prosperity across regions (WTTC, 2023). Currently, the tourism sector is undergoing many changes, especially due to the development of information and communication technologies and the expansion of collaborative economies, which give the possibility to provide tourist services in a different form. Indeed, tourists are nowadays more open to self-guided holidays and look more at information coming from other tourists (friends, family and anonymous tourists who post reviews on the internet) than in the past. Many tourists use digital technologies and social media to plan, purchase or review travel experiences.

One of the changes in tourism is the creation of short-term rental platforms (Juric, Lindenmeier & Arnold, 2020). Digital technologies have made all destinations compete with one another in the global market. Digitalisation is making the tourism sector face a new stage of development such as smart destinations, smart cities, smart airports, smart seaports, smart hotels and other industries that adopt digital transformation (Buhalis, and Amarangga, 2013; Buonincontri and Micera, 2016).

Although short-term home rentals have attracted a number of scholars, the scientific knowledge about the phenomenon is scattered (Żemła et al. 2021). The majority of existing studies in the tourism literature, mainly qualitative, are focused on examining shared accommodation with the likes of Airbnb and Couchsurfing (Prayag and Ozanne, 2018).

Starting from this context, the aim of the study is twofold: i) to analyse the dynamics of tourist arrivals at short-stay accommodations located in Mediterranean countries using four major international platforms Airbnb, Booking, Expedia, Tripadvisor, and ii) to shed some light on the relationship between the development of platform tourism and economic, climatic, infrastructural, environmental and cultural factors.

To this end, we will adopt a panel framework within a gravity model setting and distinguish among destination Mediterranean countries (Italy, Greece, Spain, Portugal, Croatia, France, Malta and Cyprus) and a rich set of origin countries using online platforms. We will consider data from EUROSTAT and the national statistics for our analysis.

Differences in Cultural Persistence in Rural versus Urban Taste for Discrimination against Female Workers in the UK: before and after COVID-19

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Online-S07 Culture Based Development (CBD): Cultural Context and Social Psychology in Confronting Urban and Rural Challenges, August 28, 2023, 2:30 PM - 4:15 PM

There are cultural differences across space in the attitudes towards women, especially famously so across the East and West context. Yet, cultural attitudes can change over time, but little is known how this happens. Culture based Development has suggested that a cultural hysteresis exists – defining the latter as a disproportional changes in cultural persistence across space under identical shocks (Tubadji, Nijkamp & Angelis 2016; Tubadji, Webber and Boy 2020; Tubadji et al. 2021). The COVID-19 setting offers an excellent natural experiment setting to study to what extent local cultural attitudes to women (and especially labour market discrimination to women) persists or changes under labour market shock conditions such as the pandemic. Using individual labour market data representative on regional level for the UK and Saudi Arabia, the labour market discrimination towards women is analyzed through an Oaxaca-Blinder detailed decomposition analysis, allowing us to distinguish between the effects of education, industrial specialization that may be gender-wise related and ultimately to single out the extent of discrimination that is pure cultural discrimination of women in the UK and Saudi Arabia labour markets before and after the pandemic period. The spatial effects are analyzed on three levels – between countries (the UK and Saudi Arabia, between regions in each country and across a rural urban distinction). The spatial exploration of the gender labour market discrimination is illustrated through the inclusion of spatial dummies, and then triangulated through the use of spatial error and lag models and a hierarchical (multi-level model). The findings offer surprising insight on the commonalities and CBD consistent-evidence for the differences in response to a common shock in terms of the changes in the persistence of the discrimination against women in the East and the West.

Estimating the propagation of both reported and undocumented COVID-19 cases in Spain: a panel data frontier approximation of epidemiological models

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Alicante-S27-S2 Applications of Advanced and Innovative Methods in Regional Science, 1-C13,

September 1, 2023, 11:00 AM - 1:00 PM

We use a stochastic frontier analysis (SFA) approach to model the propagation of the COVID-19 epidemic across geographical areas. The proposed models permit reported and undocumented cases to be estimated, which is important as case counts are overwhelmingly believed to be undercounted. The models can be estimated using only epidemic-type data but are flexible enough to permit these reporting rates to vary across geographical cross-section units of observation. We provide an empirical application of our models to Spanish data corresponding to the initial months of the original outbreak of the virus in early 2020. We find remarkable rates of under-reporting that might explain why the Spanish Government took its time to implement strict mitigation strategies. We also provide insights into the effectiveness of the national and regional lockdown measures and the influence of socio-economic factors in the propagation of the virus.

The economic effect of the cultural and creative industries: an input-output analysis for 66 countries using inter-country input-output tables

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Alicante-S17 Creative regions, 1-C12, September 1, 2023, 2:30 PM - 4:15 PM

Since the mid-1990s, the Cultural and Creative Industries (CCIs) have gained prominence as a sector with which to foster the progress of regions. Governments have sought to position themselves as "creative regions" through the elaboration of CCI-based development strategies. International organisations such as UNCTAD, UNESCO y UNPD have also promoted CCIs, encouraging different authorities to implement creative economy plans, and including CCIs in international development strategies. This is the case of the Sustainable Development Goals (SDGs), where CCIs are recognised as a cross-cutting element for the achievement of several goals.

At the academic level, studies show that a greater presence of creative industries in a given geographical area has positive effects on per capita income, hourly wage, and labour productivity. They are also considered to have a positive impact on innovation, and to attract skilled labour and high value-added firms where they are located. However, although these impacts are mostly positive, their intensity is not evenly distributed across space. In this sense, there seems to be a positive relationship between the impacts of CCIs and the level of development of the territory in which they are located.

Is it therefore feasible to say that CCIs can foster economic development in all territories? Or, on the contrary, do CCIs function as a sector that increases inequalities between more advanced and developing countries? Following the findings of the literature, this paper hypothesises that, although the economic impact of CCIs is relevant, their distribution across space is not homogeneous. In order to answer these questions and verify the hypothesis, the following research objective is proposed: to quantify the economic impact of CCIs on value added and employment at the national level. To this end, this paper estimates a closed Global Multi-Regional Input-Output Model (GMRIO) using the OECD Inter-Country Input-Output Tables (ICIO) for the year 2018. Based on this model, the total multipliers of CCIs on value added and employment are analysed for a set of 66 countries at different stages of development.

Transit and Rents - Patterns of Heterogeneity

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Online-YS01 Housing and Identity - EPAINOS, August 29, 2023, 2:30 PM - 4:15 PM

In urban models, accessibility is a key factor in the utility from living in different areas and is internalized by the residential market, creating an 'accessibility premium'. Previous case-study literature found significant and largely unexplained variation in the transit accessibility premium in different urban contexts. This paper proposes a new approach to uncovering the determinants of this variation in a unified framework.

High density of potential users and mixed-use zoning imply a larger transit accessibility premium. The premium is higher in areas with a low level of transit services compared to a reasonable reference point, and positive only up to a threshold level of services. There is some evidence that proximity to rail systems implies a premium over and above the expected premium implied by a reduction in travel times alone.

The rise of inequality during the pandemic in Galicia in the light of age

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Online-G28 Segregation, Social and Spatial Inequalities, August 29, 2023, 11:00 AM - 1:00 PM

The Covid-19 pandemic has led to considerable changes in income distribution, with a general increase in inequality and poverty as result. The factors behind this trend vary depending on the context. In the case of age, some papers indicate that older people have been the most affected, while others point to younger people as the most affected. In addition, social benefits have played a key role in containing rising inequalities and poverty. However, this role has been heterogeneous in society and has unequally reached different social groups.

This paper aims to analyse the impact of the pandemic on income distribution among different age groups and to measure its contribution to the increase in income inequality for society as a whole in Galicia (Spain). This region is selected given its demographic profile characterized by its ageing population (more than 26% of the population is over 65 years old in 2022).

For this purpose, the microdata from the Structural Household Survey (SHS) from the IGE (Galician Institute of Statistics) corresponding to the year 2014, 2019, 2020 and 2021 are used (2014 allows looking at the situation after the great recession, 2019 at the situation before the pandemic, and 2020 and 2021 at the impacts of the pandemic). Specifically, different income variables are calculated, including different social benefits or not, to analyse the different role of social benefits by age. The population is divided into three different groups: people between 18 and 34 years old, people between 35 and 64 and people aged 65 or over. To approximate the variation in income across age groups, the average income of each group is calculated and the gap between the different groups. To calculate the approximation of overall income inequality, the interdecadal intervals and the Gini and Atkinson coefficients are calculated. In addition, the decomposable coefficients, and the proportion of individuals from each group in each decile are calculated to observe the contribution of inequality between groups to overall inequality and the distribution of groups by deciles.

The study finds that young people have experienced a greater loss of income than other age groups, increasing the gap with the other groups and the income inequality. Moreover, social benefits have covered the income losses of older and middle-aged individuals to a greater extent than those of young people, especially during 2020, leading to a further deepening of income inequality.

The role of soft factors in the concentration of creative industries in the European regions

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Online-S17 Creative regions, August 28, 2023, 2:30 PM - 4:15 PM

The creative industries are geographically concentrated on creative centres, usually known as creative cities or regions. Explanatory factors for this phenomenon are heterogeneous and they can be divided into five groups: the hard or classic factors, the deep structural factors, the factors linked to personal networks and roots in the territory, the factors linked to self-identity and the soft factors. The literature on this subject at the European level suggests that soft factors are of low relevance, but without specifying exactly how they play this role. Therefore, the main aim of this paper is to study the role of soft factors in the concentration of creative industries. Specifically, the study attempts to test the following hypothesis: whether soft factors play a differentiating role among regions with similar levels of all the other factors. Thus, regions homogeneous in other factors but with higher levels of soft factors will tend to concentrate higher levels of creative industries.

The empirical analysis in this study is based on data for European regions obtained from Eurostat and the European Social Progress Index Database. The used methodology is divided into two phases. In the first phase, a cluster analysis is carried out with the aim of obtaining groups of regions that are similar in the levels of non-soft factors. Additionally, in order to improve the results obtained, a principal component analysis is used prior to the application of the cluster analysis. With the results obtained, a dummy variable is constructed for each group, which serves as a starting point to explain the concentration of the creative industries. In the second phase, three econometric models are estimated starting from the variables formed in the previous phase (model 1) and adding the soft factors (model 2), and the soft factors and spill-over effects (model 3).

The results support the hypothesis put forward in this study. Four groups of regions similar in other factors are obtained from the first phase. Econometric models show how soft factors are relevant to explain differences among homogeneous regions in other factors and complement group variables. Specifically, models 2 and 3 show how the explanatory power of the models is increased, especially by the positive effect of tolerance, a lower number of robberies and a higher presence of leisure in the region.

How have governments' investment promotion policies changed: the case of Hungary

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Alicante-S64 From Dependence to Embeddedness”: FDI Driven Global Value Chains and Policy Alternatives to FDI-Based Regional Development in Central and Eastern Europe, 1-B11, August 31, 2023, 4:45 PM - 6:30 PM

Katalin Antalóczy – Magdolna Sass

How have governments' investment promotion policies changed: the case of Hungary

The impact of the COVID-pandemic, the Russia-Ukraine war, rapid technological change (Industry 4.0) and industry-level regulatory changes (e.g. the transition to electric vehicle production in Europe) fundamentally change the relative values of investment locations (locational advantages in Dunning's sense). This has implications at the regional level as well. Hungary is among those countries of Central and Eastern Europe, which relies to a great extent on foreign direct investment, denoted its development model as one built mainly on FDI and within that FDI-related participation in global value chains. While in the 90s and beginnings of 2000, regional agencies and governments played an important role in attracting FDI, this has changed considerably after 2010 in the analysed country – mainly opposed to the trend in European Union. Based on interviews with representatives of local and central governments and agencies, we show that 1. the centralisation of FDI promotion and attraction resulted in a mismatch between local competencies and the nature (required skill levels, other characteristics) of the FDI projects realised locally; 2. the dominance of (very) large, in the majority of cases global value chain-related projects with limited local linkages over medium and small sized ones; 3. a potential overspecialisation due to the favouring of certain industries/activities; 4. a further increase in regional inequalities due to favouring certain regions.

JEL-codes: F21, F23, O24

Key words: investment promotion, foreign direct investment, global value chains, Hungary

Spatial patterns of regional inequalities in European Union in pandemic time: Empirical evidence from a NUTS 2 regions

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Online-G30-O2 Covid-19 and regional and urban resilience, August 29, 2023, 2:30 PM - 4:15 PM

This paper investigates regional inequality from two standpoints. First, it explores them from a EU-27 perspective by assessing the incidence of economic growth for 271 regions NUTS 2. Using Eurostat data and following both cross-sectional and time series approaches (2019-2022), results show that, while regional inequality decreases with growing GDP per capita, regional polarization is more persistent and does not necessarily follow the same rule. The paper also delivers assessment of sigma-convergence and regional polarization for regions NUTS 2 in European Union, with findings pinpointing the importance of spatial clustering (which is contributing considerably to regional inequality levels), but also its complementary with sigma-convergence measures (as regional inequality trajectories are not necessary associated with spatial clustering trajectories).

Regional inequalities in Romania, in the time of pandemic crisis

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Online-G30-O1 Covid-19 and regional and urban resilience, August 28, 2023, 4:45 PM - 6:30 PM

Analyses of regional inequalities follow to examination the differences in abstract and general characteristics that regional economies share. Most attention is paid to their relative income and to the way in which they change over the course of time: if inequalities get smaller, convergence or catch-up occurs, and if they get wider, divergence is said to occur. This entry outlines the steps involved in examining regional inequalities and their evolution in time of COVID-9 pandemic crisis, starting with the definition of suitable territorial entities, the identification of indicators of income and the definition of ways of measuring inequality. The methods are used to outline the degree of regional inequality in Romania and the evolution of disparities in the period 2019-2022. The empirical evidence indicates that regional economies can diverge or converge depending on the relative weight of equalizing and unequalising forces. Although attention is concentrated on the geography of the creation of income, it is important to note that this geography is modified by a range of redistribution mechanisms.

Transparency in Local Governments: A Two-Stage Empirical Investigation using Fuzzy Metrics and Spatial Econometrics

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Alicante-G17-O2 Quality of government across space and time, 0-D01, August 31, 2023, 4:45 PM -

6:30 PM

Transparency is a vital aspect of good governance that ensures accountability, integrity, and citizen participation. However, its measurement remains a challenge due to the ambiguous nature of human language. Traditional approaches rely on binary or categorical variables to measure transparency, which can lead to limited insights and inaccurate policy decisions. To overcome this challenge, we develop a transparency indicator based on fuzzy metrics. The transparency notion is contrary to the binary principle of having a property or not having it, that is, to be transparent or not. In our case, we apply a novel methodology designed for formative measurement and partially compensatory models using a set of qualitative indicators. This tool provide a measure of how close (observations close to 1) or far (observations close to 0) each observation is from the analyzed concept. This is calculated for each indicator preserving the metric structure. In this setting, this approach captures the complexity of transparency and can better identify areas for improvement in local governments. In a second step, we analyze the political, economic, and social determinants of this transparency index, relying on spatial econometric techniques to account for spatial dependencies and ensure the accuracy of our findings. In this work, we use a novel dataset that comprehensively measures transparency at the municipal level in the Valencian region. As far as we know, this is the first database that covers all municipalities in the region. By capturing the complexity of transparency, our approach can better identify areas for improvement and lead to more effective policy interventions. We argue that traditional approaches that rely on binary or categorical variables may oversimplify the concept, resulting in inadequate policy solutions that fail to address the real challenges faced by local governments.

Disentangling the heterogeneous patterns of the resource curse hypothesis: an empirical investigation.

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Alicante-G39 Methods in Regional Science or Urban Analysis, 1-B01, August 31, 2023, 2:30 PM - 4:15 PM

The role of natural resource endowments in development has been extensively studied. Early researches have traditionally emphasized the great benefits that natural resources brought to nations in the middle of the industrial revolution (e.g., Wrigley, 1990, Cambridge University Press). However, after WWII, an increasing number of works began to mount evidence against this belief: resource-rich countries grew, on average, more slowly than resource-poor countries (e.g., Cabrales and Hauk, 2011; *The Economic Journal*). This last phenomenon was seminally coined by Sachs and Warner (2001, *European Economic Review*) as the "resource curse hypothesis". Nowadays, we can benefit from a wide range of empirical studies, aimed at disentangling the puzzle. However, the channels through which natural resource abundance can operate in a country's economic development are complex and multifaceted. On the negative side, a natural resources windfall may boost rent-seeking behavior (Torvik, 2002, *Journal of Development Economics*) which can lead to a misallocation of resources, corruption, and political instability. Additionally, the abundance of natural resources can trigger the Dutch Disease, a phenomenon where the appreciation of the exchange rate could reduce the competitiveness in other export-oriented sectors of the economy (Corden and Neary's, 1982, *The Economic Journal*). On the positive side, good institutions can mitigate the negative effects of the resource curse by ensuring that resources are managed sustainably and equitably (Acemoglu, et al., 2003, Princeton and Oxford: Princeton University Press). Despite the academic efforts, little consensus exists on whether natural resources boost or hinder economic development of nations. Indeed, according to the recent meta-analysis conducted by Havranek et al. (2016, *World Development*), which is based on 43 econometric studies, approximately the 40 % of the empirical studies support the "resource curse hypothesis", the 20 % finds the opposite, and a 40 % does not find a significant relationship between natural resources and economic development. To shed further light on the issue, in this paper we try to go one step further by modeling the unobserved heterogeneity that may underlie these ambiguous findings. To achieve this, we employ the grouped fixed effect estimator of Bonhomme and Manresa (2015, *Econometrica*) to empirically explore the relationship between economic development and natural resources, accommodating clustered time-varying patterns of unobserved heterogeneity within groups of countries. This methodology will allow us estimate group-specific time patterns and country group membership directly from the data. By understanding these group-level trends, we can gain deeper insights into this complex issue.

Digitalisation in European regions: relatedness, economic complexity, and productivity

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Alicante-YS03 Regional Development - EPAINOS, 1-C11, August 31, 2023, 11:00 AM - 1:00 PM

Digitalisation has become a clear policy objective. Regions want to digitalise their economies to benefit from the digital world. This paper provides empirical evidence on how the adoption of new digital web technologies is shaped by the previous digital capabilities of regions. The analysis is based upon an economic complexity and relatedness framework using data on digital web technologies' use for 278 European NUTS-2 regions between the years 2000-2022. The results show that regions tend to adopt new digital web technologies when they already master related digital capabilities. This paper also shows how digital complexity is associated with productivity gains at a regional level.

The journey to Poland as a tool for strengthening organisational commitment

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Alicante-S67 Small Tourism Communities in Transition, 1-D12, August 31, 2023, 4:45 PM - 6:30 PM

Studies in the tourism and human-resource management fields tend to ignore the use made of heritage tourism as a tool to reward employees. This revealing study examines the effect of participation in a journey to Poland on the sense of organizational commitment. The study is based on 304 structured questionnaires completed by participants from six different public organizations, before and after their journey to Poland (in all, 608 questionnaires were completed; response rate = 60.8%). The questionnaires were distributed to the employees during the obligatory preparatory days conducted in the month preceding the journey and one to three months after the journey. The findings reveal that there was an increase in the employees' organizational commitment. The study contributes to the body of knowledge regarding heritage tourism and human-resource management. On a practical level, the insights that emerge from this study are relevant for the understanding of the use of heritage activities as a tool for human-resource management in public organizations. In light of the research results, the use of heritage tourism can be a means of improving the performance level of employees.

Ecological transition i.e. integrated territorial planning: resilience, renewable energies, digitalisation

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Online-S49 Ecological Transition That is Increase in Resilience and Renewable Energies, Digitalization, and Integrated Territorial Planning, August 28, 2023, 11:00 AM - 1:00 PM

The historical moment that we are going through linked above all to the energy crisis requires us to recall and highlight the reasons that underlie the 2030 UN Agenda, the subsequent New Green Deal, the Recovery and Resilience Plans of the various European nations.

The contribution refers to the great opportunities, examples of good practices, projects that are characterized by the increase in the resilience of places, on multiple scales, the use of renewable energies, the diffusion of technologies that make telematics possible with their "cultured use" aimed at creating a more equitable territorial structure, integrated to create sustainable communities, socially and environmentally: Bio-architecture, Energy Communities, Green Communities, solidarity networks and intangible networks.

The paper is in continuity with the line of Research "Integrated planning and design of ecological territories and cities" started for over a decade and also carried out in the Annual Scientific Conferences of AISRe and in the Congresses of the European Regional Science Association.

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Location patterns of Cultural and Creative Industries: role of clustering

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Alicante-G11-O2 Entrepreneurship and Regional Development, 0-C04, August 31, 2023, 4:45 PM -

6:30 PM

This paper focuses on the location patterns of Cultural and Creative Industries (CCIs) and the role played by existing clusters of these industries when entering markets. Departing from previous identification of clusters in CCIs, we analyse location determinants patterns and whether entering firms are attracted by these existing clusters. The aim of this paper is to identify if clusterisation of CCIs provides strong locational advantages for entering firms or if, by the contrary, firms also consider not clustered areas. The study uses firms' data from Mercantile Register (SABI).

Sustainability, local environmental behaviour and firm location decisions

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Alicante-G11-O2 Entrepreneurship and Regional Development, 0-C04, August 31, 2023, 4:45 PM -

6:30 PM

This paper uses Mercantile Register data to analyse the location decisions of firms in Catalan municipalities (2010 and 2019). Using count data panel estimations, we focus on local sustainability characteristics. The identification of the location patterns and the effects of local environmental policies on firms belonging to different sustainability industries constitute a contribution to the empirical location literature. Our results help in understanding entry processes at local level and how both citizens' environmental values and local environmental policies shape these. We show that i) firms locate differently depending on their sustainability profile and that ii) local environmental policies have stronger effects on the location decisions of sustainability-oriented firms.

Do high-rise buildings influence melanoma? Tall buildings as positive externalities

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Alicante-G01-O6 Region Urban Development, 0-B02, September 1, 2023, 2:30 PM - 4:15 PM

Population growth, urban densification and shortage of available land make the construction of tall buildings increasingly prevalent. Given the world population growth, the volume of high-rise construction is steadily rising. Previous literature identifies skyscrapers as a potential source of negative externalities due to their high carbon footprints, and negative environmental features (reduction of sun light and wind-tunnel effects). The current study is the first to provide evidence supporting the notion that skyscrapers may also be considered a source of a positive externality. Based on data from 50 US states over a 19-year period (1999–2017), we demonstrate projected connection between the prevalence of melanoma and high-rise construction per state.

This result might be attributed to the shadier environment created by these structures. Findings suggest that the annual projected increase in melanoma cases may be offset by approximately 53 additional high-rise buildings per state. Research findings may be of assistance to city planner. Potential saving associated with reduction of melanoma prevalence in terms of lost productivity and life lost should be considered. In addition, Caucasians with above 50 nevi as well as those with a personal or family history of melanoma should be encouraged to live in urban environments with tall buildings.

To Obey or Not to Obey? Can Game Theory Explain Human Behavior in the Context of Coronavirus Disease?

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Alicante-G60-R Covid segregation and tourism, 1-B03, August 30, 2023, 11:00 AM - 1:00 PM

The objective of the current study is to explain non-compliance to social distancing rules in western societies in the absence of a stringent law enforcement mechanism and vaccines. In the first part of the analysis an evolutionary game theory mechanism of two players is developed. The theoretical model assumes the existence of the Prisoner's Dilemma due to personal inconveniences associated with mask wearing, hand washing and lockdowns. The model demonstrates that in the absence of sufficient law enforcement mechanism, and regardless of the initial strategy undertaken, one of the three potential equilibria solutions is the convergence of the system to defection of both players. In the second part of the analysis, based on the freedom-house measures, we provide empirical evidence supporting the notion that law enforcement efficiency is higher in autocratic countries. We show the perseverance of higher projected infection rates per 100,000 persons in democratic countries even 8 months after the outburst of the COVID19 pandemic. Given the well-known inclination to cooperate more often than expected by game theory, this real-life outcome of non-compliance is remarkable. Moreover, the recent protests against lockdowns in China might reflect a shift from one equilibrium point (cooperation) to another (non-compliance).

Drivers of Regional Growth in Morocco: A Structural Decomposition Analysis

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Alicante-G07-O2 Regional Competitiveness, Innovation and Productivity, 0-D02, August 31, 2023, 2:30

PM - 4:15 PM

Since the beginning of the century, Morocco has experienced a relatively long period of stable growth, with potential growth moving from around 4% in the first decade to 3% in the second. Such a decline in potential growth, which would probably be the result of an overall growth model that is significantly losing steam, is likely to become more pronounced after the recent economic crises. At the regional level, the state of growth potential is more contrasted with roughly half of the regions generating more than 80% of the national wealth, and only one region concentrating its third. This growth polarization resulted mainly from two key economic policies. On the one hand, Morocco has made a remarkable effort in providing public investment, which resulted in GDP investment rates constantly exceeding 30%, allowing thus the country and particularly its northern part (until recently), to be equipped with good quantity and quality infrastructure (High-ways, Ports, Airports, High-Speed Railways ...) necessary to enhance Morocco's growth potential and initiate a real structural change. On the other hand, Morocco declined its development strategy in many sectoral plans for the industry, agriculture, and tourism ... with a major industrial plan to increase the value-added of the manufacturing sector and enable export-led growth in manufacturing. This paper aims to quantify the main drivers of changes in Morocco's regional value-added using a Structural Decomposition Analysis. To do so, we differentiated six components that affect this change in regional value-added, namely: value-added coefficients, industrial structure, domestic absorption, and foreign exports. We rely on two sets of interregional input-output tables for 2014 and 2019, comprising 12 regions and 20 sectors. The main results show that regional Growth in Morocco remains driven by domestic consumption, with slight contributions from the remaining components.

Technical change, task-content of jobs and labour market outcomes in the CEE countries

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Alicante-G35-03 Regional and Urban Labour Markets and Entrepreneurshi, 0-D04, September 1, 2023, 2:30 PM - 4:15 PM

The outburst of COVID-19 pandemic has re-boosted discussion on increasing pace of automation (especially in low-automated economies), which may lead to growing unemployment and labour market instability, and possible “end of work”. Such discussion was vivid even in the previous decade, with Frey and Osborne (2017) paper which triggered such discussion. And although there have been many critical arguments raised towards methodology used by Frey and Osborne, the result of their analysis have had perceptible impact on individuals’ fears of losing their jobs and technological unemployment in coming years.

However, both empirical studies and theoretical works (e.g. Acemoglu and Restrepo 2019; 2020) posit, that technological change and automation should have reinstatement effect leading to growing not declining number of jobs (West 2018). At the same time, inevitable result of technical change is the shift in employment (labour demand) and wage structures, which recently have been analysed in the task-content of jobs framework, with dominant approach based on the so-called ALM model (Autor et al., 2003). Importantly, the patterns of these shifts differ between highly-developed and developing countries (Arendt and Grabowski 2019; Hardy et al. 2018).

In the paper we are going to utilise the ALM task-content groups framework and estimate parameters of multilevel models to analyse the impact of technical change on shifts in distribution of employment and wage premia across the task-content groups. The analysis covers 11 European CEE countries classified as New Member States of the European Union, which are lagging as for the pace of technological advancements and automation compared to the “old” EU-15, more-developed countries. The goal of the study is to identify specific features of routinisation (task)-biased technical change in the CEE region. The analysis is based on EU LFS microdata retrieved from Eurostat.

Housing market impacts of air pollution Do objective or subjective measures of air quality matter?

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Alicante-G32-O4 Real Estate and Housing Markets Issues, 0-E02, August 31, 2023, 4:45 PM - 6:30 PM

Air pollution has important negative effects on several socioeconomic variables (Sunyer, et al., 2015; He, Liu, and Salvo, 2019; Wei, et al., 2022) and is one of the main problems for homeowners in urban areas (EEA, 2000). Research on the effects of air pollution on the housing market is based on the theoretical hedonic price model proposed by Rosen (1974). In this study, we use this model as a starting point, but propose an extension that incorporates a combination of objective and subjective measures of air quality. The idea is that the rationality of households in making housing choices is limited by lack of information, errors in judgment, or information processing capacity, so that housing decisions are subject to perceptions of place (Simon, 1997; Berezansky, et al., 2010). In addition, the literature highlights the existence of a “neighborhood halo effect” or subjective immunity, which is understood as a positive evaluation of environmental air quality regardless of the actual pollution levels (Brody, et al., 2004). Based on this augmented hedonic price model, we apply it to the rental housing market in Medellín (Colombia). Using dwelling level data, we estimate endogenous spatial hedonic models that include a measure that combines objective and subjective variables of air quality. Empirical evidence on spatial hedonic estimation and the joint inclusion of objective and subjective indicators of air quality is very limited and inconclusive, even for developed countries (see, for instance, Chasco and Le Gallo (2015) and Montero, et al., (2017)). Therefore, this study contributes to the theoretical and empirical analysis of the impact of air quality on the rental housing market, including objective and subjective indicators in the analysis. To the best of our knowledge, this is the first study to include the role of air quality perceptions along with objective measures in a theoretical hedonic price model and to provide empirical evidence on the impact of air pollution on the housing market in the context of a city in a developing country.

Labor Market Shocks across Heterogeneous Housing Markets

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Alicante-G13-O1 Urban Challenges and technological transformations, 0-E02, August 30, 2023, 11:00

AM - 1:00 PM

Using a large listing dataset, I empirically show that the housing prices and rents evolved differently across and within sub-markets over nationwide housing cycles in Germany, providing evidence of the segmentation of the housing markets. In particular, I show two relevant empirical facts: 1) the price-to-rent ratio is highly heterogeneous across cities; 2) the return differentials between different housing quality tiers are lower in big cities compared to the rest of the country. The first fact contradicts the standard economic theory for which rental values should reflect the discounted prices. The second fact shows that shifts in the housing price distributions are not always homothetic. In order to explain these facts, I build up on the assignment model framework in which housing is segmented by various quality tiers and demand-driven shocks could generate spillovers both up and down, depending on the demand composition and the supply constraints of the local housing market. Combining the housing data with administrative panel data for the labor market, I exploit the cross-sectional variation in the exposure to technological change to build a quasi-experimental design for studying how demand-driven shocks affecting the local occupational structure induce changes in the prices of both high-end and low-end housings. I finally discuss the implications for the welfare conditions of different types of workers across and within locations.

Metagoverning the multilevel dimension of regional innovation strategies: An exploratory analysis of four European cases

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Online-S38 Partnerships for innovation: building transformative innovation policies with local ownership, August 28, 2023, 11:00 AM - 1:00 PM

The experimental development of smart specialisation strategies (S3) has posed significant challenges for multilevel governance structures and practices. Moreover, the need for more sophisticated governance is heightened as regional innovation strategies must be increasingly oriented to the transformations required to address complex and multi-faceted social challenges. From the perspective of the changing demands on regional innovation strategies to transition to more transformative strategies (e.g. sustainable smart specialisation -S4-, Partnerships for Regional Innovation pilot), there is an acknowledged need for a more decentralized, systemic and multilevel approach to strategy governance; and to deepen and widen participation and experimentation of the strategies in practice. In this context, the paper explores the concept of 'metagovernance' as an analytical lens to conceptualize and analyse the different roles and activities that governments adopt in their endeavour to facilitate an effective governance. Metagovernance refers to the new role of (primarily) state actors in governing multiple governance networks, though direct facilitation of collaboration and the establishment of norms and rules that will indirectly facilitate collaboration. The paper argues that this concept fits the emerging role of the State in S3, and even more so in S4 and other transformative regional innovation strategies. The article analyses the experience of 4 European subregional governments in their attempt to strengthen the multilevel dimension of their S3 in the framework of an Interreg project, as an illustration of how the concept of metagovernance can be leveraged to improve our understanding of the practice of developing S3 and S4 strategies.

Implementing circular economy in EU regions - a policy Delphi study

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Online-S38 Partnerships for innovation: building transformative innovation policies with local ownership, August 28, 2023, 11:00 AM - 1:00 PM

Regions are the most important administrative units of the EU's development policies and regional funds allocation and so far, have been widely used for devising and attaining strategic priorities. Nevertheless, when it comes to regional implementation of the circular economy (CE), there is lack of systematicity both in academic literature and policy documents. Therefore, this study is proposing regions as the optimal scale for CE adoption; due to their controllable economic systems, tactical intermediate position between national and local levels, their deep knowledge and understanding of their local territories, capacities and ability to mobilise relevant stakeholders. Within this context, this empirical study is focusing on the implementation of CE policies at the regional level. More specifically, to investigate whether Smart Specialisation Strategies (S3) influence the adoption of CE policies at the regional level and explore the influence of institutional pressures on the implementation of regional CE policies. In order to address the main aim, a three-stage policy Delphi study was designed, targeting regional policymakers and experts in the field of CE and S3. Additional knowledge was mobilised with the involvement of prominent academics and higher-level experts in the EU and UN policymaking process. A brief online survey was initially distributed and 42 participants representing 32 different EU regions responded. Afterwards, 17 semi-structured individual interviews followed, and the findings were validated in a final focus group. This study has found that generally, the EU measures will need to take into account the protagonist role of the regions in many vital aspects of the CE transition. The emerging findings point out to the importance of effective multi-level governance mechanisms and supportive institutional environment as conducive for the development and realisation of the CE initiatives. Additionally, the incontestable links between S3 and CE were corroborated, as well as the strong arguments for adopting a place-based approach for the CE transition. However, the S3 and CE nexus proved to be less deterministic, as concerns regarding the potential risk of regional lock-ins and path dependency issues were also raised. Alongside the theoretical contribution, the findings of this research will have practical implications as well; findings which could be of interest for policymakers at different levels, in terms of decision making and devising regional policies, as well as for practitioners for encouraging bottom-up actions for future implementation of the CE at the territorial level.

Indicators of Tourism Sustainability: Combining academic and policy views

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Alicante-G36-O1 Tourism and Overtourism Issues, 0-E02, August 31, 2023, 2:30 PM - 4:15 PM

Tourism is one of the key industries in the world, accounting for more than 30% of employment in the service sector, plus 10% of GDP contribution. After the huge impact that Covid-19 posed on the tourism and hospitality sector, the year 2022 have shown a relevant recovery of international flows, with global numbers being around 73% of those reached in 2019. Spain is at the top of the tourism world destinations, with 82 million of arrivals and 80,000 million US\$ of revenues before the pandemic. The UN framework of Sustainable Development Goals (SDG) for 2030 identify the sustainability of human activity as one of the main challenges for the near future. Recommendations for the tourism sector include their economic, socio-cultural and environmental impacts on local destinations.

Pursuing this challenge, the present paper investigates the most relevant systems of tourism sustainability indicators in the world. We analyse the proposals launched by global institutions such as the Global Sustainable Tourism Council (GSTC), and the European Tourism Indicators System (ETIS) of the European Commission. We also study the Spanish proposals of Smart Tourism Indicators of Sustainability (Indicadores DTI), prescribed by the Spanish Ministry of Tourism, together with that of the UNWTO International Network of Sustainable Tourism Observatories (ISTO) adopted by salient destinations in the country, like Mallorca, Canary Islands or Barcelona.

In this setting, the objective of the paper is threefold: Firstly, we review the content and spirit of systems of indicators proposed by these outstanding institutions in the field of tourism research and policy. In doing so, we identify the main linkages and differences arising among them. Secondly, we seek for the informational features of the selected sets of sustainability indicators. In that way, we follow the main academic methodologies to clarify their explanatory capacity and the overlapping statistical nature arising for some of them (see, i.e., Ivars-Baidal et al. 2021). Thirdly, building on the previous analysis, we define a proposal of indicators that combine academic rigour and policy applicability. The main contribution of the research is to introduce a usable and depurated system of sustainable tourism indicators, shedding more light in that complex environment.

Sectoral maps of the stakeholders' involvement in the Sustainable Integrated Territorial Planning

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Online-S49 Ecological Transition That is Increase in Resilience and Renewable Energies, Digitalization, and Integrated Territorial Planning, August 28, 2023, 11:00 AM - 1:00 PM

Sustainable Integrated Territorial Planning goes beyond Integrated Territorial Planning by prioritizing the concept of “environmental sustainability” in territorial planning.

Environmental sustainability implicitly includes the Soil resource, given that sustainable land-uses must consider the soil threats, the soil-based ecosystem services, and the bundles among them, and the overall Soil Health of a given territory. The SERENA project, as part of the consortium of the European Joint Programme on Soils (EJP-Soil), aims to develop indicators that can be used within innovative assessment tools into

land-use planning and soil policies at different scales. SERENA intends to meet these requirements by putting relevant stakeholders at the core of the project, and to share with them: i) the identification and the definitions of soil quality/health, soil threats, soil functions and soil-based ecosystem services; ii) to co-construct the relevant climate change or land-use, cover and management change scenarios to be evaluated by the

SERENA activities; and iii) to validate the final products of SERENA. To achieve these objectives, SERENA has to work together all the Project Tasks to establish joint requirements for stakeholders. One of the most visual ways to identify stakeholders, and the connections among them, is the development of maps. SERENA will present stakeholder maps integrating the databases provided by EJP-Soil National Communication Representatives and those obtained by other channels (National Soil Hubs, soil scientific societies, etc). SERENA's products will be tested through in-depth

questionnaires and validated by the stakeholders. Capturing the results of the questionnaires and the validations, in the form of geographical and concept maps, will allow us to quickly identify the different opinions/needs/gaps between stakeholder groups. This will facilitate us to provide information that helps local/regional/national governments to launch participatory processes that are useful for developing territorial planning policies, including the role of the soil in the conflicts over land-use, demographic and climate change scenarios. SERENA stakeholders' maps are summative with those made by the other sectors concerned with the Sustainable Integrated Territorial Planning.

SERENA project: Soil Ecosystem Services and Soil Threats Modelling and Mapping. "EJP SOIL has received funding from the European Union's Horizon 2020 research and innovation programme: Grant agreement No 862695".

Combating desertification through enhancing soil health: approaches to integrated spatial planning from Newlife4drylands project

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Online-S49 Ecological Transition That is Increase in Resilience and Renewable Energies, Digitalization, and Integrated Territorial Planning, August 28, 2023, 11:00 AM - 1:00 PM

Land and soil issues are gaining momentum from global to local level, receiving increasing attention in decision and policy making processes. Soil is more and more recognized as a key natural resource, which state and which capacity to produce crucial ecosystem services to be protected and improved. At European level, the Soil Strategy is bringing to the negotiation of an Healthy Soil Directive, envisaged by 2023, where a wide range of soil-related issues are taken into account. This will transform the land planning, bringing the need, and the opportunity, to consider soils conditions, properties, threats and potential services and driving to protect, sustainable use and restore its precious resources. Nature-based Solutions are a strong opportunity to revert the decline of soil health. The adoption of an integrated approach has relevant connections with several policies looking at short- and long-term beneficial effects of (and on) climate changes, energy transition, food security and sustainable agriculture as well as social and economic positive impacts.

In this context, the Newlife4drylands project proposes and apply a framework for monitoring and evaluation of land degradation that consider the effective results of Nature-based Solution to combat desertification risk evaluated by earth observation methods and tools. Six Mediterranean Natura 2000 study sites located in Italy, Greece and Spain were considered as case studies, and pressures and threats on soils and land degradation status were analyzed through indicators and/or their proxies, derived from satellite data. The framework may be used as sound basis for land planning, starting from natural protected areas, supporting a more integrated considerations of soil resource impacts in planning activities at all levels, fostering actions to prevent and combat land degradation and desertification, considered final degradation point.

Why does poverty persist in Latin America emerging economies? A spatial econometrics application for the Colombian case

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Alicante-YS04 Labour Market Outcomes - EPAINOS, August 31, 2023, 11:00 AM - 1:00 PM

This paper seeks to prove that despite the efforts made by governments in terms of reducing poverty have not been strong enough to achieve levels of convergence within the countries. In this sense, two hypotheses are tested: (i) the poverty has persisted in the last two decades in most countries of Latin America and (ii) there is spatial dependence among the political administrative units (departments) that explain this phenomenon. The testing strategy consists of providing evidence for an emerging economy like the Colombian and for that, the monetary poverty data between 1997-2019 are analyzed for the 23 main departments and its capital Bogotá DC. Subsequently, a General Nesting Spatial Model by panel data is estimated, which examines the degree of association of two components based on theory as poverty reduction: economic growth and income distribution and control variables such as unemployment and murders rates, percentage of women and two measures of conflict in order to know if they are consistent when spatiality is involved. The results confirm the hypothesis of persistence of poverty, since the analysis of beta and sigma convergence suggest that it takes 16.4 years for the poverty gaps to be reduced by half in Latin America and 17.3 years for Colombia. Besides, the hypothesis of spatial dependence is sustained and, therefore, the estimates made to analyze it that did not consider this assumption have been biased and inefficient. Finally, its verified that there are positive effects of economic growth and the mechanisms of income distribution to reduce monetary poverty. Likewise, the murder and unemployment rates, percentage of women and the conflict variables explain the persistence of poverty.

How do environmental shocks affect competitors in a supply chain? Evidence from a competitors' weighting matrix

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Alicante-G15-O2 Trade and Global Value Chains, 0-B03, August 30, 2023, 4:45 PM - 6:30 PM

Quantifying the impact of supply shocks on global commodity trade networks is an increasing concern for researchers under the current threats of climate change and the COVID-19 pandemic. This paper proposes a novel methodology to estimate these effects across the entire trade network: we create a weight matrix based on an index that captures the extent to which two coffee-producing countries compete within consumer markets. Using this matrix, we estimate the degree to which an adverse weather shock in a coffee-producing country influences the coffee production of its competitors. Our results show that this adverse shock has a negative direct effect on the country's coffee exports and, importantly, a positive, one-year, lagged effect on the quantities produced by competitors.

Regional convergence of skills and schooling in Brazilian manufacturing

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Alicante-G07-O2 Regional Competitiveness, Innovation and Productivity, 0-D02, August 31, 2023, 2:30

PM - 4:15 PM

Objective

This study deals with regional skill convergence in private manufacturing in Brazil.

Topic of the contribution

We show evidence that the dynamics of convergence of skills in manufacturing depend on spatial and non-spatial variables and the type of industry. The regionalization method utilized can serve as a guide to finding ways to regionalize the sector.

Method and data

We use a hierarchical cluster method with contiguity constraint and a quintile analysis to identify spatial heterogeneities, in addition to ML techniques. The baseline and the heterogeneities were estimated using spatial econometrics. We use microdata of official statistics of formal employment.

Main Results

We show that social skills converge faster than motor and cognitive skills in manufacturing in the Brazilian regions. When analyzing the top 25% of skills, we found that cognitive skills converge faster than social and motor skills. The evidence shows that cognitive and motor skills converge faster for capital-intensive and non-agribusiness than labor-intensive; the other sectors converge faster in social skills. Less industrialized regions converge within their clusters, but more industrialized regions are not. Moving from skills to formal education, we found convergence of schooling levels for all clusters, meaning that regions converge on schooling within their clubs. There is a mismatch between the required skills (labor demand) and formal education (labor supply): firms in the regions are demanding the same skills, although workers are becoming more educated.

Keywords: manufacturing industry, skills, spatial econometrics, machine learning

JEL: C33, C38, J24

Spatial changes in dairy cattle productivity among Brazilian states

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Alicante-G05-O2 Economic development in rural places, 0-D01, August 31, 2023, 2:30 PM - 4:15 PM

Brazil's milk production increased significantly from 1974 through 2016. The country ranks as one of the world's largest producers of bovine milk; however, its productivity (measured in milk liters per cow) is below the figures achieved by other major milk producing countries. Moreover, Brazilian regions hold huge disparities about their dairy farming productivity and those differences have enlarged over the time.

Trying to better evaluate this phenomena, this paper analyzed the differentiated evolution of dairy cattle productivity among and inside the Brazilian regions, trying to unveil spatial associations among Brazilian municipalities concerning to their dairy farming productivities. Time period from 1974 through 2016 as well as minimum comparable areas (MCA) are taken into consideration. Exploratory spatial data analysis confirmed the existence of spatial autocorrelation of milk productivity, indicating that dairy cattle productivity in one MCA is linked to the productivity reached on its neighboring MCA. Over the analyzed period low-low clusters of dairy productivities have predominated inside the Brazilian North and Northeast regions, which are the poorest regions in Brazil and have held few technical researching centers, technical middle schools and universities dealing with this subject as well as credit for improving their milk production. High-high clusters show up into the Brazilian Southeast and South regions, which are better attended by researching and teaching institutions and rural credit. The configuration and geographic location of these clusters have changed during the studied period. In order to reduce those disparities, at least, improving researching and teaching about milk production and rural credit availability at the Brazilian North and Northeast regions could have spillover effects and led their farmers to increase their dairy farming productivities. However, in order to allow the faraway milk production to reach the consuming markets also a new transportation network would be addressed.

Synergies between EU Research and Innovation funding instruments: analysing facilitating factors in EU regions

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Alicante-S38-S2 Partnerships for innovation: building transformative innovation policies with local ownership, 1-D13, August 30, 2023, 2:30 PM - 4:15 PM

The aim of this paper is to examine the thematic allocation of ERDF to R&I activities in the 2014-2020 programming period and explore potential synergies with Horizon 2020 funding. In particular, ERDF projects related to R&I will be assigned to societal grand challenges (SGC) based on project names and descriptions. If both ERDF funding and Horizon 2020 funding attracted to a NUTS-3 region is related to the same SGC, a potential synergy is identified. In the next step, the paper explores the distribution of synergies among EU regions and determining factors.

Globalization and Entrepreneurial Ecosystems linkages in developing countries

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Alicante-G11-O1 Entrepreneurship and Regional Development, 0-E01, August 30, 2023, 11:00 AM - 1:00 PM

Entrepreneurship is one of the growth and development strategies for policy-makers in different countries and regions. The literature recognizes entrepreneurship as a socio-geographical phenomenon since the geographical context shapes the individuals' entrepreneurial activities by influencing their attitudes, aspirations, intentions, risk perception, etc. Although entrepreneurship is geographically rooted, some external factors and actors influence its performance. This impact increases with the rise of globalization, which brings structural changes and makes actors interconnected. Internal and external factors act together as an "ecosystem". The Entrepreneurial Ecosystem (EE) concept is borrowed from biology and emerges from micro-interactions in a bubble-up mechanism to foster firms' formation and productive entrepreneurship. There is a growing interest in entrepreneurial ecosystem literature. From the literature desk review, one can draw three main pieces of information: Firstly, EE is an endogenous phenomenon since it is self-building. Second, EE is dynamic since elements and linkages change continuously. Third, the heterogeneity in the EE's composition since each place creates its own ecosystem. This heterogeneity results from the local context and degree of openness and interaction with foreign countries. Although this topic remains in its infancy, the extant empirical studies focused on EE formation, comparing EEs, and the EE and productive entrepreneurship linkages. To our knowledge, no study has analyzed the EEs linkages. Despite the spatial interconnectedness of countries, the extant literature on EE addressed EEs as siloed. This study aims to fill this gap by investigating how EEs are interconnected and influence each other. The contribution of this paper is twofold. First, we aim to delve deeper the EE's measure suggested by Leendertse et al. (2021) by including the social capital dimension. This is relevant since developing countries, especially African countries, are characterized by institutional voids and informal linkages. Second, we will expand the empirical literature by analyzing the linkages between EEs. Data will come from several databases, including QOG, WES, GEM, Doing Business report, RCI, etc. Three techniques will serve to process data: (1) the Principal Component Analysis (PCA) to measure the EE; (2) the Network Analysis to identify how different EEs are interlinked, the structure and the density of the network; (3) the Kernel Density Estimation (KDE) to deepen the Network Analysis results by checking whether African EEs display polarization. Since we will have panel data, we will use the panel unit root test to test the co-integration of the series and the CIPS to check the order of integration.

Globalization, Labour Productivity and Convergence in Africa

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Alicante-G07-O2 Regional Competitiveness, Innovation and Productivity, 0-D02, August 31, 2023, 2:30

PM - 4:15 PM

The topic of convergence has aroused great interest from many researchers. For a long time, the literature on economic convergence asserted that less developed countries (regions) should grow faster to catch-up with wealthy countries. Echoing scholars, globalization and technology transfer are among the drivers of convergence. However, for some decades, scholars contend the divergence between countries and that there is a club convergence phenomenon. The latter claim stresses that within the same group, countries converge while groups diverge. This raises the question of the conditions of convergence. We investigate the role of globalization in the convergence/divergence of African countries. This choice comes from the claim that different regions may have their own production frontier. We assume that the degree of openness will contribute to labour productivity growth and, therefore, will promote convergence. We extend the Kumar and Russel (2002), Henderson and Russel (2005), and Badunenko, Henderson and Houssa (2014) approaches by integrating the globalization intensity in the analysis of convergence. We rely on a panel of 41 countries over 19 years (2001 to 2019). We use the DEA production frontier methodology to assess the technical efficiency and compute the Malmquist Index of Productivity (MPI) that allows us to decompose labour productivity into its components. Our findings reveal that globalization is a source of labour productivity growth in Africa. Therefore, ignoring globalization when analyzing convergence biases conclusions by overstating the role of physical capital accumulation and understating that of human capital accumulation. We compute the Kernel Density Estimation to check whether African countries converge and plot regression lines to grasp the contribution of each component to convergence. Our results show a polarization in Africa since the distribution of labour productivity is bimodal: technological progress and human capital accumulation are the sources of divergence and polarization of African economies, and technological catch-up (efficiency change), physical capital accumulation and globalization intensity change are the drivers of convergence in Africa. This study has the merit of using a “holistic” measure of globalization that integrates different dimensions of the globalization concept. However, this study has some limits, including (1) the lack of a depth analysis per sector to grasp how the spillover effects from globalization disseminate across sectors; (2) the period analysis is short (19 years). Accordingly, getting inside the black box of productivity by analyzing different sectors over sub-periods and extending the analysis to a long period can yield interesting insights.

Happy islanders or happy islands?

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Alicante-S68 Islands as 'socio-spatial laboratories' for sustainable development, 1-B11, September 1, 2023, 11:00 AM - 1:00 PM

This paper revisits the literature on the economics and spatial economics of happiness with a particular focus on geographical and environmental features pertaining to islands and related characteristics and concepts such as insularity and islandness. It has long been argued that islands are special cases for sustainable economic and social development. They are relatively isolated and 'on their own' compared to mainland areas, yet they are also more dependent and need to be well-connected to other areas more than mainland areas. The dominant economic development model, which is based on high population concentrations, specialization, large-scale production, and agglomeration economies does not directly apply to most islands, especially the smaller and medium-sized ones. The paper presents statistical analysis of suitable secondary data in Europe (such as the European Social Survey and the UK Understanding Society) including most of the variables that are thought to be associated with subjective well-being measures and examines whether and the extent to which insularity and living on an island may have a statistically significant impact on happiness when compared to mainland areas. To that end the paper also considers a number of attributes of islands that are typically considered as negative from an regional economic performance perspective (mostly relating to remoteness and poor accessibility to the mainland) but which might be considered as positive in terms of happiness and well-being (as is also evident by the popularity of many remote islands as tourist destinations). The paper also considers and discusses the policy implications of the analysis.

The challenges of carrying out community design for transition projects in mountain resorts - the example of the TranStat project

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Online-S12 Regional transitions: Adaptation and transformations in the tourism sector, August 29, 2023, 11:00 AM - 1:00 PM

Mountain resorts are now facing global change, and in particular its climatic declination. Various studies, including those of the IPCC (Intergovernmental Panel on Climate Change), highlight the negative impacts of global warming on snow conditions in resorts. Faced with this vulnerability, the economic model of the resorts is at stake and more broadly the future of mountain territories, in terms of tourist attractiveness, maintaining populations, activities and services. In this context, mountain resorts, intended as resorts and associated territories, must define transition solutions to ensure a viable and inclusive future. However, this objective is not easy to achieve, due to the presence in mountain resorts of a diversity of actors with varied and sometimes divergent interests, and also due to the lack of a reference framework for action on transition.

In view of this finding, which is shared at the Alpine Arc level, transition support programs are emerging and are being implemented through transnational projects.

This communication presents one of these projects, TranStat, which bring Academics and Stakeholders, including citizens, to work together in a few mountain resorts, called Living Labs (LL) in a participatory approach in order to identify the challenges to be addressed, and to elaborate scenarios and co-constructed solutions. In each LL, future development scenarios will be built, based on economic evaluation, ecological solutions, social behaviour analysis, climate change monitoring and implement and test solutions. Within the project, new tools and methodologies are designed to adress the needs of mountain resorts in setting up transition process. Having a holistic vision of the Alps, this transnational project will propose policy briefs at local and at alpine scale. It will support the adoption of policies at regional and national levels to foster the implementation of transition processes in order to integrate economic diversification and quality of life for the population.

Through the European project Alpine Space TranStat, this paper proposes to discuss the scientific approaches and methodological challenges involved in the implementation of transition processes.

The Changing Ecological Status of the Eastern Wetlands of Kolkata, India: A Spatial and Temporal Analysis

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Alicante-S28-Sustainable Cities and Inclusive Communities, 1-D14, August 30, 2023, 11:00 AM - 1:00 PM

Wetlands comprise the most vibrant and unique ecosystem, but are declining at an alarming rate worldwide. Changes of the natural habitat structure and function due to human interferences have been threatening wetlands across regions, especially in urban centres. This paper aims to probe into changes to one of the most critical ecosystems - the deltaic wetlands - a part of the intricate water-based ecosystem adjacent to the sprawling megacity of eastern India. East Kolkata Wetlands is a unique ecosystem with international importance, being a Ramsar Site and supports numerous ecosystem services and livelihood of many urban residents. The study proposes to analyze the trend of changing dynamics of land cover and land use over a period of 40 years – and relates it to the growth of the city. Major land use transformation is mapped for the period from 1980 to 2020 using multi-temporal image classification process. Landscape metrics are calculated and analyzed through patch analyst for the years of 1980,1990,2000,2010 and2020. Mapping reveals that within this time period percentage of landscape (PLAND) of water bodies has been steadily reducing. Particularly, small patches of water bodies are noticeably undergoing conversion. Besides, the patch density of water bodies has increased and the larger waterbodies are fragmented into multiple patches. Reduction of patch size and fragmentation all are indicators of habitat loss and threaten the species that sustain the ecosystem. However, expansion of the urban area, growing land demand, changing pattern of treating the system and lack of sustained conservational attitudes of the local people are found to be negatively impacting the wetland system. It is concluded that a study of habitat structure of the selected sites can properly describe the present ecological status of the wetlands. Findings of the study may help in developing proper plans to conserve them and to reduce the gap in implementing the policies for conservation of the wetlands system in a holistic manner.

A Territorial Approach To Post-Covid Recovery And Resilience In The EU: Institutional Quality Relevance In The Green And Digital Transition

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Alicante-S79-S1 (SAS) Is the New Economic Geography (NEG) Still Alive and Well in 2023? Smart Algorithmic Places and Artificial Intelligent Spaces, 1-E12, September 1, 2023, 9:00 AM - 10:30 AM

The current paper aims to study the European territorial disparities in implementing the “twin transitions” and the clusters of countries and regions with similar features and strategic approaches in addressing digitalization and green transition in relation to the institutional drivers. Our research assesses the structural and spatial convergence or divergence between green (and) digital transition and the institutional framework, by considering three significant objectives: a) To evaluate the dynamics of digitalization and green transition within the EU; b) To assess the similarities/dissimilarities in planning digital and green transition as they transpire from the National Recovery and Resilience Plans (NRRPs) of member states; c) To analyze how institutions and governance influence the actual level and the strategic approach in digitalization and sustainable transition. In our approach, we first start with the attempt to measure environmental and digital performance using two internationally established indexes applied at the national level. Secondly, we include an assessment of the convergences and divergences regarding the digital and environmental components covered in the NRRPs of the EU countries. To emphasize the spatial similarities/dissimilarities and the overall role of institutions in accelerating or slowing down the green and digital transition at both national and regional levels, we combine classical statistical methods (Linear correlation, Analytical Hierarchy clustering, and Logistic regression) with the modern ones, e.g. Machine Learning techniques. The results support the hypothesis that these convergences relate to the institutions’ quality and ability to build and implement viable strategies in the medium and long term. The conclusions converge towards a still strongly heterogeneous European territory, where the digital divide and sustainability impact the resilience capacity. The gaps are, in many cases, difficult to recover, especially in conditions where economic, social and environmental differences are reflected and inter-conditioned by a less adaptable institutional framework. One solution is putting people at the centre of technological innovation while enhancing environmental responsibility.

Smart cities in the green transition. Evidence from Central and Eastern Europe

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Alicante-G11-O2 Entrepreneurship and Regional Development, 0-C04, August 31, 2023, 4:45 PM - 6:30 PM

In a challenging and unpredictable world, cities face and produce significant issues, but they are also the engines of innovation and modernization. The environmental crisis and the digital divide are two main problems discussed in global, regional and local contexts. The green transition and digitalization are politically actionable solutions, but their implementation faces numerous obstacles. In European Union (EU) context, after the burst of the Coronavirus pandemic, the Next GenerationEU (NGEU) program and the consequent National Recovery and Resilience Strategies (NRRPs) were a reaction to support both these emerging domains. However, there are significant differences between EU countries. While many Western and Northern EU cities are advanced, the Central and Eastern European (CEE) need to catch up and have delays in implementing these new approaches. The present paper focuses on smart cities in former socialist countries, especially in the case of Romania, looking at their advances, especially in sustainability. The smart environment domain is one of the six dimensions of smart cities that we intend to analyze in the context of NRRPs opportunities by considering the projects that have been implemented (or are about to be implemented) in CEE cities. We look at the specificities of smart cities in relation to the implementation of innovative projects that could positively impact the urban environment. We assess the case of Romania more in-depth, looking at extensive data on cities and the digitalization process in relation to environmental performance. We use machine learning techniques to further test the relation between the two domains in the context of the sustainable urban development principles stated by the New Leipzig Charter (2020). The results show that the inconsistent and sectorial approaches are dominant as the project in different smart city areas needs a coherent strategic long-term perspective. However, they are isolated or based solely on random "good practices". However, some positive outcomes also emerge as the existence of intelligent infrastructure can have positive overall environmental outcomes and, more importantly, can "attract" other innovations. Meanwhile, being late in this "smart environmental digitalization" process can make CEE cities, especially Romanian cities, the beneficiaries of new and highly performing technologies, compared to other cities that started digitalization earlier. The conclusions also stress the importance of institutions and urban governance in taking advantage of opportunities, capitalizing on local capital and consistent plans and strategies for the green digitization of cities.

Monitoring land use in cities using satellite imagery and deep learning

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Alicante-G42 Big Data and Regional Science, 1-B03, August 31, 2023, 2:30 PM - 4:15 PM

Over time, cities expand their physical footprint on land and new cities emerge. The shape of the built environment can affect several domains which are policy relevant, such as carbon emissions, housing affordability, infrastructure costs, resource consumption, and access to services. This study lays a methodological basis for the monitoring and consistent comparison of land use across OECD metropolitan areas. An advanced form of deep learning-based image segmentation framework, namely the U-Net model, is trained on the Copernicus Urban Atlas to classify land use and land cover in EC-ESA Sentinel-1 and -2 satellite imagery. The paper shows that this model enables to predict land-use in newly seen satellite images with high accuracy. It is also able to disentangle mostly residential areas, from commercial and industrial areas. This work complements conventional statistical data by monitoring large surfaces of land efficiently and in near real-time. In specific, following the availability of detailed data for model training, built-up areas in residential or business-related use are mapped and analysed for 687 European metropolitan areas, as a case application. This paper also explores potential applications in OECD metropolitan areas located beyond Europe, as well as for change detection to spot recent urban expansion's speed and shape signals.

Does women's political empowerment improve air quality?

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Alicante-S01-S1 Regional Differences in Gender Equality: Determinants and Consequences, 1-B03,

August 30, 2023, 2:30 PM - 4:15 PM

This study investigates whether an increase in women's political empowerment is associated with better air quality outcomes. Women display stronger environmental concerns and are more likely to engage in pro-environmental behaviors than men, which may translate into better air quality outcomes as more women progressively break the glass ceiling in politics. To test this hypothesis, we employ a novel data set on air pollutant emissions and women's political empowerment for a sample of 230 European regions of 27 EU countries. We apply instrumental variables and partial identification methods to ensure that our results are not influenced by confounding variables. Our empirical analysis reveals that female political empowerment leads to better air quality. Moreover, we find that the observed positive relationship between women's empowerment and air quality is robust to a variety of changes in the empirical setup. Taken together, our results suggest that the observed positive link between women empowerment and air quality in Europe is likely to be causal.

Green and digital transition: Assessing regional patterns of European Union subsidies

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Alicante-G01-O5 Region Urban Development, 0-C02, August 31, 2023, 2:30 PM - 4:15 PM

The twin green and digital transition is at the heart of the European Union post-pandemic recovery and represents a key element of the new growth strategy.

The present paper aims to contribute to the existing literature by understanding the geographical location and concentration patterns of ERDF (European Regional Development Fund) projects associated with green and digital investments. The analysis takes advantage of a novel and unique dataset (Bachtrögler et al., 2021), which includes around 600,000 observations that identify regional green and digital financing patterns for ERDF project beneficiaries within the EU27 over the 2014-2020 period. To the best of our knowledge, this is the first study that benefits from the information surfacing in this database.

Using a novel dataset of projects covering 238 regions of the 27 EU countries, together with a funding scheme for the period 2014-2020, a glimpse of our results shows the following findings. First, ERDF green and green-digital projects follow a similar spatial pattern, since they tend to be concentrated in the most polluting regions and associated to network collaboration in these areas. Both the qualification of human resources and the quality of governance in a region seem to be more relevant when explaining the location of digital technologies projects than for green (green-digital) projects.

Decision-Making Transparency in Local Government

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Alicante-G17-O1 Quality of government across space and time, 0-C03, August 30, 2023, 2:30 PM -

4:15 PM

Democratic countries recognize transparency as an essential aspect of governmental accountability. Members of the Organization for Economic Co-operation and Development (OECD) have adopted regulations or legislation to promote transparency at various levels. Even though transparency is very popular in public discussions, the research is rather limited, mainly in the municipal area.

This study aims at fulfilling this lacuna by examining transparency in local governments from different angles. This research's main goal is to evaluate local governments' multi-member decision-making transparency and create a model that addresses the relationship between decision-making transparency and informed decisions. There is not a single decision-maker in local government authorities; rather, the entire team participates in the decision-making process. Therefore, in the current context, decision-making is multi-member decision-making.

The importance of decision transparency is discussed in the literature. If a decision is transparent, affected parties, specialists, and future decision-makers can reconstruct decision processes and the intended outcomes (Drew, Nyerges, and Leschine, 2004). The ability to access information about local government public decision-making allows people to judge the organization based on their knowledge of this process and not based on their general perception of government at the national level (Grimmelikhuijsen, 2010). Access to information brings citizens and stakeholders closer to authority, promotes trust, and encourages more informed and involved decisions (Lodge, 1994). Transparent decisions are foreseen to be more effective (Florini, 1999) and lead to more informed decisions (Lodge, 1994; Brown, 1995; Buiters, 1999).

The main research questions are: Does decision-making transparency contribute to obtaining informed decisions? What moderating factors affect decision-making transparency?

Two possible moderating factors in this model are the number of participants in the decision-making process and the need for technology during the decision-making process.

The research employs a mixed methodology, with elements of both quantitative and qualitative research. Namely, semi-structured, in-depth interviews, document analysis, and the conduction of an electronic survey.

There are three theoretical contributions and applied potential contributions. First, this study advances knowledge of the concept of transparency and its influence on local government authority's decision-making process. Second, the study deepens theoretical understanding of multi-member decision-making transparency at the local government level. Finally, this study creates practical tools and implications for the local government authority's practice regarding transparency in multi-member decision-making transparency.

The results and the discussion section are still in progress; there are preliminary results only.

Transparency in Local Government: Exploring the Citizens' Beliefs and Attitudes Toward Transparency through a Systematic Review of the Literature

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Alicante-G18-O2 Institutions, Political and Decisional Processes, 0-D02, August 31, 2023, 4:45 PM - 6:30 PM

Democratic countries recognize transparency as an essential aspect of governmental accountability. Accordingly, members of the Organization for Economic Co-operation and Development (OECD) have adopted regulations or legislation to promote transparency. However, though transparency is very popular in public discussions, research of transparency in the municipal area is limited and incomplete. This study qualitatively explores the citizens' beliefs and attitudes toward local government transparency through a Systematic Review of the Literature (SLR) methodology. The research focuses on identifying, analyzing, and categorizing citizens' beliefs toward transparency using data collected and thus determines the variables that influence the citizens' demands for transparency in local government based on previous studies.

The PRISMA method was employed for case selection in the SLR research process, and following this for the synthesis of results the Conventional Content Analysis methodology was applied. The PRISMA method yielded 49 records included in the systematic review. The records were published between 2005 and 2020. There are 43 journal articles, two book chapters, three proceedings papers, and one conference paper. The records were published in 30 peer-reviewed international journals. The majority of the records were found in more generic public administration journals and journals that combine informational science and public administration. Most of the research was conducted in the USA (24%), Spain (20%), China (14%), and South Korea (12%).

Through the conventional content analysis, ten core categories and 43 subcategories emerged. The first seven core categories relate to citizens' beliefs and attitudes toward local government transparency. The last three core categories are variables that influence citizens' demand for local government transparency.

The core categories that emerge are (1) Expectations of citizens from the local government and themselves; (2) Instrumental transparency; (3) Relationships with government; (4) Advantages and disadvantages in increasing transparency (Possible consequences of increasing transparency); (5) Digital age perception; (6) Transparency as a human right; (7) Dominant transparency domains; (8) Citizens' characteristics; (9) Citizens' behaviors, and (10) Citizens' environment.

Finally, the results and the discussion section are still in progress as these are preliminary results only.

Escaping the trade-off: The potential of Advanced Frugal Innovation to promote sustainable economic development

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Alicante-G27-O1 Innovation and Sustainable Development, 0-C03, August 30, 2023, 4:45 PM - 6:30 PM

The development of sustainable products is highly linked to a trade-off between environmental sustainability and low prices. This creates a situation in which the consumption of green products is restricted to more affluent consumers. At the same time, this mechanism reduces the speed at which companies, regions and countries transform themselves into environmentally friendly economies. Advanced Frugal Innovation (AFI), through new design concepts and a focus on reducing the negative environmental impacts and costs of the product, can overcome this trade-off and significantly promote sustainable economic development.

The presentation discusses the theoretical basis for the development of AFIs. As frugal innovations are mainly associated with emerging markets, the potentials of AFIs are also presented for advanced economies and the geographical prerequisites are discussed (Barnikol & Liefner 2022). At the core of the explorative research results, however, are empirical findings on Advanced Frugal Innovation in Europe (Barnikol & Liefner Forthcoming a,b). The data are based on a company survey from 2022 and provide a first overview of the existence of products that are both environmentally friendly and cost-efficient. Based on correlation analyses, correlations in the development of AFIs and systemic and societal influencing factors are analyzed and discussed. In summary, the development of AFIs and the overcoming of a trade-off between socio-economic and environmental benefits are not solely determined by the capabilities of companies, but are particularly influenced by the influence of regional and national institutions and actors.

The results offer insights into how the behavior of individual market actors can be adapted to promote AFIs and which adjustments are necessary. Accordingly, the results offer initial strategic implications for companies and regions to develop and promote AFIs and to create a future-relevant competitive advantage.

Associated literature

Barnikol, J. & Liefner, I. (2022): The prospects of advanced frugal innovation in different economies. *Technology in Society*, 71, 102081, DOI: 10.1016/j.techsoc.2022.102081.

Barnikol, J. & Liefner, I. (Forthcoming a): Serving the needs of the rich. Operationalization and Evidence of (Advanced) Frugal Innovation in Advanced Economies.

Barnikol, J. & Liefner, I. (Forthcoming b): Escaping the trade-off.

Real estate finance companies in Mexico: a tool for reorganizing the Mexican urban system?

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Alicante-G32-O3 Real Estate and Housing Markets Issues, 0-D04, August 31, 2023, 2:30 PM - 4:15 PM

In the first decade of the 21st century, institutional reforms were carried out in Mexico to promote the creation of financial entities in the stock market to raise funds for a growing real estate sector. Real estate investment trusts (FIBRA), by converting rental properties into stock market assets, are one of the main instruments. Inspired by the American Real Estate Investment Trust (REIT), these companies manage rental properties in the productive sector, such as offices, shopping centers, hotels, and industrial buildings, among others.

This article examines the participation of this instrument in the process of financialized urbanization by analyzing the real estate portfolios of FIBRAs and their diffusion in the urban system. The census and geo-referencing of more than 200 properties allows for an analysis of the structure of the tertiary sector (commercial and office) as a whole. The results show a process of specialization and diversification of trusts. On the one hand, the distribution of FIBRA properties in the municipal areas with the highest socio-economic levels reflects the role of this instrument in the consolidation of service-oriented enclaves. On the other hand, exploring the actors at the heart of the FIBRA market logics in the city of Monterrey, where the political, economic, and social elite constitute a homogeneous social group, makes it possible to analyze the strategies implemented by local private investors to guarantee their control of the entire real estate chain. Financialization then reinforces the process of 'corporate accumulation by dispossession' (Mbiba, 2017).

Identification of the communities left behind in the Green Deal and just transition

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Alicante-S34 Facing the challenges of the just transition in European regions, 1-B13, August 30, 2023,
11:00 AM - 1:00 PM

The European Green Deal policies are expected to be deeply transformative at all levels of European governance, especially targeting the regions with a high carbon footprint. However, there are major society-based problems concerning the ownership and implementation of transition plans [Aldana Cohen, 2017; Wachsmuth, Aldana Cohen and Angelo, 2016; Fraune, 2015; Fraune and Knodt, 2018; Carley and Konisky, 2020; Bouzarovski et al., 2017]. Research has shown that citizens want more influence on how the transition to a low-carbon society will take place, but that meaningful ways of deliberation are rare [Lennong, Dunphy and Sanvicente, 2019; Levine, 2017; Stapper and Duyvendak, 2020]. Also, low social acceptance of carbon neutral and environmental policies has been a significant barrier to the implementation of those policies and can lead to political polarization [Bouzarovski et al., 2017; Aldana Cohen, 2016; Segreto et al., 2020].

The paper is based on the EU-funded (Horizon) BOLSTER project that aims to understand how marginalised communities are affected by climate policies and whether involving them in decision-making processes increases the support for transition plans. We will present the interim results of BOLSTER's research concerning the potentially left behind just transition in the seven EU regions. Challenges related to finding out the practical dimensions of climate justice on the micro (community) level will be pinpointed, based on desk research, structured Individual In-Depth Interviews collected within BOLSTER and go-along methods.

The main research questions are: (1) What are the efficient and feasible ways of identifying the communities marginalised in just transition? (2) What are the main reasons behind their exclusions and the main barriers to acceptance and participation?

The work will contribute to the state-of-the-art discussion of the contemporary understanding of marginalised communities and climate justice. It will offer insights for policymaking regarding this subject.

The roads not taken: institutional challenges of the just transition planning

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Alicante-S34 Facing the challenges of the just transition in European regions, 1-B13, August 30, 2023,
11:00 AM - 1:00 PM

"In the last 2-3 years regions across Europe, especially those having a high carbon footprint, have entered a new pathway of policy-making - ensuring a just transition. Territories must be given new opportunities to help them unlock hidden potential for future growth. Even though Wang and Lo [2021] see many scientific perspectives of the just transition, the main worldwide narration positioned just transition as a process mainly in an economic policy.

In the paper, we scrutinize the ways in which just transition has been planned across Europe, especially focusing on the four EU regions, i.e. Upper Silesia PL, Halle DE, Hainaut BE, Leon ES. Our objective is to find out whether: the regions limit their policy to the scope of EU funding or go beyond to address more societal issues and truly leave no one behind (RQ1); the policy planning is a participative process, and - if so - if it addresses various possible stakeholders or the usual suspects involved in EU-money-related activities (RQ2); the proposed policy measures are of a novel nature or rather re-introduce the concepts previously used for regional policy (RQ3)?

The research is a part of the EU-funded (Horizon) BOLSTER. To answer the research questions we use the stakeholder analysis and policy mapping. This activity is accompanied by desk research concerning policy documents and key opinion sources.

The proposed work contributes to an emerging research stream on the relations between welfare, inclusion and transition (e.g. Krause et al. [2022], Stevis and Felli [2020], Heidkamp et al. [2022]). It will offer empirical evidence on the usually conceptual approaches to this issue. "

Governance in urban and cultural tourism destinations. The Pátzcuaro Lake Basin

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Online-S59-O2 Tourism sustainability as a source of job creation and wealth, August 29, 2023, 11:00 AM - 1:00 PM

Following the COVID-19 epidemic, cultural tourism is one of the sectors of the major tourism-receiving countries that is rebounding the fastest. Inland towns resume the use value of heritage resources in the face of post-COVID-19 tourism with socioeconomic changes and conflicting consequences on the local community and its legacy. This new environment will offer new chances to reevaluate governance and tourist management approaches that prioritize the quality and proper operation of historic attractions over visitor volume and financial gains. This situation in Mexico needs a critical examination of the recent past to create new networks of administration and planning for tourist areas. The Pátzcuaro Lake Basin in Michoacán, a rural area with significant tourist potential and a wealth of intangible cultural heritage, is the subject of the case study. The prevailing public policies and inadequate management procedures, according to the theory, prevent the area's cultural sites from consolidating. The current model of tourism governance and management is subjected to a critical study. It is constructed methodologically using an empirical and qualitative approach that draws data from primary and newspaper sources, fieldwork, and other sources. The findings demonstrate how trademarks like "Magic Towns" and "World Heritage" are imposed before a new, all-encompassing management plan is developed to unite the region and its different inhabitants.

Fostering urban tourism through the integration of archaeological remains. Initiatives in the city centre of Malaga

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Online-S59-O1 Tourism sustainability as a source of job creation and wealth, August 28, 2023, 11:00 AM - 1:00 PM

Urban renewal initiatives have been widely supported by European money in numerous cities all over the continent. The term "heritage-led urban regeneration" refers to urban regeneration programs where heritage is viewed as a driving force behind rising economic activity, luring more people, and fostering a livelier neighborhood. The results of these initiatives on tourism are remarkable and they normally imply a consistent increase in the number of visitors. This study's goal is to examine heritage-driven urban regeneration projects that have been supported by European programs in Malaga's historic district, Andalusia, Spain, from the mid-1990s. Several times, the efforts implemented integrate archaeological remains with underground-built heritage in contemporary activities. The process includes mapping regeneration projects, tracking heritage protection and loss, analyzing policy papers, conducting in-person observations, and gathering data on the number of inhabitants and tourists who visit the area. These initiatives made it feasible to incorporate certain previously hidden or neglected heritage items, particularly archaeological ones, and to improve the public space's appeal to both locals and visitors. The findings indicate both positive and negative effects on population decrease and urban landscape enhancement. The study might be used in other cities that are going through processes of rising tourist activity in surroundings of urban heritage.

Theoretical and methodological problems of measuring spatial aspects of happiness

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Alicante-S78-S4 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 4:45 PM - 6:30 PM

The foundation of happiness in political thinking dates back to Aristotle's ethics (Arisztotelesz 1997), where happiness (eudaimonia) is in the centre, and the question is how can we achieve the highest level of happiness in the society. In modern political thinking, especially in utilitarianism, happiness has continued to play a central role (Ludassy 1991), as the maximisation of happiness and minimisation of pain and suffering is the most important goal in both individual and community levels. According to Csíkszentmihályi (1992) people evaluate every other goals in that aspect how it is contributing to their happiness.

Various evaluation methods, models for understanding and conceptualizing happiness of nations, and subnational settlement levels, have been developed to explain happy city concepts, which aim to define their scope, objectives and architectures. The multidimensionality of happiness coupled with cities' complexity, calls for specific assessments able to distinguish between different dimensions of happiness.

The usages of Indexes, indicators and rankings have several advantages. We can determine "leaders" and those, lagging behind, performing better and least settlements. Indicators and indexes are useful tools of preparation of location choices for enterprises or investments. They are also aiming at positioning cities according to their competitiveness, strength and weaknesses. Indicators are helping to elaborate strategic priorities and development possibilities. There are many advantages of using indicators and indexes. City rankings attract lot of attention in both scientific and public life. They generate discussion and debate on smartness, competitiveness, quality of life, helping to rethink formerly elaborated strategies and development priorities. They also allow to position cities, can be marketing tools in city promotion and contribute to the success of city leaders (Giffinger-Gudrun 2010). The usage of indicators is relatively simple, clear, easily interpretable, easy to understand, visualize, compare and reproducible in time and space.

Still, from the review of different city rankings and indexes some limits and problems can be derived:

- The problems of data collection.
- The weighing and aggregation of indicators will greatly influence the final results.
- The problems of transparency.
- The correlation among indicators and different fields of analysis are quite strong.
- The problems of comparison.
- The lack of dynamic analysis.
- The lack of individual aspects.

Methodological limits, practical and economical obstacles of data collection at settlement level are affecting the elaboration of better evaluation system. More specific, focusing on city's vision, strength and weaknesses, assessment methods are needed.

The manifestation of antifragility in public sector organizations

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Alicante-G17-O2 Quality of government across space and time, 0-D01, August 31, 2023, 4:45 PM -

6:30 PM

The aim of this study. Antifragility concerns organizations' ability to face adversity and improve their positions by transforming the governance models in response to a crisis. It is characterized by the intrinsic competence to maintain and regain a dynamically stable state, enabling organizations to continue their activities after induced shocks or function effectively in an environment of continuing threats. Thus, instead of avoiding uncertainty and threats or trying to control them, creating ecosystems that aim to be antifragile to change is suggested. Once antifragility architecture is designed, organizations can easier achieve agility, which allows them to become even stronger when facing adversity. However, we still lack knowledge about the development of this phenomenon among organizations. Moreover, little is known about antifragility attributes in public sector organizations, which tend to be less fragile due to various constraints. Nonetheless, considering their public accountability, it becomes paramount for the public sector to learn how to transform the governance models in response to a crisis and even take advantage of it.

To better understand the antifragility construct and its potential in the public sector, a systematic literature review of the archetype of a protocol-driven approach is considered in this study. The scope of the review includes relevant publications that supplement these review questions, i.e.:

- How to conceptualize and measure antifragility?
- Whether manifestation of antifragility differ in the private and public sectors?

Methodology. Systematic literature review, i.e., PI(C)O scheme in PSALSAR framework.

Results (preliminary). Relevant publications were retrieved using two databases, i.e., Scopus and Web of Science, and relied on only one keyword, i.e., 'antifragil*'. As relevance is essential for retrieving publications, a wide range of publications has been considered for inclusion. Application of the inclusion/exclusion criteria led to 206 publications being considered. Considering the outcomes mentioned above, a thorough appraisal and systematization of the retrieved papers will be performed during the spring and summer of 2023, thus providing an opportunity to present the results during the 2023 ERSA Congress.

Originality. The forthcoming research will contribute to building an improved understanding of the current literature concerning antifragility phenomena and methodological approaches to evaluating it. In addition, this study will aim to reveal the differences in antifragility between the public and private sectors and point out a set of future research questions to be tackled.

This project has received funding from the Research Council of Lithuania (LMTLT), agreement No No S-PD-22-96.

Using Taxes to Attract the Creative Class in the Presence of a Region-Specific Rent

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Online-G01-O1 Regional and Urban Development, August 28, 2023, 2:30 PM - 4:15 PM

We analyze interregional competition between two regions A and B that use taxes to attract a representative creative class member (the entrepreneur). This entrepreneur establishes a firm in either region A or B and this action guarantees her profit. However, if the entrepreneur locates in region A then she also obtains a stochastic, location-specific rent that is either high with positive probability or low with positive complementary probability. In this setting, we accomplish three tasks. First, given values of the two tax rates, we determine the payoff to the entrepreneur in the two regions for the two possible values of the location-specific rent in A. Second, we ascertain when the entrepreneur will locate in A for both values of the rent and when she will locate in B. Finally, we compute the tax rate that B will set and then specify a condition which ensures that the entrepreneur locates in B.

Should Water Pollution Cleanup in the Ganges be Centralized or Decentralized?

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Online-G42 Human environmental interactions, August 28, 2023, 4:45 PM - 6:30 PM

We exploit the public good attributes of Ganges water pollution cleanup and theoretically analyze an aggregate economy of two cities---Kanpur and Varanasi---through which the Ganges flows. Our specific objective is to study whether water pollution cleanup in these two cities ought to be provided in a centralized or in a decentralized manner. We first determine the efficient cleanup amounts that maximize the aggregate surplus from making the Ganges cleaner in the two cities. Second, we compute the optimal amount of water pollution cleanup in the two cities in a decentralized regime in which spending on cleanup is financed by a uniform tax on the city residents. Third, we ascertain the optimal amount of water pollution cleanup in the two cities in a centralized regime subject to equal provision of cleanup and cost sharing. Fourth, we show that if the two cities have the same preference for pollution cleanup then centralization is preferable to decentralization as long as there is a spillover from pollution cleanup. Finally, we show that if the two cities have dissimilar preferences for pollution cleanup then centralization is preferable to decentralization as long as the spillover exceeds a certain threshold.

Migration, Neighbourhood Change, and the Impact of Area-Based Urban Policy Initiatives

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Alicante-G39 Methods in Regional Science or Urban Analysis, 1-B01, August 31, 2023, 2:30 PM - 4:15 PM

Throughout much of the last forty years, poverty and disadvantage have intensified geographically in British cities. The response from Government has been to develop and implement urban policy aimed at regenerating those areas most badly affected. Much of the focus has been on neighbourhoods within inner-city areas and on a range of place-, and people-based policy initiatives. A growing body of applied research has been carried out aimed at assessing the impacts of these initiatives, in the hope of establishing ‘what works?’ and therefore informing subsequent policy interventions

As part of this research, much attention has been paid to questions about the complex relationships between migration, urban deprivation, social mobility, the housing market and neighbourhood change. This work has been aided by the increasing availability of small area statistics, notably from the decennial Population Census. The 2001 Census in particular opened up the possibility of linking migration data to area typologies defined by the use of census-based geodemographic classifications. Sadly this proved to be a one-off. The migration flows from the 2011 and 2021 Censuses are not available in the same level of detail, ostensibly for reasons of confidentiality.

The focus in this paper is on exploring the detailed relationship between migration and neighbourhood change, with particular reference to the region of Merseyside in north-west England which has been the subject of numerous urban policy interventions in response to long-standing severe social and economic problems. The example of the Pathways area-based policy initiative is explored.

The paper analyses the migration flows into and out of different neighbourhood types in the UK as a whole, identifying flows that are greater than, or less than, expected. From this, there emerges a clear picture of the structure of migration flows. Migration flows are examined between geodemographic area types.

A matched comparison method is then used to compare Pathways and Pathways-like areas sharing very similar social and economic characteristics to Pathways Areas but without the same designation and targeted resources. An assessment is made of whether this community development component of Merseyside's Objective One programme, and the resources this brought, made a positive impact upon the population of the Merseyside region's most deprived areas. It covers the period of the first phase of Objective One funding, from 1994 to 1999.

The role of participatory-collaborative approach in community-based cultural tourism. The case of Portuguese pilot of INCULTUM project

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Online-G36-O2 Tourism and Overtourism Issues, August 29, 2023, 11:00 AM - 1:00 PM

The historical irrigation system based on hydraulic structures for water catchment (norias), conduction (aqueducts), storage (tanks) and distribution (canals), and the traditional cultivation and irrigation practices and techniques, although in disuse, constitute the brand image of the territory of the Portuguese INCULTUM pilot. This pilot aims to study and inventory the water heritage of the Campina de Faro (Algarve), and to promote its rehabilitation, dissemination, and rediscovery by making it the protagonist of a proposed cultural tourism route. In this sense, the activities and actions developed in the pilot have focused on the key idea of considering the role and importance of the landscape and water heritage as an anchor for community-based cultural tourism.

Cultural tourism implies a new approach to the tourism planning process based on stakeholder and community dialogue and cooperation. Under the participatory-collaborative approach, stakeholders demonstrate capacity to manage tourism in a sustainable way. And local communities take pride and have a sense of responsibility and empowerment for the natural and cultural assets of their territories. In this way, they contribute, on the one hand, to the preservation of these assets and, on the other hand, to the shared management of tourism in these same territories. Community-based cultural tourism is based on this compromise between the conservation of the landscape (of everyday life) and cultural heritage (tangible and intangible), and their enjoyment and delight. Farmers and local producers are part of the tourism product, integrated into their own environment and way of life, with an invaluable contribution to the sustainable management of the Campina as a distinctive tourist destination in the context of the Algarve region.

The Portuguese pilot has promoted the involvement of stakeholders in the definition of a cultural tourism planning and development strategy that follows a Campina destination approach for the conservation of the agricultural landscape and water heritage based on the empowerment of local communities. In this sense, it has carried out different actions and initiatives, and organised different meetings, seminars and workshops aimed at both, stakeholders, and communities.

The importance of urban neighbourhood for older adults in the pandemic Covid-19 in Bristol

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Online-G43 Spatial aspects of COVID pandemy, August 28, 2023, 2:30 PM - 4:15 PM

Population ageing has become an inevitable end for all countries and 18.4 % per cent of people aged 65 and above live in urban areas. In 2007, World Health Organisation provided eight key dimensions. These criteria have been subject to planning cities providing an equal environment for all ages. In addition to all these, the living environment has become more important for older people in natural hazards such as a pandemic. COVID-19 started to infect people and spread very quickly in December 2019. The most important characteristic of this disease is that it becomes deadly for older people. By the beginning of March 2020, nearly all countries in the world have been on lockdown to stop infections. Many countries have provided strict rules for people who are aged 65 and above such as staying at home all day, and not contacting people face to face. Those who were not able to use the internet or have no one to help them have suffered from loneliness and isolation. They were dependent on someone else for food delivery, they have been dealing with emotional stress and anxiety. Therefore, this research aims to focus on older adults' daily life during the lockdown and how they have been affected by isolation from the urban environment and social life; and also staying at home. How living environment and neighbourhood have helped their engagement with daily life during the lockdown also the research is comparing the daily life routine of older adults before the pandemic to those during the pandemic. The data is collected through semi-structured interviews and due to social distancing and to protect participants from any infections, interviews were held over a phone call in June 2020 and July 2020. There are 30 questions and the researcher took notes during the call. 6 Participants were interviewed based on the researcher's personal network and through community workers in Bristol in different neighbourhoods randomly. The findings highlighted that having a garden or being close to a park or a green area has helped older people to overcome isolation and loneliness. As open green spaces are the main aspects of the urban environment to support ageing well. Because older people can perform activities and socialise in open green spaces. The first rule for the pandemic was social distancing and staying home, however, for older people who especially live alone isolation caused serious depression.

The HEI-Way to Bioeconomy – Higher Education Institutions and Regional Readiness to Tackle Societal Challenges

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Alicante-G09-O1 Innovation and Regional Development, 0-D03, August 30, 2023, 11:00 AM - 1:00 PM

This study investigates the link between Higher Education Institutions (HEIs) and regional readiness to tackle societal challenges (SCs). Particularly, we focus on the SC Bioeconomy because it is gaining prominence in regional development strategies for coping with an increasing demand for food, energy, products, and service, using renewable biological resources (EC, 2014). Ultimately, Bioeconomy can help reduce the environmental footprint and fight the climate crisis (Kuckertz et al., 2020).

HEIs have been extensively considered for their threefold mission to provide and generate knowledge, as well as to support knowledge-intensive businesses via technology transfer, affecting regional development (Youtie & Shapira, 2008). Although scholars in the regional innovation systems literature emphasise the need for generating SC-oriented knowledge (Tödtling et al., 2022), the role of HEIs to promote SC-oriented innovation represents an unexplored aspect. Also, there is a lack of knowledge on how the geographical contextuality affects the role HEIs play as critical agents to bolster the endogenous regional capacities in the field of Bioeconomy.

Therefore, we inspect the relationship between HEIs and the regional readiness to face SCs on the regional level by controlling for place-specific conditions. Specifically, we focus on Germany as there is a nationwide Bioeconomy strategy, reflecting the prominence of the topic in its innovation policy. We use data at German NUTS-3 level and proxy the readiness of regions to tackle specific SCs through the RE-SCORE (REgional Societal Challenges-Oriented REAdiness) index, introduced by Cappellano et al. (2022).

As the analysis of the regional determinants for the Bioeconomy RE-SCORE could draw on multiple plausible theories, each one giving rise to a different econometric model, we employ Bayesian model averaging (BMA) to address this model uncertainty. We estimate the model structure and the model parameters simultaneously. Along with the features of the HEI system in each German region, we consider potential determinants to capture socio-economic characteristics, regional economic structures, the political environments, and agglomeration effects. Data on HEIs originate from the European Tertiary Education Register (ETER), comprising information at the institutional level on HEIs' activities and outputs, such as students, graduates, personnel, finances, as well as their geographical location. Additionally, we use a broad spectrum of databases provided by RISIS to construct the RE-SCORE index. Figures on regional statistics come from EUROSTAT and DESTATIS.

To conclude, the study adopts an economic geography perspective to glean insights about a place-based approach and the role of HEIs to orient innovation toward SCs.

Sharing hospitality: The relationship between Airbnb, the accommodation industry and new touristic flows.

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Online-S11 Opportunities, risks and challenges of the digital transformation in tourism, August 28, 2023, 11:00 AM - 1:00 PM

The purpose of this work is, firstly, to provide a determination of the magnitude of the tourism sharing economy phenomenon and its various components for an Italian tourism destination. The second goal is to evaluate the relationship between the tourist sharing economy (or sharing hospitality) and the hospitality managed professionally in terms of direct / indirect competition. Furthermore, the analysis of the turnover associated with different types of accommodations that can be booked on portals will lead to the evaluation of the percentage of "core sharing" in the business of the portals and to an esteem of new tourist flows generated by these tools. The updating of these issues was framed in the situation experienced by the tourism sector following the outbreak of the CoVid-19 and the second year of pandemic. The work therefore also questions the - contrasting - effects of the CoVid-19 on sharing hospitality. An in-depth analysis was carried out on Airbnb which, although not the only active portal in the area analyzed, is generally considered to be the one capable of developing the greatest traffic for the tourist facilities present therein. The analysis shows that, typically, only 20% of the turnover recorded by Airbnb in the metropolitan area of Bologna can be associated with the "pure" sharing economy, while the remaining 80% has different degrees of professional management which, in many cases, undermine the peer-to-peer relationship of the transaction established between the parties involved. Of this 80% of turnover, while 44% is associated with facilities that can be considered in direct competition with hotels, 36% is made up of tourist accommodations which, to varying degrees, play an indirect competition with hotels, thus activating new tourist flows to the destination's area. While this abstract is being presented, the analysis is being updated and expanded using the most recent data. The work also investigates the various consequences of the spread of tourist sharing in urban and extra-urban areas, highlighting the risk of displacement of habitual inhabitants from the most touristic parts of the cities and the permanent destination of the latter at the service of mass tourism, resulting in adverse social reactions. In the moment this abstract is presented, a complete revisiting of the work is undergoing to integrate new data-set.

Quantifying the existing relation between smart city and quality of life

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Online-G16 Smart Specialization, August 28, 2023, 4:45 PM - 6:30 PM

The concept of a smart city has gained increased attention in recent decades among academic scholars and decision-makers. It has grown to be an umbrella concept that encompasses many different ideas, techniques, and elements, making it challenging to define precisely or to be evaluated. While the main goal of smart city initiatives is to improve quality of urban life, there is little knowledge of how it impacts the well-being of its citizens. The present research explores how smart city can influence perceived quality of urban life for several European cities. Urban Audit Data regarding perceived quality of urban life was taken into account together with scores for Smart City initiatives for 323 cities. Each subdomain of the perceived quality of urban life has been compared with scores for Smart city. Results highlight a regional spatial pattern for perceived quality of urban life, which tend to be more of a regional characteristic rather than being influenced by smart initiatives. Moreover, overall life satisfaction in the analyzed European cities are not influenced by their score for smart city. Nevertheless, the concept of smart city is closely related to the goal of improving quality of urban life, but there is little statistical evidence. Smart cities tend to have a better perception upon quality of urban life.

The subtle relation between smart city and quality of life: A comprehensive example from the city of Iasi, Romania

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Alicante-S78-S1 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 9:00 AM - 10:30 AM

Smart city has become over time indispensable for urban areas in order to develop and create an environment that generates a high level of quality of life. It makes a major contribution to the action of forming resilient communities to possible dangers that can disrupt the smooth running of things. Recent findings support the idea that the quality of life and urban smart strategies influence each other, both relying on the “sustainable development” as a common denominator. The relation between these two concepts must be present on all stages of smart insertion and on all levels, so that the process is unitary, long-term sustainable, and citizen-focused.

The main objective is to outline an overview of how the inhabitants of the city of Iași, and especially the young, include and relate to this development effort, mainly achieved through the digital component.

To do this, we rely on large-scale semi-structured questionnaire at the level of Iași urban area with the aim of obtaining data on the perception of local population on the recent smart initiatives and their impact on the overall quality of life. This is supported by the implementation of smart initiatives at an accelerated scale during the past decade, making Iasi one of the leading smart cities in Romania. The questionnaire referred to a series of initiatives frequently mentioned in newspapers, magazines, blogs, as well as in the official communiques of the authorities. The data obtained were centralized, processed and represented graphically in order to obtain relevant results.

Overall, Iasi city seems to follow a pragmatic smart path with initiatives covering a diversity of domains and fields. However, further attention should be paid to the quality of life component of these smart initiatives, as its omission could drastically reduce the long-term beneficial impact of smart strategies.

University as an attractive tool for urban and territorial regeneration

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Online-S37 Territorial Intelligence and Ecosystem Innovation. New archetypes for Ecological Transition, August 29, 2023, 11:00 AM - 1:00 PM

The city is the complex system par excellence. In it coexist a wide range of actors, tools, directions and technologies that contribute – and have contributed – to the urban shape and structure. When these systems are able to collaborate, a model is established in spatial, social and economic terms, whose evolution doesn't depend exclusively on a centralized authority, but on the actions of individuals who aim at the same growth objectives.

The university is the place of knowledge par excellence. It represents not only an institution of belonging, but also an example of intellectual expression, of study and interest in certain disciplines, and of experimentation. The university contributes to the construction of the identity of the city in which it is located. It constitutes a strategic node.

From the point of view of innovation, universities contribute to the transformations, therefore, not only in spatial terms, but also in terms of application of knowledge. Such an assimilation between the university and the urban cell to which it belongs is characterized as if the place enjoyed the identity given by the university to the point of triggering an almost inverse process of the phenomenology known with the locution of *genius loci* - in reference to the environment, the interaction with the place and the identity profile.

How do the two systems relate to urbanity? In which case do they trigger growth mechanisms capable of going beyond student services?

The object of the research is to investigate, with the case study of the University of Enna Kore, what are the strategic objectives to prevent the expressed good practices, in the style of the American campus model, from being engulfed and readapted to Italian universities, for make the citadel system not just an area belonging to the university and used by students, but a stimulating place, closely connected to the city, where study and experimentation are continuously connected, projecting onto the working world.

The research work will therefore proceed with an economic and urban analysis of the Cambridge area on which Harvard insists and then proceed with a comparison with that of Enna Bassa, where there is the Kore, in order to establish growth indicators that translate the university citadel on a campus that can be a driving force for the urban whole.

CWS in the post-pandemic world: Lisbon and Bratislava case studies

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Alicante-S10-S2 Geographies of New Ways of Working, 1-C12, August 31, 2023, 4:45 PM - 6:30 PM

After a slow start, the phenomenon of coworking has grown in popularity exponentially around the world. Its spatial location has recently been the subject of study seeking to understand how these dynamics occur in different socio-cultural, political, and economic contexts. The location and evolution of coworking spaces in Lisbon and Bratislava have been shaped by a variety of factors, including economic development, urban planning, and the growth of the coworking industry, which has multiplied in recent years, with a significant increase in the number of coworking spaces in both cities. However, this dynamic was strongly affected by the COVID-19 pandemic and, more recently, the Ukrainian conflict. These unprecedented events have profound and long-term impacts on where and how we work.

This paper aims to map the location of current coworking spaces and analyze them in light of these global events. We updated the information collected before and during the pandemic through documentary research, interviews, and site visits. Preliminary results show that: a) rapid growth during the pre-pandemic period had a significant drop in pandemic years 2020 and 2021, with particular impact on smaller CWS; b) With pandemic relief, larger coworking spaces, especially connected with real estate companies or CWS networks continued to emerge in both cities; c) the growth in the number of coworking spaces, reflect new typologies, less focused on the community and collaborative values than those in the beginnings of the movement; d) some new spaces appeared in the new business/development parts of both capitals, near the Tagus and Danube rivers, and in their suburbs; e) rising cost of living and energy and rising rents have had a negative impact on potential new coworkers (small business owners, civil servants, independent workers, and freelancers) as they choose to stay working from home rather than moving to a CWS.

Territorial Cohesion in less developed regions: Questioning the effectiveness of Smart Specialisation policies

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Alicante-G16 Smart Specialization, 0-C02, August 30, 2023, 2:30 PM - 4:15 PM

Territorial Cohesion represents since 2009 (Lisbon Treaty) a major EU policy goal, alongside economic and social cohesion. It has promoted a more balanced and harmonious territorial development of the EU regions. However, the EU Cohesion policy, following the “Europe 2020 Strategy” shifted towards a growth and investment agenda, from cohesion to competition and competitiveness. The smart specialization is considered a cornerstone of the EU Cohesion Policy since 2014, a strategic shift in the European development intervention from cohesion to competitiveness. Against this background we evaluate the SS strategies of the CEE countries, including their spatial and socio-economic contexts. The main message of the presentation is that the effectiveness of the SS strategies in peripheral regions is undermined by a range of structural weaknesses related to innovation, R&D, education, poverty, migration and governance. This leaves the SS strategies nothing else as a new narrative of policy-led development success.

Multiscalar innovation and exnovation dynamics in emission-intensive regions

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Online-S32 Territorial Capacity for Sustainability-Oriented Innovation and Transformative Change,
August 28, 2023, 4:45 PM - 6:30 PM

It is well acknowledged that grand societal challenges such as the fight against climate change require innovation through the phasing-in of new technologies and practices. Far less attention has thus far been given to the role of exnovation through the phasing out of old, unsustainable technologies, practices and entire industries. Pressures for exnovation originate from various spatial scales and emanate from causes such as the consequences of climate change, shifting consumer preferences, or political frameworks and measures such as the European Green Deal, carbon pricing, or CO2 taxation. The article argues that dominant conceptual approaches and empirical studies in the fields of regional development and sustainability transitions are overly focused on grasping innovation activities and neglect the significance of exnovation, that is, the proactive and often politically intended and enforced destabilisation of unsustainable structures. The article zooms in on complex multiscalar innovation-exnovation dynamics in emission-intensive and polluting regions and explores the ways in which these dynamics are shaped by contested processes involving different forms of agency.

Responses to climate change in alpine ski destination: between adaptation and maladaptation

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Online-S12 Regional transitions: Adaptation and transformations in the tourism sector, August 29, 2023, 11:00 AM - 1:00 PM

Winter sports is a multi-billion USD industry and a major source of income for many mountain communities. Ski destinations rely on favorable atmospheric and snow conditions that make them vulnerable to climate change. Ski tourism is expected to be negatively affected by future climate change. Snowmaking is the main adaptation strategy used by ski destinations and has reduced the negative impacts of climate change. However snowmaking technologies are projected to be less effective in a warmer climate in reducing risks to ski tourism. Diversification strategy, offering non-snow recreation options, also supports adaptation in mountainous regions under future climate change, changing tourist behaviour and demand pattern. Diversification strategies face the inertia of mountain economic systems to sustainable adapt. A better understanding of transition pathways of mountain economies trajectories is a key issue to accelerate the decarbonisation of alpine destinations.

Temporal analysis of competitiveness of Hungarian regions

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Alicante-G01-O3 Region Urban Development, 0-B03, August 30, 2023, 2:30 PM - 4:15 PM

The aim of the study is to analyse the changes in the economic competitiveness and performance of Hungarian regions in the last 20 years. In the first part of the paper, the concept of competitiveness, and in particular the concept of regional competitiveness, will be critically examine and summarise, as well as the “testing spatial convergence” approach to the temporal analysis of spatial economic development. The empirical analysis will be conducted at the county level (NUTS 3 level, 20 spatial units), including a wide range of economic, social and demographic variables, and examining the impact of regional development programmes and large infrastructure investments, also attempting to explain the varying degrees of regional change. Our methodology combines the analysis of individual indicators with the use of complex aggregated indicators composed of several indicators.

Some of the counties – such as the central and north-western part of the country – show higher level of competitiveness with well-developed infrastructure, high quality education and a strong economic base. These counties also offer greater opportunities for investors and workers and internal migration also shows their greater attractiveness. Other counties, such as some in the eastern part of the country, are less developed and may be less attractive to investors and workers. However, the competitiveness picture is not entirely stable, especially at the level of larger regions of the country, and the position of neighbouring counties has changed significantly in some cases.

Flight ticket taxes in Europe: environmental and economic impact

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Alicante-G34-O3 Transport and Accessibility, 0-E01, September 1, 2023, 11:00 AM - 1:00 PM

We examine the causal impact of flight ticket taxes on airline supply and emissions and analyse its distributional effects between airlines and travellers and within travellers. We use a dataset on flights within Europe at the airline-route level and apply a staggered difference-in-differences approach considering potential bias of the standard two-way fixed effects and the potential distorting effects of heterogeneities between treated and control routes. We find that flight ticket taxes have a significant overall effect on airline supply and derived emissions, providing evidence that the supply elasticity of airlines is high: ticket taxes reduce the number of flights per airline-route by 12% on average compared to the counterfactual scenario, resulting in a 14% reduction in carbon emissions. In addition, as demand is relatively inelastic to prices, we show that a great part of the tax burden is borne by passengers. Finally, the burden is higher for passengers paying low fares, so taxes have a proportionally stronger effect on avoidable flights with less added value and a smaller internalization of the total costs of flying.

Tourism Carrying Capacity: evidence from Alter Eco Plus Project *

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Online-S11 Opportunities, risks and challenges of the digital transformation in tourism, August 28, 2023, 11:00 AM - 1:00 PM

Currently, overtourism represents one of the biggest challenges for the future of sustainable tourism in those geographic areas that, mainly due to their small size and high seasonality rate, exceed the thresholds defined by carrying capacity limit (CCL). While tourism supports the improvement of certain social and economic conditions, the increase in tourist flows in over-visited destinations has contributed to the exacerbation of effects such as depopulation of historic centers, weakening of community cohesion, changing traditions, pollution, congestion, and difficulty in preserving local identity and its heritage. New technologies, leveraging the processes of socialization and sharing, partly contribute to these processes, while the very introduction of smart technologies can instead support the prevention and management of the over-tourism phenomenon.

Studies on tourism carrying capacity (TCC) lie in the middle between the need to understand tourism pressure phenomena and to implement tourism management, especially through digital tools that support public policy decision-making and mainstreaming processes. Therefore, a data-oriented approach is implied to act quickly in predicting and preventing overcrowding.

The three case studies presented share a common criticality that directly and indirectly affects the destination system. They are therefore analyzed in their systemic reality through a carrying-capacity scenario simulator, which is useful for interpreting future scenarios relative to a predetermined set of indicators. The methodology follows a study edited by Costa and Canestrelli in 1991, which was implemented and translated into a web tool used and presented during the Interreg Med Alter Eco Plus Project. The analysis was conducted with data and survey responses collected in 2020 and provided by destination-partners. The identification of tourism subsystems, classification of users and level of use was required; then, the analysis aimed at maximizing the destination's revenue through understanding the daily expenditure for each profile was carried out. Finally, the result of the tourism carrying capacity was compared with real tourism flows in the destination.

The results are intended to highlight the different degree of critical relation that exists in the internal system of the three destinations when even one subsystem is at the limit of its capacity and how, in this regard, Information and Communications Technology (ICT) can offer viable resolute possibilities.

Rural and urban fertility impacts of COVID-19 stay at home orders

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Alicante-G03-O4 Demographic Change, Population and Migration, 0-C04, August 31, 2023, 2:30 PM -
4:15 PM

Fertility decisions have important implications for long-term societal well-being. Fertility rates below the natural replacement rate pose significant challenges for societies through aging populations and smaller shares of the population participating in the labor force. However, fertility trends have been declining for the past half century in the U.S. and fertility rates are now below natural replacement levels. These issues are particularly relevant to rural areas, with data from the 2020 Decennial Census showing aggregate rural population loss for the first time on record. To mitigate broader societal impacts of declining fertility rates, policymakers must consider how current and future policies impact fertility decisions. Early estimates show the recent COVID-19 pandemic and associated stay-at-home orders have further reduced fertility rates in the United States (Osterman et al. 2022; Kearney and Levine 2022; Bailey, Currie, and Schwandt 2022). Our study builds on this work by using restricted county-level National Center for Health Statistics data to estimate the causal impact of stay-at-home orders on birth and death outcomes across metro and non-metro areas to determine the net impact county specific rates of natural increase. We use exogenous variation from differential timing and duration of shutdown orders across states to determine whether—and to what extent—stay-at-home orders impacted rural and urban demographic factors differently.

Uncovering Differences in Environmental Concern and Behavior in the European Union

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Alicante-G23 Human - Environmental Interactions, 0-D03, August 30, 2023, 2:30 PM - 4:15 PM

This study aims to analyze the difference between environmental concern and behavior within a sample of developed EU countries different in their social capital. The dataset was gathered from the PEW Research Center's "Spring 2021 Global Attitudes Survey," which includes individual responses from 9 European countries (Belgium, France, Germany, Greece, Italy, Netherlands, Spain, Sweden, United Kingdom), along with the corresponding breakdown at NUTS1 level within each country. The study focuses on two questions from the survey questionnaire that pertain to environmental concern and willingness to change behavior among the countries under examination. The first question inquires about the level of personal concern regarding the harmful effects of global climate change: "How concerned are you, if at all, that global climate change will harm you personally at some point in your life? Are you very worried, a little worried, not too worried, or not worried at all?" The second question assesses the willingness to alter personal lifestyle and work habits to mitigate the impact of global climate change: "How much, if anything, would you be willing to change about how you live and work to help reduce the effects of global climate change? Would you be willing to make a lot of changes, some changes, only a few changes, or no changes at all?". The responses to the second question serve as a proxy for actual environmental behavior by representing stated behavior. Trust in government is used to measure social capital (Putnam, 2000; Sarracino et al., 2017) and to classify the countries in the sample accordingly.

The work employs a statistical method, the Combination of a Uniform and a Shifted Binomial distribution model (CUB), developed by Piccolo (2003). The empirical results of the present study suggest that countries with high levels of social capital and strong social norms exhibit a smaller discrepancy between environmental concern and behavior, while countries with lower levels of social capital and weak social norms have a larger discrepancy between the two. The analysis of regional differences within each country reveals that territorial gaps exacerbate these discrepancies, whereas in more territorially cohesive countries, non-territorial differences are less pronounced. These findings carry significant implications for environmental public policies.

Mapping cultural consumption: the friction of space

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Alicante-YS10 Regional Development, August 31, 2023, 11:00 AM - 1:00 PM

This paper advocates for a better understanding of cultural consumption habits in urban contexts by exploring the effects played by the spatial distance between consumers and suppliers on individual levels of cultural consumption. The study moves from the intuition of using HFLB data (GPS) to overcome the lack of traditional data on cultural consumption.

Focusing on the case study of Milan, results reveal the emergence of spatial inequalities both in the distribution of cultural amenities and in individual consumption behaviours. It shows that proximity with cultural amenities describe individual consumption patterns through a negative power-law function and that such relation is stronger for individuals averse to cultural consumption.

Is Wallonia a performing and competitive transition region

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Online-G07 Regional Competitiveness, Innovation and Productivity, August 28, 2023, 2:30 PM - 4:15 PM

Wallonia is widely recognized as a lagging-behind region in Belgium and its structurally poor economic performance, especially with respect to the Flemish region, is a source of tensions within Belgian politics.

This policy paper intends to compare the economic performance of Wallonia with that of other European regions similar in terms of geography and economic structure. In practice, we will take the proximity to metropolitan areas into account at the NUTS2 and NUTS3 level based on a new EC-OECD typology. The baseline database is Ardeco from EC's DG REGIO, which we will consider over the 1996-2019 period. We also intend to elaborate on an approach recently developed by the Belgian Productivity Board to identify regions that show similarities to Wallonia.

Once similar regions have been identified, we will look more closely at some of the key drivers of cross-regional differences in indicators of competitiveness and well-being. Moreover, we plan to draw lessons from case studies of regions that have better performed than Wallonia.

The results of our research should be useful to inform the policy debate in the run-up to the critical legislative and regional elections due to take place in Belgium in May 2024.

The paper is also scheduled for presentation at the National Bank of Belgium's Executive Board meeting of 30 August and for publication in the NBB's Economic Review by November at the latest. Due to this time constraint, I won't be able to be in Alicante and I apply for an online presentation.

A reclassification of Italian inner areas: evidence from Sicily

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Online-G01-O2 Regional and Urban Development, August 28, 2023, 4:45 PM - 6:30 PM

Since 2014, the National Strategy for Inner Areas (SNAI) has categorized Italian municipalities based on their distance from "poles", defined as centers that provide some essential services (at least one hospital with an emergency room, secondary schools, a train station). The "inner areas" (AI) are municipalities located at a certain distance from the poles. The SNAI model has been praised in scientific debates, but it appears to be strongly focused on the provision of the three indicated services. The model neglects demographic, economic, and infrastructural accessibility differences that characterize territories and guide development policies. In this work, we aim to provide a more nuanced representation of the phenomenon and municipalities, going beyond the availability of the three SNAI services. In particular, we propose a reclassification of the AI by selecting some indicators related to two thematic areas: a) accessibility to infrastructure and services, b) demographic and socioeconomic context. Dimensionality reduction is achieved through principal component analysis. Distances are calculated using the Google Maps API. The online platform provides distance matrices that take into account travel time based on traffic conditions, determined by mobility intensity, accidents, as well as road maintenance and alignment. Google Maps, therefore, allows for a more realistic calculation of the temporal distance between locations than traditional sources. The reclassification is applied to municipalities in Sicily (Italy). On the island, economic globalization has exacerbated the contrast between metropolitan areas and depopulation of inner areas in recent decades. The objective of this work is to reclassify Sicilian municipalities based on their degree of peripherality, infrastructural scarcity, and demographic and economic difficulties. The proposed classification is intended as an alternative to SNAI and is not competitive. However, our method is entirely different, based on a different theoretical premise and a greater number of indicators. The initial results show a more detailed division of areas compared to the one that emerged from SNAI. Specifically, it is possible to highlight the critical issues of municipalities in a more precise manner. This could be of great help in developing targeted intervention plans, minimizing waste.

Firms location under water use restrictions in Brazil

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Alicante-S40 Aligning entrepreneurship, sustainability, and regional policy, 1-C14, August 31, 2023,

2:30 PM - 4:15 PM

This research seeks to analyze the importance of spatial availability of water balance in the decision of agents to establish economic activities in the southeast region of Brazil, specifically in the state of São Paulo. Given the characteristics inherent to the decision-making process regarding the location of companies, if a certain economic activity is highly demanding of water, it will move towards proximity to this important resource. In this sense, the future planning of these companies should consider regions where water availability is not a problem. In order to understand the spatial dynamics of the water balance in a region of significant water scarcity, such as the watershed of the Piracicaba, Capivari and Jundiá rivers (PCJ), so-called locational variables will be selected that represent the demand side for water resources. A Geographically Weighted Regression (GWR) model was employed and the results of the principal component analysis were important to define the main variables to be used. Results allowed to make spatial statistical inferences for a future scenario, the year 2030, in order to verify which regions will have, given the stipulated scenario, a greater water balance than the other regions in the state of São Paulo. Therefore, with these results it is possible to establish which location(s) is(are) most suitable for companies whose demands for water are important.

Fuel price asymmetry in Brazil at the retailers level

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Alicante-S20 Sustainable retail trade and changes in urban space, 1-C13, August 30, 2023, 4:45 PM -

6:30 PM

The Brazilian Fuel Market is characterized by having three main fuel types in form of gasoline, ethanol and diesel, with distinct and relevant consumer market. This study aims to investigate in what way gas stations deal with cost shocks to the price they pay to the distributors – if they pass on these price shocks in the same way when they are positive or negative. This was done by applying a cointegration approach, by using an Error Correction Model (ECM) as proposed by Engle and Granger, adapted to allow asymmetric behavior. The model was applied at gas station level, using data from 05/11/2004 to 12/31/2019. The results reinforce previous study conclusions – both in sense that asymmetry should be studied at firm level and in a way that gas stations practice different price strategies for each one of the fuels they sell. Finally, this study tries to relate the results with some of the causes appointed to asymmetric behavior, trying to open new paths for further investigation.

Quantifying the role of regional mobility in assessing true Brain Drain estimates

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Online-YS02a People-based Development - EPAINOS, August 29, 2023, 2:30 PM - 4:15 PM

The debate about the negative (brain drain) or positive (brain gain) effects of high skilled migration for sending countries remains controversial. However, these effects have yet to be studied at (subnational) region of origin, where specific conditions can alter the results and where it is necessary to integrate the internal and international migration in the same framework. We develop here a novel methodology to construct a regional brain drain database showing the migration rates by region of origin and skill level. Then, we explore the possibilities to apply this methodology worldwide and further demonstrate its feasibility by constructing an example dataset with already available data from 6 countries (Argentina, Australia, Belgium, Chile, Mexico and Spain). By doing so we are able to provide true brain drain estimates. Our results suggest that internal brain drain is higher than its external counterpart, that migration rate is higher for more skilled individuals and that there are fewer winners (regions with net positive migration) than losers whereas the relative magnitude of these gains are wider. In the future, this procedure will allow us to test some hypothesis on the relation between high skilled migration and development at subnational level.

CO2 emissions volatility and development

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Alicante-G27-O2 Innovation and Sustainable Development, 0-E01, August 31, 2023, 4:45 PM - 6:30

PM

This paper studies the negative relationship between CO2 emissions volatility and development. We decompose the variance of aggregate CO2 emissions growth into a sector-specific component, country-specific component, sector-country-specific component (and their covariances) and show that aggregate volatility is mainly driven by the sector-country-specific component in all countries. Then, we breakdown this component into the contribution of individual variances and comovements between sectors and find that the former accounts for a larger fraction than the latter. Finally, we document the sector-country-specific component falls with development because sectors' CO2 emissions are on average less volatility and not because richer countries diversify.

Impact of the insertion of small-scale mango and lemon producers of Tolima (Colombia) into global value chains on employment quality

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Alicante-G07-O3 Regional Competitiveness, Innovation and Productivity, 0-C03, September 1, 2023,
9:00 AM - 10:30 AM

Historically, small agricultural producers of Colombia have been limited by the power of local intermediaries, perceive low levels of income from informal employment processes, have minimum access to credit and technological transfer and live under some level of poverty. This is the case for many producers of mango and lemon in different areas of Tolima. On the other hand, public policy to promote the achievement of the sustainable development goals focuses on the significant reduction of poverty and the productive and social inclusion of vulnerable sectors of the population. In the context of globalization, particularly over the last two decades, public policymakers have considered following the guidelines for poverty reduction of international cooperation agencies on the importance of promoting the incorporation of small agricultural producers into global value chains. However, one issue that has not been given sufficient importance is the identification of the impact on employment quality of the insertion of small-scale agricultural producers into global value chains (GVCs). The increasing levels of uncertainty derived from dramatic changes in the international context make the option of insertion in global value chains even more complex. In any case, the improvement in labor competences for small agricultural producers still a very important issue, no matter what their market orientation (regional, national, or international) is.

The project is oriented to elaborate around a central question: does the insertion of small-scale mango and lemon producers in Tolima into GVCs contribute to processes of social inclusion through the formalization of the labor force or substantial improvements in the quality of employment?

The theoretical framework is supported by two fields of literature, GVCs (Gereffi, Korzeniewicz, and Korzeniewicz, 1994; Pietrobelli, 2008; Kaplinsky and Morris, 2018) and employment and labor studies, in particular the area associated with human resource development (G20, 2011; UNCTAD, 2013; ILO, 2015; IFAD, 2016)

Based on the aforementioned, the objective is to explore the impact on employment quality of the insertion of small-scale agricultural producers into global value chains (GVCs).

The research approach is mixed since it addresses both quantitative and qualitative aspects. The scope of the research is exploratory, descriptive, and correlational. The data comes mainly from primary sources: small farmers or producers in the municipalities of Tolima where lemon and mango are grown. In addition, interviews are conducted with association managers, international buyers, and institutional actors in the chain

The value of science and technology parks: a socio-organisational perspective

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Online-G09-O2 Innovation and Regional Development, August 28, 2023, 4:45 PM - 6:30 PM

In recent decades, science and technology parks (STPs) have been contributing to regional development. Different metrics and methods of measuring have been proposed to calculate this positive contribution. In this study, we propose a methodology to calculate the social value generated by organizations towards STPs. With the collaboration of the International Association of Science Parks and Areas of Innovation (IASP), we create an initial pool (community) of fourteen STPs who are interested in the topic of social value analysis to test this methodology. We obtain preliminary results of the social value generated by fourteen European STPs for each of the relevant STP stakeholders, thus deriving summary values and indicators useful to the comparison. This methodology allows us to present the social value predominantly using secondary data, which is available in open sources of information. In addition, we focus on three Italian STPs based in the region of Lombardy, to explore how organisational conditions in the STP management institutions can condition the results in terms of the social value achieved by STPs. For explaining the performance of the STPs we are interested in analyse in depth the origin of these performance: at the end of the presentation and discussion of the social and economic state of the Italian parks, we suppose that one of performance source could be the governance and management systems of the STPs. In a socio-organizational context we propose a starting model to analyse these variables as one of the possible perspectives in progression of our research.

Urban green for resilient cities: insights from Dutch cities

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Online-S22 Spatial dimensions of climate change, August 28, 2023, 2:30 PM - 4:15 PM

Urban nature increases the liveability of cities and can improve their resilience to climate change. However, the value of urban nature often remains unknown, which results in its omission from urban planning decisions. Particularly the valuation of small-sized urban nature remains understudied. This study, therefore, employs a stated preference methodology to estimate the economic value of seven types of small urban nature and four associated ecosystem services: namely, temperature regulation, flooding risk regulation, air quality regulation, and biodiversity. We perform two choice experiments: one with urban parks, urban forests and green corridors and another one with even smaller urban nature types (green roofs, green walls, street trees, and green beds). The results of the choice analysis show that urban residents are willing to pay more for the former types of urban nature but not for the latter types. Urban parks are valued the most, followed by urban forests and green corridors. Within the smallest urban nature types category, street trees are valued most followed by green beds and green walls, whereas green roofs are least valued. In terms of ecosystem services, urban residents are most willing to pay for increased urban biodiversity. Urban nature's contribution to flood risk reduction, cooling, and improved air quality is valued substantially lower. We discuss various opportunities and barriers to implementing the valuation results in urban planning practices. Exploratory interviews reveal that practitioners and planners are most likely to use the results of this study as an instrument to convince other stakeholders and form more effective alliances for greening projects in urban areas. We discuss opportunities and barriers to implementing economic valuation results in urban planning practices. Several policy and future research recommendations are proposed.

Juvenile delinquency in urban-rural context. The case of Wielkopolska region, Poland

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Alicante-G04 Urban-Rural Relationships, 1-B01, August 31, 2023, 4:45 PM - 6:30 PM

Juvenile delinquency is a severe issue discussed more and more often in various media. Recent years have proved a profound crisis in society, including children and youth, which is reflected in a significant increase in the number of juvenile delinquency acts.

The aim of the paper is to focus on the urban-rural context of juvenile delinquency and to determine the factors contributing to the criminal behavior of minors in the Wielkopolska region (Poland) in the years 2017-2021.

The settlement system of the Wielkopolska region consists of 115 cities (the highest number among Polish regions) and 4356 villages (as of 2021), located in 35 poviats. For the purpose of the study, cities were grouped into the following categories: small cities (up to 2 thousand inhabitants, 2-5, 5-10 and 10-20), medium cities (20-50, 50-100) and big cities (100-200 and above 200). The urbanization rate is 53,6% (as of 2021), and that balance makes it interesting to investigate the urban-rural context of juvenile delinquency.

The analysis concern changes in the number of juvenile delinquency acts committed, paying spatial attention to crimes in the category of narcotics offenses, which are characterized by the highest crime rates. The analysis is supplemented by determining the interdependency between the level of juvenile delinquency and factors of crime using Pearson's linear correlation coefficient.

The study attempts to answer the research questions based on the data from 2017-2021 obtained from the Police.

Safety perceptions and victimization of LGBT+ people in public places. The case of Poznań, Poland

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Alicante-S58 The geographies of hate, violence and intolerance against vulnerable groups, 1-D14,
August 30, 2023, 4:45 PM - 6:30 PM

Poland is one of the least gay-friendly countries in Europe and the least gay-friendly country in the European Union. LGBT+ people struggle with not-supporting laws which do not equalize them with non-LGBT+ people (ILGA Europe). Social acceptance of LGBT+ people in Poland is much lower than the average for the European Union (Eurobarometer on Discrimination 2019). All of this makes a difficult situation for LGBT+ people in Poland, especially for their safety and victimization.

The study focuses on the safety perceptions and victimization of LGBT+ people in public (e.g., streets, parks, squares, etc.) and private (e.g., own flat/house) places in Poznań, Poland.

The research was carried out on the basis of empirical material obtained from questionnaires addressed to LGBT+ and non-LGBT+ people from Poznań, Poland. The survey was conducted online in 2021/2022. I received 282 questionnaires. Having non-LGBT+ people respondents allowed to compare safety perceptions and victimization of the two groups.

The Zipf's law as the unique equilibrium in systems of cities

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Alicante-G01-O5 Region Urban Development, 0-C02, August 31, 2023, 2:30 PM - 4:15 PM

It is well known that the standard system of cities suffers from two major drawbacks. A spatial equilibrium i)- is not unique and ii)- cannot reproduce the basic fact that big cities follow an exact Zipf's law under credible conditions. To fix this long-lasting puzzle, I build a new theory of systems of cities that generates three key results. First, the standard indirect utility function à la Henderson is obtained using hyperbolic preferences. Second, a Zipf's law can hold in the model, depending on the value of TFP parameters. Third, a unique spatial equilibrium can be obtained, depending on the value of agricultural rents.

Monopolistic competition, free entry and occupations in the city

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Alicante-G11-O3 Entrepreneurship and Regional Development, 0-C04, September 1, 2023, 9:00 AM -

10:30 AM

Constant Elasticity of Substitution (CES) demand systems are building blocks in many economic fields. On top of its simplicity/tractability, these systems constitute the only case where the decentralized economy sustains the social allocation. In this theoretical article, we demonstrate that this feature is not robust to the inclusion of entrepreneurship and space. Toward that goal, we develop a city model with monopolistic competition, CES preferences, and where entry is determined through occupational choice. We provide a full analysis of the market outcome. Notably, we highlight the presence of general equilibrium linkages left out by traditional models. These new linkages generate a striking result that contradicts conventional wisdom. Even if preferences are CES, the market outcome does not deliver optimum product diversity, which makes the city size inefficient. In particular, the market outcome generates an under-provision of diversity, and urban growth is too large compared to what is socially desirable.

The production of space and its foundation of inequality. How commons can draw a third way.

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Online-G28 Segregation, Social and Spatial Inequalities, August 29, 2023, 11:00 AM - 1:00 PM

The purpose of this presentation is to outline – by combining theory and practice - the close relationship between space and the concept of justice.

In the first part of the paper, we will try to give a theoretical overview of the theory of social space by explaining why it can be defined a generator of social injustice, especially dealing with Henri Lefebvre's theories of space production and Trialectics (Lefebvre, 1991). In the second part, instead, we will address collective urban actions as practical examples of public space reappropriation (De Rossi, 2018). More specifically, we will discuss the Villa Celestina (Bologna) Case Study as an example of common good reclaiming action by the local community.

Commonly, the concept of space has been treated as a geometric entity spurious from any social and political relationships (Lefebvre, 1991; Elden, 2013). Space, understood as a container of events, objects and occurrences has not been considered in its social and political poignancy, with respect to which, especially the contribution of Henri Lefebvre, helped to refine its understanding. Starting from his analysis, which identifies space both as a product and a producer of social relations it becomes the vantage point from which analyze the intricate network of relations, but above all, the place where a certain hierarchy of power is established (Lefebvre, 1991). The phenomenon of space production, in this sense, is strictly political (Lefebvre, 1991; Vegetti, 2017) and absolutely linked to the power networks established in space.

By orienting the theory of space production in a practical sense, we will question the role of citizens in transforming their daily spaces. In this sense, common goods seem to be a viable way of enabling citizens to regain their own space, reserving it with an internal and conscious focus on social needs. In order to understand this relationship we will try to interrogate the network of relationships that are formed with the aim of reacting to spatial injustice dynamics (Ferilli et al., 2016) as an attempt of «daily survival in order not to be crushed by the fates of fraying and abandonment of the neighborhood» (Magatti, 2007). Specifically, we will address the Villa Celestina case study (Bologna) showcasing how this space has been reappropriated and rethought as a common good, through the establishment of Patti di Collaborazione (Collaboration Pacts) between the local municipality and the citizens consortium (Labsus, 2022).

Royalties and Regional Disparities in Colombia

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Alicante-G02-O2 Regional and Urban Policy and Governance, 0-C03, August 31, 2023, 2:30 PM - 4:15 PM

The extraction of non-renewable natural resources has the potential to generate revenue to finance government activities. One of the most used tax tools is the collection of royalties from mining projects because they are usually unrelated to their profitability. Rent capturing through taxation may enhance the public sector's ability to harness natural resources' potential to sustain a broad-based development. Imposing royalties to mining operations may bring substantial costs to the economy (Ergas et al., 2010; Dobraand Dobra, 2013; Postali, 2015), including resource sterilization and its consequences (Lilford, 2017). There are potential losses for the industry, which must face additional costs to its operations. Nonetheless, if recycled into the economy to finance public expenditures, royalties' revenues may provide upfront benefits to the government.

Colombia, an important oil and coal producer and exporter in Latin America, is pursuing success in this endeavor. The country's strategy, associated with the Sistema General de Regalías (SGR), is grounded on asset formation through domestic investment, focusing on the long-term intergenerational transfer of wealth and upfront expenditures to generate short-run growth effects, with a strong focus on social and regional equity. Using a computable regional equilibrium model, this paper estimates the general equilibrium effects of royalty payments by mining activities in the regional development in Colombia. The results indicate that the benefits in welfare and the reduction of regional inequalities, due to the imposition of royalties, are greater than the losses that it can generate in the regional output. Further results show the presence of regional and sectoral heterogeneities. The main contribution of this paper is that, to the best of the authors' knowledge, it is the first time that the effects of a royalties' reform in Colombia are analyzed in a general equilibrium setup.

How participation and building a hiking community shape spatiotemporal behaviour and contribute to sustainable tourism and tourism sustainability

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Alicante-S69 The role of participatory approaches in tourism and sustainable development, 1-D13,

August 31, 2023, 4:45 PM - 6:30 PM

Tourism is a multifaceted industry with a complicated relationship to sustainability. Understanding the link between the tourism experience and spatiotemporal behavior is key to tourism sustainability as conscious communities of tourists can become ‘change agents’ for sustainability transitions. The motivation for this paper is to search for an answer to the question of how to connect sustainable tourism and tourism sustainability through the search for new and inspiring approaches to specific types of tourism, such as hiking. Our paper aims to analyse how participation and building a hiking community shape spatiotemporal behaviour and possibly contribute to sustainable tourism and tourism sustainability at the same time. For this purpose, we provide an exploratory study of the hikemates organisation and its activities.

Based on primary and secondary data and social media analytics, the paper examines the core activities of hikemates, analyses participatory approaches such as community building, social capital building, crowdfunding, and volunteering, and assesses their possible impact on sustainable tourism and tourism sustainability.

The paper presents new empirically grounded research and outlines possible methodological innovations to understand the role of participation and communities in shaping the future of the tourism industry. Hikemates as a community of conscious tourists can serve as an inspiring example for other tourism industries and contribute to the sustainability and resilience of tourism.

The role and importance of intangible heritage in the revitalisation process

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Alicante-G37 Cultural Heritage and Regional Development, 0-E01, August 30, 2023, 4:45 PM - 6:30 PM

Polish cities are undergoing constant change and, in an era of intense socio-economic, environmental and political transformation, they face many problems and challenges. In order to effectively solve the problems and challenges arising in cities, it is necessary to apply strategic management tools in local government units. Development processes (including revitalisation) can be steered using a range of tools. Local authorities responsible for development control in local government units, such as cities, have at their disposal a wide range of development policy instruments and can actively shape development processes. Revitalisation programmes are one of the key tools of integrated planning used in Polish cities to bring urban areas out of crisis. In revitalisation processes many cities make use of cultural heritage (tangible and intangible). Cultural values are a type of territorial capital and development resource to be experienced and enjoyed not only by local residents, but also by tourists. Culture and heritage are natural areas of human activity, and better embedding society in their values has the potential to equip society with the competences and skills for creative approaches and problem solving.

The participation and involvement of the local community, which is both a beneficiary of development processes and a co-decision maker, are nowadays crucial for the development of a local authority. Cultural heritage positively influences the quality of life by building social ties, strengthening the sense of local identity and pride in the place of residence. Local patriotism and a sense of belonging have a significant impact on satisfaction with the place of residence. Cultural heritage, especially intangible heritage, naturally involves the local community and strengthens revitalisation processes. The study attempts to:

- Identify the use of intangible heritage elements in stimulating development processes (revitalisation programme, heritage care programme);
- Identification of the types of intangible heritage and how they are used.
- Identification of actors involved in the protection and use of intangible heritage in revitalisation programmes.
- Identification of problems and challenges in the identification as well as the use of intangible heritage in revitalisation programmes.

The study used the following methods: literature studies, desk research and web research. The considerations were also supplemented by the author's expert experience resulting from cooperation with local government units at various levels in the preparation of revitalisation programmes and development strategies. For the analysis the cities of Łódzkie Voivodeship which implement integrated development policy on the basis of revitalisation programmes were selected.

The reconstruction of L'Aquila in people's emotions. Using Artificial Intelligence to retrace sentiments towards the long-term post-disaster recovery process

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Alicante-YS01 People-based Development and Policies - EPAINOS, August 31, 2023, 11:00 AM - 1:00 PM

In recent years, the study of sentiments expressed on social media in disaster scenarios has increased. The role of social platforms in disaster management has traditionally been focused on the crucial function that microblogs take for real-time data or in the very early stages of recovery. Relatively less attention has been devoted to the sentiment expressed in the long term. To understand the long-run effects of a disaster on public emotions, this paper examines the sentiments towards the city of L'Aquila and its recovery process after the 2009 earthquake using Twitter data collected for more than a decade. The analysis is performed using a Robustly Bidirectional Encoder Representations from Transformers (RoBERTa) classification model that categorises 53610 tweets by sentiment (positive or negative) and emotion (anger, fear, joy, sadness). To disentangle the causes behind these sentiments, a text analysis is performed in order to extract the ten most frequent words that characterise tweets for each emotion. The study shows that the sadness and fear of the immediate post-disaster are replaced with a constant increase in public anger in the first five years of stagnation of the reconstruction process. Anger is exacerbated by factors such as excessive politicisation, the controversial communication of the early post-disaster, corruption, and inadequate early emergency policies. In the midterm, the start of the reconstruction and the investments in cultural events partly mitigate anger. After ten years, with the process projected to its end, the public opinion on L'Aquila reconstruction becomes constant, without significant changes in the proportion of anger, fear, joy, or sadness, with the latter remaining predominant in the few reconstruction-related tweets. In addition to the analysis of the post-disaster dynamics and the effect of reconstruction policies, this paper highlights the role that AI and sentiment analysis can play in reconstructing the phases of long-term post-disaster management.

Smart specialization: New industrialization paths for Casablanca

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Alicante-G16 Smart Specialization, 0-C02, August 30, 2023, 2:30 PM - 4:15 PM

The research for the renewal of the productive system of the industrial lung of Morocco, namely the region of Casablanca-Settat (CS), requires alternative quantitative bases. Also, we propose to adapt the smart specialization framework to CS based on their relatedness density (Hidalgo et al., 2018) and their level of complexity (Hidalgo & Hausmann, 2009) as developed in the context of support for innovation (P.-A. Balland et al., 2019). For this, we use data relating to the exports, in 2015, of nearly 8000 establishments by region of Morocco (12) and industrial activities (223) by using the Econgeo R package (P. A. Balland, 2017).

Thus, CS has exhausted all the possibilities of the “high-road” policy and can only qualify for it through a greenfield establishment of companies in the same way as the former industrial regions (Example of Lancashire). On the other hand, two activities (transformation of tea and coffee and manufacture of plaster) can be supported in a logic of strategic betting (“Casino” policy with high expected gain but at a cost which is also high).

Moreover, CS can develop in a logic of parsimonious strategy along the activities of the “slow-road” policy by supporting existing companies, and which already export in these activities but without having a relative comparative advantage, or those to be brought out (Aluminum metallurgy; treatment and coating of metals; manufacture of electrical equipment, etc.). On the other hand, CS would engage in a “dead-end” policy by supporting the activities of the south-west quadrant (processing and preservation of vegetables, production of refreshing drinks, manufacture of cement, etc.) linked to a low expected gain coupled with a high cost.

Thus, CS presents the widest portfolio of potential industrial smart specialization activities (21 activities outside the "dead-end" policy) and very diversified in the same way as the regional hubs (Example of Ile-de-France). This reveals the capacity of the economic capital region to broaden its spectrum of industrial specialization either in a parsimonious way with prospects for growth and gradual valuation but coupled with low risk and cost or in the form of a strategic bet with growth prospects and high valuation but coupled with high risk and cost (Example of Noord-Brabant region).

What are the impacts of Cohesion policies on the trade-off between employment and productivity?

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Alicante-G01-O1 Regional and Urban Development, 0-B02, August 30, 2023, 2:30 PM - 4:15 PM

The economic literature has shown how employment growth generally comes at the expense of productivity growth (Enflo, 2010; Choudhry and Ark, 2010). Yet this issue raises important policy conundrums. For example, policies that aim to promote labour-intensive industries in developing regions in order to foster rapid employment growth may paradoxically retard productivity growth and run counter to the objective of rapid and sustainable economic growth. This issue is important in the context of Cohesion Policy as it works to deliver higher growth and employment in the EU's regions (Crescenzi et al., 2020).

In this paper we address the existence of policy trade-offs affecting the impact of European Structural and Investment Funds (ESIFs) in the EU NUTS2 regions through a novel empirical approach based on the combination of a multi-input multi-output distance function and a geographically weighted regression (GWR) approach. Using series from the "Historic EU payments" provided by the EU Commission, which supply relatively long and consistent time series for ESIFs throughout the EU, as well as other series from the Eurostat Regio database, we explore the possibility that the EU Cohesion Policy has a different impact on the components of GDP per capita, namely GDP per employee (labour productivity) and employment rate. We also shed light on the factors affecting this trade-off between productivity and employment, distinguishing between national and regional elements.

The separation of the impact on labour productivity from that on employment rate is achieved through a multi-input multi-output transformation function (Coelli et al., 1999; Kumbhakar et al., 2012; Kumbhakar, 2013) that allows for their joint determination and the possible existence of interaction effects among their determinants. Through the GWR approach we can detect spatial non-stationarity in the parameters of the transformation function and highlight the role of spatial dependence and heterogeneity in this function (Bourdin, 2019). Additionally, we deal with the selection bias typical of counterfactual policy evaluation through a control function approach (Coppola et al., 2018).

Preliminary results indicate that ESIFs are very significant for the determination of GDP per capita. When GDP per capita is decomposed in GDP per employee and employment rate, we find, particularly for the employment rate, (i) effects of the ERDF, the ESF and the EAFRD that follow different spatial patterns, (ii) significant interactions effects between the ERDF and the ESF. These results provide insights on important policy issues that are difficult to be unveiled with more usual estimation techniques.

Are the lagging regions the most peripheral?

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Alicante-G01-O4 Region Urban Development, 0-C01, September 1, 2023, 11:00 AM - 1:00 PM

The analysis of regional convergence processes in Europe is not new in the regional science literature (Abreu et al., 2005; Dall'erba and Le Gallo, 2008; Mohl, 2016; Bourdin, 2019). These empirical studies on economic convergence often present contradictory results. The question underlying these studies is not innocent. Can we really expect a convergence of European regional GDP per capita levels in the long run? The desire to reduce disparities between European regions is not new and was already included in the preamble of the Treaty of Rome (see Article 2 of the Treaty) (Mendez, 2011; Medeiros, 2016).

However, if this convergence dynamic appears to have been heterogeneous over time: the central regions, the eastern regions or the outermost regions of the European Union have thus experienced different rates of convergence. This spatial heterogeneity has been highlighted in the literature (Bourdin, 2019), which, for example, supports the importance of spatial factors such as distance and gravitational effects, or of great remoteness, such as that of the ORs, which are several thousand kilometres away. Similarly, several studies (Beine and Jean-Pierre, 2000; Diemer et al. 2022) have highlighted the existence of development traps leading to convergence clubs.

This reading of the dynamics in terms of clubs has the advantage of raising the risk of inappropriateness of convergence policies initially designed for a homogeneous set of converging regions, while studies such as Diemer et al. (2022) highlight the diversity of growth contexts. For example, these authors show that even initially prosperous, centrally located regions can experience a period of stagnation, while less prosperous regions further away from the centre can be associated with a more vigorous growth process. These results therefore seem to suggest that the associations between centre-dynamic and periphery-stagnation are not, or no longer, necessarily what we think. In other words, is the notion of peripheral regions as regions far from the centre and in difficulty still valid? Are the peripheral regions always what we think they are?

This is the question that this article will try to answer by mobilising the threshold effects that allow us to distinguish between different regimes of growth/convergence. More specifically, our work will complement the work of Beine and Jean-Pierre (2000) and Diemer et al. (2022) by mobilising the Hansen threshold test framework and drawing on the analysis of convergence dynamics proposed by Kant et al.

The effect of cutting down trees and other changes in green space on house prices in Amsterdam

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Alicante-YS06 Sustainable Development, August 31, 2023, 11:00 AM - 1:00 PM

This paper attempts to identify the causal effect of a loss in trees for Amsterdam. There is a lot of pressure on green space in Amsterdam because of densification. However, green space has many benefits for residents such as environmental, social and economic benefits. The paper utilizes a staggered Difference-in-Difference application of Hedonic Pricing Analysis. Data is utilized from Dutch real estate agents (NVM), the municipality of Amsterdam, aerial photography and Boomregister data on trees. Houses that are sold within near proximity of a tree that was cut down are used as a treatment group and are compared to a control group of houses further away from the cut down tree. The trees are cut down for unplanned reasons such as disease. Using this exogenous shock as treatment can help estimate a more convincing causal effect of the loss in green space on housing prices. Results find a 2 percent negative and statistically significant effect on housing prices resulting from the tree that was cut down. Change in other green space is also taken into account, as previous papers that estimate the effect of green space on housing prices do not usually include multiple data points for green space. The results found are comparable to previous literature.

Photovoice, open data and Artificial Intelligence: implementation of a methodology for social innovation and sustainable co-design processes

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Online-YS01 Housing and Identity - EPAINOS, August 29, 2023, 2:30 PM - 4:15 PM

This contribution presents a visual methodology of Participatory Action Research (PAR) called "Photovoice" (C. Wang & Burris, 1997; C.C. Wang, 2006) - the use of this methodology is reported in literature for community engagement and social innovation, especially in developing or left-behind regions (Adams et al., 2017; Bova, 2022; Derr & Simons, 2020; Fantini, 2017; Trout et al., 2019) - in which artificial intelligence imaging tools are integrated into the process towards sustainable co-design.

Development processes are highly complex and dependent on contextualized situations. The multidisciplinary approach allowed by such PAR methodologies - linked to innovative tools and open data - theoretically improves community engagement, facilitates bottom-up governance and decision-making processes. Finally, this contribution aims to present the testing of this particular visual methodology called "photovoice" using innovative tools based on artificial intelligence. Appropriately adapted, for stress testing, the methodology was combined with the use of recent tools: the first tool is based on open data, the web platform "Monithon"; the other one is "Midjourney", an AI-based imaging tool that have become partially open.

The results of the application of the methodology in two case studies in Italy will be presented and compared. Both applications of Photovoice are integrated into educational pathways for schools that have facilitated the engagement of young students residing in the areas (of the case studies themselves). The first application took place in the Grecanica area of Reggio Calabria – a left behind and low-density area – where the use of the method allowed the students to produce a civic monitoring report on the spending of European funds, using the open-web-platform "Monithon" (Monithon - Civic monitoring marathon of public policies, 2021). The second application of the method involved about 20 students from the Metropolitan City of Reggio Calabria using the method to describe urban issues as perceived and experienced by them. Finally, focus groups produced textual "prompts" for the generation of images useful for proposing solutions about the regeneration of places in a sustainable way. Lastly, for this second application, the prompts were used within "Midjourney" (Midjourney, 2022): a chatbot that communicates with an artificial intelligence whose task is to produce images that are as faithful as possible to the textual description provided.

High-Frequency Google Trends Dynamics as Tool for the Guidance of Open-Source Intelligence in the Post-Truth age.

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Alicante-S08 Local Cultural Context and Its Emoting Variations: Machine Learning Approaches, 1-C13,
August 30, 2023, 11:00 AM - 1:00 PM

The rapid uptake of digital technologies across human life generates an unprecedented volume of user-created data that is forecast to reach 4.63×10^{20} bytes by 2025. This sheer amount of data creation provides an opportunity to understand peoples' informational needs and ultimately develop tools that better serve individuals, organisations, and society. To do this, the methods of Artificial Intelligence (AI) must be better integrated within the social sciences questioning of contemporary realities. Doing so will promote greater uptake and provide optimal insights to the public, policymakers, and journalists.

In the current environment, digital technologies mediate our relationships and experiences. People rely on digital services and devices to consume, communicate, be informed, and be entertained. Finely grained insights from the interplay between technology usage and people's psychological, social, economic, political, and cultural digital experiences are essential to understand contemporary society. When equipped with cross-disciplinary knowledge, at the intersection of social & behavioural Sciences and AI, researchers and practitioners will be better able to map the functional connections between sections of individuals' digital lives and the zeitgeist, the defining spirit or mood of an epoch. The dynamic informational contexts produced by the COVID-19 pandemic and the current Russian aggression on Ukraine are unprecedented and unanticipated opportunities to understand how sudden global shocks modulate people's online searches.

The present paper presents a series of historical and real-time analyses investigating how highly granular digital data can augment population-scale knowledge gained from traditional means. I will present how we validated strong temporal linkages in the digital surveillance of search engines' time series during COVID-19 and the conflict in Ukraine. Then I will show how high-frequency search-listening analytics provide robust, finely-grained, and replicable evidence on variation in population-level-aggregates of mental health. Finally, I will review the evidence we gathered in multilinguistic search-listening research that analysed the relationship between online search behaviour and an individual's well-being in Romania, France, Turkey, Italy, Germany, Ukraine, and the United Kingdom.

This body of evidence will be discussed against the backdrops of 1-a global information war where facts are targets and the truth not absolute, and 2-the need for academic research to transparently contribute to the intelligent systems that analyse, synthesize, and safeguard data. Understanding the informational needs that characterise an epoch can help expose and counter the information distortions onto which autocrats prosper and rewrite historical narratives.

Infrastructure proximity and sustainability practices: the case of Italian SMEs

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Alicante-G18-O3 Institutions, Political and Decisional Processes, 0-D01, September 1, 2023, 11:00 AM
- 1:00 PM

In this paper the aim is to analyze the role of transport infrastructure proximity in fostering companies' sustainability practices. One stream of the literature has focused on the role that infrastructure has in promoting local productivity and consumption, the relocation of businesses and households, and local growth patterns (Blanquart and Koning, 2017). Another stream has investigated the role of proximity on the innovative performance of firms through the concept of agglomeration economies (Boschma and Frenken, 2010; Tubiana et al., 2022). To our knowledge not many papers have analyzed the relation of accessibility (measured as infrastructure proximity) on sustainability practices of firms. Our paper is closely related to Chen et al. (2021) who study the effects of transportation infrastructure development on firms' CSR performance in China.

The closeness of the firm to the infrastructure can increase firms' sustainability practices since infrastructure brings public attention and pressure. With reduced barriers to information sharing and increased transparency, stakeholders can better know the firm, express their opinions, adopt actions to put pressure on firms and expect firms to guarantee their maximum interests. Therefore, the enhanced accessibility of information leads to a more competitive environment and to higher operational pressures (Delgado-Ceballos et al., 2012).

We study this relation using a unique survey integrated with balance sheet information from AIDA Bureau van Dijk. The survey of around 50 question is conducted on a sample of almost 300 SMEs of the Province of Brescia (Italy). The questions concern firms' sustainability activities regarding environmental, social, and governance issues. By means of factor analysis, we construct a sustainability index, and we regress it on the distance in Km that each firm has from the nearest motorway entrance. We also consider some control variables such as leverage, ROA, age, whether the sector is regulated, sector dummies and municipalities dummies.

Results show that indeed firm proximity to the infrastructure increases sustainability practices especially when the latter are addressed towards social matters. In addition, results point out that larger and more profitable firms together with more concentrated sectors, which are less influenced by stakeholders' interests, are characterized by a smaller effect (moderating effect). We address the omitted variable problem by adopting a sample splitting approach used in the literature (see for example Aghion et al. 2012).

Blue Space and Subjective Well-being: A Review of Published Literature in the European Union

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Alicante-S78-S3 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 2:30 PM - 4:15 PM

This paper aims at systematically reviewing published research on blue spaces and well-being in the European Union. The review shows how there is a growing amount of research on how natural environments, particularly parks and forests, are important assets to public health. However, the effects of blue spaces on well-being are still underexplored. Studies were selected through online databases and chosen based on their relevance to different types of well-being and exposure to blue environments. The heterogeneous results show that there are still some discrepancies on how public health is affected by water exposure. The analysis shows that active exposure, like swimming in the sea, has been extremely beneficial to well-being and mental health. However, less coherent information is given on how passive exposure, as in relaxing on the beach or walking alongside water, is affecting health. Public health is also affected by other determinants, such as accessibility to facilities, availability of clean bathing sites, conservation of nature and more. EU Environmental Policy, through the Bathing Water Directive, is crucial to maintaining high water quality standards and tries to mend these different factors to maximise health benefits and use blue spaces as tools to tackle climate change. The review shows that the BlueHealth project aims at merging these components together and finding solutions to improve and preserve blue infrastructures throughout urban spaces, especially in deprived neighbourhoods.

Uncertainty in Socio-Demographic Variables and Mental Health: A methodological approach from regional science

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Alicante-S30 A look backwards at Covid-19: Mental health, uncertainty, and place, 1-C14, September 1, 2023, 11:00 AM - 1:00 PM

Questionnaires are among the most basic and widespread tools to assess the mental health of a population in epidemiological and public health studies. Their most obvious advantage (first-hand self-report) is also the source of its main problems: the raw data require interpretation and are a snapshot of the specific sample's status at a given time. Efforts to deal with both issues created a bi-dimensional space defined by two orthogonal axes, in which most of the quantitative mental health research can be located. Methods aimed to assure that mental health diagnoses are solidly grounded on existing raw data are part of the individual validity axis. Tools allowing the generalization of the results across the entire population, compose the collective validity axis. This paper raises a different question. Since one goal of mental health assessments is to obtain results that can be generalized to some extent, an important question is how robust a questionnaire result is when applied to a different population or to the same population at a different time. In this case, there is a deep uncertainty, without any a priori probabilistic information. The main claim of this paper is that this task requires the development of a new robustness to deep uncertainty axis, defining a three-dimensional research space. We demonstrate the analysis of deep uncertainty using the concept of robustness in info-gap decision theory. Based on data from questionnaires collected before and during the Covid-19 pandemic, we first locate a mental health assessment in the space defined by the individual validity axis and the collective validity axis. Then we develop a model of info-gap robustness to mental health assessment, showing how the robustness to deep uncertainty axis interacts with the other two axes, highlighting the contributions and the limitations of this approach.

Mental health and Covid-19: The influence of region, city, and geography

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Alicante-S30 A look backwards at Covid-19: Mental health, uncertainty, and place, 1-C14, September 1, 2023, 11:00 AM - 1:00 PM

Increasing evidence suggests that characteristics of environments where individuals live, such as their residential neighbourhood, are associated with mental health patterns. The specific research questions are two: To what extent do neighbourhood characteristics influence individuals' mental and psychological well-being in the context of the COVID-19 epidemic? In particular, are there locational and urban characteristics that may alleviate mental health distress? To this end we study spatial associations between mental health disorders and individual and region-specific socio-economic characteristics of respondents before and during the COVID-19 pandemic. The results suggest that the interaction between individual characteristics and mental health disorders are mediated, at least partially, by the characteristics of the local environments where individuals live. However, the strength of these correlations depends also on the period characteristics. In normal times, neighbourhood characteristics seem to be influential. In emergency times, like during the Covid-19 pandemic, the characteristics of the urban (or even the functional urban area) become more important.

Peer interactions, local markets, and wages: Evidence from Italy

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Online-G35-O1 Regional and Urban Labour Markets and Entrepreneurship, August 28, 2023, 11:00 AM
- 1:00 PM

This paper investigates the relationship between the spatial distribution of occupations with a high content of peer interactions and wages among Italian provinces. At this aim, we use a unique employer-employee dataset obtained by merging administrative data on wages and labor market histories of individuals, with survey data on job tasks and contents. The spatial distribution of jobs intensive in peer-interactions is further measured according to the occupational structure of Italian provinces. The econometric analysis shows that the concentration of peer interactions leads to higher wages at the province level. These results are robust to firms and workers' heterogeneity and endogeneity issues.

On Polish employees in Germany

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Alicante-S18-S1 Drivers and impacts of migration: new insights on the role of local labour markets, human capital, remote work, and (family) networks, 1-C14, August 31, 2023, 2:30 PM - 4:15 PM

In the past Germany had a substantial inflow of individuals from Poland. The majority of them are in employment; their share is even higher compared to the Germans. Thus, Polish employees substantially contribute to the German economy. In this paper we analyse the structure of Polish employees in more detail. We consider individual characteristics, their educational and vocational degrees, their occupations, their labour market performance such as unemployment, and their wage structure in comparison to the Germans. To identify potential selectivity in space, we also consider the Polish's employee distribution with respect to agglomerated, urbanized and peripheral regions. We aim to consider Polish data on employment and outmigration to better understand the economic impact of the outmigration for Poland. An outmigration leads to a reduction in unemployment but potential also to labour shortages.

Three Decades of Polish Socio-Economic Transformations: Modernisation of Transport Infrastructure and Changes in Spatial Accessibility

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Alicante-G34-O2 Transport and Accessibility, 0-E01, September 1, 2023, 9:00 AM - 10:30 AM

The aim of the lecture is to present the spatial changes which occurred in Poland in the years 1990–2020 in terms of the development of the transport infrastructure. The study presents, amongst other things, information on the development of road, rail, and air transport infrastructures in Poland. An important aim of the study is also to determine the spatial accessibility of the selected locations in the country, in diverse scales and to determine the impact of the infrastructural investments on its changes.

In the presentation, the use is made of information received from secondary sources, including, above all, institutions dedicated to gather statistical data (e.g. Statistics Poland). Statistical information was also obtained from those units which manage the respective road, rail, and air infrastructure systems, including the General Directorate of the National Roads and Motorways, PKP PLK (Polish National Railways), the Civil Aviation Authority, and PPL (State Airports). The data used in the study come from the years 1990–2020. In the case of some analyses, in view of the lack of the data covering for the year 2020, statistical information for the year 2019 or older was used.

An assumption was made in the study that the basic measure of accessibility is the accessibility measured by time distance. In order to determine the level of the accessibility, a model of time accessibility based on the method developed by Juliao (1998) and used, amongst others, by Gadzinski (2013) was created.

In the last 30 years, the transport infrastructure in Poland has changed considerably. After years of the infrastructural delays, owing to the social and economic development of the country, accession to the European Union, and possibility of using additional sources of financing, the technical condition and parameters of roads, railway lines and airports have been improved significantly. This has translated directly into improvements of the spatial accessibility in all spatial scales from local ones through to regional, national, and international ones.

The results of the analyses indicate the fact of quantitative and above all, qualitative development of the transport infrastructure within all transport branches under analysis, which translated into improvements of the levels of transport accessibility on a local and supralocal scale. Particularly, many noticeable changes took place in the context of the road and air transport, whose significance in reference to all forms of movement has increased.

Housing and Urban-Rural Differences in Subjective Well-Being in the Netherlands

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Alicante-S78-S3 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And
City Love, 1-E12, August 31, 2023, 2:30 PM - 4:15 PM

Although more and more people choose to live in cities, subjective well-being (SWB) is generally lower in large urban areas in the Western world. This article examines to what extent urban-rural differences in SWB are driven by differences in the quality and affordability of housing between the largest cities and peri-urban and rural areas. Using a Dutch panel database, linking characteristics of housing to SWB, we show that differences in housing tenure, housing and neighborhood quality and housing affordability can partly explain the urban-rural SWB differential in the Netherlands.

Potentials for reducing spatial inequalities in innovation: A spatial econometric perspective

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Alicante-G11-R Entrepreneurship and Regional Development, 0-B02, August 30, 2023, 4:45 PM - 6:30

PM

Localised capabilities and endowments to produce new knowledge are widely considered as the fundamental basis of a region's innovative capacity, and accordingly viewed as a major source of spatial inequalities in innovation and, thus, economic competitiveness in the long-run. In this article we identify drivers for regional knowledge production, with the aim to illustrate potentials for reducing such inequalities in regional innovative capacities. We shift attention to technological knowledge production, measured in terms of a region's patenting activity, specifically focusing on three main drivers for technological knowledge creation at the regional level. The drivers we focus on came into intensive discussion recently and are of particular interest in an inequality context since they capture very specific capabilities of the region's knowledge base, among them technological relatedness density, knowledge complexity and the average complementarity of technological knowledge bases of spatially close region. The analysis is conducted for 430 European NUTS-adapted regions, spanning the period of 2005-2019. Methodologically, a spatial Durbin panel model (SDM) is employed, allowing us to address a question largely neglected so far in the literature, namely, the identification of spatial effects of the analysed drivers of inequality in terms of knowledge creation, such as spillover effects of economic complexity or technological relatedness. The results of the estimated model are then implemented in different scenarios, where the future evolution of inequalities is simulated. Among them, a scenario that resembles the current path, and three other scenarios where the drivers under consideration, i.e., average relatedness density, average complementarity, and knowledge complexity, are synthetically altered for certain regions. The preliminary results point to a statistically significant positive effect of both spatial complementarity and average relatedness density on technological knowledge production, while the effect of knowledge complexity on the overall patent output appears to be negative for the observed European regions. These initial results are promising in terms of deriving conclusions for regional innovation strategies and policies, e.g pointing to different pathways for lagging regions to catch-up in terms of their innovation capacities. However, the results have to be consolidated looking deeper into the econometric estimations, in particular the spatial effects. Also the scenario analysis is still to be conducted.

Belt and Road Initiative's effect on Central Asian Countries' trade flows

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Alicante-G15-O2 Trade and Global Value Chains, 0-B03, August 30, 2023, 4:45 PM - 6:30 PM

China and the central Asian economies have started enjoying from the opportunity to establish a closer economic link through the Belt and Road Initiative (BRI), which is supposed to favour consumption, infrastructure development, political associations, and the development of sustainable communities worldwide. Always from the standpoint of Central Asian countries, this article shows a preliminary assessment of BRI's initial growth and development. Additionally, this study aims to examine the impact of BRI on the growth of trade among Central Asian economies along the BRI corridors. In order to achieve this objective, a gravity equation framework has been utilized to assess BRI investment effect on bilateral Central Asian countries trade flows from 2010 onwards.

Andean Rural Resilience: Water infrastructure and social organization. Case: Colca Valley, Perú

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Online-G04 Urban-Rural Relationships, August 28, 2023, 11:00 AM - 1:00 PM

Resilience is known as the capacity to adapt or resist adverse situations. In rural territories it is observed that this capacity is based on social capital. In this sense, this research analyzes ancestral practices and their relationship with the hydraulic infrastructure called "irrigation canals" with a risk and disaster management approach. The methodology developed presents the case study of the Colca Valley, in Arequipa, Peru, where 10 population centers exposed to the risk of natural disasters and directly related to water sources were selected. Data was collected using Geographic Information Systems, where urban population centers, agricultural areas and irrigation canals were located. Semi-structured interviews were also carried out to obtain testimonies of the reciprocity activities with respect to the hydraulic infrastructure from Irrigation Organizations and Rural Communities. As a result, the network of irrigation canals constitutes a backbone of the Colca Valley from the agricultural activity. The social organizations present a clear hierarchical structure and reciprocity activities related to the hydraulic infrastructure established for generations such as cleaning canals, ceremonies for the birth of springs and payment to the gods. In conclusion, the construction of Andean rural resilience is based on ancestral activities based on reciprocity and redistribution known in Andean culture as "ayni" and "minka". These practices have been transmitted from generation to generation and have been adapted for hundreds of years to the needs and requirements of the communities in the face of volcanic eruption and earthquake risks.

The Gender Dimension of Industrial Diversification: What is the Role of Skills Gap?

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Online-YS02a People-based Development - EPAINOS, August 29, 2023, 2:30 PM - 4:15 PM

Regional capabilities are considered the main source of the industrial diversification process. Even so, the existing practice is somewhat reluctant to observe their exact nature. The present study explores one important dimension of regional capabilities, the gender gap in workplace skills, and considers it in accounting for the observed patterns of industrial diversification of regions. In doing so, it seeks to improve the policymakers' understanding of gender segregation and skill gaps in industries, as well as their geographical patterns, to enhance the effectiveness of a variety of regional and industrial policies including re-skilling, up-skilling, capability building, and gender equality. To explore the importance of gender skill gaps in the industrial diversification of regions we focus on Italy, which is a country with significant regional differences and a fragmented industrial structure. We use a well-detailed data set, the Italian Sample Survey on Professions (ICP), on workplace skills and merge it with the Italian Labour Force Survey (ILFS) across 107 Italian regions (NUTS-3) and 524 (four-digit NACE) industries for the period 2012-2019. By building an indicator of the gender skill gap at the region and industry level, we provide the first study that considers the gender dimension of regional capabilities in explaining the industrial diversification of regions. The descriptive and empirical analyses document significant variations in the gender skill gaps across industries and regions. Interestingly, the paper shows that female-biased skill gaps are negatively related to diversification while male-biased skill gaps are positively related.

Business behaviour and sustainable development

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Online-S29 Technology as a key to a sustainable future: new challenges, opportunities (and threats?)
in urban and peripheral territories, August 29, 2023, 11:00 AM - 1:00 PM

In recent years, the term 'sustainability' has also increasingly been associated with the world business world, focusing on the impact of their activities on the natural environment and the well-being of the people and territories where they work.

The increasing interest in the issues of environmental impact and corporate social responsibility has stimulated the search for new indicator to measure these phenomena. However, although the construction of indicators systems linked to well-being and sustainable development are widespread internationally, the measurement of the micro aspects of enterprises is taking place in the absence of structured and shared systems within the international statistical system.

This paper presents an experimental initiative to collect information on the phenomenon directly from companies in order to produce some initial indicators on the spread and orientation towards sustainability in the Italian production fabric. The objective of the project is, therefore, to provide an integrated information framework, in continuous evolution, useful in particular for observing the economic performance of companies that develop business models oriented towards sustainable development.

The aim of this experimental statistic is therefore to make available the first data that photograph the characteristics of companies in terms of environmental and social sustainability and their relationship with classical economic parameters.

Learning for a of sustainable development

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Online-S29 Technology as a key to a sustainable future: new challenges, opportunities (and threats?)
in urban and peripheral territories, August 29, 2023, 11:00 AM - 1:00 PM

It is widely acknowledged that innovation is a key element in the global pursuit of sustainable development. This means shifting from the traditional innovation logic of merely finding economic applications for inventions in pursuit of limitless economic growth (Schumpeter, 1912) towards sustainability-oriented innovation – developing solutions to existing global problems in order to create and realise social and environmental value, as well as economic returns (Adamset al., 2015) or responsible innovation (Stilgoe et al., 2020; Owen et al., 2013).

Sustainability is understood as a wicked problem (Rittel & Webber, 1973) with multiple “hard to identify” root causes that impact various stakeholders and that are deeply intertwined with other issues. Thus, determining appropriate solutions is difficult and determining the sustainable nature of an innovation calls for a wide lens of inspection.

Sustainable change is deeply entrenched in socio-technical systems emphasising the role of technological innovation that is fundamentally linked to societal constructs that need to co-evolve with it.

The course Innovation and Technology for a Sustainable Future is designed to improve understanding of the role innovation and technology play in sus-tainable development and how it is translated into engineering (Jansen, 2008) and business management education (Wankel & Stoner, 2009) — the primary target audience for this course. This course goes beyond techno-utopianism and promotes a critical approach to technological innovation development in the context of sustainability. By the end of the course, students should be able to understand the challenges, benefits, and potential of developing engi-neering-driven solutions to sustainability problems; to evaluate the impacts of innovations and to forecast possible development trajectories for the future; and begin to create solutions to solve the complexities that relate to their adaptation as part of larger socio-technical and economic systems.

This paper gives insights into important factors that are shaping effective learning for sustainability and describes innovative teaching formats that will enable students to contribute to a more sustainable world in their future role as decision makers. Basic concepts in the context of sustainability-related teaching and learning are defined and the relation between learning objectives, methods, skills and outcomes is conceptualised. The detailed description of teaching formats, including their learning objectives, course contents and structure, as well as applied methods aims at supporting lecturers and trainers in the design of their own teaching formats.

Patterns of Structural Change, Employment and Inequality in Europe: a Complexity Approach

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Alicante-S77-S1 Economic Complexity for Industrial and Innovation Policy, 1-E12, August 30, 2023,

11:00 AM - 1:00 PM

Structural change consists of industrial diversification towards more productive, knowledge-intensive activities. When countries upgrade their productive structure, they also move to sectors with higher knowledge intensity, and lower labour requirements. This may have consequences on the wage and functional distribution of income, as well on the creation of new jobs and the destruction of old ones. In this paper, we investigate the consequences of structural change – defined in terms of labour shifts towards more complex industries – on employment growth, wage inequality and functional distribution of income, the latter being defined by the labour ratio of the economy. The analysis is conducted for European countries over the period 2010 – 2018, and relies mainly on Eurostat’s Structural Business Survey data on industrial employment. First, we identify patterns of industrial specialisation by validating the country-industry industrial employment matrix using a bipartite weighted configuration model (BiWCM), overcoming some limitations imposed by the Balassa method. Secondly, we introduce a measure of labour-weighted Fitness, which sums up complexity of industries weighted by their employment share. This measure can be decomposed in such a way as to identify the contribution to changes in labour-weighted Fitness coming from the movement of labour towards more complex industries. We identify such component as the one linked to structural change from a labour viewpoint – the structural change component. Thirdly, we link the structural change component to a number of economic outcomes at the country level: i) employment growth, ii) wage inequality, and iii) functional distribution of income (labour share of the economy). The results of OLS panel regressions with country and time fixed effects indicate that our structural change measure is associated negatively with employment growth, corroborating the evidence that highly complex industries have lower labour requirements. However, it is also associated with lower income inequality – measured in terms of the ratio of average wages in the ninth and first deciles of the wage distribution. As countries move to more complex industries, they drop the least complex ones, so the (low-paid) jobs in the least complex sectors disappear, making the 1st decile of the salary distribution go up. Finally, structural change predicts a higher labour ratio of the economy; however, this is likely to be due to the increase in salaries rather than by job creation.

The quest for a theory on the role of creative industry to activate regional development strategies

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Online-S17 Creative regions, August 28, 2023, 2:30 PM - 4:15 PM

This study activity aims to understand the innovative role of the creative industry (CI) in the elaboration and activation of strategies for Regional development by stakeholders involved in four different complex issues. The Creative Industry is an ever-evolving sector that plays a relevant role in economic terms by fostering the interaction between various stakeholders in different agribusiness supply chains. In this regard, two of the four issues addressed refer to some of the main agri-food supply chains, namely the extra virgin olive oil supply chain and the tomato supply chain, while the other two address the main issues in the target area such as the reuse of purified wastewater and the management of *Xylella fastidiosa* subsp. *pauca* (CoDiRo strain). In this research, the Grounded Theory method was applied, an inductive methodology that provides a qualitative approach to data analysis, synthesis and conceptualization for the purpose of theory building. The application of this theory in the Living Labs (LLs) activity enabled the observation and reflection of concepts raised in the discussions by stakeholders using three stages. The first phase consists of transcribing the data in order to bring out possible interpretive leads, the second on sampling and collecting data to identify salient themes and interpretive categories, and finally, the third on identifying relationships among the categories that emerged and identifying a core category around which to articulate the complete interpretive model of the study. Subsequently, an explanatory theory was developed for each of the 4 LLs conducted to highlight the critical factors underlying the topics covered in order to define useful strategies to be able to intervene on them. The activities developed with the LL Role Play methodology involved university students from various disciplines, cast in the roles of real actors in the agrifood supply chain, engaged in 4 sessions lasting about an hour and a half with the presence of a moderator. At the end of the activities, a questionnaire was administered, the contents of which, together with those that emerged during the discussion, were later elaborated to evince the role of the Creative Industry. The results showed that the CI, case by case, plays a versatile role by promoting information among stakeholders, product and territorial enhancement, and societal awareness. In conclusion, CI is able to address multiple complex socio-economic issues related to regional development strategies.

Analysis of the emission impact of the Programme 2014-2020 for the Region of Sardinia over time

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Online-G27 Innovation and Sustainable Development, August 28, 2023, 11:00 AM - 1:00 PM

The assessment of the emission impacts of public interventions has assumed an increasing role in the debate on EU Cohesion Policies. The need to estimate, analyse and monitor the carbon impact of funding has prompted the search for suitable tools.

In response to this need, in 2011, the European commission - DG REGIO published a call for tender to help European regions to populate the Common Indicator 34, an indicator introduced to measure GHG emissions related to the Cohesion Policy. ENEA was part of the consortium that developed the model CO2MPARE to face this challenge and to this day continues to update it both in data and in its architecture to make it operational in the programming cycles that have followed since then.

The CO2MPARE model is an important piece of the support toolkit in the programming, monitoring and evaluation of EU funds, as it enables the estimation of the impact in terms of additional/avoided/reduced CO2 emissions of national and regional OPs financed with EU funds.

In the framework of the ES-PA - Energy and Sustainability for Public Administration project, financed by the national OP "Governance e Capacità Istituzionale" 2014-2020, dedicated to the improvement of multi-level governance and the administrative and technical capacity of public administrations in public investment programmes, ENEA together with the Sardinia Region, supported by Poliedra-PoliMI, have explored the possibility of elaborating annual emission estimates linked to the eligible costs financed.

The flexibility provided by the CO2MPARE model made it possible to build a model architecture capable of reproducing the architecture used in the Sardinia Region's own ERDF ROP, based on seven axes and related investment priorities.

Normally, the application of the CO2MPARE model is made with reference to the entire operational programme analysed, because the purpose of the model is to estimate the GHG emissions related to the investments made through the OP.

In the present work, on the other hand, an attempt was made to historicise the data to consider the different timing of the start-up and implementation of the works, thanks to the monitoring data uploaded into the Regional Monitoring and Control Information System (SMEC) broken down by year.

The exercise aims to give an estimate of the emissions over time linked to the costs admitted year by year, thus monitoring the performance of the ROP, which required a historical reconstruction of the results.

When your client moves abroad: local subcontractors' strategies in response to global sourcing decisions by small firms

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Alicante-S04-S2 Global Value Chains and regional development, 1-C11, August 31, 2023, 4:45 PM - 6:30 PM

The aim of this work is to investigate the impact of global sourcing activities by Micro and Small Enterprises (MSEs) on the strategies and performances of domestic subcontractors operating in the same home region. The empirical analysis is implemented using a sample of producers operating in the Italian clothing and footwear industry during the 2008-2015 period, and exploits novel data extracted from the Italian Ministry of Economy and Finance Annual Survey (IMEFAS). In this contribution, our main question is whether production relocation should be regarded as a positive or negative shock for local subcontractors. By addressing this important issue, we aim to shed light on the domestic effects of backward GVC participation on regional development.

This paper contributes to three main strands of the literature, First, it adds new insights to the debate on the regional consequences of increased exposure to production relocation, evaluating the impact of offshore outsourcing on domestic subcontracting activities. Second, we contribute to the ongoing debate on economic upgrading in GVCs, adopting a relational perspective that is centered around the role of production relocation and is focused on small domestic subcontractors. Third, we add new insights to understand the implications of intermediated or indirect internationalization. The most relevant contributions in this field of research focus on the role of trade intermediaries, whereas less is known about firms participating in GVCs indirectly by providing inputs to other value chain participants. The current gap is mainly motivated by the limited availability of suitable micro-data, even though the number of datasets that allow tracking buyer-supplier relationships is recently increasing. Despite these improvements, the regional implications of global sourcing decisions are still far from being completely understood.

The Impact of International Pipelines on Local Innovation Systems: Evidence from China's Tomato Breeding Industry

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Alicante-G09-O5 Innovation and Regional Development, 0-C02, September 1, 2023, 2:30 PM - 4:15 PM

The idea that international pipelines significantly impact local innovation systems embedded in the global value chains (GVCs) has gained widespread academic agreement. Product innovation is a complex, non-linear process that requires knowledge from various departments within a product chain. However, two common gaps exist in most empirical studies: the relationship between different pipelines outside the innovation system, and the impact of pipelines on the knowledge network within the innovation system. This paper examines how international pipelines impact the local innovation systems in the tomato breeding industry in China, based on three pipelines and departments of the product chain: research and development (R&D), production, and market. It examines the spatial and organizational impact of pipelines on knowledge networks of innovation systems on a city-by-city (cluster-by-cluster) basis, using imports, patents, and actors data from 2010-2021. It especially addresses three questions: 1) What are the relationships and characteristics of international pipelines? 2) What are these pipelines' impacts on transfer performance of the local innovation systems? 3) How do these pipelines influence the knowledge network of local innovations system? The study reveals that the R&D pipeline is closely related to the market pipeline, while the production pipeline is relatively independent. The R&D and production pipelines have positive impacts on the performance of local innovation systems, while the market pipeline has a negative impact. Furthermore, international pipelines hinder connections between actors within and between the local innovation system. We applied the proximity theory to explain the impact of pipelines on the knowledge network. Our findings provide new evidence and insights into the non-linear models of the local innovation system and international business, and offer policy implications for catch-up industries deeply embedded in the GVC.

The (Urban) Ecology of Intimate Partner Femicide: Evidence from Italy.

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Alicante-S58 The geographies of hate, violence and intolerance against vulnerable groups, 1-D14,

August 30, 2023, 4:45 PM - 6:30 PM

This paper aims to investigate the social, economic, and environmental factors related to the presence of Intimate Partner Femicide in a given geographical area. The study focuses on the Italian metropolitan areas and is based on a unique dataset of geo-referenced data on femicide from 2012 to 2020. Our strategy relies on a two-step inquiry, developed through a Probit model and a consequent OLS (fixed effects) estimation. We also include a set of robustness checks through the implementation of Zero Inflated Negative Binomial regressions to counter the effect of the over-representation of zeroes across the geographical unit of analysis. The research is based on the analysis of municipality-level data and aims to identify the key factors that contribute to the occurrence of femicide in these areas. The study aims at contributing to the literature on intimate partner violence by providing a comprehensive understanding of the factors that are associated with femicide in the Italian metropolitan context. While still a work in progress, this paper offers a comprehensive analysis of the main factors identified by the literature, which main findings are - so far - confirmed.

Innovation policy-driven to tackle Societal Challenges: insights from EU Border regions

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Alicante-S38-S1 Partnerships for innovation: building transformative innovation policies with local ownership, 1-D12, August 30, 2023, 4:45 PM - 6:30 PM

Our paper unfolds how different actors interact to mold the Societal Challenge-oriented innovation policy in a cross-border regional context. The presence of the border in its multiplicity of functions allows us to sketch out how the actors framed the problem and select the solution to tackle the Societal Challenge. The quest for policy directionality requires coordinating different government levels and stakeholders negotiating a vision for the development of the policy. To avoid directionality failure, a more thorough understanding of the territorial dimension of the challenge-oriented innovation policy is therefore essential.

While traditionally neglected in the regional innovation policy narratives, the border regions have been shown to act as a source of innovation. The EU border regions offer an ideal testbed for implementing an SC-oriented innovation policy. The analysis will address two EU regions at the following internal international borders: the Polish/Czech border area that engaged with a cross-border strategy to mitigate air pollution and the Swedish/Finnish Kvarken border area where the EGTC has been leveraging projects concerning energy battery and electric mobility in a cross-border perspective. Both areas are famous for their tight cross-border cooperation. We collect primary data through online interviews with representatives of key actors engaged in the two strategies occurring in the selected regions.

In the Polish/Czech border regions, the policymakers pursued a primary environment agenda. In the Swedish/Finnish case, stakeholders promoted a regional development strategy: the main objective was to contribute to decarbonizing the national economy by creating a Nordic battery cluster with clear economic regional spillovers. The results showcase the actors' interaction with different forms of agency within the different strategies. Based on the results, we can frame different forms of “entrepreneurs” working collectively to exchange knowledge substantiating the role of networks in border regions. The strong interplay between stakeholders within the strategy planning flash put a sharp place-based dimension of the Societal Challenge-oriented innovation policy. Although, the actors were not very involved in the solution selection process. The results showcase there are no evident differences across actors from the two sides of the border as both regions experience long-lasting cooperation that increased trust across actors from different backgrounds. The research explored the value-added to hold cross-border strategies. Some interviewees extremely evaluate the benefits to cooperate with peers on the other side of the border to bolster regional R&D capacities.

What education is an engine of economic growth? New evidence from European spatial data (1870 – 1950)

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Alicante-S42 The long run sources of regional disparities in Europe, 1-E11, August 30, 2023, 2:30 PM - 4:15 PM

We build a new dataset of primary as well as technical and vocational education (TVE) across regions of France, Italy, Spain, and Sweden at the NUTS3 level in the period 1870 – 1910. We combine the regional and the comparative perspective to explore the relationship between different types of human capital and economic growth in the period 1870 – 1950 by relying on existing estimates of per-capita GDP across European regions. We find that, during the rise of mass education and the First globalization, basic human-capital accumulation bears little significance for sustaining economic performance. Yet, in the Interwar period (1910 – 1950), a systematic link between education and growth is observed. Furthermore, TVE seems to have strongly driven the rise of incomes, even when controlling for basic schooling and existing human capital stocks (literacy).

Between art and tech. The case of Montreal as a creative region

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Online-S17 Creative regions, August 28, 2023, 2:30 PM - 4:15 PM

The creative industries are undergoing a profound digital transformation that is changing the way creations are produced, as new digital-based knowledge and skills need to be introduced (Benghozi et al., 2021; Sapsed & Tschang, 2014). Moreover, recent advances in artificial intelligence technologies may further disrupt these sectors: image and text generation, augmented and virtual reality, etc.

The case of Montréal (Canada) is exemplary for studying the dynamics of creative industries since the 1990s and fits well with mainstream definitions of creative cities (Stolarick & Florida, 2006). Montréal is home to several creative industries that have regularly succeeded in creating value from the interaction of art and technology. For example, in the live entertainment sector, the creative productions of Cirque du Soleil included as many engineers as artists. Other creative industries in the city were born in the digital age (e.g., video games, augmented reality) and others have been profoundly transformed by digital technologies (e.g., cinema, music).

The aim of this chapter is to understand how Montréal's creative industries have always managed to renew their innovative capacity through a virtuous interaction between art and technology. This virtuous interaction is all the more remarkable given that Montréal's technological knowledge base is not specifically more developed than that of other major Canadian cities (Toronto, Vancouver, etc.). The only digital domains in which Montréal is a leading region in Canada are video-games (Pilon & Tremblay, 2013; Cohendet et al., 2018) and AI (Sultana et al., 2023).

Based on the analysis of a group of organizations at the interface between art and technology, whose multiple roles contribute to bridging technical expertise with creative endeavors, and with a specific focus on organizations integrated into creative studios aiming at prototyping AI-based projects (e.g. La Forge/Ubisoft, Lab7/7Doigts de la main), one of the main results of our study is to highlight that intermediation mechanisms at the local level allow for cross-fertilization between art and technology, activating the geographical proximity and allowing creative industry organizations to renew themselves. Co-location alone is not a sufficient condition. Bridges need to be built and maintained in order for intermediaries to circulate ideas between social circles, places and events to stimulate encounters and foster new hybrid projects (Capron et al., 2022; Cohendet et al., 2010). Intermediation can be crucial for organizations to leverage local knowledge bases, especially when it comes to creating value from the interaction between two innovation ecosystems (arts and technology).

Import competition and domestic transport costs

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Alicante-G34-R Transport and exports, 0-E02, September 1, 2023, 11:00 AM - 1:00 PM

With China's 2001 WTO accession, trade costs between the US and China fell sharply, but the transport costs of Chinese imports within the US remained sizable. We argue that domestic transport costs shield local labor markets from globalization. Using a shift-share design for industry-level Chinese imports across 42 ports of entry, we show that US job losses from competing imports occurred near the ports where they arrived. Once accounting for domestic transport costs, import competition affects coastal areas more than inland areas; shows larger impacts in housing markets and indirectly affected jobs; and explains voting, mortality and family formation.

The economic impact of the slow down of the spanish economy on tourism: a multisectoral approach

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Online-YS03 Regional Development, August 29, 2023, 2:30 PM - 4:15 PM

Tourism is considered one of the most important sectors inside economic developed countries. Suffice it to say, as it represents an important feature in the economy, and consequently, in its GDP, throughout the pandemic the sector suffered substantially. In addition, not only COVID but also new problems being faced, such as the Ukraine war, rising energy prices and, therefore, inflation, have caused an added struggle to the development of the sector.

Having mentioned the importance of tourism inside the spanish economy, as an economic developed country, the object of this study is to analyze the economic impact on the latent fall of Spanish GDP, which, according to IMF could three to four percentage points, turn 5,5% in 2022 to 1,2% for 2023 or according to the Spanish Bank turn 2,9% in 2023 and 2,5% in 2024. The methodology used for the analysis is the input-output subset of a SAM model. The database taken into consideration is the SAM of Spain built in 2016 (Social Accounting Matrix of Spain. Thus, it will enable us to understand how this fall in GDP is reflected in the tourism sector.

Public policies for peripheral centres on the influential area of a railroad megaproject at Yucatan Peninsula: Challenge for technological innovation

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Online-G01-O2 Regional and Urban Development, August 28, 2023, 4:45 PM - 6:30 PM

Public policies for peripheral centres on the influential area of a railroad megaproject at Yucatan Peninsula: Challenge for technological innovation”

By: Carlos Bustamante Lemus and Roldán Andrés Rosales

Abstract

The “Tren Maya” is one of the emblematic megaprojects announced by the Mexican Government from the beginning of its administration (2018-2024). It is a railroad Project aimed at connecting most the four primary cities and most of the medium-sized semi-rural towns along the Mayan Peninsula on the south-south-eastern macro-region of Mexico throughout more than 3000 km of railroads. One of the most important objectives of such a Project is boosting the tourist activities which are being a crucial economic activity for Yucatan since the construction of Cancun as the first touristic centre (1973) in the Mexican Caribbean shores.

This project has been ordered to FONATUR (the National Fund for the Tourist Development). However, as most of the government projects and programs in Mexico, and perhaps in many developing countries, enabled a uni-sectoral project. This means that FONATUR is the only responsible to direct, finance and coordinate the public works of such a magnificent infrastructure project, which is supposed that such government agency should be responsible to coordinate to other several government and private local institutions, whose main tasks could be to operate some other complementary works, such as secondary roads connecting the peri-urban towns to the railway stations along the train’s route, and moreover, some supplementary urban infrastructure and equipment programmes to them. All these works, either by the TM itself, or by the complementary institutions works, could be benefitting those small towns from the technical innovation to be programmed and implemented to them.

Our concern in this work is that the low participation of other public institutions could generate a bias and only benefit a small population, since a more comprehensive policy is required, which not only benefits businessmen, but also the population living there.

Road safety and territories: some lessons from the French case

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Alicante-S21 Evaluation of safety and security policies, 1-D11, August 31, 2023, 11:00 AM - 1:00 PM

See the extended abstract form

Exploring the deep roots of interregional inequality: Spatial income distribution in the European regions

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Alicante-S56-S1 Territorial Inequalities in Europe, 1-E11, August 31, 2023, 2:30 PM - 4:15 PM

In recent years, there has been a growing awareness of the negative consequences of interregional inequalities, especially about left-behind places worldwide (Rodriguez-Pose, 2018). In particular, this affects some European countries such as the UK, France, Belgium and Denmark, which are more geographically unbalanced today than some decades ago, experiencing an accumulation of income dominated by metropolitan and central areas. These extreme interregional inequalities appear as a result of complex interrelationships between the effects of economic geography and modern production processes in a globalised context. In this paper, the EUREGIO database (Thissen et al., 2018) is used to compare the income distribution structure in 2000 and 2010. By means of an extended multiregional Input-Output model, I explore the structural roots of these inequalities in the European regions, offering results for interregional inequality within and between countries, and their impacts across the multiregional system. These models highlight the systemic contribution and structure of income interdependence, revealing important asymmetries that would remain hidden otherwise.

Short and long-run effects of R&D investments in the Spanish regions: A dynamic Input-Output approach

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Alicante-S70 Peripheral regions and the geography of innovation, 1-D11, August 30, 2023, 4:45 PM - 6:30 PM

This paper follows the framework developed in Los (2001) where the author presents a model combining the characteristics of endogenous growth modelling and Input-Output analysis. By means of a dynamic input-output model, Los (2001) takes into account important characteristics of endogenous growth models such as innovation and knowledge spillovers, but accounting for macroeconomic balance conditions at the same time. This paper aims to understand and estimate the possible short and long-term effects of an increase in R&D investment in the productivity of a region and its growth path. We perform the analysis for 17 Spanish regions using information from two different sources: first, the ones related to the Input-Output structure of the regions, mainly the EUREGIO and additional information from official regional Input-Output databases; and second, the Spanish National Statistical Office (INE) for the data on R&D investment by region and sector.

Implementing Green Facades and Green Roofs to Reduce Urban Heat Island in Mediterranean Cities of Chile

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Online-S48 The Growing Suburban Sprawl in Global South (Asia and Large Latin American Cities). New challenges and visions for: urbanism, informality, inequalities and climate change, August 28, 2023, 4:45 PM - 6:30 PM

The urbanization of the natural landscape implies changes both in its spatial conformation and in its surface materials, and modifies the energy balance. This phenomenon gives rise to the urban climate, whose main characteristic is the positive temperature difference with the rural environment: a phenomenon known as Urban Heat Island, which favors the increase in energy consumption in buildings, affects air quality, well-being, and the health of the inhabitants. Due to extreme situations such as heat waves, climate change is expected to intensify UHI conditions. Ways to mitigate this effect are urgently sought. The objective of this research is to determine the impact caused by the implementation of green roofs and facades, on urban surface temperatures and air temperature at pedestrian level, in the cities of Valparaíso and Rancagua, located in a Mediterranean climate in the central zone of Chile. Satellite images and the ENVI-met software are used to determine the urban thermal behavior and the impact of implementation of green roofs and façades. A difference of up to 0.8°C is observed in the air temperature at the pedestrian level, between the scenario whose buildings do not have green coverage and one with 100% green coverage implemented. Regarding the green facades, a difference of up to 2°C is observed in the air temperature at the pedestrian level, between facades with 100% vegetation compared to one that does not have green facades. Green facades and green roofs have positive effects mitigating urban air heating and a decrease in temperatures inside the canyon, promoting greater thermal comfort for pedestrians.

A systematic review of the literature on institutional quality and innovation from a regional perspective

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Online-G02 Regional and Urban Policy and Governance, August 28, 2023, 11:00 AM - 1:00 PM

This study analyses the relationship between the quality of institutions and the innovation processes, which has been explored in the literature, with particular emphasis on the regional dimension. The aim of this paper is twofold. On the one hand, to provide an overview of the current state of the art between these two concepts. On the other hand, to identify and understand the lines of research developed by the scientific community and to carry out an analysis of the main findings. The Systematic Literature Review is the methodology used to identify and select the articles, and evaluate their content. The papers in the sample were extracted from the most relevant databases, Web of Science and Scopus. The classification of the literature has provided several research lines, among which the most productive is the analysis of the effect of the quality of the institutions on innovation. In general terms, the articles analysed. However, there are some studies that show that, in specific cases, this relationship can be less significative or even negative. This paper discusses the gaps found in the literature reviewed and proposes new challenges for future research. Several implications are presented that may be useful for policy makers.

Poverty convergence at regional level in the EU: spatial quantile evidence

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Alicante-S56-S2 Territorial Inequalities in Europe, 1-E12, August 31, 2023, 4:45 PM - 6:30 PM

The reduction of inequality represents a critical issue for the European Union. In this context, the modelling of poverty convergence more recently emerged to test the potential reduction of inequalities. In this paper, we aim at a deeper understanding of poverty convergence at regional level. First, we extend the concept of absolute poverty convergence to conditional beta-convergence at regional level and account for poverty measured by AROPE, a key indicator for policy makers in the EU. Second, we use the statistical methodology of quantile regression to provide a broader assessment of the heterogeneous relationships between poverty and economic factors. Lastly, we draw on the spatial econometric literature and use a spatial quantile regression methodology that considers geographical interconnections at regional level. Moreover, in the study regions are classified using a novel indicator built as the distance from the efficient quantile (in our case the lowers, in terms of conditional poverty reduction) to express the ability of a region to tackle poverty. The indicator is used to classify regions and highlight the presence of within country differences. The results confirm the importance of using spatial models for considering potential spatial autocorrelation in poverty convergence. Also, they suggest how working with neighboring regions is relevant to coordinate efforts to tackle poverty.

Leapfrog sprawl across the metropolitan USA over the last 20 years

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Alicante-G01-O4 Region Urban Development, 0-C01, September 1, 2023, 11:00 AM - 1:00 PM

Despite an increased policy focus on urban density and compactness over the last decades, many cities still expand outward in a discontinuous fashion, leaving some land 'leaped' over during the process, which fragments natural habitats and induces extra costs to society. We contribute the first leapfrog sprawl analysis spanning across all US metropolitan areas. We develop leapfrog indices and quantify the frequency of leapfrogs and the length of the leaps over the 29 million cells newly urbanised in the 380 US MSAs from 2001 to 2019 (7 images at 30m resolution). We analyze the change of these indices over time and space, then test for potential sources of leapfrogging with models using both disaggregate and MSA scale variables. We find that city size tends to increase leapfrogging but reduces the length of the leaps. A quicker urbanization has the most effect on increasing leapfrog distances, which we relate to expectations for these leaps to be filled in later on. We also find contradicting effects of density at the city and local scales, suggesting higher density cities have a push effect encouraging leapfrogging while local clusters are attractive and eventually form after leapfrogging. We find no apparent effect of income growth nor inequality that would push households further away to find affordable land. While most leapfrogging appears to be temporary on a 20 years scale at 30m resolution, its periodic volume remains a concern as well as the fact it is a dynamic process that continuously creates a fragmented pattern at the fringe.

Next Generation's energy misperception

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Online-G24 Energy and Ecological Transitions, August 28, 2023, 11:00 AM - 1:00 PM

The aim of this work is to investigate the energy misperception of different sources among the “Next Generation” group. The analysis is carried out in Italy and the data were obtained through an internet-based survey, administered via Instagram for capturing the Next Generation’s perception of the national energy mix. We found that younger have more misperceptions and one of the possible explanations could be that are more negatively affected by media and social media, or public opinion in general. Another motivation could be that the younger generation considers sustainability important and therefore tend to over-perceive renewable energy sources.

Knowledge spillovers as a location factor in the software industry

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Alicante-G13-R Urban Challenges and technological transformations, 1-B02, August 30, 2023, 11:00

AM - 1:00 PM

This paper analyses location factors for the software industry at the intra-urban level in Madrid. The focus is on knowledge spillovers, differentiating between formal or codified and informal or tacit mechanisms of knowledge transmission. A Gibbs model is estimated to decompose the conditional intensity of the software industry spatial point process into trend and interaction components. Results show that informal mechanisms of knowledge transmission are very central in the location choices of software firms, whereas formal channels are not a relevant location factor in this industry. Informal knowledge flows are also an essential and decisive location factor for the Madrid software industry. Moreover, co-working spaces – a recent urban phenomenon that assists in the creation of informal networks – are useful facilities for informal knowledge diffusion. These have become a key factor in the location choices of software firms in Madrid, and they may be assuming the role of incubators within the city core.

Estimating the impact of CAP Pillar II payments on EU farms' income, costs and labour

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Alicante-S03-S3 Counterfactual methods for regional policy evaluation, 1-C11, August 30, 2023, 2:30

PM - 4:15 PM

We investigate the impact of Agri-Environmental Schemes (AES) on farms' costs, labour and income growth rates at the EU level and country-group level. Using a difference-in-difference exact matching design, we show that the impact of the AES measure on farmers participating in the program led to a significant increase in the growth rate of each economic outcome analysed. Despite the rise in production and raw material costs and labour inputs needed, as a result of more onerous sustainability criteria required by AES measure, farms participating in the program report an increase in income growth rate compared to non-participants at the EU and country levels. The effects appear to be unevenly distributed for the other outcomes: costs are higher and more significant in Western countries, while the major effects on labour are observed mainly in Southern and Eastern ones. Overall, our results explain the role of the current CAP change and future reforms of the direct payment policy targeting environmental goals.

Club football and economic dynamism: a regional analysis for Europe

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Alicante-G07-O1 Regional Competitiveness, Innovation and Productivity, 0-D01, August 30, 2023,
11:00 AM - 1:00 PM

The connection between sports and development has been long highlighted in academia and policy debates. But the extent to what the success of professional sport teams can spur economic dynamism has hardly been studied in the literature. In this paper, we look at the potential connection between sporting success and economic development. We focus on club football performance and economic dynamism in European regions. To do so, we build a unique dataset with information for 395 football clubs, matched with economic information for 295 NUTS3 European regions, for the 2000-2020 period.

Inequality and climate change: the within-countries distributional effects of global warming

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Alicante-S22 Spatial dimensions of climate change, 1-D12, August 31, 2023, 2:30 PM - 4:15 PM

Climate change is already impacting several development outcomes, including economic growth, human health and mortality, agricultural productivity and even conflict. Moreover, the impact of climate change is expected to be unevenly distributed across locations and population groups. In particular, the worse effects of climate change are expected to be felt in low-income countries. Similarly, within countries, the most vulnerable to these effects are typically low-income regions and households. While the literature to date has provided evidence of the between-countries inequality-increasing effect of global warming, it has not yet done so for inequality within countries. In this paper, we empirically explore the connection between climate change and income distribution within countries. To do so, we build a global panel dataset combining gridded data on climate variables with gridded population data, country-level data on several income inequality measures (including interpersonal Gini coefficients and indices of concentration of income), gridded data on night-time lights to construct measures of spatial inequality, and data on several development outcomes. Using panel-data econometric techniques, we find a clear positive and statistically significant relationship between rising temperatures and increases in within-country inequality, both interpersonal and spatial. The role of rising temperatures is robust to a range of controls, different specifications and estimation techniques. Finally, we explore potential mechanisms behind this temperature-inequality relationship.

Impact of KIBS Agglomeration on Chilean Mining Sector Productivity

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Alicante-YS02 Economic Development and Agglomeration - EPAINOS, 0-D04, August 31, 2023, 11:00

AM - 1:00 PM

This paper aims to explore the existence and the corresponding effects of inter-sectoral agglomeration economies in a developing country like Chile. Chile exhibits a strong dependence on natural resources, especially mining. Besides being a highly geographically concentrated activity, the Chilean mining sector strongly relies on subcontracted companies in charge of non-core tasks through outsourcing. Throughout this channel, knowledge-intensive business service (KIBS) companies might play a role in the formation of knowledge spillovers and productivity-enhancing innovation processes. We estimate the impact of the spatial concentration of KIBS-supplying firms on mining labor productivity by following a multi-level approach, relying upon individual- and aggregate-level data on income. In addition, a spatial analysis of these interactions is carried out, aiming to explore for spatial dependency and potential intra-territorial structures. Results suggest a positive effect of KIBS agglomeration on our proxy for mining workers' productivity at the individual level. Results from the exploratory spatial analysis suggest mixed evidence of spatial spillovers from KIBS agglomeration. These results yield relevant policy implications for knowledge-intensive firms location, promotion of a knowledge-based economy supported by natural resources, and sub-national-level development perspectives.

Erasmus students' mobility and regional attractiveness in EU: Social Cohesion policy or further boost to polarization?

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Alicante-G01-O8 Region Urban Development, 0-B03, September 1, 2023, 9:00 AM - 10:30 AM

This study applies a quantile-based model to estimate the explanatory factors of Erasmus mobility across European regions. The characterization shows how features associated with top performances for Erasmus attractiveness are the degree of urbaneness, the presence of the capital city, and institutions quality.

Contrarily, less-performing regions are associated to tourism specialization, and they are penalized from being close to “development traps”. The government quality emerges as a key influence that turns some of the negative features into more attractive ones. Finally, we discuss how to complement the European Erasmus strategy with interventions concerned with the implications of international student mobility on regional development, thus becoming more coherent with a cohesion policy.

Regional integrated assessment model for local sustainability: from Environmental evaluation to sustainable development through SDGs, Cohesion Policy and I-O Matrix

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Online-S49 Ecological Transition That is Increase in Resilience and Renewable Energies, Digitalization, and Integrated Territorial Planning, August 28, 2023, 11:00 AM - 1:00 PM

Sustainability is a challenge for local development. Regions are putting in place efforts and investments to reach it within the deadline required by the Agenda 2030. Despite the variety of strategies and models, combining them in an efficient way is the actual challenge, having a proper assessment model able to connect global needs with local ones.

Starting from the strategic Environmental evaluation (VAS) process of the Sardinia Region, and the input-output interdependencies among the different economic sectors of the region, the present work proposes an approach to quantify the direct and indirect impacts of the regional operational programs, co-financed by the EU under the Cohesion Policy, on the Sustainable Development Goals of the Agenda 2030 in terms of the 169 UN international targets.

Bottom-up innovative initiatives for sustainable mountain development in Italy: a first interregional explorative survey

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Online-S24 Outside the frame: creative, cultural and innovative dynamics in non-urban regions, August 28, 2023, 2:30 PM - 4:15 PM

The sustainable use and management of mountain resources is crucial for the development of mountain areas and their surrounding regions, especially since these areas provide essential environmental services, including water, biomass, grazing land, and biodiversity. In Italy, mountains cover 35% of the land and are home to 12% of the population. Despite their importance, they have faced marginalization from economic and social development, leading to declining populations and infrastructure. To address these challenges, bottom-up initiatives have emerged as a complementary approach to top-down policies in promoting sustainable mountain development and achieving the Sustainable Development Goals. To investigate this growing phenomenon, the present study adopts a quantitative approach to examine the characteristics of bottom-up, sustainability-oriented initiatives in Italian mountain areas by analyzing survey responses of 196 initiatives located in five different regions in Italy. It found that relevant initiatives are emerging in both marginal and semi-marginal areas in the North, Center, and South of the country. A majority of them can be categorized as businesses or associations, mostly concentrated in agriculture, artisanal production, tourism, and hospitality. As expected, they are relatively young and innovative, and highly focused on improving the sustainable use of local resources and the quality of life in their territories. These preliminary findings provide valuable insights into the key features of bottom-up sustainability-oriented initiatives in Italian mountain areas, serving as a basis for further research.

Tourism stakeholders' crisis responses during COVID-19: from adaptation to long-term strategies

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Alicante-G36-O2 Tourism and Overtourism Issues, 0-D04, September 1, 2023, 2:30 PM - 4:15 PM

During the past three years, the COVID-19 pandemic has determined a shift in strategic priorities in tourism, since this unprecedented context called for a brand-new assessment of destinations' resilience and for a detailed comprehension of the manner in which stakeholders and governments responded to the disruptions. While the hardest stages of the pandemic are now, presumably, in the past, the interest for the long-term effects that COVID-19 had on the tourism sector is still substantial. This interest comes from the fact that it is necessary to explore and understand which measures were efficient and which ones were powerless during the pandemic, in order to help improve stakeholders' strategies for potential future crises.

In this context, the current study proposed an approach centred on tourism stakeholders' perspective on the pandemic. The main purpose was to analyse tourism stakeholders' own responsive strategies, as well as their perception of the governments' interventions. As such, the study is built around three main research questions: (1) Which were the tourism stakeholders' crisis responses in various stages of the pandemic? (2) To what extent were the adopted strategies designed for long-term development? (3) How do stakeholders appreciate the utility and efficiency of government's policies at local, regional and national level? In order to answer the above-mentioned questions, the study applied a structured questionnaire to key tourism stakeholders covering various sub-fields of the sector from all regions of Romania.

Further, the analysis relied on over 500 responses, combining descriptive statistics with more complex quantitative analysis. In order to identify the homogenous groups of stakeholders within our sample, we conducted a cluster (segmentation) analysis. Given the nature and size of the database, the hierarchical cluster method was considered the most appropriate, as it can handle ordinal and scale data. Besides being a powerful technique in the field of data analysis and machine learning, this method presents the advantages of providing data visualisation, scalability, flexibility and, most important, detailed comparison of subgroups.

The results revealed the existence of four distinct classes of stakeholders in terms of crisis management responses and impact of the shock, each class displaying specific behaviours during the pandemic. Moreover, while not part of the variables included in the hierarchical cluster analysis, the respondents within the same cluster displayed high similarities in terms of geographical features, which leads to the conclusion that tourism-related crisis management has an important spatial-dependent component which requires further analysis.

Green infrastructure practices to face water scarcity. The case of the city of Boston *

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Online-S37 Territorial Intelligence and Ecosystem Innovation. New archetypes for Ecological Transition, August 29, 2023, 11:00 AM - 1:00 PM

The City of Boston can be considered an example of good practices regarding the implementation of Green Infrastructure to face climate change challenges regarding water. Green Infrastructure according to the United States Environmental Agency (EPA) is "The range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspire stormwater and reduce flows to sewer systems or to surface waters." They can be considered as part of a set of strategies that helps to transition to more resilient and sustainable communities. Green infrastructure can be multi-scale and used at the district, neighbourhood, city and regional scale. This flexibility facilitates the exportation and adaptation of the model in different contexts.

The paper explores the good practices and opportunities for improvement in the framework of transition. Supported by maps and tables a spatial analysis of the Green infrastructure in the city is conducted and also explores the relation between the presence of less Green Infrastructure and areas with low-income populations. Finally, it is discussed the possibility to adapt the Boston Green practices to cope with water scarcity and the possibility to export the positive techniques and governance practices in contexts with water shortage risk.

Regional backshoring as a source of manufacturing employment growth

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Alicante-S04-S2 Global Value Chains and regional development, 1-C11, August 31, 2023, 4:45 PM -

6:30 PM

After a period of decisive internationalization of the production processes in Global Value Chains (GVCs), doubts over their efficiency have clearly emerged. The 2008 and the COVID-19 crises have in fact demonstrated all the fragility of a geographically segmented industrial system. In addition, the weak productivity dynamics registered in the European economy and the apparent loss of industrial know-how led the European Union to advocate for reindustrialization (see EU “Open Strategic Autonomy” and “Manufacturing Imperative”), potentially encouraging back-shoring. Apart from a few case study-type empirical works, however, very little is known about the role of GVCs at the regional level, and particularly about their function in stimulating reindustrialization processes at the territorial level. The present work addresses this gap exploiting the regionalization of input-output trade in value added data and exploring how structural changes in GVCs affected reindustrialization processes in the European regions. In more details, we expect a reduction of the external dependence to be related with regional reindustrialization, notably in sectors in which the area is/used to be specialized.

Different perspectives on culture and local development

Prof. Silvia Cerisola

Alicante-KL6 Keynote Lecture - HYBRID Session, SA-SALÓN DE ACTOS, September 1, 2023, 9:00 AM - 10:30 AM

The lecture will explore the relationship between different approaches about culture and local development, according to a territorial perspective. The importance of culture for the well-being of cities and regions has been widely highlighted, both at the institutional and at the academic level. However, the word “culture” has been associated with many different meanings, all interesting and valuable. Material cultural heritage, intangible culture (including history, folklore, traditions...), cultural participation, and identity and sense of belonging have all been related to this vast and fascinating field. Specific cultural dimensions have been associated with local economic performance,, but also with disparate social and environmental positive outcomes. In addition, the territorial effects of culture are likely to work through different channels, including tourism, local creativity, identity, and - of course - favorable context conditions. In this sense, the lecture will provide an overview of the various mechanisms linking specific types of culture with local development,, in order to conceptually better frame the overall topic and to identify the most promising lines for future research within this engaging domain.

Individual life-satisfaction in Italian regions: cultural heritage, social capital, and tourism

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Alicante-G37 Cultural Heritage and Regional Development, 0-E01, August 30, 2023, 4:45 PM - 6:30 PM

Cultural heritage represents a founding element for present and future generations and communities. Being a legacy from the past, heritage carries a set of values and symbols that are peculiar and unique for specific places and communities. These communities may recognize themselves in their heritage that represents their culture, traditions, ways of living and that raises civic proudness and sense of belonging to places and societies. In this sense, local identity and communities' ties may be associated with heritage. More specifically, we can refer to social capital in terms of community engagement, creation of networks, personal connections, and civic participation. The two elements – cultural heritage and social capital – can coexist or be present in different combinations at the territorial level. In addition, both cultural heritage and social capital may play an important role in enhancing subjective feelings of satisfaction and psychological conditions. In fact, people living in places endowed with cultural heritage have the chance to participate in local cultural life, engage in creative activities, learn in alternative ways, and enjoy a pleasant and attractive environment, while a community characterized by social cohesion and greater participation and engagement might generate positive consequences on the subjective life-satisfaction within the area.

Moreover, when reasoning on cultural heritage its relationship with tourism cannot be overlooked. On the one hand, tourism may contribute to the valorization of cultural heritage, and therefore to life-satisfaction, while on the other hand it could hinder the development of positive feelings through undesired congestion effects.

The present work puts forward the idea that different territorial contexts in terms of cultural heritage and social capital may differently affect individual life-satisfaction and that this mechanism can be influenced by touristic flows. Proposing a territorial taxonomy of Italian NUTS2 regions and exploiting microdata collected by the Italian National Statistical Office (ISTAT), we perform a multilevel (nested) econometric analysis linking territorial socio-cultural categories to the level of individual life-satisfaction, also considering the role of tourism within this mechanism.

As by now widely recognized by the economic literature, cultural heritage, social capital, and subjective life-satisfaction generate consequences on local economic conditions and performances, their intangible nature notwithstanding. Therefore, it is of great importance to understand and empirically test the functioning of a mechanism that links cultural heritage, social capital, and life-satisfaction. As far as we know, a quantitative analysis of these connections is still missing in the literature.

The impact of proximity on inter-organizational cooperation in the Pisco cluster Chile

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Online-G19-O1 Cooperation and Local / Regional Development, August 28, 2023, 4:45 PM - 6:30 PM

This paper uses the proximity approach of economic geography with its spatial (geographical) and non-spatial (social, institutional, cognitive and organizational) dimensions to examine inter-organizational cooperation among co-located firms in the pisco cluster. To determine this relationship, the Chi-square statistical tests were used, with their corresponding measures of association for qualitative variables, and Kruskal-Wallis for ordinal variables. It can be pointed out that the main element that hinders cooperation in the pisco industry cluster of Chile is the different visions and objectives of the different organizations. As for the dimension of proximity that favors cooperation among the companies in the pisco industry cluster of Chile, it was the social dimension.

What bother regions to become circular? Obstacles in implementation of circular economy – Poland vs. the Netherlands

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Alicante-G01-O4 Region Urban Development, 0-C01, September 1, 2023, 11:00 AM - 1:00 PM

Implementing circular economy (CE) is not an easy task, but nowadays it seems to be a necessity. The transition from a traditional economy to a circular economy requires the efforts and support of stakeholders from various groups. Based on the quadruple helix model, groups implementing the circular economy include government, society, academia and companies. What can stand in the way of implementing a circular economy are the market failures, which are typical for traditional economies. The concept of market failure has its origin in modern welfare economics. The most common categories are: public goods, externalities, imperfect competition, incompleteness of the market, and asymmetrical information.

In our research, we looked at the market failure from the perspective of the circular economy. In a circular economy, it is more often to identify the barriers which derail or slow down the transition towards a CE. The categories of barriers correspond to the problems that emerge during the transition to CE. The most common categories of barriers are: technological, economic, institutional and social. Although the neoclassical economy and circular economy represent different approaches to the market and its imperfections, there is a link between them. Barriers that occurred in CE can be identified with classic market failures. This clear connection between market failures and CE barriers was a starting point for our research. The aim of the research was to identify market failure limiting the implementation of the circular economy in Poland and the Netherlands (Lodz and Friesland Regions). We conducted two-step research: online survey and focus group interviews (FGI). The research was conducted among four groups: companies, government, academia and society.

The effect of farm size and farmland use on agricultural diversification: A spatial analysis of Brazilian municipalities

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Alicante-G05-O1 Economic development in rural places, 0-C04, August 30, 2023, 11:00 AM - 1:00 PM

Brazilian agriculture is characterized by the prevalence of small farms and by regions with a high degree of rurality and dominance of the agricultural sector in the economy. These two characteristics affect the diversity of agricultural production in the country. Specifically, the article aims to analyze the effects of farm size and farmland use on agricultural diversification for 4,298 Brazilian municipalities from 1996 to 2017 (the last three agricultural censuses). The level of diversification was determined using three different agricultural diversification indices (Simpson, Shannon, and Effective Number). Empirically, we consider spillover effects by estimating spatial models at the municipal level using panel data, highlighting the importance of location and neighborhood. The study's findings indicate a tendency towards local concentration of agricultural production in the country, despite the balance between municipalities with diversified and concentrated production. The results showed a significant effect of small farms and the municipalities' rurality degree on the agricultural output diversification. The study provides insights into the discussion on measures to strengthen support for small properties and regions that diversify crops to ensure economic efficiency and food security.

Mapping urbanization and urban heat island dynamics of the rapidly growing Cuttack-Bhubaneswar twin city

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Online-G13 Urban Challenges and technological transformations, August 29, 2023, 2:30 PM - 4:15 PM

Urban Heat Island (UHI) occurs when cities replace natural land cover with dense concentration of pavement, building and other surfaces that absorb and retain heat. Structures such as buildings, roads, and other infrastructures absorb and re-emit the sun's heat more than natural landscape such as forests and water-bodies. The main objective of the study is to map the urbanization and urban heat island dynamics of the rapidly growing Cuttack-Bhubaneswar twin city of Odisha in India. In the study, the relationship between urbanization, land use change and heat island Land Surface Temperature (LST) dynamics will be analyzed during 1990 to 2022 using earth observation datasets (e.g., Landsat, Sentinel 2) and machine learning algorithms (e.g., SVM). In order to address objective, the study attempted to employ quantitative approach (e.g., Correlation, Principal Component Analysis, Hotspot etc.) in exploring the relationship between the urbanization, temperature, and land use change with the several indices including Normalized Vegetation Index (NDVI), Normalized Difference Built-up Index (NDBI), Urban Thermal Field Variance Index (UTFVI), LST, UHI, land change metrics, rate of urbanization, land consumption rate etc. The study will reveal the hidden hotspot of unplanned development, land conservation and possible cause of undesirable land surface temperature dynamics. This study will be a promising guideline for the local authority, planner, and policymakers to develop a livable, healthy, and sustainable city to support Sustainable Development Goals (e.g., SDGs-11).

Innovation drivers and well-being: identifying the constraints of life satisfaction

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Alicante-G27-O2 Innovation and Sustainable Development, 0-E01, August 31, 2023, 4:45 PM - 6:30

PM

For many decades, innovation has been an instrument to increase economic growth and national competitiveness while addressing the sustainable development challenges that humanity faces. Innovations always have an impact on the society, economy, and environment where they are developed and implemented. In many cases, they can trigger disruptive changes in people's lives, which may require a period of adaptation. The literature shows that innovation can have positive and negative effects on well-being. Some of the benefits derived from innovations are improvements in human development and life expectancy, facilitating the global green transition, and greater communication and access to information, among others. The negative effects are related to increases in inequality among individuals, stress and pressure, or environmental degradation. Therefore, which is the relationship between innovation and well-being? As this relationship has been mainly studied through econometric and survey analysis, this paper applies a Necessary Condition Analysis (NCA) to determine the necessary innovation factors that trigger national well-being. That is, identifying which innovation factors' levels are needed to obtain specific life satisfaction levels. This methodology enables recognizing the innovation factors that constrain life satisfaction in a country. The findings of this paper demonstrate that institutional, social, digital, general infrastructure, environmental, and innovation linkages innovation drivers should be promoted to achieve higher thresholds of life satisfaction.

Urban green spaces satisfaction in large European cities

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Online-YS03 Regional Development, August 29, 2023, 2:30 PM - 4:15 PM

With the increase of the urban population and the challenges of global warming, the issue of natural spaces such as green spaces is now at the center of public policy concerns. Therefore, policy makers must understand how to plan the city of tomorrow in light of these challenges while maintaining or even improving the quality of life for everyone. On the European continent, the supply of urban green spaces as well as citizens' satisfaction with the environment is very heterogeneous. This study aims to identify the determinants of green space satisfaction of European citizens in 74 cities through a life satisfaction approach using survey data from the Eurobarometer in 2019 and evolutions of green coverage from the Urban Atlas. We show in general that satisfaction with green spaces is not driven by the proportion of current green spaces in the city but by its variation and thus by the improvements achieved. However, there are heterogeneous effects across cities according to the city's location on the European continent, the city's level of wealth, the proportion of the city's inhabitants who have always lived in the city, and the number of major climatic events the city has faced. These results have important policy implications that can help shape future planning and city management policies.

Adapting the Greek spatial planning legislation to new challenges

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Online-G01-O1 Regional and Urban Development, August 28, 2023, 2:30 PM - 4:15 PM

The economic crisis and, more recently, the pandemic have had a tremendous impact on society, both in the economic sphere and in the political arena. In parallel, the spatial planning system and legislation in Greece have undergone continuous changes, aiming to speed up procedures and update plans to meet new needs and consider European policies.

This proposal aims to review the spatial planning laws of the past ten years under the exceptional conditions prevailing nationally and internationally (economic crisis, pandemic).

The recent Law 4759/2020 aims to promote organized spatial planning and establish local and special urban plans as outstanding spatial planning tools. It contributes decisively to a coherent and modern set of rules for the organization of activities in the territory and sustainable development.

However, there is still a need for improvement and updating of the spatial planning institutional framework along three axes: structure, content, and procedures.

As far as the structure is concerned, new specifications and norms are needed. New plans are being added, such as sustainable mobility plans, while there is no standardized Special Spatial Framework for Tourism. The corresponding plan for the industry is also under review and approval, as are the plans for mineral resources and the coastal area.

In terms of content, the plans should incorporate a multitude of new issues, such as Climate change, Civil protection, Resilience of city centres, Upgrade building stock, Maritime spatial planning, Technological changes (Data centers, IT centers), and balanced economic and spatial development.

Finally, there are weaknesses in the procedures, shortcomings and delays in the system. It is recommended to speed up and simplify procedures, to have open space data platforms, and of course to complete the Land use cadastral, forest maps, etc.

Spatial planning for the development of productive activities should be under current policies and respond to modern development needs and environmental protection and sustainability needs in order to become integrated and contribute in practice to the development of a modern and integrated spatial policy.

Projecting Total Factor Productivity: Dutch regional and sectoral changes in the path for 2060

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Alicante-G07-O3 Regional Competitiveness, Innovation and Productivity, 0-C03, September 1, 2023,

9:00 AM - 10:30 AM

Modelling the direct and indirect economic effects of environmental policy at the regional level requires extensive information on the technological efficiency of all economic sectors and regions in a country. In achieving that, this study reviews and analyses the changes in total factor productivity (TFP) growth in both dimensions. Using regional and sectoral data for the Dutch 12 NUTS2 regions (provinces) we estimate the regional and sectoral TFP till 2020. The disaggregated TFP is estimated using a Solow-Tourqvist residuals as well as another alternative measurement. Using these as a benchmark, we forecast the sectoral and regional long-term TFP till 2060. The forecast is based on SSP1 and SSP3 scenarios, using the results of the CEPPII MaGE model for national TFP and a set of assumptions for value added, education, barriers to trade and R&D relevant for the Dutch regions. The results indicate significant regional and sectoral variation in both scenarios. This variation is particularly significant in the future policy design. Climate related policy has a significant regional component also in spatially small countries like the Netherlands. This spatially related component needs to be explored in detail and modelled before climate policies are tested within macro-economic models.

Economic growth and environmental objectives: A study using 2021-2027 cohesion policy regional data

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This paper presents an evaluation of the Cohesion Policy 2021-2027 using a dynamic spatial computable general equilibrium (CGE) model, RHOMOLO. The paper analyses the economic and spatial effects of the policy for different regions in the European Union. Using 2017 data at the NUTS-2 level structured in inter-regional Social Accounting Matrices (SAMs), and organized across ten NACE Rev. 2 economic sectors, we find that Cohesion Policy can have a positive impact on the EU economy in both the short term and long term. By the end of the implementation period, we find that the EU GDP can increase up to 0.49% due to the policy. Furthermore, we find that even in the long run, Cohesion Policy still has significant effects as the EU GDP reaches 0.29% above its initial level. Finally, we find that the spillover effects of the policy are higher in less developed regions of the EU during the implementation period, but the long term results indicate that the policy can help reduce regional disparities, promote regional convergence, and benefit all regions. Ultimately, the study shows that Cohesion Policy can have a positive impact on the economic growth and development of the EU as a whole.

Factors and their interactions determining the impact of public debt on economic growth

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Alicante-G07-O3 Regional Competitiveness, Innovation and Productivity, 0-C03, September 1, 2023,

9:00 AM - 10:30 AM

The global crisis and the Covid-19 pandemic have led to a rise in public debt-to-GDP levels in record volumes worldwide. In this paper, we suggest that the expenditure multiplier mechanism and interactions between its main components may help to explain whether the increase in public debt stimulates or hinders economic growth. Theoretical explanations of debt's effect on growth point to its influence on private consumption, investment, and import, so the impact on the expenditure multiplier can be expected. The value of the expenditure multiplier depends on marginal propensities to consume, invest, import, and tax rate, which has different effects on the multiplier's size – positive in the case of marginal propensities to consume and invest and negative in the case of tax rate and marginal propensity to import. Results show that in countries with relatively low government effectiveness, the impact of debt on economic growth is stronger by a high tax rate than by a high propensity to import. Vice versa, if government effectiveness is relatively high, public debt has a similar effect on economic growth, whether the tax rate is low or high if the propensity to import is low. Therefore, if the public sector dominates the economy, the impact of debt on growth is more influenced by factors other than the multiplier effect. Findings indicate, that if the policymakers would like to achieve that an increase in public debt will have a positive impact on economic growth, they should know, that it is indispensable the relatively high government effectiveness with a high private sector propensity to spend.

Towards sustainable local development through green regeneration strategies in Polish cities

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Alicante-G04 Urban-Rural Relationships, 1-B01, August 31, 2023, 4:45 PM - 6:30 PM

Urban regeneration is a policy strongly characterized by an integrated, holistic approach. It adopts a vision that comprehensively considers the relations between the different aspects of degradation in urban areas: social, economic, physical, and environmental. This vision has pointed to urban regeneration as an opportunity to solve the problems that lead to decline and vulnerability in deprived neighborhoods. The evolution of the regeneration approach shows the growing importance of environmental issues in the process. They are expected to dominate regeneration theory and practice in the near future. Green regeneration strategies, especially in medium-sized cities, make urban neighborhoods more attractive, improve the quality of life, and provide residents with recreational spaces and opportunities.

In this paper, I analyse data and opinions of various actors regarding the move towards sustainable local development through green regeneration strategies applied in Polish cities. Particular emphasis is on linking these policies with the former character and changes in cities' social, economic, environmental, and physical structure. The statistical data analysis covered the whole country, while the survey was conducted in medium-sized cities of the Wielkopolska region, representing case studies. The results show that regeneration contributes to sustainable development by:

- promoting compact urban forms and mixed-use development through regeneration projects on inner-city post-industrial and post-military sites,
- improving urban greenery in residential environments (parks, squares, green spaces),
- developing low-carbon and climate-friendly neighborhoods that generate and consume renewable energy, save natural resources by recycling waste and rainwater, and reduce the use of private vehicles,
- improving public transport systems, increasing opportunities for walking and cycling, and encouraging the use of public transport in cities.

However, the above activities are not universal, occurring in varying degrees of intensity in the case study cities.

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Spatial effects of tourism on the housing market. Evidence from Puglia region (Italy).

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Alicante-G13-R Urban Challenges and technological transformations, 1-B02, August 30, 2023, 11:00

AM - 1:00 PM

This study explores the spatial effects of tourism, specifically the role of Airbnb, on the housing market in the Puglia region of Italy.

The rise of tourism and short-term rentals has allowed Puglia to meet the increase in demand in a flexible and quick way. Moreover, tourism can increase property values, benefitting property owners looking to sell or rent out their properties. The rise of tourism also creates jobs in various sectors, such as hospitality, leading to an increase in demand for housing among employees.

However, the sudden withdrawal of private houses from the housing market to enter the more profitable tourism market drives up rental rates for locals, leading to a pressure on housing supply. The increase in property values also leads to the displacement of lower-income residents who can no longer afford to live in the most touristy areas, resulting in a loss of authenticity and beauty in historic centres. Additionally, the seasonality of tourism leads to a depopulation of the most touristy areas during the low season, discouraging economic activities from remaining open all year round.

The study concludes that policymakers should consider the potential impacts of short-term rental platforms like Airbnb on local housing markets and implement appropriate regulations to ensure that they contribute to the broader social and economic goals of the community.

Overall, this study contributes to the limited research on the effects of Airbnb on the housing market and highlights the need for further investigation in small towns and rural areas.

Student migration: does specialization or diversification matter for university growth?

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Alicante-S09-S1 University impacts on the local and regional economy, 1-C14, August 30, 2023, 11:00

AM - 1:00 PM

This paper focuses on Higher Education Institutes' (HEIs) strategic behaviour. It expands the literature by exploring the role of study programmes strategies on freshers' dynamics, controlling for internal and external supply factors. The work addresses three research questions: 1) Are diversification and divergence of study programmes good strategies to increase demand? Do these effects change with 2) the internal characteristics and 3) the external characteristics of universities? A panel data analysis (2012-2019, Italy) confirms that HEIs converge towards the typical national specialisation. The Italian HEIs' market structure is also unveiled as a novel finding. Diversification is successful for small/peripheral universities, while divergence is rewarding in the presence of local competitors. Indeed, a monopolistic competition mechanism characterizes the Italian university system.

Does urban agglomeration (still) matter for firm innovation? Evidence from multidimensional innovation measures in the developed and developing world

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Alicante-G09-O2 Innovation and Regional Development, 0-C02, August 31, 2023, 4:45 PM - 6:30 PM

Amid emerging evidence of weak association between urban agglomeration and firm innovation, I revisit the widely held notion that innovation is an urban phenomenon. To do so, I assemble a high-resolution dataset that spatially links geocoded firm-level data on internationally comparable, multidimensional innovation measures with gridded population density data and point-specific firm and geological variables for 23 developed and 35 developing countries. These innovation metrics correspond to product and process innovation, radical and incremental innovation, and R&D spending as innovation input. I find that contrary to prevailing theoretical expectations and empirical evidence, all innovation measures (product and process, radical and incremental, and R&D as innovation input) decline across density quartiles for my full sample and subsamples of developed and developing countries. Moreover, my probit estimation results indicate that similar to the alternative perspective that challenges the mainstream geography of innovation, internal factors such as research and development (R&D) and firm's idiosyncrasies such as secrecy matter more to innovation. However, for developing countries, R&D is not internalized but rather depends on agglomeration economies.

Strategy and Policy Implementation in Sustainable Smart City Transitions

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Alicante-G02-O3 Regional and Urban Policy and Governance, 0-C01, September 1, 2023, 9:00 AM -
10:30 AM

This paper considers literature on socio-technical transitions to conceptualize and empirically investigate the relation between sustainable and smart city (SSC) strategies and policy implementation in a local context. Through a topic modelling analysis of policy documents for four cities, we trace policy development to reveal several key insights about the importance of strategies for SSC socio-technical transitions. We use these observations and the relevant literature to develop a set of hypotheses about the relation between strategy and policy implementation. Regression results indicate that strategies have a short-term impact on the speed and direction of SSC policy implementation.

Hit the Gas: Implementing Emerging Concepts for Carbon Neutral Futures

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Alicante-S34 Facing the challenges of the just transition in European regions, 1-B13, August 30, 2023,
11:00 AM - 1:00 PM

As the current climate crisis grows, governments adopt new policy packages. In some cases, these policy packages are transformative innovation policies, which are directed to give innovation processes a societally desirable strategic orientation. Put differently, such ‘directionality’ allows to design policy in a way that achieves desirable social outcomes. To define scope and give directionality to policies, new concepts or labels emerge. However, as they must be adjusted according to the territory in which they will be applied, these concepts remain nebulous without a widely shared definition, only a broad framework. These concepts tend to gain their importance when they are taken up at the international level, but their implementation often occurs at sub-national levels of government. This requires a vertical transfer of a concept from high levels to lower levels of government. This paper thus asks, how do different levels of governments take a new concept directed to them from the (supra)national levels guiding transformative innovation policies and implement it on the ground? It focuses on the Just Transition mechanism by the European Commission.

Correspondingly, the emerging concept we study is that of the just transition. Two European countries – Belgium and Poland – are studied through semi-structured interviews. In addition to offering novel insights on the emergence of the Just Transition concept in the European context, this paper thus traces how actors shape the understanding of emerging concepts, decide both what level of government and department will manage them, and who is involved in the policy implementation.

The FDI impact of business and technology parks on local employment

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Alicante-S65 Foreign Direct Investments, trade and local development: drivers and impact, 1-D14,
September 1, 2023, 9:00 AM - 10:30 AM

The purpose of this research is to gain a deeper understanding of the impact of business and technology parks specialising in foreign direct investment on local employment. The results may inform policy makers around the dynamics of state-owned business and technology parks and provide valuable insights which would be relevant from a regional and spatial perspective.

The development of this state-owned infrastructure is considered a key component in increasing employment, particularly with a regional focus. The role of this investment is critical as the development of large scale infrastructure projects can facilitate key connectivity points in the delivery of goods and services, often between multiple agglomerations.

The research uses a PSM-DiD methodology focusing on Irish Census data from 1986 to 2016 alongside data on the Irish state agency, the Industrial Development Authority (IDA) business and technology parks.

This research identifies the dynamics between agglomerations and infrastructure development. With consistent increasing concentrations of people living in urban regions, the demand for the types and placement of infrastructure, is of increasing interest to both citizens and policymakers from a spatial perspective.

A regional circular economy; connecting innovation, human well-being to ecological well-being and resource loop?

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Alicante-S32 Territorial Capacity for Sustainability-Oriented Innovation and Transformative Change, 1-E11, August 31, 2023, 2:30 PM - 4:15 PM

Although the circular economy (CE) is commonly conceptualised as a system in which the use of finite resources is decoupled from economic growth, its adoption has the potential to bring attendant social and environmental benefits (Van Buren et al., 2016). While CE programmes and policies are fast becoming key to local, regional, and international plans for sustainable futures, there are concerns in the way in which broader social implications are attributed to - and can be achieved by - the CE (Hobson and Lynch, 2016; Moreau et al., 2017).

It has been argued that the transition to a CE provides a normative direction to policy making with CE policies having transformative intent and the potential to achieve transformative outcomes (Lazarevic et al., 2022; Clifton & Walpole, 2023).

This paper analyses the transformative opportunities offered by a place-based innovation and experimentation programme that promotes circular approaches in public and private sector organisations in Wales. It discusses how an overarching policy landscape based on the well-being of future generations (the Wellbeing of Future Generations Act, 2015) - that links duties of sustainable development to public sector reform and concepts of innovation, collaboration, integration and long-term thinking in the devolved territory of Wales - is shaping the spatial understanding of CE. We therefore investigate how the Welsh Government, in its role of 'animateur institution', is framing CE within regional development and wellbeing, with Wales as a CE 'lab' for transformative innovation.

Nevertheless, while the policy landscape in Wales is influencing how public sector organisations are engaging with circular economy models, helping to re-focus the approach to collaborative working with people and communities - there is limited evidence that this is driving action at the micro (i.e. firm / organisational) level. We show that these emerging top-down drivers have so far provided limited transferability of learning opportunities and improved innovation collaborations to promote CE across public and private sectors.

The paper draws on a unique dataset arising from three clustered projects covering public and private sectors; the Circular Economy Innovation Communities (CEIC) programme as a micro-level CE intervention for public service organisations in South Wales (problem-scoping, challenges, collaborative solutions) the Cardiff Circular Economy Network (CCEN) programme that provided a purposive sample of actors in the private sector that are motivated to implement CE solutions, and an Innovate UK scoping study on CE innovation which included firm interviews in Wales on CE barriers and enablers.

Careers in Care

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Alicante-G03-O2 Demographic Change, Population and Migration, 0-C02, September 1, 2023, 11:00 AM - 1:00 PM

The health care sector is one of the largest sectors in many European countries, as well as one with the tightest labour market conditions: the ageing population and increased longevity increases demand for care and thus for employees. At this backdrop, this study assesses the careers of health care workers. It does so in two primary dimensions: transitions within individual careers, and urban-rural differences across careers. In the first, we use register data to provide an understanding of the in- and outflow of detailed health care sectors in the Netherlands, which presents a picture of the labour market dynamics that underlie the current shortage of health care professionals. Although the empirical setting is within the health care sector, the study argues in a more general sense how a career perspective focusing on transitions is helpful in understanding and addressing labour market shortages. The geographical dimension of the analysis focuses on rural areas. The rural population is generally older, increasing demand for care in these areas. At the same time, the centralization of care typically pushes (larger) care facilities away from the most rural areas. As such, understanding the dynamics in labour shortages in a geographical context is important information for policy makers. For our analysis, we draw on individual career data that spans the entirety of the Dutch labour market. It holds detailed information on educational background, job mobility and residential mobility. In addition, it has socio-economic indicators including wage as well as demographic characteristics.

Meritocracy and the inheritance of advantage in the USA

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Alicante-G35-O2 Regional and Urban Labour Markets and Entrepreneurshi, 0-E02, September 1, 2023,
9:00 AM - 10:30 AM

In Comerford et al (2022) we present an extended Becker-Tomes model of intergenerational human capital accumulation in which local labour markets are characterised by the information firms receive on the level of human capital of potential workers, and on the background (parental income) of potential workers. We label local labour markets in which firms exploit more the direct signals on human capital as “meritocratic”, whereas those in which firms exploit more the signals on parental income as “aristocratic”. High quality signals on either lead to income dispersion in that locality as firms discriminate between potential workers, and this naturally leads to a higher correlation on income across generations as parents invest in the skills of their children i.e. the model naturally generates a Great Gatsby Curve. Despite highly meritocratic and highly aristocratic localities both exhibiting income inequality and intergenerational persistence, they can be separately identified due to the differential incentives in the model to invest in education. A meritocratic labour market incentivises a higher degree of educational investment than an aristocratic labour market.

In this paper we exploit the comprehensive dataset from Chetty et al (2014), from which we can identify commuting zone and county data on educational expenditure, intergenerational mobility, and income inequality. We fit the model to this data and use non-targeted model outcomes to test the model. Fitting the model to this data effectively uses the model to measure the degree of meritocracy and aristocracy across US commuting zone and counties. We produce maps of the US showing these, and correlate these measures with other observables from the Chetty et al (2014) data to see what seems to associate with meritocracy and the inheritance of advantage in the USA.

EU Cohesion Policy and the Question of Poverty Pockets in Capital Regions. A Spotlight on Bucharest-Ilfov Region of Romania

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Alicante-S26-S2 Defining and measuring inequality across social and spatial scales: limits, thresholds, realities and perceptions, 1-D11, August 31, 2023, 4:45 PM - 6:30 PM

In a Europe suffering from a ‘geography of discontent’, the future of the Cohesion Policy and the European growth model point to the need of deeper integration of place-based and people-based approaches, in accordance with the spatial justice desideratum (IMAJINE, 2022) as well as to the ambition “to bring EU closer to citizens and to leave no one behind” (EC, 2023, p.5). When social cohesion challenges are focused on, attention is drawn to a large share of the EU population that is at risk of poverty or social exclusion “often in the poorest regions of the EU but also in and around rich urban agglomerations” (EC, 2023, p.5). Starting from these overall considerations, this paper brings into spotlight the question of the poverty pockets in the Bucharest-Ilfov region – the capital region of Romania, which represents a relevant case taking into consideration that, on the one hand, it is one of richest NUTS 2 regions in the EU, while, on the other hand, when it comes to the share of people at risk of poverty or social exclusion, Bucharest-Ilfov has a rate which, even if it is below the EU average and much lower than the average in Romania, it is by far higher than in other capital regions in Central and Eastern Europe. The research methodology is based on an in-depth analysis which combines the interpretation of the available statistical data with the examination of relevant national and EU documents, reports, the ex-post evaluations of the previous regional operational programmes and a critical assessment of the on-going regional programme and, last but not least, interviews with decision-makers, experts, researchers, etc., seeking for answers to questions regarding: the situation of the poverty pockets in Bucharest-Ilfov in the last 15 years, since Romania’s accession to the EU; the obstacles that impeded to take full advantage of the opportunities provided by the EU funding; the role played by institutional actors; the involvement of local communities; the messages for the regional programme 2021-2027; the synergies between the regional programme and other operational programmes that can support the most disadvantaged areas and social groups, etc. The conclusions can provide useful lessons to be shared with other capital regions confronted with the concerning issue of the poverty pockets and, on this basis, can contribute to enriching the empirical evidence for the orientation towards a Cohesion Policy able “to deliver improved well-being for all” (Rodriguez-Pose, 2022).

Highly-skilled migrants, social capital and green innovation in European Regions.

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Alicante-G09-O1 Innovation and Regional Development, 0-D03, August 30, 2023, 11:00 AM - 1:00 PM

Technological change is an iterative process that different agents of structural change can achieve. Mechanisms of technological change that act as agents are FDI, multinational corporations or migrants.

Recent studies have shown that sourcing external knowledge is essential for recombining knowledge underlying the innovation process. Migrants are an example of this. Regions benefit from the presence of migrant inventors in several ways, including entering new technological sectors and triggering technological change through knowledge creation and brokering.

In this paper, we aim to link the effect of diversity embodied in migrants as brokers of external knowledge on the production of green technologies.

Technological diversity is crucial in promoting recombination and successful invention, as it leads to the formation of new connections and more comprehensive environments for creative solutions. This diversity is brought up in patents by migrants that act as agents of structural change. But diversity is also a social capital of a given region in different forms, like tolerance to migrants or attitudes towards climate change.

Using patents covering two different periods from 1990 to 2019, we retrieved the nationality and the addresses of around 19.000 inventors residing in Europe, representing around 100.000 green patents in the EU and EFTA countries and the UK.

We expect to find a stronger effect of regions with 1-highly skilled migrants; 2- more acceptance of migrants, 3- more acknowledgement of climate change issues; and 4- the interaction between the migrants and the region's social capital on the production of green technologies.

Updating the concept of Smart Specialisation: is a new version available?

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Online-S38 Partnerships for innovation: building transformative innovation policies with local ownership, August 28, 2023, 11:00 AM - 1:00 PM

Since the pandemic, the EU has shown a remarkable capacity to adapt to new challenges. The recent Green Deal Industrial Plan confirms the EU's ambition to invest in the net-zero economy. But this is not the first time that a radical 'transformation' has been top of the EU Agenda. Twenty years ago, the 'Lisbon Strategy' supported the transition to a knowledge economy and stimulated thinking around regional growth that led to the development of smart specialisation policy (S3).

While the Lisbon Strategy and the Green Deal provide top-down directionality, S3 involves policy design at the territorial level incorporating an 'entrepreneurial discovery process' (EDP) with a bottom-up approach to priority-setting, focusing on the articulation of local competitive advantage in a cooperative European setting.

But times change and so must policies and actions including smart specialisation. While it is accepted that S3 works, as it "shows how to build on local assets to strengthen competitiveness and the innovation ecosystem..." adjustments are needed because of new challenges and the need to address effective governance and implementation.

This paper will examine how smart specialisation must now shift from a purely regional competitiveness tool toward a transformational instrument that can encompass changes in other key connected policies (EU industrial and research policies) as well as the Green Deal – the default EU strategy. It will discuss a revised conceptual framework where S3 is part of the multi-level decision framework in the EU for investments in the twin transition and developing resilient regions.

S3 place-based transformation strategies should continue the EDP which should also be informed by European frameworks and criteria such as ESG. Smart specialisation strategy needs to go beyond regional decision makers and include a wide range of institutional players at all decision levels to take account of the impact on investments for research and innovation, industrial capacity, and skills in places. This means that current and future smart specialisation strategies should be assessed for this transformational role. An 'adaptability criteria matrix' should determine its degree of compliance with the green and digital transitions.

A revised S3 policy can and should become a methodological and policy driver of a more collaborative European approach for transformation both within and between regions contributing to synergies between future Research and Innovation Policy, Industrial Policy and Cohesion Policy (post-2027) by upgrading conditionalities on interregional collaboration along supply chains thereby increasing European sovereignty.

Resilience and Social Capital: Empirical Analysis with Reference to European Regions

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Alicante-G20-O1 Social Innovation for Resilient Regions, 0-D01, August 30, 2023, 2:30 PM - 4:15 PM

In recent years, economists and social scientists have analysed the concept of economic resilience. Concerning regional economic resilience, a seminal definition has been provided by Martin (2012), who measures the resilience of a region as the relative difference between its employment growth rate and the national employment growth rate, between two years.

In the literature, several studies have investigated what variables may affect resilience; for a review see, e.g., Di Caro and Fratesi (2018).

Social capital is defined as the set of beliefs, habits and trust each individual feels within society (Bourdieu, 1986). As highlighted by Habisch and Aduai (2013), social capital is “a fruitful analytical tool to better understand the structure and role of social innovations” (p.72). Concerning the relationship between social capital and resilience, Aldrich and Meyer (2014) highlight that social infrastructure drives resilience. Bristow and Healy (2018) use social capital as an independent variable impacting resilience but within a broader set of variables. Further insights into the relationships between social capital and resilience are necessary here.

This paper investigates the role of social capital on resilience, after controlling for socio-economic variables, such as occupational specialisation. We expect social capital to positively influence economic resilience.

Our analysis focuses on the resilience of European regions between 2014 and 2018. First, by estimating OLS model, our results tend to suggest that social capital has a positive effect on resilience. However, OLS estimates are sensitive to outliers and do not allow a clear separation between resilient (characterised by positive changes) and non-resilient regions (negative changes). We therefore also categorise regions into two groups: resilient and non-resilient, and use a probit model, confirming a positive relationship between social capital and resilience. Finally, we refine the probit model by allowing uncertainty in the classification of regions: regions with changes close to zero can be classified as no-change, thus creating a third group. With a dependent variable with three categories (resilient, no-change, non-resilient), we estimate the model using ordered probit and find no effect of social capital on resilience. More analysis is needed to more systematically identify the threshold to separate the resilient/non-resilient regions from the no-change ones.

Further research may also extend the analysis to more recent periods, including the economic crisis, and using panel data estimation techniques.

Working from a New Home? Exposure to Remote Work and Urban Out-Migration

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Alicante-S18-S2 Drivers and impacts of migration: new insights on the role of local labour markets, human capital, remote work, and (family) networks, 1-C14, August 31, 2023, 4:45 PM - 6:30 PM

In this paper, I examine how exposure to working from home (WFH) contributes to the out-migration decisions of the working-age population of large Swedish cities. Studying the effects of remote work on migration is important because this employment arrangement is becoming increasingly common, as highlighted by the management of the COVID-19 pandemic. Additionally, in terms of regional policy and territorial governance, WFH has theoretical potential to contribute to the reversal of the depopulation trend for peripheral regions. Based on an adjusted WFH index for occupations at the 3-digit level and registered Swedish microdata of individuals in the period 2015-2021, the results of this study show that exposure to remote work during the pandemic significantly increased the likelihood of moving out of large cities, and of doing it beyond the suburbs. The results highlight the new-found relevance of the ability to WFH as an occupational characteristic that may potentially affect the residential location of individuals. Nevertheless, the small size of the effects, usually below or approximately 1 percentage point, downplays the impact of remote work and the COVID-19 pandemic on the future distribution of population across space.

Transportation System and Housing in São Paulo Metropolitan Region

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Alicante-G34-O4 Transport and Accessibility, 0-B02, September 1, 2023, 2:30 PM - 4:15 PM

We explore data from the São Paulo Metropolitan Region (SPMR) to determine the effect of accessibility to job opportunities on house prices. Large datasets on housing, transportation, and production are used to map price surfaces for housing in SPMR. Simulations on the distribution of projected population growth throughout the region were run based on the price surfaces. SPMR is divided into 517 traffic zones (TZ) and data is available for the employment level in each TZ as of 2017. We use the `r5r` package for R to estimate travel times by private transportation and public transit between each pair of TZs. An accessibility index for each transport mode was calculated for each TZ using the data on employment and the travel time estimates. This index measures how many job opportunities are plausibly within reach of an individual dwelling in a given TZ. A conventional hedonic prices model was employed to determine the marginal price of accessibility to job opportunities in the offer price of new housing units in SPMR. The dataset we use contains price and structural details of more than 1,000 types of apartments and houses built between 2014 and 2017. The marginal price allows us to map the housing price surface in SPMR as of 2017. Several macroeconomic scenarios for the trajectories of final demand components are projected up to 2040 employing a computable general equilibrium model (CGE). Based on these trajectories, an input-output model (IO) calibrated for the SPMR provided estimates for changes in production and employment levels for each municipality in the region, as well as for the rest of the São Paulo State, and for the rest of Brazil. Both CGE and IO models were developed in previous works. The municipal results were then downscaled to the level of the TZ. Changes in TZ's employment levels result in new price surfaces for housing, which are used to distribute projected population growth among TZs for each scenario, based on demographic projections from São Paulo State's census bureau.

The local labour market impact of robot adoption: evidence from Italy

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Online-G08 Cities, Regions and Digital Transformations, August 28, 2023, 2:30 PM - 4:15 PM

As technological advancements widen the scope of automatable tasks, labour and technology become competitors in the execution of tasks. While technology complements workers in performing non-routine tasks, it also substitutes jobs requiring codifiable, routine tasks. The literature on tasks emphasizes that these jobs are predominantly performed by middle-skill workers, whose proportion in the income distribution is progressively decreasing, with severe socio-economic consequences. This study aims to examine the routinization hypothesis through an investigation of the effects of automation technologies adoption on Italian local labour markets between the years 2009 and 2017. Using a survey targeted at Italian workers, this research builds a country-specific metric of task content which is mapped to employment data to assess the effects of industrial robot exposure on the Italian workforce. This analysis adopts a novel framework for the classification of jobs task content which improves previous task operationalizations on several aspects, including decreased measurement bias, and the ability to capture single, as well as joint task distributions. The findings of this study indicate that, while the adoption of automation technologies is not likely to have a negative impact on overall employment growth, it leads to significant changes in the demand for different types of task-specialized occupational profiles, consistently with the routinization hypothesis. Specifically, the results demonstrate that greater exposure to industrial robots is associated with a decline in routine employment and an increase in non-routine and cognitive employment. However, contrary to previous studies, exposure is not linked to a more pronounced pattern of employment polarization, but rather to an increase in demand for low-skill workers without a corresponding rise in high-skill jobs. This study also investigates the effects of technological adoption on neighbouring local labour markets, emphasizing the distinct impacts on urban and non-urban areas. While previous research on innovation mainly focused on spillover effects from urban to non-urban regions, this study examines the impact of robot adoption in non-urban areas on urban labour markets, since industrial robots are predominantly implemented in non-urban settings. The findings reveal an increase in routine and manual workers in urban areas due to lower industrial robot adoption and an increase in demand for services that require a physical presence which are not easily automated, typically gig jobs. Furthermore, as the use of robots becomes more prevalent in non-urban regions, the demand for skilled workers increases, leading to an outflow of cognitive workers from urban regions.

Global Value Chains, Foreign Investment and Regional Development

Prof. Riccardo Crescenzi

Online-KL1 Keynote Lecture, August 28, 2023, 9:00 AM - 10:30 AM

This talk will discuss why global value chains (GVCs) and foreign direct investment (FDI) matter for regional development and how regions can leverage them for upgrading, innovation, and economic development. Specifically, the discussion will focus on how regions can build, embed, and reshape GVCs to their local enhancement in a changing geo-political and economic landscape.

This talk will propose a new generation of GVC-sensitive regional development policies that target specific segments of selected GVCs, employing them as stepping-stones for local upgrading, innovation, and development. This is about gradual change on the strengths that are already present in local economies, shifting the focus of regional policies from specific sectors and technologies towards tasks and local value generation. Some reflections on how GVCs can support regions in the digital and green transitions will conclude the talk.

From the informality approach of labour markets to the plurality of occupational relationships in emerging economies: ha tien (vietnam)

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Alicante-G35-O3 Regional and Urban Labour Markets and Entrepreneurshi, 0-D04, September 1, 2023, 2:30 PM - 4:15 PM

The role of the labour market in developing economies has largely been posited as a process of transition from informal work, linked to a traditional economy of low productivity, agriculture and trade, to a formalized labour market, offering more productive jobs and recognized by the state and social security institutions. It is a vision of development supported by well-established, often international, companies working on the basis of the Fordist wage relationship.

Based on research in the Ha Tien region of southern Vietnam, this article proposes the concept of occupational relationships (OR) to characterize the way in which workers now contribute to economic activities and their development. Unlike the classic employment relationship (the “rapport salarial” of the French regulation school), the OR captures the diversity of relational and institutional modalities through which labour contributes to development. Thus, in Vietnam, the labour market is particularly embedded in family structures that largely control the modalities of access to positions (recruitment, remuneration, etc.), determine the modalities of cooperation within the firm (hierarchy, flexibility, etc.), but also more broadly the modalities of access to entrepreneurship.

This shows that the vision of development and success in South Vietnamese society does not necessarily involve stable and formal jobs provided by international companies. Participation in the region's diffuse and vigorous growth through entrepreneurship, supported and strengthened by family networks, is a particularly mobilizing goal.

Residents' perspective on sustainable tourism in local marketplaces. A tourism lifecycle approach.

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Alicante-G60-R Covid segregation and tourism, 1-B03, August 30, 2023, 11:00 AM - 1:00 PM

Following the sustainable development paradigm, in the tourism domain the interplay between tourists and resident populations interacts with the social and natural environment. Although many studies focused on residents' opinions and perception of mass tourism, a scarce attention has been devoted to the role of open-air marketplaces in the understanding of tourism sustainability issues at a local level. In this paper we contribute to the literature on the sustainability impact of marketplaces on the evolution of destinations, and, as a case study, we studied the Mercato di Luino, a historical and traditional open-air marketplace in the province of Varese. We use survey data collected in 2020 among residents in Luino and nearby towns (742 observations). The survey is composed of three main parts. The first section collects information about socio-demographic aspects. The second section includes questions on organizational features of the marketplace linked to tourism activities. In the third section, the survey explores the residents' perception about the social, economic and environmental sustainability of the marketplace. Following the Downtown Tourism Lifecycle Model, the resident population is divided into four groups, based on two dimensions. The first relates to the places where visitors live, i.e., in-town vs. out-of-town, while the second considers the casual vs. habitual use of the marketplace. For the analysis, ANOVA tests are applied to the mean values of the survey responses among the groups to evaluate their significance. The analysis of four segments of visitors/users of the Mercato di Luino performed in this research provides insightful and promising results about the interplay between sustainability and tourism lifecycle of a destination. From a tourism lifecycle point of view, the results imply that the Mercato di Luino is at different stage of its lifecycle, depending on the sustainability-related view of users. More importantly, we found evidence that the shared perception of social, economic, and environmental features of the marketplace might be mostly affected by the usage frequency of marketplace visitors, and not by their geographical location. From a theoretical perspective, this study paves the way for a conceptualization of a sustainability-based tourism lifecycle.

Where is the next stop? Analysing the older adults' post-COVID public transportation demand

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Alicante-G34-R Transport and exports, 0-E02, September 1, 2023, 11:00 AM - 1:00 PM

Due to contagion risks and mobility restrictions, the COVID-19 pandemic has strongly impacted older adults' outdoor movement, mainly by active modes of transport, including Local Public Transportation (LPT). This paper follows a twofold aim: (i) to investigate the factors influencing the pre-COVID usage of LPT to reach destinations such as healthcare facilities and places for gathering and social inclusion; (ii) to explore the potential frequency of LPT use variation in post-COVID times. For this empirical study, primary data has been collected (during the beginning of 2022) for three cities in the North of Italy, which were severely affected by the pandemic. Findings show a correlation between the use of LPT to reach the destinations mentioned above and an increasing frequency of transit usage after COVID-19. From a transport policy point of view, such a result implies a post-pandemic increasing "demand" for LPT services in later life. As a result, policymakers are called to consider this potential request and, more generally, to enhance the outdoor mobility of senior citizens aged 65 and over by forming or amending local policies to improve the LPT accessibility to more visited places by seniors for immediate and/or long-term medical care as well as for social participation.

Bank restructuring and regional economic growth in Spain. Are branches still relevant?

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Alicante-G12 Fintech, technology, and financial inclusion, 0-D03, August 31, 2023, 2:30 PM - 4:15 PM

The restructuring process of the Spanish banking sector initiated after the Great Recession of 2008 has led to a dramatic reduction in the number of bank branches. This paper analyzes the impact of branch closures on GDP per capita, labor productivity and employment per capita of the Spanish provinces in the period 2008–2018. The results show that bank branches have only a weak impact on employment, but no effect on productivity and GDP per capita. Therefore, if consumption and investment decisions of families and firms are affected by branch closures, the impact is not transferred to aggregate regional performance.

Regional resilience to economic crises and productive specialization. An analysis of the (apparent) paradoxical results in the last 3 crises

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Alicante-S23-S2 Rethinking regional resilience, 1-D11, August 30, 2023, 2:30 PM - 4:15 PM

One of the most extended questions in the economic literature is why some regions recover better than others after crises. The recent COVID-19 socioeconomic crisis has highlighted this debate even more. Many variables have been introduced to justify the regional disparities and the economic resilience of regions. Among them, following and extending Cuadrado & Maroto (2016), this paper assesses the key role of the productive specialization to explain the different patterns of regional resilience. We analyze the case study of the Spanish economy, but results might be easily extrapolated to other countries. We consider three rather different crisis: the first, held at mid-90s.; the 2nd: the Big Crisis started in 2008; and the last, the impact of Covid from the economic point of view. The analysis not only shows the different effects of such crisis from a regional point of view, but the regional capacity of reaction. Methodologically, regional and sectoral resilience indices are estimated and then, related to the regional specialization indices. Other effects of structural patterns are also analyzed using a shift-share analysis. Results show that, despite the differences both in causes, time duration, and regional effects of these three negative cycles, resilient regions display similar productive structures in all of them.

The main value added of this work is threefold. On one side, we extend the previous literature on regional resilience to economic crises comparing the results observed after the main three crises in the last decades. We compare these three different crises linking them with the role of productive specialization. Additionally, methodologically we introduce new sectoral and regional resilience indices for the Spanish economy. This kind of measures have only used previously for analyzing resilience among Chinese cities after Covid (Hu et al. 2022)

Economic Impact of COVID-19 on Hot Springs Areas and Related Policy Assessment

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Online-G30-O2 Covid-19 and regional and urban resilience, August 29, 2023, 2:30 PM - 4:15 PM

The tourism sector, which was severely affected by COVID-19 over the past three years, has slowly recovered back to pre-COVID-19 levels. However, tourism-related establishments are still facing various challenges to recovery, such as a labor shortage, a reduction in the size of establishments, and restrained capital investment by accommodation operators due to deteriorating business conditions. In order to support tourism-related establishments that were severely affected by COVID-19 and to revitalize tourism destination economies, it is necessary to clarify the actual economic impacts of the pandemic and the effectiveness of economic support measures. With the unprecedented long-term effects of the pandemic, policy implementation that cannot be referred to by previous experience will be optimized through iterative evaluation and feedback, which requires supporting evidence in all the processes of policy assessment. Therefore, a questionnaire survey is an effective method for providing objective and visual data of actual situations for developing and evaluating economic support measures.

Hot spring tourism destinations are characterized by a high concentration of accommodation facilities in specific areas, high dependence on tourism, and susceptibility to external factors such as natural disasters, infectious diseases, and economic fluctuations. This study aims to clarify the actual economic and policy effects of hot spring tourist attractions in COVID-19 through a questionnaire survey of tourism-related establishments in the Kinosaki hot spring tourist destination. First, the economic impact of COVID-19 on the Kinosaki hot spring area is determined by examining changes in sales and closures of tourism-related facilities. Next, we investigate the effects of various economic support measures implemented by the government. Furthermore, we identify the issues and support measures for future tourism revitalization.

Is species richness enough to guide urban biodiversity conservation policies?

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Alicante-YS05 Modelling Challenges - EPAINOS, August 31, 2023, 11:00 AM - 1:00 PM

Urbanization processes are considered as major causes of biodiversity decline and other environmental issues because they create more competition between land uses. In this paper, we consider the case of a French urban area, and we focus on the role of ecological connectivity in biodiversity conservation. We apply optimal location models to address land use competition issues in an urban space on which environmental policies are implemented. More precisely, we use RICP to identify sites that are critical for local biodiversity, i.e., those whose elimination would be the most harmful for local fauna. Our study area is the SCoT du Dijonnais, an urban zone consisting of 59 municipalities around the city of Dijon, north-eastern France. To observe the number and type of the species sampled at the SCoT and SCoT+ levels, we use the most exhaustive multi-taxon database on regional biodiversity. Using RICP, we are able to quantify potential biodiversity loss if some municipalities decided to exit or to deviate from the urban planning document and then to abandon the collectively-defined biodiversity targets. Preliminary results show that if the municipality with the highest species richness was removed from the SCoT du Dijonnais, then 74.82% of local biodiversity would be under a potential local extinction risk. This rate increases as the number of municipalities to be interdicted rises, so that the elimination of 32 municipalities would potentially lead to disappearance of local species diversity.

An integrated approach to regionalise economic and demographic projections

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Online-G39 Methods in Regional Science or Urban Analysis, August 29, 2023, 2:30 PM - 4:15 PM

Socioeconomic projections are essential tools for policy-making that are typically available at coarse geographical aggregations, which is often insufficient for policy domains with a strong territorial dimension. The disaggregation, or downscaling, of socioeconomic projections to finer geographical resolution, is often required to assess future impacts of scenarios on climate, environment, natural hazards, urbanization and other issues. The most simple calculation rule for downscaling is based on keeping observed regional shares constant through time. Such an assumption however would be futile, as it simply replicates the status quo of a given observed moment in time by keeping the regional variability constant, thus ignoring ongoing or expected processes of divergence/convergence of regions. To overcome this limitation, we propose a novel regionalisation model to regionalise long-term, country-level socioeconomic projections in an integrated manner. The model relies on a set of linked equations that integrate assumptions regarding future regional growth, and estimate regional levels of GDP, employment and population dynamically and recursively, while ensuring consistency with any set of given socioeconomic projections at the country level. The model is structured in a flexible way that allows to expand or substitute any of its components by alternative approaches, and to generate different regionalisation scenarios based on the same set of country-level projections. A first pilot of the model is conducted to downscale country-level socioeconomic projections to NUTS3 regions in Europe. An accuracy assessment of the model is currently ongoing, aiming at the comparison of observed historical data with projections from a null model assuming invariant growth rates within each country and data generated from the regionalization model.

FDI inflows and economic growth: a novel application of dose-response functions

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Alicante-S03-S2 Counterfactual methods for regional policy evaluation, 1-B03, August 30, 2023, 4:45

PM - 6:30 PM

In this work we estimate different dose-response functions linking FDI inflows received by a sample of developing countries with their economic growth. Although the impact of FDI on the economic growth of host countries has been widely investigated in literature, findings have been ambiguous. Our study proposes a novel ‘dose-response’ approach which allows the response of recipients to different amounts of treatment in terms of FDI inflow to be observed. The estimated dose-response functions are statistically significant for treatment values greater than 20%, after the treatment has been rescaled to a percentage measure of the maximum dose observed, and increasing at a decreasing rate, therefore indicating that: a) a country receiving a greater amount of FDI inflows will present a higher economic growth; b) there might be a minimum amount of FDI inflows required to reach some policy effectiveness; c) the initial amounts of FDI inflow are more effective than the subsequent ones, therefore reflecting the law of diminishing returns. Results are robust to different specifications and imply useful policy considerations.

Pathologies in the self-organization of cities

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Alicante-S79-S1 (SAS) Is the New Economic Geography (NEG) Still Alive and Well in 2023? Smart Algorithmic Places and Artificial Intelligent Spaces, 1-E12, September 1, 2023, 9:00 AM - 10:30 AM

The physical structure of cities is the result of decisions by a myriad of various urbanites where to live, where to work, and where to establish firms. The decisions by individuals create spatial order spontaneously. In the absence of obstacles, the efficiently working process of self-organization should lead to an equilibrium of a closed urban system in which all the cities are of similar size and economic structure.

In reality, however, cities differ in size. Their distribution displays a power law distribution of sizes known as the rank-size rule. The economic composition of cities differs as well. This reality is the result of particular pathologies of self-organization. The common explanation of the urban reality is known as the new economic geography. Due to increasing returns to scale and transportation costs, some cities emerge as large urban agglomerations while other cities do not. It is noteworthy that in some countries, due to the nature of their economic bases, industrial economies of scale are almost non-existent and transportation costs are minimal. Such is the case in Israel. Yet, here we also witness power law of city sizes.

We propose an alternate explanation for the extant reality. The process of self-organization in some countries is marred by obstacles that prevent the spontaneous formation of equilibrium that leads to cities of similar sizes and economic structure. The decisions of urbanites where to work and live reflect information available to them. The linkages between firms, suppliers and consumers are subject to communication filters that affect decisions. The sources of information are distorted while passing through communication networks and lead to decisions that create large urban agglomerations alongside smaller cities, towns and villages.

Capital Shocks and the Effects of the Global Financial Crisis in European Regions and Cities

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Alicante-G01-O5 Region Urban Development, 0-C02, August 31, 2023, 2:30 PM - 4:15 PM

Since the global financial crisis, processes of divergence have given rise to a major divide between wealthy and less prosperous cities. In this context, the present paper's aim is to uncover the role which capital shocks and investment allocation processes play in shaping local and regional productivity responses. The underlying approach is based on the integration and analysis of real estate capital inflows across Europe. The importance of real estate capital flows is that they represent substantial and long-term investments which bundle together the capital from many different stakeholders and institutions. Importantly, these investments act as a signal of broader capital market conditions across sectors and localities. Our analysis exploits the vast heterogeneity of Europe to identify how capital pricing responds to national, regional, or city-specific features when exposed to severe and prolonged shocks. We analyze uniquely detailed data on investment-grade real estate deals (N = 60,000) prior and after the 2007-08 crisis and enrich these with OECD-standardized data. Whereas prior to the crisis the differences between places are largely priced in, with the serious uncertainty of the post-crisis period the pricing of capital diverges between weaker and stronger locales, which offers a possible explanation for their persistent divide in growth since.

China as an Adhesion: the Network Effects of Chinese Greenfield Investment in Southern Countries

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Alicante-S04-S3 Global Value Chains and regional development, 1-C11, September 1, 2023, 11:00 AM - 1:00 PM

In the past decades, the role of southern countries in the global investment network has become increasingly crucial, which can be attributed to China's improving core position. However, previous research on global investment focused on North-South pattern. The effects of greenfield investment on the Global South is far from satisfactory. Through multilayer networks motifs detection and a series of expanded gravity equations, this paper provides a systematic evaluation of the impact of China's outward greenfield investment on southern countries. The findings are as follows: (1) China's co-investment in Southern countries has strengthened trade ties among countries in the global South. The network effects of Chinese greenfield investments in the South are geographically long-term and heterogeneous across continents. (2) Considering industrial heterogeneity, Chinese co-investment in greenfield countries in the South promotes both intra-industry and inter-industry trade. (3) On the one hand, Chinese MNCs and SOEs' co-investments in Southern countries promote input-output linkages in trade between Southern countries. On the other hand, as Chinese greenfield investments in Southern countries are concentrated in capital-intensive and knowledge-intensive industries, greenfield investments in China to Southern countries also have knowledge spillover effects.

The impact of Cultural Revolution on People's View of Material Equality

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Alicante-YS08 Political Institutions, August 31, 2023, 11:00 AM - 1:00 PM

This paper aims to assess how people's view of material equality is affected by the mass movement promoting egalitarian and classless ideology in the context of the Chinese cultural revolution. Relying on the regional data from the China Political Events Dataset, 1966-1971 and 2010 Chinese General Social Survey (CGSS), I use a difference-in-difference design to identify how people's susceptibility to material equality increases after the Cultural Revolution. I further examined how people's demand for a better redistribution system is affected.

The cultural revolution as a movement in Chinese history was initiated as a movement to raise people's sense of egalitarianism mindset and eradicate class differences. Despite all the terrors and disasters, it has brought to the Chinese people and society, the results show that the generation which live in more intensive regions of cultural revolution reports that they are more susceptible to material equality in terms of owning branded commodities, while they do not necessarily increase their demand for a better distribution system. In regions with a higher density of party members or major ethnic groups, the effect is ameliorated, potentially because the intensity of the Cultural Revolution in such regions was less affected by civil conflicts than political movement.

This finding suggests when assessing people's view and respond to inequality, it is crucial to take into account of individuals most pertinent needs and their local socioeconomic environment settings, as the consequence of inequality is all-rounding while people's ability to make economic decisions is limited by their environment and backgrounds.

Conspicuous Consumption Cultural Entropy and Innovation in China

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Alicante-S07 Culture Based Development (CBD): Cultural Context and Social Psychology in Confronting Urban and Rural Challenges, 1-C11, August 30, 2023, 4:45 PM - 6:30 PM

Consumption of luxury goods is a prominent feature in modern China. This behaviour is termed conspicuous and can be seen as a way to create social capital, in order to promote and spread one's innovative ideas. However, regional local culture could serve as a hindrance to innovation across China. Thus in this paper, our hypothesis is that the conspicuous consumption might be a positive cultural impact on innovation. To operationalize this hypothesis, we rely on using the measure of cultural entropy, which quantifies the variability between locally closed cultural milieu and locally open cultural milieu. Places with lower cultural entropy, where one type of milieu prevails, are expected to be more against and restricted in nature. Hence, we test whether places with lower entropy would see more conspicuous consumption which is aimed at surmounting the local hindrance. We use a panel dataset for 31 Chinese regions for the period 2013 – 2019. Our results confirm that conspicuous consumption is triggered by low cultural entropy and in the same time it is beneficial for local innovation. However, we have reasons to question whether the quality of innovation is at highest level if it is promoted by social networking rather than being based on genuine competition based on the quality of the innovative ideas.

To go or not to go? Determinants of Students mobility in Italian Higher Education

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Alicante-S09-S2 University impacts on the local and regional economy, 1-C13, August 30, 2023, 2:30 PM - 4:15 PM

Several studies have investigated the push and pull factors of student mobility, however to the best of our knowledge, very few of them have jointly considered the quality of the receiving institutions and the quality of life of the places that mostly attract undergraduate students. In a country such Italy - characterized by a well-known historical North-South dualism which is persistent over time - the brain drain from the southern regions towards those of the north of Italy, might be driven by a virtuous circle that attract incomers because of both the quality of the hosting institutions and the work opportunities and quality of life of the receiving places, that further improve the socio-economic conditions of attracting areas and further increase the North-South divide even in terms of universities quality (e.g. by attracting more funds). Disentangle between these two migration causes is not an easy task, however it might be relevant to define place-based undergraduate policies to reduce disparities among universities. Therefore, this work aims at identifying the determinants of Italian interregional student mobility at the province level (NUTS 3) over a decade (i.e. from the academic year 2010-2011 till 2020-2021), controlling for both the characteristic of universities, as well as for that of the local territory in which universities are located. We use several indicators controlling for the quality of the universities and for the monetary incentive for students and at the same time we include quality of life variables of the provinces where the universities are located. Furthermore, we disentangle for the propensity to attract new students from other regions and for the propensity of the students to stay.

Mobility patterns and occupational outcomes of the Italian Ph.D. graduates

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Alicante-S09-S1 University impacts on the local and regional economy, 1-C14, August 30, 2023, 11:00 AM - 1:00 PM

This paper aims at understanding the determinants of the Italian Ph.D. mobility and occupational outcomes, a category of high skilled individual which has been largely ignored by the existing literature. Investigating the mobility patterns and the occupational outcomes of Ph.D. graduates is relevant for different reasons. From a policy perspective, recent evidences has shown how for some cohorts it is increasingly hard to find an academic job, which leads to an imbalance between demand and supply (Mewburn et al, 2020; Ballarino and Colombo, 2010) and, at the same time, because recently academia is not the unique reference labor market for Ph.D. holders who started to work also in the private sector (Ermini et al., 2017). Moreover, doctoral students are expected to produce more general and transferable skills in the place where they work and live favoring.

To achieve this research objective, we use the latest edition of the Survey on the Professional Placement of Ph.Ds. conducted by the ISTAT (2018) referring to 2014 Ph.D. graduates from all the Italian universities. It provides 7800 observations, representative at the level of the region of study, residence and work (NUST2). Our econometric analysis consists of an initial investigation of their spatial distribution and a subsequent multilevel analysis by matching the survey with regional-level data.

With respect to the extant literature, three are the contributions of this research. First, we focus on Ph.D. holders, a skilled human capital category under investigated by the empirical literature. Second, we implemented a taxonomy of mobile graduates by distinguishing Ph.D. into five categories (repeat, return, university stayer, late migrant and non-migrant). Third, we also consider their educational background, separating the analysis of their effects associated their labor market (employed in public institutions or private companies).

The result of the study lead to relevant implications, both for scholars and policy makers. Concerning the literature, we advance the relatively scanty investigated topic of PhD holder mobility and their placement in the labor market in Italy. Second, understanding their mobility and their occupational outcomes it's of paramount importance in Italy, particularly in relation with the National Recovery and Resilience Plan (PNRR). Third, understanding the occupational outcome is also important for universities to design Ph.D. courses aligned with the job market requirements.

Mapping the reshoring activities in Italian provinces with large-scale data

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Alicante-S65 Foreign Direct Investments, trade and local development: drivers and impact, 1-D14,
September 1, 2023, 9:00 AM - 10:30 AM

The recent global dramatic health and safety challenges are posing unprecedented questions about the future of globalization, grafting on growing political demands against the de-localization of production to other countries and to “bring jobs back home”. As a result, the evidence is increasing about firms that reshore (Dachs et al., 2019; Delis et al., 2019). Reshoring has been defined as ‘a voluntary corporate strategy regarding the home country’s partial or total re-location of (in-sourced or out-sourced) production to serve the local, regional or global demands’ (Fratocchi et al., 2014), with a strong emphasis on manufacturing operations (Ellram, 2013).

The main hindrance to a comprehensive economic analysis of the impact of reshoring has, so far, been represented by the difficulty to provide an accurate measurement of the phenomenon on a large scale and, potentially, across countries.

We intend to fill this gap by taking advantage of a unique dataset linking COEWEB-ISTAT population data about Italian firms’ imports, with Bureau van Dijk Aida and Orbis data about firms’ production sectors and balance sheets.

Our proposed measure of reshoring draws on administrative data on trade, in the wake of the prominent contributions on the measurement of offshoring pioneered by Feenstra and Hanson (1999), their subsequent applications (see, e.g., Feenstra and Hanson, 2003 and Harrison et al., 2011 for comprehensive reviews), as well as Hummels et al., (2014)’s application to firm-level data.

We propose to measure reshoring somewhat symmetrically to offshoring, with some important specifications. We consider firms that were previously involved in offshoring and consider that a firm is reshoring when it experienced (i) a negative change in narrow offshoring to a particular partner country (ii) that is persistent over time and (iii) that is not matched by any increase in narrow offshoring of the same firm to any other country over the following 5 years. We propose to measure reshoring as an event, i.e. the first year for which, at the firm level, the three above conditions are jointly met.

This allows us to compute a measure of reshoring over the 2008-2015 period, which leads us to identifying about 4750 estimated firm-reshoring events over the considered 2008-2015 period.

The resulting measure of reshoring will be employed to map the offshoring and reshoring activities of Italian NUTS3 provinces and provide relevant information for policy makers who will have a potential way to test the implications of their “make it at home” policies

Local sources of vulnerability to climate change and armed conflicts in East Africa

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Alicante-S58 The geographies of hate, violence and intolerance against vulnerable groups, 1-D14,
August 30, 2023, 4:45 PM - 6:30 PM

Our empirical work sheds new light on the climate-conflict nexus by investigating why some locations are more likely to engage in armed conflicts than others in the presence of a similar level of exposure to climatic changes. In particular, we focus our analysis on the concept of vulnerability to both climate change and armed conflicts and, accordingly, on the identification of a specific set of factors that enhance vulnerability of some shares of the population at the local level. We employ a Spatial Autoregressive Model to capture the spatial and context-specific dimension of vulnerability factors in driving the climate-conflict nexus in East Africa. Results from our analysis provide some interesting insights: first, we find that climate change does not increase conflict risk *per se*, but only in the presence of pre-existing vulnerabilities. Second, in line with the literature on climate change vulnerability, we find that socioeconomic factors play a key role in the climate-conflict nexus. In particular, vulnerability is enhanced whenever power is not distributed in such a way as to ensure an equitable distribution of resources.

Government-Led Entrepreneurial Ecosystems in Resource-Constrained Environments

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Alicante-S40 Aligning entrepreneurship, sustainability, and regional policy, 1-C14, August 31, 2023,
2:30 PM - 4:15 PM

The Entrepreneurial Ecosystem (EE) concept has been gaining attention as a holistic approach to studying the evolution of a local economy, being increasingly adopted by policymakers to promote entrepreneurship and innovation and foster local socio-economic development. This study represents an original attempt to understand the EE governance evolution and to contribute to the lack of research regarding underdeveloped places, such as low-density territories. The findings highlight the strong role of local government in the creation and development of the EE, filling the existing governance and resources void in the LDTs, through the performance of several roles during the EE evolution. Several EE governance strategies were also identified to face local challenges related to community acceptance, lack of entrepreneurial culture, or lack of resources. This work provides important contributions to EE and regional development literature, as well as implications for local and regional policymakers aiming to promote entrepreneurship and innovation in their territories.

Exploring the Factors Driving Patent Citations for Indian Patents Registered with the USPTO

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Online-YS02b Place-based Development - EPAINOS, August 29, 2023, 2:30 PM - 4:15 PM

Abstract

The study examines the influence of patent attributes on patent citation frequency using 6777 patents granted by the US Patent and Trademark Office to Indian assignees from 1985 to 2015. It finds that patents from developed countries and those with US-origin prime inventors have a positive impact on citation frequency, while the impact is negative if the prime inventor is from India. Other factors affecting citation frequency include citation lag, grant lag, technological variability, claims, and family size. The results of this study have important policy implications, as they highlight the importance of considering the priority country and inventor origin when evaluating the technological value of a patent.

Keywords: Patent citation; USPTO; Priority country; Technological value

Re-evaluating the urban wage premium: the changing roles of geographical and job transitions for women and men

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Alicante-G35-R Regional and Urban Labour Markets and Entrepreneurship, 1-B03, August 30, 2023,
11:00 AM - 1:00 PM

This paper looks at gender as a new, important source of heterogeneity in the urban wage premium. Using a representative panel of nearly 1,250,000 male and female observations in Great Britain from the ASHE/NES survey covering the years 1998-2019, I find that, after controlling for individual and job characteristics as well as sorting on unobserved worker ability, the urban wage premium is 44 % greater for women than for men. The urban wage premium is therefore significantly underestimated in previous estimates that are either based on male workers or gender-neutral. I also find that sorting on time-invariant ability into cities is more pronounced for men than for women. Investigating the urban wage premium over time reveals that the gender difference is driven by the pre-financial crisis period. It disappears during the crisis as women's urban wage premium drastically drops, from 2.9% to 1.4%. The overall results also hide important differences in the urban wage premium across city size categories: the urban wage premium for small and big cities entirely disappears over time and only London maintains a wage premium over other labour markets in the post-crisis period. I then investigate the channels that can theoretically explain the gender difference in urban wage premium and its evolution over time. I find no evidence of sharing advantages in cities or of better employer-employee matching in cities, for women or men. 46% of women's static urban wage premium in the pre-2008 period comes from worse occupational matching at the time of an urban to rural job transition: rather than benefiting from moving to cities, women incur a wage penalty due to occupational transitions when they switch to a rural job, which implies that women are particularly constrained in the type of occupation that they have in rural areas. Women also benefited from occupational matching as well as learning within cities. These two advantages disappear during the financial crisis whilst women continue to suffer the wage penalty when moving to rural jobs. I find that men, contrary to women, are able to benefit from the larger choice of employers in cities, although the positive effect on their yearly wage growth is limited to the year in which they move from a rural job. This is maintained over the three time periods.

The Firm-Exit Productivity nexus and urban-rural disparities

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Alicante-G03-R Demographic Change, Population and Migration, 1-E11, September 1, 2023, 9:00 AM -

10:30 AM

Productivity is a critical determinant of firm survival and exit as theory suggests that in an efficient outcome the least productive firms exit the market. In parallel, the urban economics literature has shown that firms in denser locations are more productive than in less dense areas. Most of this literature focuses on cities of different sizes or densities, with a smaller literature exploring rural-urban differences. Finally, the literature has also shown that the local environment affects the probability of firm survival. However, evidence at a granular-geographic level is still lacking and little attention has been given to the urban-rural dimension of the productivity-exit nexus. Yet, there can be important heterogeneity in productivity and exit rates between the urban core, suburban and rural areas: we therefore investigate the possibility that the relationship between firm exit and productivity can be mitigated by firms' local environment.

We use a panel of 3.5 million observations covering 600,000 Spanish firms from the SABI database to study the determinants of firm exit at a detailed geographical level in mainland Spain between 2011 and 2019. Our descriptive findings show important urban versus rural differences in firm-level productivity and exit rates. As expected, productivity levels follow the urban hierarchy, highest in core urban areas and lowest in rural areas. Our empirical results indicate that the probability of exit is highest in core urban areas followed by suburban areas, in both manufacturing and services. In manufacturing, this effect increases after controlling for firm age, size, exporter status, capital intensity and industry. Firms in suburban areas are almost twice, and firms in core urban areas nearly three times as likely to exit as comparable firms in rural areas. When including the distance to the productivity frontier, the effect of the urban hierarchy is unchanged and remains significant. Increasing the distance to the frontier by one standard deviation leads to a 78% increase in the probability of exit. In services however, the effect of location is no longer significant when we include firm controls. When we add the distance to the productivity frontier, we find that a one standard deviation increase is associated with a 70% higher probability of exit and firms in the urban core localities are 46% more likely to exit than in rural localities.

Perception about Salt Lake City Centre and its Inclusiveness

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Online-S28 Sustainable Cities and Inclusive Communities, August 28, 2023, 4:45 PM - 6:30 PM

Shift in focus of the retail industry in India was seen with the emergence of shopping malls as a one stop destination for shopping, recreation, entertainment, socialisation etc. The City Centre is located in Sector 1 of Salt Lake City or Bidhannagar which was the brainchild of Dr. B.C. Roy. It was built in 2004 in a different way from other shopping mall architectures mostly prevalent i.e. the airconditioned box-type structure, and was a mixture of closed and open spaces with various elements inside it like street pattern, kiosks, open courtyard etc following partially the style of “Indian Bazaar” so that it becomes more than just a shopping space- an inclusive place to socialise for all categories of people. This study aims to analyse perception about the mall, its architectural style and its inclusiveness with a sample size of 100 for users’ survey, 6 for interview of users and 12 for hawkers’ survey. The methodology adopted included a questionnaire survey among the visitors of City Centre to get an insight into their perception about how much the different style of architecture was preferred to them in comparison to other malls, user’s satisfaction with it and their views about the informal residential and commercial pockets in the vicinity of the mall. Photo Elicitation Interview was carried out with people from various age groups and gender to get their views about the features of the mall, its degree of similarity with “Indian Bazaar”, its inclusiveness and their views about it. A part of this analysis was done using NVIVO software. The growth of several types of hawker stalls was identified for the last 20 years from Google Earth in an open space in front of City Centre and were mapped by recording GPS points and using ArcGIS software. Those hawkers were interviewed about the impact of presence of City Centre on their business and also of the Covid Pandemic. It was found that the open structure and multidimensional functions of City Centre was attractive many users but it excluded the hawkers which however most users preferred. However, surprisingly many of the hawkers or informal vendors outside City Centre made their business from the visitors to the mall only. It was found that though City Centre was meant to be inclusive, it actually promotes exclusivity while some inclusive character is brought by the local hawkers outside.

No clear winner: the complex effects of Italy's unification on regional development, 1840-1910

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Alicante-G18-O3 Institutions, Political and Decisional Processes, 0-D01, September 1, 2023, 11:00 AM
- 1:00 PM

There is a long-standing debate on the economic consequences of Italian unification in 1861 on the country's dual development. This paper uses a new cross-country historical dataset relating to the 19th century to estimate the impact of unification on the economies of Centre-North and the South with a novel approach: the synthetic control method. We find that over the fifty years following the birth of the unified state, neither area drew discernable benefit from unification in terms of GDP per capita, and that and consolidation caused a delayed industrialization. The South, however, benefited from a strong spread of rail infrastructure, while the Centre-North enjoyed a pronounced increase in literacy. Our results support the views that the benefits of a larger market were overall small and that the cost of nation-building was significant. They point to a crucial role for non-economic forces as drivers of unification nationalism.

The effectiveness of European cohesion policies and the role of spatial spillovers

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Online-S03 Counterfactual methods for regional policy evaluation, August 29, 2023, 11:00 AM - 1:00 PM

Recent literature suggests that cohesion policies can be effective in promoting regional convergence and reducing spatial disparities, particularly when they are well-designed and targeted to address the specific needs and challenges of different regions. The effectiveness of cohesion policies can also be enhanced by taking into account the role of spatial spillovers, and designing policies that promote positive spillovers and mitigate negative ones.

Evaluating the total effects of these policies is therefore complex, as both direct effects and spillovers must be considered. Evaluation of spillovers' effects is generally excluded from the classic counterfactual model, which does not allow for interference effects between treated and untreated units of the policy (named SUTVA assumption). This work aims to overcome this restriction, by implementing a methodology fully coherent with the counterfactual approach relaxing this assumption. We propose a novel spatial multilevel DID model, based on the SARMA specification, that allows for spillover effects. The paper evaluates the total effects of regional policy of the programming period 2007-2013 using data at both NUTS-2 and NUTS-3 level. Results show positive effects of European regional policy in the Eastern regions, where the policy produces positive externalities, reducing inequalities with the more developed regions.

Mapping critical minerals in green technologies

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Alicante-S77-S2 Economic Complexity for Industrial and Innovation Policy, 1-E12, August 30, 2023,
4:45 PM - 6:30 PM

This paper provides a comprehensive descriptive empirical analysis of the presence of critical minerals (CM) in green technologies. Using a keyword analysis in patent descriptions, we assess the penetration of CM in climate change adaptation and mitigation technologies (CCMT). This allows us to address a number of research questions. First, which green technologies are most dependent on critical minerals, and how has dependence changed over time? Second, which countries rely more on CM via inventive activities in this domain? Further, using annual production data we compute a Herfindahl–Hirschman Index (HHI) for each CM to identify the degree of geographical concentration and, therefore, potential criticalities associated with the demand of CM (via green technology) whose global production is limited to few countries. Knowing where these criticalities are is a crucial step to detect potential bottlenecks, which may carry far reaching consequences in terms of the viability of environmental policies, as well as of social and geopolitical instability.

Do space and industry interactions influence regional economic development in the European Union? Some evidence from the 2014-2020 programming period.

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Alicante-G09-O5 Innovation and Regional Development, 0-C02, September 1, 2023, 2:30 PM - 4:15 PM

Subnational economic development has at least three dimensions: time, space, and industry. Time is required for economies to develop following a sequence that goes from entrepreneurial discovery—either private, public or combined—towards structural change. Space is less obvious, but fundamental to regional science. Spatial interactions may influence economic development in two different directions. On the one hand, geographical, cultural and idiosyncratic proximity favour interactions among agents yielding more intense economic and knowledge exchanges. On the other hand, capabilities sustaining economic development are not necessarily deployed and contained within strict regional boundaries. Regions influence each other by means of spatial spillovers and feedback effects caused by investments, trade, consumerism, commuting behaviour, etc. Analogously, inter-industry connections are also likely to facilitate exchanges between firms and territories. They can be expressed in input-output analysis parlance or supply chains in the field of logistics. Other industry-based agglomeration economies can also attach, springing up as other establishments and/or people locate within the same spatial sphere.

Literature has progressively incorporated interaction between territories and agents as an explanatory variable for regional economic development. Supply-push models—typically focused on research and development (R&D) expenditures—have been complemented with concepts provided by evolutionary economics. As a result, regional innovation systems (RIS) and smart specialization strategies (S3) have emerged as highly related and fertile theoretical frameworks. In the aftermath of the financial crisis (2008-2010) the European Union (EU) decided to put some of these new concepts into practice. As a result, EU's regional policy for programming period 2014-2020 was designed following RIS and S3 recommendations. Inter-regional and inter-agent (i.e.: inter-industry) collaboration was particularly emphasised. EU also started to collect data allowing for RIS and S3 concepts and indicators to be quantitatively measured. Once this programming period is over, examining to what extent spatial and industrial interactions affected region's economic performance becomes appears as an interesting research question.

In this paper we examine economic development across the 240 regions covered by the EU's regional innovation scoreboard dataset between 2014-2021. We measure economic development in terms of growth (value-added) and efficiency (productivity) for each region and industry. We test four different model specifications for each dependent variable: (1) considering only R&D intensity and path dependence, (2) incorporating selected regional innovation scoreboard indicators as proxy of regional specific capabilities, (3) incorporating spatial spillovers and (4) incorporating industrial spillovers measured through agglomeration economies and input-output linkages.

Estimating regional input-output tables with non-parametric location quotients: an alternative approach

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Alicante-G39 Methods in Regional Science or Urban Analysis, 1-B01, August 31, 2023, 2:30 PM - 4:15 PM

The location quotient (LQ) approach is still a widely used non-survey technique to regionalize national input-output (IO) tables. In its simplest version, the cross-industry LQ (CILQ) assumes intraregional input coefficients between industries i and j to be an increasing function of the relative size of i and a diminishing one of j . Subsequent proposals suggest that regional size should be taken into account: the smaller a region is, the greater the imports and, thus, the more reduced are intraregional input coefficients. However, the relationship between regional size and intraregional coefficients does not rely on straightforward causality. To account for other possible factors explaining regional heterogeneity, some sort of parameter is introduced. Most contributions introduce a single parameter and use it as an exponential smoothing factor applied to CILQ rectifications based on regional size.

We identify three improvement opportunities regarding this approach. First, aprioristic parameter estimation is virtually impossible in the absence of true regional IO data. Even in rare cases where such data are available, the use of estimated parameters in different spatial and temporal contexts appears to be questionable. Second, there might be some limits within which to expect IO coefficients to vary as the size of the region changes. Third, the exponential smoothing function is one of many possible ways to address more complex linkages between regional size and intraregional input coefficients. In particular, exponential smoothing might not be the best way to account for the fact that a critical mass of plants and employment is needed before industrial take-off and clustering dynamics appear within a region.

This paper suggests an alternative non-parametric LQ formulation. We use a hyperbolic tangent transformation applied to both regional size measures and the CILQ. Our proposal does not rely on any parameter. Second, our methodology reduces the value within which intraregional coefficients may diverge from their national counterparts. Third, our hyperbolic tangent smoothing appears to represent more successfully the need for some critical mass before an industry starts generating cluster dynamics in a region. We predicate our proposal upon the 2005 and 2015 Korean survey-based regional IO datasets. We contrast our estimates with true reported values and compare results with well-known techniques in the literature. Furthermore, we test two different information scenarios: with and without industry-specific information. The results suggest that it is possible to produce regional IO tables with similar or even better accuracy without using parameters.

Population distribution and regional growth

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Alicante-G01-O7 Region Urban Development, 0-C01, August 30, 2023, 11:00 AM - 1:00 PM

POPULATION DISTRIBUTION AND REGIONAL GROWTH

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Nowadays, studies on territorial development arise from different disciplines, although it is mainly economic geography that deals with the analysis of the factors that contribute to the improvement of local areas and regions. In particular, many studies published in the field of economic geography focus on exploring the linkages between rural and urban areas.

Furthermore, the heterogeneity of the territory and the different ways of approaching the development of regions have given rise to numerous papers published in relevant journals in the field of regional economics and territorial development. In this regard, different authors address this issue by referring to urban agglomeration and applying Williamson's hypothesis. Williamson (1965) introduced the concept of an inverted U-shaped relationship between agglomeration and economic development, according to which the level of development of countries is linked to the impact of urban agglomeration on economic growth. This means that levels of concentration increase with economic development, but eventually decrease once a certain economic development threshold has been reached.

Considering the two aforementioned approaches, the literature has been focused mainly on the comparison of urban and rural areas. Grounded on the heterogeneity of the regions, the starting point of this paper will be the following question tag: do urban, semi-urban and rural areas develop at different speeds? Taking into account Eurostat's classification of municipalities, our work tries to determine the regional population structure that enhances regional development and generates positive effects on economic growth, as well as how the level of development contributes to setting an urban, semi-urban and rural population threshold. The main issue is to what extent the type of urbanization is helping the regions not to left behind. This paper proposes to analyze the following question: What is the contribution of the urban and intermediate population to the development of the regions? What is the most efficient population structure to improve regional development? The empirical analysis will be focused on the case of the Spanish provinces, showing evidence of the previous questions.

Do firms react to supply-chain disruptions?

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Alicante-G15-O1 Trade and Global Value Chains, 0-C01, August 30, 2023, 2:30 PM - 4:15 PM

Since the outbreak of the Covid-19 pandemic, the disruption of supply chains has become a major concern for territories and global firms. This paper uses a representative sample of regionally disaggregated Spanish manufacturers that participate in global value chains to analyze whether firms are implementing strategies to respond to this concern. Using data for the period 2017-2022, we find that, on average, manufacturers have not increased the number of countries they source their inputs from since the Covid-19 pandemic. Firms and regions have not either shifted their imports to countries that are geographically close or are friends of Spain, and have not reshored imports. However, firms significantly increased the stock of intermediates in 2021. We only observe diversification strategies when firms have one supplier, export to many destinations, and the imported product has a high risk of experiencing a supply-chain disruption. Firms nearshore and friendshore when their main supplier is geographically distant.

Firms and territories can use different strategies to cope with supply-chain disruptions. First, they can diversify the pool of suppliers. If supply disruptions do not occur simultaneously in all suppliers, diversification allows firms to substitute the input of an affected supplier with the input of a non-affected supplier. Second, firms can increase their inventory of components and finished products to hold safety stocks. A third strategy is reshoring or backshoring, which refers to a firm decision to repatriate previously offshored activities. Fourth, other less extreme ways to reduce foreign exposure is through nearshoring and friendshoring. These terms describe the decision to relocate previously offshored activities to a neighboring country of the home country and to trusted countries, respectively. Nearshoring responds to a firm's efforts to shorten its supply chain and make firms more agile to respond to changing preferences in consumer demand. In a scenario of trade-policy and geopolitical tensions, dependencies on certain countries become a source of vulnerability for global supply chains. Friendshoring aims to address this concern. The explores whether firms and regions have implemented any of the above-mentioned strategies in response to the rising concern about supply-chain disruptions.

Well-being and multidimensional sustainability in medium and large Spanish cities

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Online-G01-O3 Regional and Urban Development, August 29, 2023, 11:00 AM - 1:00 PM

The objective of this work is to analyze the objective well-being and multidimensional sustainability in 63 Spanish cities using a battery of socioeconomic indicators corresponding to eleven dimensions: demography, labor market, economic conditions, environment, health, security, housing, family, culture, citizen participation and, finally, human capital.

Additionally, emphasis will be placed on the concept of balanced multidimensional development to have a more reliable vision of well-being, trying to eliminate the compensatory effect that some dimensions perform on others, to achieve an integral development where all dimensions of well-being are minimally represented. Finally, the impact on the different dimensions of objective well-being and sustainability is analyzed by the size of cities and per capita income, obtaining indicators to make a typology of cities according to their size (median, less than 100,000 inhabitants; those ranging between one hundred and four hundred thousand; between four hundred thousand people and one million; and, finally, the metropolises, which exceed one million inhabitants, having two in the Spanish case in this last interval).

Unlike other studies, it is obtained as the main result of this article that the levels of objective happiness are lower in large cities on average, with greater well-being in historic inland cities than in coastal ones. Consequently, if the proportion of the population lives in large cities is gaining weight, where the target level of well-being is lower than that corresponding to cities with less than one hundred thousand inhabitants, we are witnessing a process of continuous decline in the well-being of Spanish citizens.

The excessive population density of some Spanish cities is having a negative impact on their levels of well-being and sustainability, so it would be convenient to recover the medium-sized Spanish inland cities, less crowded, which would also help the recovery of "inland rural Spain" or "emptied Spain" and would take advantage of their important role as the backbone of the territory. The aim is to avoid environmental risks and socio-economic inequalities between inland and coastal cities since Spain is a sparsely populated country with a highly concentrated population.

Is the European Social Fund's concentration aligned with the social needs of EU regions?

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Alicante-G02-O1 Regional and Urban Policy and Governance, 0-C02, August 30, 2023, 11:00 AM - 1:00 PM

The European Social Fund (ESF) is the European Union's (EU) main financial instrument to support employment, and it is part of the EU Cohesion Policy funds. Under the programme period 2014-2020, more than €140 billion were allocated to support job creation, education and training, and social inclusion. As part of the Cohesion policy, the ESF (re-labelled ESF + for 2021-2027) also aims to correct social imbalances between countries and regions.

During the programme period 2014-2020, the actions financed by the ESF were essentially concentrated in three Thematic Objectives (TO): (i) TO8 - promoting employment and supporting labour mobility; (ii) TO9 - promoting social inclusion and combating poverty and; (iii) TO10 - investing in education, skills and lifelong learning.

Studies have pointed out an increase of social inequalities in the EU over the last years (see e.g. OECD, 2017; EPRS, 2019), as well as heterogeneous effects of Cohesion Policy in EU regions (see e.g. Fratesi, and Wishlade, 2017; Di Caro and Fratesi, 2022). This paper aims to contribute to the debate about the effectiveness of EU funds targeted to social dimensions. We start our analysis by estimating a regional concentration index at NUTS 2 level for the investments financed by ESF 2014-2020 and related to TO8, TO9 and TO10. Secondly, we construct novel socioeconomic indicators to characterise regions before and after the 2014-2020 programme, encompassing a set of indicators related to the targets of the different TOs under analysis. As a last step, we analyse the relationship between the ESF investment per capita by TOs and the changes in terms of the region's socioeconomic profile, captured by the indicator estimated.

For this purpose, we rely on data from the Cohesion Open Data Platform to obtain information on regional investments by TOs financed by ESF 2014-2020, as well as from the cross-sectional European Statistics on Income and Living Conditions (EU-SILC) and the European Labour Force Survey (EU-LFS) to extract socio-economic variables for European territories.

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An Exit-voice Exploration of the Italian Electoral Geographies in the Face of Economic Challenges

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Alicante-S57 Perceived discontent, inequalities and the city, 1-D13, August 30, 2023, 4:45 PM - 6:30 PM

By analysing the results of two national elections held in Italy (in 2013 and 2018) from a Hirschman's 'exit-voice-loyalty' model perspective, the paper intends to contribute to the debate reflecting on whether the consensus for incumbent governments may be explained by the feeling of being left-behind by globalisation and policies. Following the identification of three economic distresses that have affected manufacturing occupation in recent years, by means of a longitudinal analysis performed at Local Labour Systems level, we found that despite having experienced a long-term socio-economic decline, some places did not shift to protest voting. We analysed their puzzling geographical distribution, looking for explanations of their aggregate voting behaviour. Policy-wise, our findings may prove to be potentially enlightening to draw a lesson from the past, especially in light of the current challenges posed by the post COVID-19 pandemic and the Ukraine-linked energy crisis that are likely to further exacerbate territorial disparities and shake the political arena.

The importance of water management and tourism in scientific production: a bibliometric analysis

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Online-S59-O1 Tourism sustainability as a source of job creation and wealth, August 28, 2023, 11:00 AM - 1:00 PM

Tourism is a vital industry for many economies around the world, and it can have a significant impact on water consumption, as it causes an increase in the demand for drinking and irrigation water for tourism services, such as cleaning, the laundry, the swimming pool and the gardens, and for the personal consumption of the tourists. According to the World Trade Organization (UNWTO), water is one of the most important resources in the tourism industry and its efficient use is essential for the sustainable development of the sector. In fact, for the OECD, the sustainable management of water is a key priority for the tourism industry, since it is not only essential for the well-being of local communities and natural ecosystems, but also to guarantee the continuity of the sector in the long term.

For all these reasons, it is important that tourists become aware of the importance of being responsible in their consumption during their vacations, since small actions can make a big difference in the protection of the planet's water resources (Rainforest Alliance, 2015). According to the United Nations Environment Program (UNEP), currently, water scarcity is a reality in many parts of the world and, in general, it is used excessively in places such as hotels, swimming pools and golf courses, of hence the significant impact of tourism on this resource.

This research aims to highlight the importance that the problem of water management in tourism has from a scientific point of view. For this, and through a bibliometric study, the research of recent years on this subject is analyzed using the Scopus database. Among other results, we can highlight the upward trend in the number of papers published, and the importance of countries like Spain that stand out in this scientific production.

Youth and old: how far are we? Assessing Intergenerational Inequality among Italian and Spanish regions.

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Online-G02 Regional and Urban Policy and Governance, August 28, 2023, 11:00 AM - 1:00 PM

In recent years significant changes occurred, that are altering the main features of the economic systems, including those that determine the relationships between different generations. The main indicators on the living and working conditions of young and old people have been so profoundly modified, and spread, as to suggest that the intergenerational balance is in danger.

This paper aims at exploring and evaluating the geographic distribution of intergenerational inequality across Italian and Spanish regions. For this, we build a composite indicator of intergenerational inequality at the regional level, inspired to the Intergenerational Fairness Index and the Youth Development Index (YDI), respectively developed by the Intergenerational Foundation and the Commonwealth Youth Programme (CYP), in order to measure the within-country heterogeneity that characterizes Italy and Spain. The method used to design our Regional Intergenerational Inequality Index (RI3) follows the scheme proposed by OECD (2008), developed in three main phases (normalization, weighting and aggregation procedure) using the Principal Component Analysis model. We complete the analysis by presenting the correlation between and relevant socio-economic variables.

The new index on intergenerational inequality (RI3) will allow us to focus attention on the critical elements of the places concerned and can be useful for the development of territorial rebalancing policies, permitting identification of needs and potentials for economic and social inclusive growth

How do sustainability orientation, social capital and resilience influence on the environmental and economic performance of clustered firms.

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Alicante-G19-O2 Cooperation and Local / Regional Development, September 1, 2023, 9:00 AM - 10:30 AM

Current regulations, social pressure and business ethics are producing a change of trend in companies, which have realised the need to implement measures that seek an environmentally sustainable change in the company. We are currently living in a time in which many changes are taking place in the environment. On the one hand, concern for the environment leads companies to make decisions that improve the sustainability of their actions. On the other hand, a turbulent economic environment makes companies look for mechanisms to anticipate, adapt, respond and recover from changes, encouraging collaboration with surrounding companies. Thus, we find companies concerned about sustainability and seeking alliances through the development of formal and informal networks, which leads to the exchange of valuable resources, such as information and knowledge, that are characteristic of Social Capital, and confronting the changes demanded by sustainability without diminishing their economic results. From the academic point of view, studies on sustainability orientation, resilience and social capital are increasing considerably and many of them are specifically focused on relating these variables to both economic and environmental results. One of the challenges facing companies today is how to maintain or increase economic performance while being more sustainable in the face of major changes in the environment. This research relates sustainability orientation, resilience and social capital to economic and environmental performance within the ceramic cluster of Castellón, Spain. The results show that sustainability orientation is linked to ecological performance, while social capital and resilience are linked to economic performance. Thus, these results would show us that companies should focus on what kind of results they want to obtain in order to direct their efforts at a strategic level, focusing on resilience and social capital if they want to obtain better economic results and on sustainability orientation if they want to improve their environmental results. Results of this research may contribute to the academic literature regarding environmental and sustainability issues as well as the relations with firms involved in these processes.

At the territorial roots of global processes: the heterogeneous participation of regions in Global Value Chains

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Alicante-S04-S2 Global Value Chains and regional development, 1-C11, August 31, 2023, 4:45 PM - 6:30 PM

During the past decades, an unprecedented wave of globalization caused the emergence of Global Value Chains (GVCs) and GVCs-related research. This stream of research mostly focused on the national dimension, provided relevant insights of the participation of national economies to the globally fragmented production processes. Despite this evidence, very little is known about the participation of regional economies to GVCs.

The poor evidence on the regional participation to GVCs is due to two elements, one conceptual and one empirical. On the one hand, the phenomenon has been conceptualized as driven by the comparative advantage of countries, in which the regional dimension had no role to play. On the other hand, data limitation has always represented a threat to regional studies that started to emerge only recently, when regional-level data on GVCs became available (Thissen et al., 2018).

The regional dimension, on the contrary, is an important aspect to analyse. The participation to a GVC by a country is not spatially homogeneous. It provides growth opportunities to regions at detriment to others, according to the way regions participate in the GVCs. For this reason, the paper is interested in going to the territorial roots of GVCs, identifying and mapping the different modes with which regions participate to GVCs and to highlight which local characteristics are associated to a more rewarding position in GVCs.

Based on regional matrices of trade in value added (Thissen et al., 2018), two indicators are built for 258 European regions. The first one measures the regional intensity of participation in GVCs, the second captures what regions gain in terms of local value added by such participation. Put together, four modes of participation to a GVCs emerge. Through a multinomial model, the major regional characteristics of competitiveness, economic specialization and urban/rural structure will be associated to each of the four modes. This evidence will shed light on the determinants of the positioning of European regions in GVC, capturing the value they are able to produce in global processes.

Impact of COVID-19 on household consumption in Russia: regional analysis

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Online-G30-O1 Covid-19 and regional and urban resilience, August 28, 2023, 4:45 PM - 6:30 PM

In the face of heightened economic uncertainty caused by the Covid-19 pandemic, economic agents are reshaping their consumption patterns. The objective of this study is to assess changes in the determinants of consumption patterns in Russian regions under the impact of the Covid-19 pandemic testing several hypotheses.

Hypothesis 1. The distribution of consumption patterns and average values will vary during the pre-crisis, post-crisis, and pandemic crisis periods.

Hypothesis 2. The rigidity of pandemic restrictions has a significant impact on changes in consumption patterns in Russian regions.

Hypothesis 3. The effect of factors determining consumption patterns has changed as a result of the Covid-19 pandemic.

We use data from the quarterly survey of households conducted by Rosstat. The number of interviewed households varies from 48000 to 49200 households during 2016-2021 years. The composition of the interviewed households can vary slightly from year to year, while within one year the number of households is constant.

The Kolmogorov-Smirnov and t-test were used to test the equality of distributions and means correspondingly. The results of these tests confirm our first hypothesis. The results show that the average value of the share of alcohol consumption does not change in 2020, compared to 2019, while for the other variables the mean values and distributions are not equal. Average spending on food at home increased in 2020 compared to 2019, and spending on food outside the home and services dropped significantly, while expenditures in the other categories have slightly changed. In 2021, the share of out-of-home food expenditures increased slightly from 2020, as did the share of spending on services, with a corresponding decrease in the share of spending on food at home.

To test our second and third hypotheses, we estimated several linear regression models with robust standard errors. According the obtained results, during the pandemic crisis a quantitative change in consumption patterns occurred: households increased spending on food at home, and considerably decreased expenditures on food outside the home, which supports hypothesis 1. We observe a significant effect of the rigidity of quarantine restrictions on expenditure categories, which is consistent with hypothesis 2. The results show that despite the redistribution of shares between expenditure categories, household behavior patterns remain qualitatively unchanged during crises, which only partially confirms hypothesis 3.

Defining different contexts for women entrepreneurs in high-tech sectors in high-income countries through a literature review

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Online-S17 Creative regions, August 28, 2023, 2:30 PM - 4:15 PM

The aim of this work is to conduct a literature review about women entrepreneurs in order to develop a theoretical framework that can be applied in the analysis of specific cases in Spain. To obtain the papers to include in the literature review, a search in the Web of Science database is conducted with the terms “women entrepreneur” AND “woman-owned” as Topics, that is, in title, abstract and keywords. The final works used in the literature review, after successive inclusions and exclusions, are 76 papers. Then, a text mining of abstracts is carried out to define codes grouped by categories. Cooccurrences of codes are analysed and clusters are obtained which are used to define nine different contexts. There is only one context that groups keywords related to high tech companies.

Regional competitiveness, fossil fuel cost changes and the role of decarbonization

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Alicante-S39 Dependency of regions in a fast-changing world: New contributions from regional IO modelling, 1-D14, August 30, 2023, 2:30 PM - 4:15 PM

In this paper we analyze the competitive opportunities and threats to industries in different regions of fossil fuel cost changes and how decarbonization may affect these opportunities and threats. The last few years, during but also after COVID-19 pandemic waves and lockdowns, large fluctuations in energy prices are observed. Global political changes, like the war in Ukraine, are expected to also induce large shocks to fossil fuel prices. Meanwhile, decarbonization efforts and the resulting change in the energy system will affect international trade patterns in energy. This affects regional economies in particular as these may not have their own fossil fuel supply locally. We investigate which industries in what regions are the most sensitive to such changes in fossil fuel prices, for example due to world-wide shocks like COVID-19. More interestingly, we consider how possible future changes in the electricity mix and energy usage that are the result of climate policy and decarbonization strategies may affect the regional competitive opportunities and threats of changes in fossil fuel prices. A Leontief input-output price model based on multi-regional input-output tables on an EU NUTS 2 level from Thissen et al. (2018) is used. We use the measure of revealed competition developed in Los et al. (2016) combined with value chain analysis using marginal prices as was used in Thissen et al. (2020). We extend this approach by introducing marginal prices on technological change and substitution between energy types, thereby creating the possibility of analyzing the effect of decarbonization strategies on the competitive opportunities and threats. Such an approach gives the opportunity to derive more general conclusions than those that rely on a few specific ad hoc scenarios. Results can indicate which regions and industries are, through their value chain, more sensitive in terms of competitive position to fossil fuel cost changes than others. Meanwhile, decarbonization may present opportunities for various regions and industries to decrease this sensitivity, which can result in policy recommendations that support decarbonizing faster to reduce the regional sensitivity of possibly world-wide global energy price shocks.

Municipal Open Data Platforms and the Sustainable Development Goals: The case of Italian cities

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Alicante-G17-O1 Quality of government across space and time, 0-C03, August 30, 2023, 2:30 PM -
4:15 PM

While pioneer research on smart city mainly focused on the specific application of ICTs, more recent research acknowledges the need to align the smart city framework with sustainable development. While this change of focus has given traction to research on the link between smart cities and sustainable development, still many questions remain under investigated. This paper aims at addressing one of these underexplored questions, by advancing a set of criteria for the assessment of municipal Open Data Platforms (ODPs) as enablers towards the Sustainable Development Goals (SDGs).

Operationally, we advance the SDG ODP Implementation Score, which is a synthetic measure designed by considering 7 pillars from the SDG framework and by relating these pillars to the smart city framework when appropriate. While some SDG pillars align to requirements from the smart city framework, others impose new challenges to ODP design and implementation. Hence, the resulting SDG ODP Implementation Score represents a composite measure containing criteria that related to both the smart city framework and the SDG framework and criteria that relate to the SDG framework only.

We then apply the SDG ODP Implementation Score to the Italian regional capitals engaged with SDGs. Findings highlight a variegated picture. ODPs of the considered regional capitals are advanced in dimensions which are relevant for both the smart city framework and the SDG one. However, several regional capitals lag behind in one or more of the dimensions that are introduced by the SDG framework. Enabling crucial users such as NGOs, researchers, practitioners and journalist is scarcely addressed in the considered ODPs. The same applies for availability of data which allow comparison with regional and national outlooks.

Many reasons could explain the remarkable heterogeneity in the local approach to these dimensions, ranging from the lack of guidelines to limited institutional capacity. Through a dedicated survey, we will investigate what shapes the local approach and which limitations are preventing ODP implementation capable of matching SDG requirements.

Policy-wise, the SDG ODP Implementation Score could be a useful tool for local policy makers to progress towards SDGs.

Spatial and social integration assessed by a human interaction model of parenthood

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Alicante-S18-S2 Drivers and impacts of migration: new insights on the role of local labour markets, human capital, remote work, and (family) networks, 1-C14, August 31, 2023, 4:45 PM - 6:30 PM

The movement of human being in space has been constantly present in history on Earth. Therefore, we are witnessing in the 21st century several types of migration (forced, on voluntary basis) within a continent and among the hemispheres. Previous research focused more on migration towards higher living standard and so towards urban spaces, our study is inclusive without assumptions to detect all patterns. The causes of migration could be numerous and complex even on individual level or in the case of a social group. The integration process into the mainstream society on a new territory is complex and long, and often leads to segregation. The combination of poverty, adverse neighbourhoods' spill overs and isolation makes it for an individual difficult to perform well – in school, in the labour market, and in noncriminal activities generally.

Our work introduces a new way analysing the migration phenomenon based on parenthood. The concept of migration pointed out of examples of parents' characterizations and moving activities in space, as well as their child moving activities measured in distance.

The aim of the paper is to understand what factors contribute to social and spatial integration assessed by a Human Interaction Model of Parenthood. Data is used to calibrate a Human Interaction Model of Parenthood that relates matching probabilities with proximity indicators between parents. Results reveals that although there are some common-sense proximities that explain parenthood such as ethnicity, religion, nationality there are also unexpected factors that affect parenthood.

Leveraging Complementary Variable-Size Multimodal Information for the Assessment of Location Quality

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Alicante-G41 GIS and Location Modelling, 1-B02, August 30, 2023, 4:45 PM - 6:30 PM

Real estate location quality assessment methodologies typically work with data from a single modality (i.e., mostly structured data). Today's data analysis techniques allow for the combination of multiple data modalities, which basically increases the information content and, if a suitable methodology is applied, could allow for a more accurate assessment. To this end, we leverage the capacity of a functional neural network model with shared layers of multiple networks and use variable number of inputs per instance from text and image data modalities. Thus, we apply a flexible and robust extraction of location-based features with two different visual representations (satellite and street view images) along with the textual descriptions of the location and estimate the quality classes. For inference, we compare the results to quality classes provided by experts and test the consistency and variability of the predictions. On top of the satisfactory classification results of the multimodal model, we also found significant effects of the estimated classes on the price, compared to the baseline models containing the ground truths. Our work contributes to the development of multimodal information extraction techniques for text and the variable number of image data, which could be applied in the context of a practically applicable unified assessment model that integrates all available modalities and thus can utilize their complementary information.

Employment effects of investment grants and firm heterogeneity - evidence from a staggered treatment adoption approach

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Alicante-S03-S1 Counterfactual methods for regional policy evaluation, 1-C11, August 30, 2023, 11:00 AM - 1:00 PM

This study estimates the establishment-level employment effects of investment grants in Germany. In addition to the average treatment effect on the treated, we analyse the influence of establishment's characteristics and economic environment on the magnitude of the effect. We apply a modification of Heckman's matching and difference-in-differences approach to consider time-varying treatment and different treatment durations. Our results suggest that investment grants positively impact employment. Moreover, we find strong evidence for effect heterogeneity regarding firms' internal characteristics as well as the economic environment.

Rethinking City Population Growth: How Reclassification Matters

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Alicante-G03-O6 Demographic Change, Population and Migration, 0-C03, September 1, 2023, 11:00 AM - 1:00 PM

Heterogeneity in rural-urban definitions limits comparability of population dynamics across territories. By applying a new harmonised definition of cities, towns and semi-dense areas, the paper offers a decomposition of population changes, setting apart the contribution of each demographic component (natural increase, international and internal migration), and accounting for the reclassification effects. The analysis is carried out at a 1-kilometre resolution for all countries in the world over the following 40-year intervals: a) from 1975 to 2015, using the Global-Human-Settlement-Layer datasets; b) from 2020 to 2060, adopting the Shared-Socioeconomic-Pathway scenarios to project future population dynamics. Distinguishing the settings of new cities from the expansion of existing city boundaries, results show the incidence of reclassification effects on population changes. We find that, over the past periods, natural and migration components led population changes almost exclusively in the areas that experienced a transformation of their status becoming new cities, whereas projecting future trends, merely the natural component would play a major role on city population growth. Our findings give evidence of the feeble contribution of internal migration on the city population changes, enforcing the conceptualisation that decreasing rural-urban mobility is related to the achievement of advanced urbanization developments.

Global estimates of net migration at high spatial resolution

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Alicante-G03-O6 Demographic Change, Population and Migration, 0-C03, September 1, 2023, 11:00 AM - 1:00 PM

This report describes a set of global net migration estimates in five-year intervals from 1975 to 2020 at a spatial resolution of about 1 km. Our estimates rely on an indirect estimation technique based on the demographic balancing equation. Compared to existing sets of estimates of spatially disaggregated net migration, three novelties characterise our new estimates. First, we expand the time coverage of the estimates by using updated population data at high spatial resolution from the Joint Research Centre Global Human Settlement Layer (GHSL) project. Second, we apply a standard definition of rural-urban typologies in the three classes of cities, towns, and rural areas. Third, we refine the estimation approach by accounting for variation of fertility and mortality across these typologies. This provides a more accurate representation of demographic behaviour across the rural-urban continuum. Validation exercises show that the new approach of accounting for fertility and mortality differences at sub-national level is consistent with basic empirical findings. In addition, the mobility patterns revealed by our net migration estimates are consistent with net migration data at sub-national level derived from Eurostat and national statistical offices. In line with former analyses, the new set of estimates allow analysing the relationship between climate change and migration at high spatial resolution and exploring geographical patterns of urbanisation, rural-urban migration, and population redistribution at the global level.

Beyond Attraction. Does investment promotion work for FDI retention and expansion?

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Alicante-S03-S1 Counterfactual methods for regional policy evaluation, 1-C11, August 30, 2023, 11:00

AM - 1:00 PM

The stagnation of Foreign Direct Investment (FDI) flows in Europe dates back to the Great Recession in the late 2000s. At the same time, the restructuring of key European industries has accelerated, with the consolidation of some key European value chains and the emergence of new vulnerabilities in others. This paper aims to analyse this process of industrial restructuring by shedding new light on the geography of expansions and divestments in the EU regions and investigating the role of regional policies. In particular, the paper looks at the role of national and regional Investment Promotion Agencies (IPAs) that have become an increasingly common policy tool not only for countries but also for regions. By leveraging an ad-hoc survey on the structure and strategy of national and regional IPAs in Europe, we explore the regional impacts of both national and regional IPAs on FDI expansion and retention in the EU. We test whether the strategic targeting of key investment sectors from national and/or regional agencies contributes to the expansion and retention of foreign activities in the host regions, and examine the extent to which such investment has had a significant impact on the host economy. Our evidence suggests that both national and regional IPAs have a positive impact on investment and employment in targeted sectors, but with highly heterogeneous effects depending on the radius of action of the IPA, its proximity to the investors and their sector of activity.

EU structural funds and GDP per capita: Spatial VAR evidence for the European regions

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Alicante-G02-R Regional and Urban Policy and Governance, 0-C01, August 31, 2023, 4:45 PM - 6:30 PM

This paper focuses on the impact of EU structural funds (SFs) on the GDP per capita of 183 European NUTS2 regions throughout the 1990-2016 period. To allow for the endogeneity of funds allocation to regions, we estimate a bivariate structural panel VAR model, allowing for unobserved heterogeneity through a rich menu of deterministic controls. Our main identifying restriction is rooted in the widely documented long lags affecting the implementation of EU's Cohesion Policy. Through a spatial VAR specification, we also estimate spillovers from local SF expenditure on other areas. We find significant multipliers measuring the local response of GDP to an exogenous shock in local SF expenditure, with a long-run value settling at 2.6. Spillovers for GDP from an exogenous shock to SFs are also positive and significant, but much smaller (about one fifth of the within-region responses). When partitioning our sample according to features suggested by the literature (stage of development, EU funding regimes, size), we find that within-region multipliers are higher in lagging regions, especially if located in countries supported by the Cohesion Fund, and in regions with a larger population. Spillovers are also heterogeneous across different groups of regions, turning out to be negative in regions belonging to countries not supported by the Cohesion Fund. All this evidence is validated in qualitative terms by robustness checks concerned with model specification and choice of spatial weights.

Online learning during the COVID-19 pandemic: a survey study on Italian schools

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Alicante-S26-S1 Defining and measuring inequality across social and spatial scales: limits, thresholds, realities and perceptions, 1-D13, August 31, 2023, 2:30 PM - 4:15 PM

This study investigates how Italian schools have been affected by the reorganization caused by the Covid-19 emergency, and if this shock has unequally affected Italian students during the pandemic period. To this aim, we conduct a three-level survey (students, teachers and school principals) and collect data from a representative sample of Italian upper secondary schools. The final sample includes information on 123 schools (5% of the Italian upper-secondary schools' population) through a random selection stratified by Italian macro-area (NUTS 1 regions), and school types (Lyceum, Technical, and Vocational Schools).

Sustainable home-work commuting in Italy. What are the successful factors for the shift toward green mobility?

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Alicante-G34-O1 Transport and Accessibility, 0-D02, August 30, 2023, 4:45 PM - 6:30 PM

The active and soft mobility program, supported by the 15-Minute city planning measures, is a moment of reflection to understand the current challenges of cities. Commuting is still a hot topic in research, and efforts are underway to understand how to balance this aspect of the transportation system with sustainability and individual well-being goals. Many studies have questioned the role of bike-to-work programs in relation to the social, political, and environmental aspects of urban space. In the European and Italian context, these challenges provide an opportunity to apply the measures of the Recovery Plan (1) in terms of quality of life and cities. Among the various measures for the ecological transformation of cities and regions, programs for cycling are central to the promotion of active mobility with the aim of improving the healthy lifestyle of users (2). Recent literature suggests that bicycle infrastructure is an important determinant of bicycle commuting and that the presence of bicycle networks can boost local economies and motivate users to bicycle to work (3). In Italy, although cycling infrastructure in major cities improved by about 50 percent between 2008 and 2015, the proportion of cyclists bicycling to work remained unchanged at 3.6 percent (4). Analysis of personal, attitudinal, and socioeconomic factors is critical to driving the environmental change that also occurs in commuting to work and to understanding spatial dynamics. Such motivations are still very limited in the literature and there are few case studies in Italy (5).

The analysis of current research shows many discrepancies between the choice of green and soft mobility and the level of satisfaction and well-being of users, both at urban and suburban level, but especially in large Italian metropolitan areas that are not yet equipped with a sustainable mobility system.

In Italy, there are not yet many studies linking mobility choices to cycling infrastructure and travel behaviour. To fill this gap, this paper focuses on the mobility decisions of cyclists when traveling between home and work. The main research question relates to the national context, with the goal of improving green commuting strategies. The main objective is to identify the psychological and geographical factors, through econometric approach, that change the demand for mobility on the home-to-work route.

Expanding the Doughnut? The Impact of Remote Work and COVID-19 on the Geography of Housing Demand

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Alicante-S62 The role of intermediary cities and towns in regional development, 1-E11, August 30, 2023, 4:45 PM - 6:30 PM

The rise of remote working in connection with the COVID-19 pandemic may have reshaped people's preferences on how and where to live in a permanent fashion, thus generating a new geography of housing demand. So far, the literature has mainly focused on what has become known as the "doughnut effect", the hollowing out of city centres. However, effects are likely to go beyond large metropolitan areas, and more generally may affect preferences with respect to urban or rural living in more nuanced ways. This paper brings some early answers to these questions. Using the degree of urbanisation of places, as well as changes in relative housing prices as a proxy for short-term changes in housing demand, it confirms that changes have indeed gone beyond metropolitan borders. Interestingly, we are not seeing a re-emerging preference for rural life as such, but rather a desire to move to places that combine the benefits of rural and urban life. In suburban settings (typically with comparatively higher population densities) housing demand has particularly increased in the more rural parts. In contrast, beyond metropolitan boundaries where most space tends to be rural, increasing housing demand has been focused on cities.

Visiting proximity nature: a tourist experience of (de)commodification

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Online-S53 Proximity tourism and local development. Theoretical insights and case studies, August 29, 2023, 2:30 PM - 4:15 PM

The pandemics proofed a disturbed relation of humanity and nature and highlighted a basic need of humanity to be in touch with natural environments and outdoor spaces. Due to the lock-down, natural areas in proximity to urban areas increased their visitor numbers. Notwithstanding, previous trends already indicated an increasing diversity of outdoor recreation and nature-based tourisms (including ecotourism, active tourism, etc.) provoking issues of overcrowding and overtourism. In this context, we aim to investigate the transformation of natural areas into tourism products. That is, their commodification as an expression of the disturbed humanity-nature relationship; existing territories and areas for proximity tourism and their characteristics, especially in relation to commodification processes; and the accessibility of these areas, that are provisioning for the need to be in contact with nature, and hence have a potential to contribute to overcome humanity-nature alienation (as an expression of nature's commodification for tourism).

We approach our objectives through the exploration of four relevant spaces for proximity tourism in natural areas. Our cases include La Trapa and Muntanya del Voltor in the Serra de Tramuntana (Mallorca) and Serra de Teià and the eastern part of Parc de la Serralada Litoral (Barcelona). We engage in participatory observation and conduct interviews with territorial agents and visitors in the areas. Additionally, we examine secondary data from our cases, like management and strategic plans. These areas are of interest because of their location, close to important sun and beach and urban tourism destinations, close to large urban centers, because they have seen their frequentation increased and situations of overcrowding have been noticed by the managers during the pandemic. Some cases were already popular even before the pandemic, as a result of tourism promotion and related to tourist commodification of nature, because of their good accessibility for a variety of visitors (children, professional hikers, elderly, etc.) and the proximity to these urban and tourist areas. By examining these four examples, we expect to deepen the knowledge about proximity tourism and its role and impacts on the recreative use of nature. A research agenda on tourism, nature and proximity-based leisure activities will result from this proposal.

Mapping policy drivers of territorial inequality

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Alicante-S56-S2 Territorial Inequalities in Europe, 1-E12, August 31, 2023, 4:45 PM - 6:30 PM

Drivers of inequality and poverty in Europe are hardly studied at a local. Lack of disaggregated data makes almost impossible to obtain accurate proofs about these processes. However, differences between rural and urban areas are creating an enormous gap within countries. Populations in these areas seem to feel 'left behind' from the rest of society, with no future prospects or public policies for them. 'Left behind' places are becoming more important in the Regional Economics literature as populist processes gain influence in these areas and drive a new age of policies. As a result, this research tries to obtain reliable indicators to measure the economic and social evolution of these areas. This research applies a Small Area Estimation process based on Tarozzi and Deaton (2009) and Fernández et al. (2020, 2021). The main idea of Tarozzi and Deaton (2009) is using microdata from a household survey (in our case EU-SILC) with accurate information about the variable of interest and microdata from census, with precise information about location of households. If both databases share a common set of variables it is possible to extrapolate the value of the variable of interest over the households in the census. Then, these estimates can be used to obtain new aggregates at a lower scale. Fernández et al. (2020, 2021) updates this procedure with an entropy econometrics approach to make them consistent with official aggregates. As a result, it is possible to correct a set of prior estimates, or the researcher can directly obtain a set of parameters given a restriction of the national aggregates. Through these estimates, this research expect to identify the depressed areas of the European union, as well as their evolution over time in the period 2011 – 2021.

Working From Home and Housing Prices

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Alicante-YS07 Covid-19, August 31, 2023, 11:00 AM - 1:00 PM

Among the health measures taken since by governments following the COVID-19 crisis, teleworking is becoming permanent. Many jobs today allow the ability to work remotely, partially or fully. This work format removes the constraint of proximity to the workplace. This study aims to (1) measure the migration flow of remote workers since the pandemic. We use a large database covering all French employees between 2017 and 2020 and identify a remote worker profile with the classification of Dingel and Neiman (2020) and home-to-work distance. We show that an increase of one percentage point in the share of jobs that can be done at home increases the distance workers are away from their workplace by 1.58 kilometers. (2) To identify the effects of these flows on the property market. We observe the prices of properties sold between 2017 and 2021 and then aggregate this information at city-level. In order to capture the effect of teleworking in 2021, we use an instrumental variable of the share of remote workers among newcomers. We show that a one percentage point increase in the share of teleworkers in a municipality increases the value of the price per square meter of real estate by 99.17 euros. (3) To highlight the increase in wage inequalities between metropolitan and peripheral cities through access to the best housing at minimum cost and the widening gap.

ICT's applications for Aegean islands integrated development

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Online-G45 Development in an insular context, August 29, 2023, 2:30 PM - 4:15 PM

As islands are essentially characterized by a physical "disconnection" from the mainland, it is generally accepted that many of the difficulties these territories encounter is caused by conditions, as their reliance on air and ocean transportation, limited land resources and insular economies with seasonal character. Additionally, it is important for their sustainable development to be developed in terms of cultural conservation and environmental protection. With the EU Green Deal and Blue Economy as the primary cornerstones for the future of the European Union, islands must achieve towards recovery and sustainability, with less resources than mainland areas. So, their predicament needs a unique coordination of efforts and resources to ensure the transition to a green, digital, and resilient future. At the same time social links and community engagement are frequently strong in insular regions, which can facilitate rapid decision-making and include residents in the creation and execution of policies.

The examined case study are the islands of South and North Aegean. The paper examines their natural and man-made characteristics and proposes the integration of ICT applications in sectors that are important for their resilient and sustainable development. The main examined sectors are:

- Smart Transportation and renewable sources energy production: Islands depend more on efficient, sustainable, and resilient transportation networks, particularly in the marine and aviation sectors. So it is important to propose ways for reduced dependence on fossil fuels.
- Smart Agriculture and cultivation: Islands are characterized by their limited resources. It is important to adopt smart farming and cultivation application to improve their production.
- Smart interconnections: Geography remoteness is a significant factor causing greater transportation costs and a higher level of economic dependence on imports and exports. This fact makes important the need for product dependency and remote ICT services as healthcare and education.
- Smart Sustainable tourism: The followed until today are based on mass tourism development. The development of sustainable tourism in terms of natural and cultural environment promotion is essential for the islands' development. The development of synergies of tourism with other productive sectors is a decisive factor that can be based on ICT applications.
- The development of "island entrepreneurship" and the promotion of innovation in businesses of the blue economy, etc.
- Availability of information and communication technology: Obtaining the knowledge and technology required to support island territorial development is not always possible.

Comparative Analysis of Urban Sprawl Patterns in Post-socialist States

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Online-G04 Urban-Rural Relationships, August 28, 2023, 11:00 AM - 1:00 PM

Urban sprawl represents a result of unplanned expansion of the built environment in most of the countries. Many scholars have tried to define this unsustainable process, which takes multiple forms, but no universal definition could depict the complexity of all the characteristics it has worldwide. However, it is agreed that urban sprawl leads to no spatial coherence and low population density, being driven by a multitude of factors. Post-socialist states record nowadays the highest rates of unsustainable urban growth, as immediately after the fall of socialism, all the harsh planning rules were dismissed. The developers found the generous surface of land available in the suburban areas as the only opportunity to fulfil the high demand for housing and commercial buildings accumulated in the communism, in a context of loose planning rules.

As different contexts lead to various patterns of urban sprawl, this paper aims to fulfil a comparative analysis of the patterns of this process in the Functional Urban Areas of 4 post-socialist countries in order to determine if they are driven by national factors or they develop as a result of local factors. Thus, starting from a population density grid, this study will compute 4 indicators as average population density, decentralization index, population-to-density allocation, land-to-density allocation and variation of population density for each Functional Urban Area, following a Organisation for Economic Co-operation and Development methodology. These indicators will be calculated for 1990 and 2020 in order to observe the evolution of the urban sprawl in the 30 years of transition. Their value will be compared to determine if there is any spatial correlation at national (or regional) level as a result of the implementation of policies and strategies. As a result, we will be able to determine the importance of these documents in the management of urban sprawl and observe the areas where this process requires more focus from the authorities.

A simple theory of economic development at the extensive industry margin

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Alicante-S77-S2 Economic Complexity for Industrial and Innovation Policy, 1-E12, August 30, 2023,

4:45 PM - 6:30 PM

We revisit the well-known fact that richer countries tend to produce a larger variety of goods and analyze economic development through (export) diversification. We show that countries are more likely to enter ‘nearby’ industries, i.e., industries that require fewer new occupations. To rationalize this finding, we develop a small open economy (SOE) model of economic development at the extensive industry margin. In our model, industries differ in their input requirements of non-tradeable occupations or tasks. The SOE grows if profit maximizing firms decide to enter new, more advanced industries, which requires training workers in all occupations that are new to the economy. As a consequence, the SOE is more likely to enter nearby industries in line with our motivating fact. We provide indirect evidence in support of our main mechanism and then discuss implications: We show that there may be multiple equilibria along the development path, with some equilibria leading on a pathway to prosperity while others resulting in an income trap, and discuss implications for industrial policy. We finally show that the rise of China has a non-monotonic effect on the growth prospects of other developing countries, and provide suggestive evidence for this theoretical prediction.

Measuring financial inclusion on time: A multivariate index for Mexican municipalities 2013-2021

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Alicante-G12 Fintech, technology, and financial inclusion, 0-D03, August 31, 2023, 2:30 PM - 4:15 PM

Access to financial services varies sharply around the world. In many countries less than half the population has an account with a financial institution, and this lack of access to finance is often the critical mechanism for generating income inequality and uneven growth. This is the case of Mexico, where financial exclusion has often been a critical issue for large shares of the population—mainly in rural and poorer localities. This is an abiding concern for policymakers, given how it thwarts socioeconomic opportunities to families and business alike, hampering economic growth and development. However, evaluating how relevant the issue is requires a careful measurement of financial inclusion which, up to now, has been achieved to a limited extent. We contribute to this literature and in this context by proposing a series of multivariate indices of financial inclusion for Mexico, at the municipal level for the period 2013-2021. The indices encompass different dimensions, including access, and usage, according to what is considered theoretically in the literature, but have been barely considered for the Mexican case. The results indicate that the shares of unbanked population are still large, although it is unevenly distributed in space.

Aging in Place Classification and its applications

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Alicante-S54 Ageing society: spatial socioeconomic challenges, 1-D14, August 30, 2023, 11:00 AM -

1:00 PM

The population of England is ageing. By 2041, approximately 26% of the UK's population will be aged 65 and over, with those aged 50+ likely comprising around half the adult population. This demographic change represents a significant challenge and as such developing places that are suitable for residents to 'age in place' will be one of the principal goals for policy makers over the coming decades.

In this project, the researchers create a bespoke multidimensional geodemographic classification of the older population in England (those aged 50+) and demonstrate its utility. The study employed a robust clustering algorithm, called 'k-means', to organise small geographical areas (Lower Super Output Areas) into categories (clusters) that share similar attributes across space. The results of our bespoke and multidimensional 'Ageing in Place Classification' (AiPC) comprised 5 main clusters and 13 nested sub-clusters. The distinctive features of all clusters have been examined and given descriptions and names (Pen Portraits). Based on previous successful applications of general-purpose geodemographic classifications to provide evidence-based policy guidelines, the utility of AiPC classification was investigated through a series of research questions related to service accessibility, housing satisfaction and loneliness. By applying the 20-minute city concept to ageing population we provide an alternative understanding of how the accessibility for essential services varies geographically and how it 'narrows' when limited mobility/walking pace amongst older citizens is accounted for. We also use AiPC classification to model housing satisfaction and enhance the existing estimates of the levels of loneliness amongst older people and explore their variation across space. By combining traditional and novel data sources, the AiPC geodemographic classification provides a unique policy resource that captures the social and spatial heterogeneity of the older population in England and as such its application to better target interventions and allocate resources is beneficial.

Relating cities' sustainability to the resource efficiency of their transport systems at a municipal level

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Alicante-G01-O1 Regional and Urban Development, 0-B02, August 30, 2023, 2:30 PM - 4:15 PM

Mobility is a basic need of society and crucial to ensure economic prosperity. As the urban population increases, there is a growing demand for transportation, leading to negative impacts on the environment and the individual's health. Simultaneously, with growing awareness of environmental issues, more people, especially in urban areas, are aspiring towards a sustainable lifestyle. In order to harmonize the population's urge to live more sustainably and at least maintain the present degree of mobility, policymakers working on urban development consider criteria linked to economic viability, environmental protection and social equity. Interestingly, while the issues described above concern all types of urban environments, sustainability indices are often only available for large metropolitan areas. In this paper, we modify and apply a Sustainable Mobility Index to a sample of about 55 German municipalities of different sizes confronted with differing challenges for integrated urban development. Further, we calculate the technical efficiency of the municipalities' transport systems based on a nonparametric approach relating territorial accessibility to economic performance, energy and area consumption input. In a second step, a multiple regression analysis is conducted to explore the link between the sustainability of urban areas and their technical efficiency and the influence of transport related factors. Interestingly, first findings suggest that the technical efficiency of a municipality's transport system has a negative significant impact on sustainable mobility. The sustainability of municipalities does not necessarily coincide with an environmentally sound transport system. Further, we can confirm positive effects of population density and car sharing user frequency, whereas private car ownership and municipalities' areas have a negative effect on sustainable mobility. We conclude that efficiency might not be a suitable strategy for achieving sustainable mobility outside of highly populated metropolitan areas.

Opportunities to change the development trajectories of the inner periphery areas in Poland

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Alicante-S44 Peripheral areas: from marginality to places of opportunity, 1-D11, September 1, 2023,
9:00 AM - 10:30 AM

The place-based approach in regional policy implies taking into account the peculiarities of areas and their local spatial connections during development interventions. Of particular interest are urban functional areas, which reflect the spatial ranges of functional relations generated between cities and their commuting zones. The TIPERICO (<https://tiperico.web.amu.edu.pl/en/>), research project conducted precisely in the layout of urban functional areas, led to the new delimitation and classification of the inner peripheries in Poland. On the basis of migration, commuting and transportation accessibility two categories of inner periphery areas were identified.

The study presents the identifying the development trajectories of areas classified as inner periphery. A quantitative analysis of development dynamics was conducted to verify if the development inequalities between peripheral and core areas are widening. The results of the research may be of use to conclude whether cohesion policy intervention is effective in Poland.

The second part of the presentation provides the initial results of qualitative research on selected areas of the inner periphery in Poland. It was checked whether peripheral areas can become a place of development opportunity by stimulating their dormant and rebuilding lost development potentials. Especially interesting are the opportunities and challenges faced by the areas of the inner periphery after the covid crisis. Different components of the territorial capital of the inner periphery can guide these areas toward sustainable development.

Spatial Equilibrium and the Regional Effects of Trade Liberalization

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Alicante-YS02 Economic Development and Agglomeration - EPAINOS, 0-D04, August 31, 2023, 11:00

AM - 1:00 PM

This paper uses the 1994 North American Free Trade Agreement (NAFTA) and granular data on Mexican municipalities to study the local effects of trade liberalization on college wage premia, housing costs, and urban amenities between 1990 and 2010. I measure local exposure to international trade by constructing a market access database of each municipality's lowest-cost route to the closest US truck port. I find that municipalities facing larger trade exposure experienced: (1) declines in local wage differences between college and noncollege graduates, both in nominal and real terms; (2) smaller increases in local urban amenities. I interpret these results under the notion of spatial equilibrium in which non-monetary urban amenities compensate for gaps in real wages across cities.

Is foreign direct investment linked to wage inequality between firms? Evidence from EU regions

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Alicante-S26-S2 Defining and measuring inequality across social and spatial scales: limits, thresholds, realities and perceptions, 1-D11, August 31, 2023, 4:45 PM - 6:30 PM

Theoretical models and international evidence have established that foreign direct investment is associated with new technologies, productivity gains, higher wages and wage inequality in the host countries. While most existing studies on foreign direct investment and wage inequality have examined relative wages across skills, occupations and sectors, recent contributions to the theoretical and empirical literature highlight the role of wage dispersion between firms as an important driver of overall income inequality. Understanding what drives wage dispersion between firms across EU regions is thus important for designing policy measures aimed at reducing overall economic, social and spatial inequalities in the European Union. Against this background, this research paper examines wage dispersion between firms across EU regions and the role played by multinational firms with dominant market shares (i.e., market power) within their industry, the so-called “superstar firms”. Firstly, the analysis documents the evolution of wage dispersion between firms and the emergence of multinational superstar firms in Europe at various levels of aggregation (sectoral, regional, national and European). Second, we empirically investigate the role of multinational superstar firms as a driver of wage dispersion between firms across EU regions. The analysis uses firm-level data from the ORBIS Europe data set over the period 2012-202. The econometric methods to identify causal effects include panel data estimation techniques and instrumental variables.

What Helps Firms Grow? Access to Finance

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Alicante-S15-S1 Digitalisation, global shocks and new inequalities, 1-C13, August 31, 2023, 4:45 PM -
6:30 PM

This paper constructs new measures of local access to finance across OECD regions. We document important differences in access to finance across and within countries. We find preliminary evidence better access to finance is positively associated with firm performance.

Comparison of air and time distances in Hungary and Portugal

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Alicante-G34-O5 Transport and Accessibility, 0-B03, September 1, 2023, 2:30 PM - 4:15 PM

The settlement structure has a major impact on the road network, which has a feedback effect on the shaping of the settlement structure. The road network has an important impact on the pattern of network distances and time distances, which through accessibility have an important impact on overall economic and development indicators. Hungary and continental Portugal are countries of almost the same size, with similar levels of development but slightly different shapes and significantly different settlement structures, whose road networks have undergone important developments in recent decades. The aim of the study is to compare the global and local indicators of overall accessibility for the two countries as a whole and to compare the significantly better and worse-off small regions of the two countries, identifying those areas with a more deficient network coverage.

After outlining the methodological foundations and comparing the characteristics of the geographical and time spaces, the empirical analysis uses matrices of time distances as starting points, at municipality level (278 spatial units) for Portugal and at district level (175 spatial units) for Hungary. The different spatial divisions, which in both cases are related to the settlement structure, cause only a small difficulty in the comparison. Thereafter, two-dimensional scaling will be applied to identify the different global and local distortions of the time spaces, followed by a bidimensional regression to compare the geographical space with the spaces defined by the time distances.

Exploring the nature of place-based innovation of cultural and creative industries in non-urban areas: The IN SITU project

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Alicante-S24 Outside the frame: creative, cultural and innovative dynamics in non-urban regions, 1-D13, August 30, 2023, 11:00 AM - 1:00 PM

The IN SITU project, “Place-based innovation of cultural and creative industries in non-urban areas,” is a four-year research project funded by the European Commission through the Horizon Europe programme (project no. 101061747, 2022-2026, <https://insituculture.eu/>). Involving 13 partners from 12 EU countries, as well as international outreach partners and advisors, IN SITU combines research and experimental actions to advance the innovation-related practices, capacities, and potential of cultural and creative industries (CCIs) based in non-urban areas of the EU. The project aims to advance understanding of the forms, processes, and governance needs of CCIs located in non-urban areas of Europe and to advance the ability of non-urban CCIs to act as drivers of innovation, competitiveness, and sustainability for the locales in which they are located. The core defining aspect of IN SITU is the interlinking of research and practice through place-based IN SITU Labs, hubs for networking, capacity building, and monitoring case studies in six non-urban regions across Europe, located in Portugal, Ireland, Iceland, Finland, Latvia, and Croatia.

The IN SITU project builds on multidisciplinary research relating to: processes of innovation of non-urban CCIs; CCIs in non-urban place-based development; CCI entrepreneurship and cross-sectoral collaboration; territorial innovation policy and smart development frameworks and their relation to CCIs in non-urban areas; and cultural planning and policy for non-urban areas. The project is also informed by a long-term process of Europe-wide open consultations and debates among non-urban cultural practitioners was jointly undertaken over recent years, led by four major European cultural networks. A detailed analysis of the concerns, needs, and aspirations of non-urban CCI practitioners across Europe as articulated through these collective works highlighted the need not only to focus on the CCI enterprises but also on the policy and planning contexts of the locales where they operate.

This presentation provides an overview of the objectives, structure, and methodologies of the IN SITU project, and how it is contextualized and informed by the perspectives, aspirations, and needs of non-urban CCI practitioners in Europe.

Urban-rural differences and triple vulnerabilities: energy, grid and transport poverty

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Alicante-G27-O2 Innovation and Sustainable Development, 0-E01, August 31, 2023, 4:45 PM - 6:30 PM

Beyond the double vulnerabilities in energy and transport poverty challenging the energy transition, grid poverty is less emphasised or most often mixed up. While energy poverty addresses unequal access to clean and affordable energy for consumption, grid poverty extends to the inequalities in the potential for energy generation and sharing due to fixed grid limitations. This creates triple energy vulnerabilities (TEVs), as energy communities (ECs) are unable to adopt distributed energy resources or properly access the grid. Furthermore, there can be geographical variation in TEVs.

This study first aims to elaborate on these TEVs, and what their implications are for ECs given that they can affect the potential for generating, saving and transporting energy. In doing so, the comprehensive literature review will cover urban-rural differences in these vulnerabilities. Next, the role of electric vehicles (EVs) is investigated since they provide a means for the flexible storage and transport of energy, minimising reliance on the fixed grid. In combination with ECs – mobile ECs – they can potentially help address TEVs, while also raising new questions about the multiscale implications. The second main aim of this study is thus to provide insights into the potential role of mobile ECs, offering a new perspective on the potential to both accelerate the energy transition and tackle TEVs.

Neighborhood inequality in the city of Vitoria-Gasteiz in Spain

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Alicante-G28-O4 Segregation, Social and Spatial Inequalities, 0-C03, September 1, 2023, 2:30 PM -

4:15 PM

This paper presents a methodology for analyzing inequality within urban space that allows for the discrimination of the combined effect of different variables or analytical dimensions by applying the analytical hierarchy process (AHP) together with geographic information systems (GIS). Using Vitoria-Gasteiz as a case study, the paper characterizes the city's neighborhoods according to a group of demographic, economic, and migratory status-related variables published in the years 2021 and 2022, revealing a synthetic map of the urban inequality at a neighborhood scale. This makes possible a definition of local policies more adjusted to the specificities of each group of neighborhoods.

Local Development Companies, cases from North Africa

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Alicante-G19-O1 Cooperation and Local / Regional Development, 1-B01, September 1, 2023, 11:00 AM

- 1:00 PM

The evolutions of contemporary economies, societies and states mean that the “Territory” becomes an important decision-making unity and an analytical entity subject to a new managerial logic. Laminated from above and below, the central public administrations are ceding more and more powers to the territorial levels, but without obviously losing the core of their sovereignty. As such, local authorities combine the principles of private and public management in search of better satisfaction for the citizen, voter, user and "customer" to be retained.

A business development company (BDC), Local Development Companies (LDCs), local public firms (LPFs) or regional development companies (RDC) are, in their different forms, mediators carrying this hybrid logic of mixing the rigor of the State on one side and that of the market on the other. If in Western Europe these forms of organization were backed by the famous new public management and the rationalization of budgetary choices (RBC in France for instance), elsewhere, they will be systematically conveyed by the globalization of economies and the market values that it underlies. In the United Kingdom, Ireland and Morocco, the basic logic at this level remains the seeking for rationality, but in contexts and circumstances that vary from one nation to another.

Recalling in depth other names and forms, local development companies (LDC) are clearly announced in Morocco by law 113-14 relating to municipalities. There are even regional (RDC) and provincial development corporation (PDC) forms in those relating to regions and provinces. These laws give private capital the possibility of joining forces with public bodies to provide local populations with services for which local authorities are, in principle, liable. The objective is to rationalize management, improve public services and professionalize the management of local authorities usually subject to the ease of the political decision-maker. Far from the political stakes, the LDC are in Morocco a new field of analysis and scientific investigation for researchers and multidisciplinary academicians.

In this sense, our proposal is an attempt to explore and try to model the different development companies (LDC, PDC, and RDC) created since 2014. Indeed, after a conceptual framework, we come back to an inventory of what already exists, trying to make a provisional assessment of the organization, areas of intervention and achievement with the aim of drawing conclusions serving as concrete references and future research prospects.

Path dependence, spatial dependence and economic density in the city network of Hungary

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Online-G40 Spatial Econometrics, August 29, 2023, 11:00 AM - 1:00 PM

In recent years and decades, many researchers have dealt with the path dependence of development processes, which phenomena have also been confirmed at the subnational level. My study also belongs to this latter direction, I describe the effects of socialist industrial development and urban development interventions in Hungary, pointing out their effects on today's agglomeration (urban) economies.

Urbanization in Hungary can be considered delayed due to historical reasons, today's urban network is largely determined by the development policy of the socialist period.

In my spatial econometric analyses, I estimate the local effects of employment and business density on city incomes with different regression models (Spatial Error Model, Spatial AutoRegressive Model, Spatial AutoRegressive with additional AutoRegressive error structure). For the correct estimation I use historical instruments, I explain the economic density with the characteristics of industry, education, and labor migration of the socialist period. During my analyses, I pay special attention to the issue of spatial dependence, which cannot be separated from path dependence. My results point to the historical roots of Hungarian agglomeration economies.

Did the Cap-and-Trade System Make a Difference? An Empirical Assessment Using Firm-Level Data from Québec, Canada

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Online-G24 Energy and Ecological Transitions, August 28, 2023, 11:00 AM - 1:00 PM

In this paper, we attempt to investigate the impact of the Emissions Trading Scheme (ETS) as an instrument of carbon pricing on Greenhouse Gases (GHG) emissions using an ex-post quantitative assessment that incorporates firm-level data from the latest national surveys done in Canada. More particularly, we focus on the Cap-and-Trade system in Québec, Canada which has been operational since 2013 to mitigate the cost of reducing GHG emissions. Québec has one of the lowest carbon footprints in North America. (ECCC, 2021) This is mainly due to its early investments in renewable energy sources such as hydro and wind power, which account for 50% of its total energy use. (IEA, 2019) Indeed, through establishing C&T systems and participating in carbon markets, governments can demonstrate leadership in the fight against climate change and reducing the flow of greenhouse gases into the atmosphere. We use a matching and a difference-in-difference (DiD) methodology, hence combining before-after and treatment-control group comparisons among a sample of firms from the provinces of Québec and Ontario. This allows us to estimate the causal impact of Québec's Cap-and-Trade system participation on GHG emissions, CO₂ intensity and other variables to see if this policy was effective in achieving the goals it has set out to achieve up until 2020, with a focus on its primary objective of encouraging businesses to innovate and change their behaviour in order to reduce GHG emissions.

Territorial resilience at the level of the prefecture of Mohammadia in Morocco

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Alicante-S66 Building resilient communities future: opportunities and challenges addressing the 2030 Agenda for Sustainable Development, 1-D13, September 1, 2023, 11:00 AM - 1:00 PM

The prefecture of Mohammadia is located in the central-eastern part of the Casablanca-Settat region. It spans over an area of around 180 km², which is divided into 6 communes, including two urban communes. Given its strategic location on the central axis between Casablanca and Rabat, the prefecture of Mohammadia realizes 30% of the industrial production of the region. This is attributed to the presence of large industrial infrastructure (the petrochemical port, the electronic, electrical, mechanical and mining), with a predominance of the chemical and petrochemical industries. This economic diversity has led to rapid population growth. The population of the prefecture reached 404,648 in 2014. According to the High Commission for Planning, the prefecture has an estimated annual population growth rate of 2.3% in last one decade (2004-2014). Out of which, 28.6% reside in rural areas, characterized by poor infrastructure.

Most of these industrial activities extend over a vulnerable coastal strip exposed to natural hazards such as sea level rise, coastal erosion and flooding. In addition to the technological hazards that depend on the nature of the industrial activity (radiological, chemical, explosions...etc.).

Land use maps were developed from field surveys (i.e., creation of a complete database of all the components of land use, industrial units as an example). Relying on previous studies and data from various competent services; and integration of geographic information systems; and complete maps of land use were produced. Topographical models were made to classify the zones as per vulnerability to risk, and most vulnerable zones were identified by linking them to most probable type of risk. This allows us to highlight risk zones according to level of risk, and to find the best ways to deal with them, such as possible evacuation methods for the population and others. Therefore, the study contributes as support aid and tool for decision and policy makers to adopt comprehensive measures in case of natural or technological disasters.

With the help of geographic information systems, it is possible to make reorientation decisions so that the prefecture of Mohammadia is able to cope with shocks and recover quickly, given the hazards to which it is subject.

Assessment of Community Resilience to Earthquake: The Case of Bayraklı - İzmir

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Alicante-G20-O1 Social Innovation for Resilient Regions, 0-D01, August 30, 2023, 2:30 PM - 4:15 PM

Community resilience to earthquakes is a crucial issue for urban planning and disaster management. While the literature on community resilience has primarily focused on spatial, economic, and environmental dimensions, the importance of social and community capital dimensions has been neglected. As a result, there is an academic gap in evaluating the interplay of the dimensions in measuring community resilience to earthquakes. Moreover, current studies rely on multi-criteria decision-making methods; however, there is a lack of evaluating more than one method together. This study seeks to address the academic gaps by examining the significance of social, spatial, economic, environmental, and community capital dimensions in determining community resilience to earthquakes. The study will be conducted in the high earthquake-risk region of İzmir-Bayraklı, Turkey, and the scale of the neighbourhoods. The main research question is, "What is the importance of social, spatial, economic, environmental, and community capital dimensions in determining community resilience to earthquake events?" The hypothesis is that evaluating the interplay of these dimensions is crucial to measure community resilience accurately. In the study, a multi-criteria decision-making method that integrates Analytic Hierarchy Process (AHP) and Weighted Linear Combination (WLC) will be used together. AHP will be used to determine the relative importance of each dimension and to prioritise the sub-criteria within each dimension. WLC will then be used to combine the weighted criteria and sub-criteria to evaluate the overall community resilience. By integrating AHP and WLC, the study aims to offer a more comprehensive and robust method for assessing community resilience. The findings of this study will provide valuable insights into disaster management and urban planning policies to improve community resilience to earthquakes. Finally, the study aims to contribute to the existing literature on community resilience by offering a more integrated understanding of the interplay of various dimensions.

Well-being and Geography: Analysis of regional well-being with spillover effects

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Alicante-S78-S3 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 2:30 PM - 4:15 PM

The aim of this study is to provide a new quantitative perspective on the geography of well-being using an urban/rural typology and city size elements in order to detect where people are happier, and to examine the determinants of well-being by considering both temporal and spatial effects. We use 81 NUTS 3 regions and the time period 2012-2019 to analyse the geography of well-being in the Turkish case. Our results show that, living in urban area in general, makes people happy, but that density negatively affects well-being. In addition, city size matters for enhancing well-being. We also analyse the determinants of well-being by using material and social well-being indicators. Next, the a-spatial and spatial model results based on spatial-econometric regressions show that education, health, employment, and income are all important for well-being, while also indirect effects (spillovers) of these indicators exist. Our results indicate that ignoring spatial effects causes an underestimation of the effects of critical determinants of well-being in geography.

Robust labour-flow networks of industries make resilient regions

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Alicante-G35-O3 Regional and Urban Labour Markets and Entrepreneurshi, 0-D04, September 1, 2023, 2:30 PM - 4:15 PM

In this paper we set out to study how the skill-relatedness network structure of industries conditions the economic resilience of regions across 72 local labour markets in Sweden. Drawing on recent advancements in network science we stress-test skill-relatedness networks constructed from local labour flows between industries against the elimination of some of their nodes. We then validate the connection between such network robustness and employment growth in the context of the 2008 economic crisis. We find marked heterogeneity across regions in terms of network robustness. Our results from regression analysis support that regions endowed with more robust local skill-relatedness networks of industries experience higher employment growth particularly in the resistance stage of the unfolding crisis and its aftermath.

Economic shocks: Do entrepreneurship and innovation make local economies more resilient?

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Alicante-G07-O1 Regional Competitiveness, Innovation and Productivity, 0-D01, August 30, 2023,
11:00 AM - 1:00 PM

To assess regional resilience against economic shocks, we examine how big bankruptcies, closures, and lay-offs (big exits) of local firms and plants affect regions, municipalities, and local industry sectors in Sweden. Big exits are severe enough that we may treat them as economic shocks but also frequent and similar enough to enable systematic comparisons. Studying the local response to big exits thus offers a straightforward way to assess the resilience of local economic systems.

A rich panel dataset with detailed information on Swedish firms and employees and a host of relevant municipal and regional statistics spanning 20 years makes it possible for us to examine the impact of big exits along several dimensions at the municipal, regional, and local sectoral levels. For identification purposes, we employ a Difference-in-Difference framework where we match “treated” municipalities, local sectors, and regions with comparable, “untreated” units to be able to consider estimated effects from big exits as causal. Among the indicators that we use to assess resilience in the short and long term are:

- The performance of incumbent firms in terms of revenues, employment, etc.
- Entry and exit rates, and structural transformation variables, e.g., how the share of employment and output changes over time.
- Municipal outcomes, e.g., employment, incomes, and growth.

It is also plausible that the impact of a big exit differs depending on characteristics tied to resilience. For example, local systems characterized by more entrepreneurship, innovation, and human capital intensity may experience less severe, or even positive, impacts of big exits, at least in the long term. We therefore subdivide the data along such dimensions to assess and identify which factors are of particular relevance to resilience against economic shocks.

Preliminary results reveal that resilience seems greater in sectors and municipalities characterized by greater entrepreneurship, human capital, and industry diversity prior to the shock, in the sense that they “bounce back” quicker. Different output variables also reveal different patterns: Notably, following a big exit, affected industries initially suffer in terms of e.g., output and new firm formation, but return to – or even surpass – pre-shock levels in the scope of a few years. Overall employment and income at the municipal level also bounce back relatively quickly, seeing considerable restructuring. In contrast, laid-off individuals with low levels of human capital see prolonged unemployment spells.

The distance decay effect and spatial reach of economic growth spillovers

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Alicante-S27-S1 Applications of Advanced and Innovative Methods in Regional Science, 1-C13,

September 1, 2023, 9:00 AM - 10:30 AM

This paper presents a methodology to estimate the distance decay effect and spatial reach of spillover effects in a spatial Durbin (SD) model. Building on concepts about spatial autocorrelation developed by Getis (2010), we adopt a distance-based negative exponential spatial weight matrix and parameterize it by a distance decay parameter that is different for each spatial lag. The methodology is illustrated based on a spatially augmented neoclassical growth framework and estimated using data of 266 NUTS-2 regions in the EU over the period 2000-2018. We find that the distance decay parameters range from 0.12 to 8.62 and that the model based on one common spatial weight matrix for all spatial lags in the SD model is too restrictive. We also document the extent to which a change in each growth determinant spills over to other regions in terms of distance, sign, magnitude and significance level.

Mapping Production-based CO2 Emissions in Morocco: An Interregional Input-Output Approach

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Alicante-S55 Climate economics, 1-C14, September 1, 2023, 2:30 PM - 4:15 PM

In recent years, Morocco has experienced a significant economic growth rate, with a steady rise in the country's GDP. However, this growth has also come with an increase in carbon emissions, as industrialization and production have intensified. To address this issue, policymakers are focusing on mitigating the country's carbon footprint while sustaining economic growth. This paper contributes to this effort by evaluating the impact of Moroccan domestic absorption and foreign exports on CO2 emissions. Using the latest interregional input-output table for the country, we perform hypothetical extraction simulations to evaluate the impacts of each region's economic structure in terms of CO2 emissions. We find that regions with high emissions intensities, such as Casablanca and Tangier, have a more significant impact on CO2 emissions than regions with lower intensities. We also find that foreign exports have a significant impact on emissions, as they generate a considerable amount of CO2 in the production process. On the other hand, domestic absorption has a comparatively lesser impact on CO2 emissions, as the consumption of goods and services produces fewer emissions compared to their production. Thus, this study adds to the research on emissions by mapping the recent production-based contributions of the Moroccan economy in terms of its regions and their impacts on emissions. The findings suggest that policymakers should focus on reducing emissions in the production of goods and promoting sustainable development through eco-friendly technologies. Our research also highlights the need for continued monitoring and evaluation of CO2 emissions in Morocco to develop effective policies and strategies for mitigating the country's carbon footprint while maintaining economic growth.

JEL: Q54

Keywords: Morocco, Interregional Input-Output Analysis, CO2 Emissions, Foreign Exports, Domestic Absorption

Cluster management and policy learning: The value of strategic intelligence and multi-actor collaboration

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Online-G19-O1 Cooperation and Local / Regional Development, August 28, 2023, 4:45 PM - 6:30 PM

Cluster policies are an important element of the competitiveness policies of many countries and regions around the world. Their rationale is based on the argument that the benefits of clustering can be enhanced and/or accelerated by facilitating cooperative dynamics among the firms and other agents that make up a cluster. Cluster policies therefore typically fund cluster associations or collaborative projects where a key input becomes the facilitating skills of cluster managers. Although policymakers have recognized the key role that cluster managers play in the successful implementation of cluster policy – as evidenced for example by training and networking initiatives for cluster managers such as the European Commission’s Cluster Excellence Initiative – there has been surprisingly little research into the role that cluster management plays in cluster policy success.

The aim of this paper is to advance knowledge on competitiveness (i.e. cluster) policymaking, focusing on policy learning processes. For that purpose, the paper analyzes the different stages of a six-year cluster policy evaluation process in the Basque Country, a pioneer region in cluster policy. We hold that strategic intelligence or evaluation tools can play an important role in this process and present the ‘User’s voice’ as a policy learning instrument. This questionnaire was developed in collaboration between researchers, policymakers, and cluster managers with the specific objective of better understanding how the cluster cooperation services and actions offered by the cluster management organizations and their impact on the competitiveness parameters of companies are perceived by users. We gathered information on different aspects related to cluster management among the members of the 16 cluster management organizations supported by the regional cluster program, with 597 responses in 2018 and 788 responses in 2022. Based on the process, we reflect on how knowledge about the key areas for cluster users contributed to policy learning. Moreover, we also looked at the role of multi-actor collaboration in these types of processes, analysing the interaction and collaboration between policymakers and cluster management, together with researchers, to generate policy learning. The analysis of the case also finds that multi-actor (i.e. academy, cluster management, and policy) collaboration for competitiveness policymaking has promoted changes in policy that could foster cluster competitiveness.

Risk-based approach for climate hazards in two Romanian cities

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Alicante-S66 Building resilient communities future: opportunities and challenges addressing the 2030

Agenda for Sustainable Development, 1-D13, September 1, 2023, 11:00 AM - 1:00 PM

Densely populated urban areas are vulnerable to climate change, posing a high risk due to the potential to affect the vital sectors of cities. The current study supports the Convention of Mayors adopted at the European level, which involves the local authorities who join voluntarily and undertake to meet the EU targets for adaptation and also for mitigation by 55% reduction in GHG by 2030. The purpose of this paper is to increase the competence of taking optimal measures for mitigation and adaptation to climate change by evaluating the current conditions of two medium-sized cities in Romania, namely Satu Mare and Tulcea. Here, will be covered the context of the interaction of two overlapping major climatic hazards, namely heat waves and drought. In order to evaluate the possible future impact that will be produced by these two hazards, a thorough historical review of local climate hazards was undertaken. Also, to define the priorities for taking adaptation and mitigation measures against the risk of heat waves and drought, the risk-based method was used. The results of the historical climate analysis showed an increase in the maximum annual temperature values in both regions during the period 1901-2021 with a dramatic increase in temperature after 2007. The typology and supporting indicators of climate risk characteristics regarding hazard, exposure, vulnerability and adaptive capacity of cities were analysed according to the RCP scenarios. The results indicate that Tulcea is more prone to heat waves than Satu Mare, but also that this region will be more impacted by the projected change in consecutive dry days. Similar sectors in both cities are exposed to these two hazards, although Tulcea's exposure is higher. From the perspective of adaptation capacity, the important distinctions between the two cities can be observed in the change of urban areas classified as green spaces, where Satu Mare has a smaller percentage than the European average making the city more resilient to the effects of climate change and extreme weather events.

Anthropic activities, environmental regulation and deforestation in the Brazilian Amazon rainforest

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Alicante-G23 Human - Environmental Interactions, 0-D03, August 30, 2023, 2:30 PM - 4:15 PM

The Brazilian Amazon rainforest faces high deforestation rates due to the agricultural frontier's advancement, encompassing approximately 500,000 km² of land in the eastern and southern parts of the state of Pará to the west, passing through the states of Mato Grosso, Rondônia, and Acre. In 2020, the Satellite Monitoring Project for the Brazilian Amazon Forest (PRODES/INPE) revealed that around 11,088 km² of forest were deforested in the municipalities that make up the Legal Amazon. To determine the impact of environmental regulation on deforestation in the Brazilian Legal Amazon, this study aimed to evaluate the effect of a higher or lower level of environmental regulation on forest exploitation in the states of Acre, Amapá, Amazonas, Maranhão, Mato Grosso, Pará, Rondônia, Roraima, and Tocantins between 2013 and 2018. An analysis that ignores the inherent endogeneity of environmental fines (which correspond to a measure of monitoring and control of deforestation) applied in each of the nine states of the Brazilian Amazon may raise incorrect analyses of the causal effect of interest. In this case, the expenses with environmental control in each state were used as an exogenous source of variation for the variability of environmental violations in each of the states considered in the analysis. The study applied the Two-Stage Least Squares (2SLS) method to estimate the model with Instrumental Variables (IV) to overcome the complications inherent in endogeneity. The total expense of each state with environmental control in its territories was used as an instrument to delineate the causal relationship between environmental regulation and the level of deforestation. The results indicated that environmental violations were not significant in explaining deforestation in the Amazon region in Brazil. The bureaucracy related to the processing of environmental violations may explain the insignificance of enforcement in reducing deforestation in the region. Moreover, the reduced amount charged for environmental violations does not prevent deforestation practices from being attenuated. In conclusion, the study showed that environmental violations are not significant in explaining deforestation in the Legal Amazon region and it also highlighted that it is crucial to develop and implement effective control and monitoring policies and allocate sufficient public budget to combat deforestation in the region.

Unpacking the 'Natural Resource Curse' in Brazil: an examination of the impact of oil and natural gas royalties during 2005-2018.

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Alicante-G07-O3 Regional Competitiveness, Innovation and Productivity, 0-C03, September 1, 2023,
9:00 AM - 10:30 AM

The term 'Resource Curse' refers to the phenomenon where countries that possess abundant natural resources tend to experience slower economic growth than those with fewer resources. This has been consistently observed in various development studies. The article in question sought to examine whether the distribution of royalties in Brazil, by Law No. 12.858 of September 9, 2013, which allocated a portion of the participation in the result or financial compensation for the exploration of oil and natural gas to education and health, contributed to the development of beneficiary municipalities. To evaluate this, the article used the difference-in-differences (diff-in-diff) estimator to compare the GDP of municipalities that are affected by a particular policy change (in this case, the distribution of royalties) with those that are not affected, exploiting the policy change as an exogenous factor. The results of the analysis showed that the per capita GDP of the municipalities eligible for royalty revenues was, on average, approximately \$300 lower than those not included in the royalty distribution from oil and natural gas exploration in Brazil. Therefore, the results supported the existence of the resource curse phenomenon, as the high dependency on resources (in this case, oil and gas royalties) had a negative impact on local economic growth, as measured by per capita municipal GDP. The article also conducted a sectoral analysis of the effects of the royalty distribution on the GDP of beneficiary municipalities. The results showed that the municipalities eligible for royalties had a higher proportion of agriculture in their GDP (around 3.5%) compared to those that were not eligible. Additionally, the service sector showed a positive effect on the GDP of municipalities that received royalties. However, the participation of the industry in the GDP of municipalities that received royalties was, on average, 3% lower than those that did not receive royalties. This suggests that the abundance of natural resources could negatively impact the productivity of the economy, intensify specialization in commodity production, and lead to a process of deindustrialization in Brazil. Overall, the article provides evidence supporting the existence of the resource curse phenomenon in Brazil, as well as the negative impact of natural resource dependency on local economic growth. It also highlights the need for policies that address the negative effects of resource dependency and promote economic diversification in resource-rich countries.

Inter-regional university student's mobility, Covid-19, and income inequalities across Italian regions.

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Alicante-S26-S1 Defining and measuring inequality across social and spatial scales: limits, thresholds, realities and perceptions, 1-D13, August 31, 2023, 2:30 PM - 4:15 PM

A huge flow of university students across the Italian regions has been detected over a long period of time exhibiting a clear spatial mobility pattern. The most relevant movements have been in the south-north direction, and they mainly involve the students with the highest quality in terms of competencies and skills (Columbu et al. 2020; Ballarino et al. 2021)). Moreover, once they achieve graduation, most of these students enter the local labour market (AlmaLaurea, 2021) of the region in which they attend the university, thus generating a brain drain that exacerbates income inequalities across regions. The study analyses to what extent the Covid-19 pandemic has changed students' mobility across the Italian regions. Students' mobility can be considered a pre-market driver influencing both human capital and income inequalities across regions. We use individual students' data from the National student registry (Anagrafe Nazionale Studenti, ANS) to identify "mobile students" from origin to destination NUTS3 Italian provinces. We investigate, through a gravity model, the determinants of mobility flows using a set of Origin, Destination and O-D explanatory variables, such as economic and labour market conditions, universities' quality and facilities, local amenities. Finally, we assess the effect of this North-South "brain drain" on territorial inequalities.

Entrepreneurship, structural changes and economic development in two small towns in north Iceland.

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Alicante-G11-O1 Entrepreneurship and Regional Development, 0-E01, August 30, 2023, 11:00 AM - 1:00 PM

The paper proposed is based on data from the Nordic research project Value Chains and Resilient Coastal Communities in the Nordic Atlantic, financed by the Nordic Council of Ministers.

In the paper I show my investigation of social and economic development in the two fishing towns of Siglufjörður and Ólafsfjörður in north Iceland, primarily after the year 2000. I will look at how these two communities, which faced great changes when they were amalgamated as the municipality of Fjallabyggð in 2006, took different economic development trajectories. How the people of the two fishing towns managed to adapt to major changes initiated by the state authorities and later by private entrepreneur initiative with great investments in tourism and biotechnology. These changes occurred in the context of a road tunnel being constructed between the two towns in 2010. Statistical official data are used to show the development, but the main empirical data is twofold: 1. A web-survey conducted among approximately 300 people in February 2021. The focus was on how the people of the two towns perceived these developments. 2. In-depth interviews with key persons in the community as well as focus group meeting with people.

An underlying question is how all the efforts to develop the community are seen by the people in these towns and to try to evaluate to what extent they have been resilient and will continue to grow in the future.

Covid-19 handling local strategies and the central-local government relationship. The cases of Akureyri municipality and the Eyjafjörður region.

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Alicante-G30-O1 Covid-19 and regional and urban resilience, 0-D01, August 30, 2023, 4:45 PM - 6:30 PM

The paper I propose to present at the conference is based on data from the Nordic research project Crisis Management In A Polycentric Nordic Local Democracy: Different Governance Structures – Different Results? (POLYGOV) financed by the Research Council of Norway, started in the fall 2021 and will go on until 2024. The project is a comparative study of the crisis management, organisation and functioning of local democracies in Iceland, Norway, Sweden, Finland, and Denmark against the backdrop of the divergent handling of the COVID-19 pandemic. The project compares the local and regional coordination and management strategies employed as the pandemic has unfolded from March 2020 to date, including the vaccination strategies.

In the paper I will use a case study based on interviews in Akureyri municipality in north Iceland to shed a light on how and which governmental level decisions or recommendations on crisis-reactions, were made and how actors at different levels reacted to them and implemented them. The interviews conducted in Akureyri show clearly that the decision making on the Covid-19 reactions was highly centralized at the state level and the role of the local level passive and to a high degree in implementing. The mayor of Akureyri who turned out to have a very good oversight over the process was interviewed as well as the chairman of the municipal council. I will with these interviews seek to answer the question how the top-down decisions from the state level were met. Were they met with local loyalty, with voice or did even anyone refuse to implement? This will all be looked at in the light of how Iceland succeeded in fighting the pandemic.

Technology diffusion in carbon markets: Evidence from aviation

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Alicante-G18-O3 Institutions, Political and Decisional Processes, 0-D01, September 1, 2023, 11:00 AM

- 1:00 PM

In this paper, we investigate the effect of the EU's Emission Trading System (EU ETS) on actual technology diffusion using reliable, comparable metrics of technology change. To do so, we focus on the European commercial aviation sector and analyze how the EU ETS affects actual emission intensity (kg of CO₂ per seat-km), aircraft model choice and aircraft retrofit decisions (winglets). We use data on the universe of flights in Europe and neighboring countries. To identify the impact of the EU ETS, we exploit the policy change introduced when limiting the scope of the scheme for aviation to flights within the European Economic Area, regardless of airline's nationality. This policy change provides us with a group of flights that can be used as a control for our analysis. We use a difference-in-differences strategy to compare changes in terms of technological and retrofitting available options in the aircraft fleets operating on the EU ETS regulated routes with those made by our control group between 2010 and 2019. Our results show that the EU ETS improved average emission intensity (kg of CO₂ per seat-km) by a statistically significant, but environmentally negligible, 2–4%. The average effect is low because technology change only has an impact a few years after policy implementation; yet, this technology change occurs earlier than it would have done without a carbon pricing policy in place.

Postgraduate education and job mismatch in Italy: does migration help?

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Alicante-S18-S1 Drivers and impacts of migration: new insights on the role of local labour markets, human capital, remote work, and (family) networks, 1-C14, August 31, 2023, 2:30 PM - 4:15 PM

Doctoral graduates represent the pinnacle of education. While the importance of increasing their number has been openly recognised by the Italian government and there is a huge increase in the number of PhD scholarships publicly funded, doctoral graduates still struggle in the labour market to find a job adequate to their skills and competencies. It is against this backdrop that the role of migration becomes crucial. Exploiting Italian microdata at census level, this study aims exactly to investigate how human capital migration, occurred at different “times” of individual’s life and across different regions, may mitigate a potential education-job mismatch that is here measured in a multidimensional perspective by looking at overeducation, overskilling and satisfaction. Our findings reveal some positive effects of migration in reducing the mismatch. Moreover, the study highlights two relevant gaps. The first between domestic and foreign workers and the second between genders. Keywords: Education-job mismatch; PhD; Human capital migration; Italian regions.

JEL classification: I21; J24; J61; R23

A fracking disappointment: The sociodemographic impacts of shale gas extraction in rural Pennsylvania and New York

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Alicante-YS03 Regional Development - EPAINOS, 1-C11, August 31, 2023, 11:00 AM - 1:00 PM

Energy extraction is often touted as an antidote to rural decay in amenity-rich areas. However, to what extent does energy development truly benefit rural communities? In 2008, shale gas extraction through “fracking” began to dominate the landscape of rural Pennsylvania, with policymakers highlighting its positive socioeconomic effects for local communities. Despite sharing vast natural gas deposits, neighboring New York implemented a moratorium on fracking in 2008 and officially banned the practice in 2014. Using New York and Pennsylvania’s differential approaches, this paper employs a synthetic control method to study fracking’s local impact on population and socio-economic changes. While the analysis reveals a statistically significant population response to fracking with county-specific heterogeneity, the results underscore how fracking failed to translate into the touted demographic and economic boost for rural Pennsylvania. Thus, this analysis concludes that despite politicians’, government agencies’, and industry insiders’ ambitious promises, in the context of population growth and socio-political advancement, the 2008 fracking boom was a bust.

Overall, this research makes several contributions to the regional economics literature. First, this paper employs a novel approach to estimating population change from the fracking boom—the synthetic control method—with a unique focus on the individual-county level. The synthetic control model yields several empirical advantages over other relevant tools common in the literature, such as difference-in-differences. Second, of the limited literature specifically focusing on the socio-demographic consequences of fracking, many are conducted in, or use data from, the early years of the fracking boom—limiting concerned audiences’ and stakeholders’ (e.g., local governments) abilities to understand the long-term implications of natural gas extraction. Lastly, this research goes a step beyond traditional analyses by complimenting the quantitative components with an examination of the socio-political implications of shifting populations, such as Congressional representation and government funding—both of which are critical to the survival of weakened rural communities. Ultimately, this analysis will facilitate an improved understanding of fracking and its significance for rural communities in the United States.

Entrepreneurship in left behind areas of Spain: an ex-post analysis.

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Alicante-S56-S2 Territorial Inequalities in Europe, 1-E12, August 31, 2023, 4:45 PM - 6:30 PM

There is no doubt that territorial inequalities in Europe are considerable. A paramount example are left-behind areas. Numerous policies have been developed for these regions, given the challenges faced by entrepreneurs in this territories and their huge potential for employment creation. One of such policies is Community-Led Local Development, which employs an innovative bottom-up approach. To analyze the latest wave of aid of this policy, a novel dataset has been created with over 12.6 million beneficiary projects over six years. This information is then aggregated at a municipality (LAU-2) level. To perform the analysis, given that we have a setting with multiple time periods and covariates, we employ the novel Difference-in-Difference estimator developed by Callaway and Sant'Anna (2021). The results show that the policy is indeed effective creating local employment, but the results are unequal between male and female workers. Finally, a spillover analysis is performed to examine whether the policy has effects that stem beyond municipality borders. In this case, no spillover effects are found.

Infrastructure endowment and the effectiveness of Cohesion Policy in Italy: A georeferenced analysis.

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Online-S03 Counterfactual methods for regional policy evaluation, August 29, 2023, 11:00 AM - 1:00 PM

The impacts of cohesion policy have been demonstrated to be different in different regions, depending on various territorial determinants, and this is also worth for firm support measures. Recent reports and academic publications highlight however the importance of moving beyond administrative borders to analyze the implementation of policies and their impact.

The aim of this paper is to see whether the endowment of territorial capital assets in the physical proximity of firms affects the impact of cohesion policy support, starting with the most traditional and measurable of assets: different typologies of infrastructure.

In order to provide spatial patterns not tied to any administrative borders, cohesion policy projects for the programming periods 2007-2013 and 2014-2020 implemented in Italy are point georeferenced to the location of the specific beneficiaries. The same takes place for territorial capital assets, so that an econometric analysis is able to relate the two elements.

Employing such data, the paper is able to identify the spatial patterns connecting these indicators to the implementation of cohesion policies beyond administrative boundaries and, in this way, provide evidence on which territorial capital assets are relevant to regional policy and at which level of proximity.

Next-Gen Measures of Spatial Externalities. Testing the impact of MAR and Jacobs externalities measured at small disaggregated territorial level.

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Online-G39 Methods in Regional Science or Urban Analysis, August 29, 2023, 2:30 PM - 4:15 PM

The agglomeration forces of territories have long been acknowledged, in the urban and regional economic literature, as strong drivers of economic growth. In developed countries, economic activities are strongly agglomerated, and such geographical proximity produces externalities that are usually recognized to play a major role in the process of knowledge creation and diffusion. The literature identifies two types of externalities having a primary role in territorial growth: "specialization externalities", which operate mainly within a specific industry and "diversity externalities" which work across sectors. While points in support of each type of externality can easily be made, both suffer from the same methodological issue: they are measured over large territorial aggregates, usually administrative areas, while the impact of such externalities - if any - operates at a quite smaller geographical proximity. Moreover, such territorial aggregation also masks a large part of the territorial heterogeneity, present within such administrative units by, e.g., pooling together urban and rural territories.

This paper proposes a novel methodology measuring such externalities at territorial level, rather than administrative level, using firm-level data. This is done by applying Frenken et al. (2007) entropy measures to firms' level data aggregated onto a regular grid measuring "small-level" related and unrelated variety (diversity externalities) and Sectoral Location Quotients to measure "small-level" specialization (specialization externalities).

Using these measures for Italy between 2011-2019, allows to test the role played by these externalities on both employment labour productivity and growth of firms and territories in their specific context and allows to study the heterogeneity of the effect in different sub-regional territorial contexts (e.g., urban areas-peripheral areas). Results show that Jacobs' externalities are closely related to growth in employment especially in urban contexts, while specialization externalities play a bigger role in supporting the productivity of firms in non-urban areas.

What drives the location and diffusion of biogas units ?

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Alicante-G25 Energy efficiency and its effect on urban areas, 0-E01, August 30, 2023, 2:30 PM - 4:15

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Questions about the location factors of biogas units have become increasingly important in the scientific literature in recent years (Ferrari et al., 2022); certain characteristics seem to be essential for the emergence of biogas units, such as the methanogenic potential or the characteristics of the operators. Due to structural differences between countries (Schumacher and Schultmann, 2017), the installation criteria may vary from one area to another. We will look at rural biogas units in the French Grand-Ouest over a period from 1990 to 2020. The aim of this paper is to assess which criteria can explain why biogas units are located in certain areas and not others. To do so, we use a geographically weighted regression model (Li et al., 2022) to identify the installation criteria of biogas units, using a database containing numerous explanatory variables. After identifying the common characteristics of the installations, it will be possible to identify potential areas where new biogas units could emerge.

The second objective of the article is to study the impact that the diffusion of a new technology (here the biogas) can have on its development (Morill et al, 1988; Hägerstrand, 1967). The literature on this topic suggests that the emergence of a new technology - innovation - in an area can have positive effects on individuals living in the vicinity of the adoption of this technology (Bollinger and Gillingham, 2012). Moreover, the location of biogas units over time depends not only on the anaerobic potential, but also on the spatial dispersion of the precursor entrepreneurs. Subsequently, the imitating entrepreneurs will homogenize the presence of units in space. The rate of establishment of new units in a given area is limited by the anaerobic potential of the area in question, but also by the availability of precursor entrepreneurs and then imitator entrepreneurs. We therefore aim to test the entrepreneurial culture in agricultural areas, which can be spatially different. By integrating the results of the first part, we compare and measure how a biogas unit can affect the emergence of new units on a territory. These effects of the spatial diffusion of biogas units can help us to better understand the mechanisms for the establishment of biogas units, and enable public policies to target territories for the deployment of new biogas projects.

Viewshed Effects and House Prices: Identifying the Visibility Value of the Natural Landscape

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Online-G40 Spatial Econometrics, August 29, 2023, 11:00 AM - 1:00 PM

The visibility value of the natural landscape is a difficult concept to quantify. Using GIS techniques we create variables for measuring the visibility value of coasts and natural open areas in a spatial hedonic model of house prices. Data come from repeated house sales for the city of Haifa (Israel). As visibility of amenities often interacts with other variables such as location, we suggest approaches for dealing with this identification problem. We exploit the multi-level structure of the data to estimate spatial panel models with multi-level random effects for identifying the visibility value of natural landscapes. The estimated results show first, that visibility of coast and natural open space adds to the value of house prices regardless of their location. Second, the effect of proximity of natural landscapes on house prices is determined by the trade-off between positive and negative externalities generated by these amenities. Third, we find that viewshed effects are sensitive to different ranges of visibility.

Relatedness and colocation in Electric Vehicle production networks: a coevolutionary approach

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Alicante-G10-O1 Technological Change and Diversification, 0-D04, August 30, 2023, 11:00 AM - 1:00 PM

Contemporary transitions, such as the one towards Electric Vehicles (EVs), involve complex interactions between the automotive, electric, and battery technologies among others (Markard, 2018). Scholars of transitions are increasingly considering complementarities between multiple sectors (Andersen et al., 2020), but these approaches need to be connected to an understanding of the geography of transitions (Binz et al., 2020) because inter-sectoral exchanges are embedded within global innovation networks that exploit the advantages that regional agglomerations and global connectivity can provide to innovation. Following Boschma et al. (2017), we propose to combine insights from transition studies and economic geography, to understand how local agglomerations can support the recombination of knowledge and resources that is needed to innovate in EVs, and what is the role of related sectors.

EV sales are increasing and today they represent 9% of new registrations (IEA, 2022). The automotive industry is traditionally capital-intensive and producer-driven because major car firms exert a strong power on all the value chain and influence over suppliers (Sturgeon et al., 2008). Yet today, some high value-added parts in the EV value chain are located outside automotive firms, particularly those related to batteries, electric engines, and software for autonomous drive. While in the long run this could mean increased modularity and less centralization in the automotive industry (Ferloni, 2022), car makers are increasingly integrating battery assembly, the development of battery management systems (BMS) and electric motor manufacturing into their core competences (Alochet et al., 2022). Instead of simply relying on market exchanges, automotive firms integrate new competences by buying, participating, or developing alliances with other firms.

This paper investigates this dynamic by considering ORBIS data on ownership networks to understand if multinational companies in the production of vehicles, batteries, electric motors, and smart grid equipment are becoming increasingly connected and co-located in the same urban regions. If automakers integrate new competences by buying or developing alliances with firms in different sectors, ownership networks should mirror this increased interrelation between sectors by becoming more connected in time. Furthermore, these connections are likely to be particularly strong in some urban areas because spatial proximity is known to favor knowledge exchanges, and innovation is very concentrated geographically (Maskell and Malmberg, 1999; Balland et al., 2020). As a result, we hypothesize that multisectoral interactions are particularly concentrated in specific urban regions.

Testing the complementary effects between R&D and education. An analysis for the European regions.

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Alicante-S70 Peripheral regions and the geography of innovation, 1-D11, August 30, 2023, 4:45 PM - 6:30 PM

Advance technology has been created to satisfy the needs of developed territories; they have the resources, and specifically the human capital highly qualified to use new technologies efficiently in contrast to less developed ones (Samuelson and Nordhaus, 2010). In fact, recent empirical evidence showed that lagging or peripheral regions are those less benefited from investing in Research and Development (R&D) since they have a lower capacity to innovate (Filippopoulos and Fotopoulos, 2021; Marques and Morgan, 2021; Rodríguez-Pose, Wilkie and Zhang, 2021). In this sense, there seemed to be a consensus among neoclassical economist: differences in terms of human capital are the main drivers of the technological gaps between territories (Nelson and Phelps, 1966; Romer, 1990). The fundamental objective of this work is to analyze if European peripheral regions need to complement increases in R&D expenditures with increases in the amount of highly qualified individuals to experiment significant and relevant effects on their economic growth rates. For mentioned purpose a growth model is developed for the context of the European regions (NUTS2) following a β -convergence equation considering the period 2008-2019. In addition to include variables related to region's R&D expenditure, level of education, income per capita, employment rate or population density, we include a key variable: an interaction term between regions R&D expenditure and their level of education. Thanks to this term we will explore if there is a necessary condition for peripheral regions to complement education policies, aiming to improve their educational systems, with innovation policies, aiming to increase R&D expenditures, or vice versa. The selected methodology is Geographically Weighted Regression (GWR). Specifically, this technique consists in a local analysis permitting us to estimate a set of parameters for each spatial unit. Results confirm that European peripheral regions need to accompany R&D expenditures with other policies oriented to increase their level of education. However, most developed regions, mainly those that belong to the Nordic countries, benefit from marginal increases in the educational level or from punctual investments in R&D. There are two important implications. First, invest in R&D is not a unique recipe for boosting the economic growth of every region. Second, policies should be adapted to territories own socioeconomic characteristics. Specifically, we consider that the accumulation of human capital could be placed as an instrument that could favor the efficient use of the invested resources in R&D in peripheral regions of Europe.

The spatial dynamics of population: an agent-based approach

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Alicante-G01-R Regional and Urban Development, 1-C11, August 31, 2023, 2:30 PM - 4:15 PM

This paper considers an economy where agents mobility is driven by differential utilities over space, production and consumption show spatial spillovers, and there exist exogenous and endogenous amenities. The spatial dynamics of population is derived as the mean-field limit of a system of interacting agents as the number of agents becomes infinite.

Numerical experiments show that the model can reproduce several stylized effects, as the emergence of cities with different size and shape; the importance of history, with small perturbations in the initial population distribution leading to substantial differences in the long-run dynamics; the phenomenon of metastability, where a long period of stability in the spatial distribution is followed by a sharp transition to a new (meta) stable equilibrium; and, finally, a non-linear out-of-equilibrium dynamics, with regions with a first phase of increasing, followed by a phase of decreasing, population.

A spatial approach to identifying gatekeepers in the territorial allocation of public funds in Chile

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Alicante-G18-O1 Institutions, Political and Decisional Processes, 0-C04, August 30, 2023, 2:30 PM - 4:15 PM

Distributive politics encompasses the allocation of goods and services and has been widely studied in political science, economics, geography, and regional science. Although resource allocation can be considered the central element of the policy, questions remain. One of those questions is related to understanding the role of different actors in the assignment of non-programmatic programs, a highly complex process. This issue has become important in Latin America, especially in the wake of clientelism, a particular aspect of distributive politics. This work aims to explore the role of electoral and political factors in the allocation of public goods in Chile by identifying the agents i.e., gatekeepers, that have the greatest impact in the process.

To do so we analyse the distribution of two non-programmatic programs: the Neighbourhood Improvement Program (PMB) and the Urban Improvement Program (PMU) and contrast the proposed hypotheses by using spatial econometrics techniques. Specifically, we propose a political interpretation for W that enables us to identify the most decisive agent in the allocation of non-programmatic funds earmarked at the municipal level. The spatial analysis measurement of interaction is approximated through a neighbourhood matrix. If we define this “closeness” as belonging to a senatorial constituency, we can distinguish between direct (municipal level) and indirect (senatorial constituency level) allocation.

Our results show that most municipal funds are due to an indirect effect, meaning senators (not mayors) have the greatest influence in the process. The results are consistent with and validate the seminal Valenzuela’s (1977) thesis. Although a mayor’s political ideology does impact the territorial allocation of these programs via an alignment effect, the territorial unit that most explains the distribution is the senatorial constituency.

These results are interesting as Chile is a unitary state with a presidential system. However, senators fill both a legislative and political role, and they are the regional officials that receive the most votes after the president. The allocation of goods and services seems to be determined by the subnational authorities with the greatest political capital, and not those “closest” to the territory.

The political interpretation of W and the incorporation of spatial analysis into the model represent a twofold contribution to the literature on distributive politics and the identification of the gatekeepers in the territorial allocation of public funds in Chile.

Coastal cities, housing markets and climate change

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Alicante-S05 Economic development of coastal towns: challenges and opportunities, 1-C11, August 30, 2023, 4:45 PM - 6:30 PM

Coastal cities are at the forefronts of adaptation to climate change, both due to the increase in adversities of one-set hazards like floods as well as gradual pressures of sea level rise. Agglomeration forces have been at the core of dynamics shaping goods, labor and property markets in coastal towns for centuries. Yet, the currently economic trade-offs are shifting as the regional coastal economies face accelerating risks due to climate change and as our investments in infrastructure lock in developments into long-term pathways that might undermine climate resilience. This study explores coastal housing market dynamics in the presence of accelerating floods while accounting for urban amenities, hazard risks as well as subjective dynamic risk perceptions of households searching for a house to live. To this end, we employ spatial evolutionary economic agent-based modeling that accounts for behavioral biases, social influences affecting people's location choices, and eventual evolution of property markets as the market sentiments change. By incorporating adaptive expectations and evolution of individual risk perceptions, such computational models are suited to explore the emergence of systemic changes in coastal towns driven by climate change. The talk discusses the results from the coastal property market dynamics in the USA, and scenarios when under the pressure of repetitive floods this dynamics leads to climate gentrification.

Internationalization in Italian Research Hospitals: Governance Effects on Collaboration with Developing Countries

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Alicante-S46 Innovation and Sustainability in Developing Countries, 1-D12, September 1, 2023, 9:00 AM - 10:30 AM

The paper is based on the analysis of a specific case study relative to Italian research hospitals classified as IRCCSs, Scientific Hospitalization and Treatment Institutions. This is a set of more than 50 hospitals, either public or private, recognized as such according to a specific legislation evaluating their prominent scientific features. Aim of the paper is responding to a specific research question: which research model favors diversification of research collaboration and fosters cooperation with developing countries? To this end the research collects a large dataset mixing data of different type: scientific production, administrative data, as well as other specific features of the institutions. Data are analyzed through a series of fixed effect panel regressions, also distinguishing between different geographic areas. Results show that different organizational and governance models lead to different features of international collaboration. A greater rate of international collaboration depends mainly by participation in formal consortia and large research collaborations, as well as diverse leadership in research. More diversification, thus leading also to collaboration with developing areas, is obtained through participation in collaborations driven by individual initiative. Those IRCCS having more international co-authorships tend to have them with fewer geographical areas, typically concentrated in high income countries, while IRCCS that have more geographically diverse collaborations tend to involve low- and middle-income countries to a greater extent. Hence, the two governance approaches (formal research collaborations supported by external funding vs more informal collaborations based on personal networks) seem to map onto different patterns of internationalization of clinical research. These facts should drive policy maker choices on where to point when designing policies for top medical research institutions.

Occupational Safety and Health: is the Evolution of Policies Reflected by International Scientific Literature?

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Alicante-S21 Evaluation of safety and security policies, 1-D11, August 31, 2023, 11:00 AM - 1:00 PM

Occupational Safety and Health is a relevant topic for both scientific research aspects and social aspects. The paper starts from a bibliometric analysis of world international scientific literature, based on a dataset of scientific publication, to argue connections between the evolution of on-topic scientific research and the social perception – also reflected in policies – of how safety and health at the workplace are obtained. Results show: a rapidly expanding field, witnessing the growing interest on the topic; a wide and intertwined international network of research collaboration; and the growth and decay across time of the attention of specific research fields towards Occupational Safety and Health, witnessing an evolution of the social perception and of the policy effort on the topic. Specific country-related research fields are also highlighted by the method-ology.

Coastal poverty and deprivation: a conceptual taxonomy and empirical application using English data.

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Alicante-S05 Economic development of coastal towns: challenges and opportunities, 1-C11, August 30, 2023, 4:45 PM - 6:30 PM

The economic and social difficulties faced by coastal towns in England are a longstanding issue of concern in the economic history of the country. Many coastal areas score high levels of material deprivation, and as such form part of the so-called “geography of discontent” in the UK. However, there are many different types of coastal towns, ranging from more to the less successful, and with wildly different economic histories, i.e., former Victorian seaside resorts, industrial port towns, fishing villages, and more recently, rapidly expanding wealthy towns in areas of significant natural beauty. Some of these towns are still trying to address the legacy of a long process of de-industrialisation that started during the 1970s. Across the coast, socio-economic inequalities and economic stagnation also overlap with additional social and environmental challenges coming from the physical location: low accessibility, low educational attainments and poor health or rising sea levels, flooding risk, coastal erosion, and climate change. In this article we develop a taxonomy of the coastal towns using a principal components analysis approach, using a wide range of demographic, economic, social, and other contextual indicators such as local governance structure. We illustrate our taxonomy with a series of case-study towns, and complement the analysis with a series of primary data collected through semi-structured interviews with stakeholders and residents. Our aim is to identify the generalisable elements of the typology of towns represented in our taxonomy, and formulate a framework for the regeneration of coastal towns that are “left-behind”.

Income classes in Brazil and apparent consumption of fish and fishery products

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Online-G01-O2 Regional and Urban Development, August 28, 2023, 4:45 PM - 6:30 PM

Brazil is a continental country with more than 200 million inhabitants and a population concentrated in the southeast/south axis. The food consumption habits of these people are influenced by the ethnic, cultural and financial diversity of the families. Recent research results from the Brazilian Institute of Geography and Statistics on household budgets (POF 2017-2018) showed that the household purchase of fish by Brazilians was 2.8 kilograms per capita per year. The number is much lower than that indicated by the FAO-UN of 12 kg/habitant/year. In order to understand the consumption behavior of Brazilian families from different income classes, this work investigated the main types of fish purchased and the presentation of the products in each of them. Income classes are: up to €424 [Class F]; €424 to €635 [Class E]; €635 to €1,272 [Class D]; €1,272 to €2,120 [Class C]; €2,120 to €3,180 [Class B]; Above €3,180 [Class A]. Secondary data from the 2017-2018 POF (table 8157) were used, which present the “yearly household food purchase per capita by total income classes”. In the six income classes, per capita acquisition of fish was identified; subgroups (freshwater and saltwater fish); fish products (types of fish) and forms of presentation (fresh fish, fresh fillets and frozen fillets). The results obtained were expressed in kg/per capita/year. The highest per capita acquisition rates of fish are from Classes F; A and E; with respectively 3.36; 3.23 and 3.1 kg. Classes D and C had the lowest fish purchase rates with 2.43 and 2.32 kg. In Brazil, there is no direct correlation between the increase in income and the increase in the purchase of fish. Families with income in Class A buy more saltwater fish when compared to other classes; and the same occurs with Class F in relation to fresh fish, either whole or in the form of fillets. There is a correlation between the income level and the quantities of products purchased in the form of Fillets for family home consumption, in which Class F has a value of 0.11 kg and Class A of 1.1 kg/per capita/ year. The consumption of Fresh Tambaqui (*Colossoma macropomum*) and its hybrids stands out, a species native to Brazil (Amazon) and raised in captivity through aquaculture with complete feeds, usually in small and medium-sized fish farms. Families in Classes B, E and F had household consumption of Fresh Tambaqui estimated between 0.20 and 0.23 kg/per capita/year.

Prospection of products and territories with potential for protection of the Geographical Indication using location index

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Online-G19-O1 Cooperation and Local / Regional Development, August 28, 2023, 4:45 PM - 6:30 PM

The Geographical Indication (GI) is a Brazilian industrial property asset, provided by the National Institute of Industrial Property (INPI). Although it is a country of continental dimensions with great cultural diversity and local specificities, Brazil has only 100 recognized products. In order to increase these numbers and guarantee rights resulting from protection, several public institutions have been working to identify products with potential for recognition and, later, in diagnostic studies that confirm this potential and delimit territories. However, there is a clear gap in quantitative methods for prospecting products and territories with potential for Geographical Indication registration. Based on the hypothesis that agricultural production clusters (agricultural clusters) are also territories with potential for registering Geographical Indications, this work tested the joint use of concentration indicators (Locational Gini-LG) and spatial specialization of production (Locational Quotient-LQ). The production of sweet potatoes was chosen as the object of study because it is the fourth most planted vegetable in Brazil, mostly by small farmers. Secondary data from the Municipal Agricultural Survey of the Brazilian Institute of Geography and Statistics (PAM-IBGE) were used for the years 2000 to 2021, especially the variable of planted area (sweet potatoes and other temporary and permanent crops). The territorial regionalization criterion was geographic microregion and, in these analyses, the 10 territories with the largest areas planted with sweet potatoes in 2021 were selected to study their historical series. To improve the visualization of historical production specialization series, these results were submitted to two-way joining multivariate clustering (Block Clustering). In these analyzes and other calculations, the software “R 4.1.2” and RStudio were used. The LG of sweet potato production in Brazil showed a linear increasing behavior between the years 2000 (0.55) and 2021 (0.70), that is, the planted area was concentrated. This increases the chances of microregions having high levels of spatial specialization of production. In the case of the LQ, among the 10 analyzed micro-regions, 02 of them stood out: Camaquã and Arapiraca, which have a very high LQ in all years; and another 04 that are Presidente Prudente, Porto Alegre, Litoral Nordeste and Ibiapaba that have very high QL more recently. Among these, Presidente Prudente stands out, which is preparing a document for recognition of Geographical Indication of Origin. The results obtained showed that the Locational Gini and Locational Quotient are important tools for identifying agricultural products with potential for Geographical Indication.

Opioid Mortality in the US: Quantifying the Impact of Key Determinants Using a Spatial Panel Data Approach

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Alicante-S27-S1 Applications of Advanced and Innovative Methods in Regional Science, 1-C13,
September 1, 2023, 9:00 AM - 10:30 AM

This paper employs a spatial Durbin panel data model, an extension of the cross-sectional spatial Durbin model to a panel data framework, to quantify the impact of a set of sociodemographic and socioeconomic factors that influence opioid-related mortality in the US. The empirical model uses a pool of 49 US states over six years from 2014 to 2019, and a nearest neighbor matrix that represents the topological structure between the states. Calculation of direct (own-state) and indirect (cross-state spillovers) effects estimates is based on Bayesian estimation and inference reflecting a proper interpretation of the marginal effects for the model that involves spatial lags of the dependent and independent variables.

The study provides evidence that opioid mortality depends not only on the characteristics of the state itself (direct effects), but also on those of nearby states (indirect effects). Direct effects are important, but externalities (spatial spillovers) are more important. The sociodemographic structure (age and race) of a state is important whereas economic distress of a state is less so, as indicated by the total impact estimates. The methodology and the research findings provide a useful template for future empirical work using other geographic locations or shifting interest to other epidemics.

The Geography of Discontent and the Centre-Periphery Cleavage

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Alicante-S57 Perceived discontent, inequalities and the city, 1-D13, August 30, 2023, 4:45 PM - 6:30 PM

In the regional science literature, the growth of anti-system and populist political movements in recent years has been interpreted as a revenge of the left-behind regions (Rodríguez-Pose 2018; Dijkstra et al. 2020). In country after country, anti-establishment sentiments gather support in the rural areas, in declining regions – indeed, in most places outside the main cities. This is true of the support for Donald Trump in the US, for Brexit in the UK, for the yellow vest movement in France, and for the Five Star Movement in Italy, to name but a few.

In political science, the same development has often been interpreted as the birth of a new cleavage – between materialism and postmaterialism in Inglehart's (1977) framework, between green-alternative-libertarian and traditional-authoritarian-nationalist (GAL-TAN) voters in Hooghe et al.'s (2002) guise. In these perspectives, the new political conflicts revolve mainly around value-based or cultural divides, distinct from the classical economic cleavage of the left-right dimension.

However, the insights from regional science suggest that this purported new cleavage might not be detached from economic realities after all. Indeed, it might not even be a new cleavage as much as the increased salience of a very old one: The centre-periphery cleavage.

This paper presents a conceptual discussion of how the revenge of the places that don't matter can be understood as an expression of the centre-periphery cleavage in the context of the post-industrial economy. Furthermore, it presents an agenda for future research on the topic from this perspective. This revolves around three main topics: First, how can we study the salience of the centre-periphery cleavage in party political debate relative to other cleavages using manifesto data? Second, what are the effects of distance from the centre in geographical and social dimensions on support for anti-system votes? Third, how is the regional support for anti-system voting shaped by region's competitiveness in the global economy and in the competition for public investments?

Citizens of Ukraine on the Polish labour market - experiences of the year of war.

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Alicante-G03-O1 Demographic Change, Population and Migration, 0-C03, August 30, 2023, 11:00 AM - 1:00 PM

Poland is the country that has accepted the largest number of refugees from Ukraine - since the beginning of the crisis, over 9 million people fleeing the war have crossed the border with Poland. Approx. 1.5 million of these people, mainly women and children, reside in Poland. This illustrates the scale of the challenge and the actions taken. The quick opening of the labour market and access to schools and kindergartens provided by the Act on Assistance to Ukrainian Citizens facilitated access to legal work in Poland. At the same time, the lack of forced relocation prevented refugees from being sent to regions with a weaker labor market situation. Quick integration was possible thanks to institutional solutions (quickly implemented simplified employment procedures) and the openness of business and Polish society. The aim of the paper is to analyze the one-year experience in the absorption of the Ukrainian labour force on the Polish labour market. The effects of the war in Ukraine on the Polish labour market will be analyzed depending on the short-term, medium-term and long-term effects. A direct and immediately noticeable result was the outflow of men, citizens of Ukraine, from the Polish labour market. This was a certain risk for the development of the construction industry, industrial processing and transport, which had long suffered from staff shortages. The medium-term effects of migration may be potentially positive for service industries - although one should be aware that the majority of people from Ukraine come with children, which to some extent reduces professional mobility. An increase in employment in industries with a large share of women (education, health care and social assistance, trade, other services), weakening of the pressure on wages in the mentioned sectors can be expected; increase in sales and potential increase in new jobs. At the same time, migration processes should be viewed in the long term, through the prism of the need to rebuild infrastructure in Ukraine after the end of the war. On the one hand, the internal needs of the Ukrainian market may take away employees from the Polish market, on the other hand, the reconstruction process may prove to be an opportunity for Polish construction companies in the processing and manufacturing sector, which in the long term may have a positive impact on the labour market.

The Value of Train Station Access

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Alicante-G34-O2 Transport and Accessibility, 0-E01, September 1, 2023, 9:00 AM - 10:30 AM

The majority of studies concerned with the impact of passenger rail infrastructure on real estate values finds positive property price effects that can be attributed to the enhancement in a location's accessibility that comes along with the presence of transportation infrastructure. However, most of this research, especially newer studies that rely on quasi-experimental settings for identification, focus on single infrastructure projects, often in large metropolitan areas. Due to differences in residents' mobility behaviour it is difficult to generalize the findings obtained by these analyses and extrapolate them to more rural areas. This study estimates the capitalization of train station access into real estate values in a more general setting including also rural areas. In addition, I explore the effect of transportation infrastructure on both house prices and apartment rents.

The data basis is provided by repeated cross-sectional data on house and apartment offerings on Germany's largest internet platform for real estate, containing detailed information on property characteristics including offering price and geolocation. The real estate data is spatially merged with various other geospatial data sources, to obtain neighborhood characteristics and distances to important locations, such as train stations.

For identification I rely on roughly 200 train station openings between 2009 and 2020 in Germany in a staggered Difference-in-Difference setting using three control group variants to cover alternative assumptions about spatial unobserved heterogeneity. While the treatment group consists of real estate in proximity to opened train stations, the control group is either given by properties completely unaffected by any train station, by real estate nearby train stations that are similar in characteristics to the opened ones, or by housing units close to hypothetical train station locations in neighborhoods for which recommendations to open or reactivate passenger rail were made.

“Silver cities” or “Young cities”? A taxonomy of cities for seniors, young people, or both

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Alicante-S54 Ageing society: spatial socioeconomic challenges, 1-D14, August 30, 2023, 11:00 AM - 1:00 PM

The city of Cuenca, in Ecuador, ranked in 2019 as one of the best places to retire abroad, furthermore, it is one of the fastest growing city of the country since the beginning of the twenty-first century. The reasons behind this surge were manifold and mostly related to a better quality of life, the existence of amenities and both the city’s build environment and its surrounding.

This news item could be related to some of the theoretical model which explain the agglomeration of older people in cities, without analysing the reasons for this to happen. The model by Naito and Omori (2017) shows that an increase in longevity promotes agglomeration, leading to a greater proportion of the elderly population in urban areas. It also impacts the spatial distribution of economic activities, shaping the spatial variation in the availability of goods and services, especially amenities, in each region or city (Takahashi, 2022). Moreover, the theoretical work by Gaigné and Thisse (2009), shows that the gradual migration of retirees toward cities endowed with more amenities raise the level of urban costs in these cities and/or decrease their consumption of local services, thus making the working cities more attractive to manufacturing firms.

The aim of the paper is to preliminary analyse whether the perception of living in a city that is suitable for the elderly and/or the young is correlated with the share of such age groups living in the city. Then, the research would comparatively consider the characteristics of cities and whether they lead to differences or analogies. The empirical analysis consists of two steps: the first is based on data retrieved from the 2019 Perception Survey on the Quality of Life in European Cities, with more than 58000 interviewees living in 83 European cities. The second accounts for Nuts 3 data on urban characteristics like green spaces, amenities, pollution and services provided by local governments. The comparison of the results allows a better understanding of the direction towards which cities are shaping themselves, according to the age groups they host, and can inform policymakers how and where to allocate investment projects. Therefore, this analysis would take into account the impact of being a so-called “Silver city” or “Young city” on its potential in terms of growth, innovation and entrepreneurial performance and whether cities under the same heading display similarities or differences to this concern.

Shopping Festivals as Sustainable Recourses for Urban Development: The case of “Pazari” of Larisa, Greece.

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Online-G36-O1 Tourism and Overtourism Issues, August 28, 2023, 4:45 PM - 6:30 PM

This work aims to investigate the relation between shopping festivals’ organizing and urban development, via the example of Larisa’s traditional shopping festival (Pazari). More specifically, based on the assumption that shopping events attract significant numbers of visitors and they consist outstanding resources to be exploited for local development, this paper presents how this kind of events are capable to add an identity at a region and to transform no brand places to tourist destinations with direct and indirect benefits for the local community.

This shopping festival of the city of Larisa in central Greece attracts the scientific interest because of a series of characteristics such as the hundreds of thousands of visitors annually, their motivation, and their loyalty -as this event takes place for more than a century.

The significance of this work is its uniqueness, as there is not a single published paper referring to this festival. Furthermore, field survey primary data about the “Pazari” Shopping Festival of Larisa are published for the first time.

Through the results of a 400 people sample field survey, conducted in 2018, captivating scientific conclusions are drawn, with the most important of them the fact that shopping festivals can be vital resources for sustainable visitors-centric development of cities and regions.

Assessment of gender policy through a multisectoral approach for the Spanish economy

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Alicante-G28-O4 Segregation, Social and Spatial Inequalities, 0-C03, September 1, 2023, 2:30 PM - 4:15 PM

Gender imbalances have been a persistent issue that can be attributed to a range of labour market differentials and institutional attributes. Resource allocation processes (wage gaps), informality in the labour market, unpaid domestic work, lack of women participation in specialized jobs are some of the key factors that contribute to this issue. Therefore, addressing gender disparities require a multi-faceted approaches that contribute to improve labour market conditions and gender equality in the work force. To tackle these concerns, many counties have been developing gender integration policies to close economic gaps between genders. However, not many attempts have been made to assess the effectiveness of gender policies, especially for the Spanish economy.

To address this purpose, we use a multisectoral analysis to evaluate the effects of policies aimed at reducing gender gaps in economic activity. Specifically, we apply a Social Accounting Matrix (SAM) disaggregated by household groups with specific attributes such as gender, age, type of work by speciality, and income level. Using the SAM database, we examine the impact of the budget allocated to the implementation of gender policies in Spain on income distribution.

Our analysis provides economic results for various spending policies aimed at reducing the disparity between men and women. These results will serve as a basis for the proposal of complementary policy measures targeting those sectors that continue to exacerbate the gender gap in an effort to make the gender gap more effective.

Foreign Direct Investments in Hungary. Clusters, natural resources, labor and the sources and constraints of economic growth

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Alicante-G11-O3 Entrepreneurship and Regional Development, 0-C04, September 1, 2023, 9:00 AM - 10:30 AM

Foreign Direct Investments account for nearly 90% of the value of investments in Hungary. Behind the phenomenon is the low saving of the Hungarian population and the low willingness of Hungarian enterprises to invest. The Hungarian population is now paying the debts of its pre-2008 loan-financed consumption and property purchases. The growth potential, technological level and willingness to take risks of Hungarian-owned SMEs is low. Most of the SME investments of the last almost 20 years were financed from the resources of the structural funds of the European Union. Instead of being oriented towards growth, Hungarian businesses have become dependent on annuities. Although the investments of foreign companies are increasingly large, they do not make up for the lagging developments of domestic enterprises. The number of jobs they create and their added value are small. Well-educated workers are increasingly lured by foreign companies to growth nodes characterized as small islands. Domestic enterprises are less and less able to pay their employees competitive wages with those of foreign companies. The very different level of technology makes it difficult for Hungarian and foreign companies to cooperate and form clusters. The question is whether it is possible to create a common platform, a common interest, on the basis of which Hungarian SMEs will be able to become suppliers of at least the TNCs operating here?

Territorial inequalities and suburbanizing areas based on the proportion of high-income employees

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Alicante-G01-O2 Regional and Urban Development, 1-C11, September 1, 2023, 2:30 PM - 4:15 PM

It is clearly not possible to define territorial inequalities and suburbanizing areas on the basis of the number of commuters, the proportion of employed persons or the proportion of personal income per capita. Exact data on commuting are only measured in the 10-year censuses. The latest accurate data are from 2011. It may take years for the 2022 census data to be made public. Employment indicators are improved by public employment data. But neither the wages nor the working hours of those employed in public employment correspond to full-time employment. In Hungary, there are many occupational groups whose incomes are below the national average.

The ratio of high-income earners to low-income earners, on the other hand, is an indicator available for all settlements and in a 10-year time series. In addition to the elimination of inflationary effects and the analysis of other macroeconomic effects, the data are excellent for new regional analyses. Based on the data, only a much narrower range of suburbanized regions can be seen. The analysis of income differences shows large cities falling apart and a Budapest that has stalled in its development.

Anticipating and solving local conflicts around biogas plants: the role of local and regional governance.

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Alicante-G02-O2 Regional and Urban Policy and Governance, 0-C03, August 31, 2023, 2:30 PM - 4:15 PM

The use of Renewable Energy Sources (RES) has been promoted and supported by the European Union in the last two decades, through favourable regulatory measures, incentives and subsidies, nationally declined by Member States. Among RES, biogas production has also been promoted by bioeconomy and Circular Economy (CE) policies. Indeed, biogas production has one main by-product, called digestates, whose land application in agriculture contributes to “close the loop” of material flows in rural areas. The continuous growth of the biogas sector in the last years has led to an increasing production and use of digestates, and an increasingly fast growth of the sector in the coming years is forecasted. However, the recent social sciences literature on biogas has highlighted the rise of local conflicts around biogas plants, and the damages they can cause to the development of the sector. The literature has underlined that one dimension of these conflicts is related to the management and the use of digestates. The literature suggests that adequate local and regional governance, and more precisely, territorial governance, can help anticipating and solving the conflicts around biogas plants in general. However, no research has yet addressed how territorial governance can effectively contribute to the anticipation and solving of the conflicts that are specifically related to the management and use of digestates. In addition, the literature on the territorial governance of biogas plants remains globally scarce. This article therefore aims at bridging this knowledge gap. We use the qualitative case study method to explore this topic that remains, to date, very scarcely explored. Thanks to preliminary interviews with expert, and preliminary exploration of the grey literature and the press, we selected five cases of biogas plants in France and in Germany, that are either considered as models of “good” governance of the management and use of their digestates, or that are notorious cases because of the important conflicts they have experienced. We conducted semi-structured interviews, as well as an analysis of the regional and local press, and a document analysis. In line with previous research on the territorial governance of biogas plants, we mobilise the concept of proximities to analyse the interactions between local agents, and the mechanisms and processes of coordination that local agents implement to anticipate and solve the conflicts related to the management and use of digestates. We finally formulate policy recommendations to help stakeholders of the sector preventing and solving these conflicts.

Regional health inequalities across European regions: are social services of general interest a factor? - An analysis from mortality values

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Alicante-S56-S1 Territorial Inequalities in Europe, 1-E11, August 31, 2023, 2:30 PM - 4:15 PM

Services of general interest (SGI) are a vector in battling regional disparities. Thus, these cannot be dissociated from the analysis of regional health inequalities, particularly social services of general interest (SSGI), especially in the context of an increasingly aging Europe. As such, in this study we analyze regional disparities in health in the light of economic, social, territorial, demographic and SSGI characteristics of the regions, trying to understand which factors have the most impact on these disparities. Thus, a Principal Components Analysis (PCA) was performed, followed by a Geographically Weighted Regression (GWR). In carrying out the PCA, socio-economic, territorial and SSGI indicators were used. Based on the extracted factors, a GWR was developed where the components played the role of the independent variable and health outcome indicators played the role of the dependent variable. The results show a good adaptation of the models to the observed reality. It should be noted that the factors involving the socioeconomic dimension and the provision of certain health services denote a higher regression coefficient. Concluding that SSGI are a factor to be taken into account in explaining regional inequalities in health, with particular incidence in some causes of mortality.

Regional picture of teleworking in Portuguese context during pandemic times

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Alicante-S10-S2 Geographies of New Ways of Working, 1-C12, August 31, 2023, 4:45 PM - 6:30 PM

The work and workplace have been redesigned in the last few years, as the COVID-19 pandemic brought the need of the adoption of different work regimes. Amongst these regimes is teleworking, being the one that had the biggest adoption, in fact, there was a significant increase in the number of employees working remotely across the EU, a trend that started with the pandemic but seems to not go away. This work focuses on the evolution of remote work in Portugal, focusing on the regional and the economic activity scopes, analyzing the asymmetries that derive from that in such an ever-changing process. Using data from pre-pandemic, pandemic, and post-pandemic periods, we found out that in Portugal this work regime emerged as a response to the COVID-19 reality and the necessities of economic production but maintained its preponderance after it, especially in activities linked to the most specialized functions and in the core economic region. This work aims to be the first approach of the REMOBIL project to teleworking, constituting the characterization of the Portuguese reality while also being the basic element that will support the development of its future tasks, namely, being the foundational reference for the surveys that will be applied to companies and its employees with the purpose to assess the impacts of the adoption of telework (and e-shopping) on new geographies of mobility and urban form.

Interactions and cooperation between Public Employment Services and their ecosystems: The Basque case

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Alicante-G19-O1 Cooperation and Local / Regional Development, 1-B01, September 1, 2023, 11:00 AM
- 1:00 PM

In recent years employment policies are adopting a more systemic approach in which the role of Public Employment Services (PES) is evolving. This is happening in the context of a New Public Governance, which is based on the idea that intra- and inter-institutional cooperation and empowerment of stakeholders will provide more effective and democratic public services and actions. Hence, PES are asked to go beyond their traditional bureaucratic functions to assume the role of orchestrators vis-à-vis other actors. In this paper, we explore whether public employment offices are indeed taking up this role or are at least collaborating with other actors in their proximity. The analysis is undertaken in the Basque Country, a region in the North of Spain, which is characterised by its high degree of autonomy, having competencies at regional level for the implementation of employment policies. Using data provided by Lanbide, the Basque PES, we have characterised their 42 offices according to the volume of services they manage. Applying cluster analysis, the 42 offices have been classified into four groups. We then test whether the relationship with other agents in the territory varies across groups and whether employment density and the volume of agents present in each area influence these interactions.

Does economic complexity contribute to resilience? Evidence from European regions

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Alicante-S23-S3 Rethinking regional resilience, 1-C14, August 30, 2023, 4:45 PM - 6:30 PM

Following recent literature that has measured economic complexity on the basis of the diversity of activities present in territories (i.e. the amount of activities in which a territory specialises) and the ubiquity of such activities (i.e. how widespread activities are across territories) (Fritz and Manduca, 2021; Hidalgo, 2021; Wohl, 2020), this paper explores the relationship between economic complexity and resilience. It draws on a dataset that has estimated employment disaggregated at 4-digit NACE level for 201 European regions, and constructs an index of complexity in three discrete years: 2008, at the beginning of the effects of the Great Recession on employment; 2013, when most regions had begun recovery and employment had started to grow again; and 2018, when employment growth had been sustained for several years, leading to changes in employment specialisation patterns as recovery differed across sectors and regions. Comparing levels and changes in the complexity index in these periods with changes in total employment and GDP per capita, we question whether economic complexity can contribute to the resilience of regions and whether that resilience depends on the type of complexity (all sectors vs manufacturing).

Analysing Spatial Wealth Inequalities in European Regions.

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Alicante-G28-O1 Segregation, Social and Spatial Inequalities, 0-C04, August 30, 2023, 4:45 PM - 6:30 PM

The increasing concentration of wealth is becoming an increasingly important issue in inequality analysis. The importance of including wealth in household inequality analysis is gaining attention. However, there are currently no datasets that provide the necessary level of geographical detail to analyze differences across European regions. This paper aims to fill this gap by analyzing European households. The applied methodology estimates asset poverty indicators across European regions by combining the Household Finance and Consumption Survey (HFCS) conducted by the ECB, national central banks of the Eurosystem, and national statistical institutes, and the European Living Conditions Survey (EUSILC) conducted by Eurostat. The key variable of interest is only present in the HFCS, while in the EUSILC, the same independent variables used in the HFCS are included with the advantage of being disaggregated by region. The main advantages of the proposed technique are its consistency with national aggregates and the fact that it does not require strong distributional assumptions. As a result, we will develop an analysis of regional heterogeneity in the distribution of wealth among European households. The results from this estimation will improve our understanding of inequality in Europe, providing data to analyze the extent of social convergence, the degree of heterogeneity in wealth distribution across European regions, the evaluation and control of public policies, among other things.

Disasters and incumbency advantage in Italy: a regression discontinuity design

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Alicante-G21-O1 Climate Adaptive and Resilient Regions and Cities, 0-D02, September 1, 2023, 9:00 AM - 10:30 AM

Socio-natural disasters threaten the pillars of sustainable development. They are becoming more frequent, are occurring faster and are increasingly unpredictable across multiple sectors, dimensions and scales (FAO, 2021). Indeed, in Italy between 2000 and 2019, 89 major disasters were recorded in which 21,000 people died, the number of people affected reached 230,000 people and economic losses are estimated at around USD 64 billion (CRED (Centre for Research on the Epidemiology of Disasters), 2020). The disasters that have increased considerably are fires and floods, which could be associated with the climate crisis (CRED 2020). In this context, the management of large-scale disasters is increasingly becoming a routine action for local governments. From the point of view of electoral, a key question is how voters judge leaders' performance in dealing with a large-scale crisis. Specifically at the local level, two questions arise: on the one hand, mayors want to know whether their electoral future will be associated with emergency management. On the other hand, the key question for voters is whether the incentive of re-election serves as a tool to encourage good performance by the politician. Voter reaction to leaders' performance in emergency management has important ramifications. If mayors know that they will be judged by their actions when they stand for re-election, they will be motivated to improve their performance. Given the increasing likelihood that communities will face climate catastrophes, it is important to understand how best to incentivise mayors to act well during an emergency.

Using a regression discontinuity design, this paper explores how disasters affect the incumbency advantage of mayors in Italy for the period 1993-2019. The disasters analysed are drought, wildfire, storm, landslide and flood. The results show that disasters increase the probability of re-election and the voting margin of incumbent mayors in affected municipalities. Moreover, the incumbency advantage is shown to be greater in smaller municipalities than in larger cities.

Coworker preferences in choosing their workplace – The case of Tel-Aviv

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Alicante-S10-S1 Geographies of New Ways of Working, 1-C12, August 31, 2023, 2:30 PM - 4:15 PM

In this study we examine three aspects that may have an influence on the attractiveness of coworking space for potential members : 1. The coworkers' demographic characteristics, such as age, education, status, income, etc. 2. The cost of renting a space, as well as the variety and level of services that the coworking space provides to its members (i.e., office services, business services, and social services). 3. Characteristics of the urban environment near the coworking space (i.e., proximity to public transport, prevalence of cafés, restaurants, leisure centers, etc.,

The study was conducted in Tel Aviv, the economic and cultural capital of Israel, where there exists the largest concentration of coworking spaces in Israel. The study began shortly before the outbreak of the COVID19 pandemic. 44 coworking spaces in the city that survived the pandemic period were mapped and a questionnaire was distributed among their coworkers.

Data on the characteristics of coworking spaces that referred to their location in the city, the level of the various services provided to their members and the social community activities were collected from websites that provide information about coworking spaces in Tel Aviv. Data on the features of the nearby urban environment for each of the coworking spaces, referring to the frequency of public transportation, the existence of parks, food services, restaurants, and pubs, were collected from the GIS database of the Tel Aviv Municipality. A survey carried out via an internet questionnaire was distributed to coworkers from 44 coworking spaces. 500 completed questionnaires were collected and provided data on coworker's characteristics and their choice of the coworking spaces in which they work.

Preliminary findings show that most coworkers are young singles. Most live in Tel Aviv or in nearby cities. For most, it takes less than 30 minutes to commute to their workplace, and more than a third arrive on foot or bicycle. The workplace is a big part of their lives, so they look for the workplace to be cozy, comfortable, and a social alternative. Most coworkers are self-employed, company owners, employees, and entrepreneurs whose income is above the average wage, meaning that they are consumers with means, and they tend to consume during both leisure and work hours (restaurants, culture, fashion, etc.), and should therefore be treated as a significant purchasing power in the city.

Spatio-temporal analysis of population distribution using Mobile Phone Network data. Suitable for inequality focused investigations on neighborhood level?

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Alicante-G28-O1 Segregation, Social and Spatial Inequalities, 0-C04, August 30, 2023, 4:45 PM - 6:30

PM

Mobile Phone Network (MPN) data is an increasingly popular source of Big Data-sets available to social and regional scientists. The potentially rich empirical data promises insights in individual and collective mobility patterns. However, data is usually collected for the purpose of billing network users and not for spatio-temporal analysis. Its suitability as empirical material for studies is therefore not guaranteed. This paper attempts to assess the material's suitability for inequality focused investigations on neighborhood level.

This paper explores the variation and relations between the dynamic populations in Mobile Phone Data and that of static population registry data. By comparing the nighttime population of Mobile Phone users and that of registry data – this paper will explore variations in the over- and undercounting of populations after neighborhood socioeconomic variables. The paper will also engage with the variations of ambient populations in neighborhoods over time. Further, the paper will assess the effects of MAUP in the aggregation of the highly detailed MPN data.

The paper relies on spatial clustering and spatial regression. Particular attention is placed on spatio-temporal clustering techniques. The MPN data used for the paper comes from the MIND-database available at Uppsala University. Similarly, the registry data used in this paper comes from the PLACE-database at Uppsala University.

EU fiscal transfers & convergence

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Alicante-S60 Economic transformation and the geography of firms, human capital and growth, 1-D12,

September 1, 2023, 11:00 AM - 1:00 PM

Despite the European Union's efforts to foster economic convergence of less developed regions, spatial disparities across European regions are profound and persistent. Using a novel data set and improving on previous research from a methodological point of view, we provide new evidence on the impact of the EU Cohesion Policy on regional GDP per capita growth and employment reallocation. We apply a Fuzzy Regression Discontinuity Design, exploiting that the definition of less developed regions gives rise to a discontinuity in the probability of treatment assignment. Using digitized historical data employed by the European Commission for the demarcation of eligible regions, we are able to precisely replicate the policy rule and correctly classify regions according to their compliance status. Our panel comprises the years from 1989 to 2020, hence covering all five completed funding periods. We use the variation across regions within funding periods, accounting for period-specific influences by flexibly modelling the relationship between initial GDP per capita and changes in the outcome variable. We show that the EU's place-based policy indeed fostered GDP per capita growth of the less developed regions. However, the implied growth effects are much smaller than previously documented. Looking at effect heterogeneity, we find insignificant effects for the subsample of EU-15 member states.

Regional differences in occupational segregation: the case of Germany

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Alicante-S01-S2 Regional Differences in Gender Equality: Determinants and Consequences, 1-B02,

August 31, 2023, 4:45 PM - 6:30 PM

This paper investigates differences in the spatial distribution of women and men across occupations, thereby contributing to the sparse literature on regional gender differences in occupational segregation. Using detailed information on all employees in Germany for the year 2019, I calculate the index of dissimilarity at the level of the NUTS 3-regions. Results show profound regional disparities in occupational segregation among men and women in Germany. The spatial pattern indicates a lower degree of segregation in cities, and descriptive evidence for the two extreme regions reveal distinctive gender differences both in occupational and regional respect. First multiple regression results point towards the relevance of the local labor market structure, gender and family relations as well as the local socio-demographic composition for explaining regional differences in the dissimilarity index. Evidently, there seems to be a bundle of factors that explain regional differences in occupational segregation in Germany, which entails important implications for local labor market actors for reducing both detrimental effects for women and labour and skill shortages.

Proposal of Renewable Energy Project with Community-based Environmental Clean-up Activities aiming to Recycling Society

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Online-G19-O2 Cooperation and Local / Regional Development, August 29, 2023, 11:00 AM - 1:00 PM

In many local communities in Japan, environmental clean-up activities are held on embankments and in public parks, using the voluntary time of local resident. Usually, fallen leaves and mowed grass are gathered and taken to an incineration facility by a waste management company, where they are incinerated. However, this process comes with several issues. Firstly, there are costs associated with transportation and incineration of the waste, and secondly, carbon dioxide is emitted during the incineration process. Lastly, there is also a limit on the amount of waste that can be accepted at the incineration facility. If collected fallen leaves and mowed grass are simply dumped on the ground, the costs of transport and incineration are reduced. However, bacteria and micro-organisms in the ground decompose and ferment them to produce methane, which is released directly into the atmosphere. Methane is considered having a greenhouse effect much higher than carbon dioxide.

On the other hand, methane is the main component of natural gas, and it is also known to generate energy from burning methane. The method of power generation using methane (gas) produced from biological resources (biomass) is called “Biogas” power generation. Biogas power generation uses biological resources that have grown by absorbing carbon dioxide, so the carbon dioxide produced by the burning process is assumed not to increase substantially because it was originally contained in the atmosphere. Therefore, the shift from fossil fuel-based power generation to biogas power generation will play an important role in an eco-friendly energy policy.

However, there is a limit to the supply of biomass fuels, and there is an urgent requirement for the establishment of an efficient system for the collection and supply of biomass fuels. In addition, it is known that power generation projects using biomass fuels are high-cost to install and maintain. Therefore, to overcome these challenges, cooperation with local communities and public support are required. This study focuses on environmental clean-up activities held in local communities in Japan, we propose a power generation project using the fallen leaves and mowed grass obtained from these activities as biomass fuel. Then, we discuss the feasibility of the project from the viewpoint of awareness of participation to the project among local resident, revitalization of local community and improvement of social welfare level through the participation of local resident, reduction of administrative expenditure and increase of social benefit by the project.

Are Rural Stakeholder Needs Compliant with the European Union Targets? Text Mining Analysis of CLLD Local Development Strategies in Poland

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Alicante-G05-O1 Economic development in rural places, 0-C04, August 30, 2023, 11:00 AM - 1:00 PM

European Union support programmes have given rise to community-based partnerships, especially in rural areas, referred to as Local Action Groups (LAGs), in which the local stakeholders involved formulate Local Development Strategies (LDS), the implementation of which is subsequently made possible through the financial support of EU funds. Top-down support for specific bottom-up activities is often referred to as neo-endogenous development, and the adoption of pan-European organizational forms and goals as a process of Europeanization. This paper illustrates an attempt to assess the extent to which LDS were consistent with the EU's "Europe 2020" strategy, using the example of LAGs from Poland. Text mining and content analysis are two methods employed herein. The dominant issues for rural areas, that are correspondent to the Europe 2020 strategy, revolve around increasing employment, educating local communities and combating poverty through the use of social inclusion methods, with much less attention dedicated to the issues of greenhouse gas emission reduction and renewable energy development. The strategies in question emphasise innovation with regard to planned activities, insofar as it is perceived at the local level, which usually bears no relation to methodical research and development (R&D) work. The regional differentiation of the LDS objectives indicates a high impact of the European funds' targets on the undertaken actions. This research was financed by the Polish National Science Centre, Krakow; Project No 2019/33/B/HS4/00176 (OPUS 17) "The concept of absorptive and transformational Europeanisation of sub-national entities on an example of the Local Action Groups in Poland" (2020–2023).

Immigration, Local Specialization in Low-skilled Activities and Native Education. Evidence from some EU Countries

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Alicante-G03-O1 Demographic Change, Population and Migration, 0-C03, August 30, 2023, 11:00 AM - 1:00 PM

This paper investigates the native education responses to immigration in Portugal, Ireland, Greece and Spain over the period 1981-2011. The empirical analysis is divided into two parts. In the first, we assess the direct and indirect effects of immigration on native schooling, as well as the overall effect that encompasses the other two. In the second part, we consider the different employment structure of the local labor markets under analysis and verify the combined effect of immigration and regional specialization in low- and high-skilled sectors on the native education responses. All in all, the presence of immigrants is associated with a lower propensity of natives to acquire human capital, and the effect is stronger in regions specialized in low-skilled sectors.

The Territorial Resilience of Industrial Districts: An Analysis of the Consequences of the Recent Economic Crisis

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Alicante-G02-O3 Regional and Urban Policy and Governance, 0-C01, September 1, 2023, 9:00 AM - 10:30 AM

Resilience is a topic that has received increasing attention from researchers and policy makers since the onset of the economic crisis in 2008. It has been mainly analysed at regional or local level because the great interest to understand how different economic units have tackled the negative effects of an economic crisis. Moreover, companies located in Industrial Districts have historically played a relevant role in Spain in the recovery from successive crises of the 20th century, particularly due to their exporting and adaptation capacity. Therefore, it is to be expected to find a substantially different performance in industrial districts during the last years compared to other areas. The aim of this paper is to analyse the dynamism and adaptive capacity of the industrial districts of the Valencian Community in Spain in the period 2002-2022. The effects of the Great Recession of 2008 and the consequences of the Covid-19 pandemic could have modified the development paths traditionally shown by industrial districts. The main question is whether industrial districts have been able to cope with the consequences of the economic downturn better than other local production systems. In short, have industrial districts been resilient or not? In addition, the changes in the degree of specialization and diversification of economic activity in these territories are analysed. The results may be useful to contribute to introduce resilience at the core of economic policies focused on the evolution of spatial agglomerations of firms and to clarify which objectives should be achieved to improve the resilience of these areas.

FDI in regional economic development revisited: The contradictory role of FDI in Central and Eastern Europe

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Alicante-S64 From Dependence to Embeddedness": FDI Driven Global Value Chains and Policy Alternatives to FDI-Based Regional Development in Central and Eastern Europe, 1-B11, August 31, 2023, 4:45 PM - 6:30 PM

The study examines the spatial relationships between foreign direct investment (FDI) and productivity, economic output, and wage levels in 60 regions throughout Eastern Europe, including Czechia, Hungary, Slovakia, Austria, Romania, and Poland. By using spatial econometric models, we analyze the impact of FDI on economic outcomes in each region, taking into account the spatial interdependence between neighbouring regions.

FDI significantly affects productivity, GDP, and salary levels, suggesting that FDI has a positive spillover effect on economic performance in the region, however the impact of the FDI-led development model on GDP growth is smaller than commonly expected. At the same time, despite its smaller development impact, it further increases regional disparities.

Development impact of FDI is often short-term and geographically limited and negatively significant in certain regions. Furthermore, the results emphasize the importance of accounting for spatial dependence, as neglecting this interdependence can lead to biased estimates of FDI's effects.

In addition to contributing to the literature on foreign direct investment and economic development, the study provides new insights into the spatial relationships between foreign direct investment and economic outcomes in Eastern Europe. These findings have significant implications for policymakers and investors, as they suggest that FDI can be a single powerful tool for promoting economic growth and improving living standards. However, this conclusion is more controversial when applied to FDI dependent market economies.

Is compulsory inter-municipal cooperation an efficiency booster?

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Online-G19-O1 Cooperation and Local / Regional Development, August 28, 2023, 4:45 PM - 6:30 PM

Many OECD countries, such as the UK, USA, Italy, and France, have allowed and organised inter-municipal cooperation to enhance the management of public services and better distribute resources across territories. However, municipalities are often unwilling to collaborate, delaying or even blocking the unification process since inter-municipal cooperation can be costly for municipalities due to the loss of autonomy over local policies and reduced ability to protect local interests. Empirical evidence on the impact of inter-municipal cooperation in promoting municipal efficiency is mixed and inconclusive and still it is not clear whether inter-municipal cooperation leads to efficiency gains or not. Therefore, in this paper we evaluate the impact of inter-municipal cooperation on municipal efficiency in France, where efficiency is defined as the capacity to use municipal resources (e.g., expenditures and labour) to maximize municipal output (e.g., income). We exploit the "Réforme des Collectivités Territoriales" (RCT) law approved in France in 2010 that forced municipalities to join an inter-municipal group (EIMC) by 2014. Concentrating on the French capital region for the period 2002-2019, we first compute municipal time-varying efficiency scores by estimating a spatial stochastic frontier model allowing intra- and inter-EIMC spillover effects. Then, we adopt a staggered difference-in-differences design to causally assess the impact of integration on municipal efficiency. We find that the RCT law overall had a positive impact on municipal efficiency in Ile de France region but this effect is particularly strong for early adopters and with an increasing length of exposure.

Sharing my place: the local labor market impact of the P2P technology shock

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Alicante-S06 Exploring the Economic Impacts of Short-Term Rentals on Regions and Cities, 1-C12,
August 30, 2023, 11:00 AM - 1:00 PM

The emergence of new digital business models, often called peer-to-peer (P2P) marketplaces, is transforming the hospitality industry. While its implications go beyond the industry, our knowledge of its aggregate impact is limited. This paper examines the effects of the P2P irruption on the local labor markets in Spain between 2016 and 2020. We exploit exogenous regulatory changes in short-term rentals (STRs) across different municipalities and periods to investigate the employment outcomes and job reallocation patterns in response to the P2P technology shock. Our findings reveal a strong and positive effect of P2P activity on local employment. A 10% increase in P2P overnights leads to an increase in local employment by 8.2 workers and a reduction in unemployment by 7.6 workers. This effect is pronounced across various sectors, including services, construction, and industry, while agriculture experiences an increase in unemployment. Our analysis indicates that the employment gain from P2P STRs varies across municipalities, with smaller non-touristy areas demonstrating the most substantial employment gains. In contrast, areas with intense competition from hotels experience a diminished effect.

UNIC Centre for City Futures - a Trans-regional Transformative Change Laboratory

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Alicante-S38-S2 Partnerships for innovation: building transformative innovation policies with local ownership, 1-D13, August 30, 2023, 2:30 PM - 4:15 PM

Impactful sustainable development necessitates a shift in public policy goals from incremental activities to laying the foundations for transformational change processes. Currently it appears that there is a large mismatch in the alignment of local challenges and the capabilities of regional and local administrations to provide comprehensive responses. In response, a cluster of creative thinking has emerged asking what might be possible if universities were to recognise their full potential contribution to the development of ecologically and socially sustainable cities, fostering processes of positive and collective learning. In this paper, we will scrutinize, one such effort, the development of a Centre for City Futures, which is new to UNIC European University of Cities in Post-industrial Transitions, an alliance of ten universities and their cities. Here we are mobilizing a large-scale trans-regional Urban Change Laboratory (CityLabs) whose quintuple helix approach aims to develop our collective regional capacity and capabilities beyond and across their boundaries. Essentially this serves as a living laboratory that will nurture a user-centred open innovation ecosystem that strives to facilitate research, development and innovation processes related to different partnerships in physical, real-life and virtual contexts. The underpinning theory is that place-based innovation ecosystems' capacity to experiment, develop and implement new ideas is increased through radically expanded mobility and diversity of participants across boundaries. Central here is the concept of transformative agency (Engeström, 2007) an intervention method around societally engaged learning and research.

The influence of Cohesion Policy on Ordinary government spending: a sectoral assessment for the Italian regions

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Alicante-G01-O1 Regional and Urban Development, 0-B02, August 30, 2023, 2:30 PM - 4:15 PM

The work investigates the effect of additionality of both national and European Cohesion Policy in Italian NUTS-2 territories with respect to national “Ordinary” government spending during the 2007-13 and 2014-20 programming periods. Despite the emphasis on the Additionality Principle made by the European Union, the Cohesion Funds may generate a distortion in the domestic allocative process. We deal with an ex-post regional and sectoral panel evaluation of Cohesion Funds’ additionality to the Ordinary Policy, treating specifically endogeneity. In particular, we focus on this issue by looking at the interdependencies of the two policies in four different sectors of government spending, namely Education, Training, Road Transportation and Non-Road Transportation. The policy variables are computed by combining data from Opencoesione, a database on cohesion projects available for Italy, and the Public Territorial Accounts (Conti Pubblici Territoriali) database referring to regionalized public spending. From the estimation results, Cohesion Policy appears to be a complement for growth to other source of spending in non-road transportation network, while a crowding out effect seems to occur in the education and training sectors. A positive but not significant effect is found for road transportation network. This analysis stressed the not negligible effect of the Cohesion Policy treatment on ordinary disbursements to the Italian regions and the sectoral heterogeneity in Structural Funds’ additionality.

Suggestions for Rebuilding Functional Networks in Insular Contexts: The Case Study of Sardinia (Italy)

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Online-G45 Development in an insular context, August 29, 2023, 2:30 PM - 4:15 PM

In the last decade, the scientific community has focused on the challenges that islands must face in areas such as urban planning and economic and social development in order to achieve the same levels of development as non-island territories. Several studies have examined the urban planning methods in relation to geographical characteristics, specialised policies, structural problems, and the territorial dimension of islands, with the aim of promoting territorial cohesion relationships that increase the levels of sustainable development in these contexts. The Committee on Regional Development of the EU, in its "Report on EU Islands and Cohesion Policy: Current Situation and Future Challenges" (2022), reaffirms that island contexts have not been able to overcome the challenges and disparities in terms of sustainable development due to their permanent geomorphological and natural structural handicaps. Structural disadvantages are limitations for island contexts, but they can offer an opportunity to rethink the territory in terms of social and economic networks to improve the daily comfort and quality of life of users of the island territory or parts of it. Based on these premises, the paper aims to measure and assess the internal dynamics of large island contexts in order to identify suggestions for targeted actions of territorial cohesion between different parts of the island. Using Sardinia (Italy) as a case study can permit to identify specific functional areas in terms of urban planning, mobility, and socio-economic development. In addition to being an island system, Sardinia is emblematic as a case study for several reasons: not only because it is in the middle of the Mediterranean Basin, but it is also one of the biggest islands in the same basin, with a total size of 23,813 square kilometres. The study concludes with a discussion and presentation of its findings, demonstrating how the functional areas identified and analysed provide suggestions for large islands in the Mediterranean, as well as methodology repeatability and effective island comparisons.

Keywords: Territorial Cohesion; Island; Islands Functional Areas; Islands' Structural Problems; Sardinia

Reframing the Smartness in the Context of Sustainable Islands Through the Perspective of Human Happiness

Prof. Chiara Garau, Dr. Giulia Desogus

Alicante-S78-S2 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 11:00 AM - 1:00 PM

Over the past decade, the concept of a smart island (based on technological and digital paradigms) has gradually impacted the governance of island contexts, where local governments have implemented digitisation policies and integrated planning with artificial intelligence to enhance the quality of life for their residents. Due to their condition of isolation from the mainland, islands continue to be a distinct geographical cluster in terms of spatial, social, environmental, and economic underdevelopment. This demonstrates that the smart island concept cannot be limited to digital transformation because the digitisation processes are insufficient for the sustainable development of such systems. This greatly limits the improvement of the quality of life and well-being of local citizens. Indeed, islands should find alternative solutions to the significant issues posed by chronic and permanent social deficits resulting from spatial and island dynamics. In this context, this paper aims to identify a key analysis that combines the component of human happiness in the smart island paradigm, analysing the relationship between digitisation, sustainable development, and human well-being from the perspective of spatial planning of islands. To this end, the authors schematise types, classifications, and levels of smart performance, as well as common issues and resolutions in island contexts, linked with the quality of life, human well-being, and happiness in the last decade. This article represents the first phase of a broader research project on human happiness in smart island development strategies. It proposes a systematic approach and establishes the basis for understanding how the concept of human happiness can change the normal management perspective of the smart island contexts.

Keywords: Smart Islands; Spatial Planning; Sustainable Development Goals; Human Happiness; Human Well-being

Local absorptive capacity, inward FDI spillovers and regional innovation: as assessment to Brazilian regions

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Alicante-G09-O3 Innovation and Regional Development, 0-C04, September 1, 2023, 11:00 AM - 1:00 PM

There is a strong recognition that inward FDI spillovers can be an important channel for the introduction of new technological knowledge in host regions, with positive effects on regional innovation. In this paper, we aim to examine the role of local absorptive capacity in moderating the relation between inward FDI spillovers and regional innovation. Previous studies increasingly recognize that host region absorptive capacity matters for knowledge spillovers and innovation, but there is few empirical evidence on how local absorptive capacity can be a moderating factor for the relation between inward FDI and regional innovation. We use data on investments of multinational companies (MNCs) in Brazilian regions in the period of 2003-2014 and relate them to regional innovative performance measured by patents. Our results show that the greater the local absorptive capacity, expressed by the local firms' capabilities, local academic efforts, and regional industrial structure, the greater the benefits of inward FDI spillovers on regional innovation.

Spatial analysis of the accelerated maturation process of a mass tourist destination: La Manga del Mar Menor case study

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Online-G36-O1 Tourism and Overtourism Issues, August 28, 2023, 4:45 PM - 6:30 PM

Sun and beach tourism became the main tool for the transformation and development of the Spanish economy during the 20th century. This process led to the urban and territorial transformation of a large part of the Spanish coast. Thanks to the Law on Centers and Areas of National Tourist Interest and the National Development Plans of the technocratic governments of the Franco regime in the 1960s, numerous mass tourist destinations were built from scratch. These new tourist urban areas, which contributed to a notable growth of the Spanish economy, continue to be today several of the main assets of the national economy. Fifty years after the implementation of these planning mechanisms, it can be observed that the results of many of these urban transformation projects have had uneven results, some of them being paradigmatic examples of how poorly executed urban planning can lead to an accelerated loss of value of a tourist destination. In this study, through the use of spatial analysis tools and real estate market valuation indicators, the case study of La Manga del Mar Menor is analyzed. This tourist destination located on the Spanish Mediterranean coast was highly successful in the 1970s, but currently suffers from numerous urban management and economic profitability problems. Based on the developed spatial analysis, a retrospective spatial-temporal evaluation of the urbanization process of this tourist destination will be carried out, introducing novel concepts such as the accelerated maturation of the life cycle of an urban project as a consumer tourist product.

The recovery, transformation and resilience plan and the cohesion objectives for Spain

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Alicante-G18-O1 Institutions, Political and Decisional Processes, 0-C04, August 30, 2023, 2:30 PM - 4:15 PM

The Recovery, Transformation and Resilience Plan (PRTR, acronym in Spanish), approved on 27 April 2021, contemplates four axes: ecological transition, digital transformation, gender equality, and social and territorial cohesion. These are cross-cutting and interrelated axes linked to the 2030 Agenda for Sustainable Development, the last of which is linked to Policy Objective 4 for the 2021-2027 programming period: "A more social Europe through the implementation of the European Pillar of Social Rights".

Cohesion is addressed in a cross-cutting manner, including measures against depopulation and the demographic challenge, strengthening the Welfare State, improving the education system and vocational training, as well as applying labour market access policies and promoting lifelong learning for workers.

In the case of Spain, the bulk of PRTR funding comes from the Recovery and Resilience Mechanism (RRM) and the REACT-EU initiative. The former is a targeted instrument linked to the implementation of milestones and reforms, while REACT-EU seeks to offset the short-term economic impact of the pandemic. A high percentage of the European funds is distributed and managed by the Autonomous Communities (ACs) in a practical application of the principle of co-governance. In the case of the REACT-EU initiative, the distribution is done through the Operational Programmes of the European Social Fund and the European Regional Development Fund, using GDP, total unemployment, and youth unemployment as the main criteria. As regards the RRM, the allocation of funds to the ACs is more complex, since the criteria are determined by sectoral commissions which deal with each of the lever policies included in the PRTR.

Bearing in mind the context described above, this paper aims to analyse -after two years of the Plan's development- what contributions have been made in terms of both milestones and reforms in relation to cohesion, as well as the role of the Autonomous Communities in the distribution and management of Next Generation funds. This application of inclusive governance will not only have an impact on social cohesion, but also on territorial cohesion, given that not all regions have the same socio-economic situation, nor do they all have a similar capacity to absorb European funds.

The role of innovation in rural areas: an approach to the case of Castilla-La Mancha (Spain)

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Alicante-G05-O2 Economic development in rural places, 0-D01, August 31, 2023, 2:30 PM - 4:15 PM

This work is part of a project that aims to create a digital repository in order to offer a wide and diverse range of information to facilitate innovative activities in the rural environment, both by companies and public administrations.

This first contribution has as its frame of reference the role of rural innovation as a transversal element in the development of areas affected by depopulation and ageing. The objective is to define the characteristics of innovation in the European and Spanish framework, through public policies and projects carried out, i.e., good practices, in order to be able to define the most appropriate proposals for their application to the regional area of Castilla-La Mancha.

Innovation forms part of the action plan designed by the European Commission for rural areas, whose main pillars are territorial cohesion, accessibility, improvement of infrastructures and services, and sustainability. All of this is in line with the objectives set for the 2021-2027 programming period, among which proximity to citizens through local management is linked to the Strategy against depopulation presented by the regional government of Castilla-La Mancha (2021-2031).

According to the OECD (2009), the new rural paradigm requires a multi-sectoral approach focused on places and investments, as opposed to previous approaches which had sectors and subsidies as their main lines of action. In the same vein, ESPON (2018) argues the need to address the problems of rural areas through smart approaches, based on the "silver economy", specialisation through unique resources, green advantage, and social reorientation.

In this context, the paper seeks to identify opportunities for innovation in rural Castilla-La Mancha and to establish some principles to facilitate the identification of viable development proposals.

Empirical Estimation of Elasticities and Their Use

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Alicante-G39 Methods in Regional Science or Urban Analysis, 1-B01, August 31, 2023, 2:30 PM - 4:15

PM

Applied research in economics contains many papers that empirically estimate an elasticity (or a set of elasticities) and uses the estimate(s) for policy analyses. These estimates are typically based on an estimated relationship (such as a demand function). If the specific functional form used in the estimation yields a constant elasticity in the form of an estimated coefficient alone, that coefficient represents the

elasticity. If, on the other hand, the formula for the elasticity involves other regressors and coefficients, empirical estimation of the elasticity is based on applying the calculus-based definition of elasticity to this expression. However, a differential change in a variable is only an approximation to the actual discrete change for small changes, and the approximation can may be quite poor when large changes are considered. This paper advocates using the actual percentage change in the predicted value of the dependent variable when the variable with respect to which the elasticity is estimated changes by one percent. The example provided shows that the difference can be substantial when elasticities are estimated this way.

Mapping inequalities in smart places

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Online-S14 Digital in(equality) and sustainable cities, August 28, 2023, 11:00 AM - 1:00 PM

Scholars across different disciplines are increasingly acknowledging and discussing the risks that smart place initiatives (such as smart cities and smart villages) pose to an equitable, fair, and inclusive society. However, how such debate translates into the practice of local governments is unclear and largely undocumented. This paper presents the preliminary results of an exploratory study aiming to build links between theoretical and practical knowledge on socio-inequalities and smart places.

As part of this research project, multiple qualitative methods have been employed to investigate how both existing and emerging inequalities are being dealt with within smart places in Italy and Scotland.

The preliminary results indicate that the narrative of smart places is still imbued with techno-utopian discourses that tend to overlook the complex socio-economic implications of digital transformations. Furthermore, our analysis has evidenced the lack of data-driven strategies to measure inequalities and support decision-making in smart places. As a result, there is little understanding of the actual outcomes that these initiatives may generate for different social groups and what their consequences are in terms of socio-economic inequalities.

This study offers valuable insights to both scholars and practitioners interested in smart places. First, it reiterates the importance of adopting an intersectional approach when discussing, analysing, and addressing inequalities. Second, it unveils the contradictions and challenges embedded in the rhetoric on participatory smart places. Whereas the open participation of local actors to the design and management of smart places remains a crucial principle, its operational implementation deserves further investigation to ensure that the participatory tools currently employed also work in practice and do not end up reinforcing and legitimising existing inequalities and biases.

Overall, this project shows that, despite the emphasis placed by policymakers and scholars, social and digital inclusion remain marginal aspects in smart place strategies. Therefore, this paper highlights the importance of creating smart places that are inclusive by design. In other words, we postulate that the technological solutions and operational models implemented in smart place initiatives should be planned, conceived and delivered with the explicit commitment to prevent and address any potential form of discriminations.

Who is in the club? Regional disparities in European Union

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Alicante-S56-S1 Territorial Inequalities in Europe, 1-E11, August 31, 2023, 2:30 PM - 4:15 PM

The concept of economic convergence refers to the process by which regions with similar economic characteristics and levels of development tend to converge over time. The European Union (EU) prioritizes economic convergence and social cohesion. Recent studies have shown that certain regions have surged ahead economically while others have been left behind, contributing to increasing regional divergence within countries. This paper aims to i) identify convergence clubs of NUTS 2 units in Europe by means of new machine learning and deep learning techniques; ii) study the dynamics of the clusters over time; iii) investigate the determinants of cluster dynamics and, therefore, explain what forces allow regions to remain in or leave the clubs. We use CatBoost, a new classification algorithm that allows for working with ordinal and categorical variables in a neural network. It is able to classify a large dataset and to perform distribution estimation of the data and is based on gradient boosted decision trees (GBDT). The algorithm is applied to identify how many "clubs" are in the European regions by considering economic, financial, social, political, and environmental variables, from the largest possible perspective. By analyzing the determinants of cluster dynamics, the study aims to explain what forces allow regions to remain in or leave the clubs.

The impact of the Fisheries Local Action Groups (FLAGs) policy on the development of coastal economies in Spain

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Alicante-G01-O6 Region Urban Development, 0-B02, September 1, 2023, 2:30 PM - 4:15 PM

Funded by the European Structural Funds (EFF in 2007-2013, EMFF in 2014-2020 and EMFAF in 2021-2027), Fisheries Local Action Groups (FLAGs) help fisheries and coastal communities identify and prioritize the challenges they should tackle, and the opportunities they should seize, to make their area a better place to live and work.

FLAGs are partnerships between fisheries actors and other local private and public stakeholders. They design and implement a local development strategy to address their area's needs, be they economic, social and/or environmental. Based on their strategy, the FLAGs select and provide funding to local projects that contribute to local development in their areas. The themes addressed by these projects include adding value to fisheries, diversification, environment, governance, and society and culture. Literature on FLAGs and their impact on fisheries areas has grown in recent years. For example, studies have focused on the role of FLAGs in establishing co-management models, the possibility of establishing links between professional and recreational fishing through FLAGs and how FLAGs have cooperated on specific issues in the Baltic. Some studies have focused on specific FLAGs in Italy, France and the UK, while others have analyzed the impact of the program at a national level, i.e. Poland and Spain. At European level, research has focused on the impact of FLAGs in specific contexts such as how FLAGs support small-scale coastal fisheries and the role of women in fisheries communities identify the ways in which FLAGs support women in fisheries. While the literature on FLAGs is broad, they are largely qualitative, and focus on only one aspect; for example, the conflict of natural resources management, governance, diversification, gender or case specific local development strategies.

The purpose of this paper is to quantitatively evaluate the impact of the FLAGs policy on the development of coastal economies in Spain. Therefore, the influence of FLAGs on employment dynamics and on sectoral structure change (specialization versus diversification) of these areas is analyzed. Based on the construction of a geo-referenced database for the Spanish FLAGs, statistical tests are used to identify differences in the dynamics (FLAGs versus Non-FLAGs areas). Positive employment growth and higher productive specialization-diversification would confirm the impact of the FLAGs policy for blue local development. Furthermore, a multivariate model is used to analyze the contextual conditions that can explain better local dynamics in FLAGs areas.

Does the EU policy on Geographical Indications contribute to rural development? An analysis for the case of Spain

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Alicante-G19-O1 Cooperation and Local / Regional Development, 1-B01, September 1, 2023, 11:00 AM
- 1:00 PM

For decades Geographical indications (GI) in Europe have identified agri-food products with a specific geographical origin and qualities and reputations that are essentially or exclusively due to the specific geographical environment, as a result of natural and human factors. In addition to legal protection similar to a trademark, Governments have used GIs to provide protection to consumers through better information on production methods and certification of the product's origin. The positive effects on rural development have also been valued, by enhancing producers' access to markets with quality products and supply diversification, combined with social and environmental benefits. The literature on the economic effects of GIs is extensive and has been useful to contrast the value of GIs for the boosting of these productions in the markets, with consumers recognizing the quality and paying higher prices. However, evidence of their effects at the territorial level on the development of rural economies is limited. In addition, the small scale of analysis, through case studies, has been a specific characteristic of the literature of GIs. The purpose of this paper is to evaluate the impact of the EU GI quality policy on the development of rural economies in Spain. Therefore, the influence of GI on population dynamics and on sectoral structure change of these areas is analyzed. Based on the construction of a geo-referenced database for the Spanish rural municipalities covered by Protected Designation of Origin (PDO) wine, statistical tests are used to identify differences in the dynamics before and after the year of registration in the EU. Positive population growth and higher productive diversification would confirm the impact of the EU food quality policy for rural development. Furthermore, a multivariate model is used to analyze the contextual conditions that can explain better local dynamics in rural PDO areas.

The Cost of non-Europe. Institutional Quality and EU Value Added in Cohesion Policy

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Alicante-G02-O1 Regional and Urban Policy and Governance, 0-C02, August 30, 2023, 11:00 AM - 1:00 PM

Public debates have often contrasted the value added of European Union (EU) policies with the downside of administrative rigidities and stringent requirements for beneficiaries. Is the “EU-way of doing development policies” an asset or a liability for EU Member States? Is there a measurable premium given by the EU to its policies in particular where institutions are weaker? The EU Cohesion Policy offers a unique laboratory for the assessment of the EU value added in development policies. In this paper we compare regional development projects managed under the EU rules with projects with very similar characteristics switched to national rules for reasons exogenous to their own performance. The analysis is based on the case of Italy and looks at the implementation of infrastructural projects ‘on the ground’, in order to capture the EU ‘value added’ in terms of output delivered.

By leveraging a unique dataset at the project level (OpenCoesione) and focusing on a Less Developed Region (Puglia), we compare the implementation of infrastructural projects which are similar in everything except for being financed in the EU framework or not. In particular, we use a number of projects that in 2014 were switched from the EU to the national framework. We use a recent evaluation technique proposed by Imai et al. (2021), which consists of a non-parametric generalization of the DiD estimator expressly developed for time-series cross-sectional data.

Our results suggest that projects exiting the EU programs experience slower financial progresses than their counterparts remained in the EU programs. Infrastructural projects implemented under EU rules perform better than their ‘national statistical twins’ and this is particularly true for projects administered at the regional level and in areas where local institutions are weaker.

These results offer evidence on the value added of the European Union not only in the implementation of development policies but also as a means to break the vicious circle between low institutional quality and lack of economic development. These results have significant implication beyond Cohesion Policy with reference for example to the programmes funded under Next Generation EU.

Climate-Related Natural Disasters and Regional Migration in Europe: A Spatial Econometric Analysis

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Online-G03-O1 Demographic Change, Population and Migration, August 28, 2023, 11:00 AM - 1:00 PM

In recent decades, the European Union has experienced an increase in the frequency of climate-related natural disasters. While a large body of literature analyzing the impact of natural disasters on migration patterns in the U.S. and other areas has emerged, little research has been conducted for the European Union. In this paper, we attempt to close this gap in the literature and investigate the impact of climate-related disasters on NUTS-2 region-level migration for the period 2000-2019. Employing spatial econometric methods, we find that experiencing one additional storm event leads to a 0.04 percentage point decrease in the net migration rate at the NUTS-2 region level, corresponding to an increase in net out-migration of 0.4 individuals per 1000 inhabitants. When using spatial Durbin models, we observe a positive effect of storm events on net migration in neighboring regions, suggesting that individuals migrate primarily across shorter distances in response to storms. In addition, we find that one additional cold wave is associated with an increase in net in-migration of 0.4 and 0.9 individuals per 1000 inhabitants after two and three years, respectively. For other types of events, we find no conclusive evidence that disasters are driving regional migration. Moreover, we find no effect of severe disasters on migration.

Innovation and Exports: Differences in Rural and Urban US Firms

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Alicante-G04 Urban-Rural Relationships, 1-B01, August 31, 2023, 4:45 PM - 6:30 PM

Our previous work identifies the association between innovation and exports based on US firm-level data. However, the question of whether rural businesses are keeping pace with their urban peers regarding exporting performance remains unanswered, as does the question of whether innovation contributes equally to exports in rural and urban areas. This paper contributes to our understanding of innovation and rural exports and discusses potential policy implications that could enhance rural exports. With an approved proposal to access confidential firm-level data in the US Federal Statistical Research Data Center (FSRDC), we merge firm-level international trade data from the Longitudinal Firm Trade Transactions Database (LFTTD) with Rural Establishment Innovation Survey (REIS) data to answer our research question. The LFTTD data links individual trade transactions to US firms that report the trade value, date, and quantity, among other variables. The REIS data collect information on firm innovation, such as marketing, product, and process innovation. We also merge with the Longitudinal Business Database (LBD), which provides basic firm information to identify if firms remain located in rural or urban areas for the duration of the study interval. The REIS-LFTTD-LBD linkage will first allow us to investigate whether exporting correlates with firms' innovation behaviors for all US firms. We then run the analysis separately for rural and urban firms to compare correlation strength. The simple exercise provides descriptive evidence of the differences between rural and urban firms. We also use the Oaxaca-Blinder decomposition to provide more formal statistical evidence of rural-urban differences. Specifically, the decomposition will allow us to investigate the extent to which firm characteristics contribute to rural-urban differences. In addition to a variable that measures firms' rurality, we also consider other firm-level variables in the decomposition equation, including industry, firm size, and firm age, among others. The implications of the findings for trade policy and rural innovation policy are discussed.

The effect of institutional distrust on subjective well-being during the COVID-19 pandemic

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Online-G43 Spatial aspects of COVID pandemy, August 28, 2023, 2:30 PM - 4:15 PM

The policies implemented in the EU to curb the spread of COVID-19 have proven effective from an epidemiological point of view, although their true effect on the well-being of the population is still unknown. Social relationships are an essential part of human evolution, and their absence has generated anxiety, depression and mental disorders that have drastically reduced the subjective well-being of individuals. We apply multilevel structural equation modeling (GSEM) to gauge what role social capital plays in the happiness of Europeans, using data from the Life, Work and COVID-19 survey conducted by Eurofound. We controlled for the effect of factors such as gender, employment, age, lack of income, education and whether or not the individual lives in a rural area. Using the applied models, we identified significant links between happiness and social capital at the macro and micro levels. The research results suggest that institutional distrust has a negative effect on the well-being of the population by generating a climate of uncertainty that hinders recovery from the health crisis, which hinders social cohesion and fosters disintegration and polarization.

Reshoring mitigation potentials for the EU: looking for environment rightsourcing strategies

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Alicante-G15-O1 Trade and Global Value Chains, 0-C01, August 30, 2023, 2:30 PM - 4:15 PM

Changes in global value chains, aimed at avoiding chain breaks and in pursuit of greater resilience, are having unintended impacts on global emissions. We propose to calculate the emissions mitigation potential of redirecting global chains towards cleaner producers, greensourcing or rightsourcing strategies. A EEMRIO model, based on ICIO data, is used to compare carbon coefficients by sector and country, and to classify inputs providers according to an emissions per unit of output index or dirtiness index (Shapiro, 2021; Wiebe, 2018). This analysis allows building different scenarios where EU actual input purchases trends will be substituted by feasible cleaner alternatives, and the emissions reduction for each of these scenarios will be calculated.

Emissions calculations could be misleading when only the first link in the production chain is considered, since indirect production stages could invalidate direct emissions reductions. MRIO models consider all geographical and sectoral linkages along the production chain, so potential reductions will account for the whole of the carbon footprint (de Boer et al., 2019; Maeno et al., 2022). In other to propose feasible options, different hypotheses will be considered in the scenarios' definition. In a first set up our model considers the case where all the inputs demanded by the EU can be produced by the greenest producers. The calculation of emissions coefficients leads to identifying those sectors producing imported inputs generating lower emissions. In the first scenario we will distribute European imported inputs among these producers, allocating production up to the total production for each location, and allocating the reminder, whenever EU inputs requirement are above the cleaner producer capacity, to the location with the second lowest emissions, and so on until total imported inputs are allocated. The new footprint under this rightsourcing scenario will then be calculated.

However, this best scenario may not be achievable, so other second best options, where only a percentage of these producers' sales to the EU can be covered by the cleanest producers, and the EU has to allocate to other producers with a higher direct emissions coefficient, are considered. The calculation of emissions in scenarios with different assumptions will allow the creation of a realistic range of results. In hypothetical cases of similar emissions, priority would be given to EU members, strategic partners, countries where human rights are respected,... or other geo-strategic restrictions.

Gender-based labour market segregation in Spain. A regional Karmel-MacLachlan index decomposition

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Alicante-YS04 Labour Market Outcomes - EPAINOS, August 31, 2023, 11:00 AM - 1:00 PM

Gender labour market segregation reinforces material, symbolic and political inequalities. Segregation dynamics have been described as a factor causing women to receive average lower salaries. Some strands in literature suggest that gender segregation also induces inefficient resource allocation within labour markets. In order to tackle this issue appropriately, at least two aspects appear as relevant from both descriptive and policy-making perspectives. On the one hand, are they different drivers affecting labour market segregation? On the other hand, do drivers evolve homogeneously across space? In this article, we observe gender segregation in the Spanish regions after the financial crisis (2011-2022). We decompose Karmel-MacLachlan index variations into composition, occupation and gender effects. Not only we provide a national overview, but we also report geographically differentiated trends. Our results show that not all regions have experienced decreases in their labour market gender-based segregation. In addition, drivers behind segregation dynamics appear to be significantly heterogeneous. From a descriptive point of view, our research raises questions about which regional socio-economic, cultural or political features might influence segregation. From a normative perspective, findings dissuade one-size-fits-all policies encouraging close collaboration between different levels of government.

Did the 2012 Spanish law reform to protect mortgage debtors modify banks' lending behaviour?

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Alicante-G32-O3 Real Estate and Housing Markets Issues, 0-D04, August 31, 2023, 2:30 PM - 4:15 PM

Royal Decree-Law 6/2012 introduced a new Code of Good Practice for Spanish banks and financial institutions. Its aim was to protect low-income debtors. We thus examine the effects of this legal reform on banks' lending behaviour, considering quarterly data from the 17 Spanish NUTS II regions from 2005 to 2020(Q1). By using panel data models with regional, year, and quarter fixed effects, linear and quadratic region-specific time trends, and other relevant control variables at the regional level (house prices, inflation, and unemployment rates), we find three significant effects of the law reform. Firstly, our results reveal that the reform significantly reduced the number (absolute and relative) of new mortgage loans. Put simply, the Code reduced the access to the credit market, and the reduction in funding impacted the housing market, reducing real estate sales. Secondly, the reduction of new mortgages was neither generalised nor random; it particularly affected the specific group of borrowers that the law seeks to protect. To benefit from the Code mortgage payments must exceed 50 percent of the net income received by all the members of the household; although individual data on mortgagors' household income is not available, the average ratio between the monthly payment and the individual wage cost significantly decreased after the law reform, which means that low-income borrowers were progressively excluded as banks tended to lend to more solvent borrowers. Finally, average interest rate significantly decreased after the law reform. Our explanation thereof is a competition effect; specifically, financial institutions competed for 'good' borrowers—those who will not need to make use of the rules contained in the Code—thus lowering interest rates. The decrease in interest rates was a positive effect of the Code for all borrowers but, as high-risk low-income borrowers were progressively excluded, it was the middle and high-income borrowers who actually benefited from it. These results point to a duality in the effectiveness of the Code. Mortgage debtors that meet the legal requirements can make use of the Code to avoid foreclosure, but the law reform had an adverse effect for low-income borrowers in the future, reducing their access to the credit market. Consequently, our results cast a shadow over the economic and social consequences of the Code, and question whether it is the best instrument to face the current dramatic rise in interest rates and mortgage monthly payments, which are putting many mortgagors in an extreme situation.

Spatial Price Competition of Off-Street Parking Operators and Curbside Regulation

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Online-G34-O2 Transport and Accessibility, August 28, 2023, 2:30 PM - 4:15 PM

This paper discusses the parking problems faced by major cities around the world, particularly regarding on-street parking and the misallocation of demand that leads to cruising for parking. Parking is a critical urban transportation policy that can significantly impact urban land use.

Theoretical studies emphasize the need to maintain an appropriate price differential between curbside and garage fees to eliminate cruising for parking by allocating excessive curbside demand to available garage supply, yet the spatial competition of parking operators, their pricing strategies and its interplay with on-street parking regulation has received little empirical scrutiny.

This paper contributes to filling this knowledge gap by investigating the determinants of private garage prices. Contrary to previous research, we aim to estimate the causal effects of competition and curbside fees on garage prices, using both instrumental variables and a geographic regression discontinuity approach taking advantage of a quasi-experiment parking regulation introduced in Lisbon.

Our results suggest that private garages do compete with curbside parking, with the relative scarcity of on-street spaces allowing them to increase markups. Garage fees are positively linked with curbside prices suggesting that these are strategic complements. Our causal estimates suggest so far garages are able to fully pass curbside fee increases to customers (in high-demand areas), creating a threat to alleviate fee differentials without price regulations.

BlueShed: the impact that Blue Economy uses of the marine space have on housing prices.

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Alicante-S05 Economic development of coastal towns: challenges and opportunities, 1-C11, August 30, 2023, 4:45 PM - 6:30 PM

The Blue Economy (BE) has powerfully emerged as one of the main regional development paradigms for global coastal regions. Some of the coastal and water uses embraced by the BE - such as aquaculture and offshore energy - modify the visual characteristics of coastal land and waterscapes. These visual transformations affect the welfare of coastal communities in different ways. Policy frameworks have emerged to manage waterscapes (e.g. Marine Spatial Planning-MSP) but have struggled to incorporate human perceptions and ecosystem services effectively into management of coastal areas. This can greatly affect the ways in which coastal regions decide to embrace the Blue Economy, and has often impaired the full development of sustainable industries in coastal zones. In this work, we combine two unique datasets for quantifying the effects that blue economy industries (i.e. aquaculture, ecological conservation, offshore energy, ports, fossil extraction/transport) have on housing prices. We focus on the two Scottish council areas of Argyll & Bute and the Highlands. Both these regions have a well-developed tourist industry, and major BE plans. The first dataset is 10by10m, 3D viewshed dataset of all buildings in the UK based on the work of O'Higgins et al. (2018). The second dataset is the ESRC-Zoopla database of all housing transactions in the UK in 2012-2018. The target dataset includes features along the entire West Coast of Scotland of all Blue Economy uses of the ocean. These datasets are then analyzed using a hedonic approach. Our results show no effect of most Blue Economy industries throughout the period under consideration, with the exception of a negative effect from fossil-related uses (e.g. oil rigs and oil and gas facilities). Our results are a first attempt to quantify the supposed negative effects on residents and coastal users captured via revealed preferences. These results are useful for informing local communities, policymakers, and developers of the lack of negative spillovers that BE developments have in a highly tourist-oriented marine region.

Impact of Waterborne E. coli Outbreaks on Local Communities: Evidence from Housing Transactions in Michigan

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Alicante-G28-01 Segregation, Social and Spatial Inequalities, 0-C04, August 30, 2023, 4:45 PM - 6:30 PM

Waterborne Escherichia coli (E. coli) represents a pervasive water quality problem across the United States. In the Laurentian Great Lakes basin, the presence of E. coli has become problematic for rural communities, especially in Michigan where agricultural run-off and ineffective policies have made these outbreaks endemic. Combining the universe of housing transaction dataset from 2009 to 2017 with the State of Michigan water sampling dataset, we investigate and quantify the negative impacts of E. coli outbreaks on local housing prices. Based on a hedonic model, we estimate an impact of - 2.9% on housing prices for every mile closer a house is to an E. coli outbreak. We further apply a difference-in-differences model and estimate an overall impact of -2.3% for houses in the treatment group relative to the control group.

Is this the end of overtourism in Angkor Temples? Post-COVID 19 strategies

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Online-S24 Outside the frame: creative, cultural and innovative dynamics in non-urban regions, August 28, 2023, 2:30 PM - 4:15 PM

Prior to the COVID 19 pandemic, Angkor Temples were visited by 2 million tourists (Asia News Network, 2017). Again in 2022 (post COVID), Angkor welcomed 2 million international tourists. It is anticipated that 7 million international tourists will visit annually by 2026 or 2027. In addition, the Cambodia Ministry of Tourism noted the presence of 13.9 million domestic travelers in the country in 2022 (Khmer Times, 2023). In the transition from pre COVID (overtourism) to COVID (no tourism) to post COVID (overtourism), how can tourism be re-imaged instead returning to business usual? Angkor Wat, located outside of Siem Reap, Cambodia, is the largest archeological UNESCO site in the world. It was named in the Top 25 World Destinations in 2015 and 2016 by Trip Advisor (Trip Advisor, 2015/2016), but that recognition was received as a mixed blessing among the stakeholders including residents living on the Angkor archeological site, an area of 400 square kilometers. As a “living site”, Angkor is the home to over 300 villages of local residents living and farming on a day-to-day basis. The numbers of locals living within the borders of Angkor continues to increase. In many cases, the families of local residents have lived there for centuries.

The balancing of cultural heritage and tourism presents challenges such as how:

- to involve the community stakeholders in decision making while realizing that having the “right to participate” does not necessarily mean the “capacity to participate”;
- to involve the local community in tourism activities;
- to gain stakeholder collaboration to establish clear channels of communication and encourage parties involved to accept the responsibility for starting the dialogue;
- to generate income for conservation and understand that the user must pay to generate that revenue (Peters, 1999).

A complication exists when the stakeholders involved represent the local community when the definition of “local community” is not clear. Aas, Ladkin & Fletcher (2005) defined the concepts of stakeholder collaboration and involvement in process in developing countries and the role of cultural heritage in increasing tourism. In this case study Angkor temples, we will examine the way that stakeholders can learn and be involved in the use of various quality improvement tools (flow charts, checklist, Fishbone diagram, etc) to improve the visitor experience while also reducing the negative impacts of overtourism post COVID

Happiness, collective emotions, and vaccination rates: a supervised machine learning approach

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Alicante-S08 Local Cultural Context and Its Emoting Variations: Machine Learning Approaches, 1-C13, August 30, 2023, 11:00 AM - 1:00 PM

Unfortunately, despite research showing that receiving the COVID-19 vaccine is the best way to protect yourself, your loved ones, and your community against contracting the virus, vaccination rates in the Western world are slowing down, and there is a sense of increased complacency. We now know that negative emotions such as fear related to, for example, side effects influence peoples' attitudes towards receiving the vaccine. We also know that happier people make better health-related decisions since happier people are less inclined to engage in high-risk activities such as smoking. Given the aforementioned, the primary aim of this paper is to determine those factors most important for achieving higher levels of vaccination rates. We employ multiple supervised machine learning algorithms to achieve this aim. In our analyses, we include country-level factors for ten countries in Europe, Africa and Australasia. These factors include happiness, collective emotions, economic and socio-economic features, COVID-19-related data, policies, and trust in institutions. To measure happiness, collective emotions and trust in vaccines and institutions, we derive time-series data from the Gross National Happiness.today project constructed using Big Data and Natural Language Processing techniques. Our dataset, which includes high-frequency daily data, is unique and has the advantage of being timeous. Our findings provide actionable policy insights which can potentially increase vaccine uptake.

Micro-geography and public housing tenant wellbeing

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Alicante-S78-S1 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 9:00 AM - 10:30 AM

The micro-geography of wellbeing within city neighbourhoods is receiving increased attention (Kourtit et al., 2021). Both the physical 'body' of neighbourhoods and the personal experiences ('soul') of residents are important in analysing these micro features; relevant considerations include welfare, inclusiveness, social capital, cultural identity and sustainability factors.

When dealing with these micro-geographic features, researchers must define what they mean by 'neighbourhood' as this choice may be important in framing the analysis. In this paper, we define neighbourhoods as public housing communities within a localised area. Using survey data, we analyse wellbeing, and factors that affect wellbeing, across seven different New Zealand public housing communities. The communities are spread across three separate urban areas, four of which are in greater Wellington. We have comparison data for private renters adjacent to one of the public housing areas in Wellington to serve as a control neighbourhood. Many of the survey questions are drawn from Stats NZ's General Social Survey so we can compare outcomes for public housing tenants with data collected for other tenants. Wellbeing questions include a standard evaluative subjective wellbeing (SWB) question on life satisfaction, a question on "whānau" (wider family) wellbeing, the WHO5 questions on current mental wellbeing, and a eudaimonic wellbeing question relating to control over one's life.

Our key research question asks how these different facets of wellbeing relate to tenant characteristics and to each of the domains included within our survey. Tenant characteristics include: age, ethnicity, gender, income, length of existing tenancy, educational qualifications and employment status. The domains cover tenant views on: house quality, energy use, transport, neighbourhood and community, social capital, health, cultural attachment, spirituality, discrimination and trust (including in the public housing provider).

We test whether relationships between the various facets of wellbeing and the domains vary according to tenant characteristics, by the governance type and/or city of the public housing, and by private versus public rental housing tenancy. The analysis feeds into a broader research programme that investigates wellbeing effects of public housing and urban renewal. By focusing on the neighbourhood level, we can contribute insights that relate to the micro-geography of each community, so complementing analyses of public housing impacts that have been conducted at larger scales.

Reference

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Impacts of third-country immigration on the economic and regional development of rural areas – the case study of Carinthia (Austria)

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Alicante-S18-S3 Drivers and impacts of migration: new insights on the role of local labour markets, human capital, remote work, and (family) networks, 1-C12, September 1, 2023, 11:00 AM - 1:00 PM

Carinthia (with the exception of the central region Klagenfurt-Villach) is the only Austrian province whose population will shrink in the long term (Statistik Austria 2021). Especially rural areas in Carinthia are experiencing high rates of out-migration with increasingly low economic performance. Hence, international immigration plays a central role in strengthening and revitalising rural areas (Aigner-Walder et al. 2021; Stainer-Hämmerle/Zametter 2021).

The aim of the paper is to elaborate the effects of international migration from third countries on economic and regional development in rural areas with a focus on Carinthia and the case study region Villach and its rural surrounding. The contribution is based on desk research (analysis of existing studies, population statistics and forecasts), as well as 21 qualitative interviews with entrepreneurs, human resources managers and employees with and without a migrant background, as well as a focus group discussion with five responsible persons from business, industry, regional and rural development, which were conducted within the framework of the Horizon2020 project "MATILDE". The results for Carinthia, especially Villach and the surrounding rural communities, show that migrants have a positive influence on economic life, the companies themselves and regional development. For example, companies benefit from immigration by mitigating labour shortages (e.g. in tourism) and (highly qualified) skilled workers are also recruited from abroad. Both increase the internationality and diversity of the companies' workforces and promote the further internationalisation of the companies, the opening up of new markets and the innovation potential through the available cultural knowledge and multilingualism. The support of immigrant employees and entrepreneurs in their arrival and social integration has led, among other things, to the establishment of special service centres that also promote exchange between the immigrant and resident population, which has created new jobs (Gruber et al. 2021).

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Does globalization generate macro-financial systemic transmission in South American countries?

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Alicante-G40-R Spatial spillover a local development, 1-B01, August 30, 2023, 4:45 PM - 6:30 PM

This paper examines if trade and financial globalization are drivers of macro-financial systemic transmission and if there is a macro-financial contagion risk through the interconnection of country's economic cycle synchronization, bilateral trade and trade agreement linkages among 10 South American countries for the 1978-2014 period, using spatial econometric techniques. Our results are robust and find that both financial and trade globalization are channels of macro-financial transmission. Given that, an increase of financial openness lead to the macrofinancial risk also increases. When trade openness increases, the macro-financial risk decreases. We verify that the propagation of contagion derives from the three linkages.

The geography of the health system and the COVID-19 lethality rate

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Online-G30-O2 Covid-19 and regional and urban resilience, August 29, 2023, 2:30 PM - 4:15 PM

Environmental pollution, road infrastructure, housing, and public investment in health infrastructure and personnel are factors that determine the lethality rates associated with pandemics. (Seligmanid et al., 2021; Wagstaff, 2002; Giaccotti et al., 2021).

At the individual level, income or socioeconomic status, type of employment, educational level, age, gender, race or ethnicity, and health status or pre-existing illness can have a considerable effect on the final outcome of a person contracting an infectious disease such as COVID-19 (Abrams & Szeffler, 2020; Ahmed et al., 2020; Butler-Jones & Wong, 2016; Upshaw et al., 2021; Federico et al., 2020; Gebhard et al., 2020; Ortiz-Hernández & Pérez- Sastré, 2020).

The present study seeks to determine the probability of death by COVID-19 of individuals by analyzing his individual and contextual characteristics related to his/her canton of residence with emphasis on the structure of the health system. Using a multilevel model, preliminary results shows that the probability of death by COVID-19 increases with age and males are more likely to die due to COVID-19. The number of health centers of level 1 is associated with lower probabilities of death by COVID-19 of individuals. Low levels of adequate employment increase the probability of death by COVID-19 of an individual.

Price Monitoring and Market Structure in The Digital Economy: A Spatial Oligopoly Model

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Online-G35-O2 Regional and Urban Labour Markets and Entrepreneurship, August 29, 2023, 2:30 PM - 4:15 PM

This study attempts to establish a spatial oligopoly theory to analyze online/offline competition with the role of price monitoring and its association with endogenous market structure and welfare analysis. It is motivated by growing online/offline dual channel and price monitoring based on big data those may induce recent concerns on antitrust. A modified circular model with a combination with internet-connected competition between non-neighboring firms is provided for our online/offline competition analysis.

The equilibrium prices, firms' profit and social welfare will be derived in our modified spatial oligopoly. We explore how online-channel tendency affects equilibrium prices and endogenous market structure under free entry. Online/offline competition will be expected to affect excess entry theorem because of the business-stealing effect is changed by the internet-channel tendency. It contributes to the existing limited theoretical studies by focusing on the effects of both the online/offline competition and price monitoring on competition policy. This project also further examines the scenario when firms adopt pricing algorithm to set prices in our online/offline economy. Whether tacit collusion appears will be examined by considerable deep learning and computations. Potential empirical explanations and competition policy implication from the proposed model predictions are expected. The implied association between digitalization and regional inequality is discussed. Furthermore, several extensions include quality along as price competition, elastic demand, and a more general model with labor supply and consumption.

Migration and Informality; the Colombian Case

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Online-G03-O2 Demographic Change, Population and Migration, August 28, 2023, 4:45 PM - 6:30 PM

Economic theory has focused on the effects of migration on natives labor outcomes, concluding that these effects are null. These results rely on a framework that is built for developed countries. However, the migration literature has gaps in explaining the mechanisms by which migration is absorbed into the labor market, even more, in a context where the informal sector is large as in developing countries. This article examines the extent to which the oversupply of labor from Venezuelan immigrants in Bogota-Colombia has an internal adjustment without affecting the local labor market of natives. We claim that is through the expansion on the number of firms (named extensive margin) by which inflow migrants is absorbed and have positive effects on the hosting labor markets rather than as traditional literature predicts by means of one firm hiring more labor (intensive margin). In addition, few studies have approximated these gaps by incorporating the spatial dimension and the importance of spillover effects. By implementing a spatial fixed effects Durbin Spatial Model, we evaluate the effect of Venezuelan migration on the proliferation of formal and informal firms across 1.171 neighborhoods in Bogota, for the period 2013-2022. The results confirmed that, on average, a 1% rise in the density of lagged migrants in a neighborhood of the city, increases the density of formal and informal firms lower than 1%. There is not evidence that migration generates spillover effects on the proliferation of formal firms (direct effects are lower than 1% and indirect effects are null). However, migration seems to have strong positive spillover effects on informal firms (direct effects are positive (1.0876 percentual points), indirect effects are six times greater (6.8949 percentual points)). A Weighted Geographic Regression is also implemented to examine whether the relationship between lagged migration and firms creation is consistent across the territory. It is found that only on a set of physical polygons such relation is significant. Each one concentrates different types of migrants features. These polygons are key for focusing the migration urban policy in a featured-differentiated way. During the initial period of Venezuelan migration, central CBD neighborhoods were key for creation of formal firms. While, after 2018, Venezuelan migration was key for creation outside the CBD in the southern periphery of the city.

Friend or foe?: the relationship between innovation and spatial inequality

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Alicante-S70 Peripheral regions and the geography of innovation, 1-D11, August 30, 2023, 4:45 PM -

6:30 PM

Innovation increases productivity, and in turn competitiveness and wealth; the problem is the trade-off between the traditional economic objectives/dynamics linked to it (via agglomeration economies) and the reduction of inequalities, which rises the question: is it possible to tackle spatial inequality through innovation? Innovation generates growth, but that growth is unevenly distributed in space. This suggests a positive association between innovation and regional inequality overall. However, when looking at the regional level, there are some European regions that seem to be catching up in the grounds of investment in R&D. Is indeed R&D nurturing growth in those regions or are there other confounding effects? Can those examples be extrapolated to other regions in Europe? What policy practices could be implemented to reconcile innovation and regional convergence? Given the existence of the spatial heterogeneity already mentioned, the question is whether a single estimate can properly explain this regional phenomenon. Spatial non-stationarity takes place when the responses to particular variables change across space, and these differences might be caused by the interrelationships between neighboring regions. Adopting a global regression approach might lead to deceptive estimates if those are extrapolated to the local environment. In view of this limitation, the methodological approach adopted in this analysis will be that of Geographically Weighted Regressions (GWR), which will allow us to observe the different response inequality has to different depictions of innovative effort/performance across the European territory.

Barcelona as a case study for the effectiveness of short-term rental market regulations

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Alicante-S06 Exploring the Economic Impacts of Short-Term Rentals on Regions and Cities, 1-C12,
August 30, 2023, 11:00 AM - 1:00 PM

Aim: The main goal of this work is to identify the effectiveness of regulatory developments concerning the short-term rental market on the example of Barcelona. While various aspects of short-term rental platforms have already been explored, there is still a research gap regarding the interplay between the regulatory efforts undertaken by cities and empirical analyses which show the results of these regulatory initiatives.

Data and methods: First, our work provides an overview of the main policy changes and enforcement activities. Second, using listing level data on Airbnb, changes in the main attributes of Airbnb supply are examined in the period 2015-2022. We analyse the structure and evolution of the short-term rental market in the context of policy, including the dynamics of different zones that are subject to varying rules. The share of listings complying with regulations is approximated based on the official registry of licenses. Finally, we examine changes of trends in various key Airbnb attributes following regulatory developments on the basis of panel data analysis.

Results: The results support that policy developments can influence the dynamics of platform-mediated services and can effectively mitigate the negative effects created by platforms. The campaign-like enforcement activities lead to one-off increases in the legality of Airbnb that were not sustainable on the longer run. On the other hand, deeper reforms like the PEUAT system brought a more lasting change on Airbnb supply, with long-term increases in the share of listings with a license. However, in the short-run the city had to cope with unintended negative effects of the reform, with hosts using loopholes and adapting to the enforcement strategy of the city. The results also support the key role of enforcement.

Sustainable Development by Social Innovation in Smart Cities

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Online-S28 Sustainable Cities and Inclusive Communities, August 28, 2023, 4:45 PM - 6:30 PM

The European Commission has already defined that the idea of just transition needs to be an integral part of the sustainable development policy framework. It has “outcomes” dimension and the “process” of how we get there which should be based on a managed transition with meaningful social dialogue. Consequently, Asia’s traditional values and views on the relationship between human and the environment can provide important insights into the various ways that a just transition affects different groups, and how policies can be tailored to reduce the impact of socioeconomic changes on health and livelihoods. Intersections between cities and nature can therefore be analysed, both in terms of how cities and urban activities affect nature, as well as how nature can help solve urban challenges. The European Union is therefore guiding cities towards a more strategic approach to boost their competitiveness by digital innovation. One of the initiatives was the Intelligent Cities Challenge (ICC), which brought together European cities to achieve smart, socially responsible and sustainable growth through advanced technologies. Cities were also encouraged to develop smart ecosystems and build long-term relationships with other ICC cities and to create clusters for social and ecological innovation. Social innovation is in the centre of the analysis because the good examples that have been developed in Europe can be compared to government sponsored initiatives for smart cities in Japan with the objective to provide conclusions that are relevant to cities and applicable on global scale, as well.

The presentation therefore gives analysis of the Smart Community Project of Kitakyushu town in Japan and compares it to European cities because it is an excellent example where smart city development became a reality with focus on sustainable energy and on the well-being of humans by Society 5.0, as well. As approach with social considerations and linkage to SDGs, the presented research work defines a methodological framework for sustainable development and environmental planning that can be relevant for smart cities worldwide.

Does xenophobic behaviour influence migrant workers' regional location choice?

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Alicante-G03-R Demographic Change, Population and Migration, 1-E11, September 1, 2023, 9:00 AM - 10:30 AM

The paper investigates how xenophobic attitudes, as measured by the regional share of votes for right-wing parties and xenophobic violence, affect migrants' choice of where to live in Germany. We use a unique panel data set for the period 2004 to 2017 and apply fixed effects regression models and instrumental variable estimation to examine the relationship between xenophobia and immigration. Our results indicate that xenophobic behaviour tends to reduce regional labour immigration. However, evidence seems to be more robust for the support of right-wing parties than for xenophobic violence. Regarding heterogeneous effects across skill groups, the findings are ambiguous. While low-skilled foreign workers might be affected more strongly by the share of right-wing votes, the immigration of skilled workers seems to be more sensitive to xenophobic violence.

Outdoor Thermal Comfort in Public Open Spaces: Examples of Taksim Square and Gezi Park, Istanbul

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Alicante-G21-O2 Climate Adaptive and Resilient Regions and Cities, 0-D02, September 1, 2023, 11:00 AM - 1:00 PM

Public open spaces have various microclimatic conditions with the spatial differences created by the varied landscape elements they contain. These conditions cause people to feel thermally comfortable or stressed and significantly affect users' comfort. Designing microclimate-sensitive public open spaces that support user comfort, requires both subjective and objective measurements to accommodate users' numerous perceptions of thermal comfort. However, studies still lack site-specific data and are limited in number, especially in Turkey, despite an increasing interest in the subject worldwide over the past 20 years. This study aims to define the summer outdoor thermal comfort conditions and thermal perception categories in Taksim Square and Gezi Park, located in Istanbul, a hot-humid city, with an urban heat problem. In this context, microclimatic monitoring and more than 400 surveys with pedestrians were simultaneously realized between 30 July-2 August 2022 from 10:00 to 18:00 in selected 4 locations. Air temperature, relative humidity, wind speed and direction were measured for microclimatic monitoring. Personal information including gender, height/weight, age, clothing and activity level was gathered from the participants through a questionnaire survey, and participants rated their thermal sensation, acceptability, preference and general comfort situation using the ASHRAE and McIntyre scales. Microclimatic and environmental data were analyzed using the RayMan software to calculate mean radiant temperature, an important parameter for outdoor thermal comfort. For thermal comfort calculations, the PET index (Physiological Equivalent Temperature) was chosen for this study, and PET values were calculated through RayMan for each participant. A regression line was used to determine neutral and preferred PET ranges based on questionnaire responses. Lastly, PET values were compared temporally and spatially, and a thermal perception scale was created for the summer period of the study area. The study findings show that public open spaces have different microclimatic conditions and these conditions are perceived differently by pedestrians. The study highlights the need to determine outdoor thermal conditions on a site-specific basis. Additionally, it is the first study in Istanbul to include both objective and subjective evaluations simultaneously. Moreover, questioning the thermal comfort conditions of open spaces on a micro scale will enable the creation of site-specific sustainable urban policies, and will enable the creation of cities that are more resistant to climate change and heat waves, which are urban problems of today and the future.

What can ecological spatiotemporal indicators tell about the resilience of countries to economic crises?

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Alicante-G21-O2 Climate Adaptive and Resilient Regions and Cities, 0-D02, September 1, 2023, 11:00 AM - 1:00 PM

Economic crises are a recurrent phenomenon. Preventing a shock from developing into a crisis is an ability of obvious interest. The latter could be done by increasing the resilience of a system. The quantification of resilience is, however, not straightforward. An empirical assessment can be in defining transitions, especially the type of abrupt shifts that can be observed between various ecological states. As long as no abrupt changes are observed, the system apparently is still resilient. In economic studies there is work on detecting transition points particularly in the finance and banking literature (e.g. Diks et al., 2019). In the ecological literature, these transition points are referred to as tipping points or regime shifts, generally referring to a critical threshold at which a trigger can induce a self-propagating shift to a contrasting state. This may be detected by early warning signals for impending transitions, with the intent of preventing it from actually happening. Indicating whether a system is losing resilience is thus a fundamental goal of research on critical transitions (Weinans et al., 2021). Indicators for detecting transitions are usually autocorrelation and variance measures from time series, and multivariate indicators based on principal components analysis. There has also been growing interest in the spatial dimension, i.e. spatial early warning signals, using metrics such as spatial autocorrelation (Kefi et al., 2014). It has been shown theoretically and empirically that, especially if there is significant connectivity and spatial heterogeneity, spatial autocorrelation can be a better indicator of an impending shift than solely time series based indicators. In this paper, we investigate the suitability of ecological spatiotemporal indicators on economic data for an assessment of the resilience of an economic system. The data covers regional (NUTS-3) quarterly and monthly unemployment for France, Spain and Switzerland. This offers an interesting range of spatial and temporal dimensions (cf. Mayor and Patuelli, 2015).

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Regional economic resilience of Chinese cities: evidence from various shocks

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Alicante-S23-S1 Rethinking regional resilience, 1-D12, August 30, 2023, 11:00 AM - 1:00 PM

In this presentation, we would like to focus on the “shocks” that our economy has suffered from. To briefly introduce, firstly, we have done a research paper which discusses the economic resilience of Chinese cities under the sub-prime crisis (happened in 2008). Secondly, we are doing a relevant work that retrospects the impacts of US-China trade war on economic prosperity of China’s prefectures. The remaining parts of this extended abstract is as follows. Section 2 will discuss the research topic, research design and the main conclusions of the financial-crisis-based paper. Section 3 will shift to the work that we are conducting, and share preliminary methodologies and implications. Section 4 will conclude the extended abstract, summarizing the common points of above-mentioned researches and discussing future research outlooks.

The Geography of Elderly Well-being during Covid-19: The Case of Sweden

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Alicante-YS07 Covid-19, August 31, 2023, 11:00 AM - 1:00 PM

This study examines the association between age and residential location type on one hand, and well-being in the form of life satisfaction and subjective health status on the other, among individuals aged 70 and above in the aftermath of the Covid-19 pandemic. Extensive research has consistently demonstrated a U-shaped pattern between age and subjective well-being, how does it vary with exogenous shock and geography? Based on survey level data for the year 2019 and 2020, we find that older individuals typically experienced a higher level of life satisfaction but perceive a lower degree of health status compared to their younger counterparts. Meanwhile, Pandemic-related worries and stress significantly and more profoundly affected younger individuals than older ones, despite older individuals being considered a high-risk group for the pandemic. In terms of Geography, we also find that older people living in larger cities experienced significantly lower levels of life satisfaction than elderly people living in small agglomeration or rural areas but better in their health conditions. By offering fresh insights into the desirable public health messaging and characteristics of residential locations, our findings have valuable implications for informing future healthy ageing planning practices.

What is the Place of Retail in Contemporary Small Towns?

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Alicante-S20 Sustainable retail trade and changes in urban space, 1-C13, August 30, 2023, 4:45 PM -

6:30 PM

Small towns as local centres in the rural areas so far fulfilling housing functions (commuting) but local trade and services are systematically losing importance. “Outflow” of central functions results in increasing peripherality of small towns. They’re dominated by housing and locally served by one or two discount stores usually located in accessible nearby road network nodes and convenient “greenfield” location (large parking lot). The changes take place both in the spatial structure (architecture, communications, spatial development) as well as in social and economic. The main change is connected to disappearance of traditional economic bases of small towns. Changes in retail go along with evolution in consumer behavior and consumer mobility for services, including retail. Important for urban structural change is the locational change in retailing. The retail institutional change is also important for location, existence and functioning of retailers and stores in urban space as well as in small town centres. Other aspects of store location seen as being of most importance are that of accessibility. In many towns and cities, both larger and smaller, retail and commerce was shifted outward. Consequently, in the city centres conditions for retailers and services have changed completely, especially in the cities and towns of Central Europe, where the availability of parking and public transport is limited.

The answer to the question: What is the future of the traditional trade and retail in the cities and small towns? Is it very actual because the question of survival of retail facilities in a competitive and dynamic urban structure has been discussed less.

Especially important is the adjustment of traditional urban centre retail function, disappears and depreciates at a fast pace resulting in numerous deserted main streets and pedestrian areas. The success of the urban commerce is seen as sign of urban vitality and good urban policy provided by the key local institutions. The status of retail and commerce show the position of the town in the hierarchy of settlement system and to give each place of town its own special character, in particular the physical appearance of the high streets and types of retailing (e.g. corner shops, market halls, department stores, supermarkets, hypermarkets, shopping malls). Important is the answer to the question why exactly such a set of retail stores and services get together in some towns and how it is change over the long run.

IPR and standardization strategies of companies: Empirical evidence from Finland

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Online-G07 Regional Competitiveness, Innovation and Productivity, August 28, 2023, 2:30 PM - 4:15 PM

We explore the intellectual property rights (IPR) and standardization strategies of companies that are headquartered or have significant operations in Päijät-Häme region of Finland, a small open economy that relies heavily on exports. Intellectual property rights and standards are important institutions, “rules of the game”, that impact the rate and direction of technological progress and innovation activity. Recently, there have been significant European-level initiatives to promote firms' IPR (e.g., EU IP Action Plan) and standardization (e.g., EU Strategy on Standardisation) related know-how and capabilities in the European Single Market. There is a need to understand how companies develop their IPR and standardization strategies and adapt to related institutional changes at the national, European as well as global level. Our empirical analysis is based on semi-structured interviews of CEOs and R&D directors. The sample firms are active in a variety of industries and many of them have significant international business activities. Their learning paths to their current approach regarding IPR and standardization strategies are of particular interest as other local companies can learn from their successes and failures. In other words, our analysis investigates how firms may leverage IPR and standardization institution and, on the other hand, how the same institutions may hinder their businesses and in addition what threats and opportunities the companies see. We find that only a few of the companies have explicit IPR and standardization strategies, but several have systematic approaches to following the development of standards and IPR environments in their industries. IPR management is to a large extent outsourced to patent attorney firms. Several interviewees noted that the European integration, European standards and extension of the EU have promoted their exports and international scaling of their businesses. In the industrial markets, the demand and requirements of customers are important drivers in the adoption of standards.

The effect of immigration and social mobility among natives: evidence from the US census data

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Alicante-G03-O2 Demographic Change, Population and Migration, 0-C02, September 1, 2023, 11:00 AM - 1:00 PM

Ample research exists on the effect of immigration on a variety of outcomes such as natives' wages, or their employment. Yet, so far we know little about the effect of immigration on natives' chances to climb the social ladder. Studying this topic is inherently endogenous as research has shown that immigrants tend to settle in places with higher upward mobility (Abramitzky, Boustan, et al., 2019). Thus, analysing this question using the standard OLS approach would produce bias results due to the location choices of migrants. To fully account for this endogeneity, an exogenous shock to immigration is needed.

Such a shock was caused by the 1920s immigration restrictions in the US. These policies ended the Age of Mass Migration by drastically reducing the number of incoming migrants, as the US census shows. However, the severity of the restrictions varied depending on origin countries. This meant not all counties within the US were equally affected by the measures. Less changed for counties with either few immigrants in general or with a large share of migrants coming from less restricted countries such as Germany or Ireland. By exploiting this impact heterogeneity in a difference-in-differences setup, this paper sheds light on the causal relationship between immigration and natives' social mobility. This policy shock has been used and researched in the past in other migration-related studies (Abramitzky, Ager, et al., 2019; Cornejo-Costas & Morrison, forthcoming; Moser & San, 2020; Tabellini, 2020). It lends itself well to addressing the challenge of endogeneity which such a study entails.

To do so, I use full count data from the US census from 1850-1940. I first relate the rank of the occupational outcomes of native men in the national distribution to that of their fathers'. In a second step, I use this measure of social mobility as outcome variable in the difference-in-differences setup. This allows me to test whether Americans living in counties that were greater affected by the immigration restrictions had a changed probability for intergenerational upward mobility.

Human development evolution in Mayotte island. A long term measurement from satellite data of night light.

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Alicante-G01-O8 Region Urban Development, 0-B03, September 1, 2023, 9:00 AM - 10:30 AM

Mayotte has been the 101st French department since March 31, 2011 and the 9th Outermost Region of the European Union since March 1, 2014. However, in economic and social terms, Mayotte is still structurally behind the national and European average. It is a two-sided economy, halfway between a developed and a developing country, which characterizes the situation in this island of the Mozambique channel. Mayotte's development logic is exogenous, based on an external and public financial engine. The effectiveness of which is, however, questionable. The last born of the French departments remains the poorest in France and inequalities are increasing. This is due, in particular, to the high level of illegal immigration from the neighboring Comoros, one of the poorest countries in the world. The development differential explains the abundant arrival of illegal Comorians, mostly women whose fertility behavior on the ground significantly influences population growth. In this atypical economic and demographic context, the position of Mayotte in terms of human development is an essential question. This article therefore sets out to characterize the evolution of this relative level of development over the past twenty years. The concept of development is however complex. The most appropriate indicator is probably the UNDP Human Development Index (HDI). As the UNDP does not provide HDI values for non-independent territories such as Mayotte, Goujon and Hermet (2012) undertook this calculation. The authors nevertheless noted the unavailability of statistical data. Like many developing countries, Mayotte's statistical system was for a long time underperforming. Under these conditions, analyzing the evolution of Mayotte's level of development over the last few decades, particularly since the departmentalization of 2011, is unthinkable... unless one turns to alternative means of measuring development whose data are accessible. This is the case with satellite nightlight data. Recently, the scientific literature has highlighted the good predictive capacity of light intensities, captured by satellites from space, in terms of the level of development of economies. In the end, satellite light data for Mayotte are used to measure development. More specifically, the article is based on the calculation of the Night Light Development Index (Elvidge et al., 2012). The method is based on the calculation of a Gini coefficient to estimate development disparities by combining night light with gridded demographic data. Since this measure constitutes a spatially explicit measure of human development, we then obtain a series that allows us to explicitly understand the situation.

Functional upgrading and downgrading in GVCs: The role of interregional linkages in EU regions

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Alicante-S04-S1 Global Value Chains and regional development, 1-C12, August 30, 2023, 2:30 PM - 4:15 PM

Regions in the EU are trying to develop new value chains and/or to upgrade the existing ones. Based on relatedness and economic complexity metrics, this paper studies how interregional value chains linkages can influence the chances of regions to diversify into new production functions along and across value chains.

Previous work has shown that local capabilities and the relatedness between production functions are important drivers explaining the evolution of both functional upgrading and downgrading in global value chains. Based on a database containing information on value added content of gross exports and labour structures for 199 EU NUTS-2 regions between the years 2000-2010, the relatedness between production functions in global value chains is found to be a crucial factor explaining both functional upgrading and downgrading.

Built upon this framework, this paper includes, and add, the role of interregional linkages in terms of trade in value added to unlock new production functions in the region. It exploits the idea of complementary interregional linkages to explore how being connected to other regions specialised in specific related production functions in the value chains may impact the probability of regions to diversify along and across global value chains.

The exploitation of interregional linkages still remains a challenge for EU regional policies since regions don't always collaborate to the desirable extend. The findings of this paper may have large policy implications for the better understanding of interregional global value chains linkages and structural regional change.

When Local Business Faded Away. The Uneven Impact of Airbnb on the Geography of Economic Activities

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Alicante-S06 Exploring the Economic Impacts of Short-Term Rentals on Regions and Cities, 1-C12,
August 30, 2023, 11:00 AM - 1:00 PM

This paper investigates the unequal effect of Airbnb on the spatial organisation of economic activity in Madrid, Spain. Using establishment-level data from Madrid City Council and consumer-facing information from this short-term rental company, we find that Airbnb contributes to shaping the urban space in line with tourists' needs, ultimately displacing local businesses. These findings prove that short-term rentals do displace not only the local population but also resident-oriented businesses. Eventually, we show that our results are not driven by the method of measuring digital accommodation activity, other touristic actors, and confounders related to gentrification and the rise of online purchasing.

Forced migration and social networks: A case study of Ukrainian migration towards the EU since the Russian attack of Ukraine

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Online-G03-O1 Demographic Change, Population and Migration, August 28, 2023, 11:00 AM - 1:00 PM

Since the emergence of the independent Ukrainian state in 1991, Ukrainian migration has been economically driven, with Russia and Central and Eastern Europe (mainly Poland and Czech Republic) as the main destinations. Other countries, such as Germany and some Southern European countries (mainly Italy, Spain and Portugal) have also played a role. Recent conflict and violence since the Russian invasion of Ukraine on 24 February, 2022 have forcibly displaced millions of Ukrainians to the European Union (EU). Unlike other flows of Ukrainian nationals in the past, it represents an exceptional situation of force migration in which the EU has activated, for the first time since its enactment, the Temporary Protection Directive (TPD) in a spirit of solidarity and cooperation with Ukraine, a country with very close cultural and ethnic ties to Europe. In fact, by invoking the TDP Ukrainian nationals can move freely within the EU and obtain immediate right to live and work, with access to health and education and, most importantly, circumventing long and tedious administrative procedures to make the EU their temporary home (situation hereby extended until March 2024). Our main hypothesis is that the current forced character of the displacements, the chance of refugees to choose a destination under the activation of the TPD and the absolute uncertainty surrounding the possibility of ever returning home might embark Ukrainian migration to the EU into a new migration phase. To this concern, this study is interested in the role played by social networks in the settlement patterns of Ukrainian refugees. Specifically, the study shines the spotlight on ascertaining the way in which first flows of Ukrainian refugees have shaped the settlement patterns of refugees in subsequent months, in combination with the effect of pre-war social networks. In order to do it, we estimate an equation linking the number of Ukrainian nationals under temporal protection in each EU country for any given month since March 2022 with the corresponding figure registered in the preceding months, as well as with the number of valid residence permits of at least 12 months held by Ukrainian citizens at the end of 2021 as an estimate of long-standing Ukrainian communities in the EU. The estimation also includes a set of control variables to account for the potential causal effect of geographical distance, cultural proximity, perception of quality of life in the EU, earnings in destination, size of the informal sector, and anti-immigrant sentiment.

A Hierarchical and Geographically Weighted Model and Its Backfitting Maximum Likelihood Estimator

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Alicante-S27-S2 Applications of Advanced and Innovative Methods in Regional Science, 1-C13,
September 1, 2023, 11:00 AM - 1:00 PM

Spatial heterogeneity is a typical and common form of spatial effect which refers to the uneven distribution in geographical entities and their relationships. Geographically Weighted Regression (GWR) and its extensions, including Multiscale GWR (MGWR), are important local modelling techniques in exploring spatial heterogeneity based on data borrowing. When dealing with spatial data of overlapping samples, GWR-based models would encounter several problems, such as tremendous variations in bandwidths. As data of this characteristic have spatial hierarchical structures (i.e., they have group-level and sample-level variables), Hierarchical Linear Modelling (HLM) is suitable to deal with them. But a problem would occur that for some position-related fixed effects, spatial heterogeneity is missing in their estimations. In this paper, we are going to propose a model combining GWR and HLM, called HGWR. It divides coefficients into three types: local fixed effects, global fixed effects, and random effects. Correspondingly, we also propose a back-fitting maximum likelihood solution to it. Results of a simulation experiment and a robust check experiment show that this model could successfully distinguish local fixed effects from others. Furthermore, the spatial heterogeneity is reflected in estimations of local fixed effects, together with the spatial hierarchical structure in other effects. Compared with others, which are only good at fitting some types of effects, HGWR produces estimations of lowest deviations no matter which coefficients are active. For big data, although MGWR could produce comparable results, HGWR is more efficient.

Urban Network Externalities And Coordinated Regional Development - An Analysis Based on Multi-Agent Model

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Alicante-G07-O2 Regional Competitiveness, Innovation and Productivity, 0-D02, August 31, 2023, 2:30 PM - 4:15 PM

This study examines the impact of the structure of cooperative networks between cities on the development of a region and individual cities, utilizing concepts of constraint and competition from structural hole theory. The study employs a multi-agent model constructed from two sets of networks - one conceptual, and one real and complex - to test the hypothesis. The study contributes a new perspective on the interplay between cooperation and competition in urban networks, providing a tool for assessing the impact of urban network structure on development. The model has been completed and tested on a simple set of networks. To further validate the findings, a collection of 7875 train schedules from China was utilized to construct a more realistic and complex cooperative network, testing whether the theory holds for complex urban networks.

High Technology Entrepreneurial Ecosystem Emergence and New Path Creation: The Role of Human Agency in Lagging Regions

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Alicante-G01-O8 Region Urban Development, 0-B03, September 1, 2023, 9:00 AM - 10:30 AM

This paper addresses the process of entrepreneurial ecosystem emergence in regions and the mechanisms through which new industrial paths are created in these regions. It focuses on the context of relatively weak and mature economic regions and develops a mode of analysis that considers the role of human agency within the emergence of entrepreneurial ecosystems. This analysis considers the case study of the Cardiff city region in the United Kingdom. The analysis indicates that the revitalisation of economically lagging regions through an entrepreneurial ecosystem approach is likely to be contingent upon a number of important components consisting of: (1) access to potential entrepreneurial agency; (2) the engagement of 'enlightened' local political agency; and (3) the formation of a collective agency across entrepreneurial and political agents as well as other relevant stakeholders. These key components may allow regions to foster entrepreneurship in a range of highly productive and technology-based industries through new path creation. The principal processes of entrepreneurial ecosystem emergence are found to consist of the establishment of strategic networks that facilitate the formulation of new and novel entrepreneurial initiatives and interventions. The paper argues that adopting an agency-based approach to analysing entrepreneurial emergence highlights the importance of key human actors in such emergence alongside the role of particular resources, capital and institutions. It is concluded that lagging regions can trigger a process of development through new path creation stemming from the emergence of an entrepreneurial ecosystem.

Out of the Dark into the Light? Impact of EU Eastern Enlargements on Development of Border Municipalities

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Alicante-S03-S2 Counterfactual methods for regional policy evaluation, 1-B03, August 30, 2023, 4:45

PM - 6:30 PM

Borders constitute market barriers that hamper the development in the surrounding regions. But what happens in the regions in the vicinity of borders once these barriers are reduced in the context of trade liberalization? To investigate this question, we use nighttime lights data to analyse municipalities in the proximity of borders affected by the 2004 and 2007 EU enlargements. Our preliminary results suggest that there is no difference in growth of nighttime lights (as a proxy of economic activity) between the municipalities located near these borders and municipalities located near the EU external borders. When differentiating between municipalities in the EU15 and New member states sides of the borders we find a positive impact in the former following the 2004 enlargement. The reason for the missing impact in the new member states might be the acceleration of agglomeration forces in these countries after their accession into the EU.

Determinants of age-friendly city environments in building earthquake resilience among older people

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Alicante-G20-O1 Social Innovation for Resilient Regions, 0-D01, August 30, 2023, 2:30 PM - 4:15 PM

1. Background

The proportion of older adults in the world is projected to reach nearly 16% in 2050 and nearly 23% by 2100. Moreover, many rapidly growing urban areas in the Pacific-Asia region face high seismic risk and become more vulnerable as they develop. Recent international efforts, such as the Sendai Framework for Disaster Reduction 2015-2030, identified ways to alleviate disaster risks through stakeholders' resilience-building. To optimize health opportunities for the ageing population in rapidly urbanizing communities, World Health Organization (WHO) promoted the concept of Age-Friendly Cities (AFC) to support and help people to age actively and age-in-place. However, relatively little attention has been paid to linking AFC and ageing resilience and exploring the impact of AFC on older community members' resilience from a behaviour perspective. This article aims to investigate the components of AFC that contribute to building earthquake resilience among older adults.

2. Methods and data

Combining WHO's AFC assessment framework with the disaster ageing resilience concept, developmental psychology theory and literature review, we develop the Framework of Age-friendly and Resilience Behaviour for Earthquake Risks (FARBER) to examine the determinants of ageing adaptation and resilience to earthquakes. A survey was conducted among older adults in Taipei, Taiwan to illustrate the proposed methodology. We applied focus group meetings to incorporate key stakeholders' knowledge and engagement into the questionnaire design. The survey was pre-tested by trained interviewers through three rounds of face-to-face interviews. Finally, 427 respondents were used in the analysis with a response rate of 95%. We then integrated Cluster Analysis and Binary Logit Regression Models into the data investigation.

3. Results

Survey results show that accessibility, walkability, and the quality of physical environments significantly increase older adults' adopting adaptation behaviour and resilience. Social environment, community and social capital are vital supporting factors for the physical environment in promoting cooperation, social integration, sharing resources, personal fulfilment, and freeing from isolation. Results also indicate that respondents with chronic diseases, low sensory and physical activity abilities are less conducive to adopting adaptation behaviour and less resilient. Our findings show that the resilience of older people to earthquakes depends not only on individual attributes, but also on their interactions with community contexts and social supports. If this is reflected in policy lines of land-use planning and built environment design, it raises the importance of involving social capital and participation, individual capacity, and community support in physical environmental improvements to increase ageing resilience.

An evaluation of urban resilience against heat waves in South Korea: A composite index approach

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Alicante-G21-O1 Climate Adaptive and Resilient Regions and Cities, 0-D02, September 1, 2023, 9:00

AM - 10:30 AM

In summer 2018, South Korea experienced record-breaking daily maximum temperature and consecutive hot days; 48 people died of the unprecedented heat stroke and 4,526 were taken to the hospital due to heat illness. Given these huge risks to society, quantifying urban resilience against natural disasters, especially for heat waves, has become one of main issues in enhancing a sustainability of developed modern cities like Seoul in South Korea. In general, a city with high resilience to such a shock often confronts less impact from the disaster and tends to bounce back to its normal state in a relatively short time. This study first develops heat wave resilience index (HWRI) in South Korea at county level. The index is composed of various indicators accounting for the following 5 dimensions: economic, social, physical, municipal, and human dimensions, while the indicators are empirically validated by a machine learning technique. Through its prediction process, a random forest model allows us to evaluate whether the indicators do reflect urban resilience against heat waves. We then propose a stochastic damage function to assess marginal effects of urban resilience factors and extreme weather indicators on the mean and variance of damages from heat waves. The panel data used for this study span 6 years from 2015 to 2020 for 226 counties in South Korea; besides heat wave resilience index, the damages refer to both fatalities and economic losses reported to the government, and weather indicators are calculated in terms of extreme frequency and extreme intensity. The preliminary results suggest the followings: (1) The regions near big cities are likely to be more resilient to extreme heat events. (2) Facilities to prepare for heat waves have statistically significant effects on downsizing both scale and risk of extreme heat exposure, suggesting the effectiveness of enhancing urban resilience. This research contributes to a better understanding of urban resilience to the specific type of disasters. At the same time, this research makes empirical contributions as to the construction of an econometric model capable of evaluating marginal effects of urban resilience factors.

Education as a key factor for Smart City implementation

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Online-S47 Urban challenges in time of multiple crises and of the twin transition, August 29, 2023,
11:00 AM - 1:00 PM

Education is not only the most powerful factor of social change, it is the main factor that drives and fuels sustainable development. The educational system has evolved, in the direction of using new technologies, since the presentations Power-Point on complex e-learning systems. Online programs dedicated to learning or testing pupils and students are working tools, more and more popular especially in and after the pandemic's times. In this paperwork we debated the issue related to the question if the occupants/citizens of the city- Constanta City, in our case study- that wants to be smart have the necessary education to allow them to develop, manage and live in this city. If the European Commission explains the smart city concept as 'a place where traditional networks and services are made more efficient with the use of digital solutions for the benefit of its inhabitants and business', in our opinion it is necessary that the occupants must be trained and informed to be smart citizens in a smart city. From this point of view, before and during the implementation of the measures for a smart city, it is necessary to educate the population from this perspective. The digital transformation is calling, also, for a workforce prepared to develop novel business processes. The development of the so-called STEM curriculum, Science, Technology, Engineering, and Mathematics is being given a lot of attention by educational boards in response to preparing young generations for the Smart City work market. Problem-solving, critical and analytical thinking are the main competences completed with IT skills that the labor market demands. Based on a questionnaire we identified some problems revealed by Constanta citizens regarding the implementation of the project SMART CT.

Productivity, Resilience and Sustainability of the Tourism Sector: an Analysis of the Dynamics within and between Italian Regions

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Alicante-G36-O1 Tourism and Overtourism Issues, 0-E02, August 31, 2023, 2:30 PM - 4:15 PM

Tourism is one of the most important economic sectors worldwide in terms of value added, income generation and employment creation. However, it has major impacts which can be devastating for the environment and for communities. Also, tourism is a sector which is extremely exposed to a range of vulnerabilities and is heavily affected by a series of disruptions (financial crisis, exchange rate fluctuations, oil prices, natural disasters) which undermine the stability and integrity of destinations. Therefore, the tourism sector is called to face a series of key challenges: continue to generate economic benefits, improve its resilience to different types of shocks and nullify its negative impacts on the environment and on the local population. The aim of this paper is to provide insight on how these goals can be achieved by clarifying and understanding the relationship between productivity, resilience and sustainability of the tourism sector and analyzing how it changes in different regional contexts throughout time. From the empirical standpoint, we set our analysis in Italy and use data at the NUTS2 level to first propose a taxonomy of the twenty regions based on an index summarizing the productivity and resilience of the tourism sector in each region. We use social sequence analysis to examine the time dynamics and then set up an econometric model to look at the role played by sustainable tourism in determining regions' trajectories. We measure sustainable tourism by means of a composite indicator, which allows us to capture the multidimensionality of the concept. This will contribute to constructing a theoretical framework which can provide support for policy-design and decision-making processes. Indeed, many of the externalities of tourism are the result of actions taken by the private sector, but it is up to institutions to provide an environment that enables and incentivizes stakeholders to respond to these issues.

How regional factors help in dealing with uncertainty: a case study of job insecurity during COVID-19

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Alicante-S30 A look backwards at Covid-19: Mental health, uncertainty, and place, 1-C14, September 1, 2023, 11:00 AM - 1:00 PM

As the COVID-19 pandemic hit the European continent at the beginning of 2020, one of the most significant socio-economic effects that immediately become the central focus of media and governing bodies was the unemployment and the sudden transformations suffered by the job market. This effect created major concerns for citizens and governing structures, as the pandemic generated a new and unparalleled economic context, where the short and medium-term future of several sectors seemed unpredictable. The concern acted upon the job insecurity of individuals, a perceived threat to the continuity and stability of their employment.

Based on a self-reported survey covering the first pandemic wave, our study classifies the regions (NUTS2 level) from six EU countries according to their performance in terms of job insecurity, but also the shock intensity (death rates and case fatality ratio), and identifies the overall over and under performers. The results show that the regional evolution of the job insecurity could be linked to the pandemic evolution, especially in the stronger economies. However, the model does not follow a classic economic core-periphery pattern. The model is challenged especially by a stronger performance of several less performant regions from Italy, Romania, or France.

How smart is for urban areas to gamble on smart tourism?

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Alicante-G50 Urban miscellaneous, 1-B01, August 30, 2023, 2:30 PM - 4:15 PM

Cities around the world have been pressured to become smarter and implement smart initiatives to keep up with global trends, especially for the highly dynamic economic activities, such as tourism. The pace of progress varies between countries, and post-communist urban areas face obstacles related to financing, understanding, and stakeholder involvement. Our study focuses on the introduction, evolution, and implementation of the smart city concept in Romanian cities, as well as transparency in smart projects, in relation with tourism development. We found that authorities are increasingly open to integrating smart components into the city profile, particularly in the smart mobility domain, using apps and online platforms. However, there is little information available about smart projects, with discrepancies between statistics and available information. Clarification and harmonized statistics are needed for more effective, evidence-based policies.

Additionally, our study reveals discrepancies in the implementation of smart tourism initiatives. Despite their potential benefits, such as enhancing the visitor experience and increasing revenue, the integration of smart tourism solutions in Romanian cities is still in its early stages. This highlights the need for more concerted efforts to promote smart tourism initiatives and improve their implementation in Romanian cities.

It is important to note, however, that while smart tourism initiatives have been successful in some areas, their applicability is not universal, and careful consideration must be given to the unique characteristics and needs of each city when implementing smart tourism solutions.

The Drivers in Regional Inequalities: Evidence from Chile

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Alicante-G28-O1 Segregation, Social and Spatial Inequalities, 0-C04, August 30, 2023, 4:45 PM - 6:30

PM

This research proposes a perspective that integrates neoclassical economy theory, economic geography, and institutional approach. This is value in combining economic, geographical and institutional approaches suggested by the literature to examine the contribution of different approaches to explaining regional differences in Chile. Inequality has been a concern during the late decades and recently the concern has increased due the COVID -19 crisis around the world (Cörvers and Mayhew, 2021). Chile represents a particular/unique case of extreme of income concentration, top income earners capture a considerable part of all the income (Palma 2014; PNUD 2018). Gonzalez (2020) argues that inequality in Chile is not only in economic scope, but also is extended to the social and political scope and Rodriguez (2017) calculated the gini coefficient on the personal income distribution in Chile from 1850 to 2009, which has varied only between around 0.5 and 0.6 over the last 160 years. It is, therefore, possible to say that inequality is a not a new phenomenon in Chile. Literature on regional inequality has been traditionally focused on regional economy with neoclassical economic theory. In addition, economic geography in the form of the geographical economic predicts the spatial agglomeration of economic activities. Furthermore, the Institutional approach, with institutional economics and new institutionalism, have the main premise that “institutions matter” for economic development. Each of these perspectives offers an explanation for regional disparities that could potentially be applied to the Chilean case. Evidence from empirical studies about regional inequality has been developed mainly for European countries and north America mainly at national level, and little research at regional level. In addition, empirical work in the Latin American is limited and mainly at national level. For the Chilean case, inequality has tended to focus on national level rather than at regional and less attention has been paid to consider different approaches. Having considered the theoretical resources available to help us understand the drivers of regional inequalities. The objective of this research proposal is to determine the extent to which regional differences in per capita income in Chile can be explained by Economic, Geographical or Institutional variables.

Pandemic and infodemic diffusion – Spatiotemporal patterns of spread of Coronavirus and pandemic-related information in Europe

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Alicante-G30-O1 Covid-19 and regional and urban resilience, 0-D01, August 30, 2023, 4:45 PM - 6:30

PM

Within a few months of its outbreak in Wuhan, China, the Coronavirus pandemic had appeared in almost every part of the world, highlighting one of the negative effects of globalisation: the rapid diffusion of harmful phenomena. However, information of the COVID-19 has spread faster than the pandemic itself: in our globalised, interconnected world, information spreads around the world in hours or days. This information (facts, rumours, fake news) has spread worldwide (mainly via Internet), and created an infodemic parallel to the pandemic.

The presentation will show the spatiotemporal pattern of the two phenomena- the COVID-19 pandemic and the infodemic related to it- in Europe. It will present relations between these two diffusion processes and geographical factors that may have influenced them, with a particular focus on the centre-periphery relationship, socio-economic inequalities, borders etc. To do this, I collected regional-level, weekly pandemic data (number of reported cases, number of reported COVID-19 deaths, excess mortality), weekly GoogleTrends statistics and socio-economic indicators from European countries. I subjected these to statistical data analysis: in addition to descriptive statistics, I used a spatial regression model. In addition, I created static and interactive maps and graphs to visualise the spatial diffusion of the two phenomena.

As a result, I got that the diffusion of these two phenomena is different. The pandemic waves were more prolonged in time than the infodemic waves, and their spatial patterns also differed. This may be due to the different geographical patterns of their (transport and communication) networks used as well as the regional inequalities of the other factors that hinder and facilitate their spread. However, a relation was also observed between the two phenomena: on the one hand, the spread of information influenced the effectiveness of the control of the pandemic, on the other hand, the emergence of the disease in a region / country clearly contributed to the increased interest in Coronavirus-related information in that area.

Childlessness, childcare policy, and economic growth

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Alicante-G03-O4 Demographic Change, Population and Migration, 0-C04, August 31, 2023, 2:30 PM -
4:15 PM

In many developed countries, birthrates are declining and the population is aging. Japan is no exception. Japan's total fertility rate has been below the population replacement level for the past half-century and because of Covid-19, the number of births has also plummeted. In January 2023, Prime Minister Fumio Kishida Pledged to tackle Japan's declining birthrate on a "different dimension." However, the scale of funding and expenditure has not been considered enough.

We extend a simple growth model to consider the economic effects of childcare policies. We also draw attention to the fact that the proportion of childless households is rising. Households are assumed to have different preferences for children. As a result of utility maximization, some households choose to have no children. Under these situations, we consider a child allowance policy. Results show that the impact of policies on people's welfare varies greatly depending on how financial resources are raised. We also clarify the Government's preferred approach to taxation.

Differences and Similarities between Campus Sustainability Top-runners in the World and Japan

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Alicante-G20-O1 Social Innovation for Resilient Regions, 0-D01, August 30, 2023, 2:30 PM - 4:15 PM

The social responsibility of higher education institutions in contributing to a sustainable society is commonly recognized. However, campus sustainability has not been practically implemented in Japan more than 10 years since the concept was introduced to Japanese higher education institutions.

One useful tool to understand the current status of campus sustainability at Japanese universities is Assessment System for Sustainable Campus (ASSC). ASSC is an evaluation system that takes a holistic view of campus sustainability. Universities classified as “top of the class” in ASSC are the top-runners in Japan (Ikegami and Neuts, 2020).

On the other hand, International Sustainable Campus Network (ISCN) is one of the most important networks of higher education institutions for keeping up with the global trends. It is one of the few global networks dedicated to campus sustainability, in which any higher education institutions can participate. A distinctive feature here is that the ISCN has award categories based on the chronological stages of development of campus sustainability, such as Whole Systems Approach, Partnerships for Progress, and Cultural Change for Sustainability.

In this study, projects and campaigns implemented by ISCN award-winners (The University of Edinburgh, University of Leeds, Thammasat University, etc.) and by “top of the class” universities in Japan evaluated by ASSC (Kyoto University, Nagoya University, Hokkaido University, etc.) were compared within the framework of Triple or Quadruple Helix. An attempt was made to identify differences and similarities between the top-runner universities in the world and Japan. A document analysis was adopted by using material on the web and from the data of ASSC, as well as material obtained from interviews.

The interim investigation implies that Japan's top-runner universities have excellent campus projects focusing on district planning to improve well-being of the surrounding area and the campus. In the ISCN award categories, the winning projects categorized in "partnerships for progress", which is based on collaboration with external organizations, might have similarities to these Japanese cases.

On the other hand, the similarities between Japanese cases and the winning projects in the most early-stage award category - “Cultural change for sustainability” or in the most mature stage category - “whole systems approach” are not highly expected. This suggests that, for Japanese institutions, sustainability perspectives are only taken into account in specific campus projects and not necessarily rooted as a university-wide strategy. It is important to understand that in what way these differences are created under a different societal context.

Digital transformation of local government: a comparative analysis of the EU NUTS 3 Local Administrative Units (LAU)

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Alicante-G08-O1 Cities, Regions and Digital Transformations, 0-D02, August 30, 2023, 11:00 AM - 1:00 PM

Digital Transformation of Local Administrative Units (LAU) is imperative, especially after the COVID pandemic, which accelerated the need for Digital Transformation and growth of the digital economy. Digital Transformation is a conceptual framework that is viable in an evolving society and is achieved through the adaptation of applications and services provided by the new industry 4.0. This new approach not only leads to technological achievements, but also enhances economic and social relations, as well as the bond of local governments and their citizens.

However, European Union countries have not adopted equal measures at the level of local governments towards Digital Transformation of services to meet the needs of the new digital era. Given the fact that the services provided to citizens by local governments, their general administrative structures and cultures differ between member states due to political traditions and historical, geopolitical as well as socio-economic conditions, five main types of organization can be distinguished: the Napoleonic, the Anglo-Saxon, the Scandinavian, the Federal and the East European. The purpose of this paper is to provide a comparative study of the level of digital services of the local government organizations of the member states of the EU and the rate at which they have accelerated in the context of the measures and policies adopted during the period of the Covid 19 pandemic.

To achieve this scope, the goals of the study are:

1. the discussion of the concept of Digital Transformation,
2. the recording of the administration typology of local governments of the member states and finally
3. a comparative analysis of EU countries to proceed with the Digital Transformation in correlation to their typology.

New approach in modelling the actual challenges of the EU's energy sector

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Online-S71 Transition to climate neutrality and energy transition: regional development driver or challenge?, August 29, 2023, 2:30 PM - 4:15 PM

In the current geo-political context marked by multiple economic crises and the war in Ukraine, the energy issue is becoming vital for the European economy and society. The whole approach in this research was carried out in accordance with the main official documents in the field, namely "A policy framework for climate and energy in the period from 2020 to 2030" and "Energy Roadmap 2050". The main objective of this scientific approach is to identify vulnerabilities related to the primary energy production, imports and exports, gross available energy and final energy consumption pathway in EU27. For this purpose, a statistical database was established on representative indicators such as: primary energy production; imports and exports; gross available energy; final energy consumption; non-energy consumption; energy dependency and energy intensity. The used analysis methods consist of meta-analysis, statistical and econometric analysis and modelling using dedicated software. The analysis points out great disparities regarding the analysed indicators between the Member States. These disparities are not the same with economic disparities between the same Member States. Some states have comparative advantages regarding their own energetic resources. There are disparities regarding the energy dependency, as well. The paper proposes a new model for quantifying risk factors in the European energy system and a grouping of the 27 Member States into energy clusters. Based on the analysis carried out, proposals for public policies at EU27 level and on the resulting clusters are presented.

A spatial economic perspective of new high speed rail impact in Japan

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Alicante-G34-O2 Transport and Accessibility, 0-E01, September 1, 2023, 9:00 AM - 10:30 AM

The development of intercity transportation systems can have significant impacts on the regional economy, as well as national land structures. This study offers a model for evaluating the effects of new high speed rail systems on economic and population structures based on spatial economics (also called new economic geography), which has been rapidly developing in terms of theory and computational methods in recent years. We apply the current model to the new Japanese high-speed rail project, SCMAGLEV, and estimate the short-run economic effects and long-run effects on the population distribution. The results of the short-run analysis are generally consistent with the intuitive expectation that large effects will be generated mainly in the areas around Tokyo and Osaka, which are the terminals of SCMAGLEV. In contrast to the trend of the spatial distribution of benefits in the short-run equilibrium, the population is expected to decline in many regions in the long run. The long-run results suggest that population agglomeration could develop in some areas of the country.

Towards community-health planning: Compliance and the social space of cities under Covid-19 regulations

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Alicante-S30 A look backwards at Covid-19: Mental health, uncertainty, and place, 1-C14, September 1, 2023, 11:00 AM - 1:00 PM

Cities' planned and built environments are key to healthier communities. Cities are regarded as a sustainable form of settlement. The Covid-19 pandemic challenged this relationship, when the issue of communities' compliance with government restrictions to mitigate the spread of the pandemic became apparent. However, the pandemic provided a chance to further enhance cities' resilience, since identifying community characteristics that motivate individuals to follow health-promoting regimens became a key topic for social research.

Despite the growing literature on such relationship, little attention has been paid to the drivers of compliance at the city and community levels. Our study addresses this lack through the Bourdieusian concept of communities' capital resources. The study investigates how economic, social, and cultural capital, as well as its spatial distribution, can be used to explain the factors influencing compliance with limitations and recommendations for the promotion of public health. According to this approach, the 'habitus of place' is a set of dispositions formed by the idiosyncrasies of local communities. By defining local capital forms, local habitus can be measured.

By using Israel as a test case, we employed a data reduction technique to assess these capital forms, utilizing several factors pertaining to population characteristics and municipal budgets. Israeli cities have emerged as the key players in determining morbidity and establishing differential limitations during the outbreak of the pandemic. The investigation specified measures of capital forms at the community level across the country. It allowed to build regression models that estimated the relationship between capital and adherence to the limits implemented to curb the pandemic.

The analysis revealed how the spatial dispersion of the components of these capitals explains the likelihood of communities' level of compliance. The results indicated that each of the capital forms contributed significantly to a greater compliance with health regulations. Some of the disparities in responsiveness across various groups in Israel can be attributed to the spatial dispersion of capital forms.

Connecting sociology to geo-urban variations in compliance with Covid-19 laws during the pandemic might shed light on the social mechanisms that drive health behaviors, as well as human practices that may influence morbidity and mortality rates. The study's findings in this regard highlight the explanatory power of local resources in collective spatial behavior patterns and the potential for escalating existing injustices, as well as the significance of the social-community component in dealing with risk situations in general and the COVID-19 pandemic in particular.

Ship technology development and trade pattern changes: The case of early modern and modern periods in Japan

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Alicante-G09-O5 Innovation and Regional Development, 0-C02, September 1, 2023, 2:30 PM - 4:15 PM

The first globalization started with the invention of the steam engine by the Industrial Revolution. With the advent of steamships, regular shipping routes became possible, and the cargoes transported expanded from high value-added products to low value-added products. However, the introduction of steamships was not so simple, and in the early years (19 century) they served only as a supplement to sailing ships, which were called “steam-sailing ships.” Furthermore, since the Edo Shogunate (bakufu) (1603-1867) adopted a policy of national isolation until the end of the 19th century, maritime transportation in Japan was exclusively domestic coastal transportation except some exceptions. Therefore, until the end of the Edo (early modern) period, Japanese-style ships, which were suitable for coastal transportation, were exclusively used instead of Western-style sailing ships. From the end of the Edo period to the Meiji Restoration (1867-, modern period), the introduction of Western-sailing ships, “steam-sailing ships,” and steamships (and steam locomotives) from overseas changed the structure of domestic cargo transport. In addition, the ships, called as “Ainoko-bune,” that combined the advantages of Japanese and Western-style sailing ships were developed and used for domestic transportation. Then, the diffusion of technological innovations within Japan was more complicated. In this research, between 1744 and 1907, using custom registers by wholesale shipping agents in port cities that thrived on coastal shipping, we observe how changes in shipping technology affected trading partners (or regions) and the items they transported. The advantage of this study is that it takes up an area where steam locomotives, which were being introduced in Japan during the periods, were not opened due to geographical factors during these periods, allowing us to examine the effect of “pure” ship technology in that port city.

Constructing long-term regional-economic scenario's for the Netherlands using structural change in global SCGE model

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Alicante-S04-S1 Global Value Chains and regional development, 1-C12, August 30, 2023, 2:30 PM - 4:15 PM

Current paper develops an innovative modelling approach by combining qualitative story lines and econometric estimations of sectoral productivity with the EU-EMS SCGE model. EU-EMS model is the global economic model that has explicit representation of 12 Dutch provinces including their supply, demand and trade flows. The developed methodology is used for the quantification of long-term high and low growth scenarios for Dutch provinces in the period 2024-2060. Development of regional-economic scenarios starts with creation of qualitative story lines that capture main drivers of structural change and trade specialization in the Netherlands and the rest of the world. These drivers include sector-specific technological change, development of trade barriers and trade blocks over time, demographic changes and supply of labour by skill type as well as the development of households consumption patterns and governmental spending. Panel-data econometric analysis with EU-KLEMS database is used in order to translate the story lines into sector-specific long-term technological change that is measured as the Total Factor Productivity (TFP). For the rest of the scenario elements, the story lines are translated into model parameter changes using observed historical patterns in different sectors and countries of the world. The outcomes of EU-EMS model for low and high-growth scenario's and their effects of regional distribution of incomes and sectoral production are analyzed using geographical maps.

Testing smart tourism city governance: an ecosystem perspective

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Alicante-G36-O2 Tourism and Overtourism Issues, 0-D04, September 1, 2023, 2:30 PM - 4:15 PM

This contribution focuses on the analysis of the smart tourism ecosystem concept as a governance model for tourist cities. At the theoretical level, the evolution from business to smart tourism ecosystems is studied in order to propose a smart tourism city ecosystem model from a governance perspective. The theoretical model is based on the factors that define tourism governance, smart city development and smart initiatives in a concrete urban environment. The STCE is formulated as a dynamic outcome of the urban and tourism governance within the city from the smart perspective. The model is tested in the city of Barcelona through a content analysis of tourism and smart city plans, programs and initiatives on a local scale, together with a series of in-depth interviews with public and private stakeholders. This dual methodological approach allows, on the one hand, to characterize the Barcelona smart ecosystem and, on the other hand, to contrast the perceptions of its main stakeholders. Elements to be tested include shared goals, stakeholders map, public value creation, innovation capacity, knowledge sharing and enabling technologies. The results reveal to what extent the smart ecosystem can favor a new tourism governance or, on the contrary, lacks the elements of cohesion and shared goals that make the practical application of this theoretical construct so difficult.

Demographic decline and attitudes towards immigration in Europe: a region-level analysis

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Online-G03-O2 Demographic Change, Population and Migration, August 28, 2023, 4:45 PM - 6:30 PM

In many European countries, falling birth rates imply population ageing and decline. Immigration has often been considered as one of the ways to offset these trends. While immigration may indeed replenish and rejuvenate populations of host countries and provide solutions to a range of social and economic issues, it may also generate a backlash from local people. To determine whether demographic decline makes Europeans more positive attitudes towards immigration, we undertake a longitudinal, regional-level analysis linking individual attitudes towards immigration to local-level demographic indicators. Using data from the 2008-2019 European Social Survey (>160,000 respondents from 278 regions in 22 countries) and the German Socio-Economic Panel (30,000 respondents over 2000-2020 in 16 states), we find a strong relationship between individual attitudes towards immigration and local-level demographics: specifically, people become more positive towards immigration when the birth rates and natural population increase rates in their regions fall. Among other things, this finding implies that policies aiming at offsetting population ageing and decline with immigration are likely to receive public support.

Mobility Patterns across Socioeconomic groups as an Effect of the COVID-19 Pandemic: A Synthetic Population Analysis in Stockholm

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Alicante-G28-O2 Segregation, Social and Spatial Inequalities, 0-D03, September 1, 2023, 9:00 AM - 10:30 AM

We estimate a dynamic discrete choice model of weekday travel behavior using anonymized mobile phone data in Stockholm. This model is then applied to generate a synthetic population and conduct a segregation analysis. Specifically, we examine the difference in mobility patterns between low and high income groups before (2019) and during (2020) the COVID-19 pandemic. We develop a latent-based framework in which positions of individuals are treated as latent variables and their connections to cell towers as observations. To calculate the expected value (EV) function we use backward induction, starting by the end of the day. We estimate the model using a Stochastic Expectation-Maximization (St-EM) algorithm. We show that our framework gives significant estimates, allowing us to infer trip information from the mobile records. The estimated model can be used to evaluate and simulate trip attributes and compare daily mobility patterns across socioeconomic groups. Our findings reveal a substantial reduction in mobility for both low and high income groups between 2019 and 2020, in terms of trip duration, frequency, and travel time. We also find a significant decrease in the number of people in the central commercial areas during the pandemic. The impact was more pronounced for the low income group. Further, we quantify segregation between the two groups using the spatial segregation index, suggesting an increase with more than 15%, from around 0.6 to around 0.7. These results indicate that the pandemic aggravated existing patterns of segregation in Stockholm. Our study contributes to the literature on novel data-driven methods for urban planning and mobility, demonstrating the potential to use mobile phone data and agent-based models to improve policy decisions and promote more equitable transportation systems.

Vaccines and Ecology: Predicting Local Culture Attitudes of Social Welfare

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Alicante-S08 Local Cultural Context and Its Emoting Variations: Machine Learning Approaches, 1-C13,
August 30, 2023, 11:00 AM - 1:00 PM

Vaccines are clearly a means to protect the life of the vaccinated and indirectly the lives of the other members of society hence the decision to get vaccinated is a proxy for individual concern with social welfare. This study asks whether the behaviour under a shock condition, such as the vaccination for COVID-19, can be predicted by other social welfare-relevant behaviours in a locality – such as the ecological concerns of individuals living in a certain locality.

Using big data from individual Tweets about vaccines (representative on the province level) and actual vaccination behaviour on the provincial level for England and Wales in 2019-2021) we implement sentiment analysis using AI algorithms to identify the pro- or anti-vax sentiment of each Tweet. Next, we compare the expressive rhetoric in Tweeting (which clearly does not have any direct practical effect on contagion) and actual vaccination behaviour when the cost of lives is importantly factored in the behaviour. Finally, we obtain instrumental variables – proxies for ecologically relevant behaviour such as the use of cars and the sorting of garbage in a living place before the pandemic, and we use these proxies for the context of social welfare concern as a predictor of the individual emotion and preference towards vaccination. We employ the Culture Based development approach to quantify local cultural context and the stock of local cultural capital to further delineate between the cost-benefit of vaccination and the clearly identified cultural bias on the regional level. A hierarchical model shows clearly the statistical sources of influence on the final individual preference for or against vaccination. Our study helps to distinguish empirically the rational cost-benefit analysis of vaccination from the cultural impact of the local social welfare concern. These findings are particularly helpful because they indicate how seeming bounded rationality emerges not due to cognitive boundedness, but due to cultural embeddedness and social pleasing of the context in which an individual finds themselves embedded.

Towards Productive Cities: What Role for Cultural Policy and Small Manufacturing?

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Alicante-S46 Innovation and Sustainability in Developing Countries, 1-D12, September 1, 2023, 9:00 AM - 10:30 AM

As a component of economic development and urban regeneration strategies, the use of cultural policy is increasingly uncontested. However, this consensus masks serious dilemmas regarding the policy choices and implementation of economic and cultural development. Indeed, policymakers have traditionally viewed the cultural economy either as an appendage of the knowledge or creative economy or as a means to increase consumption (Evans, 2009), implying that art and culture are consumer goods that enhance the attractiveness and image of the city. This has led to an increasing polarization and bifurcation of cities culturally and economically around knowledge industries.

While these policies, overly focused on knowledge-based industries, seek to rid cities of the legacy of manufacturing and land use, there is a real resurgence of interest in custom manufacturing, artisanal production, and additive manufacturing (Jakob, 2012; Thomas et al., 2013; Luckman, 2013; 2015; Anderson, 2012).

This gives the productive economy a major role, especially for developing countries. In this paper, we argue that cities can develop in a more equitable and sustainable way if they take into account and recognize their industrial and cultural heritage in their cultural and urban policy.

To do so, we start with an exploratory study to inventory the potentialities and specificities of the selected cities in a sample of developing countries, and then we resort to a series of "supervised and unsupervised" learning processes that will provide us with a typology of cities according to their industrial heritage endowments. The results obtained will be confirmed by the use of a "hierarchical" and "multi-level" model integrating the hierarchy in the decision of the various actors and the associated modes of governance. This approach will make it possible to identify the profile of a productive city. Repeated observation over targeted periods will allow to highlight and evaluate the learning process of cities in their evolution towards sustainability.

Urban regeneration in post-socialist countries: the Polish experience

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Alicante-G52-New Trends in Urban Development, 1-B03, August 30, 2023, 4:45 PM - 6:30 PM

Urban regeneration is a process that started as early as the 1950s in Western Europe and has gradually evolved. In the post-socialist countries, including Poland, regeneration processes started on a larger scale after accession to the European Union, in most cases in 2004. The starting point for urban regeneration in the post-socialist countries was the knowledge and experience of the "old" EU countries up to the end of the 20th century. On the example of the Polish experience an analysis of the use and adaptation of the concept of revitalisation to the conditions of cities in a post-socialist country will be presented. The research encompassed all cities in which regeneration processes were carried out after 2004 - a total of 698 cities out of the 930 existing in Poland. The analysis of 14,600 regeneration projects in these cities made it possible to identify the specific characteristics of urban regeneration in Poland, which are: (1.) concentration of projects in city centres, (2.) public character of the vast majority of projects (3.) the investment, infrastructural character of most projects.

Understanding cross-border regions from the mobility of people: New insights from Big Data

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Alicante-G42 Big Data and Regional Science, 1-B03, August 31, 2023, 2:30 PM - 4:15 PM

One paramount priority for the EU is to enhance growth and cohesion in the internal border regions through cross-border cooperation and governance. To understand how cohesive policies and effective planning and development enhance cross-border integration, we need information from the perspective of people. In the EU, people cross borders for various reasons – migration, tourism, work and education, meeting family and friends. We also witness increasingly more people whose daily lives are not confined to a fixed territory of one country such as cross-border commuters and people with multi-local living lifestyles between different countries. These interactions and mobilities crossing country borders not only affect individuals' social connectedness and integration (e.g. social networks and place attachment) in border region, but also contribute to the (re)production of functional cross-border regions.

Regardless of its growing importance, however, little attention has been paid to cross-border practices of (local) people beyond migration and tourism. How, where, when and why habitual and recurring mobilities across country borders take place? What kind of temporal rhythms and trends these cross-border practices have over time? How cross-border practices of people are affected by external factors? How to evaluate the impact of institutional instruments (e.g. the ERDF) on the daily lives of local people in border region? For these questions we lack appropriate data source – register and census data can't capture the dynamic nature of border mobility, and large-scale surveys are time and resource consuming capturing only one point of time.

We propose that inherently transnational big data sources like social media can provide much needed new insights into cross-border mobilities. Stemming from literature showing that social media reveals mobility of people, we consider human mobility as a tool to understand society – it indicates social interactions that form functional systems like border regions.

We show in case of several case studies in Europe as the proof-of-concept how openly available Twitter data can reveal spatial distribution of cross-border mobility flows, its temporal rhythms and how it varies by mobility type. We demonstrate how functional border regions can be delineated from mobility flows and compare with official Interreg regions. We discuss the feasibility of our approach to monitor development projects, evaluate cooperation and governance actions of border regions from the perspective of (local) people. Finally, we address future avenues in enhancing our conceptual framework and methodology.

Developing the Lockdown (LDI) and Home-Office Indexes (HOI) to measure Covid shock on urban and rural labour force in Denmark

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Alicante-S60 Economic transformation and the geography of firms, human capital and growth, 1-D12,
September 1, 2023, 11:00 AM - 1:00 PM

This study aims to develop parameters to identify the effects of involuntary lockdowns during Covid-19 on the local economy and labour market. The paper is an exploratory study that generates Lockdown (LDI) and Home-Office (HOI) indexes and constructs a dummy parameter – Covid-Shock. In this article, we have three main goals. Firstly, we aim to develop parameters using Danish micro register data per person from 2020 and 2021 to identify the individuals that could be affected by the involuntary lockdown requirements during the Covid-19 pandemic period and to identify the parameters that measure their resilience on the local labour markets. We approach this as an explorative experiment, as the micro register data does not contain any direct information that can indicate how individual in the labour market was affected by the Covid pandemic. Secondly, the aim is to develop an indicator that can estimate the Covid impact on a person in the labour market – we refer to it as Covid-Shock dichotomous dummy. Thirdly, The Covid-Shock variable is applied to estimate the probability of the effect of the pandemic on the working population and provide a comparison of the Covid-Shock impact in urban and rural types of municipalities in Denmark. In this article, we apply longitudinal micro register data from Statistics Denmark for 2020 and 2021 and a Probit model to observe significant probabilities of the person's resilience concerning their characteristics and conduct the pairwise comparative analyses of marginal effects of the Covid Shock on the individuals regarding their workplace municipality's urbanisation type.

Credit card debt puzzle in China: a survey study

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Alicante-G12 Fintech, technology, and financial inclusion, 0-D03, August 31, 2023, 2:30 PM - 4:15 PM

The credit card debt puzzle (CCDP) refers to the behavior that consumers simultaneously hold high-cost credit and low-yield liquid assets, which brings individuals a substantial amount of unnecessary interest cost. Most empirical studies focus on western countries, where people have the tendency to overspend and do not save too much. Limit studies consider Chinese financial markets, and they mainly used existent datasets in which the definition of revolving debts seems ambiguous in some cases. Therefore, in this paper, we first identify whether the CCDP exists in Chinese financial markets, and then investigate the possible explanations for the CCDP if exists.

In the paper, we conduct an online survey in which we clarified the potential ambiguity of revolving debts, i.e., excluding debts in interest-free periods. Furthermore, considering the typical feature in Chinese financial markets, i.e., the prevalence of third-party credit platforms like Huabei, we extended the definition of “credit card debt” by including debts in third-party credit platforms. Moreover, in the survey, we consider potential explanations as listed in the literature: e.g., precautionary liquidity demand, strategic bankruptcy, financial literacy, and etc.

By conducting Wilcoxon signed-rank test, no significant difference is detected between the debts from the usage of credit cards and via third-party credit platforms, therefore, we extend the definition of revolving debts by including data on third-party credit platforms. In our data set, around 25% credit card holders have a credit card balance not paid in full, and more than 75% of them simultaneously have savings in current account balance.

After controlling factors like age, gender, education, work, etc., as shown in logistic regressions, the probability of being involved in the puzzle is positively affected by individual’s precautionary liquidity demand, implements of bankruptcy law, and habits of investment and repayment. Moreover, individual’s financial literacy level decreases the probability of having this puzzle. The results hold under a robust test by including individuals’ time deposits.

Resilience in a Rural Area: Economic Resilience and Community Capitals

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Alicante-G05-O1 Economic development in rural places, 0-C04, August 30, 2023, 11:00 AM - 1:00 PM

Empirical studies analyze how different factors affect economic resilience in a community, including the three main factors that determine its duration, depth and recovery. Small towns need to be related to major cities to better understand the economic forces at play. Pender et al. consider that growth and economic stability depend on the wealth of communities, emphasizing the importance of physical, financial capital. Political capital determines the distribution and access to resources and the ways in which they are used, natural capital determines the quality of a region, cultural capital determines how people think about the world, and finance capital determines wealth within a community. Intellectual capital is separate from individuals and contributes to well-being in many ways, providing economic resilience in adverse circumstances.

Previous studies on economic resilience include efforts to explore and model resilience with indicators such as judicial independence, impartiality of courts, and education and health levels. Resilience is a function of underlying community capital wealth and its distribution, including the selection of control variables to estimate the value of each capital. In our paper we hypothesized that resilience is a function of underlying community capital wealth (financial, physical, human, social, political, cultural, and natural) and distribution.

MIC-MIC is a proven methodology for a global problem such as resilience in the vast rural areas of the United States. Studies estimated several models using a long list of possible stock variables to estimate each community capital, selecting 24 variables for their significance and alignment with the existing literature. The data used is at the county level within the period 2007-2009, and data from 2005 was used because it was the last figure before the recession.

The main innovation of our study is the application of a proven MIC-MIC methodology to a global problem, such as resilience in the extensive rural areas of the United States, 3108 countys, in which the input variables in the model are each of the variables that make up community capital (financial, political, social, cultural, natural, constructed and humane) and the output variables are recovery, duration, and depth of the crisis, which make up resilience.

The Practice and Potential of SITES v2 Rating System for the Sustainable Design of Landscape

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Online-G27 Innovation and Sustainable Development, August 28, 2023, 11:00 AM - 1:00 PM

The landscape is a synthesis of the cultural and natural processes of a place, which can be designed and maintained to be ecologically resilient and thus to be able to both improve and regenerate the natural benefits and services of ecosystems. As such, how to develop and manage our landscape will play a significant role in the health and welfare of humans in the future. The Sustainable Sites Initiative was an interdisciplinary group effort that developed a rating system that identifies and advances best practices for landscape architecture. SITES v2 Rating System was produced through a multi-year iterative process. It is presented as a systematic, comprehensive set of guidelines to incentives sustainable landscape practices by using an ecosystem services framework. Opportunities for continuing research on how SITES v2 encourages the creation of a landscape sustainability system and drive more sustainable land development to become apparent as it expands in application, scope, and impact. In this study, taking the SITES gold-certified project Navy Pier in Chicago as a case study, the authors aim to illustrate the practice and potential of SITES v2 for sustainable design of a landscape. The results show as an important tool for transformation from theory to the implementation of ecosystem services, SITES v2 is being used to guide design decisions toward sustainable outcomes. It also can promote the entire project accountable to a higher standard of best practices and result in a more sustainable site. In the context of practices of contemporary landscape architecture, SITES v2 may lead to the transformation in sustainable landscape design. Our study can promote the ongoing application of SITES v2 and the creation of a better sustainable landscape through design. It holds the potential to highlight how the methodology on which SITES has been created, can be linked with future cities development and urban landscape management.

Climate risks integration in the developing countries' territorial planning

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Online-S22 Spatial dimensions of climate change, August 28, 2023, 2:30 PM - 4:15 PM

The adaptation of territories to climate change has become an inescapable reality that questions public policies on how to develop our urban and rural territories, particularly through the issue of mobility, the use and management of resources, and the maintenance and protection of biodiversity.

Through a well-thought-out planning process that integrates climate and environmental issues, territories strengthen their sustainability and resilience. Indeed, the way we plan is crucial; it allows us to create an adequate framework for the actions to be taken.

In this work, we will seek to know how to integrate climate risks and extreme events (floods, heat, drought, fires, storms, earthquakes ...) in territorial planning. Such an approach can ensure the resilience of urban and rural territories to climate change and allow municipalities to develop local public policies based on the assessment of risks and potential impacts of climate change on the territory?

To do so, we will exploit risk assessment and decision support tools, unsupervised learning methods and time series modelling.

We exploit a database that integrates the variables of interest: Land use rate, Biodiversity index, Carbon footprint, Water resources, Climatic events, Population growth rate, Migration, Schooling rate, GDP per capita, Number of companies installed, Green area per capita...

The expected results, from a sample of developing countries, turn around the Identification and classification of climate risks, the determination of indicators of evaluation of climate risks on territorial planning, the elaboration of a cartography of the zones at risk and the proposal of orientations of territorial planning.

Capitalization of one-off privatization windfalls versus long-term redistribution of intergovernmental grants

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Alicante-G02-O3 Regional and Urban Policy and Governance, 0-C01, September 1, 2023, 9:00 AM - 10:30 AM

This paper compares the capitalization of short-term windfalls versus long-term budget adjustments. We do this by estimating the capitalization of (1) unexpected local public windfalls from the sale of shares in energy companies (Benda et al., 2021) and (2) the redistribution in the equalizing grants from central government to municipalities (Allers & Vermeulen, 2016) in the Netherlands. Previous work on such grants found a capitalization of 100 percent (Allers & Vermeulen, 2016). The windfalls from the sale of energy companies differ from this grant redistribution because of their temporal nature. We argue that the temporal nature of the additional windfall funds limits budgeting and spending options, which may have severe implications for the capitalization effects of the funds.

While economic theory suggests that additional public funds should be allocated to government goods and services equivalent to the marginal propensity of governments to spend income, the well known flypaper effect describes how additional grants are commonly used to increase public spending, not lower taxes. In line with the flypaper effect, previous research showed that the additional funds from privatization windfalls as well as the redistribution of equalizing grants were mostly used to increase spending, not lower taxes (Allers & Vermeulen, 2016; Benda et al., 2021). Despite the apparent flypaper effect, Allers and Vermeulen (2016) still found the redistribution of equalizing grants to be fully capitalized, suggestive of an economically efficient allocation of these funds. We hypothesize that the financial health of a municipality may be a factor in the allocation decisions and associated capitalization effects.

We use a combination of TWFE and DID estimations to identify the capitalization effects in housing prices of (1) a permanent change in budget due to the redistribution of intergovernmental grants and (2) one-off energy windfalls. Furthermore, we estimate the mediating role of municipal financial health.

Allers, M. A., & Vermeulen, W. (2016). Capitalization of equalizing grants and the flypaper effect. *Regional Science and Urban Economics*, 58, 115–129.
<https://doi.org/10.1016/j.regsciurbeco.2016.03.005>

Benda, L., Roelofs, G., & Allers, M. (2021). Geld moet stromen? De verkoop van energiebedrijven door gemeenten. <https://www.cpb.nl/geld-moet-stromen-de-verkoop-van-energiebedrijven-door-gemeenten>

Urban resilience versus allotment gardening. Allotment gardens during the Covid-19 pandemic in a city with a shortage of plots.

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Alicante-G30-O2 Covid-19 and regional and urban resilience, 0-D04, September 1, 2023, 9:00 AM - 10:30 AM

AGs allotment gardens are a multifunctional space that, by combining recreation with food production, contribute to urban resilience. Their potential was particularly evident during social and economic crises. The COVID-19 pandemic provided an opportunity to revisit allotment gardening in the midst of an unprecedented health crisis. This article aims to identify the significance of AGs during the COVID-19 pandemic and to assess its impact on the functioning of AGs and allotment communities. The city of Poznań (Poland), which has been characterised by a shortage of plots for many years, was studied in detail. We attempted to answer the following research questions:

Did the pandemic affect the increased interest in plots, and to what extent?

Has the pandemic changed the profile of the plot holder?

How has the pandemic affected the functioning of AGs and the development of plots?

What are the benefits of owning an plots in times of crisis?

Has the pandemic affected the approach of municipal authorities to allotment gardening, and to what extent?

A survey of new plots holders and in-depth interviews were conducted with AGs managers, representatives of PZD OZ Poznań and municipal authorities.

Our research indicates an increased interest in plots in AGs under the influence of the health crisis. Demand far outstripped supply and, as a result, their prices increased 2 - 3 times. The pandemic had a 'rejuvenating' effect on the gardeners community. Plots during the pandemic were mainly purchased by people aged 36-50. Half of the new plot holders had children. AGs were available to plot holders and their relatives throughout the pandemic. During the height of the restrictions, they became practically the only place in the city where it was safe to be away from home. Massive events were abandoned during the lockdown period. It was found that the plot during the pandemic - isolation and lack of access to other green spaces, was helpful in maintaining mental and physical health. It was seen as a safe space for recreation and gathering. For half of the respondents, the plot was a place for contact with nature. It was much less common for respondents to identify the opportunity to produce food as a benefit of having plot. The research indicated that the pandemic did not so much change the attitude of the municipal authorities towards AGs as it 'sharpened' the general trend of caring for urban green spaces.

Objections to some conventions in non-parametric analyzes of regional agricultural production.

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Alicante-YS05 Modelling Challenges - EPAINOS, August 31, 2023, 11:00 AM - 1:00 PM

Nonparametric analyzes of regional agricultural production is frequently motivated by sustainability goals. In theory, an efficient allocation of production inputs and increased production outputs induced by innovations and technical progress could allow to save on scarce natural resources while simultaneously expanding the provision of food and fiber. Policy recommendations derived from two-stage analyzes thus confidently advise policy makers and farmers to modernize, specialize or scale up to counteract technical inefficiency. In this paper two major objections are presented to these conventions within the agricultural economics literature. First, we show that when spatially differing climatic conditions are sufficiently considered in two-stage analyzes, conventional policy recommendations are not valid anymore. Second, we argue that from a production-theoretic point of view, the traditionally employed technical efficiency model fails in providing information on sustainability of agricultural production. We thus suggest to conceptually decompose technical efficiency into an operational and a physical efficiency measure. For the period 2004 to 2018, we find a stagnating trend in physical productivity in the agricultural sectors of 122 European regions. In conjunction with the subordinate role of contextual to environmental determinants of inefficiency we propose to neither motivate studies with sustainability goals by default nor derive policy recommendations whenever the impact of environmental factors is not sufficiently considered.

Evaluating the relationship of urban characteristics with the productivity of Higher Education Institutions.

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Alicante-G16 Smart Specialization, 0-C02, August 30, 2023, 2:30 PM - 4:15 PM

While the importance of higher education institutions (HEI) for the economic development and innovative power of cities and adjacent regions has long been established in the literature, little is known about how different urban environments relate to institutionally differing characteristics of HEI and i.e., their positioning in university rankings. The latter might be due to commonly analyzed data sets (e.g., ETER or Aquameth database) providing data on the aggregate national level or general administrative data (such as total staff or amount of funding) and thus do not allow for a consideration of individual intra-institutional settings and their embedding into an urban environment. Given the growing importance of tackling complex scientific research issues in inter- or transdisciplinary groups of researchers, one factor that has just recently received increasing attention by economists of science is the so-called division of cognitive labor. The latter supposes an efficient allocation of researcher specialization due to scientists' credit maximizing behavior. To the best of our knowledge, we are the first to have compiled a data set that allows for an empirical examination of this hypothesis, collecting specialization data of 20 universities regularly listed in renowned university rankings. The dataset covers the period 1890 to 2020 using HEI's institutional (instead of affiliated publication data) and contains information on individual professorial chairs' research areas and their disciplinarity. In order to measure the effect of specialization on research productivity we employ a nonparametric approach to relate citation output to professorial staff input. We differ from the existing literature by exclusively considering faculties of natural sciences and further differentiate the staff input according to disciplines within the natural sciences. Arguably, such a differentiation results in a granular model set-up that provides a suitable reflection of the substantially differing publication production processes of different scientific disciplines. In a second step, intra-institutional specialization is considered along covariates of local characteristics such as economic performance, access to human capital, country-belonging and native language. Preliminary findings (based on the subsample for 1890 to 1920) suggest that the degree of specialization as well as urban characteristics are important determinants of HEIs productivity.

Defining and Measuring Inequality across Social and Spatial Scales: The Experts' Views

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Alicante-S26-S1 Defining and measuring inequality across social and spatial scales: limits, thresholds, realities and perceptions, 1-D13, August 31, 2023, 2:30 PM - 4:15 PM

Inequality has been a long-standing issue and a terrain of theoretical and empirical discussions and debates in many disciplines in economics, social sciences, and geography. Despite tremendous progress in welfare levels worldwide, the problem of unequal allocation of wealth and opportunities remains a top priority in policy and spurs waves of scientific discussions and policy debates. Inequality manifests itself in various types considering outcomes, opportunities, membership, and treatment and different dimensions such as social, economic, spatial, intergenerational, and perceptual. A key, though often neglected, characteristic of these types and dimensions of inequality is that they are interrelated with each other in a variety of ways. This makes it difficult to reach an academic and policy consensus on the actual meaning of inequalities as well as to clearly understand the causes and effects among the different types and dimensions of the phenomenon. The paper adopts a holistic and integrated approach and provides proper definitions and metrics of the various types of inequality. Up to now, scant attention has been paid to the distinction between desirable diversity and inequality. Indeed, the existing bodies of literature, in the various scientific fields, neither indicate at which point differentiation becomes a problem nor provides any criteria to decide what is the critical tolerance level where socially desirable diversity turns into socially undesirable inequality. Thus, the paper examines the dialectic relation between diversity and inequality under different market, institutional and social arrangements. To this end, the paper draws on a questionnaire survey addressed to various experts (i.e., scientists, policy-makers, businesspeople) worldwide in order to explore their views on a number of issues concerning inequality. Particularly, the following issues are going to be addressed: (a) to provide definitions of inequality, (b) to provide measures of inequality, (c) to evaluate the importance of inequality, (d) to evaluate dilemmas and trade-offs that relate to inequality, (e) to detect drivers of inequality, (f) to suggest policies for tackling inequality. Such issues have long troubled scholars; yet, even today, they remain unsettled despite the advanced techniques and theories that have been available to researchers. Gleaning the experts' views through a questionnaire-based survey may shed new light on the above issues, in a manner that previous studies have not.

Types of Inequality: A Relational Matrix

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Alicante-S26-S3 Defining and measuring inequality across social and spatial scales: limits, thresholds, realities and perceptions, 1-C12, September 1, 2023, 9:00 AM - 10:30 AM

Though malleable – meaning different things to different people and in different contexts – the concept and the phenomenon of inequality encompasses discrete, yet overlapping and interrelated, types. Indeed, inequality segregations, both actual and perceived, among individuals, social groups and spatial entities can be analyzed through segmentation that refers to income, race, health, education and gender. Considering that a complex set of theoretical propositions, ideological preoccupations, and institutional arrangements are confronted with the hard evidence of frequent market and policy failures, understanding the relations among the types of inequality is, apparently, an extremely important task that may provide valuable insight both to academic theory and to policy-making. This is especially so in the light of the paradigm shift that is taking place, most emphatically in Europe, as inequality is perceived not only as a problem of (re-)distribution (i.e., inequality of outcomes) but also as a problem of processes (i.e., inequality of opportunities, inequality of membership, inequality of treatment). The paper adopts a holistic and integrated approach and compiles a matrix that relates the various types of inequality to each other in an interactive and dynamic manner, in a multi-level (i.e., micro-, meso-, and macro-) and poly-parametric context. Particularly, the paper is structured around interrelated research lines that investigate the causalities among the various types of inequality aiming at identifying path-dependent or cumulative causation processes that may cause multiple types of inequality to coexist, and even to reinforce each other, in different social groups and spatial entities, and may cause asymmetries between levels of aggregation (e.g., more people may be left behind in places left behind). Towards analyzing the interactions and the interdependencies among the various types of inequality, the paper is going to provide a thorough analyses of bodies of literature that lies within the scientific fields of economics, sociology, political sciences and geography. While tractability of the existing theoretical and empirical models limits the scope and the complexity of interdependencies among the various types of inequality, the paper is going to scrutinize the issue, thus informing the design of the pre-distributive and re-distributive policy interventions aiming to reduce inequality.

Effectiveness of the management process in remote work conditions in the public utility sector

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Alicante-G13-01 Urban Challenges and technological transformations, 0-E02, August 30, 2023, 11:00 AM - 1:00 PM

The information society's prospects for information technology have expanded business life's flexibility, making the working environment moveable from traditional offices to outside workplaces. Many public institutions have shown a strong preference for remote work, and it has become necessary as a result of COVID-19's effects. Therefore, the aim of the research is the identification of whether and under what conditions remote work is effective in terms of management processes in social services and administrative services that are public utility sector organizations. From this point of view, the study was carried out on 165 department leaders in social services and administrative services in Poland. 139 department leaders work in social services, and 26 department leaders work in administrative services. As result, It is found that the capacity to work in a team has a favourable and remarkable effect on accomplishing institutional goals in both services. Furthermore, it turns out that both services' organizational structures are flat and adaptable when employees work remotely. The performance level of accomplishing the objectives of public institutions through remote work is often low, regardless of the type of utility services. This conclusion shows that the integration of remote work with utility services has not been successful. In this regard, it is clear that they must improve their methods and procedures if they are to get better outcomes when working remotely.

Uncertainty of Supply Chains: Risk and Ambiguity

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Online-G41 Space and supply chains, August 28, 2023, 2:30 PM - 4:15 PM

Since several years, the fragility of global supply chains (GSCs) is at historically high levels. In the same time, the landscape of hybrid threats is expanding; new forms of hybrid threats create different types of uncertainties. This paper aims to understand the potential consequences of uncertain events – like natural disasters, pandemics, hybrid and/or military aggression – on GSC resilience and robustness. Leveraging a parsimonious supply chain model, we analyse how the organisational structure of GSCs interacts with uncertainty, and how risk-aversion vs. ambiguity-aversion, vertical integration vs. upstream outsourcing, resilience vs. efficiency trade-offs drive a wedge between decentralised and centralised optimal GSC diversification strategies in presence of externalities. Parameterising the scalable data model with World-Input Output Tables, we simulate the survival probability of a GSC and implications for supply chain robustness and resilience. The presented model-based simulations provide an interoperable and directly comparable conceptualisation of positive and normative effects of counterfactual resilience and robustness policy choices under individually optimal (decentralised) and socially optimal (centralised) GSC organisation structures.

Using a Geyer model for spatial point processes to estimate the effect of vision-zero on pedestrian crashes in New-York

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Online-G44 Modelling pedestrian behavior, August 29, 2023, 11:00 AM - 1:00 PM

An in-depth analysis of road safety performance is an integral part of the safe system approach and the Vision-Zero commitment. Statistics show that Vision-Zero has a fruitful aggregative long-term impact but data-driven disaggregate analysis of the short-term effect of Vision-Zero is scarce with knowledge gaps related to both outcomes and applied methodologies. In this study, we estimate a Geyer Saturation point process model for modeling the effect of Vision-Zero on crash intensity and dispersion before and after the implementation of Vision-Zero. Taking New York City as the case study, we analyze the effect gradual implementation of the policy starting in 2014. The before-and-after analysis data includes matching 8,165 pedestrian injury data with improvement location and completion dates, considering a two-year time lag before and after each improvement and a difference between treatment and a control site. Covariates include traffic exposure, proximity to land uses, vegetation, and risk-prone areas. The results show that the treatment has a significant short-term effect of holding down the increase in pedestrian-related crashes compared with the treatment group.

Cultural festivals and regional economic development: Evidence from the Epidaurus Festival in Greece

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Alicante-G38 Creative Industries and Regional Development, 1-B01, August 30, 2023, 2:30 PM - 4:15 PM

The international Epidaurus Festival has been one of the most prominent festivals in Greece and takes place at two ancient Greek theatres, in the Argolis region of Greece. Besides attracting visitors to the archaeological sites of the ancient theatres, the Epidaurus Municipality becomes an important cultural and tourist destination during the festival period. Running over the summer months each year, the Festival hosts a diverse range of cultural events, including theatre, music and performance, that create a vibrant social and cultural environment but also directly support the local economy.

The Festival that attracts more than 80,000 visitors each year has helped to put the region of Argolis on the map as an international cultural destination. The local economy relies on the Festival and hotels, restaurants and other tourist facilities have developed to service the festival goers. Furthermore, the Festival has boosted the employment opportunities for local people, both in the cultural sector and in related industries such as hospitality and tourism.

Our study explores the role of the Epidaurus Festival in regional development, drawing on empirical evidence. We use data from the Hellenic Festival S.A., the company that runs the Athens Epidaurus Festival, and employs almost 1,000 workers during the summer season to work in the Epidaurus Municipality. Furthermore, we conduct customer surveys that provide valuable quantitative information on the travel and consumer habits of the festival visitors. Interviews with the Festival Administration, the Local Authority and local agents involved in the tourist industry will enrich the analysis.

The paper aims to study the socio-economic impact of the Festival, by examining its contribution to tourism, infrastructure development, job creation and regional economic growth.

Firm Resilience and Growth during Economic Crisis: lessons from the Greek Depression

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Alicante-G11-R Entrepreneurship and Regional Development, 0-B02, August 30, 2023, 4:45 PM - 6:30

PM

The global financial crisis that burst in 2008 adversely affected business performance in many countries, especially in Europe. However, the impact of the crisis on entrepreneurship and business dynamics differed amongst countries, depending on their businesses resilience, the policies implemented, but also their predominant productive structure. The magnitude and length of the Greek depression have no precedent among modern middle and high-income economies. Still, to date, there is no systematic analysis of the impact of the crisis on entrepreneurship and business dynamism. This study attempts to fill this gap by examining individual firm, sectoral and regional level characteristics that might affect existing firm resilience and new firm survival rate. We use two sources of data with the most extensive coverage of small (sole proprietorship) and large (other legal status firms) firms containing information on entry and exit in Greece. Matching data from patents and trademarks allow us to examine the interplay between entrepreneurship and innovation. Our analysis focuses on the factors that help or hinder firm survival and growth. We find that the crisis increased the exit likelihood for a firm by 5% to 16%. Larger firms, with significant fixed assets, lower financial leverage, operating in concentrated industries, but also those that are innovation and export oriented tend to have better chances of survival compared to their counterparts. Furthermore, better chances of survival during the crisis years have been achieved by firms in the periphery, rather than the main metropolitan regions of Greece. These results are important for designing business policies not only in Greece but also for other countries facing similar crises.

Identity and place making in a temporal city: Syrian migrants in Kayseri and Gaziantep (Turkey)

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Alicante-G28-O2 Segregation, Social and Spatial Inequalities, 0-D03, September 1, 2023, 9:00 AM - 10:30 AM

This study analyses Syrian migrants' perception of temporality, spatial interactions and social identity building in Gaziantep, a frontier immigrant town historically linked to Syria, and in Kayseri, an inner-city with diverse immigration influx experience.

The conceptual approach of the analysis rests on space and place making theories (in particular theories of Lefebvre, 1991, 2005; Lynch, 1960; Jacobs, 1961), perspectives from architecture and urban planning (Boccagni, 2017; Pucci and Colleoni, 2016; and Schneekloth and Shibley, 1995), and sociology (Nawyn, 2016; Yuval-Davis, 2006). Our papers' scholarly originality centres on its interdisciplinary contextualisation of a transformative relationship between migrants and their host city space and time. Migrants' emotional attachments (Yuval-Davis, 2006) and spatial segregation is part of a complex process involving urban institutions and social stratification. Examining sense and place making processes help us understand better how collectively and individually migrants face temporal and spatial alienation, perceive cultural codes and re-locate new hybrid identities. Moreover, migrant identity, belonging and place making studies have generally focused on cities with migrant diasporas. Our research on the other hand considers migrants experiences in two medium sized inner cities that do not have established diaspora and transnational communities.

To study individual and collective identity forms and belongings we collected empirical evidence through a two-stage fieldwork. First, we conducted semi-structured interviews with 20 Syrian families from diverse socio-economic backgrounds in selected cities. Second, we designed an interactive urban tour which included cultural references, historical landmarks, and symbols of nationhood in each location. This experimental journey allowed participants go through a temporal journey through what host urban dwellers see as an iconic and defining landscape. The participants were asked to take photographs and write their feelings about objects and places that reminded them something or certain moving emotions.

Our conceptual approach and methods help broaden the field of immigration studies for different disciplines and supports building inclusive institutions not only for the benefit of immigrants but for all citizens in urban areas. Many international studies identify segregation of migrants in urban areas (such as Angotti, 2013; Marcuse, 2005) but local character and variations among cities are not well understood. Spatial segregation leads to structural inequalities, exclusion, and failure to implement democratic planning (İçduygu and Millet, 2016). Studies on Syrian refugees in Turkey identify that immigrant ghettos are being formed (Kavas, et al. 2019; Sönmez, 2019). Our project provides means to transform these immigrant territories to open, and sustainable spaces.

Intersectional perspectives on territorial inequalities Towards a new typology of 'left behindness'

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Online-G02 Regional and Urban Policy and Governance, August 28, 2023, 11:00 AM - 1:00 PM

'Left behind places' as a concept has recently gained significance in academic debates on territorial inequalities as well as in EU policy discourses. This paper offers a scrutiny of how the concept of 'left behind' is used in research, policy and political discourse to define specific areas facing territorial inequality, in order to then develop a possible alternative, intersectional view of territorial inequalities. 'Left behind places' as a concept calls for an alternative idea of 'development' that begins from the potentials but also from the actually existing problems of 'left behind' places. We share this call for a local perspective on development; yet we underline that perspectives of the people living in marginalized areas are - besides emerging as problematised protest voters – absent from the discourses on 'places left behind'. With a focus on the local experience, we propose an ethnographic approach to 'left behindness' that focuses on the material reality of persons living on site.

Technological Readiness and Economic Development: Evidence from the African States

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Online-G13 Urban Challenges and technological transformations, August 29, 2023, 2:30 PM - 4:15 PM

Sustainable technological upgrading of the African countries' production processes is considered a key strategy in order to bridge the inequality gap between developed and less developed countries. On the other hand, in order for several countries to utilize domestically the abundant natural and energy resources along their mainland. Technological diffusion in domestic production and local human resource training can achieve sound results in terms of economic development and, in some respects, even more beneficial than the Big Push model. The econometric model applied here aims to capture country-time fixed effects of urban development and external capital flows on technological development of 38 African states during the period 2008-2019. The quality of technological development is represented here by employing the Frontier technology readiness index (FTRI), for which data derives from the UNCTAD database. The empirical findings suggest that foreign capital investments enhance technological readiness, the latter being accompanied by low unemployment rates. However, it appears that good performance in terms of technological development occurs simultaneously with relatively poor performance in terms of urban infrastructure. The demographic pressures on urban infrastructure are expected to continue as long as rural population inflows into the urban agglomerations last, on the one hand, and on the other hand the persistently higher fertility patterns – compared to developed countries – in both rural and urban areas of African states. This perspective implies the need for the reorientation of foreign or national investment policies towards the expansion of urban residential stock, in order to sustain economic development.

Planning Model for Inclusive Development in Kolkata Slum for Fire Resilience

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Alicante-S28-Sustainable Cities and Inclusive Communities, 1-D14, August 30, 2023, 11:00 AM - 1:00 PM

Many aspects of city life are reflected in Kolkata's historic buildings, close-knit neighborhoods, vibrant ghats, landscapes, monuments, noisy bylanes, and slums. While being an integral part of the city, slums showcase the extremes of the city's economic and cultural variety, from the opulent and luxurious to the dismal and decrepit. People in slums face numerous risks on a daily basis in addition to the difficulties of living in blighted housing, poor sanitation, and a lack of amenities. This research aims to find and examine numerous potential vulnerabilities brought on by natural disasters. Due to the close proximity of dwellings, fires are a constant danger in slum regions. This article focuses on the importance of disaster preparedness in low-income areas. Tangra experienced a fire in 2008; Basanti colony in 2010; Kalikapur in 2012; Tiljala and Park Circus Train Station in 2014; Dumdum Park in 2015; Brace Bridge in 2016; etc. Two slums were chosen using a purposive sampling technique with the parameter of fire resilience to see if a higher socioeconomic level is associated with higher disaster preparedness. This study examines the measures taken to make the Basanti colony fire-resistant, using parallels to the knowledge gained from the experience of another undocumented slum, the Park Circus railway colony, which is also prone to flames. As a result, we've looked at model preparation for fire hazards in great detail. The viewpoints and suggestions of slum residents are examined in light of their precarious living conditions. This model planning as suggested for fire resilience will also lead to more inclusiveness among the slum population

Resources and commons in the “fabrik “of territorial transitions

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Alicante-S45 Commons as Enablers of Territorial Transition: Evidences, Assessment and Theoretical Perspectives, 1-C11, August 31, 2023, 11:00 AM - 1:00 PM

Geographers have recently pointed out an important limitation in the field of transition studies, citing an invisibilization of spatial realities as well as a "one-size-fits-all" finality that is ineffective for understanding the diversity of situations and mechanisms of transition. The valuational milieu approach is a proposal for overcoming these limitations. By capitalizing on the universal aspirations of transition, the latter articulate different resources of the territory in the search for solutions, often experimental, that can be developed and disseminated at the end of a process of legitimization generating a debate on the values mobilized. Such an approach makes it possible to move away from the classic methodological frame of reference centered on socio-technical systems to link them more directly to the relational, institutional, cultural and material dimensions that make up resources and territories, while taking into account the multiplicity of scales involved in this process. Our contribution aims to understand more precisely the importance of these resources in the development of these trajectories, from their distribution in space to the mechanisms allowing their mobilization. We also question the role of collective initiatives in this process, notably through the emerging question of the "new commons" as a modality of action and potential catalyst of transition dynamics at the territorial level. Indeed, the potential of the latter goes far beyond the initial Ostromian perspective and develops in a very diverse range of political and territorial initiatives. They question the foundations of the contemporary economic system and the social organization that results from it. The reflection that we propose is based on a crossing of experiences and results of different research projects on territorial development, more particularly in relation to the tourism and forestry sectors, in France and Switzerland.

Evolution of second home owners' practices, towards a "before and after" Covid-19?

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Alicante-S12 Regional transitions: Adaptation and transformations in the tourism sector, 1-C14, August 30, 2023, 2:30 PM - 4:15 PM

During the years 2020 and 2021, the world was hit by Covid-19. In order to limit the spread of the virus, most of countries introduced some travel restrictions. In Switzerland, in March 2020, the Government took a series of measures which were implemented all over the country. Among them travel restrictions and the rise of teleworking have favoured the occupation of second homes. Opening new hopes in tourist destinations for an evolution towards more regular use of second homes. The first objective of the research presented in this paper is to analyse the changes of practices occurred during the sanitary crisis in second home owners practices in the Valais Alps. The second objective is to present the remaining of these changes after the crisis and the implications for the municipalities hosting them?

The paper begins by presenting a literature review of the impacts of Covid-19 on second home owners' practices. Then, the studied area and the methodology used for the survey are presented. The paper continues with an analysis of the changes of practices observed (evolution of the frequency and duration of stay, the seasonality of the stays, the activities carried out, the use of new services, the involvement in the life of the destination, remote working, or the lending and renting of the property). Finally, the conclusion discusses the permanence of the changes presented. As with many previous crises, there seems to be a return to business as usual. Nevertheless some deeper changes seem to be undergoing (change in the duration of the stays, seasonality, etc.).

Firm Relocations and Heterogenous Returns to Commuting

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Alicante-YS09 Firm Dynamics, August 31, 2023, 11:00 AM - 1:00 PM

Abstract: This paper examines the heterogeneity in the returns to commuting for employees by using firm relocations as a quasi-natural experiment. The empirical design allows the commuting distance of workers to be exogenously affected by the relocation of the workplace they are currently employed at, controlling for location of residence. Our findings show that overall, there are no returns to commuting in Sweden. However, the heterogeneity analyses suggest the existence of an earning premium of commuting for highly educated workers, firms in the service sector and those located in the largest cities.

Fiscal Decentralization and Urban Agglomeration: Evidence from Indonesia

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Alicante-G17-O2 Quality of government across space and time, 0-D01, August 31, 2023, 4:45 PM -

6:30 PM

Indonesia has pursued fiscal decentralization for over two decades, and massive changes can be seen in many areas. People migrated to urban areas to find opportunities and improve economic conditions. This is due to regional inequality, both from an economic and opportunity perspective, where economic activities are concentrated in large cities, particularly in Greater Jakarta. The phenomenon of urbanization is the accumulation of the effects of the push and pull factors of migration to cities and the formation of urban agglomerations. However, the relationship between fiscal decentralization policies and increasing urban agglomeration is still debated. Will fiscal decentralization make cities more attractive by providing better public services and infrastructure and being an attractive place to invest? Or rather, these fiscal decentralization policies have increased the fiscal capacity of regions, particularly non-urban areas, thereby encouraging urban outmigration. This study examines whether the decentralization policy that has been in place for over two decades has promoted economic concentration in Indonesia's major cities, thereby strengthening urban agglomeration or vice versa; The policy of decentralization has increased the economic distribution to other areas outside the city, a so-called sub-agglomeration phenomenon appeared. We will apply the panel dynamic regression model to estimate the impact of fiscal decentralization on urban agglomeration, with control variables related to geographical aspects, facilities, infrastructure, and economic structure. Since potential endogeneity issues often arise when considering the relationship between decentralization and agglomeration, the instrumental variable (IV) method is used to estimate the variables in the model. This study provides new evidence on the relationship between decentralization policy as a political factor and urbanization phenomena in large emerging economies. In addition, this study will assess the role of two important policies in Indonesia: fiscal decentralization and economic distribution.

The place of Kraków's (Poland) branches of global IT corporations in global value chains

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Alicante-S65 Foreign Direct Investments, trade and local development: drivers and impact, 1-D14,
September 1, 2023, 9:00 AM - 10:30 AM

The activities of companies today are very different from their activities a few decades ago. An important phenomenon that we can now observe is the networked nature of companies of all sizes, especially global corporations. “Recent decades have seen the emergence of global value chains (GVCs), in which production stages for individual goods are broken apart and scattered across countries. Examples of this “slicing the value chain” phenomenon are everywhere “ (Johnson 2018:1). According to the standard understanding of MNE investment motives, MNEs invest abroad if they have one (or more) of three types of advantages. This is the ownership, location and internalisation (OLI) framework” (Crescenzi&Harman 2022: 38 after Dunning 1988).

For several decades, Poland has created favourable conditions for the location of enterprises of different sizes and industries. The improvement of key location conditions for the innovation industry has resulted in the appearance of branches of global IT corporations in some regions of the country, which are concentrated in the largest agglomerations. Key factors contributing to this phenomenon are the high quality of human resources (especially access to well-educated young people) and relatively lower operating costs (including labour costs).

With reference to the above premises, the subject of the paper will be the branches of IT corporations that are located in Krakow (Poland). The gradual location of more and more branches of IT corporations in Krakow on the one hand indicates the creation of favourable local conditions for their activities, but on the other hand they consequently influence the area hosting them.

The diverse activities they undertake, ranging from manufacturing to services/trade to research and development in their three activity profiles: Technology Hardware & Equipment, IT Software & Services and Semiconductors, confirms their differentiated role in the global value chains of the respective corporations. Therefore, the aim of the paper will be to identify the role that individual corporations play in GVCs.

Prediction of crime occurrence probability using machine learning and selection of CCTV installation locations

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Alicante-G42 Big Data and Regional Science, 1-B03, August 31, 2023, 2:30 PM - 4:15 PM

Our city is exposed to crime, and for the safety of citizens, it is necessary to analyze the urban space and come up with efficient countermeasures. One representative measure for crime prevention is the installation of CCTV in crime-prone locations. This study is divided into two stages. The first stage involves predicting areas with high crime rates in Sacheon, Korea, using crime data such as time and place, spatial data, and meteorological data processed in units of spatial 200mx200m cells. Machine learning is then used to predict and visualize areas with a high probability of crime on a cell-by-cell basis. Machine learning was applied using various algorithms, such as regression and decision trees, with training and test data sets in ratios of 7:3, 8:2, and 9:1. The prediction accuracy was identified by RMSE (Root Mean Squared Error), and the model with the lowest RMSE value was selected as the optimal model. In the second stage, blind spots in areas with high crime rates are identified, taking into account the current location and angle of view of existing CCTV cameras according to the height of the building. We assess the adequacy of the existing CCTV locations and identify additional installation points to maximize the effectiveness of crime prevention. Currently, Sacheon City is discussing the installation of CCTV based on the results of this study.

Prospects for Proptech Utilization in Urban Regeneration Projects

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Alicante-G32-O3 Real Estate and Housing Markets Issues, 0-D04, August 31, 2023, 2:30 PM - 4:15 PM

Since the emergence of the fourth industrial revolution, our society has faced enormous changes in its industrial structure and population. It also affected the property industry, and the new notion of 'proptech' has emerged. 'Proptech', a compound word for property and technology, is a service provided by combining real estate industry sectors such as property brokerage, valuation, and real estate development with the fourth industrial revolution technologies such as artificial intelligence and big data. This study explored the utilization of proptech in urban regeneration projects through the case studies of 8 representative proptech companies which are related to the urban regeneration field. The 8 companies are 'Engel Swing', 'Holo builder', 'Spacewalk', 'Sidewalk Labs', 'Zigbang', 'Skyroom', 'Homes', 'Wework'. The results of the case studies, there are 3 ways to use proptech in the urban regeneration field. First, Proptech can contribute to collecting big data in urban space. Second, through Proptech, urban resources and space can be used efficiently. Lastly, Proptech can support the decision-making for urban regeneration. The difference from previous studies in this study is as follows. It deeply researched domestic and global proptech companies which are related to the urban regeneration field and it found the ways for the proptech to use in the urban regeneration part.

Extreme Weather, Interregional Migration and General Equilibrium Outcomes

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Online-S22 Spatial dimensions of climate change, August 28, 2023, 2:30 PM - 4:15 PM

This study aims to offer theory and evidence that climate adaptation via inter-regional migration endogenously changes regional economic outcomes because migration elasticity to extreme weather shocks, such as wildfires and severe droughts, is heterogeneous across races and education levels. Using a dataset consolidating the U.S. Census Integrated Public Use Microdata Series (IPUMS) and historical wildfire records, I will first estimate a gravity equation to examine 1) the magnitude of migration elasticity to extreme weather shocks, 2) its heterogeneity across race and educational attainment, and 3) its potential determinants, such as housing affordability and racial segregation. Next, I will construct a quantitative spatial model that explains the spatial general equilibrium effect of heterogeneous household location choices by skill and race. Finally, counterfactuals will be constructed to analyze the impact of climate-induced migration sorting on welfare. This study aims to provide evidence to policymakers on whether and to what extent inter-regional migration functions as an effective climate adaptation strategy, and to what extent a general equilibrium effect derived by spatial sorting of skill and race mitigates its effectiveness, raising the need for policies that consider environmental justice.

Creative Destruction? The relationship between the creatives and gentrification

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Alicante-S17 Creative regions, 1-C12, September 1, 2023, 2:30 PM - 4:15 PM

An established theoretical and case study literature discusses how the creative industries, and Creative City policies, may drive neighbourhood gentrification. This literature is emotive but inconclusive on the size of these links; whether or not creative activity drives neighbourhood change or follows it; the mechanisms at play; and differences across creative activities and workers, notably the role of artists and ‘the arts’ versus creative services sectors.

This paper seeks to clarify these questions by testing the links between creative industries' presence and changes in residential gentrification and housing costs. We focus at the Output Area spatial scale in England and Wales, using rich microdata on house prices, rents, creative firms and workers as well as a range of controls for the 2000s and 2010s.

We use cross-section, linear probability models and a battery of robustness tests and cross-checks to estimate the relationship between creative activities (firms and workers) and gentrification. Preliminary results show positive but small links between creative industries and gentrification; larger effects for creative workers; and a range of interesting variations by neighbourhood, creative activity and worker type.

The role of neighbourhood effects in regional labour markets

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Alicante-G35-O1 Regional and Urban Labour Markets and Entrepreneurship, 0-D03, August 30, 2023,

4:45 PM - 6:30 PM

The objective of the paper is to investigate neighbourhood effects as spatial interactions in European regional labour markets in terms of domestic and cross-border regions looking for answers to the following two research questions. First, whether the evidence of neighbourhood effects in labour markets is also valid in the case of European Union countries' cross-border regions. Second, whether the existing neighbourhood effects are different in the sense of geographical and cultural distances. The analysis relies on the data of European NUTS-2 regions' unemployment and employment indicators as well as the characteristics of regions' human capital, demography, industrial composition, and country specific conditions such as institutional setting. Spatial econometrics methods like spatial lag model (SLM), spatial error model (SEM), spatial autoregressive model with spatial autoregressive disturbances (SARAR) are used to analyse regional labour markets. Geographical and cultural distances are used to construct weight matrices to conduct the analysis based on the implementation of spatial econometrics methods.

The estimation results show that both substantive and nuisance forms of spatial dependence exist for regional labour market indicators. That confirms the existence of neighbourhood effects in European regional labour markets. The results also indicate that cooperation effects dominate between the regions. The existing neighbourhood effects are different between the labour markets of domestic and cross-border regions. Neighbourhood effects within domestic regions lie on both geographical and cultural proximity and are much stronger compared to cross-border interactions. Spatial interactions between cross-border regions are statistically significant only when cultural distance is considered when analysing neighbourhood effects. Thus, while elaborating regional and labour policies, attention should be paid not only to the labour market developments of culturally and geographically close domestic neighbours, but also to the developments in culturally similar regions across international borders.

Job Polarization and the Urban Wage Premium

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Alicante-S60 Economic transformation and the geography of firms, human capital and growth, 1-D12,

September 1, 2023, 11:00 AM - 1:00 PM

The aim of this paper is to continue the path to tie together two large strands of literature. The first literature is concerned with the observation that people tend to earn higher wages in cities compared to the countryside. This observation is often called the urban wage premium. The literature is voluminous, and scholars have been very active during the last two decades.

The second strand of literature is that dealing with the so-called labor market polarization. This literature has its roots in the early years of the 2000s and shows an extensive documentation of polarization in the last 40 years at the U.S and European labor markets (Autor et. al. 2006, Goos and Manning 2007, Goos et. al. 2009). The polarization literature generally finds that the middle of the jobs/skill distribution is hollowing out.

We estimate the dependence of job growth and wages on economic density in one unified framework. We disaggregate the effects on a finer geographical level. In this way we can disentangle the relative importance of number of jobs and labor productivity for the economic magnitude of different occupation/sector groups, and on different types of locations.

First, we decompose the change in total economic activity in different jobs (occupation-industry combinations) groups into the number of employees and average wages. Then we relate these two changes to economic density overall in regional labor markets. This way we can gauge the relative importance of urban density for productivity and growth/decline of the number of jobs in the change of these in economic size. In a second step relate these results to the relative growth and decline of jobs. In this way we disentangle how much of the overall job polarization that can be related to urbanization effects.

The Reaction of Wages to Skill Shortage in Nursing

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Online-G35-O2 Regional and Urban Labour Markets and Entrepreneurship, August 29, 2023, 2:30 PM -

4:15 PM

Developed countries like Germany have been suffering from skilled labor shortage in nursing since a couple of years. Demands for wage raises have become a central theme in the public and scientific debate concerning measures to increase nursing labor supply. Exploiting regional and temporal differences, we analyze wage reactions to shortages in the market for nursing labor in Germany. Though the institutional settings constrain the development of wages in the care sector, the actual compensations of both geriatric and hospital nurses exhibit considerable amounts of variation. Using data from the German Structure of Earnings Survey (GSES) and the German Employment Agency, we analyze whether wages of nurses react to regional variation in the demand for care services. To address endogeneity issues, we apply a fixed effects instrumental variables approach as well as system GMM-estimation. We find wage reactions to skill shortage, although not in all care settings and ownership structures. Institutional differences play an important role. Publicly owned institutions pay higher wages where skill shortages are more serious. A finding that is driven by publicly owned hospitals, which make up for the vast majority of publicly owned care providers. Also, wages in outpatient care, which are predominantly privately owned, react to increased shortages. Providers of long-term inpatient care do not exhibit wage reactions, however.

Toward the Smart City Ecosystem Model

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Online-S38 Partnerships for innovation: building transformative innovation policies with local ownership, August 28, 2023, 11:00 AM - 1:00 PM

This study aims to present the processes and mechanisms of creating smart city ecosystems by examining the complex strategic choices and interactions among stakeholders operating at different levels of governance and engagement. Based on the literature review and in-depth analyses of a case study (Lublin, Eastern Poland) we demonstrate that the implementation of tailored strategic thinking using adaptation to global trends, exploitation of development potentials and niches, and stakeholders involvement allow for coordinating and mobilizing development processes leading to the creation of effective smart city ecosystems. In line with the defined smart city challenges, with the application of a three-stage research program, we create an implementable Smart City Ecosystem Model (SCEM). The contributions of the study are as follows: 1) provides new insights into smart governance, leadership in creating a sustainable and human smart city; 2) analyses of strategic choices in the creation of a stakeholder ecosystem and competitive business ecosystems based on smart specializations provide new opportunities for the design and implementation of smart city strategies. Therefore, the study provides a new multidimensional policy framework for smart and innovative cities at both strategic and operational levels that can improve the holistic management of cities and communities.

Behind Left and Right – Disentangling the voting behaviour of radical parties in Europe

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Alicante-S57 Perceived discontent, inequalities and the city, 1-D13, August 30, 2023, 4:45 PM - 6:30 PM

Over the past decade, there has been an increasing trend in voting for parties that are typically described as populist, in both the right and left side of the political spectrum. Previous research on populism tends to focus on developments of socio-economic conditions and value-change as the main explanation of voting preferences. In the study presented in this paper, we explore spatial variations of voting patterns in Europe and consider subjective well-being as an additional factor affecting political attitudes. Hereby, we particularly focus on parties typically described as populist and extremist. In particular, we use a multilevel modelling framework to analyse how regional variations in levels of subjective wellbeing (SWB) across European democracies are linked to different likelihood of voting for radical right and left parties. Our empirical investigation exploits the multilevel nature (at the individual and regional levels) of the European Social Survey (ESS) data, collected between 2010-2018. In addition, we examine the link between subjective measures of wellbeing and political preferences across Europe, along other conventional factors (i.e. economic insecurity and cultural variables). Our results build on previous studies in relation to the factors influencing the ‘geography of discontent’ across EU regions by explicitly considering individual subjective well-being measures as possible explanatory factors. Additionally, our findings also provide insights into the possible roles of strong regional community, cultural and emotional ties which may be associated with the decline of individual subjective well-being alongside long-term area level decline.

Smart city ecosystems integrating human, collective and artificial intelligence: Lessons from MaaS

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Alicante-S79-S2 (SAS) Is the New Economic Geography (NEG) Still Alive and Well in 2023? Smart Algorithmic Places and Artificial Intelligent Spaces, 1-E12, September 1, 2023, 11:00 AM - 1:00 PM

This paper presents the latest work from URENIO Research on smart cities, connected intelligence, and system innovations. We argue that smart city ecosystems generate connected intelligence by networking three types of intelligence: human, collective, and machine intelligence. In turn, connected intelligence and the binary couplings between its components become the key driver of system-level innovations and radical urban change in contemporary cities.

Our focus is on Mobility as a Service (MaaS), “a user-centric, intelligent mobility management and distribution system, where an integrator brings together the offerings of the multiple mobility service providers and allows end-users to seamlessly plan and pay for mobility through a digital interface” (MaaS Lab, 2018). MaaS is expected to bring radical changes in the organization of cities in the coming years, freeing cities from a mobility model based on private car ownership, and introducing more sustainable transport modes.

The paper contains four sections: Section 1 outlines key instances of the smart city paradigm and its main pillars, such as (a) the system-of-systems perspective of smart cities composed of smart ecosystems, (b) planning and projects for digitalization, optimization, and innovation of city activities and ecosystems, and (c) connected intelligence and binary couplings as the core drivers of urban change.

In Section 2, we discuss the components of connected intelligence, the main features of human, collective, and machine intelligence, the typology of binary couplings, and representative examples of binary coupling from different city ecosystems.

Section 3 presents a survey on connected intelligence in the MaaS ecosystem, which identifies binary couplings in critical decisions in setting up MaaS, such as planning, supply orchestration, demand orchestration, business model, and integration. We study MaaS from the perspective of digital platforms, platformization cities, and the new ways of delivering services through the aggregation of complementors, customers, and users.

Finally, in Section 4, we discuss how a connected intelligence perspective can guide innovation in the MaaS ecosystem, and we provide some conclusions on how binary coupling can contribute to system innovations that transform the way we live in cities.

Territorial consequences of the war in Ukraine - implications for transport systems

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Alicante-G34-O6 Transport and Accessibility, 0-E01, August 31, 2023, 2:30 PM - 4:15 PM

On 24 February 2022, Russian troops invaded Ukrainian territory. In addition to the enormous geopolitical and macroeconomic consequences, this also has implications at the regional and local level. The war conditions have changed the pattern of linkages and flows, formed in recent decades, not only in Ukraine, but also in neighbouring countries and across Europe. Mass migratory movements, under conditions of airspace closure, have created a new demand for land passenger transport. At the same time, trade and political relations have been greatly transformed by sanctions against Russia. These changes are confirmed by the results of the first studies on the directions of refugee flows.

The paper will present new considerations for the development of European-scale transport links resulting from the pattern of flows described in the ESPON IRiE project (Interregional Relations in Europe; Rauhut et al. 2022). These will include modelling the spread of Ukrainian refugees in Europe, as well as the effects of trade restrictions on regional economies (input-output). More detailed analyses will illustrate the situation in Poland. They will be based on the results of Polish National Science Centre (NCN) projects: Eucentra and Flows-PL. The territorial distribution of Ukrainian refugees will be presented, as well as the local structure of foreign trade (including Russia's share of trade). A separate assessment will be made of data on the traffic of persons and vehicles on Poland's eastern border in 2022 (according to the latest data from the Polish Border Guard on a weekly basis), broken down by the nationality of the persons crossing.

The results illustrating the pattern of relations and flows and border traffic will be compared to existing and planned transport infrastructure and to changes in spatial accessibility in Europe and Poland. Selected European investments (e.g. the newly proposed corridor of the TEN-T network, the so-called Via Carpatia; Rosik et al. 2018) will be assessed in terms of the generated changes in potential transport accessibility. On this basis, a critical assessment of current transport investment plans will be made.

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Agritourism, the Inflow of Foreign Workers and Economic Welfare in a Developed Country

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Alicante-S19 Regional development under the new wave of globalization and current introverted economic policies — Tourism, migration and RTA, 1-D11, August 30, 2023, 11:00 AM - 1:00 PM

This study examines the effects of labor inflow into a developed country with the agritourism sector under free trade and capital movement. The country comprises two regions: an urban area where the manufacturing sector is located, and a rural area where both the agricultural and agritourism sectors are located. We assume free labor mobility between the two areas and structural, frictional unemployment in the urban area. We demonstrate that under environmentally friendly agritourism and other reasonable assumptions, additional inflow of permanent immigrants without remittance will enhance the natural environment, the rural wage rate, and domestic welfare, and will reduce the urban unemployment rate and urban–rural wage gap. However, additional inflow of cross-border commuter workers who remit all their income to the home country will not cause any changes to the economy of the host country.

Precarious employment and well-being in the U.K: A regional science perspective

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Alicante-G35-03 Regional and Urban Labour Markets and Entrepreneurshi, 0-D04, September 1, 2023, 2:30 PM - 4:15 PM

During the past years, especially in the post Covid-19 pandemic era, the interest in precarious employment has increased, not solely as an academic discourse but also as a heated political and societal debate. The limited attention paid by regional sciences as a whole, and by economic geographers in particular, challenges us to examine the influence of geography on the individual precarity status through its potential spatio-temporal co-determination processes with macroscopic analysis hierarchies like households or regions. This research enriches the academic literature with three contributions. First, it quantifies the influence of regional and household characteristics on individual precarity after having proposed a three-pillar conceptualization of the phenomenon based on income, contract and "subjective precarity". Second, it provides evidence of precarity being a status holistically detrimental to well-being affecting one of its core elements, happiness. Finally, it questions whether fluctuations in individual happiness from year to year can be attributed to the transitions between standard employment, precarity and unemployment.

The Power of Density: Using Attracting Mechanisms to Enhance Learning, Matching, and Sharing in Agglomeration Economies

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Alicante-G07-O1 Regional Competitiveness, Innovation and Productivity, 0-D01, August 30, 2023,
11:00 AM - 1:00 PM

Research on business location has traditionally focused on knowledge transfer and the most productive and innovative firms, typically relying on agglomeration mechanisms like matching, learning, and sharing. However, we argue that complementing these mechanisms with attracting – a process resulting from population density that generates economies of density – is necessary to fully understand the theory of business location. Our study explores the existence of the hierarchical causal mechanism that occurs when 2nd line firms (non-innovative, less-productive retail and service businesses) and human settlement create an environment that attracts 1st line firms (the most innovative and productive businesses). Using an urban and peripheral context, we demonstrate that population density and business agglomeration jointly impact firms' placement in various sectors. Specifically, we reveal the functionally and spatially hierarchical impact of density and agglomeration externalities on business location decisions, where peripherality, local specialization, diversity, competition, and urbanization externalities play significant roles. We also confirm the existence of the strong mediation effect of agglomeration in the attraction mechanism (95%), and find that overall agglomeration elasticity with respect to population density is 0.76, increasing to 1.2 in the suburbs of large cities.

Spatial switching regimes regression: density-based cluster approach to deal with spatial heterogeneity

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Alicante-S27-S1 Applications of Advanced and Innovative Methods in Regional Science, 1-C13,
September 1, 2023, 9:00 AM - 10:30 AM

Spatial micro-econometric modelling often neglects the density of point data, which can generate spatial heterogeneity between high- and low-density areas. This can cause unjustified insignificance of regression coefficients and lead to wrong conclusions on relations between variables. In this paper, we propose the density-based spatial switching regimes regression, a semi-local regression approach that allows for obtaining group-diversified regression intercepts and slopes. We use the DBSCAN algorithm to detect spatially-continuous areas with similar densities of analysed points and conduct multi-group regressions and comparisons. Our model offers a solution between Geographically Weighted Regression (GWR) and global models and addresses the spatial heterogeneity resulting from diversified density. We evidence the importance of density-based modelling and demonstrate the efficiency of our approach compared to old competitive models. Our findings have important research and policy implications for spatial micro-econometric modelling.

Patent analytics as a fundamental tool for high-tech production chains creation in a region

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Online-G09-O1 Innovation and Regional Development, August 28, 2023, 2:30 PM - 4:15 PM

The world is at the edge of new industrial revolution which breaks current technological order, shatters existing technological and production chains. Objective forecasts are exceptionally crucial in such conditions, especially in science and technology. Without them, it's not possible to have a clear picture of goals and targets, possibilities and tools for the development of countries, regions, industries and companies.

One of the most formalized forward forecast methods is patent analytics and analysis of publication activity. The main data sources for those methods are patent and patent related information and scientific publications. It was shown by different researches that the patent indicators system utilization coupled with modern digital technologies for data analysis is not only a powerful and effective tool for the competition analysis, but also is a tool for technological development schemes creation for new technological areas. A Patent Landscape Report (PLR) takes a special place among the patent analytics tools. PLR utilizes digital, expert and scientometric analysis of patents which allows to visualize logical correlation between different indicators from massive informational data. Such an approach severely simplifies the process of its understanding and analysis.

The results of the Patent Landscape Report creation allows to define the most relevant technologies for the area of investigation which could become a fundamental component of new technological chains, adapted to the modern technological order in any region. Patent analysis of a technological area also allows to understand its economical perceptiveness, investment attractiveness and scientific and technological importance of any technology.

Formed and economically sound technological chains are a reasoned base for new high-tech economical and industrial sectors creation regarding to available in the region natural and intellectual resources.

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The effects of knowledge stock on green innovation by firms in China

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Alicante-S32 Territorial Capacity for Sustainability-Oriented Innovation and Transformative Change, 1-

E11, August 31, 2023, 2:30 PM - 4:15 PM

This paper empirically studies the determinants of green innovation in China using firm-level patent data. In addition to more deep structural changes argued for in the sustainability transformations literature, green technology development remains an important path to aid the shift of the economies towards sustainability. Improved understanding of conducive and adverse conditions for green innovation is thus important both for research and for decision-making.

Green innovation appears to be particularly important for large developing economies such as China. In 2020, China committed to peaking carbon dioxide emissions before 2030 and to achieving carbon neutrality before 2060. This goal requires China to change the economic structure and to develop a green economy with a sustainability strategy. The pursued key mechanism to drive the economic transformation is to launch more sustainable technological investment and use more green technologies.

In this paper, we combine Chinese firm- and city-level data to study innovation drivers. We distinguish between general innovation and green innovation and look for differences between drivers of general innovation and green innovation as well as for policy relevant findings. We focus on the role of different patents-based stocks of knowledge, in particular firm's own stock of patents, city-level stock of patents and distance-weighted total stock of patents from all locations in China.

In addition to confirming several classical hypotheses for innovation determinants, we find that non-green and other sector knowledge stocks have negative effects on the probability of green innovation, and only specialized knowledge has a positive effect. Furthermore, we study factors that improve absorptive capacity, allowing firms to use this external knowledge. This potentially has implications for innovation policy, implying importance of a more targeted support and networking.

Does inter-local cooperation reduce the intensity of tax competition? Evidence on inter-local industrial parks in Germany

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Alicante-S03-S2 Counterfactual methods for regional policy evaluation, 1-B03, August 30, 2023, 4:45 PM - 6:30 PM

Inter-municipal cooperation (IMC) has become increasingly widespread in the industrialized world. IMC refers to the voluntary cooperation of municipalities in a distinctly defined set of one or more tasks while it preserves local autonomy in the other tasks. In practice, IMC-arrangements cover a wide spectrum of municipal tasks. IMC enables local governments to internalize spillovers and allows especially smaller jurisdictions to exploit economies of scale and scope in the jointly performed tasks. Less attention has been paid to a possible downside of IMC: IMC creates a platform that facilitates the coordination of local policies among union-members that can be used for collusive purposes. In particular, this platform can be used to reduce the intensity of inter-local competition. Inter-local competition reduces the leeway of opportunistic governments and forces local governments to set low tax rates and provide high-quality infrastructure and services. If IMC leads to a reduction in inter-local competition, IMC may be harmful to economic growth.

So far, this downside of IMC has received little attention in the empirical literature. In the present study, we focus on inter-local industrial parks as a specific field of inter-municipal cooperation. We use data from four West-German states in the period 2000 – 2018 to investigate whether they are used as platforms to reduce inter-local competition. Inter-local industrial parks are a very good testing ground for a number of reasons. First, they require substantial joint investments and thus represent a strong commitment for long-term cooperation. Second, they are especially suitable for organizing tax coordination because they control important dimensions of the inter-local competition for mobile capital. If IMC is used as a tool to reduce inter-local competition, we expect to observe it for inter-local industrial parks. Finally, local business tax rates provide a clear-cut indicator for the intensity of inter-local competition.

We apply the generalized synthetic control method (SCM) to estimate the causal effect of inter-local industrial parks on local business tax rates. So far, this method has not been applied in studies on local tax-setting behavior. Moreover, we add to the still small body of studies that apply this method to a panel data set with multiple treatment and staggered treatment onset. Our analysis covers 38 inter-local industrial parks founded between 2005 and 2013 involving 117 municipalities in four West-German states. We show that significant effects on local tax rates occur under varying conditions in the states.

Impact of social programs on demographic trends. A case of Poland

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Alicante-G03-O1 Demographic Change, Population and Migration, 0-C03, August 30, 2023, 11:00 AM -

1:00 PM

Depopulation and ageing are the most significant demographic problems in Europe. As a result, social care is becoming the most costly of all the EU public expenses. In Poland, after 2015, this expenditure has been growing the fastest in history. Considering the value of family benefits, Poland takes third place in the EU. This is caused by "Family 500+" - the most extensive national social program after the systemic transformation. Initially, the benefit was paid monthly for the second and subsequent child without the income criterion. One of its main objectives was the need to increase the birth rate. The work aims to assess the demographic effects of the "Family 500+" program in Poland (started in 2016), particularly emphasising the spatial dimension and urban-rural relations. Firstly, the dynamic of demography in Poland has been analysed (since 2005). Secondly, attention has been paid to assessing changes in the population and the labour market in the regional context before and after the program's implementation. Thirdly, a possible impact of COVID-19 on demography was considered. Preliminary analyses indicate that the "Family 500+" program has not clear influence on increase in the number of births in Poland. It has not changed the late decision to have children. The work uses Statistics Poland and the Ministry of Family, Labour, and Social Policy data. The methods include spatial analysis, descriptive statistics, panel data modelling, and demographic indicators.

Assessing the impact of EU Structural Funds: Which funds are more effective in supporting regional performance?

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Alicante-G01-O2 Regional and Urban Development, 1-C11, September 1, 2023, 2:30 PM - 4:15 PM

The effectiveness of the European Structural and Investment Funds (ESIF), the EU's main financing tool for alleviating regional disparities and promoting regional economic development and convergence, has been the subject of intense debate among policymakers and academics alike. Interestingly enough, there is still no consensus regarding the overall efficacy of the structural funds, with a number of studies providing evidence of strong positive effects (e.g. Fidrmuc et al. (2019), Mohl and Hagen (2010) and Pinho et al. (2015)), while others do not seem to corroborate this conclusion. Moreover, recent contributions have placed emphasis on the issue of heterogeneity in terms of the region-specific impact of Cohesion policy (see, e.g. Di Caro and Fratesi (2021)).

This paper aims to shed new light on the issue of the structural funds effectiveness by employing recently developed panel time series econometrics techniques. This approach, building on the so-called unobserved common factor framework (see Pesaran (2006), Chudik and Pesaran (2015) and Chudik et al. (2016)), is able to tackle a number of methodological issues already identified in the literature (e.g. see Pienkowski and Berkowitz (2015)). In particular, this approach can accommodate both large, global shocks as well as more localized, spatial effects (e.g. in the form of spillovers or effects stemming from geographical proximity etc.). It can also account for the issue of (the various forms of) endogeneity – a focal point in the relevant empirical literature.

Using a novel dataset of EU funds payments covering a period of more than 30 years and 242 EU NUTS2 regions, available in the Cohesion portal, we empirically assess the impact of Cohesion policy on regional economic development.

Our results indicate that, for the panel as a whole, ESIF instruments have a positive and statistically significant impact on the economic performance of EU regions. As regards the region-specific effects, the vast majority of the regions exhibit a positive and statistically significant impact. Moreover, our results show that location matters for the effectiveness of Cohesion policy. Lastly, we provide some preliminary evidence pointing to a non-linear relationship between the level of funding and its impact of economic performance

Showing off your location: the use of toponyms in job vacancies

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Alicante-G50 Urban miscellaneous, 1-B01, August 30, 2023, 2:30 PM - 4:15 PM

The location of a firm is one of its most important strategic assets. Its immediate surroundings and premises have a significant impact on the day-to-day operation of the business and the well-being of its employees. At a broader scale of the city and region, the geographical location of the firm determines the level of access to resources, such as suppliers, consumer markets, and –especially important– suitable employees. Moreover, as documented in the extensive literature on urbanization and localization economies, the relative location of firms to other firms, related or not, plays a major role in shaping the firm's competitiveness and productivity. Finally, firms are influenced by the image of the city and region in which they are situated. Given the strategic role of the location, firms can capitalize on this as part of their organizational branding strategy. The location forms an integral part of a firm's identity, which may be reflected in the way that firms communicate.

We propose a novel data-driven approach to measure the extent in which firms incorporate their location, as part of their branding strategy, in the way they communicate about the organization. Using machine learning techniques, we extract toponyms as well as vernacular and informal place names from a large dataset of Dutch online job vacancy postings. Our analysis then consists of two parts. Firstly, we examine the frequency and context of place names used in vacancy texts. Secondly, we analyze the sentiments (adverbs) used to characterize locations to gain insights into their significance to the organizational identity.

In terms of contributions, our work aims to further the understanding of organizational branding and in particular the relevance of location in organizational brands. At the same time, by assessing regional differences in the use of toponyms and vernacular place names, the study unveils differences in regional images that may inform place branding strategies. Finally, it provides a technical framework to operationalize location sentiment in a data-driven context.

High-resolution estimates of mosquito exposure inequalities in Spanish urban areas. Activity space approach using call detail records

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Alicante-G28-O4 Segregation, Social and Spatial Inequalities, 0-C03, September 1, 2023, 2:30 PM - 4:15 PM

Income inequality and socio-economic spatial segregation have been increasing worldwide, including in many European cities over the recent decades. Particularly in Spain, the last decade was characterized by an increased income inequality due to income concentration at the top of the income distribution. Segregation can lead to an increased burden on already disadvantaged groups (for example, vulnerable populations are already disproportionately exposed to air pollution exceeding the maximum permitted levels). One such threat in Europe and, in particular, in Spain is the presence and spread of tiger and yellow fever mosquitoes that can carry Dengue, Zika, and Chikungunya. These mosquitoes have long been established in Spain, and species distribution models consistently show that most of the territory of Spain and significant parts of Europe will become even more affected in the future.

A growing body of literature suggests a correlation with socioeconomic factors that regulate the population's exposure to the vectors of infectious diseases. Specifically, higher mosquito presence was often associated with a lower income level. This evidence is not always consistent and some studies have found that mosquito concentration may be correlated with higher income areas as well. This is because wealthier neighborhoods may provide different yet also attractive environments for mosquitoes to thrive in, for example, water containers such as yard plants and swimming pools. Therefore, some communities may be contributing more in terms of mosquito-friendly habitat while also having more resources to isolate themselves from the associated nuisance and risks.

This research aims to answer the following questions: Are there any socio-economically and spatially segregated groups in Spain who are disproportionately exposed to mosquito-related risks? Are there any socio-economic groups or local communities who disproportionately contribute to the production of mosquito-friendly breeding environments while having the advantage of reduced mosquito-related risks?

Mosquito exposure inequalities are evaluated in densely populated Spanish functional urban areas at high spatial resolution. Taking into account the activity space allows us to go beyond the simplified understanding of socio-spatial segregation only through residential location and evaluate the segregation based on the range and available amenities, as well as the overlap of activity space of groups with different income. Using human mobility patterns based on call-detail records enriched within income, gender, and age data and crowdsourced mosquito reports from the Mosquito Alert app, we compare mosquito observations with the income Gini coefficient and gender-age structure of the population at the census district level.

Can the Metaverse and Its Associated Digital Tools and Technologies Provide an Opportunity for Destinations to Address the Vulnerability of Overtourism?

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Online-G36-O2 Tourism and Overtourism Issues, August 29, 2023, 11:00 AM - 1:00 PM

Overtourism has become a critical problem in many popular destinations around the world, leading to negative impacts on the environment, local communities, and the quality of the visitor experience. This article explores the potential of the metaverse, a virtual world that combines elements of augmented reality and virtual reality, and other new digital technologies for addressing the challenges of overtourism. Drawing on a systematic literature review of recent studies, the currently available technologies are listed, and their potential implications for the tourism industry and local communities are portrayed. It was found that while there is some evidence to suggest that the metaverse and its associated digital technologies such as the extended realities/XR (virtual reality/VR, augmented reality/AR, mixed reality/MR), can help mitigate overtourism, further research is necessary to investigate their effectiveness in reducing overtourism and their potential unintended consequences. This article makes an original contribution to overtourism research and adds to existing knowledge by providing a practical list of currently available technologies that could help DMOs and tourism professionals mitigate the negative effects of overtourism. The article concludes with suggestions for future research and practice in the field, highlighting the importance of continued exploration and innovation in this area.

Keywords: overtourism; metaverse; digital transformation; sustainability; destination management; tourism development

Connecting the urban technological scene: examining formal and informal networks within startup clusters

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Alicante-YS09 Firm Dynamics, August 31, 2023, 11:00 AM - 1:00 PM

The aim of this study is to investigate the interactions between technological startups in urban spaces, with a specific focus on the distinction between formal and informal connections. Utilizing Social Network Analysis (SNA) methods, this study measures network topology and examines the impact of informal interactions on the startup ecosystem. Results indicate that informal interactions are more crucial than formal connections for young companies. The spatial weight matrix (SWM) is employed as a source of information about informal connectedness in the urban entrepreneurial ecosystem, providing a deeper understanding of the dynamics that shape the startup ecosystem. This study contributes to the field of urban entrepreneurship and regional science by examining the role of informal interactions in shaping the startup ecosystem and providing a novel approach to utilizing insights from SWM as a description of a network topology.

Assessing the strategic significance of country geographic locations via spatial cooperative game theory: The case of selected countries in Europe, Asia, and North Africa

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Online-G19-O2 Cooperation and Local / Regional Development, August 29, 2023, 11:00 AM - 1:00 PM

This study methodologically identifies the strength and potency of geography to those who possess it. When combined with the size of countries' economies and geographic strategic characteristics, countries' rational benefit expectations from cooperative behaviour are identified via spatial cooperative games. The sources of coalition benefits are based on the multinational trade and the principles of scale and agglomeration economies of spatially cooperating countries. Game strategies and associated returns are generated and computed by a developed script. Later, an existence of core solution and economic returns from comprehensive coalition formations are optimally and rationally determined by using the prepared linear programming model. Besides, countries' least expectations from grand coalition and their marginal effects to grand coalition are observed with/without country scenarios.

Neighborhood status and housing development: Evidence from urban development decisions in the Netherlands

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Alicante-G32-O1 Real Estate and Housing Markets Issues, 1-B02, August 30, 2023, 11:00 AM - 1:00 PM

This paper empirically examines the relationship between the initial socioeconomic status of neighborhoods and housing development patterns in the Netherlands from 2013 to 2020. We generate a unique dataset by combining registry data on housing construction and demolition in the Netherlands with a novel spatiotemporal clustering methodology. This approach enables us to identify housing development projects and distinguish between different types of development. The findings in this paper show that the likelihood of a development project occurring in a neighborhood is not related to the neighborhood's socioeconomic status. However, this overall finding ignores substantial heterogeneity across different types of development projects. Looking in more detail, large-scale housing redevelopment projects are found to be more prevalent in neighborhoods with a low socioeconomic status, whereas infill developments and small redevelopment projects are more prevalent in neighborhoods with a high socioeconomic status.

Public care for the elderly – the case of Poland

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Online-G03-O1 Demographic Change, Population and Migration, August 28, 2023, 11:00 AM - 1:00 PM

Population in Poland is ageing very fast and the problem of care provision for the elderly is particularly important, since the healthy life expectancy is not increasing as fast as the life expectancy and the family support, although it is the main source of help for the seniors, is not working well. In Polish system the local governments are responsible for providing social assistance for those in need. Thus, in this paper we analyze the differences in the supply of social assistance services to the elderly in Poland on NUTS 4 level, i.e. in counties. This research investigates two hypotheses. First, big cities are exporting out the care for the elderly to the surrounding metropolitan regions. Second, the level of social assistance to the elderly is highly regionalized, what is connected to regional wealth distribution – it is higher in poorer regions. Our initial result confirm these hypotheses and show that the spatial distribution of wealth and differences in demographic structure between regions, as well as other local characteristics have a significant impact on the demand and supply of social assistance services. The legal system is of particular significance, since it dictates what are the obligations of the local governments towards the elderly and how these local governments have to finance their tasks.

Navigating Turbulent Times: A Spatial-Econometric Analysis of Tourism Resilience in the EU Regions

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Alicante-G36-O1 Tourism and Overtourism Issues, 0-E02, August 31, 2023, 2:30 PM - 4:15 PM

Tourism is a significant contributor to the economies of many countries, however, the industry is susceptible to external shocks, such as economic recessions, natural disasters, and pandemics, which can have a negative impact on the sector's stability and resilience.

According to WTTC data, the travel and tourism sector was a significant contributor to global GDP and job creation before COVID-19, accounting for 10.3% of all jobs and GDP. The pandemic caused a massive loss of \$4.9 trillion and 62 million jobs in 2020. But, in 2021, the sector's contribution to global GDP increased by \$1 trillion, and 18.2 million jobs were recovered. The European Union (EU-27), representing more than one-third of global tourist international arrivals, also experienced similar trends. In 2019, EU tourism represented 9.6% of GDP and 22.9 million jobs. Yet, COVID-19 caused a reduction of tourism contribution to GDP by 45.2% and 3 million job losses. While signs of recovery have appeared, the GDP increase was 25.4% in 2021 with less than a million jobs recovered.

The ability of tourism to recover from these shocks depends on a range of factors that influence its resilience. This study aims to investigate the determinants of tourism resilience capacity in the European Union NUTS-2 regions using a spatial-econometric approach.

We employ a dataset covering 242 NUTS-2 regions with tourism resilience (measured as resistance and recovery during 2019-2021) as a dependent variable. Moreover, independent variables include: i) tourism demand-derived indicators (tourist intensity, tourism, the share of domestic tourism, tourism density, tourism seasonality), ii) tourism supply-derived indicators (tourism capacity, tourism diversity, presence of cultural and natural heritage) and iii) control variables (GDP, innovation, governance). Data is collected from Eurostat and EU Tourism Dashboard.

To estimate results we employ several spatial regression estimators to capture spatial dependence among observations, as well as to perform a robustness check. More precisely, we use the Spatial Lag Model, Spatial Error Model and Spatial Durbin Model.

Results indicate which variables are most important for tourism resilience, as well as to capture potential spillover effects of tourism resilience between neighboring regions.

This study contributes to the literature and better understanding of tourism resilience capacity in EU NUTS 2 regions. The findings offer insights into the factors that influence the resilience of tourism and can help policymakers and practitioners to develop effective strategies to enhance tourism resilience and reduce the negative impact of external shocks on the tourism industry.

Managing cross-border projects towards more resilient cooperation in borderlands - the post-pandemic perspective

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Alicante-G38 Creative Industries and Regional Development, 1-B01, August 30, 2023, 2:30 PM - 4:15 PM

The work aims to identify the key consequences of the COVID-19 pandemic impact on managing cross-border projects financially supported by the INTERREG Programme and present the assumptions to build cross-border cooperation more resistant to crises. To solve the research problem the author conducted both qualitative and quantitative research on two borderlands where entities developed cross-border micro-projects during the pandemic. The research areas were: the Franco-German-Swiss borderland and the Polish-Czech-Slovak borderland which diverse the level of maturity of cross-border relations and dynamics of cross-border flows. The research revealed the key interdependencies between managing cross-border projects and the skills essential in this process during the pandemic. The conclusions concern also the long-term changes in the methodology of managing cross-border projects which are the consequences of the pandemic and can support the development of more resistant cross-border cooperation, particularly because the risk of rebordering increased after the pandemic.

Shrinkage in Space — Spillovers in a Bayesian Hierarchical Model

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Alicante-YS05 Modelling Challenges - EPAINOS, August 31, 2023, 11:00 AM - 1:00 PM

In this paper, I present a modelling approach to jointly investigate connectivity between observations and its consequences — spillover effects. The approach is fully Bayesian, and uses hierarchical shrinkage priors to flexibly provide regularization where needed and let the data speak where it is possible. I make the prior information that is embodied in the restrictive assumptions of previous spatial models explicit, and loosen them by estimating connectivity parameters. For effective estimation, I develop efficient sampling procedures and a Gaussian process approximation to evaluate Jacobian determinants.

Segregation and Generalized Trust: A Systematic Literature Review

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Alicante-G27-O1 Innovation and Sustainable Development, 0-C03, August 30, 2023, 4:45 PM - 6:30

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Generalized trust impacts a range of positive outcomes in social contexts. Hence, understanding and identifying factors that lead to optimal levels of trust is critical. In recent decades, several studies have suggested that socioeconomic and residential segregation would play a predominant role as a component that isolates individuals, thus preventing higher levels of trust. Identifying patterns of segregation would contribute to identifying those individual-level factors that intervene as determinants of trust levels in social contexts. To analyze the scientific evidence and the methodology used, we carried out a systematic review following the PRISMA guidelines applied to the Web of Science database. Using these inclusion criteria, we identified 12 studies that address the relationship between residential segregation and levels of trust in underdeveloped or developing countries. The studies are diverse concerning the variables included, such as phenomena of collective action in social contexts, development of social capital, conflict, and levels of urbanization, among others, and show robust results regarding the effects of segregation on levels of trust. In this sense, 75% of the articles were published in the last six years, which highlights the timeliness of the debate. We focus our discussion on the scientific contribution and methodology of this new stream.

Research & Innovation Collaborations Network in the EU

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Alicante-G09-O2 Innovation and Regional Development, 0-C02, August 31, 2023, 4:45 PM - 6:30 PM

This paper uses the R&I collaborations networks created by the EU Framework Programmes to demonstrate the causal impact of a region's network characteristics on its patenting activity.

Region's dependence on value chains - the impact of regionalization

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Alicante-S39 Dependency of regions in a fast-changing world: New contributions from regional IO modelling, 1-D14, August 30, 2023, 2:30 PM - 4:15 PM

This paper examines the short-term effects of some geo-economic measures, such as reducing foreign dependence and protectionist measures.

Our approach is grounded in input-output (IO) modelling, but we introduce an important novelty. Unlike the standard IO model we do not assume fixed coefficients. Nor do we assume changes in these coefficients based on, for instance, the (spatial) price elasticities in computable general equilibrium (CGE) models. Instead we minimize changes in production technology and demand behaviour due to a (policy) shock to the system. A more practical portrayal of our approach is that after a (policy) shock, we search for a new IO table that is as close as possible to the current (technological) structure as described by the A-matrix and the current size of the economy and trade flows as described by the IO table prior to the (policy) shock. With this, we give substance to the fact that economies cannot change dramatically overnight. The condition that economies change as little as possible, implies that relative as well as absolute changes in trade flows between industries and regions are as small as possible. This is represented as a (non-linear) optimisation problem in which both relative and absolute errors are minimised. Thus, we obtain a flexible model, with IO and CGE as ‘extremes’.

We calculate possible effects on production and trade of countries and regions for a number of scenarios. Preliminary results indicate that a large-scale reduction of foreign dependence in computers, electronic and optical products largely backfires on production in the EU. The EU economy cannot cope with the reduction of inputs. There is insufficient domestic production of computer, electronic and optical products to replace foreign supply. So, in the short term, bottlenecks arise. Unlike the EU, the United States is able to absorb the impact of a substantial reduction in foreign dependence in computers, electronic and optical products. This suggests that in the EU, capacity building as envisaged in the EU Chips Act may indeed be addressing a need. On the other hand, the US may not need a CHIPS Act to achieve reduced foreign dependence.

Parenting alone: health and socio-economic circumstances from a gender perspective

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Online-G28 Segregation, Social and Spatial Inequalities, August 29, 2023, 11:00 AM - 1:00 PM

Lone parenthood is one of the multiple accepted family types that make up today's societies, in particular, due to the rising rate of single-mother families. The literature reveals that single mothers experience poorer health outcomes than their married counterparts, mainly due to socio-economic difficulties. The aim of this article is to analyse trends in the health and socio-economic conditions of single parents (mothers and fathers) in Europe.

We use microdata from the three waves of the European Health Interview Survey (2006-2009, 2013-2015, and 2018-2020). Time trends were analysed by multivariate logistic regressions for estimating the impact of individual factors associated with single parents' health. Odds ratio of health outcomes are estimated in logistic regression models. Lone parenthood is defined as a mother or father living in the household with at least one of his/her child/children at the time of the survey without a partner due to divorce, bereavement, separation, neglect, disappearance, or being unmarried and who was the reference person.

Our findings show that both single mothers and fathers present higher risk of poor self-rated health than their couple counterparts, and within single parents, females present worse health status (long-standing health problems, chronic illnesses, and mental health) than males. These gender differences between single and couple parents are associated with the unequal distribution of socio-demographic and socio-economic characteristics. In particular, the deterioration of single mothers' health may be partly explained by the worsening of socio-economic determinants, of which the increase in part-time employment and the decline in both high incomes and employment contributed most.

This study highlights that single mothers are very likely to experience poor health status, which needs to be taken into consideration due to the increasing proportion of single-parent families headed by a mother. Understanding the socio-demographic and economic characteristics of single-parent families could enable the establishment of community-level interventions, strategies, and public policies to mitigate the adverse effects of lone parenthood and to support this vulnerable population group. Indeed, the negative effects are not only suffered by parents, but also by their children.

Capacities for Transformative Innovation: a draft framework

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Alicante-S38-S1 Partnerships for innovation: building transformative innovation policies with local ownership, 1-D12, August 30, 2023, 4:45 PM - 6:30 PM

Science and innovation policies have been called to address grand societal challenges through Transformative Innovation Policies – TIP. However, little research exists about the capacities required for innovation policy efforts to become transformative. This is especially pertinent considering the governance limitations identified in the implementation of “Smart Specialisation Strategies” during the Cohesion programming period 2014-2020, especially in less developed regions of Europe. Without capacitation of the policy making community and actors participating in the transformation process, we do not know, whether new policy frames success or failure stems from the quality of the policy model or from the willingness and the policy capacity of the participant actors to actually implementing it.

The question of what policy capacities are need to influence the system level conditions and dynamics, to expediently and purposefully ‘steer’ transformative processes and ultimately produce systemic change, remains open.

Building on recent studies from different areas with different epistemologies such as “systems thinking for social innovation”, “sustainability transitions”, “studies on transformation of urban systems towards sustainability” and existing attempts to define policy capacity associated to governance of transformative and missions oriented innovation policies, we propose a conceptual framework for analysing policy capacities, needed to design and implement Transformative Innovation Policies - TIP.

Estimating employment and value added in the bioeconomy of EU regions: A methodological proposal

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Alicante-G26 Spatial aspects of a Circular Economy, 0-C02, August 30, 2023, 4:45 PM - 6:30 PM

Rural areas are the stronghold of the bioeconomy, which comprises the sectors producing and converting biomass into food, bio-based products and bioenergies. The analysis and monitoring of the bioeconomy at the regional level is a cornerstone in the design and evaluation of EU rural policies, such as the Long-Term Vision for the EU's Rural Areas 2040 (European Commission, 2021a). It also aligns with policies aiming to a reduction in the use of fossil-based materials and energies (e.g. Sustainable Carbon Cycles communication, European Commission, 2021b). Although some studies already provided estimates of the size and/or regional distribution of the bioeconomy in some countries, there are no homogeneous data allowing the analysis of the regional dimension of EU's bioeconomy.

We describe a methodology to estimate employment and value added of the bioeconomy sectors at the NUTS2 level in the EU (see Lasarte-López et al., 2022). This approach consists of a systematic combination of national bio-based shares from the publically available JRC-Bioeconomics database with Eurostat regional statistics for allocating employment and value added of the bioeconomy sectors amongst regions. National bio-based shares are calculated following Ronzon et al. (2020)'s approach. When missing from Eurostat data sources, regional series are estimated by applying various criteria to regionalise national statistics. Finally, a range of missing data estimation algorithms are executed in order to complete the dataset.

Preliminary results evidence that the proposed methodology manages to fill in the majority of missing series and data in the initial raw datasets. Therefore, we are able to extract some key figures and trends for the regional bioeconomies in the EU. We then discuss our results through the comparison with available official statistics, other previous estimates and expert feedback to identify potential future improvements.

Sociology of Culture: The pandemic accelerates digital upgrading. The example of the Louvre museum and its impact on society

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Online-S07 Culture Based Development (CBD): Cultural Context and Social Psychology in Confronting
Urban and Rural Challenges, August 28, 2023, 2:30 PM - 4:15 PM

The relationship between museums and society undergoes constant transformations. That makes sense as the museum itself, over the centuries, has served different roles. In ancient times, people called 'museum' the temple of the Muses, dedicated to the nine Muses, daughters of Zeus and Memory, patrons of history, arts, and sciences (Γλύτση, 2002). The institution built by Ptolemy in the 3rd century BC was also called a museum. It was inside his palace and included a library, areas for astronomy and anatomy studies, a botanical garden, and a zoo (Αντζουλάτου – Πετσίλα, 2005). During the Roman era, 'the museum survives and turns into the Latin museum, which refers mainly to a place for philosophical discussions and not to a place that collects and exhibits objects' (Οικονόμου Μαρία, 2003, pp. 31-32). In the Middle Ages, monasteries and churches undertake the collecting activity. In the Renaissance, in the 15th century, the term 'museum' describes the collection of Lorenzo the Magnificent of the Medici (Ορφανίδη Λάια, 2003, p. 9). From the 16th century, nobles organised collections of a wide range of strange objects, which in German are referred to as Wunderkammer, but in English as Cabinet of Curiosities (Hooper - Greenhill Eilean, 1992). In the 17th century, universities opened public museums, such as that of Basel, founded in 1671, and the Ashmolean, in 1683 (Οικονόμου Μαρία, 2003, p. 33), while in the 18th century September 27, 1782, is considered a milestone when a decree was issued in Paris to establish a museum on the site of the old Louvre palace, which finally opened in 1793 (Hooper - Greenhill Eilean, 1992). Modern museums have long since ceased to be just for the collection, the exhibition, and the preservation of objects. Nowadays, they re-evaluate their priorities, taking seriously all visitors' wishes and needs. Moreover, the pandemic wave accelerated the adoption of modern technological options. The purpose of this study is to examine, through the example of the Louvre, to what extent the digital upgrade of large museums can contribute to the democratization of the institution and the highest possible inclusion.

Does agriculture matter to rural economies? Evidence from agricultural multipliers in the EU

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Online-G05 Economic development in rural places, August 28, 2023, 2:30 PM - 4:15 PM

Does agriculture benefit rural economies? In this paper, I show the surprisingly limited economic contribution of agriculture across EU regions, including rural regions. Even in remote rural regions, the direct economic contribution of agriculture is smaller than that of the service sector, as measured by the Gross Value Added and employment. Yet, agriculture could still matter if it has large positive multiplier effects on local economies. To investigate this indirect channel, I estimate agricultural multipliers for employment and for income in EU regions using shift-share instruments. For employment, estimates show little effect of agriculture on other sectors. For income, rather than a positive effect, I find that agriculture may crowd out manufacturing activity. This negative effect is robust to different income indicators and alternative compositions of the shift-share instrument. These findings suggest that attempts to stimulate rural economies in the EU by supporting agriculture may be misguided.

Inland and Portside Freight Rail Repairs and the Geography of Local Labor Markets in Colombia

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Alicante-G35-O1 Regional and Urban Labour Markets and Entrepreneurship, 0-D03, August 30, 2023,
4:45 PM - 6:30 PM

In 2012, the Colombian National Infrastructure Agency (ANI) announced a three-stage national development plan with dramatic infrastructure investments. As of 2018, the first stage of repairing the Bogota-Belencito and La Dorada-Chiriguana segments in the Red Ferrea de Atlantico ANI corridor was fully completed, and now the second stage of private procurement is ongoing.

The two rail segments had been damaged by severe winter weather in 2010 and stopped operation until 2018. After the renovation work, the full operation for both lanes restarted in May 2018. In the first year of reopening, each segment carried approximately 40,000 tons of cargo. The freight amount more than doubled in the following year. While the portside segment carries export goods, the inland segment carries intermediary goods and resources for domestic production.

Comparing how the railroad rehabilitations in inland and portside regions result in different labor market changes, I try to add scholarly evidence of infrastructure policy impact on rural jobs in developing economies with regional comparisons. What are the industry and magnitude differentials in the local production and labor market changes when freight infrastructure is introduced? Is the impact heterogeneous for inland and portside regions? Within each region, does a closer driving zone create more work hiring and businesses?

Using the Colombian social security registry for all formal firms and workers (Planilla Integrada de Liquidación de Aportes, PILA), I investigate time and space gradient changes in employment, worker wage, firm entry, and firm size. The differing impact is hypothesized across-region (inland and portside) and within-region (driving distance, time, and mile buffer). For within-regional measures, I use widely employed methods in transportation economic society such as geospatial network calculation and distance buffer to match to an administrative municipality, and later instrument with topological properties. From labor economic aspects, I plan to further investigate informal sector if data is accessible.

The nature of infrastructure policy is that it starts making an impact around government announcements and the impact is staged through the policy announcement → Design & Build → Finance → Operation & Management (DBFOM) phases. To study the multi-staged discrete treatment impacts for two treatment groups, the first empirical strategy employed is the multi-valued Difference-in-Differences (DID) and recent complements of the DID issues.

The rich information in the administrative data will allow sophisticated control group construction with matching and synthetic control. Various sensitivity analyses and placebo tests will follow.

Are Targeted Hiring Credits and Small Firm Promotion Complementary in Bundle? Evaluating the First Job Act in Colombia

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Alicante-S77-S1 Economic Complexity for Industrial and Innovation Policy, 1-E12, August 30, 2023,
11:00 AM - 1:00 PM

In an evaluation of the First Job Act's hiring credits term, my coauthor and I found that the hiring credit of the policy increased jobs for vulnerable workers such as youth, career-disrupted female, and low-income worker. The impact seemed particularly meaningful as it preserved the wage of the vulnerable. However, the job impact was insignificant for rural vulnerable. It is worth to evaluate if rural firms preferred non-vulnerable workers with high productivity when received cash windfall. Three rural states of Amazonas, Guainia, and Vaupes had received stronger support for small firm creation from First Job Act, independent to the hiring credits. In this version of paper, I study the policy impact for the vulnerable workers and small firms in rural region more extensively. Directly estimating the impact of the stronger incentives for small firm promotion in the three rural states, I disentangled the job impacts from the hiring credits and the small firm promotion. The Difference-in-Differences (DID) with Matching results for first five years show that the hiring credits for the vulnerable worker population were effective in rural regions, and even higher. However, the payroll tax reform for all workers introduced later offset the impacts. Firm promotion seemed ineffective widening the firm size gap. Is it because of potential economic boost and structural transformation in the rural regions? If so, is it a good idea to implement composite policy basket of worker and firm promotion? It will be valuable to find if the worker subsidy and firm promotion policies are effective when together or when separate from each other.

Characteristics of Inequality Areas by Comparison of the Multidimensional Poverty Index and Composite Deprivation Index

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Alicante-G54-Urban studies, 0-C02, August 30, 2023, 4:45 PM - 6:30 PM

Discussions on inclusive societies and inclusive cities are expanding to restore the spatial order and existential relationships between population groups in the region. In order to alleviate social exclusion resulting from inequality, it is necessary to implement policies suitable for local conditions. However, there is a lack of quantitative data or objective evidence to identify deficient areas in the region. The use of extinction index or the degree of decline as policy indicators is not detailed and is limited to specific areas, making it difficult to diagnose the level of inequality. In particular, it is necessary to objectively analyze and evaluate various regional conditions to pursue social integration, especially with the concentration of population in metropolitan areas resulting in growing concerns about social exclusion in small- and medium-sized cities. Therefore, there is a need to develop practical indicators and indexes that can enhance equity in underdeveloped areas of small- and medium-sized cities through comprehensive analysis. This study aims to develop complex deficiency indicators based on social exclusion theory and calculate an equity index based on this to identify spatially marginalized areas. Through this study, we propose complex deficiency indicators that can promote inclusive regional policies and provide them as data for regional planning to enhance equity in underdeveloped areas of small- and medium-sized cities.

Who are satisfied with life in cities? Evidence for 28 European countries

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Alicante-S78-S1 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 9:00 AM - 10:30 AM

A large literature has studied the urban gradient in subjective well-being, but few studies have examined for whom urban areas are good places to live. Using Eurobarometer survey data 2010-2019, we find that, compared to other sociodemographic groups, young, single and well-educated persons report relatively higher life satisfaction in cities than in non-city areas. The difference between men and women in preferences for city living depends on country income: men (women) prefer city living in countries with the lowest (highest) income per capita. The Nordic welfare states exhibit a distinct pattern as couples with children and the less educated report relatively higher life satisfaction in cities than singles and the well-educated.

Spatial differences in the climate vulnerability and adaptation challenges of Hungary

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Alicante-G21-O1 Climate Adaptive and Resilient Regions and Cities, 0-D02, September 1, 2023, 9:00

AM - 10:30 AM

The aim of this paper is twofold. Firstly, to explore the regional differences and pace of the ongoing climate change in Hungary. Secondly, to evaluate the spatial differences in climate vulnerability of the Hungarian municipalities with consideration of different climate parameters and socio-economic indicators.

The sources of the climate data was the Meteorological Database and the Klimadat database of the Hungarian Meteorological Service (OMSZ). The Meteorological Database contains preceding weather data for observation points. The following steps were taken during the procession of the data:

- Data collection
- Preprocessing
- Evaluation of the relation between elevation and climate
- Interpolation
- Determination of the suitable indices

Between the time periods 2002-2011 and 2012 – 2021 there was a radical shift in the some of the climate parameters in Hungary. The mean annual temperature was increased more than 0.75 °C, and this was accompanied by a drastic rise in the number of heatwave days. Change in precipitation was minimal in country-level, but shows a very distinct spatial pattern. In the western and southwestern parts of the country, there is a noticeable increase in the annual rainfall. On the other hand, significant reductions were observable in other parts of Hungary, especially in the northeastern territories.

The Klimadat database contains the spatial results of different climate scenarios. In the most extreme case, even an additional 2.6 °C mean annual temperature change is plausible until 2071-2100.

However, in line with the present trends, the scenarios for precipitation are diverging, with a chance for significant (but territorially varied) increase especially for the first climate window (2021-2050).

The spatial differences became more apparent after the use of more complex indices, e.g. the Palfai Drought Index.

The CIVAS model was adapted to determine the differences in the climate vulnerability of the Hungarian municipalities. While the selected climate and climate change parameters serve as exposure indices, different socio-economic indicators will be used to assess the sensitivity and adaptability of the municipalities. The exposure of general population, the agricultural sector and the tourism sector are also taken into account.

This research was supported by the Eötvös Loránd Research Network (ELKH), project title: “Possibilities for Hungarian local climate adaptation”.

Urbanization and the geography of societal discontent

Prof. Camilla Lenzi¹, Prof Giovanni Perucca

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Alicante-S78-S4 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 4:45 PM - 6:30 PM

The identification of the existence of a geography of discontent has been frequently interpreted as one of the most dramatic consequences of the surge of interregional disparities in the last decades, both within and outside the European Union (EU). This paper aims at contributing to this burgeoning field of research by understanding the role played by urbanisation in mediating the relationship between inequalities and the geography of societal discontent. By pooling data sourced from several Eurobarometer waves, this paper shows how urbanisation can mitigate the negative effects of inequalities on discontent in highly peripheral regions.

The digital service economy and its consequences for intraregional wage inequalities

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Alicante-S15-S2 Digitalisation, global shocks and new inequalities, 1-C13, August 31, 2023, 2:30 PM - 4:15 PM

The upsurge in wage inequalities is a common prediction in the literature analysing the labour market outcomes of the diffusion of ICTs and automation technologies. This issue, however, needs further investigation in the case of digital technologies. Their adoption generates a sprawling range of new business models, mostly based on digital platforms, selling services, products or contents on online markets, that lead to what in this work is labelled digital service economy. The new digitally enabled business models might create job opportunities for some occupations and destroy others, generating potential consequences for intraregional wage inequalities. The paper conceptually and empirically addresses such an issue through an analysis of 164 European regions in the period 2009-2016. The paper documents that only regions characterised by the most pervasive models of digital service economy experience a rise of intraregional wage inequalities.

On generalizability: a cross-continental hedonic analysis of remotely sensed green space

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Alicante-G28-O5 Segregation, Social and Spatial Inequalities, 0-D01, September 1, 2023, 2:30 PM - 4:15 PM

Under the ongoing pressure of global urbanization and the building construction process, the non-market valuation of urban green space has become increasingly important across continents. Because of the beneficial ecological services, urban residents who tend to enjoy these services are willing to pay more for living close to green space. In particular, the field which values urban green spaces based on the hedonic analysis of the prices of nearby homes is growing. However, the existing literature is characterized by studies of single regions or countries that use their local definitions of urban green space, which limits its generalizability. This study takes a step to overcome this by aiming to integrate hedonic house price analysis with the remote sensing of urban green spaces in urban cases across several continents. In doing so, a pixel-based classification machine learning method is adopted for the remote sensing imageries in case cities. A cross-continentally harmonized measure of urban green space is observed in estimations of monetary impacts on nearby housing properties. Going further, the estimates of values on urban green space are broken down consistently by the degree of urbanization. The findings of this study may contribute to a more generalized understanding of the monetary value of urban green space which may support processes of public and private investment as well as urban planning.

Transport development in the Hungarian-Serbian cross-border region

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Alicante-G34-O6 Transport and Accessibility, 0-E01, August 31, 2023, 2:30 PM - 4:15 PM

The presentation will examine the public transport links in border regions of Hungary. From the point of view of public transport, it is unfavourable that there are quite few regional connections and, despite efforts, their number is decreasing rather than increasing. Most of the cross-border railway lines and branch lines have been closed or no longer used by passengers.

It can be said that one of the highest densities of rail connections can be found at the Austrian-Hungarian border, and even the Romanian side, where all the operating rail border crossings are used by passenger traffic. On the other border sections, including the Serbian-Hungarian one, the number of daily connections is minimal. Regular cross-border bus services, which are also important in the local cross-border movement, are much less frequent and more occasional than rail passenger services.

The INPUTRANS project ("Improvement on the public transport services in the CBC region through the integration of public transport modes, development of railway infrastructure, and harmonization of transport") is implemented under the Interreg HU-SRB Programme, between 1 January 2021 and 30 June 2023. The project partnership consists of two partners from Hungary (Kiskunhalas Municipality and KTI) and three partners from Serbia (Subotica Municipality, Vojvodina Provincial Secretariat for Economy and Tourism and Alma Mons, Regional Agency for Small and Medium Enterprises Development, Novi Sad). The project partnership is managed by Kiskunhalas Municipality as Lead Beneficiary.

The project is inspired by the fact that the public transport accessibility and availability is very poor in the INPUTRANS project area (Serbian-Hungarian border region). There are only 2 train pairs per day (between Subotica and Kelebia) and the bus connections are also limited to a few pairs per day. As a result, individual transport options (private car or carpooling) are becoming increasingly popular, and the public transport cuts caused by the COVID pandemic have further boosted towards the individual and carpooling modes.

Does the Social Capital Accumulation Matter for the Happiness of Urban America?

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Alicante-S78-S4 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 4:45 PM - 6:30 PM

Happiness and well-being are intrinsically subjective terms and statuses human beings may find a variety of definitions. In this perspective, a wide range of measures has been developed and used to measure this subjective happiness and/or well-being. Especially, with the promotion of place-based subjective well-being (and happiness) by many institutions, there has been a growing interest in regional science about how to measure place-based subject happiness. For instance, some recent empirical studies of European cities in Sweden and the Netherlands, are the responses to the call for the 2020 European Strategy aiming to promote the placed-based well-being of human beings. Even with these recent efforts, it is still not possible and will never be possible to build "one-size-fits-all" types of measures and/or approaches to estimate the subjective level of happiness. In the U.S., measuring the placed-based level of social capital accumulation has been an important research subject for regional inequality studies mainly funded by the USDA (United States Department of Agriculture). A county-level social capital index has been developed and updated by a group of scholars at the Northeast Regional Center for Rural Development. They selected the list of variables to construct a composite index to measure the county-level social capital for the years, 1990, 1997, 2005, 2009, and 2014. This index clearly shows the shifting trend of spatially heterogeneous distribution of social capital accumulation over time. More recently, many of the privately-funded research consulting firms in the U.S. have published various types of rankings based on the happiness of places. WalletHub, for example, developed another composite index measuring the level of happiness among the 182 largest cities in America. Both Social Capital Index and WalletHub's Happiness Scorea are composite and standardized indices but at the same time still subjective. This study aims to compare these two and some other widely used composite scores developed to measure the level of place-based happiness in the U.S. The main question is if the social capital level (developed by Northeast Regional Center for Rural Development) matters for the happiness of cities. Additionally, if so, how much it matters? This study utilized the ESDA (Exploratory Spatial Data Analysis) for descriptive spatial analyses and specify a set of spatial regression models to answer these questions.

The making of a creative old town district in Sakon Nakhon, Thailand

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Alicante-G38 Creative Industries and Regional Development, 1-B01, August 30, 2023, 2:30 PM - 4:15

PM

This paper looks at the creative district development process of a developing rural creative economy in the global south. Specifically, it presents an assessment of the process that the Old Town District in Sakon Nakhon went (and is going) through. It is one of the 20 poorest provinces in Thailand identified as an area for targeted development as part of its national economic development strategy called “Thailand 4.0.” It aims to determine how the development process was planned, how it is being rolled out and delivered to the community, and how the community is receiving this development intervention. It also strives to uncover blind spots in the development process, identify key areas of improvement to increase efficiency and effectiveness in its implementation, and analyse the learning curve that can be applied to other creative district developments.

This research is driven primarily by an ethnographic approach using participant observation, semi-structured in-depth interviews, focus group discussion, and document analysis. It provides the necessary qualitative data in understanding how creative district (and city) development works in the global south in terms of definitions and methodologies. By describing, detailing, and evaluating the development process, it sheds light on the approach/es undertaken by developing countries—which are commonly western-centric and -borrowed—and how these are applied and implemented or translated into reality. Questions and discussions cover peoples’ roles and involvement in the creative placemaking process, any barriers or obstacles to development encountered, perceived successes and failures, concerns and issues about how their place in sustainable urbanization might look like, and how local participation has contributed to the development process. It examines the role of the Thailand Creative District Network (TCDN) as one of the country’s primary tools for city development and its pathway to producing more creative cities in Thailand.

The process evaluation checks whether TCDN is falling into the usual trap of churning out creative city ‘templates’ one after another. Therefore, it addresses two of the more common pitfalls of creative district or city development (especially in the global south). First is the tendency to use a cookie-cutter approach and adopting this as a ‘fast-policy’, and second is the lack or absence of (local) community and industry involvement in the policymaking process. In effect, this study could help TCDN to develop mitigations to minimise delays or more intractable barriers, which would strengthen the sustainable growth of the creative industries, and thus the creative economy.

The bottom-up methodology implemented by the L.A.G. ELIMOS

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Alicante-S69 The role of participatory approaches in tourism and sustainable development, 1-D13,

August 31, 2023, 4:45 PM - 6:30 PM

During the ERSAs Congress in Alicante, the GAL Elimos can provide a specific contribution to the theme of participatory approach in tourism by explaining the bottom-up methodology implemented by the GAL, which is based on the so-called Stakeholder Analysis, where a relevance matrix is built consisting of four types of stakeholders: essential, attractive, weak, and marginal; with which it interacts and structures the strategic planning of the initiatives it intends to implement.

The “Age” of the Romanian cities a spatiotemporal analysis of Romanian towns and their functional urban areas by age dependency

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Online-S47 Urban challenges in time of multiple crises and of the twin transition, August 29, 2023,
11:00 AM - 1:00 PM

Under the Agenda 2030 is world wide assumed the GOAL 11: SUSTAINABLE CITIES AND COMMUNITIES - Make cities and human settlements inclusive, safe, resilient and sustainable. Among its 10 targets and 15 indicators there is the target and indicator 11.2 that states: „By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons”. (United Nations, 2015)

Data provided by Eurostat, for 35 Romanian cities with GISCO shapefile for both Cities and Functional Urban Area (FUA): Population structure - cities and greater cities (urb_cpopstr) and Population structure - functional urban areas (urb_lpopstr).

Method Similarity search in Arc Gis – based on averaged Attributes of Interest values.

Period 2013-2018.

Cities and Functional Urban Area (FUA) are mapped using GISCO shapefiles. FUA is a tool created by OECD and Eurostat based on (Dijkstra et al., 2019; Nivard, 2012)

We explore the characteristics of the Urban audit indicator [DE1058I] Age dependency ratio (population aged 0-19 and 65 and more to population aged 20-64) [DE1059I] Young-age dependency ratio (population aged 0-19 to population 20-64 years) [DE1060I] Old age dependency ratio (population 65 and over to population 20 to 64 years).

The results are maps in Arc Gis that illustrate the similarities among the Romanian cities by their population structure. Classification by the “Age” if the Romanian cities allow better design the space based policies according their specific functional demand.

The capacity of Romanian cities to attract and retain talents

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Online-S47 Urban challenges in time of multiple crises and of the twin transition, August 29, 2023,
11:00 AM - 1:00 PM

Under Agenda 2030, worldwide assumed GOAL 11: SUSTAINABLE CITIES AND COMMUNITIES - Make cities and human settlements inclusive, safe, resilient and sustainable. (United Nations, 2015) Exploring the European policies thesaurus with SDG Mapper in view to find insights European Regions Research and Innovation Network (ERRIN) launched on January 2023 a new EU Mechanism: The Talent Booster Mechanism (TBM). TBM is presented in the Communication on Harnessing Talent in Europe's Regions ((COM 2023), 32 final) and is the first key initiative in 2023 contributing to the European Year of Skills proposed by the Commission. "This Communication focuses on regions facing a related set of challenges: a sharp working age population decline in combination with a low and stagnating share of people with a tertiary education as well as regions experiencing a significant departure of young people".

Data provided by Eurostat for 35 Romanian cities with GISCO shapefile for Cities: Education - cities and more fabulous cities [URB_CEDUC]

Method Similarity search in Arc Gis – based on averaged Attributes of Interest values.

Period 2015-2018.

Cities are mapped using GISCO shapefiles. FUA is a tool created by OECD and Eurostat based on (Dijkstra et al., 2019; Nivard, 2012)

We explore the characteristics of the Urban audit indicator [TE1026V] Students in higher education (ISCED level 5-8 from 2014 onwards), total, and by sex [TE1027V] Students in higher education (ISCED level 5-8 from 2014 onwards), male [TE1028V] Students in higher education (ISCED level 5-8 from 2014 onwards), female. The criteria to retain youth is given by the Urban audit indicator's characteristic [TE1001V] Number of children 0-4 in daycare or school.

The maps in Arc Gis illustrate the similarities among the Romanian cities by their capacity to attract talent and retain talent.

Research on Factors Affecting Regional Development of Energy-based Industrial Clusters in Coastal Areas

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Alicante-S05 Economic development of coastal towns: challenges and opportunities, 1-C11, August 30, 2023, 4:45 PM - 6:30 PM

Coastal energy plays an essential role in developing renewable energy. The development of energy-based industry clusters (EBIC) in coastal areas affects employment and the movement of economic belts in the coastal region. The coordinated development of industrial agglomeration and economic resilience will drive regional economic advantages and result in more energy development and employment problems, which has become a catalyst for sustainable growth and high-quality development of the energy economy. This study employs the Cobb-Douglas production function in economics to couple the factors that affect the clustering of energy-based enterprises and demonstrates the development process of clusters composed of enterprises that focus on energy exploring and production in coastal areas.

Through the analysis of different influencing factors, the problems in the development process of EBIC in coastal areas and the correlation between various factors are discussed. Additionally, by employing the economic perspective and analyzing based on the management methods of industrial clusters, different indicators that affect the development of clusters are selected to show the cluster's development process, including economic indicators of cluster development, geographical factors, natural advantages, and development strategies. Furthermore, the Port's diamond mode is also involved in this model, which improves a path to select various factors from different sections. We obtained the main influencing factors in the development of EBIC through the analysis of the enhanced Cobb-Douglas production function, namely automation level and investment proportion. During the research period, the initial conditions of cluster development showed that actual clusters have regional differences in natural advantages, which also lead to different employment patterns in different types of EBICs, and the proportion of investment in technology-intensive and hardware R&D funds will make a bigger impact in the sustainable development of EBIC. Although the labor-intensive cluster development model solves the problem of labor surplus in space in the short time, it will become a subsidiary cluster of technical EBIC in the long run, and the development will gradually eliminate part of the labor force, which is not conducive to the innovative development of coastal energy. In addition, the radius of traffic radiation is also an important indicator affecting the development of clusters. The enhancement of market and technological power will promote more communication between the coast and the inland, which will also drive the development of traffic and infrastructure, and then affect the scaling radius of the cluster.

Using Large Language Models for Regional Science Research

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Alicante-G39 Methods in Regional Science or Urban Analysis, 1-B01, August 31, 2023, 2:30 PM - 4:15

PM

This project explores the potential applications of large language models (LLMs) in regional science research. I review existing nascent literature on the use of LLMs in the fields associated with regional science and identify current challenges and opportunities for the utilization of language models in regional science. The project will then explore the potential applications of LLMs for addressing challenges in regional science research, how they can help develop and test new and existing questions within the field, and the accuracy of their output relating to regional economies. Finally, the project will discuss the implications of these findings for regional science research and suggest possible directions for future research.

Magic mix housing: A Catalyst for Social Integration of Refugees?

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Alicante-G28-O5 Segregation, Social and Spatial Inequalities, 0-D01, September 1, 2023, 2:30 PM -

4:15 PM

Little is known about the circumstances of refugees in the magic mix housing complex, how they respond to residing in the diverse community environment, how they develop social relationships, and acquire local language and cultural knowledge in such setting. Drawing on qualitative data from three case studies of magic mix social housing projects in Utrecht and Nieuwegein, where refugees and local residents are accommodated together, this paper investigates the living experience of refugee status holders with a five-year or permanent residence permit, and addresses how magic mix influences the social integration of refugees in terms of social interaction, friendship ties, language learning, and sense of belonging. Results show that different settings of magic mix influence refugees' social integration in different ways. To what extent magic mix successfully contributes to refugees' social integration depends on physical environmental factors such as communal space, neighborhood amenities, housing quality, as well as social environmental factors such as social activities, social media, the composition of residents, self-organization and management, and the professional organization. Implications for housing policy of these findings are discussed.

Digital innovation and regional resilience to COVID-19: Evidence from China

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Alicante-S23-S3 Rethinking regional resilience, 1-C14, August 30, 2023, 4:45 PM - 6:30 PM

Regional resilience has gained increasing attention since the COVID-19 pandemic. In this paper, we discuss the role of digital innovation in responding to the physical restrictions imposed by the pandemic and supporting sustained transformations. We conceptualize digital innovation as consisting of new technologies and applications. Empirically, we measure them with digital patents and digital business at the prefectural-level in China. Regional digital innovation was negatively associated with resistance to COVID-19 but positively associated with recovery. Importantly, this positive relationship mostly concerned the ability of regions to develop digital applications, rather than digital technologies alone.

Post COVID-19 era: possibilities for sustainable tourism

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Alicante-S69 The role of participatory approaches in tourism and sustainable development, 1-D13,
August 31, 2023, 4:45 PM - 6:30 PM

The COVID-19 pandemic had an irreversible impact on the tourism sector. The pandemic was a period of transformations for all tourism sector, including tourism business enterprises, state tourism institutions and tourists themselves. In this presentation the attention is paid to the changes of tourism behaviour and new possibilities of responsible tourism. The goal of this presentation is to reveal the new patterns of the tourist behaviour. Are the changes in tourism related to a new reality, a return to normal or return to the past? Has the pandemic accelerated the uptake of responsible tourism? Had the COVID-19 pandemic influenced the adaptation of new tourist behavioural models? The presentation is based on the assessment of primary research data that was collected during the in-depth questionnaires (quantitative method) and the focus group discussion (qualitative) of tourism experts in Lithuania. The tourism sector introduced new technological and non-technological innovations during the pandemic. In a changing social environment, tourists had to adapt to the new social and economic realities. Post-COVID-19 tourism is analysed using social, environmental, and technological factors (Liutikas, 2023). The re-evaluation of tourism resources in the context of climate change is related to a new opportunities for responsible tourism, including such elements as sustainable business development, adaptation of environmentally friendly innovations, and digitalization. Sustainable tourism is related to re-shaping our mindset and preferences. The authors provide examples of how future trends of tourism related to the lessons of the COVID-19 pandemic. One of the insights that can ensure a rapid response to unforeseen events in the future, is sustainable, technologically advanced, and community-based tourism development.

Various new challenges may threaten the social, economic, or environmental sustainability of tourism businesses, as well as challenge the health or security of the different world regions or the entire world. The main question is what kind of new tourism models can ensure a rapid response to unforeseen events in future. The research findings indicates that tourists were inclined to use new tourism services and products during the pandemic. The new products and services were essential for the tourism and leisure sector to survive, and the majority of them are continued to be used in the post-COVID reality and provides opportunities to be more resilient and less dependent on unexpected circumstances in the future. Tourists were more engaged in the local destinations and new local tourism products.

Commuting to university: transportation choices and environmental impacts at the University of Urbino (IT)

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Alicante-G34-O3 Transport and Accessibility, 0-E01, September 1, 2023, 11:00 AM - 1:00 PM

This paper aims at analysing the environmental consequences of commuting modes and choices in the context of a medium-sized public university (University of Urbino Carlo Bo) in Italy, also accounting for changes in commuting preferences and patterns occurred during the Covid-19 pandemic. Results are based on a survey on students and personnel run in 2020 and consider a random utility model for both revealed and stated preferences. The University of Urbino is an interesting case study: i. enrolled students (about 15 thousands) overcome the number of residents in the municipality (less than 15 thousands); ii. the city is located far from the main roads and transport infrastructures (45 minutes drive or bus ride from the closest train station or highway).

Resilience, resistance to change, and personality

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Alicante-S40 Aligning entrepreneurship, sustainability, and regional policy, 1-C14, August 31, 2023,

2:30 PM - 4:15 PM

Resilience has attracted growing attention, especially during the COVID-19 pandemic. Despite this, knowledge of how individuals' resilience relates to well-established concepts from economics such as risk preferences is scarce. While the effects of personality traits to both risk aversion and resilience have been studied, the interaction of risk aversion and resilience has received less attention. The present study investigates the connection between resilience, personality and resistance to change. We find that after controlling for the effects of personality on both resilience and resistance to change, resilience is positively associated with resistance to change. Furthermore, this connection is especially strong for entrepreneurs, and it is not statistically significant for people who have not experienced poverty. The results suggest, that the effect of resilience on resistance to change is limited and instead, exposure to adversity might shape both resistance to change and resilience in a similar manner. The results suggest that while adversities can improve one's resilience, they could simultaneously increase one's resistance to change and possibly risk aversion.

Piggybacking on soy: spatial spillovers of soy on GDP per capita income in Brazilian municipalities

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Alicante-G40 Spatial Econometrics, 1-B02, August 31, 2023, 2:30 PM - 4:15 PM

Brazil is the world's largest producer of soy, accounting for approximately 36% of world production, most of which is destined for the foreign market, mainly China. Internally, the grain has consolidated itself as the main product of national agriculture and today corresponds to approximately 50% of all Brazilian agricultural production. Likewise, it is the main product exported by the country and guaranteed the entry of approximately US\$ 50 billion last year. These numbers reflect of the rapid expansion of soybean planting in the country over the last few decades. In 1990, there was a record of soy planting in only 21% of Brazilian municipalities, a percentage that jumped to 25% in 2000, 31% in 2010 and 41% in 2020.

This work investigates the effects of soybean production on the local GDP per capita and what are its spatial spillovers over neighboring municipalities between the years 2002 and 2020 using a spatial panel. Preliminary results indicate that, on average, for a 1% increase in the amount of soy produced in a municipality, there is an increase of 0.14% in the local GDP per capita. In terms of spatial spillover, this impact on neighbors is also positive and assumes a value of 0.02%.

The work also investigates the spatial effects of other variables and the results indicate that the expansion of soybean area in a municipality negatively affects the GDP per capita of the neighboring municipality. On the other hand, the spatial spillovers resulting from a greater number of workers with a high school education, as well as those arising from constitutional transfers made by the federal government, are also positive and have a greater impact than those arising from soybean production.

It is important to point out that, at this moment, the work does not investigate the effects of soy expansion on the destruction of natural biomes, such as the Cerrado or the Amazon, a topic for the next steps of the research.

The role of integrated intervention experiences for social-spatial cohesion and integration

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Online-YS02a People-based Development - EPAINOS, August 29, 2023, 2:30 PM - 4:15 PM

The issue of housing, especially the concept of social housing estates, carries a negative connotation regarding systems of social segregation and spatial inequalities. To counter this tendency of social housing prejudice and stigma, it is necessary to reflect on the role of 'integrated interventions' that promote urban regeneration in fragmented socio-economic and territorial domains.

This reflection will be based on the study of two concrete situations – the Bela Vista housing estate in Setúbal and the Vale da Amoreira housing estate in Moita, Portugal – for being established as places where experiences of mass interventions have been implemented, which constitute examples of good practice for urban regeneration, as well as being places of continued study that contributed to the formulation of the starting questions.

Given the dynamics of social and territorial transformation that aim to recover the relationship between housing and habitat morphologies, and social forms, the following starting questions were raised in these housing estates: (i) what are the current challenges of these neighbourhoods and what are the interventions needed to resolve or mitigate them? and (ii) what are the opportunities for transformation and what lessons can be extrapolated and included in current housing policies?

To provide an answer, this essay focuses on the experiences of integrated interventions, as well as on the opportunities for transformation and the role of social housing. The aim is to discuss social housing neighbourhoods' processes of cohesion and integration, based on the axis of spatial organisation and social networks, necessary to progressively achieve the full realisation of the right to adequate housing.

Exploring correlation among diversity and risk

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Alicante-G09-O4 Innovation and Regional Development, 0-C01, September 1, 2023, 2:30 PM - 4:15 PM

This paper focuses on alternative theoretical and empirical specifications of risk and diversity in the fisheries domain, and the empirical correlation among them. Theoretically, risk and diversity are expected to be negatively correlated. The lower the diversity, the higher the concentration, dominance and dependency of that fishing sector to the evolution of the dominant fish species. Therefore, the higher the risk of a potential collapse in the fishing sector. Firstly, we study the country-level diversity of the EU fishing countries, using conventional diversity indices, namely Berger Parker, Concentration ratio, Simpson's index and Shannon index. Notice that each member-state has an individual marine sub-ecosystem comprised by different fish species, that besides, may change over time. Accordingly, special attention will be paid on checking whether there are potential differences between the diversity patterns of EU fishing countries by means of parametric and not parametric tests such as ANOVA and Kruskal Wallis. Secondly, based on financial risk analysis, we estimate the left-tail risk of landings in the EU fishing countries, a country level proxy variable for the risk inherent to the fishing activity itself, i.e. an empirical and probabilistic measure of the worst-case losses. Thirdly, we investigate the correlation between risk and diversity. However, surprisingly, our results reveal that risk and diversity patterns are positively correlated. This is because the risk of a country may be potentially determined not only by the diversity itself, but also by the specific distribution of the landings. Accordingly, it may well happen that it is the fish species risk shares what mainly determines the overall risk of the fishing countries.

The FIGARO-regio database and a Single Exposure Indicator to measure EU regional vulnerabilities to global value chains

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Alicante-G15-O3 Trade and Global Value Chains, 0-D01, September 1, 2023, 9:00 AM - 10:30 AM

FIGARO-regio is a 56 industry-by-industry multiregional input-output table for more than 200 regions in Europe (NUTS2) for the year 2017, developed by the European Commission and consistent with Eurostat's official statistics (FIGARO). The Single Exposure Indicator combines two well-known TiVA indicators in a single and consistent format, to identify all key dependences in bilateral trade among partners. The novelty of this research relies on the data (with such a level of disaggregation in both industry and regions) and methods (brand new TiVA indicator). Using the FIGARO-regio database and the Single Exposure Indicator combined allows regional global value chains to be analysed providing interesting results to policy-makers, related to dependences, potential risks and vulnerabilities of regions at the industry level.

An empirical exercise to assess multiplier effects of gender policies

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Alicante-S01-S2 Regional Differences in Gender Equality: Determinants and Consequences, 1-B02,

August 31, 2023, 4:45 PM - 6:30 PM

Although the European Union and member states have developed different social, legal and economic mechanisms in order to eradicate gender inequality, it is an outstanding issue and a matter of relevant concern in our society nowadays. Actually, gender mainstreaming has become one of the priorities in the refunding of the European Union integration project in the aftermaths of the recent economic crisis. In this paper we focus on the concept of gender budgeting as commitment tool for the present and coming years in order to give some light on how this goal might be better implemented and achieved. To this aim, we develop a methodological framework based on a multisectorial model computed on the basis of a disaggregated Social Accounting Matrix, in order to analyse whether alternative gender oriented allocation rules of NextGeneration EU funds might impact on labour indicators of a European regional economy, as a counterfactual analysis of the currently approved baseline distribution. After defining several simulation scenarios, we assess the impact of alternative allocation criteria on different educational level groups by gender, as well as their implications in terms of households' consumption. Our results reveal that gender oriented budget policies might positively contribute to reduce the gender gap and report relevant multiplier effects that deserve to be explored.

Citizens' attitudes towards the COVID-19 pandemic and perception of the quality of local institutions.

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Alicante-G17-O1 Quality of government across space and time, 0-C03, August 30, 2023, 2:30 PM - 4:15 PM

This study analyzes the effect of individuals' concern about the risk that the Covid-19 pandemic posed to their health and financial situation on their perception of the quality of local institutions. For this purpose, individual data on the perception of the quality of institutions and on the attitude of individuals towards the Covid-19 pandemic, contained in the 2021 wave of the Quality of Government Survey, are used.

The analysis assumes that i) part of the regional variability in the aggregate indicators of perception of institutional quality may be due to a composition effect, ii) the estimation of the effect of the pandemic on institutional quality must take into account that what matters is the perception of individuals regarding the risk to personal and family health and finances and, iii) the degree of objective incidence of the pandemic in a region (measured through the infection rate or excess mortality) influences the perception of personal risk, although its effect is modulated by individual characteristics. Bearing this in mind, the main hypothesis of this paper is that, according to the so-called rally 'round the flag effect (Bol et al 2021; Kritzinger et al 2021; Schraff 2021; van der Meer et al 2023), citizens who perceived a greater personal risk of being affected by the pandemic would have had a better perception of the quality of public services, especially those of the health system, as well as greater confidence in local institutions. In a complementary way, as pointed out in Charron et al (2022), it is possible that confinement and other non-pharmacological interventions affected the frequency and intensity of citizen interactions with the administration and altered the use of public services. If this were the case, they indicate that in that period citizens would have had fewer "negative" experiences (for example, less exposure to petty corruption), which would have contributed to a better evaluation of local institutions.

After controlling for demographic characteristics, personal traits, factors of the local context, and for the potential endogeneity of the perceived risk indicators (using a measure of the local incidence of the pandemic), the results are contrary to the so-called rally effect. In fact, the evidence even suggests that individuals who were most concerned about the effects of the pandemic, especially on their personal and family finances, rated the quality of institutions, including the public health system, to a lesser extent.

Are Indigenous Peoples in rural areas more vulnerable to irregular migration than other groups? A Bayesian spatial analysis

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Online-G03-O2 Demographic Change, Population and Migration, August 28, 2023, 4:45 PM - 6:30 PM

Irregular migration represents a phenomenon that requires an exhaustive analysis beyond conventional methods in order to be understood. In the case of Guatemala, with an increasing flow of irregular migrants to the US every year, little attention has been paid to the study of the factors that influence these events. Bayesian spatial analysis represents an alternative to studying this phenomenon by estimating the probability of events like irregular migration. Instead of focusing on accuracy in defining relationships among variables like frequentist models, Bayesian estimates trends that may arise based on available data. In this project, I conduct a Bayesian spatial analysis to understand the incidence of five socio-ecological components (insecurity, cultural, economic, governance, and environmental) with the number of irregular migrants to the US from Guatemala. I conduct the study on the Municipio (Towns) territorial scale and pay particular attention to Indigenous People/s, the most vulnerable group in the country due to the inequalities and limitations experienced every day. By considering an initial number of 15 variables, I conduct a Principal Component Analysis (PCA) to prioritize the elements that explain the variance. Then, I apply Integrated Nested Laplace Approximations (INLA) in R-Software to develop a model that describes the trends, spatial effects, and exceedance rates of migrants in the following years. The results suggest the importance of accounting for a spatial location where migration flows is more prevalent and provide trends on the probabilities of increasing rates in some Municipios compared with others, including the differences between urban and rural populations. The comparison between Indigenous and non-Indigenous People/s suggests the need for a cultural understanding of Indigenous ways of being where racism and coloniality are embedded within Guatemalan society. This study offers a methodological and practical application for similar cases and allows to inform planning strategies in order to mitigate the effects of irregular migration in non-developed countries.

Key factors for the use of greenways in urban and rural areas of the Spanish Mediterranean

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Online-G04 Urban-Rural Relationships, August 28, 2023, 11:00 AM - 1:00 PM

Greenways are linear spaces that have gained popularity since the 1990s and have received considerable attention for their versatility as recreational areas, venues for physical activity, places of solitude, or even as transportation corridors for intra- or inter-urban commuting. Typically, they run parallel to riverbeds, valleys, mountain ridges, or disused railway networks, and often serve as a means of connecting urban areas with nearby cultural or natural heritage sites within the metropolitan area, thereby integrating urban and natural environments into a cohesive network.

In this regard, the extensive railway network in many developed countries, which has fallen into disuse and deteriorated progressively since the transportation revolution of the 1950s, has constituted an important foundation for planning new greenways. These greenways, however, are not limited to urban spaces but also extend to rural areas. While scientific literature has extensively studied the factors explaining the use of greenways in urban areas, fewer studies have analyzed the factors explaining the use of greenways originating from railway tracks in rural environments. The importance of integrating the pathway into its environment, and more specifically, the network's characteristics to encourage usage in both urban and rural spaces should be highlighted. Furthermore, research is required to examine the support of local tourism infrastructure for the use of rural greenways and the impact of social support and knowledge on their usage.

Consequently, this study aims to conduct a comparative analysis of the factors that promote the usage of greenways converted from railway tracks in both urban and rural areas of the Spanish Mediterranean region. Specifically, this research will examine the impact of intermodal network configuration, local tourism infrastructure, and social support and knowledge on the usage of greenways. The study will be based on a sample of 800 interviews with cyclists and pedestrians collected from four greenways, which are assigned to two geographic profiles - mountainous and near-medium density urban areas in the Spanish Mediterranean region. Moreover, the analysis will employ a double modeling approach, specifically PLS-SEM and Random Forest, to further investigate the factors affecting the usage of greenways.

Adapting to Import Shocks: The Labour Market Outcomes of Workers Moving into Other Regions or Business Functions

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Alicante-S76-S1 Global disruptions and their local labor market impact. An investigation into the spatial drivers of productivity and growth, 1-E11, August 31, 2023, 2:30 PM - 4:15 PM

This report assesses whether and how import exposure affected German workers' regional mobility and job switching between 2000 and 2011. We also explore the wage and job satisfaction consequences of moving to another region and job switching following a trade shock. To this end, we develop a novel measure of regional-level trade exposure that also groups occupations with similar characteristics into business functions (management, marketing, R&D, and fabrication). We use trade data from the World Input-Output Database and regional employment data for 96 local labour markets from the German Federal Employment Agency, and combine them with worker-level data from the German Socioeconomic Panel to analyse trade exposure at the region-function level. Our findings show that more intense regional trade shocks made workers more likely to move to another region and switch their functions. In the most exposed regions, the probability that fabrication workers moved to another region more than doubled compared to the baseline probability. The probability of switching functions as a result of increased trade exposure increased by about 50% compared to the baseline. However, workers' probability of switching their functions following a trade shock increased only after a lag, likely because individuals need time to acquire new function-specific knowledge and skills. Moreover, the report reveals that workers who chose to move to another German region following a trade shock could offset the negative impact on their earnings and job satisfaction. In fact, moving resulted in higher wages and greater job satisfaction compared to staying behind. Workers who switched to a new function also increased their earnings but did not improve their job satisfaction compared to those who remained in the same function. These findings provide policymakers with new insights into the complex ways in which trade affects workers' lives and livelihoods, and how individuals adapt to the changing employment conditions it brings.

Keywords: Import shocks, business functions, worker-level adjustment, worker mobility, labour income, job satisfaction

Progressive urban nurture. Does growing up in urban areas influence individual ‘progressive outlooks’?

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Alicante-S58 The geographies of hate, violence and intolerance against vulnerable groups, 1-D14,

August 30, 2023, 4:45 PM - 6:30 PM

In contrast to the conservative values of rural populations, cities are often seen as bulwarks of liberal, progressive values. This urban-rural divide in values has become one of the major fault lines in western democracies, underpinning major political events of the last decade, not least the election of Donald Trump in the US, or the Gillet Jaunes protests in France. Yet, there is wide disagreement about what factors drive differences in outlooks along the urban-rural gap. Are urban-rural differences purely compositional, or does growing up in a large city make individuals more ‘culturally tolerant’ and ‘progressive’? This project draws on Household Panel Surveys across Europe to establish how and why birthplace urban density affects lifelong adult individual economic, social, and political outlooks.

Territorial Marketing: Palmela as a study case in the context of Lisbon Metropolitan Area

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Online-G01-O3 Regional and Urban Development, August 29, 2023, 11:00 AM - 1:00 PM

The purpose of this communication is to present a theoretical approach and a first perspective to what may be a prefiguring strategy, at the same time reflective and at the other time operational, of place marketing for the territory of the municipality of Palmela. In this way, the main objectives for communication are established, on the one hand, to proceed to a summary of the state of the art with regard to territorial marketing and, on the other hand, to define an operational framework, including a set of initiatives for the action, for a future multidimensional strategy, to promote the territory of the municipality of Palmela. Due to its territorial characteristics, Palmela offers a motivating framework for the domain of marketing applied to the geographical space. By combining typical elements of an urban / industrial society, (both with regard to the types of space occupation, and with regard to social experiences and the most significant accumulation model), with the still dominant presence of a rural world, namely in the central and southern areas of the municipality, Palmela is an interesting field of analysis, in the context of the Lisbon Metropolitan Area, for strategies that promote and enhance endogenous resources. Palmela is the largest municipality in the Lisbon Metropolitan Area and still holds a vast non-urban territory, where rural features still represents a strong element of the landscape. In terms of the structure of the paper, we will divide our work into three fundamental parts: at first, and using studies developed by foreign and national authors such as Philip Kotler, Sérgio Marques, Sophie Patrício or Ricardo Rosa, we will carry out a theoretical research of concepts, objectives and contents of territorial marketing analyzes. In a second step, we will present, in a succinct way, the essential features of the territory of the Municipality of Palmela, in order, to establish (in the last part of our paper) the bases for a territorial promotion strategy of the municipality in question. In terms of sources of information, and in addition to studies, statistical bases and work already carried out by the municipality in the strategic domain, we will use a set of interviews with actors with influence, interest and participation in the development of the territory of Palmela. This way, the analysis presented in this communication should allow a first approach to a range of basic issues associated with the possible definition of "Territorial Brand".

The urban/rural differential in job quality. Evidence from EU countries

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Alicante-G13-O1 Urban Challenges and technological transformations, 0-E02, August 30, 2023, 11:00

AM - 1:00 PM

The paper contributes to the broad literature on agglomeration economies by focusing on an under investigated aspect: job quality. Three mechanisms can affect the urban/rural differential in job quality: urban rat race, matching between demand and supply of labour and job quality externalities. In this work, job quality is looked at in a multifaced way, by considering the following relevant traits: intensity at work; having career opportunities; autonomy at work; meaningfulness at work and job satisfaction. In addition to the main analysis, the moderating role of self-employment and working from home will also be empirically tested. The data are at the individual-level and are gathered from the European Working Condition Survey 2015.

Preliminary results show that after controlling for individual, firm, occupation, industry and country-specific characteristics, working in urban areas is more intense than in rural. At the same time, urban workers reported lower autonomy and meaningfulness at work and job satisfaction. No statistical difference is found for having career opportunities.

The preliminary results seem to corroborate that the detrimental mechanism associated to the urban rat race prevail on the others spatial determinants. This contribution has interesting echoes for the economic geography literature since it sheds light on an under-investigated aspect concerning labour and with relevant implication for the localization of firms.

Policies for increasing cross-border labour market mobility

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Online-G01-O1 Regional and Urban Development, August 28, 2023, 2:30 PM - 4:15 PM

Nordic freedom of movement and the possibility to work in another Nordic country was introduced already in the 1950s. However, despite similarities between the Scandinavian languages and resemblances between the countries as regards both culture and welfare systems, only 1.7% of the working-age population work in another Nordic country than the one where they were born (2020) (Lundgren & Wøien Meijer, 2022) This is low compared to 13-16% internal migration within Nordic countries (Heleniak, 2020). Also, cross-border commuting figures are low, with only 0.5% commuting to a job in another Nordic country which is below the EU average of 1% (2015-2018) (Lundgren & Wøien Meijer, 2022). This contrasts with the Nordic Council of Ministers' vision that the Nordic Region will be the most integrated region in the world by 2030.

In a qualitative study based on interviews conducted in 2022 with stakeholders in three different Nordic case study regions; the metropolitan Greater Copenhagen region, Vestfold Telemark in Norway with proximity to both Sweden and Denmark, and the remote region of Greenland, we have explored the motivation for cross-border labour market mobility. What are the attraction forces? What are the driving forces? And what are the obstacles to cross-border labour market mobility? In line with previous research, the results show that several factors serve as attraction forces and driving forces, e.g. economic, social and cultural factors, while the most important intervening obstacles to cross-border labour market mobility are political/ administrative. In this paper, we present the main challenges for labour market mobility in the case study regions and discuss how policy responses to increasing labour market mobility can be developed in a cross-border and multi-level and polycentric governance context.

Cash Transfers as an Economic Plan during Covid-19: Quasi-Experimental Evidence from Auxílio Emergencial in Brazil

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Online-G30-O1 Covid-19 and regional and urban resilience, August 28, 2023, 4:45 PM - 6:30 PM

We present the first quasi-experimental assessment of Auxílio Emergencial, the Brazilian emergency economic plan designed to cope with Covid-19 and its threats on subsistence of vulnerable families, and focus on impacts on Schooling, Labor Market and Entrepreneurship outcomes. For that purpose, we explore a discontinuity in the family composition eligibility criteria as our Identification Strategy. It caused higher benefits for our treatment group in comparison to the amount received by the control group. We conducted our analysis with the sample of young adults from families already registered, before pandemic outbreak, in the National registry of vulnerable families (Cadastro Único). Then, we merged this identified data from 2019 and 2021 with the payment records of Auxílio Emergencial during 2020 and the identified data from firms and micro-entrepreneurs (MEI and CNPJ) from Receita Federal do Brasil - RFB. The program size was unprecedented in the country history, covering more than 32.9% of the population (68 million people) and having a budget in 2020 of BRL 338 billion, 13.5% of the country GDP. Our main results indicate that individuals from families benefited by the extra amount graduated faster in the basic education, consistent with the observed decrease in labor market participation. We also find heterogeneous effects on labor income, especially for urban residents, and a reduction in the opening of micro-entrepreneurship firms.

Distribution of Italian livestock activity at local scale to support the estimates of main GHG emissions in Agriculture

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Online-S22 Spatial dimensions of climate change, August 28, 2023, 2:30 PM - 4:15 PM

There is a growing awareness of the need to reduce GHG emissions and mitigate the impacts of climate change. One way to do this is to reduce emissions from livestock production and grazing practices, which can be achieved through the adoption of more sustainable livestock management practices.

Indeed, livestock production and grazing practices significantly contribute to greenhouse gas (GHG) emissions and climate change. In particular, enteric fermentation and manure management represent the majority of methane and nitrous oxide emissions from the agricultural sector and a significant percentage of total emissions from all sectors.

The estimation of various GHG indicators falls under the purview of other Research institutions within the Italian SISTAN network. However, ISTAT can provide a significant contribution to such indicators through the analysis of the spatial distribution of livestock activity at a local scale, derived from geolocated administrative and census sources, valid for the year 2020.

Overall, the study aims to locate the areas where livestock activity takes place and where emissions of some of the most important agricultural GHGs are produced. This could help to identify possible measures to mitigate GHG emissions and reduce the environmental impact of livestock production more easily.

From Metropolitan Planning Organization to Transport Management Areas: a change of air?

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Alicante-G34-O4 Transport and Accessibility, 0-B02, September 1, 2023, 2:30 PM - 4:15 PM

This paper analyses institutional changes in local governance structures as determinants of noise and air pollutants reductions in urban areas. We exploit the designation of Transport Management Areas (TMAs) as a quasi-experimental framework. TMAs are designated by the US Secretary of Transportation for urbanized areas that overcome the population threshold of 200,000 as defined by the Bureau of Census, in recognition of the complexity of transportation issues. When an urban area is designated as a TMA, the Metropolitan Planning Organization (MPO) responsible for that urban area (an MPO is mandatory for urban areas with population over 50,000) is subject to several transportation planning requirements among which a Congestion Management Process and an Air Quality Plan (for non-attainment areas). This transformation provides certain benefits, but also implies additional requirements. In particular, the planning processes in MPOs in TMAs also must be certified by the Secretary of the Department of Transportation as being in compliance with Federal requirements. In addition, the MPO serving the TMA has a more formal governance structure as its board must include local elected officials, officials of public agencies that administer or operate major modes of transportation, and appropriate State officials. We rely on regression discontinuity design techniques, a long-standing way to obtain credible causal estimates, when specific conditions are met, that is gaining increasing popularity in recent times. In particular, among other sources, we employ data on noise and air pollution in US Transport Management Areas provided by the US Environmental Protection Agency (EPA).

Where is ERSA's journal REGION positioned in the Regional Science publishing world?

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Alicante-G42 Big Data and Regional Science, 1-B03, August 31, 2023, 2:30 PM - 4:15 PM

The journal of ERSA, REGION, is fairly unique among Regional Science journals as it publishes free for readers and free for authors. Since most other journals in the discipline are published by one of the big publishing companies and charge article processing fees for Open Access publication, REGION also represents an alternative model of scholarly publishing.

One can expect that all these differences will lead to differences in the position of REGION as compared to other journals in the discipline. In this paper, we will analyze the position of REGION in the community, try to answer the question of whether differences exist compared to other Regional Science journals and describe those differences. We will use the full range of data we have available for REGION, i.e., data on submissions, publications, downloads, and citations (both outgoing and incoming). Where possible, we will compare the results to selected other regional science journals. The paper will use methods of scientometrics, network analysis, text mining, and clustering in order to extract the necessary information about REGION. Since comparable data are usually not available for journals published by commercial publishing companies, comparison will be limited to a smaller range of indicators.

Does the minimum wage affect inflation?

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Online-G35-O1 Regional and Urban Labour Markets and Entrepreneurship, August 28, 2023, 11:00 AM

- 1:00 PM

This study examines the relationship between minimum wage increases and the inflation rate. Data from 16 Polish regional labor markets in 2003-2020 are used to analyze the pass-through effect of the minimum wage on inflation. The New Keynesian model, supported by the Minimum Wage Augmented Phillips Curve approach, and dynamic panel data methods, are used.

The results show that the minimum wage effect on inflation is statistically significant and positive and is higher when food inflation is the dependent variable. Minimum wage effects vary temporally and across regions. Minimum wage increases are more significant during times of high inflation than in low-inflation periods. As for regional differences, inflationary pressure is greater in regions with strong labor markets and relatively high wages, i.e. regions where companies can pass on more of their increased labor costs to consumers.

These findings are important for both the labor market and regional policy, especially given the high inflation rate recently observed in Poland and the minimum wage increases planned over the coming years. They show that even if minimum wage increases do not lead to a reduction in employment, they may generate additional inflationary pressure, especially during economic booms and in regions with low unemployment.

Employment effects of minimum wage changes across regions, age groups, and sectors

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Online-G35-O1 Regional and Urban Labour Markets and Entrepreneurship, August 28, 2023, 11:00 AM
- 1:00 PM

Increases in the minimum wage raise production costs which may be offset by reduction in employment, growth of product prices, or decrease in firms' profits. We analyze the effects of national minimum wage changes on employment across regions, economic sectors and age groups. We use individual data on wages and workers characteristics from the Structure of Earnings Survey in Poland in 2006-2020. We discovered latent heterogeneities in the regional employment effects. The insignificant and close to zero results at regional level include both positive and negative employment elasticities for different sectors and age groups. The employment reaction to changes in the minimum wage is also related to regional labor market features. Negative employment effects are observed mostly among the youngest groups of workers; they are more likely in regions with larger proportion of workers in the private sector, in industries where it is more difficult to increase the prices of goods produced, and where small firms are widespread. Conversely, positive employment effects are observed mainly in the groups of workers aged 50 and more; moreover they are more probable in regions with a high share of workers in the public sector and with large share of employed in large enterprises.

Implementing the assumptions of sustainable development in retail trade

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Alicante-S20 Sustainable retail trade and changes in urban space, 1-C13, August 30, 2023, 4:45 PM -

6:30 PM

Retail trade has undergone many transformations over the years. How we perceive it today is influenced by many factors, often related to new technologies. Recently, the transformation of trade is also increasingly influenced by the willingness to adapt to the assumptions of sustainable development. These assumptions cover many aspects of socio-economic life. The paper is an attempt to evaluate the current transformations in retail trade and to estimate its future changes.

Spatial Trends and Spatial Econometric Structures: Practical application to different context data.

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Alicante-G40 Spatial Econometrics, 1-B02, August 31, 2023, 2:30 PM - 4:15 PM

Spatial trend concept was proved to be useful in order to depict the systematic variations of the phenomenon concerned over a region based on geographical locations. We perform the analysis based on use of geographically restricted semiparametric spatial models on the datasets with geographical information. This is implemented to check if there exist potential leading deterministic spatial components and whether we can econometrically model spatial economic relations that might contain unobserved spatial structure of unknown form. Hypothesis testing is conducted with a symbolic-entropy based non-parametric statistical procedure, proposed in Garcia-Cordoba et al. (2019), which does not rely on prior weight matrices assumptions. The main question to be responded is whether this type of models that merely incorporate space coordinates might be sufficient to capture space dependence when applied to different types of data. Moreover, we study what intrinsic characteristics of the economic problem or the dependent variable itself make feasible (and optimal) to use the methodological approach mentioned. The analysis is based on six different datasets. Each of the dataset includes the full information on the object of the analysis, where a certain relation can be found. Apart from the special characteristics of the units, every dataset includes the information of the geographical position (longitude and latitude) of the units described. Thus, we have a possibility to compare the general characteristics of data analyzed to produce a better methodology of specifying a trend methodology (including a delta test usage).

The Impact of Green Policies on Local Economic Performance: Evidence from the EU ETS (not competing for Epainos)

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Alicante-YS03 Regional Development - EPAINOS, 1-C11, August 31, 2023, 11:00 AM - 1:00 PM

Environmental policies such as the European Union Emissions Trading System (EU ETS) raise concerns about their impact on employment and competitiveness. Yet, existing EU ETS studies focus on firm-level outcomes and the initial phases of the program. We construct a panel dataset of about 15,000 European NUTS3 level provinces between 2005 and 2019 to assess the impact of the EU ETS, and in particular on its Phase III, on the local economic performance, namely gross value added (GVA), employment, and productivity per employee (PPE) of European provinces. We employ data on emissions covered by the EU ETS to construct a continuous measure of local level exposure. Using a continuous difference-in-differences fixed effects framework, we find that that being more exposed to the EU ETS is associated with negative and significant results on employment and significant increases in productivity, starting from Phase II. These results are confirmed both at the sector and general NUTS3 level, suggesting that local economies have generally been able to increase their productivity as an answer to the constraints posed by the EU ETS system.

Violent Conflict, Macroeconomic Stability, and International Trade

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Online-G41 Space and supply chains, August 28, 2023, 2:30 PM - 4:15 PM

While conflict pervades virtually every aspect of society, there have been relatively few crossovers between Regional Science and Peace Science. This paper pays tribute to Walter Isard, pioneer of peace science research, and Kieran Donaghy, who has contributed to research on arms race dynamics and macroeconomic stability. I first review studies that examine the impact of (i) international trade on militarized conflict, (ii) the economy on militarized disputes, and (iii) conflict on macroeconomic stability. The analysis develops a structural equation model (SEM) to test the hypotheses simultaneously using the Correlates of War panel data. Consistent with the liberal proposition, I found that the pacifying effect of trade is robust across alternative SEM specifications. Controlling for standard explanatory variables, the SEM estimates reveal that the indirect impact of economic development on conflict mediated by trade is statistically significant at the 0.1-percent level. Trade is, therefore, a critical intervening variable that transforms conflict-inducing economic expansion into a pacifying influence on militarized disputes. The spatial version of the SEM confirms that democracies do not attack each other. While trade does not appear to have a local spillover effect on conflict, proximity to neighboring democracies does lead to fewer conflicts. The final hypothesis argues that conflict affects national economic performance, which Donaghy refuted in his 1995 Conflict Management and Peace Science paper. Consistent with Donaghy's finding, the estimates reject the claim that conflict disrupts economic stability.

Migration and direct democracy: the case of referendums in Switzerland

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Alicante-G03-O4 Demographic Change, Population and Migration, 0-C04, August 31, 2023, 2:30 PM -

4:15 PM

In the last decades, migration has been a hot topic at the national, cantonal, and municipal levels in Switzerland (among other countries) and several referendums obtained sufficient consensus in imposing restrictions on migration or banning certain cultural representations (such as ban on minarets of mosques). This study investigates the spatial-temporal dimension of voting patterns in Switzerland on different types of referendums related to migration, and observes their relationship with linguistic, socioeconomic, and local characteristics in a multilevel temporal spatial model. Particular attention is dedicated to voting pattern's variations related to the three Swiss instruments of direct democracy: mandatory referendums, optional referendums, and popular initiatives. The results highlight the existence of significant differences among Swiss municipalities in their voting patterns on referendums related to migration and indicate that these differences are associated with inequalities in local economic welfare, education, age, language, and political ideologies. Moreover, differences in voting behaviour are observed in relationship with the three different instruments of direct democracy, and these differences vary depending on the local socio-demographic and socio-economic characteristics. Overall, this study suggests that the availability and exploitation of different instruments of direct democracy allows giving more voice to more and different people.

The effect of COVID-19 on the gender gap in remote work

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Alicante-G03-O1 Demographic Change, Population and Migration, 0-C03, August 30, 2023, 11:00 AM -

1:00 PM

In this paper, we analyze gender differences in working from home (WFH) from the time the pandemic hardest hit onwards in the US. The first unexpected wave of the COVID-19 caused a shift in many people's regular workplaces, facing increased demands for housework and childcare while working remotely. After that, it is not clear how men and women has reacted to the normality. Using data from the American Time Use Survey (ATUS), we find that WFH is more prevalent among women than men and the gender gap is considerably widest after the first wave of the pandemic with heterogeneous results by age, level of education, and marital and dependence status. The dynamic analysis also reveals changes over time. The event study points to the no existence of pre-trends. However, we further show suggestive evidence on the fact that a longer and greater exposure to more intense non-pharmaceutical interventions (NPIs) during the first wave of the pandemic positively affected the tendency of WFH for men but not for women considerably reducing the gender gap by 18 percentage points in a typical state. Additional results also point to more work-related issues differentially affected by gender after the pandemic hits. We find an increase in unpredictable schedules, interrupted work, weekly work hours, and a decrease in commuting time only for women.

Political decentralization and within-country personal income inequality

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Alicante-S56-S1 Territorial Inequalities in Europe, 1-E11, August 31, 2023, 2:30 PM - 4:15 PM

The fight against income inequality is on the agenda of many national governments. At the same time, political decentralization has been a significant tendency in the last decades. Paradoxically, to the best of our knowledge, no studies have examined which part of within-country inequalities can be related to every governmental level, making it difficult to assign responsibilities. In this paper, we try to fill this gap by connecting a vertical and horizontal (spatial vs a-spatial) decomposition of the overall regional inequality with the multilevel governance. The empirical analysis is focused on the standard three-level hierarchical structure (regions, provinces and municipalities) in Spain as the benchmark to decompose the overall Spanish municipal inequality. This decomposition provides information about the underlying relationship between the configuration of the Spanish subnational governments and the responsibilities to be assigned to each level of government in the fight against inequalities. An approximation to the assignment of responsibilities to the three levels of government would have important implications for both the diagnosis of the governmental performance and the design of effective policies aimed at fighting against inequalities among the municipalities in Spain. Our results suggest that policies to mitigate income inequalities among the Spanish municipalities should be implemented by contemplating multilevel governmental initiatives: policies coordinating neighbouring regions, initiatives linking to neighbouring municipalities and local policies.

The effect of extreme weather events on mental health.

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Alicante-G22 Global Warming, Health and Environmental Issues, 0-D02, August 30, 2023, 2:30 PM -

4:15 PM

It is widely acknowledged that climate change affects human health directly and indirectly. Whereas the effects on physical health are tangible and measurable, the psychological consequences and the causal link are difficult to identify. Exposure to climate change-related events and the recognition of climate change as a global threat may cause psychological distress. So far, the literature focused mainly on suicide rate, schizophrenia, and emergency admissions, while anxiety and depression were partially covered because of the lack of data not relying on self-reported measures.

Exploiting the panel structure of the Improving Access to Psychological Therapies (IAPT) of the English National Health Service and Agri-4-Cast JRC weather data, the present study aims to uncover the causal relationship between extreme events due to climate change and the status of mental health of people living in England and Wales at a local level of the Clinical Commissioning Groups. Thanks to the longitudinal data on psychological therapies for depression and anxiety disorders and the data on extreme events, we will be able to disentangle the effects of climate change on the mental health of an entire population in a region.

A dynamic difference-in-differences model will be employed to evaluate the causal relationship between the number of anxiety and depression services by NHS Talking Therapies and the extreme weather events that affected the areas of the Clinical Commissioning Groups. This research design leverages on as-good-as-random variation in weather considering that extreme events are largely unexpected in time and space. This characteristic rules out potential bias that may lie in the error term due to spatial and temporal sorting of the population into more favourable places or periods, allowing for the identification of the causal effect. Uncovering the causal relationship brings to the forefront the potential socio-economic burden that such an issue would imply if it did not receive the right attention.

Can wine tourism improve the wineries' sustainability? Evidence from the Spanish wine industry

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Alicante-S02 Wine tourism, heritage and sustainability: Three drivers of territorial development in wine regions, 1-B03, September 1, 2023, 9:00 AM - 10:30 AM

Wine tourism can play a decisive role in regional development through the generation of economic and social welfare, as well as through the preservation of the environment in which the activity takes place. In this way, this type of tourism can show its potential through the three dimensions of the Triple Bottom Line: economic, social and environmental. From the following study we intend to find out whether wine tourism activity has a positive influence on the economic, social and environmental performance, i.e. the sustainable Performance of Spanish wineries, given that, although the contribution of this activity to territorial development has been extensively studied from an economic, social and environmental approach, to the best of our knowledge, there are no previous studies that have tried to address the impact of wine tourism on the sustainable performance of Spanish wineries. Thus, this study, far from the macro approach applied in previous research, aims to analyze the wine tourism-sustainable performance link through a micro approach focused on the main actor of the wine tourism activity: the wineries.

Interrelationships between the Covid-19 pandemic and the pilgrimage to Santiago de Compostela: Socioeconomic dimensions at the regional level

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Online-G30-O2 Covid-19 and regional and urban resilience, August 29, 2023, 2:30 PM - 4:15 PM

The pilgrimage, including that for Santiago de Compostela, was profoundly affected by the restrictions and lockdowns to contain the effects of the infection caused by the virus associated with the Covid-19 pandemic. These frameworks brought relevant impacts for the welfare of the populations, namely for those accustomed to having contact with nature and who like to explore the spiritual dimensions of their lives. On the other hand, these disturbances also have implications for the economic activities interrelated with the pilgrimage routes, namely those associated with the tourism sector. In this context, this study aims to analyse the main impacts of the Covid-19 pandemic on the pilgrimage to Santiago de Compostela and how these new realities affected the socioeconomic dimensions, particularly in the North of Portugal and Galicia regions. For that statistical information from the Oficina de Acogida al Peregrino was considered. These data were explored through spatial autocorrelation approaches and econometric models. These data were also compared with other variables obtained from the Eurostat database. These results highlight the relevant impacts of the pandemic on the pilgrimage to Santiago de Compostela and the consequent negative externalities for the associated economic activities in the regions crossed by pilgrimage routes. The impacts were not uniform over the regions analysed and there were created new spatial dynamics.

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Worldwide conditions for a digital transition: Perspective for Agriculture 4.0 in the context of smart regions

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Online-G16 Smart Specialization, August 28, 2023, 4:45 PM - 6:30 PM

The technological advances are accompanied by innovations that open new opportunities for human life and for the economic sectors. The new technologies have applications in the different dimensions of the citizens' daily routines, from the transport to health cares in the hospitals. This technological development allows also improvements in the performance of economic activities, allowing better productivity and efficiency in the diverse operations of the production processes. The digital transition in the Era 4.0 is another step in this evolution, with interesting perspectives for artificial intelligence in agriculture inside the frameworks of smart regions. Nonetheless, this transition for Agriculture 4.0 and smart regions is only possible with adequate internet systems. From this perspective, this research intends to assess the computers and internet access worldwide and analyse how these variables are interrelated with other sectorial and regional indicators. For that, data from the OECD (Organisation for Economic Co-operation and Development) database were considered for the last years. This statistical information was explored through approaches from the convergence theory. The main findings show the importance of the digital transition for human welfare and sustainability.

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Relatedness, gender, and regional productivity growth. Are the regions with the most gender equalities the most productive ones?

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Alicante-S01-S2 Regional Differences in Gender Equality: Determinants and Consequences, 1-B02,
August 31, 2023, 4:45 PM - 6:30 PM

According to the definition provided by the World Health Organization, gender refers to the social and cultural expectations, roles, and characteristics that a particular society or culture associates with being male or female. Gender is seen as distinct from biological sex, which refers to the physical characteristics that define women and men.

A growing body of literature in economics focused on the relationship between gender and economic outcomes. This literature covers a wide range of topics, including the gender wage gap, occupational segregation, and the economic impact of discrimination and policies aimed at promoting gender equality. Becker (1965) contribution applied standard neoclassical instruments to the distribution of paid and unpaid work within the family, while Nelson 1995, Altonji and Blank 1999, Hakim 2000, Goldin 2014, Piazzalunga 2018, Roethlisberger et al., 2022 aim to investigate the different behavior of females and males in the job market and earning pay gap and vertical and horizontal segregation (Olivetti and Petrongolo 2016, Ngai and Petrongolo 2017, Petrongolo and Ronchi 2020). Another strand of literature (Galor and Weil 1996, Brausten, Bouhia and Seguino 2020, Cubers and Teignier 2014, Santos Silva and Klasen 2021, Seguino 2000, 2010, 2020) explores the relationship between gender inequality and economic growth. The results highlight that reducing gender inequality enhances economic growth. Female participation in the job market is also conditioned by national institutions such as welfare regimes, social policies, employment protection legislation (Hall et al., 2019), and social and cultural norms (Alesina et al., 2011). Another area of research in the literature on gender and economics is occupational segregation, which refers to the tendency of men and women to work in different types of jobs (Alberda 1986; Browne & Misra 2003; Levanon & Grunsky 2016, Baum & Benschaul-Tolonen 2021). These studies highlighted that women are over-represented in lower-paying and less resilient occupations, such as those in the service sector, while men are mainly concentrated in industry. Gender segregation between and within industries finds its roots not only in cultural and social components, but also because of the gendered distribution of resources, such as education and training.

Regional Gendered Sectoral Segregation in the EU. Is regional specialization a gender segregation trap?

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Alicante-G54-Urban studies, 0-C02, August 30, 2023, 4:45 PM - 6:30 PM

During the last 40 years, women's participation in the labour market increased. Additionally, culture changed, women acquired skills and obtained education in STEM fields. Despite the diffusion of international progressive gender norms, labour force participation and unemployment rate in the EU highlight differences in terms of gender. Furthermore, women remain segregated in some industries, and they are over-represented in low-status, part-time, and atypical jobs. Consequently, sectoral segregation by gender is remarkable, and, as a result, women face a greater risk of economic insecurity. Furthermore, the larger gender segregation consequence is represented by the gender wage gap. Gender segregation depends on social, cultural, and educational components, but can also be influenced by regional sectoral composition, industry mix, values, and beliefs, regional or national degree of innovation, and regional export. However, gender segregation has been found in several studies that have considered different countries. Olfet & Moebis (2006) for Canada, Sarycheva et al., (2015) for Russia, Seguino & Brustein (2017) and May & McGaivery (2017) for US, Borrowman & Klasen (2020) for developing countries. The objectives of policies should not only be to incorporate women into the labour market, but also to promote and facilitate women's employment in some industries rather than others.

The aim of the paper is to explore gender segregation among EU regions using the Index of Dissimilarity (ID) proposed by Duncan & Duncan (1955) based on the understanding that segregation means a different distribution of women and men across the occupational categories, the more equal the distribution, the less the segregation. Furthermore, we want to investigate whether and how gender segregation is influenced by regional sectoral composition and industry mix. For example, if a region is specialized in industries or construction, which are traditionally male dominated, it can be difficult for women to enter those fields and may also reinforce gender discrimination. This can create a cycle of segregation where women are excluded from certain industries and may be forced to work in lower-paying and less prestigious sectors. To address the women segregation trap created by regional specialization, it is important to promote gender equality and ensure that women have access to education, training, and opportunities in a variety of sectors. This can help to create more diverse and inclusive workforces and support economic growth and development in all regions.

Technological capacity and the impacts of intra- and interregional linkages on new technological specialization

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Alicante-G09-O3 Innovation and Regional Development, 0-C04, September 1, 2023, 11:00 AM - 1:00 PM

Despite the global consensus that regions build on existing foundation capabilities to develop new activities or reinforce existing activities and a large body of literature argues that this process requires regions to identify and create links with different regions that provide new knowledge, the role played by regional links in technological branching or specialization has been widely neglected in the literature, especially in developing countries. Analysing 127 classes of technologies across 135 Brazilian mesoregions during the period 1997-2019, this work attempts to address this research gap. We find strong evidence that both intra- and interregional linkages impede new entry of technological specialization and technological branching. In addition, the relation between interregional linkages and new specialization and diversification is moderated by the technological capacity of regions. New technology has a higher probability of being introduced to a region when this region is connected to other regions that offer different technological capabilities in a manner that is independent of the technological capacity of the region. In addition, linkages that are outside the region's technological portfolio have no impact on branching, while linkages that are inside the technological portfolio of the region are likely to promote branching. In summary, interlinkages per se tend to impede the entry of new technologies or branching, but interlinkages with specialized partners promote them.

Who creates “skill-diversified jobs”? The crucial role of firms

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Alicante-S77-S3 Economic Complexity for Industrial and Innovation Policy, 1-E11, August 31, 2023,

4:45 PM - 6:30 PM

Our study investigates the heterogeneity of skill demands within occupations among Indian firms using a unique matched database of firm-level data and online job vacancy data. We employ an innovative skill taxonomy and use a multi-level machine learning and econometric empirical approach to investigate the characteristics of Indian firms that are associated with demand for high skill diversification and various combination of skill sets. Our empirical analysis provides compelling evidence of significant heterogeneity in skill requirements across firms within the same occupations. Additionally, we find that firms that demand diverse skill sets differ from their counterparts. Firms involved in complex activities, such as innovation or foreign market participation, require digital skills and specific combinations of digital skills with other skills. Our findings highlight the crucial role played by firms in defining the nature of work, moving beyond the simplistic discussion of being skilled/unskilled or doing routine/non-routine activities, often seen in the broader literature on the future of jobs and skill demand.

Determinants of International Conference Venues in Japanese Prefectures

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Alicante-S19 Regional development under the new wave of globalization and current introverted economic policies — Tourism, migration and RTA, 1-D11, August 30, 2023, 11:00 AM - 1:00 PM

In this paper, we attempt to show what is effective to attract more international conferences to a region, using Japanese prefectural data of 1998-2017. This article follows the methodology of Falk and Hagsten (2018), performing regression analysis on data of 943 European cities from 2012 to 2016 and showing that city size and other factors (culture, openness, etc.) work to attract international conferences. Our Poisson-regression analysis shows positive effects of the size of the economy measured by prefectural population, with prefecture/year dummies. The positive population effect is also confirmed with five-rank population categorization, and the effect gets larger as population category goes up. Other two independent variables, number of universities in a prefecture and whether a prefecture has at least one bullet-train station, has positive effects in regression with population categorization. Especially, statistical significance of the number of universities is consistent with an observation that universities are main international-conference venues in Japan.

Strategic policy intelligence for enabling collaboration through a futures-oriented co-creation process: The case of anticipatory innovation ecosystems in Latvia

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Online-S38 Partnerships for innovation: building transformative innovation policies with local ownership, August 28, 2023, 11:00 AM - 1:00 PM

The challenge of developing an anticipatory system to catalyse transformative change for global transitions requires the capacities of diverse stakeholders and multiple levels of governance. As networks of heterogeneous actors, innovation ecosystems present a promising vehicle for generating future knowledge that enables both ecosystem partners and the government to become more proactive and resilient. Anticipatory approaches such as horizon scanning can help ecosystem partners to leverage complementary areas of knowledge and expertise, align on long-term objectives, identify threats and opportunities and think creatively about strategic innovation fields. However, such methods are rarely used by innovation ecosystems regularly and systematically, nor are there pathways for the knowledge they generate to inform government policy. Based on work conducted in Latvia, this paper provides an illustrative example of generating strategic policy intelligence and laying the foundations for continued futures-oriented collaboration by developing and testing an approach to foster anticipatory innovation ecosystems. This paper aims to contribute new evidence on adopting more substantial participatory modes, such as co-creation models, to shape governance processes for collective anticipation at the innovation ecosystem level. In doing so, it also provides insights into the co-learning process by which two partner organizations identify conceptual and methodological building blocks for co-creating anticipatory capacity in a multistakeholder setting.

Unemployment-Output Gap Relationship: Evidence from Panel Data Quantile Regression

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Alicante-S76-S1 Global disruptions and their local labor market impact. An investigation into the spatial drivers of productivity and growth, 1-E11, August 31, 2023, 2:30 PM - 4:15 PM

The seminal Okun's (1962) paper inspired an enormously rich strand of research on the unemployment-output growth nexus. Voluminous literature provides strong support for the validity of Okun's law. This relationship has attracted the attention of economists and macroeconomic policymakers, but with no consensus on the size of Okun's coefficient, which substantially varies across countries and over time. An increasing number of studies confirm Okun's law asymmetry and non-linearity. Previous research reveal that Okun's coefficient may vary across different phases of the business cycle. Oh (2017) and Donayre (2022) started a new strand of research that allows Okun's coefficient to vary across more than two phases of the business cycle. Authors state that division into three phases or regimes can reveal some hidden institutional change behind Okun's coefficient measured for entire cycles (Oh, 2017) and capture all of the variation in the joint behavior of output and unemployment (Donayre, 2022).

We want to combine and extend Oh (2017) and Donayre (2022) approaches and we put forward a hypothesis that Okun's coefficient varies over both the expansion and recession phases.

Our estimation strategy to examine the heterogeneity of the unemployment-output relationship over different stages of the business cycle is based on the gap version of Okun's law. It states that the difference between the actual and equilibrium unemployment rates is negatively related to a gap between actual real and potential outputs. To model the multinomial Okun coefficient we apply quantile regression, which estimates Okun coefficient with other parameters at the different levels of unemployment.

Our findings suggest that Okun's coefficient is significantly higher when the economic boom phase starts, and the unemployment rate is still high. It means that the expansion policy has a higher unemployment-reducing effect than the one suggested by the traditional binomial non-linear approach to Okun's law, even if the economy is already in the growth phase. We also find that Okun's coefficient is significantly lower when the recession phase starts, and the unemployment rate is still low. It suggests that the expansion policy has a lower unemployment-reducing effect than the one suggested by the traditional binomial non-linear approach to Okun's law at the beginning of the economic decline phase. We also estimated gender-, age-, and educational attainment-specific Okun's coefficients over the business cycle as these characteristics also cause heterogeneity of the growth–unemployment nexus.

Startups in a Peripheral Region - an Empirical Analysis of Startups in Israel

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Alicante-G09-O5 Innovation and Regional Development, 0-C02, September 1, 2023, 2:30 PM - 4:15

PM

Startups are typically more concentrated in major urban centers, while their presence in peripheral regions is relatively scarce. This study aims to identify the factors that may contribute to this phenomenon in order to inform policy efforts to promote innovation in peripheral regions. Our hypothesis is that startups located in peripheral areas have unique characteristics and that their reliance on factors of the innovation ecosystem differs from startups in central regions.

To test this hypothesis, we surveyed 173 startups, 105 of which were located in the metropolitan center of Tel Aviv in Israel and 54 of which were located in peripheral regions. The questionnaire collected data on the typology of the startups, including characteristics such as the degree of radical or incremental innovation, open or closed innovation, and whether they operated in a "blue ocean" or "red ocean" market. In addition, interviewees were asked to rate on a scale of 1 to 5 the importance of various factors of the ecosystem for their startup.

Initial analysis using a logit regression suggests that certain types of startups are more likely to be located in peripheral regions. We also examine the relative importance of various ecosystem factors for different types of startups, comparing startups in peripheral and central regions. The results of this analysis may provide valuable insights into effective policy measures to attract specific types of startups to peripheral regions.

Regional Resilience in the Spanish Regions over the last fifty years

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Alicante-G30-O2 Covid-19 and regional and urban resilience, 0-D04, September 1, 2023, 9:00 AM -

10:30 AM

In the last 15 years, economies have been shaken by two economic crises of very different origins: The Great Recession and, more recently, the COVID pandemic. During the Great Recession, interest in the analysis of regional responses to this crisis was revived and the study of regional resilience and its determinants gained great importance and interest.

This interest is felt not only in the academic sphere but also in the political decision-making sphere, resulting, for example, in the design of the Recovery and Resilience Facility by the European Commission to mitigate the economic and social impact of the coronavirus pandemic and make European economies and societies more resilient and better prepared for the challenges and opportunities of the green and digital transitions.

Regions' previous growth paths condition their responses to shocks and thus their greater or lesser level of resilience. Resilience is therefore a dynamic, path-dependent process. Consequently, the analysis of regional behaviour (in terms of employment, in this case) in the last crises has to be studied taking into consideration where we come from, i.e. the different adaptation processes that have taken place in the regions in the face of the different shocks. (Martin, 2010; Boschma, 2015; Evenhuis, 2017; Henning, 2019; Webber et al., 2018;). The aim of this paper is to analyse and compare the performance of Spanish regions in terms of employment during the last 4 crises in order to deepen the role of path-dependence.

The measures of central tendency and the measures of dispersion as a complementary tools of spatial structure description.

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Alicante-G41 GIS and Location Modelling, 1-B02, August 30, 2023, 4:45 PM - 6:30 PM

Centrography deals with the average location of the spatial distribution of a given phenomenon. It has become a widespread field of geographic research in an era when there arose a need for scientific confirmation of the process of colonization of Siberia and the Wild West, followed by the expansion of various socio-economic phenomena. Therefore, it is clear that the definition of the centroid and the methods of its determining initially were a key issue, since tracking and analyzing its trajectory was a convenient tool for the purposes of that time. This paper comprehensively reviews one-dimensional descriptive statistics of central tendency, which provide a starting point for generalizing to the "various centroids" of a two-dimensional Cartesian map space. Among these statistics, one can indicate not only numerous types of averages, including the most commonly applied arithmetic mean and weighted mean, but also such simpler but no less informative ones as mode, median, midrange or midhinge. However, after the era of geographic exploration and tracking the trajectory of "centroids", there has emerged a need to measure dispersion. Similarly, as very different sets of quantitative data may be described by a very similar mean value, the centroid can also be placed in a likely location, regardless of the concentration of the mass (weight) of phenomena, whether it is concentrated centrally (e.g., Hungary), polycentrically (e.g., Poland) or cumulatively on peripheries (e.g., Spain). Hence, although dispersion measures have so far been rather overlooked in the literature and often confined to Standard Distance and Standard Deviation Ellipses, they ought to be perceived as complementary in relation to measures of central tendency and equally important in the synthetic description of spatial structures. Thus, this paper goes beyond a review of measures of central tendency and aims to provide a list of dispersion measures that may also be generalized to two-dimensional Cartesian map space and be applied in geographic research. Selected pairs of central tendency and dispersion measures have been empirically verified on the example of European spatial units, different definitions of "mass" and "distance", and varying temporal intersections. The results were presented cartographically and cross-referenced. Conclusions focus on the difference in findings obtained with diverse pairs of measures, indicating the potential impact of the selection of the measure on the emphasized features of spatial patterns.

A 'potential' interpretation of Fitness and Complexity

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Alicante-S77-S3 Economic Complexity for Industrial and Innovation Policy, 1-E11, August 31, 2023,

4:45 PM - 6:30 PM

We uncover the connection between the Fitness-Complexity algorithm, developed in the economic complexity field, and the Sinkhorn-Knopp algorithm, widely used in diverse domains ranging from computer science and mathematics to economics.

Despite minor formal differences between the two methods, both converge to the same fixed-point solution up to normalization.

The discovered connection allows us to derive a rigorous interpretation of the Fitness and the Complexity metrics as the potentials of a suitable energy function.

Under this interpretation, high-energy products are unfeasible for low-fitness countries, which explains why the algorithm is effective at displaying nested patterns in bipartite networks.

We also show that the proposed interpretation reveals the scale invariance of the Fitness-Complexity algorithm, which has practical implications for the algorithm's implementation in different datasets.

Further, analysis of empirical trade data under the new perspective reveals three categories of countries that might benefit from different development strategies.

This interpretation can be framed in all the empirical application of the FC algorithm, such as technology, science and green innovation.

This new description is useful to quantify, in terms of 'energy' requirement and efficiency in resources allocation, the feasibility of strategies that aim to establish new production, technology's development or researches.

We briefly discuss how the Optimal Transport framework may allow an important extension of this work and represent a new powerful ingredient for Economic Complexity.

An ex-post empirical evaluation of the displacement effects in re-programming Structural Funds on regional growth

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Alicante-G02-O1 Regional and Urban Policy and Governance, 0-C02, August 30, 2023, 11:00 AM - 1:00 PM

The purpose of European Cohesion Policy is the achievement of sustained (long-run) growth. However, very often EU Funds are diverted towards short-run objectives when unforeseen events occur, such as economic crises or natural disasters. This work evaluates empirically the relative impacts on real per capita GDP growth for (NUTS-2) Italian regions which can be attributed to reprogramming Regional Operational Programmes (ROPs). We adopt both an aggregate and a sectoral approach. The re-programming of ERDF-ROPs during the considered time span (2007-13 and 2014-20) was mainly based on the redirection of the allocated amounts to face short-run downturns. In detail, the most significant events were the two regional economic crises, arose from the global Great Recession and the Covid-19 pandemic, some earthquakes and other natural calamities. The assessment is carried out through the computation of the impulse response functions estimated by the Jordà local projections method. The estimation results show a statistically significant and robust negative effect of re-programming starting three years after the planned shock. Our empirical evaluation contributes to the debate on the effectiveness of the European Regional Policy assessing the specific issue of funds' diversion, detecting a warning when they are employed in a different use with respect to their typical goals. The leading result is about the not neglectable effects of re-programming for conjunctural needs especially regarding their influence on policy outcomes.

The impact of agglomeration economies on circular innovation: new evidence from Italian firms

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Alicante-G26 Spatial aspects of a Circular Economy, 0-C02, August 30, 2023, 4:45 PM - 6:30 PM

A successful transition towards a more circular economy requires adoption and diffusion of Circular Innovation (CI), a subset of Eco-Innovation (EI) that aims to maximize resource efficiency and minimize waste production. The proposed article investigates whether and to what extent different types of agglomeration economies – specialization, related and unrelated variety – matter for the adoption of CI and EI by Italian manufacturing firms. By combining literature on economic geography, the geography of eco-innovation and industrial ecology, we hypothesize agglomeration economies to be relatively more important for the adoption of CI than EI. In fact, CI, particularly those applied at firm level, rely greatly on physical exchanges of materials, waste, energy and by-products among different actors. Proximity, co-location of firms, and agglomeration economies are expected to enhance potential resource pathways and facilitate input-output matches, therefore promoting material exchanges and circularity. Using a dataset of more than 60.000 Italian manufacturing firms, obtained combining two different databases (the permanent census of enterprises and the ASIA database) provided by the Italian Statistical Institute (ISTAT), we find that both specialized agglomeration and unrelated variety are positively correlated to CI adoption, while related variety has no significant impact on CI. On the other hand, no agglomeration indicator appears to be significantly correlated to EI adoption. The findings suggest the need for a place-based approach in the designing process of circular economy policies, that takes into account spatial and local characteristics, such as the industrial fabric of the area.

Monetary and Fiscal Policies and Regional Development - Speaker 1

Prof. Philip Mccann

Alicante-KL5 Keynote Lecture - HYBRID Session, SA-SALÓN DE ACTOS, August 31, 2023, 2:30 PM - 4:15 PM

Monetary and financial issues are an under-researched area of regional science, urban economics and economic geography. Given that all interregional economic systems within national economies or specific integrated international single markets such as the EU operate on the basis of a common currency, most scholars have assumed away monetary issues as being relevant to regional economic adjustments. Similarly, the nuances of private capital investment markets are also largely absent from the field, presumably due to data limitations, while the fiscal underpinnings of public finance in regional development are also largely ignored, instead dominated by models of competition in public goods. The result is that we currently know very little about the effects of financial markets and monetary policy on regional development. Clearly monetary and fiscal policies are likely to have a strong impact on people and places, and, at the same time, their effects are likely to be deeply influenced by spatial constraints and potentials. Therefore, Regional Science Policy and Practice should care about Monetary and Fiscal Policies and Regional Development.

Professor Phillip McCann, from The Productivity institute at the University of Manchester, will discuss impact of private investment capital and public finances on regional development
Professor Kokoszcyński, from the University of Warsaw, will report on the spatial dimensions of monetary policies.

Beyond the state: the future for musical micro-enterprises in rural Scotland

Prof. Simon McKerrell¹

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Alicante-S24 Outside the frame: creative, cultural and innovative dynamics in non-urban regions, 1-

D13, August 30, 2023, 11:00 AM - 1:00 PM

This paper examines the relationship between place-based entrepreneurship of musical micro-enterprises and their economic sustainability, in rural CCIs in the Highlands and Islands of Scotland. It summarises primary research from a research fellowship, drawing upon ethnographic evidence from over 70 interviews with musicians, venue operators, musical instrument makers, luthiers, festival organisers, arts promoters, public officials, charity officers, police, educators, tutors across the Highlands and Islands of Scotland.

Many interviews revealed (either directly or tacitly) a strong relationship between the sustainability of musical entrepreneurial activity in rural areas, and place-based enterprise and activity. This revealed itself in various ways including: strong place-based stories of music and song in the branding and online identities for musicians, venues, festivals and events; revenue from online music tuition for more place-based artists; more sustainable music festivals had stronger links to the local communities and heritage; through the deliberately place-based decision in festival programming, venue events and educational programmes across years; and a vibrant third sector that understands the importance of place and culture in sustaining their activities in rural Scotland.

The project also reveals the extent of 'state retreat' in the Highlands and Islands of Scotland, barriers to participation for young people and various aspects of the impact of digitalization that emerged in musical careers during the pandemic, and how these have been variously capitalized for more sustainable incomes.

The discussion concludes by proposing four future rural music-CI trends: 1) The different affordances of different musical genres for place-based marketing of musicians, festivals and events. Traditional music's much stronger connection to the places and heritage of the Highlands and Islands constantly reveals and supports traditional musicians and organisations to remain more economically sustainable for rural music careers. 2) The concomitant deterritorialization of other genres such as rock, classical, pop or jazz, indie musics makes their communities of practice less visible and less sustainable in rural areas. 3) The substantial future opportunities for CI music-entrepreneurs who understand and can mobilize the transfer of rural and cultural capital to economic capital through music and online marketing, festivals and events, with real-world economic benefits for new, rural careers in the creative economy. 4) Policy implications which could include tourist bedroom tax, collectivization of public liability insurances; Digital marketing collectives/hubs; tax rebates for rural creative industries; income tax exemptions/reductions for rural CCIs; audit and surveys to support third sector and entrepreneurial activity in the Highlands and Islands of Scotland.

Engaging Tourists in Island Innovation

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Alicante-S68 Islands as 'socio-spatial laboratories' for sustainable development, 1-B11, September 1, 2023, 11:00 AM - 1:00 PM

Islands, more than mainland regions, face unique challenges related to small size and limited accessibility, which on the positive side can offer breeding grounds for innovation. At the same time, most islands are popular tourist destinations. In our research we ask the question whether and how the speed and impact of island innovation can be improved via smarter governance mechanisms, with the help of tourists of the islands. Our research involves 5 case study islands in 5 countries (Norway, Sweden, Denmark, Netherlands and France) as our experiment spaces. In the project, North Sea islands act as special places for "spark type innovations" that offer great potential for the mainland. The project uses a bottom-up participatory approach in which community involvement is central and young entrepreneurs, students and tourists enrich the process. We perform a series of experiments that engage tourists in island innovation using online connectivity as the main workhorse. Three types of tourist engagement are tested: 1. Can tourists share ideas and be creative co-creators in the island innovations? 2. Are tourists willing to support island innovation in physical terms, via helping, or testing products? 3. Are tourists willing to give donations for innovations on islands? For this work we will use the Greenmapper platform (www.greenmapper.org) and will in cooperation with software developers build relevant software to support the experiments. The research is based in the FREIIA - Facilitating Resilience Embracing Islands Innovation Approaches - Interreg North Sea project.

Local labour market effects of global value chain disruptions – evidence from another “China shock”

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Alicante-S23-S2 Rethinking regional resilience, 1-D11, August 30, 2023, 2:30 PM - 4:15 PM

This paper sheds light on the role of global value chain integration for local labour market outcomes in Germany during the COVID-19 pandemic until December 2021. Given the increasing dependence of the German economy on China, we focus on the bilateral trade relationship between the two countries. Specifically, we examine whether and to what extent global value chain linkages in general and with China in particular influenced the magnitude of the initial shock and the subsequent recovery of local labour markets. We show that the negative impact on local labour markets in the first part of the pandemic is specifically driven by global value chain linkages with China.

We use detailed spatio-temporal information on short-time work provided by the German Federal Employment Agency and link it to the OECD Inter-Country Input-Output Tables. To obtain regional information for global value chains, we weight the country information with the sector-specific employees in a given labour market region. To identify the effect of global value chain integration on regional short-time work, we use a difference-in-differences setup with the regionalised global value chain integration as continuous treatment. We also include an entropy balancing with a variety of controls and other spatio-temporal COVID-19 related information, which allowing us to identify a valid treatment effect.

We find that short-time work was used more intensively in regions with above-average global value chain integration with China. However, these effects seem to be temporary and disappear quickly in 2021. While GVC integration in general does not seem to have a significant effect, it is specifically global value chain linkages with China that seem to have a negative impact on regional labour markets in Germany. Our results also suggest that the effect is slightly higher for GVC-related imports than for exports, but the difference is not statistically significant.

Municipalities attractiveness and the pandemic. An analysis for the Spanish population flows

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Alicante-G03-O4 Demographic Change, Population and Migration, 0-C04, August 31, 2023, 2:30 PM - 4:15 PM

In 2020, population flows experienced a significant trend reversal. The pandemic outbreak caused major cities around the globe to experience net population losses, giving rise to a novel phenomenon known as the "Covid exodus." In the early stages of the pandemic, authorities imposed a state of lockdown on the population and ordered businesses to temporarily cease all non-essential operations. Following that, restrictions to prevent a population massive infection continued to have an impact on the economy and everyday life in the "new normality", particularly in cities. The inability to enjoy the cultural and social amenities that larger cities typically offer, stricter lockdown measures, and fear of contagion are likely some of the non-economic factors that pushed people out of urban areas. Economic factors, like job loss and increased housing costs in cities may also contribute to explain why people wanted to relocate. In addition, teleworking, a phenomenon that refers to performing a productive activity remotely, gained popularity and gave people the freedom to choose where to reside, regardless of where their work centres are. Considering the role of high-speed internet access and touristic attractiveness, factors that are not typically considered in the literature, makes it relevant and interesting to determine the impact of the pandemic shock on the population flow motivations. As a result, we examine in this study what factors contributed to attract people in 2020 in Spain. In order to do so, we use the Residential Variation Statistics micro dataset, which collects data on each individual move that implies a municipality change. It also considers the migrant's individual traits, such as nationality, birthplace, date of birth, and gender, making it possible to pinpoint the reasons why particular groups migrate. According to preliminary findings, tourist attractiveness in destinations and high-speed internet connectivity both significantly and increasingly influence population flows.

Regional Okun's law, endogeneity, and heterogeneous effects: District-level evidence from Indonesia

Prof. Carlos Mendez¹, Harry Aginta¹, Masakazu Someya¹

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Online-G39 Methods in Regional Science or Urban Analysis, August 29, 2023, 2:30 PM - 4:15 PM

This paper investigates the regional Okun's law across 514 districts of Indonesia over the 2011-2020 period. To address the endogeneity issue, we use regional temperature as instrument for economic growth. Our results show that regional growth becomes statistically significant only after endogeneity is taken into account. Furthermore, we show that Okun's law is geographically heterogeneous. Only in the more industrialized western regions of Indonesia does unemployment have a significant relationship with GDP growth.

Exploring economic activity from outer space: A Python notebook for processing and analyzing satellite nighttime lights

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Online-S27 Applications of Advanced and Innovative Methods in Regional Science, August 28, 2023,
4:45 PM - 6:30 PM

Nighttime lights (NTL) data are widely recognized as a useful proxy for monitoring national, subnational, and supranational economic activity. These data offer advantages over traditional economic indicators such as GDP, including greater spatial granularity, timeliness, lower cost, and comparability between regions regardless of statistical capacity or political interference. However, despite these benefits, the use of NTL data in regional science has been limited. This is in part due to the lack of accessible methods for processing and analyzing satellite images. To address this issue, this paper presents a user-friendly geocomputational notebook that illustrates how to process and analyze satellite NTL images. First, the notebook introduces a cloud-based Python environment for visualizing, analyzing, and transforming raster satellite images into tabular data. Next, it presents interactive tools to explore the space-time patterns of the tabulated data. Finally, it describes methods for evaluating the usefulness of NTL data in terms of their cross-sectional predictions, time-series predictions, and regional inequality dynamics.

Location determinants of logistic platforms in Spain in the era of e-commerce

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Alicante-G34-O5 Transport and Accessibility, 0-B03, September 1, 2023, 2:30 PM - 4:15 PM

Over the past few decades, there have been widespread reports of urban and logistics sprawl, which have led to significant changes in land use patterns. The importance of central locations has undergone a notable evolution, largely due to the rise of e-commerce, which has transformed traditional warehouses into e-fulfilment centers, affecting both their internal layout and preferred location. In light of these developments, our paper aims to investigate the locational factors that drive the establishment of logistics platforms in Spain. We have collected data on approximately 4,500 facilities and analyzed the correlation between the number of logistics platforms in each municipality and a range of influential locational factors, including transport infrastructure, demographic characteristics, land availability, land taxes, education levels, and administrative status. Our findings highlight the crucial role of transport infrastructure and proximity to urban metropolises in determining the optimal location for logistics platforms.

The heterogeneity of location determinants of Coworking Spaces in Beijing: Core vs. Periphery?

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Alicante-S10-S1 Geographies of New Ways of Working, 1-C12, August 31, 2023, 2:30 PM - 4:15 PM

This paper aims to explore the location determinants of Coworking spaces (CSs) in the Chinese capital city of Beijing, by disentangling similarities and differences with the Western context. The study uses a count data model (CDM) and data from 2021 to answer three research questions: 1) Where are CSs located and what are the location determinants? 2) How does the urban structure of Beijing affect CSs' location determinants? 3) What role do (creative) specialization and variety play in CSs' location? The findings reveal that CSs in Beijing tend to be located in some specific areas, some of them promote by public authorities, and in areas with a high density of knowledge-intensive and creative industries. The urban structure of Beijing, characterized by a polycentric urban form, affects the location of CSs by creating localized hubs of activity. Furthermore, the study finds evidence that both specialization and variety are important factors in the location of CSs, with creative industries and related services having a particularly strong effect. Overall, the paper provides insights into the location determinants of CSs in Beijing and highlights the importance of understanding the particular context of the city when considering the location of CSs.

Strategies in urban waste management: a theoretical approach

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Alicante-G02-O2 Regional and Urban Policy and Governance, 0-C03, August 31, 2023, 2:30 PM - 4:15 PM

Municipal waste management represents one of the biggest challenges for EU institutions. In this context the EU has progressively enriched the waste management legislation in the aim to accelerate the transition towards a circular economy. Improving municipal waste management can lead to a reduction of its environmental impact during the whole life cycle of the consumed products, from production to consumption and waste phase.

We consider both production and consumption side as generator of waste. Taking inspiration from the Italian waste management system, we theoretically frame a model where the waste service provider is not only the municipality, but also a private firm which is a competitor of the municipality regarding firms waste.

In the model citizens can dispose their recycled waste only to the municipality waste management system and should decide the amount of time they dedicate to recycling. On the other hand firms can choose whether to contribute to the municipal waste management or to sell their recycling waste to the private firm. The municipality decides the amount of capital to employ, the definition of urban waste in order to keep/not keep firms and the taxes to impose to firms and citizens in order to meet the recycling objectives.

We solved the model as a sequential game between the municipality and the firms regarding their strategies on waste management. The municipality plays first by deciding the rules of the game. In the second step firm decide whether to dispose their urban waste to the municipal or private waste collector.

Findings suggest that the municipality should be competitive in order to induce the most productive firms to participate to the municipal urban waste system, otherwise the private competitor would take the best part of market (cream skimming of firms). We find that the solution depends on the productivity of firms and citizens in recycling and on the redistributive objectives of the municipality. In case firms are more productive than citizens, the municipality would set fiscal incentives for firms to choose the municipal waste system. A municipality that cares only for efficiency will set the rules of the game in order to provide services of waste management only to the most productive firms, leaving the others to the private market. On the other hand a municipality that has redistributive concerns will lower the burden of citizens by accepting also non productive firms.

The role of key actors (institutions, research and education, press...) in supporting road safety policies

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Alicante-S21 Evaluation of safety and security policies, 1-D11, August 31, 2023, 11:00 AM - 1:00 PM

In a safe system approach (ITF, 2008, 2016, 2022): the role of the actors is central. First of all, we can obviously point to the need for a lead agency capable of initiating, financing, monitoring and evaluating road safety policies at different institutional and spatial scales.

The role of stakeholders is also important in defining actions and in their implementation. These actors can be institutional, private (companies), individual or community, press, non-governmental associations, international associations, higher education and research.

These different stakeholders are likely to be involved at different stages of the decision-making and implementation process of road safety policies and actions, such as

- Management
- production of knowledge and methodologies
- scientific legitimisation of measures
- training of managers in charge of road safety policies
- dissemination of good practice
- prevention among young people
- information for the general public

This initial list is not exhaustive and other roles may be highlighted during the presentation. These skills and capacities are necessary to develop the groundwork for long-term action in favour of effective road safety policies in each country.

The presentation is based on the following four cases that we analysed in detail for the report "The Safe System Approach in Action" (ITF, 2022):

- Bogota (Colombia): adoption of Vision Zero, which shares the Safe System approach, launch of a new road safety plan 2017-2026; the case of urban speed limits
- Ouagadougou (Burkina Faso): trauma research project to instrument data collection
- Mexico City: Adoption of Vision Zero, comprehensive road safety programme (2016-2018), example of safety near schools
- Pleiku (Vietnam): Slow Zones, Safe Zones (SZSZ) programme, project on school zones and speed limits, case of two schools

Other fields of study and lessons on the role of actors will also be mobilised in the work carried out in the framework of the European SaferAfrica project (Mignot et al., 2018).

In the end, the objective of the presentation will be to demonstrate that for the implementation of road safety policies, as for other policies, any simplistic and/or techno-centric approach is doomed to failure, and that the recognition and involvement of key stakeholders is a factor for success.

The impact of large firm closures on the economic performance and the attractiveness of the exit regions: A difference-in-difference approach

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Alicante-S15-S1 Digitalisation, global shocks and new inequalities, 1-C13, August 31, 2023, 4:45 PM - 6:30 PM

In this study we offer a comprehensive perspective on the impact of large firm closures on the exit regions by investigating the effects of such large closures on both the economic performance of incumbent firms, measured using the CPI-adjusted real revenues, employment, and productivity, as well as on the attractiveness of the exit regions, proxied by real-estate property prices. We use a difference-in-difference setup and compare firm performance and real-estate property prices in the exit regions with firms and real-estate properties selected in a control group so that the two groups have similar pre-treatment trends in the dependent variables. The results show that the closure of a large firm leads to an increase of +0.91% in the revenues the incumbents in the exit regions, as well as to a smaller increase of +0.30% in their employment and of +0.61% in their productivity. This indicates that the sales, and, to a lesser degree, employment of the large exiting firm is absorbed by other firms in the region. There is a threshold to this effect though, as further analysis shows that it decreases quickly with the number of closures that take place within the same region. The results also show a positive effect of +6.89% the prices of the residential real-estate properties that are located in the direct vicinity of the large closures, an effect that decreases quickly with distance. The effect on commercial properties follows a similar. Although contrary to the expectations, this result validates the fact that redevelopment of the closure sites takes place quickly after the time point of the closure, with new firms generally making entrance at the exit site during the first year after the large closure. The quick redevelopment makes that the site of the large closure is seen as an amenity rather than a disamenity by both residents and other firms and thus that the demand for space in these areas is high.

The effect of pedestrianization on the attractiveness of the urban space: A difference-in-difference-type estimation approach

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Alicante-G01-O7 Region Urban Development, 0-C01, August 30, 2023, 11:00 AM - 1:00 PM

Pedestrianization has been widely used for revitalizing urban areas during the last decades, as it has been argued to come with a series of benefits: the reduction in congestion, road crashes, and related injuries; the increase in social interactions and safety; the improvement in the urban micro-climate; and the increase of the customer base in the area, which is argued to spill over the sales and employment of the local firms. Critics argue, however, that car-borne consumers have more purchasing power than pedestrian and mass transit users and that car access attracts customers from longer distances, widening the range of the local urban market; thus, restricting the access for cars drives away these consumers from the central markets.

Hence, whether pedestrianization is an urban amenity does not seem to have an easy answer; both these positive and negative effects are however capitalized in property prices, making them an appropriate proxy for measuring urban attractiveness and thus attempting to provide an elucidation to this dilemma. In this study I use a difference-in-difference-type estimation approach to investigate the effectiveness of pedestrianization schemes in Sweden. Based on a unique combination of three country-wide databases – on the changes in the length of the pedestrian streets, as well as the prices of residential and commercial properties – I compare property prices in a treatment area (i.e., in the neighborhood of streets with changes in the length of their pedestrian segments) before and after treatment and with property prices in a control group (i.e., in areas that have not experienced any changes in the length of their pedestrian segments).

The results indicate an average increase of +0.77% and +2.89% in the square-meter price of the residential and, respectively, commercial properties located in the treatment area, for every 10-meter increase in the length of the pedestrian street. This result is equivalent to a total average increase of 26 898 SEK (2 393.82 USD) 661 810 SEK (58 901.09 USD) in the average pre-treatment sales price for properties located in the treatment areas. A decrease by 10-meter in the length of the pedestrian street determines instead a decrease of -1.67% and 6.77% in the prices of the residential and, respectively, commercial properties in the treatment areas (-61 480.50 SEK (-5 471.76 USD)) and, respectively -1 550 330 SEK (137 979.37 USD)). The analysis also indicates that the effects diminish with distance from the closest pedestrian street.

Spatial boundaries and structures of local entrepreneurial ecosystems

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Online-G35-O2 Regional and Urban Labour Markets and Entrepreneurship, August 29, 2023, 2:30 PM -

4:15 PM

Entrepreneurial activity forms a significant part of the economy of urban agglomerations. During the last years researchers considered specifics of local entrepreneurial ecosystems as one of its key determinants. This term may be defined, for example, as an ‘interconnected group of actors in a local geographic community committed to sustainable development through the support and facilitation of new sustainable ventures’ (Cohen, 2006; Audretsch et al, 2021). Differences in the specifics of entrepreneurial ecosystems can become a significant factor in the socio-economic polarization of territories (Zemtsov, Baburin, 2019). For instance, cities and regions with more developed entrepreneurial ecosystems are more resilient to crises (Iacobucci, Perugini, 2021).

Spatial aspects of entrepreneurial ecosystems have attracted less attention than some other ones, especially at local level. Nevertheless, study of local structures and interactions in entrepreneurial ecosystems seems to be important to understanding their nature. Firstly, it is at this level that interaction between the actors of entrepreneurial ecosystems takes place, including the exchange of information and knowledge spillovers (Roundy, Bayer, 2019). Secondly, the degree of spatial socio-economic polarization among different local communities may be more significant than at regional or national level (Nefedova, 2009). These aspects may become even more vital in the cases of countries with sparse distribution of urban population (Nefedova, 2009; Capello, 2002), as well as in the countries which have experienced post-socialist transition and therefore had less time for establishing sustainable entrepreneurial culture (Audretsch, Keilbach, 2007).

The aim of the paper is to examine the spatial structures of local entrepreneurial ecosystems in large urban agglomeration of Nizhny Novgorod (Russia). We use the SPARK-Interfax database in order to obtain characteristics (including economic domain, company’s age, location, average revenue etc.) of 56.000 enterprises residing in agglomeration for period of 2019-2021. Particular attention is paid to local contexts of Nizhny Novgorod’s suburbs and peripheral areas, especially through the prism of post-socialist transition. We use methods of spatial analysis and spatial econometrics to consider spatial structures of urban entrepreneurial activity, depict socio-economic ‘portraits’ of local entrepreneurial ecosystems and reveal potential spatial boundaries among them. As a result, we conceptualize differentiation of three types of these boundaries (‘physical’, ‘functional’ and ‘structural’ ones). Also, we propose a typology of local entrepreneurial ecosystems for our case.

The new Smart specialization strategy of Veneto Region: an innovation system to thrive in complexity

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Alicante-S38-S1 Partnerships for innovation: building transformative innovation policies with local ownership, 1-D12, August 30, 2023, 4:45 PM - 6:30 PM

In 2022 Veneto Region approved the new version of the Smart specialization strategy (S3), subsequently confirmed by the European commission. The new S3 has radically innovated the rationale of regional intervention by adopting a matrix model and replacing the former one, that was more focused on a traditional and vertical framework. The main innovation lies indeed in its method, by shifting towards a framework able to identify new paths opportunities between continuity and discontinuity and, above all, to address the challenge of the transformational change. The new S3 model presents six priority areas, four horizontal drivers and two strategic missions. Comparing to the former model, it introduces a sharp improvement in the capability to capture the growing connections among all the elements of the S3 and the ongoing economic transformations. The aim of the matrix model is twofold: on the one hand, improving the regional innovation policy in front of the continuous changes in the factors of economic competitiveness, sector specializations, network relationships, on the other hand enabling the twin transition, digital and green, and link the smart specialization strategy to the National Recovery and Resilience Plan. The overall objective is to go beyond the concept of resilience and strengthen the level of antifragility of the economic, social, and environmental system by place-based innovation policies, with the involvement of various stakeholders of the local communities and by conjugating bottom-up approaches with top-down ones. With the new S3 Veneto Region aims at developing an environment able to react and thrive in the current complexity paradigm as well. The matrix model has been replicated for the design of the monitoring and evaluation pattern to implement a consistent system able to generate punctual feedback on the results of regional public intervention. The innovation introduced was to connect the three levels of evaluation (output, outcome, impact) to a correspondent theme of evaluation (innovative development, potential growth, antifragility), by selecting a consistent set of indicators. To test it, the new monitoring and evaluation model has been partially applied to the system of Regional Innovation Networks (RINs). The test has shown different capabilities of RINs to foster the innovation development and to transform the innovative effort in regional potential growth as well as antifragility conditions. Moreover, it has highlighted several policy suggestions, that will be verified with the first and full evaluation activity to be held later this year.

The connexion between environmental behaviour and consumption patterns of European households: Simulations in a Multi-regional Input-Output Model

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Online-G24 Energy and Ecological Transitions, August 28, 2023, 11:00 AM - 1:00 PM

Nowadays, the relevance of environmental attitudes is highlighted by international commitments. One example of that is the European Green Deal. The Green Deal notifies the significance of interesting topics such as European mobility, household consumption, environmental impacts, and energy poverty, among others.

It is known that environmental commitments have revealed the importance of taking action against the pollution created not only by enterprises but also by final demand, especially, by households. In this line, the literature has shown the differences between income groups in their consumption patterns and environmental impacts. The study of the relationship between consumption patterns and environmental attitudes is quite important due to the great aid that could be to international commitments to develop adequate policies to reduce environmental impacts, and, in this way, achieve their ambitious goals.

In all this context, using a set of different environmental and social surveys, and developing a multi-regional input-output (MRIO) model for European households for 2015, we want to assess the relationship between environmental attitudes and consumption patterns. Evaluating this relationship, we want to go further and, assess, different simulations concerning European mobility, food consumption patterns, the use of efficient energy devices, the European energy poverty, among others. In this way, some of our results are the following. First, the affordability of households determines, in a significant way, their consumption patterns. Also, we find that a reduction in private transport will contribute to a significant reduction of greenhouse emissions, especially, for those from high-income groups. Also, a decrease in meat consumption will aid to reduce the amount of methane in the atmosphere.

Length of stay and tourists' visiting decisions at urban destinations: a case study from Barcelona

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Alicante-G36-O2 Tourism and Overtourism Issues, 0-D04, September 1, 2023, 2:30 PM - 4:15 PM

Tourists' mobility in space and time is influenced by multiple factors linked to destination characteristics, tourist socioeconomic and psychographic profile and organisation of the trip. The availability of time is considered from the classical to the contemporary authors as one of the most valuable resources that influence the movements and visits of tourists during their stay in urban destinations. Thus, before deciding to go to a location, and in face of multiple alternatives, tourists tend to decide how they will distribute their time budget by ranking the destination's attractions. The present contribution aims to appraise the influence of the length of stay on tourists' decisions of what to visit, the degree of intensity of the visits throughout a day, as well as their spatial dispersion or concentration throughout the urban environment.

The present contribution aims to appraise the influence of the length of stay on tourists' decisions of what to visit, the degree of intensity of the visits throughout a day, as well as their spatial dispersion or concentration throughout the urban environment. With this aim, data has been collected by means of a survey conducted during the summer of 2022 to tourists staying overnight in the city of Barcelona (N=1,947). The questionnaire was designed following the structure of a mobility survey, and therefore, tourists were asked about the visited places and attractions during the present and the prior day to the survey.

As a result, it is possible to analyse not only the importance of the length of stay but also to assess the choice of visits to attractions depending on the number of days that the tourist had already spent in the city. A first descriptive analysis by means of GIS techniques, as well as the subsequent use of discrete choice regression models unveil distinct patterns related to the most preferred places to visit within the city, the concentration of these visits with regard to time and space, and the degree of sensitivity of these decisions to the length of stay. The results of this paper provide valuable information for urban destination managers to design adequate policies at the local level that favour a balanced distribution of tourists and income throughout the city, to mitigate the negative impacts on residents' daily lives and to favour a more equitable distribution of incomes.

Strategic aspects of bundling to prevent information acquisition

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Alicante-G11-O1 Entrepreneurship and Regional Development, 0-E01, August 30, 2023, 11:00 AM -

1:00 PM

This paper analyzes the strategic effects of bundling in an environment where an entrant can obtain information on its productivity for producing a good in one market by entering a related market due to knowledge spillovers. We show that the practice of bundling by an incumbent can preserve its monopoly position by preventing an entrant's information acquisition. It is also shown that such a practice of bundling aggravates social welfare. In addition, we consider the case where an incumbent has private information on its productivity. In that case, when there is no knowledge spillover, the incumbent accommodates entry in one market to extract rent by taking advantage of its monopoly position in another market. However, when there are knowledge spillovers, the privately informed incumbent practices bundling to deter entry by preventing the entrant's information acquisition.

Cultural Roots of Behavioral Finance and Psychology of Risk in Investment Decisions

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Alicante-S07 Culture Based Development (CBD): Cultural Context and Social Psychology in Confronting
Urban and Rural Challenges, 1-C11, August 30, 2023, 4:45 PM - 6:30 PM

Behavioral finance explains the beliefs, preferences, and cognitive limits of investors based on psychologically valid assumptions. However, it is unknown how human emotion impacts the psychology of risk preference in financial planning and investment asset allocation models. It is even less known how to distinguish between the idiosyncratic psychological element and the cultural element in the context of emotions about the investment decisions of individuals.

Namely, modern portfolio theory (MPT), or mean-variance analysis, is a mathematical framework for assembling a portfolio of assets such that the expected return is maximized for a given level of risk (Markowitz, 1952). Why does empirical evidence suggest investor choice deviates from the optimality of MPT (Basu, 1977; Das et al., 2010; Shiller, 2003; Wermers, 2000)? The Behavioral Portfolio Theory (BPT) attempts to explain the inconsistency between the mean-variance optimization portfolios and actual investor decisions and actual market results by assuming that investors do not solely seek to maximize their return for a given level of risk as in MPT (DeBrouwer, 2009). The Maslowian Portfolio Theory (MaPT) (based on Maslow's Hierarchy of Needs) also cannot explain investor choice deviation from mean-variance optimization.

Meanwhile, Culture Based Development has been devising approaches for differentiating between cultural bias and its impact on emotion from what the idiosyncratic individual variation of choice is (see Tubadji, Huang, and Webber 2021; Tubadjia and Huang 2023). The main research question of this study is therefore how human emotion and culture affect the psychology of risk preference in investors' financial plans and asset allocation models. To address this research question empirically, we use Rob Shiller's notion of narrative economics and quantify individual cultural capital as a function of their local group context as a source of the cultural narrative. Thus, we manage to distinguish between the idiosyncratic preference and the cultural context embeddedness effect from culture and its effect on emotion. We use data from the University of Michigan Health and Retirement Study with over 19000 individual observations. Employing a hedonic model for saving and retirement planning, CBD quantification of the factor for cultural bias, individual fixed effects, and using a combination of cross-sectional and panel data techniques, we demonstrate how part of individual retirement and saving decision-making is influenced not by personal psychology and emotion but by their cultural belonging and embeddedness, i.e., the impact from the context on emotion and financial reasoning.

Local economic specialisation after disasters: the long-term impact of an earthquake

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Alicante-S21 Evaluation of safety and security policies, 1-D11, August 31, 2023, 11:00 AM - 1:00 PM

The study of the economic consequences of natural disasters has traditionally focused on the assessment of the immediate direct impact of a different plethora of natural shocks on a set of economic variables (e.g. GDP, income, employment). Comparatively less attention has been devoted to the long-term and indirect effects of these catastrophic events.

Thus, we know relatively little about the long-run economic transformation processes after disasters at the local level, especially when considering permanent consequences on the local economies' structure.

In more details, a critical yet underexplored research area in the field is how places respond to extreme events by adjusting their economic structures. Typical approaches focus on the recovery of given economic proxies to pre-disaster levels. This perspective can be useful when considering the short-term impact of such shocks. However, the socio-economic fabric is constantly changing to respond to modifications of the 'external' economic conditions, and this becomes exceptionally evident in the face of massive changes as the ones produced by unexpected natural disasters, in the immediate aftermath of the event, and especially from a longitudinal perspective.

This is a crucial issue since, after a natural disaster, the reconstruction process forces the economy to readapt towards a new equilibrium because of several factors: first, due to the destruction of physical capital, infrastructures and loss of lives; second, because of the reconstruction and recovery policies that can rapidly increase the capital inflows thanks to public and private transfers. Given these elements, disasters can be seen as speeding up a 'quasi-Schumpeterian' process of 'creative destruction' by removing bottleneck to the economic system or by restructuring the entire local economy.

Aiming at contributing to fill this gap, this paper investigates the impact of a disruptive shock, namely the 2009 L'Aquila earthquake, on the local economic absolute and relative specialisation in the long run, by using a recent development of the Synthetic Control Method (Microsynth), that allows a greater granularity of the level of analysis. We show that, although many economic indicators bounce back relatively fast to pre-disaster levels, the long-run consequences on local economic specialization can last for years as a combined result of the forces pushing the need for physical reconstruction and the envisioned post-recovery development policy.

Cohesion Policy: Can a more performance-based approach achieve additional efficiency?

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Alicante-G02-O1 Regional and Urban Policy and Governance, 0-C02, August 30, 2023, 11:00 AM - 1:00 PM

The paper explores the pros and cons of adopting within cohesion policy a full performance-based financing approach, akin to the Recovery and Resilience Facility (European Recovery Instrument or NGEU). The establishment of the Recovery and Resilience Facility has marked a turning point in that it harbours a full performance-based dimension making for the first time the disbursement of EU funds contingent upon the achievement of outputs/results (defined as targets). The option of mainstreaming this approach to other EU funds in the future, notably to EU cohesion policy funds, is likely to be taken into consideration in the future. The paper seeks to understand what challenges may arise in shifting cohesion policy from a "real cost-based" model to a payment-by-result one. In the current system, disbursements are still based on actual costs incurred (although simplified cost options and financing not linked to costs have introduced elements of performance in the payment system). Adopting a full performance-based model within cohesion policy would thus represent a step forward with the achievement of pre-defined targets being the only criterion for authorizing payments. In this sense, the paper investigates the ability of cohesion policy programmes (more specifically of ERDF programmes) to set out and achieve targets under the current evaluation and monitoring system. Such analysis is very relevant in that the current monitoring and evaluation system of cohesion policy mimics a performance based mechanism similar Recovery and Resilience Facility without the payment dimension. Our investigation focuses in particular on the stability and accuracy of targets and underlying indicators throughout the programming period. Our results point to a significant frequency of adjustments to both indicators and targets across all years of the period. The reasons may be different ranging from evolving circumstances/needs requiring re-programming to inaccurate estimates by involved authorities. This raises questions on the introduction of a smooth and reliable payment by results model within cohesion policy. High and frequent changes to both the indicators and targets can undermine the rationale for adopting a performance-based approach. Mainstreaming such approach to cohesion policy would require specific mechanisms and a degree of flexibility to allow for an efficient and unbiased functioning.

Missions and Cohesion Policy: Living separate or dancing together?

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Alicante-G23-R Regional policy environment and noise, 0-D03, August 31, 2023, 2:30 PM - 4:15 PM

The paper explores avenues for cross-fertilization between the Mission Oriented Approach (MOA) and Cohesion Policy (CP). It investigates whether the respective theoretical frameworks can learn one from the other to address specific shortcomings discussed by scholars. The first part of the paper focuses on those. CP, on the one hand, has been facing a gradual erosion of its identity as a result of its over-stretched remit, increasing use for counter-cyclical purposes, globalization forces, budgetary pressure, mixed evidence about its effects, shifting priorities at EU level. One prominent concern about MOA, on the other hand, is that its normative and top-down perspective can drive spatially-blind policies, ignoring local dynamism and areas of expertise, and ultimately accruing territorial imbalances. The paper argues that the MOA can offer a theoretical blueprint for re-organizing and streamlining CP priorities around few goals, linking more explicitly its objectives to major societal challenges so as to reinforce its rationale, and revive political ownership, using directionality to strengthen the result-orientation dimension, and blending top-down and bottom-up approaches to streamline the vertical and horizontal governance relations. In terms of MOA, the paper argues that it could benefit from CP in the following areas: 1) Thematic focus on objectives that can be adapted to territorial contexts and into regional policy agenda. 2) Goals of maximising equity and solidarity into its mission for tackling Societal Challenges (SCs). 3) Agenda to increase educational attainment (and overall empowerment) within EU regions. 4) Redistributive approach to foster the full potential of all EU regions to tackle SCs. The aim of the paper is to initiate and stir up further discussion on the possibility of mutual policy learning between CP and MOA. The purely theoretical nature of the paper calls for further empirical work to test whether its arguments hold when confronted with quantitative and qualitative data. At the end of the paper, it is argued that this line of research should be further pursued to inform the debate on the future EU Research Framework Programme and Cohesion Policy.

Economic Convergence in the Spanish Regions: the Role of the European Funds and the Transport Infrastructure Endowment (1989-2017)

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Alicante-G01-R Regional and Urban Development, 1-C11, August 31, 2023, 2:30 PM - 4:15 PM

Convergence is one of the fundamental objectives of the EU to achieve co-hesion among its regions. The paper analyzes the process of economic con-vergence among Spanish regions focusing mainly on the impact of European Funds investments and on the stock of transport infrastructures. A series of growth regression have been estimated using a panel data for 17 Spanish re-gions over the period 1989-2017. The data were obtained from the FBBVA-IVIE database and from the EU regional policy reports of the Spanish gov-ernment. The results obtained show that a convergence process across Span-ish regions has taken place since Spain accession to the EU. The European Funds investments and the level of transport infrastructures are relevant for economic growth, but do not generate a strong catching-up process.

Place-Based Policies and the location of economic activity: evidence from the Italian Strategy for Inner areas

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Alicante-S03-S1 Counterfactual methods for regional policy evaluation, 1-C11, August 30, 2023, 11:00

AM - 1:00 PM

This paper investigates the effects on the economic activities location of a specific governmental place-based policy, the Italian Strategy for Inner Areas (SNAI). Taking advantage of the most recent developments in the econometrics of policy evaluation, we apply a staggered difference-in-difference estimator to evaluate the impact of the public policy in terms of number of plants at municipal level. The analysis is made possible thanks to a detailed panel dataset containing information about Italian municipalities over the years 2014-2020. The results show that the policy has produced effects since its inception generating a significant number of extra plants in the treated municipalities over the first two years. A further key issue is whether the policy has generated spillover effects on neighbours which may either corroborate the encouraging result or invalidate it. To answer this question we follow an empirical strategy, and we find positive spillover effects.

Which kind of occupational profiles are more likely to evade? Evidence from Italian provinces

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Alicante-G02-O2 Regional and Urban Policy and Governance, 0-C03, August 31, 2023, 2:30 PM - 4:15

PM

Tax evasion among self-employed workers is a common practice in many countries and particularly in Italy, where the latest estimates report an amount of approximately € 27 billion of evaded personal income taxes in 2022 very heterogeneously distributed across the country (Argentiero et al., 2020). Indeed, it is commonly acknowledged that most of the lost fiscal revenues come from self-employed workers as they are not subject to withholding taxes, both in Italy (Carfora et al., 2018) and worldwide (e.g., Engström and Holmlund, 2009). Less is known, however, about the relationship between the occupational profiles (and their underlying tasks and skills) and tax evasion. Recent contributions showed that occupational conditions, tax compliance, and attitude to evasion are correlated and mutually reinforcing (Hashimzade et al., 2014). However, such analyses referred to the generic category of self-employees or entrepreneurs, without disentangling different occupational groups (typically identified by ISCO codes). When taken separately, each occupational group could be associated with an increase (or decrease) in the propensity to evade taxation, either for subjective or objective reasons.

The paper fits into this topic by trying to identify those occupational groups (clusterized into macro-categories based on tasks) being associated with a higher probability of evading taxes in different industrial and local contexts. Data analysis will rely on three different data sources: 1) the Italian Labour Force Survey, conducted by the Italian Statistical Office every quarter, and reporting the territorial distribution of each type of occupation by type of contract (including self-employment); 2) estimated tax evasion at the provincial level provided by the Italian Revenue Agency; 3) national survey provided by INAPP-ISTAT on the tasks and skills used in each occupational profile. The period under scrutiny will span from January 2014 to December 2015 (8 quarters).

The econometric model will assess, at the provincial level, the relationship between the share of self-employed workers in the selected occupational families and the tax gap, as measured by the Italian Revenue Agency. The empirical model will control for province-specific and time-fixed effects and other factors potentially affecting the propensity to evade taxes, such as the educational attainment of the workforce, the social capital, and the quality of the institutions. Furthermore, we will implement statistical models accounting for spatial correlation across provinces and regions for robustness. Results will improve understanding of the occupational characteristics acting as discriminant variables in individual tax compliance/avoidance decisions within the group of self-employed workers.

Territorial Responsible Research and Innovation Fostering Innovative Climate Action

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Alicante-S22 Spatial dimensions of climate change, 1-D12, August 31, 2023, 2:30 PM - 4:15 PM

Territorial Responsible Research and Innovation Fostering Innovative Climate Action (TeRRIFICA) emerged to influence climate change adaptation and mitigation policies (CCA&M) and foster competence for CCA&M in six European regions. One focus is responsible research and innovation (RRI) and the co-creation of knowledge. In a transdisciplinary partnership, the H2020 project TeRRIFICA brought together three research institutions, three non-profit organizations, one public association of universities and one public institution for science promotion. The main project goals were: to involve citizens in agenda-setting processes corresponding to climate change challenges; to develop Climate Change Adaptation Plans that would lead to institutional and governance change; to develop, test and evaluate concrete actions (pilots) focused on mitigation of and adapting to climate change issues; to design and implement a crowd-mapping tool for identification of climate change effects; to enhance the Responsible Research & Innovation principles in local and regional policy. The climate change challenges affect regional innovation systems that need to develop new approaches, new forms of collective actions between public and private stakeholders as well as new solutions with the aim to address social challenges through innovation. The TeRRIFICA project focused on those interactions, using the Quintuple Helix model approach that adds the fifth dimension – the Environment, and sets the stage for sustainability priorities and considerations so that nature is central and equivalent component of and for knowledge production and innovation. The presentation will focus on the following aspects: 1. the crowd-mapping process and its results from six pilot regions; 2. the co-creation process within climate actions in Poznan Agglomeration as a case study of involving citizens in CCA&M plan. The findings are the reference points for climate actions: co-created innovative projects implemented in a partnerships of local communities. The presentation will focus on the role, competence, and scope of activity of relevant stakeholders within climate action projects; it will also refer to identified needs for action, barriers, and drivers for climate action, as perceived by different stakeholders and how they were address in a real-life climate action projects.

The role of service provision for regional development

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Alicante-S62 The role of intermediary cities and towns in regional development, 1-E11, August 30, 2023, 4:45 PM - 6:30 PM

Regions vary in the extent to which their inhabitants cluster in settlements of different sizes from villages to cities. Differences in settlements' populations also impact the accessibility of important services such as schools and hospitals. In many countries, the number and variety of services within regions depend on the relative sizes and travel times between settlements.

This paper uses detailed geocoded data for approximately 30 OECD countries to investigate the location of public and private sector services. It builds a statistical model that relates population to the prevalence of services across space. The existence of at least one service location is assessed for uncommon services like universities whereas for common services like schools, the total number of locations are assessed. While the existence and prevalence of services are generally increasing in population, the model also shows that settlements of all sizes provide more health and educational services when they are regional centres (i.e. the largest settlement within a certain driving threshold). In towns and villages, hospitals are less common and pharmacies are less prevalent when there is a city nearby, whereas this is not the case for educational services. Schools are prevalent in settlements of all sizes while universities are uncommon in towns and villages regardless of whether they have access to a city. Population centre sizes and proximity are both important predictors of service provision across the urban hierarchy.

Institutional Alignment, Institutional Work, and New Paths: The case of Blockchain in Switzerland.

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Alicante-S23-S2 Rethinking regional resilience, 1-D11, August 30, 2023, 2:30 PM - 4:15 PM

Switzerland emerged as a global leader in the development of blockchain technologies and crypto assets. Blockchain, the technology behind cryptocurrencies that emerged with the creation of Bitcoin in 2008, can integrate into multiple applications in a decentralised manner. One example is decentralized finance or DeFi, which offers a new decentralised financial infrastructure. In this paper we explain the emergence of the Blockchain industry in Switzerland thanks to the Swiss institutional alignment (for instance, decentralisation, neutrality, secrecy) and institutional relatedness (Swiss financial sector) with the technology needs. We then explore the regional divergence between two Swiss first-mover towns--Zug and Chiasso--that promoted the crypto industry early on. Branded as Crypto Valley, Zug is a medium-sized town that is home to more than half of all blockchain and crypto companies in Switzerland. We demonstrate that a greater institutional alignment and a more intensive institutional work were decisive in the development of Blockchain sector in Zug.

Directionality, strategic, and synergy alignments: policy challenges and responses.

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Alicante-S38-S2 Partnerships for innovation: building transformative innovation policies with local ownership, 1-D13, August 30, 2023, 2:30 PM - 4:15 PM

European regions are adopting the third generation of innovation policy to tackle major societal challenges. However, this shift has brought new risks for regions, including directionality, strategic, and synergy policy misalignments. In the 2021-2027 EU programming period, regions are under increasing pressure to align their research and innovation strategies with the EU's digital and green twin transitions. Directionality misalignment occurs when EU funding is concentrated on a societal challenge that the region is not prepared to tackle. Strategic policy misalignment refers to the non-strategic concentration of EU funding resources into a societal challenge. Synergy policy misalignment refers to the lack of coordination between EU funding programs, such as ESIF and H2020. To explore these challenges, we examine six cases in NUTS-2 regions from each of the five most populated EU Member States: Poland, France, Germany, Italy, and Spain. These regions have the highest concentration of funding in H2020 and ERDF for climate change. Our mixed-method model examines the policy challenges regarding alignment and misalignment in directionality, policy, and/or synergy.

Implication of new primary care scenarios on patients' accessibility

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Online-G34-O2 Transport and Accessibility, August 28, 2023, 2:30 PM - 4:15 PM

Ensuring a high level of accessibility to healthcare services is a key policy goal. In these terms, the Italian National Recovery and Resilience Plan (NRRP) dedicates great attention to territorial medicine, including investments devoted to the re-organization of primary care services. In this study, we assess the variations in accessibility to primary care services under different scenarios, where both demand and supply changes are investigated. Scenarios are simulated combining the current and future distribution of primary care services, and population spatial evolution over time. On the supply side, we ground on an extensive dataset of General Practitioners' (GPs) services belonging to a Nordic Italian region. On the demand side, we elaborate census-level detailed information and future regional projections. Accessibility is measured by relying on a tailored two-step floating catchment method which accounts for the actual temporal availability of GPs, allowing to accurately measure the demand/supply mismatch across both space and time. It is estimated a drop in future levels of accessibility equal to -7%, -13%, and -19% in 5, 10, and 15 years, respectively. After assessing the levers of such drops, namely population ageing, decrease in population, and the expected reduction of service capacity, we propose two different scenarios which ground on the introduction of community healthcare centers on the territory. The two proposed scenarios show how a redistribution of the capacity towards community healthcare centers may improve future levels of accessibility. Ultimately, several insights for policymakers are drawn, assessing the potential effects determined by the implementation of new developed models of territorial medicine.

Problems Urban Development in Ukraine in the post-war period

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Alicante-G01-O4 Region Urban Development, 0-C01, September 1, 2023, 11:00 AM - 1:00 PM

Ukraine launched one of its most successful reforms – the decentralization reform. This process made it possible to form local self-government at the basic level – territorial communities that have sufficient powers and resources for their implementation, as well as to bring public services closer to each resident. With the beginning of the war, there was a return to centralization, in many communities power was passed to the military. It is obvious that the strong influence of the state and law enforcement agencies, especially in the border areas, will continue after the end of the war. Ukraine's challenges in urban development require the latest solutions in urban planning, the development of local economies in conditions of security risks, a balance between preserving the interests of the community and national security, and between decentralization processes and centralized state power. Ukraine can become an experimental creative space for implementing and testing new urban solutions.

People and Place: Why Where We Live Matters

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Alicante-G23 Human - Environmental Interactions, 0-D03, August 30, 2023, 2:30 PM - 4:15 PM

The mental health and well-being literatures remain preoccupied with personal correlates of wellbeing - our personality, values, income and levels of social engagement. Until recently our geographic context has been neglected. In this talk, and the book on which it is based, I argue that when it comes to evaluating our well-being we must pay more systematic attention to the place we live in - to the qualities of our neighbourhood, city and region, to the local social, cultural and physical environment in which we are embedded.

In recent years the top-down approach to well-being adopted in most countries has been complemented by a recognition that well-being also varies across and within regions. While enriching our understanding of well-being this introduction of location raises a new set of theoretical and methodological issues. They both centre on the endogeneity issue.

Any two people can experience the same location quite differently and therefore simply knowing the characteristics of the person and where they live is insufficient because it does not address the interaction between the two. If the place (or change in place) is not the result of a person's choice it is exogenous by definition and its impact on their well-being can be measured using standard tools. Such cases are unusual however because in most liberal democracies people can choose where they live and this ability to choose renders place endogenous which complicates any quantitative assessment of the independent well-being impact of place.

In urban settings in particular, places impact our well-being both endogenously as a result of the location choices we make and exogenously as a result of the un-consulted choices other people make. Place is a durable good and while some attributes are chosen at purchase (e.g. proximity to green space) others are imposed by others well after purchase (e.g. the erection of a neighbouring high rise). This combination of choice and circumstance renders the assessment of place on people's well-being quite problematic and constitute a challenge to the framing and exercise of well-being policy at the sub-national level.

Resolving the urban wellbeing paradox: The role of education and social contact

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Alicante-S78-S3 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 2:30 PM - 4:15 PM

The urban wellbeing paradox refers to the fact that while agglomeration generates both production and consumption economies, the average subjective wellbeing of residents in the largest agglomerations of developed, mainly western, countries is often lower than the rest of the country. Higher levels of congestion, pollution, house prices and crime are partly to blame but the primary driver is the uneven distribution of the benefits of urban growth on a heterogeneous labour force.

Spatial agglomeration increases the returns to skill (to university graduates) but these advantages depress the relative wellbeing of the less formally educated. While the proportion with tertiary education is substantially higher in large metropolitan centres graduates still constitute a minority therein. Although the higher population density and the rich infrastructure of metropolitan centres raises the productivity of the tertiary educated minority, the wellbeing of the majority may be dampened by their residence in poorer neighbourhoods with their longer commutes and lower levels of social engagement. It is this lower wellbeing of the majority in large cities which reduces the metropolitan average and gives rise to the urban wellbeing paradox. Empirical support for the argument comes from a multivariate analysis of the 2012 European Social Survey.

Firms, regions, and export shocks

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Alicante-S77-S1 Economic Complexity for Industrial and Innovation Policy, 1-E12, August 30, 2023,

11:00 AM - 1:00 PM

In this paper, we investigate the region- and firm-specific characteristics that allow firms to react to external shocks. In particular, exploiting a dynamic factor model estimated on export transactions of French firms from 1993 to 2017 at a monthly frequency, we first introduce a new measure of resilience to export shocks. Then, we investigate the micro and regional determinants of firms' resilience.

The Remote Reality: Unpacking the Impact of Covid-19 on Online Labour Markets

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Alicante-S15-S2 Digitalisation, global shocks and new inequalities, 1-C13, August 31, 2023, 2:30 PM - 4:15 PM

In recent years, there has been a growing trend of individuals engaging in online labour markets in addition to their primary occupations. However, with the outbreak of the COVID-19 pandemic and the subsequent shift towards remote work, there has been growing interest in how this trend towards online labour markets has been affected. Specifically, many have questioned how remote work has impacted individuals' behaviour in these markets and whether it has created new opportunities or challenges. To provide insight into the impact of remote work on the behaviour of individuals in online labour markets, we utilized a unique dataset obtained from a prominent online labour marketplace. This database contained several measures of worker productivity, which we analysed in conjunction with survey data collected from online workers regarding their experiences with conventional market changes, such as the shift towards remote work. By combining these two sources of data, we were able to investigate the ways in which the pandemic-induced shift towards remote work has affected the productivity and behaviour of online workers. We find, first, that the shift towards remote work during the pandemic has led to changes in the patterns of productivity in online labour markets. The transition towards remote work from home (WFH), decreased online productivity by 18%. Second, our findings suggest that the decrease in work quality and effort among workers transitioning to WFH is primarily due to a “sloppy” work approach. Specifically, while the quantity of online work output may increase for such workers, their overall work quality and level of effort tend to decline when compared to those who continue to work in traditional firm environments during the COVID-19 pandemic. Third, heterogeneous effects reveal that workers with higher levels of neuroticism tend to exhibit better adaptability to the WFH setup. Our analysis revealed several important findings with implications for both workers and policymakers in the gig economy.

Linkages between local government sustainability performance and students' mobility: evidence from Italy

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Alicante-G03-R Demographic Change, Population and Migration, 1-E11, September 1, 2023, 9:00 AM - 10:30 AM

Higher education institutions (HEIs) can play an active role for economic development in cities and rural (i.e., sparsely populated) areas, contributing to the EU Smart Specialisation Strategy (Foray et al., 2009) by promoting the identification of comparative advantages, diversified industrial bases, and in this way incentivizing a linkage between innovation and entrepreneurship (Malerba and McKelvey, 2020).

In Italy, regional and local economies present a scattered scenario from the point of view of their industrial and social background, therefore presenting a differentiated profile in terms of human capital and productive ecosystem, where both are characterized by a significant degree of regional embeddedness. Similarly, the progress toward green and digital innovation varies dramatically between regions and at municipal level (Vasileiou et al, 2022). These factors all play a key role in determining Smart Specialisation strategies and impact on the attractiveness of regions and universities alike. In the literature it is well established that students' mobility is not merely determined by characteristics of the universities, but even more importantly by characteristics of the territory in which the HEIs are located (Lombardi and Ghellini, 2019).

Indeed, Italy is characterized by an almost unidirectional migration of students going toward the (wealthier) northern regions. So, anticipating the job market is one of the main drivers of this flow (Croce and Ghignoni, 2015; D'Agostino et al., 2019). The readiness for the twin transition (green and digital transition) constitutes an additional pulling factor for local entrepreneurship and consequently for HEIs attractiveness. Nonetheless, measures of preparedness to transition have never been used to explain students' and workers' mobility, notwithstanding its role in determining and explaining potential future economic strength of a territory.

In this paper we aim to close this gap by examining and quantifying the role that the twin transition can play in attracting students. We use a novel composite indicator - the Municipality Transition Index (MTI), developed in Muscillo et al. (2021) to measure the twin transition score in each municipality to characterize a territory in terms of its current and potential economic strength and entrepreneurship and innovation potential.

Economic resilience of islands and role of transport accessibility - empirical findings from Croatian islands

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Alicante-G34-O6 Transport and Accessibility, 0-E01, August 31, 2023, 2:30 PM - 4:15 PM

Great volatility and uncertainty during recent decades has been characterized by highly heterogeneous territorial impacts and the promotion of the concept of resilience for understanding the factors behind these fluctuations. Most studies in this area have been driven by the dominant narrative of urban economics, with a focus on large and dynamic metropolitan areas.

Very little research has paid attention to the role of transportation accessibility in building a resilient regional economy. This has been especially the case for spatial units heavily defined by transport accessibility: islands. Under the discontinuous space context, absence of economies of scale, micro-climates, and the spatial reach of networks, accessibility plays a critical role for and in island life.

In this paper, we try to fill this gap by exploring the relationship between regional resilience and the degree of transportation accessibility for islands. By focusing on the resistance and recovery phase of resilience among islands in Croatia in the period 2007-2021, we provide a deep foundation for a discussion on development and policy.

Our empirical findings indicate higher levels of resilience for less isolated islands, especially as a result of faster recovery after economic downturns. However, the degree of transportation accessibility does not play an important role for resistance among our spatial units.

Finally, the study provides clear insights for policy makers in delivering more effective development policy measures during turbulent periods for islands as unique spatial units.

Changes in daytime social diversity in Greater Stockholm during the pandemic: Implications for segregation

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Alicante-G28-O3 Segregation, Social and Spatial Inequalities, 0-D03, September 1, 2023, 11:00 AM - 1:00 PM

Spatial segregation is increasingly comprehended as a dynamic phenomenon that changes across space and time. The dynamic experiences of segregation are shaped by people's mobility on one hand, and the changing social diversity in the places that they visit and travel through on the other. A growing body of research shows how segregation levels vary according to the routine rhythms of people's lives. Within 24 hours, people tend to be more segregated at night when they are exposed to their residential neighbourhood contexts. During the day, people have more opportunities to be surrounded by "different others", be it at work, during travel, or in leisure time. The places with high daytime social diversity, such as city centres and sub-centres, are proven to be important for mediating differences between social groups and thereby mitigating the segregation they might experience residentially.

However, when the COVID-19 pandemic broke out in March 2020, people's routine spatial behaviour changed markedly. While this has been demonstrated with a vast body of research, we still know little how the changes in people's daily mobility influenced daytime socio-spatial diversity and segregation in cities and beyond. With this study, we set out to narrow this gap by applying the activity space segregation approach to mobile phone and population register data from Greater Stockholm, Sweden. Our presentation will first demonstrate how daytime social diversity changed in Greater Stockholm neighbourhoods, and how were the changes associated with neighbourhood characteristics, such as settlement structure and social composition. Second, we will show how changes in neighbourhoods' social context during the day influenced people's daytime exposure to diversity, and how did it vary between social groups. Finally, our presentation will discuss about 1) the potential long-term influences of COVID-19 on spatial segregation, and 2) the value of mobile phone data for capturing segregation dynamics over space and time, and from the perspectives of both places and people.

The Guardians: The Role of Social Capital on Crime Victimization in Indonesia

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Online-G03-O1 Demographic Change, Population and Migration, August 28, 2023, 11:00 AM - 1:00 PM

Social capital has gained much attention since it positively contributes to many economic and social outcomes. Moreover, social capital can also be a strong deterrent to crime and violation behavior. Scholars argued that stronger social ties allow an accessible exchange of information and characteristics among criminals, which later reduce the cost of crime. Social capital determines the relationship between individuals and other members of society, hence, it will affect the cost incurred by individuals in committing crimes. Higher benefits of social capital will reduce the net benefit of committing crimes since criminals will be excluded from society and lose sympathy from their peers. Strong social capital can also strengthen informal control and result in lower crime rates. Furthermore, social capital can foster a sense of attachment to their place of residence, thus giving rise to 'guardianship' and trying to avoid the negative effects of crime as part of the process of creating a sense of security in social life. However, the role of social capital in crime victimization has received less attention.

This research aims to investigate the role of social capital on crime victimization in Indonesia. We utilize data from the National Socio-Economic Survey (Susenas) in 2014, specifically the core questionnaires and Social Resilience Module. Susenas is a series of large-scale surveys that covers a nationally representative sample of households. The social Resilience Module provides detailed questions regarding social capital measurement and this survey is first administered in 2014. We employ two main indicators of social capital such as trust and knowing neighbors as we argued that a society with higher social capital is characterized by a high level of trust and this level of trust only can be acquired if they are knowing each other. Meanwhile, we categorize two types of crime including property crime and violent crime as these two crimes are most dominant in Indonesia. We also acknowledged that social capital is potential to endogeneity problems. Hence, we try to use instrumental variables in our estimation and provide a causal analysis between social capital and crime victimization. Our results showed that knowing neighbor plays a crucial element in reducing the risk of property crimes. However, we found an insignificant role of trust in reducing both property and violent crimes. This result corroborated our hypothesis that a certain level of trust in society can only be maintained if they are knowing each other.

Do birds of a feather flock together? Eligibility criteria for higher education scholarships and inequality in academic outcomes.

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Alicante-YS10 Regional Development, August 31, 2023, 11:00 AM - 1:00 PM

Abstract

Financial aid, such as grants, loans, and scholarships may help disadvantaged students to enrol and complete higher education. Hence, growing these resources would help to reduce the social inequalities in students' outcomes related to social background and geographical areas of residence. Aina et al., (2021) point out that the completion of the higher education career path depends not only on a mix of individual, institutional, and economic factors but also on a student's ability to attend courses, live in different social contexts, and integrate into the academic system as a whole. Yet, the actual literature has so far focused on the evaluation of outreach programmes and measures based on family income levels, without reviewing the award criteria for students' eligibility (Herbaut & Geven, 2020). In Italy, the "Right to Study" (EDISU) provides three different types of scholarships rely on: family income, student merit, and the home-university distance. Moreover, students eligible for the scholarship are ranked among on-site, commuter, and off-site.

The aim of this paper is twofold: first, we want to assess the effect of conditions for the eligibility of scholarships and relative conditional amount at the distance from the university. Secondly, we investigate the role the scholarship as an efficient tool to reduce the drop-out rate and boost academic performance.

The dataset combines the administrative information on students' careers provided by the University of Piemonte Orientale with the data collected by EDISU. For a total of 68,000 observations about the exams taken by 30,709 students, the final sample covers six academic years, from 2015/2016 to 2021/2022.

We apply the fuzzy version of the Regression Discontinuity Design (Thistlethwaite and Campbell, 1960; Angrist and Lavy, 1999) to different home-university travel times to determine whether the three categories specified above might efficiently support recipients' academic careers in terms of lower drop-out rate and better academic outcomes. We argue that the proposed analysis may have national relevance, provided that the amounts of scholarships are related to continuous variables categorised into grouping values.

Employment topography from geocoded jobs: identification of subcenters for selected Brazilian urban areas

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Alicante-G35-O1 Regional and Urban Labour Markets and Entrepreneurship, 0-D03, August 30, 2023,

4:45 PM - 6:30 PM

This paper uses non-parametric smoothing methods to identify subcenters (SBD) of four labor market areas (LMA) inland Brazil in 2006 and 2016. We use a two-stage method based on locally weighted regressions, with an endogenously determined cut-off critical value. We use matched employee/employer geocoded data from the Ministry of Labor. Given the labor market dynamics in the period, we found new subcenters in some cases, a stable situation in others, and the suppression of a subcenter in one case. Even in cases with just one center, we found growth in the area and sectoral diversification. The results reveal important structural changes in the sectoral composition of jobs in the dynamic centers. These changes constitute relevant inputs for public policies, particularly in planning the supply of public transportation and creating new interactive economic centers in these regions.

The entanglements between digital platforms and policymakers: a local public policy issue

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Online-G08 Cities, Regions and Digital Transformations, August 28, 2023, 2:30 PM - 4:15 PM

Digital platforms act as new intermediaries to create a better life for consumers and companies. They affect many societal fields. As such, they are of increasing interest to policymakers. They must respond to the growing demands of stakeholders to have more say in how platforms operate and shape society.

In this paper, we are interested in the entanglements between digital platforms and policymakers. The aim is to uncover digital platforms challenges from policymakers point of view. We address two research questions: First, how policymakers perceive digital transaction platforms and, second, how do they respond?

Given the paucity of theory and empirical evidence on how local authorities perceive the development of digital platforms and their responses, this research follows an exploratory design. A qualitative analysis was conducted, as understanding the perception of policymakers and their regional context is essential in this work. We mobilized a GIOIA methodology based on an abductive reasoning.

This work focuses on transaction platforms generating physical meetings in a geographical area.

Several examples of platforms emerged from the interviews of operational actors and elected representatives like, Airbnb, Uber, Deliveroo and Amazon. The interviewees built their discourse mainly on these examples because, not only are these the most well-known platforms, but they are also the ones whose consequences of their use are the most visible.

This work makes two contributions to the literature on digital platforms and a managerial contribution to policymakers.

First, this study details the consequences of platform consumption as perceived by stakeholders who are not directly affiliated with platforms: policymakers. This work provides a holistic view of the effects of digital platform use.

Second, the results question the interpenetration of public and private spheres. Indeed, digital platforms interfere in public policies while policymakers seem unable to adapt and organize themselves in response to their development. Thus, a confusion appears and is discussed around the roles and responsibilities of public and private actors.

Finally, this work provides recommendations for policy makers because it highlights the limits of public policies related to governance issues. Understanding the perception of platforms allows policymakers to identify the limits of platform activities and to put in place adequate regulation to protect the public commons. Finally, we highlight the importance of thinking about public policies for innovation that can enable the emergence of solutions in the face of increasingly powerful and independent platforms.

The rise of the circular economy in business and territorial strategies: the example of the Seine Axis industries in France

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Online-S71 Transition to climate neutrality and energy transition: regional development driver or challenge?, August 29, 2023, 2:30 PM - 4:15 PM

Public environmental policies are now based on a number of regulatory, fiscal and financial mechanisms that have evolved and diversified to meet the challenges of economic and territorial development, ecological and energy transition. This is why, in order to support the territories particularly impacted by the EET, various mechanisms have been put in place to enable economic and institutional actors to achieve the EET goals, and to avoid creating or increasing spatial disparities or inequalities in regional development. In some territories strongly impacted by EET issues, such as industrial territories, which are highly carbon-intensive and emit greenhouse gases, we observe that the circular economy (CE), and more precisely industrial and territorial ecology (ITE), are often part of the tools to meet these EET issues.

By promoting the development of the circular economy and industrial and territorial ecology, we can ask ourselves to what extent these new mechanisms contribute to changing the links between companies and territories and how they impact territorial economic development?

We make a comparative analysis of two mechanisms will allow us to study the way in which these tools integrate the circular economy and modify the links between communities and companies, and the economic development of the Seine axis territory: 1/« Fund for a Just Transition» is a financial instrument set up by Europe. 2nd is called “Low Carbon Industrial Zone”, for projects set up by the French agency for the environment and ecological transition. The field of study chosen is the Seine axis because this territory, which is highly industrial, is particularly impacted by EET issues.

We development of a multi-criteria analysis grid (funds allocated, project governance, expected objectives, themes - decarbonation, land, regulations, innovation -, management of the schemes, etc.) and conduct of interviews with industrialists benefiting from the schemes studied will help to understand how these schemes are changing the links between local authorities, companies located in the area and project leaders.

We show that each of the schemes responds to specific needs and different objectives: i) real complementarity between the different financial, fiscal, and regulatory support instruments; ii) illustrate the growing place of the circular economy in the development strategies of territories, but also in the internal strategies of companies. CE, and more specifically ITE, is helping to change the links between the economic and institutional actors. This proximity has an impact, both economically and spatially, on the development of territories.

Regional Centrality in Morocco: What Role does Casablanca Play?

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Online-G01-O3 Regional and Urban Development, August 29, 2023, 11:00 AM - 1:00 PM

Central Place Theory (CPT) states that development and the growth of urban areas (and regions) depend on the type of service provided to their surroundings, that is, the market areas of each agglomeration. From market areas or influence, the hierarchy of agglomerations in the regional space could be established. The greater the centrality, the greater the area of influence, and more agglomerations in the “orbit” of a center (Christaller, 1966). Centrality, in addition to demonstrating the organization and hierarchization of space, also presents the pattern of formation of the network of cities and regions, and the specialization of each of them in this network. Specialization in various activities ultimately determines growth and development as a center or a centrality. Christaller also pointed that the greater the area of influence of an agglomeration, the greater its polarization. In that case, density has a preponderant role in determining the polarization. In this paper, we revisit Christaller’s CPT to examine the role played by Casablanca region in Morocco’s interregional economic system. After a discussion of Casablanca’s central role in the Moroccan economy, we estimate its systemic effects applying the hypothetical extraction method to the 2019 interregional input-output system for the country.

Regional technological capabilities and green opportunities in Europe

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Alicante-S77-S2 Economic Complexity for Industrial and Innovation Policy, 1-E12, August 30, 2023,

4:45 PM - 6:30 PM

The goal of the paper is to elaborate an empirical overview of green technological development in European regions. This is a timely pursuit considering the ambitious commitments stipulated in the recent European Green Deal to achieve climate neutrality by 2050. Our analysis is organised in three steps. First, we map the geographical distribution of innovative activities in Europe and profile regions in terms of technological capabilities. Second, we elaborate a metric to identify regions' green innovation potential. Third, we check whether possessing a comparative advantage in specific, green and non-green, technological domains is associated with a region's capacity to develop green technologies.

How the universities contribute to the regional business growth and competitiveness by developing the business incubator infrastructure

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Alicante-G53 City analysis miscellaneous, 0-E02, September 1, 2023, 2:30 PM - 4:15 PM

The Romanian higher education system has consistently recognized the need to become more entrepreneurial and innovative with a view to supporting the economic, social and cultural development of the country and its regions. According to a recent study carried out by the European Commission, Romania ranks last in among the European Union states in terms of Innovation Systems, without progress significant over the last decade compared to the EU average, recording almost constant 31% of the EU innovation index during this period. Over the past decades, the government has been implementing a broad reform agenda to provide strategic funding, diversify higher education institutions (HEIs) and promote an allocation of students that improves the quality of services and empowers them for the future of work and society. Universities are now considered vital actors in the transfer of knowledge, innovation and technology for the economy (Buffo, 2016). This article aims to illustrate policy actions promoting the development of entrepreneurial and innovative activities in the Higher Education System and individual HEIs. In addition, based on information gathered related to universities, the review discusses strategies and practices adopted by Romanian HEIs to innovate, engage, and generate value for their own ecosystems and networks. Academic entrepreneurship through university spinoffs commercializes discoveries technologies that might otherwise remain unexploited. However, many universities are struggling with difficulties in creating start-ups or spin-offs. The research method is to analyzing the ways of development of the world's prestigious universities in what regarding the exploitation of intellectual property, it is recommended to orient the activities of research to the results with the potential for further exploitation in the form of products and services. The potential of innovation to induce progress and efficiency is virtually limitless, which it justifies treating innovation potential as a resource of strategic importance. Spin off in this context, university degrees are not only an opportunity, but even a necessity for universities with an entrepreneurial profile through which significant income can be obtained through use of intellectual property. The result of the article will contribute to implementing the HEInnovate framework through experience of ILCA project. HEInnovate is a holistic framework that the OECD and the European Commission have developed to promote the “entrepreneurial and innovation agenda” in higher education.

Firm-level Effects of Public Aid in the Polish Investment Zone: A Preliminary Study

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Online-S03 Counterfactual methods for regional policy evaluation, August 29, 2023, 11:00 AM - 1:00 PM

Special Economic Zones (SEZs) have been widely implemented in many countries to stimulate economic growth, improve the labour market, and attract investments. Although the instrument is a worldwide initiative, it operates in many forms, including the scope of privileges, and different legal and economic environments, which makes international comparisons difficult. The microeconomic evidence on public aid support in SEZs is scarce. Most empirical firm-level contributions undertake the effects of SEZs on firms' employment, with insufficient evidence in other fields of firms' operation (i.e. exports, productivity, financial standings).

In Poland, the SEZs programme was introduced in 1995 and will end in 2026. Its successor, Polish Investment Zone (PIZ), established in 2018, differs substantially from its prototype. It also embraces tax exemptions (CIT/PIT) in the form of state aid but throughout the whole country. The most significant differences embrace the process of granting a permit. In the PIZ programme, it is contingent on meeting both quantitative and qualitative criteria, not only the quantitative ones as it was in the previous programme. Therefore, firms willing to obtain state support must not only invest a certain amount of money (quantitative criteria) but also meet qualitative criteria related to the nature of the investment and the quality of jobs created.

The motivation for the research stems from the lack of empirical evidence on the operation and effectiveness of the PIZ program in Poland from its start. Most of the empirical evidence concentrates on a regional or national level of analysis and depicts the effects of the former (SEZ) programme. The existing firm-level research is relatively scarce and usually available for a small number of firms. The changes introduced in 2018 provide an opportunity to investigate the impact of public aid on firms. Therefore, the paper aims to explore the microeconomic effects of public aid in Polish PIZs following the changes introduced in 2018 on a territorially restricted sample to one (out of 14) PIZ managing organisation (case study). Since the treatment is time-varying - depending on the year in which the firm has been given the decision of support and started its operation – the difference in differences (DID) method is used to estimate the effect of the public aid in one of PIZs on firms. Preliminary findings suggest that the PIZ programme might have positive effects on firms.

What's behind hydrogen? Technologies, products, and patterns of specialization

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Alicante-G24 Energy and Ecological Transitions, 0-D04, August 30, 2023, 2:30 PM - 4:15 PM

Climate change adverse effects urge a structural change of the economy towards less environmental disruptive pathways of development, reducing pollution and resources depletion. One of the major issues is the decarbonization of the energy sector, a process that would rely on electrification and needs to be complemented by other energy carriers. Among those, hydrogen seems the most promising alternative as fuel and feedstock for the hard-to-abate sectors (like steel manufacturing and aviation), and to ensure the resilience of the entire energy system.

Hydrogen can be produced in different ways, from fossil fuels (the so-called black/grey hydrogen, or blue, if coupled with carbon capture processes) or from water electrolysis, using electricity produced from renewable sources (green hydrogen). Several countries have national strategies and proposals for the development of low-carbon hydrogen. However, the sustainability of hydrogen as energy carrier is uncertain given that most of the production, and the underlying dominant technologies, relies on hydrocarbons. This represents the bigger challenge to the establishment of green hydrogen, which production is also hampered by the requirement of a combination of geographical factors (abundant renewable resources, available land, and access to water). This, however, constitutes an opportunity of green industrialization for many developing countries with these characteristics and, if realized, it would encompass significant changes in terms of energy security, having the potential to reshape the balance of power in the international system.

So, what is behind hydrogen production? How do countries specialize? Is this transition sustainable? In the paper we tackle these questions investigating the technologies, products, and processes behind hydrogen production, analyzing the positioning of countries from a structuralist perspective. First, we rely on qualitative data from studies and report to describe the different processes of hydrogen production, each of them associated to various technologies, which are at different stages of maturity and are characterized by their own value-chain. Second, assuming that countries asymmetric positioning in international trade reflects their technological differences which stem from capabilities accumulation, we use trade data (BACI, CEPII database) to examine the pattern of specialization and diversification in green hydrogen, proxied by electrolyzers. We then analyse comparable indicators in other energy sectors to detect the extent to which the development of countries' hydrogen production relies on renewable sources. Further, we focus on critical raw materials for electrolyzers production, to better understand country specialization from the perspective of the dependency theory.

More than a She-recession for Italian female workers: Long term occupational segregation and short-term pandemic effects

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Alicante-S01-S1 Regional Differences in Gender Equality: Determinants and Consequences, 1-B03,
August 30, 2023, 2:30 PM - 4:15 PM

The Covid-19 crisis has been defined as a “She-recession” because of its disproportionate impact on female employment, by contrast to past recessions, specifically the Great Recession, defined as “Man-recessions” for the usual disproportionate impact on male employment. Lock down measures have impacted mostly sectors with interpersonal contact which are female dominated, while school closures have increased the childcare burden for women in general, also for women working remotely implying reductions of working hours and resignations more than for their male partners. The roots of the Sherecession can be found in the persistency of gender differences on the labour market, especially for Italy. Employment and participation rates for women are slightly above 50%, the distribution of occupations is persistently segregated with concentration of female employment in service and low-value added sectors and mostly medium-low professional status; employed with part-time and fixed-term contracts. This is particularly true for women from Southern Italy, where such features of the labour market are exacerbated and deep asymmetries from women from other regions can be detected. Indeed, female structural unemployment in the South is more than twice the rate from different regions. This paper aims to identify and analyse the long term sources of the Sherecession to explain the peculiar impact of the Covid-19 crisis on female employment on the Italian labour market. By a revised key statistic originally developed by Fazzari and Needler (2021), we measure the severity of job losses during the Covid-19 crisis and their persistency. We control for both education level and geographical dimension. We find that the impact of the Covid-19 crisis has been more than proportional for women, for low educated female workers and working in the South during 2020.

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Challenges and threats for the automotive industry within Piedmont region. Moving forward

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Alicante-G09-O2 Innovation and Regional Development, 0-C02, August 31, 2023, 4:45 PM - 6:30 PM

The purpose of this article is to provide a contribution aiming to highlight the opportunities and the threats posed within the transport components industry suppliers by the technological development over a significant period of time and how it effects the Piedmont Region.

The Piedmont Region has traditionally been one of the leader of cars production, a specialization that has been reducing in economic importance over a long period but which remains the one of the main industrial assets. However this industry will face the increasingly challenging effects of the technological transition, from current and developing transport to future transport sustainability movements.

Investigation by the mean of a step-by-step research design based on multiple qualitative (surveys, case-studies, interviews) and quantitative methods (the analysis of official and non-official statistical sources) is taking place. The present contribution will focus on the possible effects of technological transition within the sector and on the innovation directions undertaken by the automotive industry components suppliers and by emerging players within the new mobility paradigm.

The new mobility paradigm seems to accelerate the process of “peripheralization” of the regional automotive industry. Therefore, the main trends related to the emerging paradigm of mobility (electrification, digitization, autonomous driving, mobility as a service) might be considered as possible avenues within which a re-position becomes possible.

Various means and policy responses might play a role in counteracting, or at least prevent the worst case scenarios, in the process of peripheralization, especially if informed by the transformative change approach for innovation policies.

Regional adaptability to digital change – may the Swabian force be with you

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Alicante-G08-O2 Cities, Regions and Digital Transformations, 0-C01, August 31, 2023, 4:45 PM - 6:30

PM

In the current debate about the labour market outcomes of technological progress, concerns arise that labour may be replaced by machines in line with decreasing costs of computing power and advances in artificial intelligence and robotics. It is uncertain whether positive employment effects due to creation of new tasks and as an outcome of price reductions made possible by productivity increases might outweigh the risks of automation. The study explores to what extent adaptation to digital change has affected regional employment growth and regional disparities in Germany over the past decade. It draws on data from the German Employment Office and further administrative statistics characterising local economies at the level of municipal districts and labour market regions. The empirical framework derives from a model of change in labour demand in the light of technological progress. The analysis finds no evidence for a net decline in employment in connection with technological progress during the study period. On the contrary, labour market regions where many employees perform occupational tasks susceptible to automation have fared comparatively well so far. After all, these regions often comprise strong manufacturing industries, e.g. in rural southern Germany. In regions dominated by less prosperous industries, however, implementation of job creation potentials may turn out to be a much greater challenge.

Do Special Economic Zones foster structural changes? Evidence from districts in Vietnam

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Online-YS02b Place-based Development - EPAINOS, August 29, 2023, 2:30 PM - 4:15 PM

Special Economic Zones (SEZs) have emerged as vital catalysts for structural transformation worldwide in recent decades, yet how SEZs influence structural change in developing countries seems largely unveiled. This study examines the causal effects of SEZ establishments on structural changes in 708 districts across Vietnam from 1992 to 2020. We utilize satellite-based remote sensing data to resolve the unavailability of official data at a lower level of spatial hierarchy. Additionally, we apply the newly developed Difference-in-Differences with multiple time periods to measure the overall effect of the staggered treatment. Our findings indicate that SEZs promote industrial growth in Vietnamese districts. The establishment of SEZs leads to a decrease in agricultural land. Nevertheless, the agricultural production output in communities hosting SEZs shows a slight increase, indicating a possible improvement in agricultural productivity to compensate for the reduced land. From our findings, we suggest that a combination of SEZ policies with other supporting agricultural policies could enhance the effectiveness of SEZs in fostering structural changes and economic development, particularly in a developing country like Vietnam.

Measuring inequalities in access to primary education and clean air in Warsaw

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Alicante-G22 Global Warming, Health and Environmental Issues, 0-D02, August 30, 2023, 2:30 PM - 4:15 PM

Childhood conditions relevant to education and health shape well-being throughout the entire life course. Outdoor air quality in school and compulsory education are two of these factors that we examine in current study. Air quality had been neglected in the regulations of public education in many countries, and only recently attracted attention of researchers, and to smaller degree, local communities. Although compulsory education and health protection are guaranteed for children in many countries, systematic monitoring of the inequalities in the access to public education is not always performed by local authorities responsible for the compulsory schooling, while monitoring of school air quality is usually entirely absent. This paper develops a method that allows us to examine the inequalities in air quality, school performance and access to school by public transport for all children entering the compulsory primary education and living in Warsaw (Poland). We model the choice of primary school taking into account three features of a school: average outcome in the final school exam, distance from the child's place of living, and limitation of school capacity. We find that public transport in Warsaw provides connection to school lasting up to 20 minutes for 90% of the examined children, and 80 days a year on average with the air pollution levels at school, exceeding the WHO recommendations. We find and little inequalities both in the school's final exam outcome and outdoor air quality.

Social barriers to sustainable transition: the case of mobility systems in Central Europe

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Alicante-G34-O2 Transport and Accessibility, 0-E01, September 1, 2023, 9:00 AM - 10:30 AM

Sustainable transitions are the answer to climate change induced instability (Naidoo, 2022). Climate change challenges current societies in a number of ways, including agriculture production, health care at an individual and population level, and political instability at a local and global level. Air pollution is the main cause of cancer in Poland, in comparison to other risks (before overweight and obesity, alcohol, and nicotine consumption) (OECD 2021) and private cars' use is responsible for vast portion of NO₂ and PM₁₀ as well as CO₂ pollution. In contrast to other emissions' sources (energy supply and industry), emissions' growth from transport did not slow down in the last decade (IPCC,2022). Sustainability transitions (shifts of socio-technical systems, like transportation, to more sustainable production and consumption) become both a must point on political agenda and an emerging research field (Markard et al., 2012).

Present study aims to examine institutional barriers to the reduction of private car ownership and use, and to the development of mobility as a service, which are crucial for the transformation in mobility systems aiming to withdraw from privately-owned personal transport (Kivimaa and Rogge, 2022). By studying effects of exposure to communism and regime transition in Central and Eastern European countries, we contribute to the literature on the preferences for car ownership in the developed countries Comfort and speed (Cohen, 2010), individualism understood as ability to being independent and being alone (Lang and Mohnen, 2019) as well as other social factors shaping transport decisions (Geels, 2018; Steinhilber et al., 2013).

Specifically, we test 2 hypotheses aiming to examine social factors relevant for transport decisions on the use of: 1) private car, and 2) mobility services (i.e. public transport and shared mobility)?

H1: Individuals with weaker pro-social beliefs are more likely to own a private car and are less likely to use mobility services

H2: Individuals preferring private over public services are more likely to own a private car and less likely to use mobility services.

By documenting long-lasting repercussions of transformation from Soviet communism to free market economies we deepen the understating of social factors relevant for sustainable transition, particularly related to private car ownership and mobility services using a unique and original data set, and we identify country-specific barriers to adaptation of sustainable mobility systems originating in the long-lasting repercussions of Soviet communism presence and dissolution in Central and Eastern Europe

How does the COVID-19 pandemic affect regional labour markets and why do large cities suffer most?

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Alicante-S23-S1 Rethinking regional resilience, 1-D12, August 30, 2023, 11:00 AM - 1:00 PM

We estimate spatially heterogeneous effects of the COVID-19 pandemic on labour market dynamics in Germany until December 2021. While initially slightly larger in rural regions, adverse effects quickly become more pronounced and persistent in large agglomerations. We ascribe the larger impact of the pandemic in large agglomerations to two factors. First, a combination of a higher share of skilled workers and jobs suitable for working-from-home is positively related to an increased inflow rate into unemployment. We argue that spillover effects from reduced product market demand in large cities caused by changes in behaviour such as working-from-home or online shopping are a possible explanation. Second, a higher pre-crisis unemployment rate in large agglomerations is associated with a lower outflow rate out of unemployment. This might reflect the less favourable composition of unemployment in large cities which reduces the probability of transitions into employment during crises.

Rethinking core-periphery model: waves of COVID-19 in Russian regions

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Alicante-YS07 Covid-19, August 31, 2023, 11:00 AM - 1:00 PM

Studies of the COVID-19 pandemic have repeatedly demonstrated that the role of spatial factors in the transmission of infection is significant. However, there is no universal spatial model thoroughly describing COVID-19 spread patterns. The paper proposes an original view on the centre-periphery model: regions are classified according to settlement pattern (static component) and openness (closedness) (dynamic component) characterising intensity of inter-regional human interactions (population flows). A total of 8 types of Russian regions are distinguished by the parameters of openness (closedness), population density and average size of a settlement. The course of the pandemic in the regions is analysed using the monthly trend of excess mortality, divided into three waves (acute phases) of COVID-19 spread. Empirical evidence shows that regions differ significantly in terms of the impact of the pandemic. Polarisation is the highest in the first wave, suggesting a greater role for spatial factors in the early stages of coronavirus outbreak. During the second and third waves, differences between regions begin to level out, probably influenced by internal socio-cultural and economic factors. The COVID-19 pandemic in the Russian regions allows us to rethink the traditional hierarchical concept of centre-periphery space. New dimensions are emerging: in addition to classical centres, there are remote frontier regions with similar functionality. Alongside the periphery is the outback (“glubinka”), close to the centre but paradoxically almost unaffected by its influence.

Pulsar cities: the phenomenon of population dynamics in the Arctic cities of the world

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Alicante-G53 City analysis miscellaneous, 0-E02, September 1, 2023, 2:30 PM - 4:15 PM

The problem of shrinking of Arctic cities has been gaining more and more attention in recent years. Several stereotypes have already developed in relation to this problem. The first and most important is the idea of the general non-viability of Arctic cities. The second stereotype assumes that the world North was developed mainly by the shift method, while the Soviet One was developed by the integrated development of a network of cities. This study aims to refute the aforementioned stereotypes on the basis of the analysis of the population dynamics of the Arctic cities of Russia and Northern Canada since the beginning of the XX century. We identified several types of population dynamics of Arctic cities in Russia and Canada. Unlike the vast majority of studies, where a three-part type of urban population dynamics is distinguished (growth-stabilization-shrinkage), the novelty of the proposed approach consists in an attempt to identify exactly different types over a period of several decades, taking into account the possibly wave-like change in the population of cities. A total of 8 types of urban population dynamics have been identified. The study shows the variability of the development of Arctic cities – although the "boom – bust" trend can be traced in many cases. The cycles of ups and downs are often associated with the individual trajectory of urban development (resource development, cycles of gaining or losing advantages of economic and geographical location, etc.), and not only with the general external factors on the national or global level.

Pedestrianization - Effects on the size of local retail and hospitality sectors in Swedish cities

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Alicante-S20 Sustainable retail trade and changes in urban space, 1-C13, August 30, 2023, 4:45 PM - 6:30 PM

Creating car-free zones, also known as pedestrianization, is commonly used to improve the environment in urban areas for both residents and visitors. However, the temporal effects of pedestrianization on economic activities that rely on proximity to consumers have not been studied. In this paper we assess the effects of pedestrianization on the size of local retail and hospitality in the 50 largest Swedish cities between 2011 and 2019. We use data on the location and year of an increase in pedestrianized street length and connect this to financial data for retail and hospitality sectors in the area. The results show that an increase in pedestrianized street length decreases employment of the local retail sector while it has no effect on net turnover or on firms in the hospitality sector. Further analysis indicates that the decline in retail is may be partly driven by a decline in the number of firms.

Impact of automation across local labor markets in Sweden

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Alicante-YS04 Labour Market Outcomes - EPAINOS, August 31, 2023, 11:00 AM - 1:00 PM

Automation technologies displace labor in favor of capital, but such technologies can also complement workers and enhance their productivity, which potentially increases labor demand. Whichever of the displacement effect and productivity effect is the strongest depends not only on the technology, but also on the labor force and industry composition of the region in which it is adopted; the impact of automation on labor is nonuniform across space, some regions are more resilient to the displacement effect of automation. I examine in this paper the displacement effect and productivity effect of automation from a regional economics perspective. To capture the heterogeneous impact that automation can have on occupations across industries and regions, I divide occupations by industry and local labor markets. The task content of an occupation provides an idea of how susceptible a job in said occupation is to displacement by automation. In my analysis I use the task contents of occupations to measure their probability of automation and find that occupations more susceptible to automation are associated with lower employment growth and wage growth, a relationship which describes a displacement effect. When examining how the automation impacts differ across local labor markets in Sweden during 2016-2021, I find that the displacement effect is stronger in rural local labor markets while the productivity effect is stronger in urban local labor markets, which encompass the largest cities of Sweden; they have a larger economic resilience, as measured by total employment, job connectivity and occupation and industry diversity, to offset the displacement effect.

Convergence of the office markets in capital cities of the Visegrad group countries

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Online-G32 Real Estate and Housing Markets Issues, August 29, 2023, 2:30 PM - 4:15 PM

The Visegrad group consists of four countries – Czech Republic, Hungary, Poland and Slovakia.

Representing the region of Central and Eastern Europe the economies of the four countries are believed to be codependent. This also refers to the commercial real estate markets.

The dominant role on the commercial real estate markets in the Visegrad group countries is played by foreign investors.

Taking that into consideration, the objective of the study is to verify if the office markets in Prague, Budapest, Warsaw and Bratislava can represent similar way of behaviour (despite the visible differences e.g. in the spatial planning at the local level). In the study, we use quarterly time series of the four office markets (stock, supply, vacancy rate, rents, yields etc.) along with demand data and financial data for period of over fifteen years. Our research is based on econometric models. First, we determine the Vector Error Correction Models (VECM) for each market individually. Then, we examine if the four markets can work as one in the VECM on panel data. Using the VECM approach we verify the relationships including shocks, leads, lags and possible asymmetries. The final step of the study is to verify the existence of convergence between the four office markets (α , β , σ). The conclusions of the analysis should allow us to answer the question whether the four office markets can be in fact regarded as one market.

Just Transition process of Polish coal regions from the perspective of place based policy

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Alicante-S34 Facing the challenges of the just transition in European regions, 1-B13, August 30, 2023,
11:00 AM - 1:00 PM

The purpose of the article is to show the process of equitable transformation implemented in Polish coal regions in the context of the challenges of a place-based policy. The article focuses its attention on the specificity of the transformation areas, the process of public participation and institutional partnerships.

The research method used is a critical analysis of foundational materials (strategic plans and programs created at the national and regional levels, expert reports) and interviews conducted with key actors operating in coal regions.

The authors argue that territorial policy, seen as a new model of regional policy-making, is desirable from the point of view of implementing the Just Transition mechanism. The research conducted (in the two regions: Upper Silesia and Bełchatów Basin) reveals a significant gap between the analyzed transition areas in terms of knowledge and substantive preparation for the implementation of the process. Visible deficits were noted in both regions regarding the programming of the Just Transition process, the formation of information policy and networking with partners.

The impact of motorway off-ramps on population change in Ireland

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Alicante-G34-O3 Transport and Accessibility, 0-E01, September 1, 2023, 11:00 AM - 1:00 PM

New motorways transform the spatial structure of cities and regions by reducing the costs of commuting to employment centres and improving accessibility in peripheral areas. There is substantial evidence that highways induce suburbanisation, reduce population densities in central cities, and increase population levels and economic performance of peripheral areas. Understanding the spatial and economic consequences of large-scale transportation infrastructures is important as access to markets and proximity to workers and jobs are prominent criteria in the location decisions of firms and households, meaning transportation infrastructures are an important determinant of individual welfare and regional disparities.

Our rectified dataset, comprised of seven Irish Census of Population from 1986 to 2016 at the Electoral Division (ED) level, covers 3,384 EDs in the Republic of Ireland. Additionally, we use OSi PRIME2 data and Transport Infrastructure Ireland data to identify off-ramps. We use POWSCAR data to examine commuting patterns in the areas which benefit from off-ramps.

We contribute to the existing literature in the following ways. First, there has been great interest in the role of accessibility on population changes. The natural experiment provided by Ireland allows us to examine the role of proximity to motorway off-ramps on population change. The Irish case is a particularly interesting study. Most of the motorway in Ireland was developed over the course of the 30-year period, 1986-2016. Secondly, one potential gap in the literature consists of the role of transport infrastructure on commuting to work patterns, particularly cars. Thirdly, most studies on the effects of motorway are at a larger spatial scale, such as cities or NUTS 2/3 data. We operate at a smaller spatial scale, LAU2, to examine the local level effects of motorway construction on population change on the surrounding areas.

Is Arsenic a Major Determinant of Health Aid Disbursement? An Empirical Approach and Challenges in Cambodia

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Alicante-G18-O1 Institutions, Political and Decisional Processes, 0-C04, August 30, 2023, 2:30 PM -
4:15 PM

Arsenic is a serious problem harming regional development in Cambodia, particularly in Greater Mekong Region. To implement the Arsenic mitigation activities, the Government of Cambodia established the Arsenic Inter-ministerial Sub Committee (AISC) in 2002, which consists of representatives from 5 ministries which have responsibilities for water - Ministry of Rural Development (MRD), Ministry of Water Resource and Meteorology (MOWRAM), Ministry of Health (MoH), Ministry of Mines and Energy (MIME), and Ministry of Environment (MoE), chaired by MRD with a sub-secretariat team (staff of DRWS and DRHC). However, the committee has not been working well due to lack of coordination between the ministries, and this study deals with current challenges as well as the way forward. Game theoretic methods as well as some empirical analyses will be provided to derive policy implications.

Bilateral Aid and Migration: The Case of South Korea

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Alicante-G03-O1 Demographic Change, Population and Migration, 0-C03, August 30, 2023, 11:00 AM -
1:00 PM

This study examines the determinants of international migration flows in South Korea, focusing on the impact of bilateral aid on migration. Using comprehensive panel data covering 144 migrant-sending countries listed as recipients of South Korean ODA from 2000 to 2020, this study confirms three hypothesis on the relationship between bilateral ODA and migration inflows to South Korea, and the application of the mobility transition theory and the gravity model to the panel data used in this study. In line with the hypothesis, major findings from this study includes 1) Migration flows of South Korea well corresponds with the mobility transition theory, implying that migration flows have been skewed toward middle-income countries 2) Bilateral aid is a very significant determinants of bilateral migration flows to South Korea, together with other factors (known as the Push-pull factors 3) Immigration flows to South Korea are consistent with the gravity model's prediction 4) There are different effects of bilateral aid on migration by the income level of countries 5) There are underrepresented countries in terms of estimated flows, suggesting that South Korea should adopt a strategic approach to diversity the spectrum of migrants from the underrepresented countries covering both skilled and unskilled workers.

Revisiting regional house price-income relationships

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Alicante-G32-O1 Real Estate and Housing Markets Issues, 1-B02, August 30, 2023, 11:00 AM - 1:00 PM

This study contributes to the analysis of the relationship between house prices and income and regional heterogeneity in this relationship in several ways. We consider a standard spatial equilibrium model and conduct an empirical analysis that examines whether results using panel data from the 70 largest U.S. MSAs are in line with that model's predictions – which they are. In line with the spatial equilibrium model, our empirical findings indicate that regional house price-income ratios are typically not stable even over the long run. In contrast, panel regression models that relate house prices to aggregate personal income and allow for regional heterogeneity yield stationary long-term relationships in most areas. The house price-income relationship varies significantly across locations, underscoring the importance of using estimation techniques that allow for spatial heterogeneity. The substantial regional differences are closely related to the elasticity of housing supply. Our analysis thus supports the argument that local supply constraints are related to greater increases in regional house prices relative to incomes, thereby generating a counterforce for regional growth through adverse effects on the affordability of housing (while on the other hand supporting wealth accumulation). Furthermore, we illustrate how the panel level cointegration, or unit root, tests can lead to misleading conclusions regarding the nature of the regional house price-income relationships.

Urban-Rural Happiness Gradient Theory: (Mechanisms of Urban Unhappiness)

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Alicante-S78-S4 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 4:45 PM - 6:30 PM

Urbanization, arguably the most significant disruption of human habitat in our species history, has received surprisingly little attention in terms of Subjective WellBeing theory. We know that across the developed world urbanites are less happy, yet we miss theory: what can be the mechanism? This article

aims to start filling this gap. We have reviewed SWB urban literature to find out the mechanisms of urbanness affecting SWB. An apparently surprising empirical finding that people are less happy in cities should not be surprising given that happiness theories indicate at least some urban happiness penalty.

Vulnerability to climate change of mountain snow tourism destinations at low and medium altitudes. The Alpine Space project "BeyondSnow"

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Alicante-S67 Small Tourism Communities in Transition, 1-D12, August 31, 2023, 4:45 PM - 6:30 PM

Many low and medium altitude snow tourism destinations (hereafter STDs) and their communities are facing impacts related to climate change (hereafter CC), particularly those concerning the diminishment of snow cover. Damm et al. (2017) estimate a loss of up to 10 million ski tourism-related overnight stays in Europe per winter in the coming years. In the Alps, the 2°C temperature increase since the beginning of the 20th century and the resulting decrease in snow cover have significantly shortened the snow season (38 days between 1960 and 2017, according to Jeffrey Kluger - Time, Source) and increased snowmaking costs. The situation will not improve in the future. Scientists estimate that by 2100 the temperature in the Alps will increase by 1-2°C if emissions remain low (RCP 2.6) and by 5-6°C in the worst-case scenario (RCP 8.5). During the same period, the altitude for snow reliability could increase to 2,400 m. In addition to ecological impacts, these low and medium altitude STDs must also consider socioeconomic impacts, in combination with a slight but steady decrease in the number of skiers and a reduction of the average length of stay. Censuses such as those carried out in recent years by Legambiente on the viability of ski destinations in the Italian mountains describe a particularly complex situation in which abandoned/closed facilities or those that survive only thanks to heavy injections of public money are increasingly common. The sector, which in the past has been one of the pillars of mountain tourism, still provides employment opportunities for a large number of people and supports the economies of many communities and tourism destinations. A transition to new, more sustainable models of tourism development focused on the preservation and enhancement of territorial assets, unique tourism experiences based on local natural and cultural heritage is needed and is the subject of the Interreg "Alpine Space" project "BeyondSnow". The authors intend to present the first results of the project and discuss them at the 2023 ERSA Conference. In particular, the analysis carried out regarding the relationship between past/current/future climate change-induced diminishment of snow cover and the possible socioeconomic effects on Alpine STDs, as well as their vulnerability and resilience, will be presented.

The Dynamics of Retail Colocation Using geo-coded data for Swedish retail markets

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Alicante-S20 Sustainable retail trade and changes in urban space, 1-C13, August 30, 2023, 4:45 PM - 6:30 PM

We analyze the patterns of retail cluster formation in an exogenously assigned grid of 1 km² neighborhoods in Sweden. A neighborhood's increases and decreases of different store types is modelled as a function of changes in the previous year, as well as of several other local market attributes. The dynamic empirical design we use allows us to document a pattern of retail cluster formation by looking at what type of shops attract or repel each other in space. We also explore heterogenous effects for metropolitan areas, as well as for urban core and periphery, with one strikingly common finding: we find a Hotelling type co-location dynamics for all retail categories in the analysis, i.e. that similar stores have attracted similar stores over the period.

Absorption of European financial support for rural development in Romania between 2007-2022: typologies of rural communities and potential influencing factors

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Alicante-G05-O2 Economic development in rural places, 0-D01, August 31, 2023, 2:30 PM - 4:15 PM

Sustainable rural development is one of the goals being pursued at European level. The adoption of the Common Agricultural Policy (CAP) in 1962 paved the way for its realisation, with EU Member States being offered funds to finance economic and social development projects in rural communities. However, the capacity of Member States to manage effectively the financial support allocated at the national level has a direct impact on the potential of these funds to lead to sustainable rural development and improved territorial cohesion. Studies carried out so far in different European countries have highlighted differences in the capacity of rural communities to absorb funds, which has led to widening gaps. This is because financial support often reaches more developed rural communities, while those with fewer opportunities are less able to absorb funds. Therefore, the topic approached in this paper is a better understanding of rural fund absorptions while aiming to build a classification of rural communities based on their performance over two periods of European funding for rural areas (2007–2013 and 2014–2020). It also aims to analyse the resulting typologies in order to identify potential factors leading to different performances of rural communities in absorbing financial support, which is the purpose of the paper. The study focuses on rural communities in Romania, an EU Member State taken as a case study due to the sharp development gaps it faces. The data used for the classification of rural communities are the funds absorbed so far at the local level from the National Rural Development Program, funded in itself from the European Agricultural Fund for Rural Development (EAFRD), part of the CAP. In addition, data such as wealth, education, and HDI level were used to test a number of factors influencing the absorption capacity of the communities. In terms of methods applied, the contingency table analysis was used in classifying the rural communities, and regression was applied for testing the factors influencing the absorption capacity of communities. The study confirms the results of European research, and that the gap between developed and underdeveloped municipalities is indeed widening. Moreover - even at regional level a discrepancy can be observed which accentuates regional differences.

Cities of future: transformative effect of virtual technology on urban land use

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Online-S29 Technology as a key to a sustainable future: new challenges, opportunities (and threats?)
in urban and peripheral territories, August 29, 2023, 11:00 AM - 1:00 PM

Metaverse is a compound word of 'meta' and 'universe', which means transcendence and the world. It is a digital world effecting daily life and economic activities. The concept of metaverse, which has a 30-year evolutionary process, ceased to be a fictional idea with the development of technology and is now used to name decentralized, 3D virtual platforms. While the Metaverse is being actively used as an alternative space to enjoy leisure life since COVID-19, not much academic research on the influence of digitalization on urban life is discussed. The development of technology transforms both the physical and social processes of the space. Such transformations that the metaverse universe will bring to the physical space on the urban fabric have been recently under attention. Within this point of discussion, this study focuses on the possible scenarios of digital transformation on urban space formation.

How technology transform the future of tourism placemaking?

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Online-S11 Opportunities, risks and challenges of the digital transformation in tourism, August 28, 2023, 11:00 AM - 1:00 PM

By the recent influence of Fourth Industrial Revolution (Industry 4.0), robotisation, digitization and automation have come to the discussion and this affects and transforms not only production processes, but also services or financial markets and thus urban space. Technological change affects all sectors , in our case this change influences the tourism sector by creating new trends. The recent trend in organizing travels and tours through online platforms have changed the way of travel planning and influenced new trends such as adventure-themed trips, travels for women, sustainable tourism, gastronomy-oriented trips.

Due to the recent increase in digital trends in the tourism sector, the expectations of tourists are also changing. Traditional advertising and marketing tools, which are frequently used by tourism companies, have become highly digitalized due to the increasing use of smart phones, internet and social media, and digital marketing techniques have become indispensable in customer relations. Digital tourism platforms are changing the value chain of the tourism industry. Platforms such as Uber and Airbnb, which use location-based applications where real spaces are digitized by automation systems have changed the way of experiencing the urban environment. Antalya, which has a very high tourism capacity is affected by the developments in technology and is experiencing changes that will affect the current tourism presentation such as airbnb, virtual museums, etc. It is still not yet known to what extent tourism in the city will be affected by technological changes and smart tourism forms, and how it will affect the form of tourism production. Focusing on this question, this study discusses possible future scenarios by meeting with sector representatives, local government and tourism NGO representatives in order to investigate how smart applications and technological transformations can transform the production of tourism in Antalya and how these changes influence the spatial transformation in Antalya city.

Shrinking Cities in the Baltic Sea Region: A Perspective on Housing

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Alicante-G32-O1 Real Estate and Housing Markets Issues, 1-B02, August 30, 2023, 11:00 AM - 1:00 PM

Shrinking cities are faced with various problems and experience major declines in population and/or industry. Among their counterparts in the world, shrinking cities in the Baltic Sea Region are one of the most dramatically affected and transformed ones with regard to the shifts in volume and density with their physical and social entities. The region is concerned by outmigration and demographic change not only in its rural areas but also in its cities. Shrinkage is interlinked with economic, social, and institutional aspects in the Baltic Sea Region and is associated with a complex process. It brings up some challenges, such as population changes, shifts in quantity and quality of material stocks, and alterations in the volume of economic activities over time. According to the existing literature (Bernt et al., 2017; Couch & Cocks, 2013; Gao et al., 2023), housing, as a component of the material stock, is a critical challenge and contains some spatial anomalies in the context of shrinkage in the Baltic Sea Region cities. Besides, housing is not only a challenging context in shrinkage, but also an opportunity for different groups in shrinking cities with its physical, economic and social forms. Abandoned and vacant presences of the housing stock, e.g. large housing estates, transform the city landscapes; economic and population declines affect the housing values that may cause housing to become a financial tool; and dynamics in shrinking cities create an unstable environment in ownership structures.

Different spatial and institutional formations produce different dynamics. Therefore, this research considers shrinkage as a multidimensional process and aims to disentangle the economic and demographic perspectives of shrinkage. By doing so, it aims to quantify the economic and demographic decline through the lens of the Baltic Sea Region cities and to investigate especially the consequences for the housing market. Moreover, there is no scholarly or policy consensus on how shrinkage should be addressed. Some cities, for instance, adopt governance models based on counteraction against shrinkage and promoting growth, while some attempt to “shrink smart” (Bernt et al., 2012). The initial descriptive results are therefore extended by surveying different policies aimed at tackling housing problems in shrinking cities in the Baltic Sea Region.

Levelling-up through R&D collaboration ? Does UK research collaboration in R&I promote levelling-up? An analysis of UKRI funding between 2004-2021

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Alicante-S76-S2 Global disruptions and their local labor market impact. An investigation into the spatial drivers of productivity and growth, 1-D14, August 31, 2023, 4:45 PM - 6:30 PM

During the last decades, research and innovation (R&I) public funding schemes have been crucial for driving economic prosperity and development and this has been acknowledged in the latest iteration of the UK national industrial strategy with the Levelling Up White Paper. Among other objectives, such as premium research excellence, R&I funding encourages the establishment of research partnerships to increase the value for money by benefiting from the synergies and potential multiplicative effects of supporting R&I in a multidisciplinary context. Apart from allowing complementarities between public and private sectors, they can also be instrumental for a more balanced spatial distribution of public research funding.

To illustrate the potential of using public funding as a promotor of levelling-up in the UK, this paper analysed the UK Research and Innovation funded projects repository between 2004 and May 2021. This information is complemented with data from ONS and scrapping individual information from Company House. Our dataset contains 25,122 projects and 44,406 participants. We use all collaborative (R&D), feasibility, smart and innovation voucher grants, and Knowledge Transfer Partnerships in 42 UK NUTS2 regions. The distribution of partnerships, the categorisation and measurement of the strength of R&I relationships are done by social network analysis. We use multilevel mediation panel data models to consider the important mediating effect of Business R&D on Levelling up and regional economic growth.

Our preliminary analysis shows that interregional and intraregional R&I UKRI collaboration contributes to explaining economic prosperity in the UK and its growth; however, there seems to not be a direct relationship with levelling-up or regional economic convergence.

UK Levelling up R&D mission effects: A multi-region input-output approach

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Alicante-S76-S2 Global disruptions and their local labor market impact. An investigation into the spatial drivers of productivity and growth, 1-D14, August 31, 2023, 4:45 PM - 6:30 PM

In 2022, the UK Government launched its latest iteration of the national industrial strategy with the Levelling Up White Paper. To rebalance the UK national economy, the white paper sets twelve main “missions” centred around science, technology and education. One of the core twelve “missions” is focused on increasing the domestic public R&D outside the South East of England by at least 40% by 2030.

The Levelling Up White Paper sets clear plans for how R&D investment will be spent and locally redistributed. Based on these documents and combining information from data from different sources (UKRI and ONS), we calculate the current UK R&D sub-national and sectoral distribution (GERD and BERD) and set up different redistribution scenarios reflecting three different sets of assumptions about the distribution of R&D spending.

Following similar attempts to evaluate the impact of R&D using input-output techniques, we use the multi-regional Socio-Economic Impact Model for the UK (SEIM-UK) to evaluate our three proposed R&D spending scenarios. Our analysis allows us to assess the extent to which such proposed changes will impact the UK regions in terms of output, GVA and employment.

Our findings vary significantly across the different UK regions in different scenarios. A more redistributive approach, allocating more additional GERD to regions with previously low funding levels, yields the largest effects. On average, output, employment and GVA in regions outside LSE increase by 0.33%, 0.37% and 0.34%, respectively, showing a potentially positive effect on the levelling up of R&D in the country.

The effects of leisure night noise on residents' health: evidence from Turin

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Alicante-G22 Global Warming, Health and Environmental Issues, 0-D02, August 30, 2023, 2:30 PM -

4:15 PM

Night-time economy is a complex phenomenon that carries contradictory effects: social and economic benefits due to commercial activities and social interactions, but also difficulties related to the impact of alcohol on crime and disorders, coupled with public nuisance caused by recreational noise pollution. Tensions are likely to emerge between residents in gentrifying neighbourhoods and nightlife businesses due to the nuisance effects of the latter especially because cultural and leisure activities are alcohol-centred activities.

The paper aims at quantifying the damage, both neurological and economic, caused by night noise pollution on residents by using a sleep quality index.

An experiment carried through fit-bit type tracker bracelets supplied to residents of the involved districts in Turin (San Salvario, Vanchiglia, Piazza Vittorio) and of other areas of the city not affected by the phenomenon (control sample), is aimed at monitoring participants' nocturnal sleep disturbances.

Social costs of the nightlife phenomenon, both in terms of health damages (increased pathologies associated with sleep disturbance) and in terms of costs determined on the Health System and the public administration (controls, sanctions, lawsuits), will be investigated through the sleep indicator.

Digital Divide influence on the Spatial Distribution of Innovative Industries in Cities, Turkey Example

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Online-S14 Digital in(equality) and sustainable cities, August 28, 2023, 11:00 AM - 1:00 PM

In recent decades, the complex relationship between ICTs and the city has become a hot topic in urban and regional development. Recently, the digital economy has been the center of research, and several researchers have already approved its transformational effect on cities. Yet, there is limited research on how development differences in terms of ICTs adaptation, usage, and outcomes affect this change. This paper uses the digital divide and the new digital economy as a primary approach to unveil the relationship between ICTs and urban spatiality. In particular, innovative enterprises are accepted within the scope of the new digital economy. Accordingly, the main question is: How does the digital divide affect innovative industries' volume and spatial distribution? Within the framework of the new digital economy in Turkey, R&D and Design Centers and Technology Development Zones enterprises included in the Ministry of Technology and Industry's technology and innovation ecosystem are examined. The paper investigates 8905 innovative enterprises located in various cities. In the first part, this paper examines the innovative industry volume in Turkish cities by adopting spatial regression models (OLS and GWR). In the second part of the study, the locational patterns of innovative industries are investigated by using Euclidian distance to the city center in various Turkish cities with different ICTs development levels (İstanbul, İzmir, Ankara, Bursa, Kocaeli, and Tekirdağ). Based on the primary findings, digital development, and technopark existence influences innovative industries' volume and spatial distribution. İstanbul, Ankara, Kocaeli, and İzmir are becoming innovation centers by hosting more than half of the innovative industries. Additionally, the higher the digital development is, the higher the innovative industry concentration in the centers. While İstanbul has 15 percent of innovative industries in the center, no city has reached a higher value.

Effects of commuting subsidies on commuting distance and mode choice: the case of Brazil

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Online-G34-O2 Transport and Accessibility, August 28, 2023, 2:30 PM - 4:15 PM

This paper studies the effect of commuting subsidies on the commuting distance and commute mode choice of employees. In Brazil, since 1985 formal workers are entitled to a public transport commuting voucher: employers pay for the full cost of public transportation in a voucher and discount 6% of employees gross wage. In this context, the voucher works as an implicit subsidy. Thereby, I exploit the existence of two kinds of workers to investigate if the lack of access to the voucher can make workers travel shorter distances and use more active and private modes of transportation.

I use data from São Paulo. The city runs a travel survey every 10 years since 1967. I use the 2017 edition that surveyed 22 thousand households, or 57 thousand individuals. I restricted the data for workers with a non-fixed contract with a private company, regardless of their type of contract (formal, informal, or self-employed). My final data has 12,573 individuals: 11,252 are and 1,321 are not entitled to the voucher (informal, or self-employed workers). Since workers entitled and not entitled to the benefit were not compared in observable characteristics, I rely on a matching strategy for estimating causal effects. The variables used were: type of occupation (white-collar, arts and science, medium level technicians, administrative service worker, worker from the service sector, agricultural sector, or industrial sector, salesperson, repair and maintenance worker, arm, police or fireman, other), level of education (elementary school, high school, college), individual position in the household (head of, spouse, children), age, household income and size, accessibility by transit from place of residence, housing status (owner, renter), and dummies for working in downtown area, female, student, and living in the downtown region.

Using the matched sample, I estimated the policy effect using an OLS model for commuting distance and a multinomial logit model for the mode choice. I find that not being entitled to the benefit makes commuting distances 880 meters shorter. If compared to median commute distance in the sample (5.7 km for those entitled and 3.6 km for those not entitled), not being able to access the voucher is explaining 42% of the difference in distance among the two groups.

Additionally, I show that individuals not entitled to the voucher are, compared to the odds of traveling by car, less likely to take transit and walking if compared to the group that can access the benefit.

The impacts of FDI plants on the regional entrepreneurial activity

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Alicante-S64 From Dependence to Embeddedness”: FDI Driven Global Value Chains and Policy Alternatives to FDI-Based Regional Development in Central and Eastern Europe, 1-B11, August 31, 2023, 4:45 PM - 6:30 PM

Examining the effect of FDI plants on the entry of new firms is an emerging field within entrepreneurship literature. This study contributes to this field by investigating how the presence of FDI influences entrepreneurial activity in Hungarian agglomeration areas. Building on a panel dataset of Hungarian firms provided by the Databank of the Centre for Economic and Regional Studies, the paper analyses whether the effects of the presence of FDI companies on firm entries are negative or positive. In the frame of this investigation, we attempt to reveal both the cross-sectional (region, industry) impacts and the time effects.

Functional specialization and upgrading in European regions: new insights from FDI data

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Alicante-S04-S3 Global Value Chains and regional development, 1-C11, September 1, 2023, 11:00 AM - 1:00 PM

The geographic dispersion of production activities has led regions to increasingly specialize in specific value chain functions, giving rise to a finer spatial division of labour. In this work we use georeferenced FDI data to investigate the geography of functions in European regions. We show that the most intangible-intensive functions at the upper ends of value chains are concentrated in few advanced regions, while lower-income ones are largely and persistently specialized in production operations. Moreover, we find that regions locked-into these value chain functions are the least likely to upgrade towards more knowledge-intensive industries. By contrast, only the few regions which experienced functional upgrading have been able to diversify towards more innovative industries. These findings suggest that the geographic concentration of intangible-intensive functions might well be among the key drivers of the rising inter-regional inequality in Europe.

Intensified or weakening? A study on the impact of childhood migration experience on the migration flexibility in adulthood

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Alicante-S18-S3 Drivers and impacts of migration: new insights on the role of local labour markets, human capital, remote work, and (family) networks, 1-C12, September 1, 2023, 11:00 AM - 1:00 PM

Migration provides important opportunities for individuals to change and pursue a better life. In this regard, these opportunities could be widened and increased with a greater migration flexibility - measured by maximum migration distance and frequency. Previous studies have viewed migration as a learned behaviour and an accumulative process. As a result, the impact of childhood migration on adult migration patterns has been a topic of interest in the field of migration studies for many years. However, it remains unclear how the migration experience shapes their migration flexibility in adulthood. This study aims to examine the relationship between migration experience in childhood and the subsequent migration flexibility in adulthood, using data from multiple waves of the Understanding Society study in the United Kingdom.

Our objective is to answer the following questions: (1) Does the childhood migration experience booster or decrease their future migration flexibility? (2) Does the association depend on the childhood move type (e.g., internal & international migration, inter-region & intra-region)? A fixed-effect model will be employed to analyse the data. The findings of this study will add to the growing body of literature on the long-term effects of childhood migration and underscore the importance of considering the experiences of migrant children in policy discussions around migration.

Linking tourism-related types of Mediterranean destinations with the cohesion policy objectives. The case of Interreg MED

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Alicante-G36-O1 Tourism and Overtourism Issues, 0-E02, August 31, 2023, 2:30 PM - 4:15 PM

European Territorial Cooperation (ETC), also known as the Interreg programme, is one of the two goals of the EU Cohesion Policy, which aims at reducing the disparities between EU regions. Tourism constitutes a common intervention field of ETC towards sustainability, especially in coastal regions. In this vein, the Interreg Med Programme funded a community of projects with the aim of promoting sustainable and responsible coastal and maritime tourism in the Mediterranean region during the 2014-2020 programming period. Although the objectives of the Sustainable Tourism Community (STC) were built upon the priorities of the previous period, its outputs are linked to the new priorities of the Interreg programme and cohesion policy. Under this notion, considering the types of eligible regions with respect to their tourism characteristics and development potential and economic status could prove essential for generating effective interventions for the new period. The objective of this paper is to assess the allocation of projects and funds to the Mediterranean regions considering tourism and development characteristics. To do so, the paper uses two different regional typologies. A tourism-related typology of Mediterranean regions based on the types of projects implemented and a typology related to cohesion policy objectives that classify regions according to their achieved level of economic development.

Under the first typology, five types of destinations occur through the project-based analysis: a) urban destinations, b) islands, c) destinations with environmentally important assets, d) coastal sites of important value and e) coastal regions. The second typology identifies types of regions using the Cohesion Policy eligibility architecture for allocating funds (more developed, transition, and less developed regions).

After analysing the typologies, the paper examines the allocation of funds and projects among the different types of regions in order to identify the types of tourism destinations that were active during the 2014-2020 period. In addition, the paper aims to unveil the alignment of the distributed budget with the Cohesion Policy funding allocation methodology within the cooperation area of the Interreg MED Programme and highlight potential imbalances and deviations in the context of reducing regional disparities.

The findings include three strands of generated knowledge, related to the type of destination, the budget allocated, and the regions' performance, that, when interlinked and compared, provide useful information on the types of tourism destinations attracting funding and their position to the priorities of the cohesion policy covering both 2014-2020 and 2021-2027 periods.

Global value chains and income inequality

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Alicante-S04-S1 Global Value Chains and regional development, 1-C12, August 30, 2023, 2:30 PM - 4:15 PM

This study analyses the link between global value chain participation and intra-regional income inequality across European regions from 2003 to 2010. It combines regional input-output data to construct different indicators of global value chain participation and income data for regions at NUTS-2 level. We show that two measures, forward and total participation, are positively linked with income inequality at the top. Backward participation, in contrast, is not significantly associated with income inequality at the top. This effect varies by development level, showing that it is more pronounced for less developed regions. We show that the effects are not driven by the economic and financial crisis as the results hold and even increase largely in size, when excluding the years 2008-2010.

Estimating firm level innovation and its sensitivity to Brexit (not competing for Epainos)

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Alicante-S15-S1 Digitalisation, global shocks and new inequalities, 1-C13, August 31, 2023, 4:45 PM - 6:30 PM

Brexit delivered a major political and economic shock to the UK economy. However, little is known about the effect of this shock through impacts on openness, ambition, and innovation among Small and Medium Enterprises (SMEs) in the UK, which are the backbone of the economy providing 60% of all jobs. This is even more the case for local economies in Northern Ireland, South West England and Wales, as their employment makes up 70% of employment in the private sector. We seek to exploit regional variation in the magnitude of this shock, measured by the differences between survey-based expectations and actual Brexit vote, and estimate the local effect on firm level performance. We use novel data sources to provide additional measures to investigate differences of how SMEs use technology and more granular definitions of business activity. Understanding how firms' innovation and export behavior are affected by economic expectation changes due to Brexit is essential to mitigate the effects on the long-run productivity decline affecting growth and standards of living.

Spatial Aggregation-Repulsion-Diffusion model: theory and estimation

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Alicante-G40-R Spatial spillover a local development, 1-B01, August 30, 2023, 4:45 PM - 6:30 PM

In this paper, we propose a novel spatial econometric model, denoted as Spatial Aggregation-Repulsion-Diffusion (SARD). The model is derived as the approximation of a class of micro-founded growth models in a diversified space, which encompasses both local accumulation and agglomerative, repulsive and diffusive forces driving spatial factor reallocation. The estimate of the SARD model for the income of Italian municipalities over the period 2014-2019 supports the main predictions derived by the theory, and outperforms the most common spatial econometric models used in the literature.

Digitalization of production, firm productivity and urban location

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Alicante-G41 GIS and Location Modelling, 1-B02, August 30, 2023, 4:45 PM - 6:30 PM

Recent digitalization of production may increase the urban location tendency of industry by enabling downsizing factory and improving productivity. However, studies on this have been mostly conceptual approaches, and there are very few empirical case studies on this. Therefore, this study aims to empirically examine whether the digitalization of production at the firm level increases the urban location tendency by downsizing factory and improving productivity. It extracted information on the digitalization level of production, the area of production space, and productivity of 1,750 companies by using raw data of Survey of the Information Level of SMEs conducted by the Korea Technology and Information Promotion Agency. In addition, the urban location index was calculated using the modified gravity model, and location pattern for each firm was analyzed through GIS analysis. As a result of the analysis, firms with high level of digitalization, small the production size, and high land productivity have exhibited a considerably strong urban location tendency compared to other types of firms. In addition, the analysis results of the multi-level regression model showed that the digitalization of production not only had a positive effect on the downsizing of factory and productivity, but also increased the tendency of urban location. Based on these findings, this study discussed several policy implications for urban industrial location and urban industrial spaces.

Impact of Recreational Marijuana Legalization on US State and Local Economies

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Alicante-G01-O1 Regional and Urban Development, 0-B02, August 30, 2023, 2:30 PM - 4:15 PM

In the late 1990s, California led the way in legalizing medical marijuana, beginning a trickle of states allowing medical sales. This was followed by Colorado and Washington legalizing recreational sales marijuana in 2013/2014. Since then, there has been an avalanche of states legalizing both medical and recreational marijuana, with nearly 20 states legalizing recreational sales by early 2023. Until now, it has been difficult to assess the medium- to long-term economic effects of recreational marijuana legalization because the length of time since enactment was too short. This study takes advantage of longer elapsed time to assess the economic impacts in several states that legalized recreational sales by 2018. The empirical methodology employs fixed-effects regression using county-level data and synthetic control matching for individual states (SCM).

The results indicate that there are weak positive effects of legalizing recreational sales on overall state employment, wages, housing costs, and the share of the population that is young adults. Using the spatial equilibrium model, these findings further suggest that both productivity and quality of life—especially for young adults—improved. The results also indicate that early adopters benefited more than those that followed. Furthermore, the regression results suggest that within states that legalized, counties that “opted-in” and allowed recreational sales benefited more than counties that did not allow recreational sales, further supporting the notion that legalization has weak positive economic effects through enhancing quality of life. Those who “opted-out” of sales were unable to capture tangible positive spillovers by “freeriding” on their local neighbors that approved sales.

Do tax incentives increase solar energy adoption? Evidence from Brazil

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Alicante-G25 Energy efficiency and its effect on urban areas, 0-E01, August 30, 2023, 2:30 PM - 4:15

PM

Renewable energies have become central for global sustainable development, and Brazil has great potential for exploring solar sources. Brazilian states have implemented a tax incentive to push for small-scale renewable energy market development. Based on the net metering mechanism, the states exempt the distributed generation systems owners from electricity tax equivalent to the amount of electricity exported to the distribution grid. In this paper, we aim to estimate the effect of this policy on solar photovoltaic (PV) adoption. The literature on government incentives to promote renewables is largely based on policies applied in developed countries. To the extent of our knowledge, this study will be the first to assess the effect of electricity taxes exemption on the adoption of small-scale solar photovoltaic systems. We build a monthly municipal-level panel combining a novel administrative data set of distributed generation systems with socio-economic information from 2014 to 2019. We then use the policy staggered adoption by states from April 2015 to June 2018 and the recent developments of the differences-in-differences literature to assess the causal effects of the policy. The results suggest a positive impact of the state tax incentives on solar PV adoption. The policy has created 14% of the installation after treatment, which translates into 8 GWh energy savings in five years.

Evolution of scientific capabilities at different scales

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Alicante-S77-S1 Economic Complexity for Industrial and Innovation Policy, 1-E12, August 30, 2023,

11:00 AM - 1:00 PM

The evolution of economic and innovation systems at the national scale is shaped by a complex dynamic related to the activities in which they are proficient. Nestedness, a footprint of a complex dynamics, emerges as a persistent feature across multiple activities. We observe that, in the layers of innovation and trade, the competitiveness of countries correlates unambiguously with their diversification, while the science layer shows some peculiar features. The evolution of the scientific domain leads to an increasingly modular structure, in which the most developed nations become relatively less active in the less advanced scientific fields, where emerging countries acquire prominence. This observation is in line with a capability-based view of the evolution of economic systems, but with a slight twist.

Furthermore, given the capability structure found, we characterize the temporal dynamics of Scientific Fitness, as defined by the Economic Fitness and Complexity (EFC) framework, and R&D expenditures at the geographical scale of nations. Our analysis highlights common patterns across similar research systems and shows how developing nations (China in particular) are quickly catching up with the developed world. This paints the picture of a general growth of scientific and technical capabilities of nations induced by the spreading of information typical of the scientific environment. Shifting the focus of the analysis to the regional level, we find that even developed nations display a considerable level of inequality in the Scientific Fitness of their internal regions.

The role of territorial capital in the transformation of urban areas in Central and Eastern Europe

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Online-S32 Territorial Capacity for Sustainability-Oriented Innovation and Transformative Change,
August 28, 2023, 4:45 PM - 6:30 PM

The primary goal of our paper is to examine the development of Central and Eastern European regional centers in a unified framework, and the primary factors determining them both from the point of view of economic processes and social structure. During the approach to the examination of development trajectories, the primary framework is based on territorial capital, its contents and forms of appearance. From the point of view of our paper, territorial capital can be interpreted as a set of social, economic and cultural-intellectual resources that can be examined in unique combinations in individual metropolitan areas, but also has generalizable elements on the basis of which the types of development of these regional centers can be determined.

The study is primarily based on the results of a research program conducted between 2018 and 2022, which examined the regional centers of the CEE region, focusing on their development trends following the post-socialist transition. According to our assumption, three distinct stages in the transition (crisis management, adaptation, development relying on endogenous resources) can be identified. In the case of cities and urban areas, the course of these stages varies in time, and in some cases, stagnation or interruption in the process can be experienced. Based on this assumption, our study examines two basic issues. First of all, we determine the helping and hindering factors for the cities in the process of handling the transformation crisis and adapting to new conditions, joining the continental field of competition, and how can they be separated and typified by development trajectories based on these factors. Secondly, we review the extent to which cities are capable of absorbing innovation and using them in their development and improvement of their competitive positions. A fundamental question is, therefore, how the innovation milieu of the regional centers is developing, whether it can all be considered homogenous, some sort of unified Central and Eastern European model, or rather unique features dominate.

We used a dynamic approach in the examination of the development trajectories, and with the help of the examination of the key indicators of the population, economic processes and social structure, we attempted to approach the territorial capital content from a quantitative perspective. In the case of the investigation of innovations and new types of development resources, due to the lack of time-series data sources that can be unified, we could only conduct a cross-sectional investigation of the present.

The Geography of University Startups: A Comparative Analysis of Athens and Berlin

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Alicante-YS09 Firm Dynamics, August 31, 2023, 11:00 AM - 1:00 PM

This paper aims to examine the geography of start-ups in Athens and Berlin. Start-ups are considered as a policy tool that could be used for the enhancement of job opportunities and career trajectories, promotion of entrepreneurial activity, and stimulating the economic activity after a recession. The paper is twofold: first to focus on the connections between Universities and entrepreneurial activity of the graduates and second to examine the location of start-ups along with other attributes of the start-ups such as the sector and volume of economic activity, niche market orientation, level of digitalization and technological thickness among others. The study is built on statistical data that are collected from the respective authorities of selected Universities in Athens and Berlin. Results show that there are quite a lot of differences between the two cases. The promotion of entrepreneurial activity of graduates has a longer tradition in Berlin than in Athens. As regards the location choices and geographical clustering of enterprises, point-pattern analysis shows that start-ups in Athens are more clustered at the city center of the metropolitan area, while location choices are more dispersed in Berlin. These findings call for more in-depth research with broadening the sample, complementing the analysis with qualitative research and make the findings meaningful and robust.

Connectivity Approaches to Network Robustness: An Analytical Framework Guiding the Allocation of Mobility Hubs

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Alicante-G34-O5 Transport and Accessibility, 0-B03, September 1, 2023, 2:30 PM - 4:15 PM

Mobility hubs are currently receiving considerable interest in the literature because of their potential key role in encouraging the transition from private car-based transport to more sustainable mobility. These hubs are dedicated and permanent platforms where public and shared transport can be integrated by switching between modes. In this paper, we focus on an additional aspect related to mobility hubs that has received less attention in the literature, i.e., the ability of mobility hubs to contribute to the robustness of the urban public transport network. We argue that the redundancy offered by a mix of alternative transport modes, fostered by the presence of mobility hubs, can mitigate the impact of the unavailability of public transport due to disruptions of various kinds (failures, accidents, strikes, etc.). This paper aims to provide the decisionmaker with an additional element to guide the choice of the most suitable locations where to implement mobility hubs. We identify this element in the analysis of urban public transport vulnerabilities. We study the public transport network using (complex) network analysis. First, we examine the structure of the public transport network from a topological perspective. To this aim, we employ measures based on shortest path and methods to calculate node/link centrality. Then, we add the network spatial features to the analysis, including the cost a passenger suffers to travel through the network. To do that, we weight links by a generalized cost. Finally, we integrate our model with passenger flows in order to move from a physical robustness to a user-related robustness point of view. To do this, we introduce a second level of weighting, based on passenger flows, to links. At this point, we study public transport network connectivity through performance measures and scenario analysis, where hypothetical disruptions are applied to the network. To complement the proposed analysis, we show how the loss of connectivity due to adverse events on the public transport network impacts the accessibility of urban areas, intended as the ease of reach of an area. Accessibility is studied using a spatial interaction model. Finally, in order to generate policy implications, we provide an example of a choice model to determine the best location in which to implement a mobility hub that also takes into account aspects related to the robustness of the public transport network.

Participatory sciences to measure tourist flows : involving islanders and visitors in the creation and use of digital counting solutions

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Alicante-S69 The role of participatory approaches in tourism and sustainable development, 1-D13,
August 31, 2023, 4:45 PM - 6:30 PM

In order to experiment with visitor flow management techniques, managers need to have objective, quantified data that is updated throughout the year, and framed on a half-day basis. In view of the lack of this type of measure, particularly in small island territories, it is necessary to consider the potential of the involvement of the inhabitants and residents of these territories. Based on the case of French islands, we describe the bases of a project design allowing to obtain data on tourism, and more specifically on visitor counts, based on the principles of participatory sciences.

Social trust and advanced social progress in European regions

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Alicante-G01-O2 Regional and Urban Development, 1-C11, September 1, 2023, 2:30 PM - 4:15 PM

Social trust is a heavily rooted element whose positive impact on economic performance has been widely corroborated for many contexts. However, the understanding of social progress disparities in aspects other than income is attracting increasing attention and is a key goal for the European Commission. European regions present notable disparities in many non-economic aspects that characterize advanced societies such as personal rights, freedom, tolerance and inclusion and access to advanced education. This paper provides fresh evidence on the impact of social trust on a wide array of aspects categorized as advanced features of social progress in the framework of the European Social Progress Index 2020 (EU-SPI). The results show a positive impact of social trust on most of the indicators, which is robust to endogeneity issues. These insights help to understand the enormous differences in terms of social progress across European regions and provide useful information for the design of future policies that pursue a more equal Europe.

City Income Distribution by Subnational Level in Spain

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Online-G01-O3 Regional and Urban Development, August 29, 2023, 11:00 AM - 1:00 PM

There is a recent trend in studying the city size distribution measuring it both in demographic and in economic terms. This is an issue that is receiving attention in several countries, mainly because of the depopulation of the country side in many of them. This paper tries to contribute to this literature by exploiting a novel balanced panel data set of income in Spanish municipalities that covers the period 2015-2019. A two-steps procedure is applied. First, we compare the distributions of local population, aggregated nighttime lights and income. Second, we also analyze the determinants of estimated Pareto coefficients at the NUTS-3 level using a dynamic-spatial panel data estimation framework, by estimating System GMM, SAR and SDM models. Our results suggest that population and income are more unevenly distributed than night lights. In addition, we find that socioeconomic variables are able to explain the distribution of economic activity and, especially, population.

A New Economic Interpretation of Spatial-Temporal Equilibrium

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Online-G41 Space and supply chains, August 28, 2023, 2:30 PM - 4:15 PM

This paper provides a general theory that homogenizes different economic flows as spatial trade (commerce), temporal trade (finance), human capital flows (migrations) or goods and services flows (sales and purchases) in a unique, simple but useful, economic model of Spatial-Temporal Gravity Equilibrium. Based on recent gravity models and the Reilly's law, this theory proposes a cardinal utility function that, considering interests and transport costs, leads to an equation that is, to the author knowledge, the closest theoretical derivation of the Newton's gravity law in Economics. By considering an ideal relationship between the two flows with opposite monetary direction, the share of this ideal flow over the two others is equal, according to the derivations of the proposed theory, to twice the product of the two stock variables associated to the two flows over the sum of both, divided by the square of the distance whether there is any spatial difference or divided by the maturity or time is there is any temporal difference in both flows.

Technology Choice, Intermediate Goods Trade, and Tariff Policy

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Alicante-G15-O1 Trade and Global Value Chains, 0-C01, August 30, 2023, 2:30 PM - 4:15 PM

If international trade is strictly trade in intermediate goods, would the common pre-sumption, that small, less developed economies (the South) lose from a tariff retaliation game, still be true? We address this question by constructing a dynamic general equilibrium model in which the North and South trade technology-embodied intermediate goods. The presence of extensive margin effects yields a novel channel of scale-scope trade- α : The South counters the losses from a trade war in the volume and value of trade (scale) with an upward movement along the value chain (scope), thereby mitigating the detrimental effects of the protective tariff policy. Using calibration we find that for our benchmark model the reduction in the volumes and values of trade caused by a tariff retaliation game is mitigated, and the scale-scope trade- α induces a moderately higher average productivity and aggregate technology used by the South.

An initial analysis of price effects of subsidizing petrol in Europe

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Online-G24 Energy and Ecological Transitions, August 28, 2023, 11:00 AM - 1:00 PM

The increase in international petroleum prices generated by Russia's invasion of Ukraine is one of the main causes of inflation, especially in Europe. In order to contain it, 13 European countries have introduced tax reductions or subsidies so as to reduce the final diesel and gasoline 95 prices paid by consumers. However, these markets have shown both inelastic demand and concentrated markets which affect pass-through. Using weekly data for 24 European countries between January and May, 2022, this paper analyzes the effect of these measures on diesel and gasoline 95 prices. The difference-in-difference estimator shows a high degree of heterogeneity between them, although on average approximately 70 percent of the tax reductions are transferred. Therefore, these measures are: inefficient, as only a small part has an impact on the final price paid by consumers; regressive (as they subsidize the richest); do not fight climate change, and finance Russia as a petrol exporting country.

Land organization effects on the economic incentives for deforestation in Brazil

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Online-G05 Economic development in rural places, August 28, 2023, 2:30 PM - 4:15 PM

A range of factors explains deforestation. Economic factors are a critical driver of deforestation through natural resource exploitation or promoting infrastructure expansion over forested land. In this paper, we investigate how dynamics related to land use and rural area occupation may change the effect of economic incentives for deforestation. To do that, we gather microdata on deforestation, land property, credit data and other for control variables. We construct a municipality-level panel by year and estimate the effects of rural credits on deforestation by different conditions of land use and organization, from more occupied areas to more unsettled ones and from more native areas to more rural established ones. Our preliminary results indicate that credit directed to cattle raising activity increases deforestation in municipalities with native dynamic condition; while credit directed to agriculture has no effect or even a negative effect on deforestation. In subsequent steps, we intend to explore different definitions of land governance.

Trade integration in Europe in presence of unobservable barriers

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Alicante-G15-O1 Trade and Global Value Chains, 0-C01, August 30, 2023, 2:30 PM - 4:15 PM

Rooted in the most recent developments in trade theory and the gravity equation, this article identifies and measures the “Unobservable Trade Barriers” (UTBs) still performing in the European Single Market (ESM), with a focus on the effect of the restrictiveness of national and regional regulation. By means of recently developed structural gravity equations, and the recently developed panel of inter-regional trade of goods in Europe (ESPON-IRIE Project), covering 2010-2018 and 297 NUTS 2 regions for the EU27, UK, Lichtenstein, Iceland, Norway, and Switzerland, we obtain new results regarding the trade integration and the effect of the administrative borders as a deterrent of trade. Once that the UTBs are measured, we confront them with different indicators related to the multilevel regulation activity in Europe, as well as other sources of non-tariff barriers to trade that might be impeding the fulfilment of the ESM.

Natural Resource Windfalls: Effects in Non-producing Areas

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Alicante-G01-O5 Region Urban Development, 0-C02, August 31, 2023, 2:30 PM - 4:15 PM

Analyzing the impact of price-driven mineral windfalls on human capital requires disentangling multiple potential causal channels. In this paper we study the impact of royalties in areas that are not necessarily mineral- or oil-producing areas. We do this by analyzing a reform enacted in Colombia in 2012 that modified how oil- and mineral- royalty revenue was distributed in the country. Since 1991 such royalties were assigned mostly to territories where the resources were exploited. The 2012 reform turned the system into one where most non-producing municipalities saw their revenues increased. The purpose of this study is to analyze whether this reform had an impact on educational outcomes.

We use a difference-in-differences approach for this analysis. While the amount of royalties that each municipality receives is endogenous to multiple factors, the maximum amount they can receive is determined exogenously by the rules of the 2012 reform and the international price of oil. We use these rules and the variation in the price of oil as instruments for the value of resources municipalities receive as total royalties in a difference-in-differences framework with a continuous treatment in order to estimate their impact on educational indicators.

We found positive impacts on enrollment in primary, secondary, and high schools, but no conclusive evidence on academic achievement at these levels. We hypothesize that the lack of impacts on achievement could be explained by the fact that royalties are increasing enrollment and therefore changing the background composition of students who survive secondary and high school.

Spatial aggregation bias and wage rigidity estimation

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Online-G39 Methods in Regional Science or Urban Analysis, August 29, 2023, 2:30 PM - 4:15 PM

This paper considers biases that may occur when statistical analysis is conducted using aggregated data (eg at the national level), when the underlying data is generated at a lower (e.g. regional) level. Two types of bias are examined. A first bias occurs when aggregating underlying non-linear relationships, as described by Lewbel (1992, ReStud). The second bias occurs when aggregating dynamically heterogeneous relationships, as described by Pesaran and Smith (1995, JEconom.). As an example, I compare wage rigidity estimation conducted at the national and regional level. A monte-carlo study suggests that in this application, wage curve elasticities estimated using national data may be upward-biased by 100%.

Inequalities and discontent in EU regions: winners and losers of urbanization

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Alicante-S57 Perceived discontent, inequalities and the city, 1-D13, August 30, 2023, 4:45 PM - 6:30

PM

The increase of economic inequalities and their spatial polarization is more and more at the core of the debate on the societal wellbeing of Europe. Several studies showed how an unequal distribution of wealth within regions and communities persist and even increased in Europe over the last decades. Importantly, the spatial dimension of this phenomenon matters, being urbanized areas those where intraregional inequalities are more intense.

In a recent study (Lenzi and Perucca, 2021), we measured the association between disparities and individual discontent in EU regions. Our findings show that intraregional inequalities (i.e. the unequal distribution of income within the region) are those influencing individual discontent the most, and their effect largely overcomes the one of interregional inequalities (i.e. the economic growth experienced by the region in the last decade).

Stemming from these results, the present paper aims at studying the role of urbanization in mediating the negative effect of intraregional inequalities on individual discontent. In principle, this role may be either positive or negative.

In the former case, urbanization economies, like occupational opportunities and easier access to public services, may mitigate the negative effect of intraregional inequalities on subjective wellbeing, making cities the perfect environment for social mobility to take place. In the latter situation, on the other hand, urbanization diseconomies, like urban land rent and cost of living, may induce mechanisms of spatial segregation, in which disadvantaged individuals have a very limited access to urban the benefits of urbanization. Access to schooling is a typical example.

The hypothesis we want to test is that the prevailing role of urbanization between the moderation/exacerbation of intraregional inequalities is:

- Dependent on the typology of urbanization. Our hypothesis is that, in correspondence to the highest levels of urbanization, diseconomies prevail over urbanization economies, thus leading to a worsening of the effect of intraregional inequalities on subjective wellbeing.
- Highly differentiated across groups of individuals. People in conditions of relative disadvantage (economic, professional, educational, technological) are those paying the highest costs on intraregional inequalities.

References

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Dynamic agglomeration effects of foreigners and natives - The role of experience in high-quality sectors, tasks and establishments

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Online-G35-O2 Regional and Urban Labour Markets and Entrepreneurship, August 29, 2023, 2:30 PM - 4:15 PM

Using administrative data on individual employment biographies, this paper analyzes whether dynamic agglomeration effects are primarily due to the quality of jobs in large cities and associated advantages for acquiring valuable work experience. Our results indicate that around 50% of the return of an additional year of work experience gained in the densest local labor markets in Germany can be ascribed to the sectors, tasks and types of establishments in which experience was acquired. We further show that native and foreign workers, on average, benefit to a similar extent from dynamic agglomeration effects and from better access to higher-quality jobs in big cities. However, low-skilled foreign workers receive a lower return to big city experience than observationally identical natives. This difference can be explained by the fact that the former gain work experience in lower-quality jobs.

The adjustment of labor markets over automation cycles: An analysis of European regions

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Online-G13 Urban Challenges and technological transformations, August 29, 2023, 2:30 PM - 4:15 PM

The paper examines the long-run versus short-run implications for labour markets of exposure to four automation technologies—robots, communication, information and software and databases. By applying a multiple break-point algorithm we identify investment cycles for each technology as affecting employment, wages, and wage shares for 163 NUTS-2 regions in 12 European countries over 1995-2017. In the long run, we find that robots have increased employment but reduced wages and the wage share in the region. ICT have had some positive impact on employment and wages, but mildly significant. Software and database have had a negative impact on employment, but no effect on wages. When we distinguish for shorter investment cycles, we find that the long run effect is concentrated in specific cycles, which often cancel out in the long run. For example, for robots the long-run positive effect on employment is driven by the investment during the downward cycle between 2006-2013.

Heterogeneous adjustments of labor markets to automation technologies

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Online-G09-O1 Innovation and Regional Development, August 28, 2023, 2:30 PM - 4:15 PM

This paper examines the labor market adjustments to four automation technologies (i.e. robots, communication technology, information technology, and software/database) in 227 regions across 22 European countries from 1995 to 2017. By constructing a measure of technology penetration, we estimate changes in regional employment and wages affected by automation technologies along with the reallocation of workers between sectors. We find that labor market adjustments to automation technologies differ according to i) the technology involved, ii) the sector of penetration, iii) the sectoral composition of the region, and iv) the region's technological capabilities. These adjustments are driven largely by the reallocation of low-paid workers across sectors.

Diversity versus inequality: Estimating limits and thresholds across economic, social and spatial scales

Professor George Petrakos¹, Professor Paschalis Arvanitidis¹, Professor Spyros Niavis¹, Dr Alexandra Sotiriou¹, Dr. Maria Tsiapa¹

¹University of Thessaly, Volos, Greece

Alicante-S26-S2 Defining and measuring inequality across social and spatial scales: limits, thresholds, realities and perceptions, 1-D11, August 31, 2023, 4:45 PM - 6:30 PM

Inequality refers to the allocation of resources among individuals, social groups and places in unfair contexts. It is typically defined as excessive variation in levels of welfare measured by some indicator. Although there are scholars who manage to distinct between fair and unfair inequality, still, scant attention has been paid to the distinction between desirable diversity and inequality. The existing literature does neither indicate at which point differentiation becomes a problem, nor does it provide any criteria to decide what is the critical tolerance level after which socially desirable diversity turns into undesirable inequality.

The paper intends to examine the dialectic relation between diversity and inequality under different market, institutional and social arrangements. It will examine to what extent this relationship and the definition of inequality depends on business cycles, development levels, theoretical, political, cultural or ideological perspectives and expectations.

Related to the definition is the challenge of measuring inequality. Inequalities in their various types (related to outcomes, opportunities, membership, treatment) and dimensions (social, economic, intergenerational, spatial, perceptual) are interrelated to each other in a variety of ways. At the same time their valuation may be subject to judgements arising from different social and cultural contexts. In this respect, the paper will provide a framework that will allow for multidimensional measures and definitions of inequality that are consistent with each other and along social groups and spatial scales. To the extent that inequality is defined as excessive, or undesired variations in levels of welfare, a critical question is how to assess the tolerance threshold beyond which desirable diversity turns into undesirable inequality at all levels of aggregation. This tolerance threshold is subjective and varies across types and dimensions of inequality. It may additionally depend on the market, institutional, or social arrangements, the level of development, the cultural perspective, expectations or even the business cycle.

The paper will use Questionnaire Survey data and Eurostat Statistics in order to shed new light on the nature and evolution of the dipole diversity-inequality and its tolerance thresholds with the use of functional, conditional or non-linear models. It will also test to what extend spatial inequality affects national performance, to what extend regional development gaps affect catching up, or to what extent economic inequality is a function of diversity in terms of population characteristics (e.g immigrants or other types of initial conditions), or to what extent and after which level inequality and/or diversity affect growth.

Municipal efficiency spillovers in France

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Alicante-S54 Ageing society: spatial socioeconomic challenges, 1-D14, August 30, 2023, 11:00 AM -
1:00 PM

This paper provides evidence of the role of spillovers in the efficiency of French municipalities. These spillovers are apprehended through four levels of municipal equipment and we investigate municipal efficiency changes both for cities including a certain amount of equipment and for cities located closer to those that host high-rank functions. Based on a database pertaining to French municipalities with over 3,500 inhabitants in 2018, we develop a two-stage approach. In the first stage, we estimate municipal efficiency through a robust order-m approach while in the second stage, we run a truncated bootstrapped regression to disentangle the effect of the distance of an observed municipality to each of the four equipment levels. Our results provide evidence of spillovers where the less-endowed municipalities benefit the most from higher efficiency due to their geographical proximity to larger equipment centers.

Panelist

Dr. Laura Pierantoni¹

¹European Research Council , ,

Alicante-S74 ERC Funding Programme by the European Commission, SA-SALÓN DE ACTOS, August 31,
2023, 11:00 AM - 1:00 PM

ERC funds the best researchers from around the world to investigate topics of their own choosing at the frontier of knowledge. Projects supported by ERC should have the potential to substantially transform their scientific area. Scientists with a PhD older than 2 years and willing to work for part of their time at a host institution in the EU or countries associated with the Horizon Europe programme (e.g. Israel, Norway, United Kingdom, Switzerland) can apply. There are no restrictions on the research topic, researcher nationality, current affiliation or age as ERC would like to attract the best researchers to come to Europe for projects of up to 5 years with a funding level between 1.5 and 3.5 million EUR (depending on the call).

In the first part of this session we will explain how the ERC application and evaluation process works. In addition, two scientists who have successfully applied to ERC will share their experiences of the preparation and evaluation phase. Tips and tricks on how to run an ERC grant will be provided and participants will have the possibility to ask questions.

Conflict as a Cause of Migration

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Alicante-G03-O2 Demographic Change, Population and Migration, 0-C02, September 1, 2023, 11:00

AM - 1:00 PM

Since the end of the Cold War, internal conflict or civil wars have been common and persistent. They have increased in duration over time and have been disproportionately impacting upon some of the poorest countries in the world. In the world's poorest continent, Africa, more than eighty percent of countries have been involved in some form of violent conflict since 1960, with thirty percent having experienced at least ten years of conflict. In addition, almost all of the countries that failed to achieve any of the MDGs were involved in conflict (United Nations, 2019). Conflicts have also led to a significant displacement of people. Global migration and refugee flows are a common outcome of both interstate and intrastate conflict and have become an international concern (Fearon and Laitin 2011; Artuc et al, 2015).

This paper provides an empirical analysis of the relation between conflict and migration across a range of countries for which data is available and accounts both for the direct impact of conflict on migration and the indirect impact through its effect on economic opportunity. A model of migration is developed, where conflict affects wages and so migration decisions. The model is operationalized and estimated using data from the UN International Migration Stock. World Development Indicators is used to construct net migration data and conflict and violence indicators from the International Country Risk Guide. It considers this net migration as a function of lagged GDP, the conflict indicator and interaction term, within a fixed effect model. A structural break is identified between higher and lower income countries and a significant effect of conflict on net migration and the interaction term is found for the low income country groups. Various robustness checks are undertaken. Alternative measures of the conflict variable are considered and instrumental variable methods are used. A check on the impact of the external security situations on migration and some concerns about the data are discussed and various checks made. The results are found to be robust.

Anthropometric Evidence of Migrants Self-Selection From Internal Migration in Italy After Second World War

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Alicante-S18-S2 Drivers and impacts of migration: new insights on the role of local labour markets, human capital, remote work, and (family) networks, 1-C14, August 31, 2023, 4:45 PM - 6:30 PM

In this paper, we investigate internal migrants self-selection for 1951 and 1980 birth-cohorts using conscripts data which captured the massive South to North internal migration in Italy during the period of economic boom, when the north of Italy experienced a huge economic development in contrast to the south which lagged behind. In particular, adopting a similar approach to Spitzer and Zimran (2018) we proxy migrants “quality” by their height, and quantify the selection of southern immigration to the north Italy by comparing migrants heights to the height distributions of their populations of origin. The underlying idea of our empirical strategy is that, the taller were migrants compare to their populations of origin, the more positive, on average, was their selection into migration on the basis of characteristics positively correlated to individuals' human capital, such as education, health, occupational skills, income and cognitive abilities. Positive self-selection of migrants could explain regional economic imbalances through a human capital drain from southern regions. This approach is grounded on a large number of studies that have shown that height can be considered an excellent indicator of the biological standard of living of the population, since it captures important aspects of human welfare as highlighted before (Tanner, 1992; Steckel, 1995). To address this question we estimate a regression of the countrywide z-score on a set of different indicators. The mean of the national z-score is negative and strongly statistically significant, indicating that the average southern immigrant was 0.096, 1951 cohort, and 0.159, 1980 cohort, standard deviations shorter than the mean of his all-Italian cohorts of origin. What emerges is that the southern migrants, cohort 1951, were 0.60 centimeters shorter than the national stature. While for the 1980 cohort the gap exceeds one centimeter. On the other hand, using local z-score as dependent variable we shed a new light on the relationship between migrant self-selection. We find that Italian migrants were, on average, 0.108 (1951 cohort) and 0.123 (1980 cohort) standard deviations taller than their province-cohort means, and this difference is statistically significant. That is, a stature increase of one standard deviation will result in an expected stature increase of about 0.66 cm for 1951 cohort and 0.79cm for 1980 cohort. Basically, individuals leaving southern Italy during the period 1951-1980, on average, were 0.73 cm taller respect their province-cohort of origin.

Social and spatial segregation in historic public spaces of small towns in north-eastern Poland

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Alicante-G28-O3 Segregation, Social and Spatial Inequalities, 0-D03, September 1, 2023, 11:00 AM - 1:00 PM

Developed European countries have carried out a number of revitalization and repair activities in cities, and introduced social programs/projects to minimize social and spatial disproportions. The problematic area was the historic, central areas of small towns with numerous high-class tourist monuments and at the same time costly to be renovated old buildings inhabited by local people, with many social and economic problems. Despite numerous actions, it still seems to outside observers that the level of segregation is high, regardless of the sphere of life considered.

The central, historically shaped spaces of small Polish cities represent a potential area of social and spatial segregation. In order to determine the quality of those public spaces, referring to the quality of life of the local community, survey research was carried out. The research covers five small towns in Poland – formed in medieval times in the north-eastern part of the country. The cities of Pasłęk, Morąg, Orneta, Lidzbark Warmiński and Reszel were included. The research sample included 500 people, the research date was at the beginning of 2023.

Method used in the diagnostic survey was adapted to the specific conditions of small historic towns. The questionnaire contains references to the author's matrix method of valorization of the space of small towns. Comparing the opinions of the local population with valorization of space conducted using matrix method enables comprehensive assessment of the level of segregation of the indicated territories.

Carried out research showed a high level of spatial and social segregation. The low quality of historic space is reflected in a very low quality of life. Results of survey research is consistent with the results of previously carried out valorization of public space. The answers of the respondents allowed for the geolocation of areas requiring immediate repair. This shows that actions carried out so far have been ineffective and concentrated only on tourist areas.

Smart cities in Russia: realities of the last decade

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Online-S28 Sustainable Cities and Inclusive Communities, August 28, 2023, 4:45 PM - 6:30 PM

The report reflects the specific Russian, along with country-wide, realities of the transition of the country's largest and big cities to an innovative economy and technologies of the emerging sixth technological order, the opportunities and problems that this dramatic transition to the "new rails" of the local economy contains. On the example of several regional capitals in the Russian Europe, the Urals, Siberia, and Far East, and biggest Arctic cities like Norilsk, Archangelsk and Murmansk the author gives the major features of the new "mode" in the city technology, structural shifts of the local economy, and new organization of the urban space. The major sources of information are city statistics for the last decade, urban judicial laws, and web-analytics data. The major results reflect the combination of universal, national and specific local features in this radical shift to the new smart cities realities in Russia.

Perception and Communication Of Urban Flood Risk In Areas Of Social And Environmental Vulnerability In Brazil Due To Climate Change

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Online-S48 The Growing Suburban Sprawl in Global South (Asia and Large Latin American Cities). New challenges and visions for: urbanism, informality, inequalities and climate change, August 28, 2023, 4:45 PM - 6:30 PM

This research seeks to evaluate the perception and communication of risk of urban flooding in areas of socio-environmental vulnerability. The study was applied in the Vila Torres community, located in the city of Curitiba, capital of the State of Paraná, southern Brazil, in a pilot format. The community contains around 7,000 inhabitants, of which 70% are economically dependent on recycling. The largest share of young people has low education and/or is unemployed. In the case of natural hazards, the community is often affected by flooding, flooding and erosion. According to Curitiba's Municipal Plan for Mitigation and Adaptation to Climate Change (PanClima), Vila Torres is located in areas at high risk of heat waves, landslides, flooding and flooding in the scenarios predicted for 2030, 2050 and 2100. For this purpose, the application of a questionnaire was used as a methodological procedure, which contains 24 questions evaluated and corroborated by Latin American researchers through the Delphi method. In this sense, the present study has at least three important contributions. First, the degree of flood risk perception is mainly influenced by gender, experience and knowledge of the phenomenon. Second, social capital makes up for the absence of the State in providing information and communicating risk to citizens. Third, the interviewees feel the need to obtain more information about the risks and, for this, the most appropriate means of communication are sound car, loudspeaker, siren and signaling in the community. As limitations, this perception analysis was carried out as a pilot and, therefore, was based on only a small sample. In addition, it was found that the questions were not well understood by participants without schooling.

The impact of knowledge complexity on total factor productivity in European metropolitan regions

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Alicante-S77-S3 Economic Complexity for Industrial and Innovation Policy, 1-E11, August 31, 2023,
4:45 PM - 6:30 PM

Economic development is uneven among as well as within countries. In addition to differences in economic development between countries, we also observe wide disparities in economic (mis)fortunes between subnational regions. This variation is often explained by productivity differences which allow some countries (or regions) to prosper while others fall behind. Even though these differences in productivity are driven by a large number of characteristics of the economy, technological progress is considered as the most essential factor for productivity gains and economic growth.

However, it is clear that not all knowledge has the same quality or value. In an industrial/innovation policy sense, knowledge or technologies that are harder to be imitated and diffused in geographical space offer more sustained competitive advantage for the innovating firms and regions. In this context, the concept of knowledge complexity has been developed to empirically approach the elusive notion of knowledge quality.

In this paper we explore the link between regional knowledge complexity and total factor productivity (TFP) by adopting a spatial econometric modelling approach. The modelling approach is inspired by the regional knowledge capital model (KCM) that relates knowledge to regional TFP. As the qualitative dimension of knowledge has been neglected so far, we augment the regional KCM with a knowledge complexity measure.

We employ an empirical model in the form of a (fixed effects) dynamic Spatial Durbin Model which allows to identify short- and long-term direct and spillover effects of knowledge complexity on regional productivity.

This is needed to both take into account the potentially very localised productivity effects of complex knowledge as well as the non-trivial time horizon at which such effects may take form.

In line with the literature, we use patent data to proxy regional knowledge production. To best approximate functional economic regions, we adopt EUROSTATs metropolitan regions.

From recent related literature we can distinguish at least three popular complexity measures that have been put forward to inform regional innovation policy but produce differing results which are the economic complexity index (ECI), the economic fitness complexity index (EFC) and the structural diversity index (SDI).

Consequently, we consult a recent report by Pintar and Essletzbichler (2022) that serves as a guide to dismiss certain versions of the indices beforehand as well as identify promising ones.

The paper at hand aims to substantiate academic and policy interest in the topic by focusing on direct productivity effects of regional specialisation into more complex knowledge.

Digital transformation and social innovation: Policy experimentation for new solutions in the post-pandemic future

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Online-G27 Innovation and Sustainable Development, August 28, 2023, 11:00 AM - 1:00 PM

Digitalization is today an omnipresent process. The digital is expanding into many sectors, from smart applications, healthcare, banking, and urban mobility to the sharing economy. Digitalization - the use of digital technologies to transform social, economic and cultural systems - is a crucial process for the transformation of society in the following decades and will shape not only informational processes but many other aspects that will define the possibilities for a sustainable transition. Digitalization is not only about technology. It is about leading to new social practices.

Skills and access to infrastructure are fundamental for digital transformation. The COVID-19 pandemic has emphasized the need to break the digital divide, as remote work and delivery of public services through the internet gained relevance. Developing and implementing digital technologies can be a way to instigate solutions for several types of unanswered social needs. Digitalization processes that impact society are often a result of a social innovation process. Without proper social innovation, the mere implementation of a digital technology may lack the acceptance of its potential users.

This communication is inspired by the second phase of the Atlantic Social Lab, an INTERREG project that combines the knowledge of higher education institutions and local governance bodies to develop social innovations for digital transformation. It will briefly present critical issues about digital transformation and social innovation, the project's objectives, ongoing pilot actions and policy implications.

Governance challenges for the smart region: a reflection for peripheral territories

Prof. Hugo Pinto¹

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Online-S24 Outside the frame: creative, cultural and innovative dynamics in non-urban regions, August 28, 2023, 2:30 PM - 4:15 PM

The smart region concept is increasingly being applied as a policy tool to different types of territories, from metropolitan areas to multiple cities, towns and even rural areas, to accelerate digital transformation. It refers to a geographic area that uses technology and data-driven approaches to improve quality of life, drive economic growth, create jobs and enhance sustainability. A smart region integrates technology, data analytics and engagement to create a more liveable and prosperous context for its citizens. The barriers to the consolidation of a smart region are many and often based in different types of market and systemic failures. In this way, good governance of a smart region is one of the key aspects of its success. It involves the use of effective and responsible leadership, policies and practices that ensure the region is developed in a sustainable, equitable and inclusive manner. The governance of the smart region is complex, it is related to several wicked problems, needs to be people-centred, and involves a challenging triad of economy-society-environment transformation, the twin transitions, digital and ecological.

Inspired by complexity and good governance frameworks and the actual implementation of the Smart Region Algarve project, the southern region of Portugal that has become internationally known as a sun and sand tourism destination, this communication explores the implementation of smart region frameworks in non-metropolitan areas, as understood by the InSitu project. Good governance in non-metropolitan areas implies a clear functioning and allocation of roles, including leadership; the effective definition of common objectives; the definition and implementation of a roadmap of strategic actions; the use of models and tools to stimulate the participation and co-decision process; and the acceptance of the heterogeneity of actors and their ambitions as part of the process. Focusing on the transformation of the region by reaffirming the principles of a smart region also requires new (or further developed) capabilities in the public sector which are more reflexive (ability to interpret and learn from one's own policy mistakes), collaborative (ability to engage and mobilize actors from other institutional spheres) and analytical (especially in relation to open government data). The leadership dimension is particularly important; as transformative processes can often be hijacked by dominant actors in the peripheral regions who subvert regional goals to their own individual agendas. The findings of this communication can help other regions, particularly non-metropolitan or tourism-dependent regions, to engage in effective smart region dynamics.

A resilient planning approach for the reappraisal of the inner areas of Calabria region through digital innovation

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Alicante-G50 Urban miscellaneous, 1-B01, August 30, 2023, 2:30 PM - 4:15 PM

The tourism sector is currently facing the challenges that emerge from the global environmental and social changes of contemporary times. These changes make resilience planning (Davoudi, 2012) emerge as an effective approach to community development, envisaging the semantic drift of the resilience from an ecological to a social setting. As one of the most diffused social practices, tourism is now encompassed within community resilience research. More specifically, community resilience applies to regenerative tourism practices, that by definition aim to increase the regenerative capacity of local communities and ecosystems through fulfilling the potential of tourist destinations to thrive and create net effects (Bellato et al., 2022). Beside the social and environmental changes, the digital revolution can be considered as another crucial driver of change for a territory and for contemporary tourism practices. The paper aims to deepen the potential of digital innovation to create a tourism value chain and to fill social gaps by applying the resilient planning approach to the reappraisal of inner areas through digital innovation tools. The paper will analyze some DMOs of small villages located in inner areas of Calabria region (Unioncamere Calabria, 2019). The analysis will be based on Tripadvisor (TA) data of three Destination Management Organizations (DMOs), for whom the "positioning" (the total number of reviews) and "evaluation" rates will be considered. In some cases, there is a high evaluation but a low positioning rate, indicating that a scarce number of tourists have been attracted to that area, but that they have appreciated it. In this case there is a high potential for a further exploitation of SM to increase the DMO's internal and external awareness and its attractiveness. In other cases, there is a high positioning rate, meaning that a considerable number of tourists have been to the area, but a lower evaluation rate, indicating that the site has already acquired a tourism reputation but there is still room for a further exploitation of digital tools (e.g., AR or VR) to improve the tourist experience. Some guidelines will be finally drafted in order to provide an analytical method to practitioners and policy makers, which could be applicable to other focus areas characterized by similar gaps. The ultimate aim is to help other small villages to develop a more solid digital infrastructure, contributing to make the inhabitants willing to stay and to make them feel involved in this innovation-driven process of reappropriation and reputation building.

An anthropocentric approach to sustainable development and ecological transition

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Online-S37 Territorial Intelligence and Ecosystem Innovation. New archetypes for Ecological Transition, August 29, 2023, 11:00 AM - 1:00 PM

Despite 35 years have been passed since the Brundtland report, sustainability and sustainable development still remain polysemic expressions. Their vagueness facilitates building rough consensus but at the cost of avoiding crucial conflicts among and across scholars, policymakers and less organized stakeholders about their values, priorities and long-term visions. As a matter of facts, reconciling economic and environmental pillars still did not happen, and the social, or “human” dimension appears to be greatly neglected, at least in practice. In this contribution, we will argue that sustainable development (and sustainability as well) is better understood, and likely to be accepted, from an anthropocentric perspective. To this scope, we rely on “development space creation” (DSC) approach. DSC was first introduced by Pirrone and Charles in 2011 and it is a synthetic, territory-based sustainable development index. This approach is deeply rooted in the considerations about the nature of territory which arose in France in economics and in geography since the 1990s. As in territorial intelligence (TI), territory is appraised as a “social construct”, both lasting and continuously regenerating. Thus, according to consolidated literature, “territory” emerges as the unstable outcome of a social process by which a specific community established on a specific area endlessly reinterprets a wide range of objective and symbolic elements, conceives “projects” and expresses territorial “ideologies”. Adopting this perspective DSC also refutes the idea, popular in environmental sustainability literature, that adopting an anthropocentric point of view could be reduced to the economic analysis. After describing DSC approach, in order to set the framework, the paper illustrates the theoretical proximities and divergences between DSC and TI. Finally, by qualitative simulation, it shows how a wisely designed TI contributes to sustainable development as measured by DSC and how DSC can help to control the TI process for better results.

Physical climate risk and real estate prices: a hierarchical Bayesian approach to Stockholm and flood risk

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Alicante-G32-O4 Real Estate and Housing Markets Issues, 0-E02, August 31, 2023, 4:45 PM - 6:30 PM

The increase in number and intensity of natural disasters observed in the last years and expected to progress in the coming ones has recently attracted the focus and the attention from financial actors and regulators for the negative impacts that these could have on assets' values. The cascading effects on financial markets through a value decrease due to substantial damages to the real estate sector risk to generate negative spillovers throughout the entire economy. Some real estate assets in many parts of Europe are already known for being particularly exposed to these risks and, consistent to the economic theory, their prices should reflect this awareness.

This paper aims at investigating to what extent physical climate risk, here considered in the form of riverine floods, is reflected in the prices of the real estate assets that were exchanged in Stockholm during the 2013 - 2018 period. The identification of the assets that are exposed to extreme flood risk in northern Stockholm is performed by using maps that the Swedish Civil Contingency Agency (MSB) made available, for free, on its website in 2013. If this information is accounted for during the settlement of the prices, these should be found to be significantly lower for the buildings exposed at risk. The research is carried out through a hierarchical Bayesian approach which allows to account for the spatial and the temporal structures of the dataset. In particular, spatial random effects are introduced and modeled through an Intrinsic Conditional Auto-Regressive model (ICAR). A competition process may be in place among assets that are located close to each other, determining the presence of a spatial structure that a frequentist spatial econometrics approach may fail to account for and produce spatially auto-correlated residuals. The potential effect of being exposed to flood risk is assessed by controlling for other factors that are considered to be determinants of the final price, such as the number of the rooms and the energy rating.

The findings of this paper may question the assumption of the Efficient Market Hypothesis, that all the available information is reflected in the prices if the actors are fully rational and raise a warning about the lack of attention to some forms of climate risk that the real estate sector has overlooked.

Platform Oligopolies, Antitrust Policy and Sustainable Development

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Alicante-G01-R Regional and Urban Development, 1-C11, August 31, 2023, 2:30 PM - 4:15 PM

This paper reviews debates on monopoly and competition in economics and management theory, to inform contemporary anti-trust/competition policy. It claims that extant antitrust policy is not designed to address today's realities of platform-based global oligopolies and that a new approach is required that accounts for their specificities and fosters world-wide sustainable development. This requires addressing constraints to sustainability and innovation-fostering fair, workable and healthy competition and co-opetition, diversity, and pluralism, intra and inter-nationally. Peoples, policymakers, and international organisations should help co-create the conditions that thwart regulatory capture and review available options to foster competition. These include eliminating conflicts of interest embedded within the business model of platform oligopolies, internalising negative externalities from their operations, determining the full real prices charged for services, discouraging anti-competitive acquisitions, fostering new firm creation and growth and breaking monopolies when required, in a way that does not undermine the innovation and value creating aspects of their activities.

Digital platforms and a new sustainability-fostering anti-trust and regional industrial policy

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Alicante-G02-R Regional and Urban Policy and Governance, 0-C01, August 31, 2023, 4:45 PM - 6:30 PM

We revisit extant perspectives on anti-trust (aka competition) and regional industrial policy and examine their relevance for today's economies. We explore limitations in extant perspectives and the implications from addressing these. The said limitations and hence research gaps pertain to their limited attention to the emergence and role of digital platform-based international oligopolies, that they are nation-centric hence downplaying international business and relations, and to their limited consideration of sustainability. We go on to propose key tenets of a new anti-trust and industrial-regional policy that addresses these limitations and helps foster sustainable development.

The impact of Russia's invasion of Ukraine on the European borderland universities

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Alicante-S26-S3 Defining and measuring inequality across social and spatial scales: limits, thresholds, realities and perceptions, 1-C12, September 1, 2023, 9:00 AM - 10:30 AM

The Russian aggression against Ukraine, especially its escalation since February 2022, has multidimensional implications for the World and Europe, not only in terms of international relations and security but also in social and economic terms. This geopolitical shock affects social and economic inequalities, creating new ones and modifying old ones (e.g., pressure on social and healthcare systems in countries and regions to which large groups of war refugees from Ukraine have flowed). One aspect of this situation, so far not explored in a systematic way, is the impact of Russian aggression against Ukraine on the functioning of higher education institutions. In particular, the situation of universities in regions close to Ukraine, as well as the Russian Federation and Belarus, is worth examining. Such institutions are potentially most vulnerable to the consequences of the interruption or significant reduction of existing cooperation. This is due to two reasons. First, by spatial proximity, institutions in border regions have relatively more relations with their neighbors on the other side of the border than institutions further away from the border. These universities attract students from across the eastern border. The studies related to borderlands (i.e., research that requires cross-border collaboration, visits, and exchanges) are most common in the case of these universities. Second, border regions are often also peripheral regions in a socio-economic sense. At the same time, institutions in these usually peripheral regions were already facing unfavorable conditions compared to those in more central regions. Thus, the current situation may not only have created new inequalities but, more importantly, exacerbated those that already existed before. Taking these observations as a starting point, in this study, we answer the following question: How has the Russian invasion of Ukraine affected inequalities between institutions of higher education and science in particular in the regions neighboring Ukraine, Russia, and Belarus?

The main empirical material used in this study is survey data from a random sample of university employees in 10 countries bordering Ukraine, Russia, and Belarus: Finland, Estonia, Latvia, Lithuania, Poland, Slovakia, Hungary, Romania, Bulgaria, and Moldova. The analysis will compare universities in NUTS 3 and NUTS 2 regions bordering Ukraine, Belarus, and Russia with universities in other regions in the analysed countries. This will allow us to assess the role of spatial proximity to the shock under analysis (Russian invasion).

Governing the urban commons. Case studies of Polish cities

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Alicante-S45 Commons as Enablers of Territorial Transition: Evidences, Assessment and Theoretical Perspectives, 1-C11, August 31, 2023, 11:00 AM - 1:00 PM

Urban commons and the idea of the city as a commons are increasingly the subject of urban research as a response to the challenges of modern cities, which goes beyond the solutions offered by the market and the state [Foster, Iaione 2022; Polko, Czornik, Ochojski 2021]. Urban commons differ from traditional commons, therefore there is a need to adapt the principles of governing the commons formulated by Elinor Ostrom [1990] to the urban context. The aim of the paper is to deepen the knowledge about the commoning process that leads to the co-production and co-consumption of urban commons by local communities. The work uses qualitative research methods based on interviews with representatives of urban commoners and observations of communities in action in two Polish cities. The interviews and observations focus on finding factors that determine the sustainability of urban commons. Among the aspects examined are the composition of the group, the level of openness and inclusiveness of commoners, innovation in sharing and pooling urban resources, as well as coexistence with local authorities. An important aspect of the study is to show that the context matters, and the way to achieve the best solutions is often experimentation. The results of the research are useful for both urban communities and local authorities that are making efforts to support and strengthen participatory governance.

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Urban agriculture potential to minimize the effects of climate change in cities from the ecosystem services perspective.

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Alicante-G21-O1 Climate Adaptive and Resilient Regions and Cities, 0-D02, September 1, 2023, 9:00 AM - 10:30 AM

Climate change affects people in every corner of the globe, including city dwellers. Their number is constantly growing and it is expected that around 2030 it will reach 5.2 billion. In addition to such obvious ways of minimizing the negative effects of climate change, such as improving public transport, establishing green areas, and introducing green energy in public places, there is one more, the potential of which can be significant in the fight against climate change.

Urban agriculture, which has always existed in cities, is now gaining more and more popularity. These are not only monocultures cultivated within city limits, but also home gardens, allotments and horticultural farms. Although it may seem that only their users benefit from these types of farming, in fact all inhabitants benefit from their presence in cities. More than 90% of allotment gardens are unsealed, contributing to the infiltration of rainwater and the reduction of surface runoff. Unsealed areas covered with vegetation lower the city's temperature in the summer. In turn, food production as close as possible to the destination brings many benefits not only to the consumer but also minimizes the need to transport goods over long distances. Allotments and home gardens are also areas of high biodiversity.

Urban farming provides city dwellers with a range of benefits. The research identifies the ecosystem services provided by allotment gardens in Gorzów Wielkopolski (Western Poland). The study aimed to indicate the benefits related to collecting rainwater, food production, and biologically active surface, which may contribute to minimizing the negative effects of climate change.

The indicative approach to ecosystem services made it possible to quantify the benefits provided by allotment gardens and their potential to counteract climate change.

Provisioning services related to food production meet the demand of approx. 19% of Gorzów residents for fresh vegetables and fruits for 1/3 of the year, which allows for shortening supply chains and reduces the carbon footprint. On the other hand, rainwater retention minimises municipal water use by approx. 27%.

Strengths and weaknesses of the EU regional reactivity to shocks

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Alicante-S23-S1 Rethinking regional resilience, 1-D12, August 30, 2023, 11:00 AM - 1:00 PM

The paper introduces the novel concept of regional reactivity to shocks. Taking as a baseline the minimum level of economic performance reached after the 2008 economic crisis, reactivity is defined as the ability of regions to bounce back to the economic performance achieved before the shock in the same or shorter time required to reach the pre-shock peak from an equivalent lower bound. The analysis of the reactivity of the EU-28 regions shows a clear spatial pattern. Consequently, we use Bayesian econometric techniques that explicitly account for spatial spillovers to identify the main drivers. The results, that highlight the positive role of diversification, tertiary education and institutional quality on reactivity, can potentially be useful for defining policy strategies that emphasise or refocus the strengths of each region in light of current territorial trends and emerging challenges.

Logistic hubs and support for anti-EU parties: evidence from Italy

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Alicante-S57 Perceived discontent, inequalities and the city, 1-D13, August 30, 2023, 4:45 PM - 6:30

PM

Increasing discontent and the associated growing support for populist parties have been linked to several factors, including globalisation, technological change, and migration waves. We analyse a phenomenon which combines all these factors: the logistic revolution. Due to globalization and the increasing outsourcing of transport and logistics activities in manufacturing, the logistics sector grew quickly in the last decades. The Italian logistics sector mostly employs low-skilled workers and is characterized by a wide use of low-paid temporary contracts that increase economic insecurity and the feeling of uncertainty. We investigate whether Italian municipalities which experienced a marked increase of logistics activities also registered a growth in discontent, which we capture as the change in votes for the Lega party between 2006 and 2018 national elections. Using an instrumental variable approach, our analysis confirms the existence of a causal relationship between the local growth of the logistic sector and the support for the most anti-EU party in Italy, the Lega. This result is confirmed also by a Difference-in-Differences analysis.

Innovation on Happiness - Does it Matter?

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Alicante-S78-S2 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 11:00 AM - 1:00 PM

Happiness and innovation appear to be interconnected, as previous research conducted at the organizational level has so far demonstrated. However, studies on the possible relationship between happiness and innovation seem to lack at different spatial levels, revealing a promising research field with practical implications for city managers, regional authorities, and policymakers. This research aims to study the existing relationship among innovation output and happiness-related measurements at the spatial level. Capitalising on its own existing research on innovation spatial autocorrelation processes, this study proposed to provide panel data spatial autocorrelation outputs considering various variables measuring happiness and innovation at national and regional levels. Our effort will also consider the possibility of detailing at the city level whenever possible.

Rising Energy Prices: Transmission and Policy Response in Brazil

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Alicante-G24 Energy and Ecological Transitions, 0-D04, August 30, 2023, 2:30 PM - 4:15 PM

Energy prices have experienced a significant boost since the COVID-19 pandemic and the economic disturbances caused by the Russian-Ukraine war. In Brazil, oil prices rose by 75.9% in 2021-22 compared to the pre-pandemic period, affecting the entire economic system due to the price transmission mechanisms on energy goods. To mitigate the impact on economic growth, the Federal government claimed the need to reduce taxation on energy goods. However, this created a federative conflict because most of the tax burden on energy goods is a competence of the state governments. The Federal Senate moderated this debate and approved the Complementary Law 194/2022, establishing the reduction of the state tax rate on energy goods. This study uses a multi-regional recursive dynamic CGE model to evaluate the economic impact of a shock increasing oil prices by 75.9% in 2021-22, and to assess the extent to which the reduction of state taxes on energy goods could contribute to economic recovery. We carried out two simulations, where the first allows the oil price shock alone, and the second adds the tax policy. Our findings show the isolated oil price shock causes a cumulative deviation of national GDP of -1.70% in 2022, with a slight recovery until 2027 (-1.26%). The transmission effects on the regions are very heterogenous, mainly affecting the growth of the states more specialized in oil production: Rio de Janeiro (-5.40%), Espirito Santo (-4.22%), Sergipe (-3.14%), and Rio Grande do Norte (-3.07%). Regarding the tax policy response, our simulations reveal a marginal effect on the economic recovery. With the cut of state tax rates on energy goods, the cumulative deviation of national GDP is -1.53% in 2022 and -1.06% in 2027.

Investigating the combined effect of ALAN and noise on sleep in urban areas by real-time monitoring using low-cost smartphone devices

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Alicante-G23-R Regional policy environment and noise, 0-D03, August 31, 2023, 2:30 PM - 4:15 PM

The association between artificial light at night (ALAN) and noise, on the one hand, and sleep in urban areas, on the other, is well established. Yet studies investigating these associations have been infrequent and mostly conducted in controlled laboratory conditions. As a result, little is known about the applicability of their results to real-world settings. In this paper, we attempt to bridge this knowledge gap by carrying out an individual-level real-world study, involving 72 volunteers from different urban localities in Israel. The survey participants were asked to use their personal smartphones and smartwatches to monitor sleep patterns for 30 consecutive days, while ALAN and noise exposures were monitored in parallel, with inputs reported each second. The volunteers were also asked to fill in a questionnaire about their individual attributes, daily habits, room settings, and personal health, to serve as individual-level controls. Upon co-integration, the assembled data were co-analyzed using bi-variate and multivariate statistical tools. As the study reveals, the effect of ALAN and noise on sleep largely depends on when the exposure occurred, that is, before sleep or during sleep. In particular, the effect of ALAN exposure was found to be most pronounced if it occurred before sleep, while exposure to noise mattered most if it occurred during the sleep phase. As the study also reveals, the effects of ALAN and noise appear to amplify each other, with a 14-15.3% reduction in sleep duration and an 8-9% reduction in sleep efficiency at high levels of ALAN-noise exposures. The study helped to assemble a massive amount of real-time observations, enabling a robust individual-level analysis.

Does city smartness reduce income inequality and bring environmental benefits? Evidence from an empirical analysis of major cities worldwide

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Alicante-G08-O2 Cities, Regions and Digital Transformations, 0-C01, August 31, 2023, 4:45 PM - 6:30 PM

Policymakers are often proud to advertise their cities as smart, emphasizing the wide-spread adoption of internet technologies, innovation activities, and a number of universities the city host as a proof of successful transition towards greater smartness. Question, however, remains whether this push towards greater smartness results in tangible benefits for local residents. We attempt to answer this question by comparing different measures of city smartness – innovation index, the number of wireless access points, the number of universities, etc., – with indicators of intra-urban income disparity and environmental conditions in cities. For the analysis, we use data on 100+ major cities worldwide, of which 40 cities are national capitals. As our analysis shows, the proliferation of internet technologies and the number of universities the city hosts, i.e., popular ways of advancing city “smartness”, are not related to either intra-urban income disparity or environmental performance of cities per se. We attribute this, rather surprising, result to the fact that internet proliferation and more places of higher learning might create opportunities for bettering cities but do not guarantee that these opportunities are realized. The study helps to understand better the smart city phenomenon and its implication for urban development.

Towards a rural focus in accessibility-based planning: Insights based on perceived accessibility

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Alicante-G54-Urban studies, 0-C02, August 30, 2023, 4:45 PM - 6:30 PM

Growing frustration with the negative externalities of automobile-oriented planning has prompted the design of transport planning strategies to sustain access to desired activities based on proximity rather than mobility to gain particular momentum in very dense cities. At the same time, recent research from the Netherlands indicate that in rural areas with fewer local opportunities, access to desired activities is perceived almost just as well. However, this does not mean that rural areas face fewer challenges than congested urban areas in planning for accessibility. This discussion paper argues that a closer look at the mechanisms that shape perceived accessibility levels reveals that sustaining accessibility is more challenging in rural areas compared to urban areas, justifying a geographical shift in focus in accessibility-based planning.

The first main reason that lower levels of spatial accessibility in rural areas only to a limited extent translate into lower perceived accessibility is that there are diminishing returns to the number of opportunities. Second, requirements regarding accessibility are spatially heterogeneous. Residential self-selection based on car access implies that people living in rural areas value the presence of locally available opportunities less than those living in urban areas. However, the status quo of car use as a means of reducing accessibility inequalities between urban and rural areas could increasingly prove incompatible with emerging transport policy agendas that include social inclusion and environmental objectives. Compared to rural areas, cities with more locally available opportunities and, therefore, more scope for active mode use are probably the places where alleviating car dependence while maintaining accessibility is less of a challenge. Accordingly, urban accessibility policy strategies motivated by alleviating environmental externalities from car use might not be as suitable for rural areas. Compared to urban areas, their effect on reducing environmental externalities is likely to be modest, while the effect on accessibility is likely to be greater in low-density environments.

It follows that a shift away from a mobility-based to an accessibility-based planning paradigm will likely be most challenging in rural areas. The paradigm shift should not only entail a substantive move away from its traditional objective of ensuring free-flow car mobility. It should also shift its focus geographically from congested urban areas to rural areas where access to opportunities is lower in the first place, even in the absence of congestion.

Knowledge and skills for governing societal transformation and resilient communities

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Online-G19-O2 Cooperation and Local / Regional Development, August 29, 2023, 11:00 AM - 1:00 PM

A major challenge of the world today is to manage the natural resources needs on the one hand and the social and economic impact of unexpected extreme events. In this context, the resilience is a key characteristic of the socio-ecological systems. The understanding of the resilience concept and identification of the knowledge and skills needed for better managing the natural systems and forecasting the dangerous events are extremely important for a smooth governance of the societal transition and transformation at local and global level.

The resilience characterizes the capacity of a social-ecological system to cope with disturbances and stressors under a certain level such that the system remains within the same regime, maintaining its structure and functions. It describes the degree to which the system is capable of self-organization, learning and adaptation (Holling, 1973, Gunderson & Holling 2002, Walker et al. 2004, Resilience Alliance, 2023). In fact, the resilience is a property of the social-ecological systems, integrating both ecological and socio-economic systems. The humans play a double opposite role, respectively of added capacity to anticipate and adapt to disturbances and of agent that significantly contribute to disturbances, directly or indirectly.

In this general context, the aim of the paper is to identify the needs for specific knowledge covering and integrating all the above elements and skills that could help significantly in governing the society today. The education for sustainable development contains disciplines and approaches that could contribute to identification of the proper solutions for increasing the socio-ecological resilience. The paper presents a research-based perspective on the resilient communities' governance.

The analysis focused on the curricula content of different higher education specializations and institutions and on the opinions of academic staff, students and public authorities related to the needed knowledge and skills. The questionnaire and the document analysis are the main methodological tools, followed by a proper interpretation of the qualitative and quantitative data.

Even if there are specialized disciplines or curricula with very good scientific content and approach, the interdisciplinary fields and communication are missing (totally or partially). Systems thinking and holistic understanding are the most appropriate approaches for developing the adaptive capacity of the communities for the actual and future societal transformations. The understanding of the strong relationship between humans or communities and natural systems is, in our opinion, the key for a sustainable development of the resilient socio-ecological systems.

Re-evaluating your residential location choices?: Determinants of interregional migration and the Covid-19 Pandemic

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Alicante-S18-S2 Drivers and impacts of migration: new insights on the role of local labour markets, human capital, remote work, and (family) networks, 1-C14, August 31, 2023, 4:45 PM - 6:30 PM

Although Covid-19 is a global health emergency, the pandemic as well as the impact of containment policies are experienced in a local context. Since places differ in their characteristics and amenities, quality of life is shaped by local conditions. At the same time, local quality of life is determined by individual perceptions and evaluations and may adjust when new information or circumstances arise. More specifically, exogenous shocks, such as the Covid-19 pandemic and associated “lockdown” policies, may lead to a re-evaluation of the costs and benefits of specific places as residential location, e.g., because certain location factors or amenities suddenly shift in relevance. This applies especially for cities, where actual or perceived risk of infection may be higher and living conditions may be less suited to lockdown situations while technological possibilities and changing social acceptance of remote working undermine advantages of proximity to the workplace. Theoretically, Covid-19 could thus shift residential location preferences and incentivise migration out of metropolitan and urban and towards suburban and rural areas.

While some empirical evidence for changing migration patterns has been presented, a decreasing preference for cities as places of residence could be motivated by re-evaluation of a range of amenities and circumstances. However, what exactly these location factors could be and how they may shape interregional migration patterns more generally, i.e. beyond urban-rural dichotomies, has received less attention. How did the exogenous shock of the Covid-19 pandemic and “lockdown” policies influence the costs and benefits of residential locations? And how may this be reflected in patterns of interregional migration and settlement structure? This paper investigates these questions using a regression-based analysis of interregional migration and population growth for German NUTS-3 regions before and during the pandemic.

Success breeds inequality? Are there any sustainable micro-ecosystems of entrepreneurship

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Alicante-S40 Aligning entrepreneurship, sustainability, and regional policy, 1-C14, August 31, 2023,
2:30 PM - 4:15 PM

Entrepreneurship contributes significantly to economic development, but in doing so it causes socio-economic inequalities to widen. This is due to the uneven distribution of entrepreneurship, as well as the uneven effectiveness of entrepreneurs, only some of whom (those ambitious) contribute significantly to productivity growth, added value and thus the well-being of the community. This applies both at the regional level, where long-term policies supporting sustainable regional development, such as the EU Cohesion Policy, do not exhibit significant effectiveness, and at the local level such as cities or even urban neighbourhoods.

Is it therefore conceivable to provide stable economic growth while ensuring that Sustainable Development Goals are met? This paper aims to contribute to answering this question by pointing to the existence of sustainable entrepreneurial micro-ecosystems (SEEs). SEEs are likely to be characterised by relatively high levels of income with little income differentiation. SEEs will also provide a balance between business and residential, social, and green areas, as founders of new businesses are more likely to locate near their homes. Thus, SEEs are intended to offer a welcoming place to work and live, providing decent living conditions for all.

Where to look for SEEs? Theoretically speaking, SEEs should exist outside or between innovation ecosystems that create high but uneven income growth. Moreover, SEEs that are in some influence of fast-growing innovation ecosystems should exhibit higher but equal income levels than ecosystems located far away. SEEs should also include a proportion of or be near residential, recreational and green spaces.

Why is it important to find SEEs? Above all, we will gain knowledge about how SEEs are created, where they are located, under what natural, social, economic conditions, and institutional framework and if and where innovation ecosystems are located that have an impact on SEEs. This is essential knowledge for entrepreneurial policy, which so far supports a process of entrepreneurial discovery directed at increasing innovation, forgetting the social and environmental aspects of sustainability. With this knowledge, entrepreneurship policy is able to ensure the right entrepreneurial fabric, reinforced with the right tools in dimensions that are key to the development of SEEs, as well as the right deployment of these ecosystems around innovation ecosystems. This knowledge is also essential for urban policy, which should ensure adequate levels of residential, recreational, green territory around workplaces and homes, so that SEEs have natural conditions to thrive.

Islands in times of the pandemic: tracing the evolution and socio-economic impacts of COVID-19 on the Greek islands

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Alicante-S68 Islands as 'socio-spatial laboratories' for sustainable development, 1-B11, September 1, 2023, 11:00 AM - 1:00 PM

The aim of this paper is to explore the geographical variations of incidence and deaths from COVID-19 in the Greek islands. In addition, it is making an attempt to present the place-specific policy responses in order to ameliorate the crisis impacts on the very sensitive and unique island socio-economic environments. Insularity has been regarded as a very instinctive area of interest for the EU cohesion policy. Due to the very specific features, such as isolation and discontinuity, limited accessibility and heavy reliance on tourism, islands constitute a very specific area of interest for regional analysis and policy. By tracing the evolution of spread and deaths provides a closer investigation of the vulnerability and resilience of islands to the disease. Furthermore, it provides a comparative investigation of the evolution and fatality from COVID-19 between islands vis-à-vis mainland municipalities. On parallel, analysis delves into changes in socio-economic and welfare conditions based on the study of the evolution of household incomes, the restructuring of the local production systems through the openings and closures of enterprises, and the changes in domestic and international tourist flows. Finally, the paper addresses the policy responses for the defense to the pandemic, the restoring of the socio-economic environment and support to sustainable development. Results are relevant to regional health inequalities and regional insular policy for building more resilient island economy and societies to crises and epidemic shocks in the future.

Space-time dynamics of interprovincial migration flows in China, 1985–2020

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Online-G03-O1 Demographic Change, Population and Migration, August 28, 2023, 11:00 AM - 1:00 PM

Migration is a path-dependent process over space and time. Empirical studies based on the ‘push-pull’ theory and gravity models have ignored this inherent relationship, thus failing to explore the complex spatiotemporal mechanisms. This study applied the dynamic spatial Durbin panel gravity model to quantify the dynamics of interprovincial migration flows in China for 1985–2020 from a systematic perspective. Specifically, we modelled interprovincial gross migration flows of 31 provinces in China as the dependent variable, regional GDP, population size, education level, and age structure at origins and destinations as well as their spatial lags and travel time as the explanatory (or gravity) variables. More importantly, the complex spatiotemporal relationships among migration flows were built by different types of spatial and temporal dependence, including origin-, destination-, and origin-to-destination-based network dependency and space-time diffusion structures, providing feasibility for modelling the simultaneity of migration systems. The Bayesian MCMC approach was employed to draw samples of the proposed model. Based on the parameter estimates, we obtained the contemporaneous, short-term, and long-run responses of migration flows to changes in regional characteristics as well as their origin, destination, and network spillover effects. The preliminary results indicate as follows: 1) ‘Origin push’ is much stronger than ‘destination pull’ in interprovincial migration processes in China, as was strongly confirmed by the much larger origin effects of regional variables than their corresponding destination effects. 2) Network spillover effects dominate in Chinese interprovincial migration movement. The significant positive origin-, destination-based spatial dependence and positive temporal autocorrelation further suggest that migration is a spatiotemporal path-dependent process. It is owed to the inherent space-time inertia that migration flows from each region interrelate and are interwoven into a complex migration system. 3) Regional economic development and education level play crucial roles in Chinese interprovincial migration processes, which is in line with our expectation. The origin effects and network spillover effects of regional GDP are significant negative, whereas the origin, destination, and network effects of education level are significant positive. However, we should pay much attention to the age structure of population in migration as its elasticities are larger than one. After open door and reform policy as well as ‘one-child policy’ since 1980s, people’s attitudes toward marriage and childbearing have changed greatly in an ageing society, thus exerting huge impacts on migration and society. Without considering regional contexts, the roles of regional factors on migration can be misleading.

Quantitative instruments for Regional Industrial Strategies

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Alicante-S77-S1 Economic Complexity for Industrial and Innovation Policy, 1-E12, August 30, 2023,

11:00 AM - 1:00 PM

Complexity analyses is nowadays accepted for country level macroeconomic analyses by many institutions (Pugliese & Tacchella, 2021). To better inform industrial policy however it is crucial to look at regional systems of innovation (Balland, Boschma, Crespo, & Rigby, 2018). Indeed, on one hand most of innovation and industrial policy happens at the regional level, and several relevant policy instruments require understanding not just market opportunities at the country level, but also which regions are better prepared in terms of technological capabilities. On the other hand, in particular with respect to the regional redistribution of European and National funds, the issue of efficiency is balanced by the need for a cohesive distribution that would help regions with fewer capabilities to find their own opportunities. It is therefore crucial to identify not only absolute advantage in specific products, but also relative regional advantage.

The framework we develop here is designed to help policymakers to identify knowledge-based investment priorities and the potential feasibility of the several options they have. It uses the machine learning algorithms developed within the paradigm of economic complexity to highlight which technologies may be feasibly developed by a region or a country, based on their current capabilities. It is a quantitative tool, whose aim is to provide orientation for policymakers from the early phases of the strategy design and throughout its implementation.

The Challenges of the Eco-digital Transition. The Urban Digital Twins to Increase Urban Resilience

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Online-S49 Ecological Transition That is Increase in Resilience and Renewable Energies, Digitalization, and Integrated Territorial Planning, August 28, 2023, 11:00 AM - 1:00 PM

The local implementation of the 17 Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda, the implementation of the New Green Deal and the Recovery and Resilience Plans of the different EU countries, make the ecological and digital transition indispensable to govern the new challenges of change, especially taking into account an international scenario characterised by the worsening climate and energy crisis. On the occasion of the Digital Day 2021 co-organised by the Portuguese Presidency of the Council of the European Union and the European Commission, draft declarations discussed key areas in which digital technology could have a significant positive impact for Member States: 'A Green and Digital Transformation of the EU', a declaration that aims to increase Europe's role in global leadership of the green and digital transition, and 'European Green Digital Coalition', an industry-led initiative that will help accelerate the ICT sector's transition to a sustainable, climate-neutral and circular, zero-pollution economy and the creation of an innovative, sustainable, inclusive and resilient society and economy. Within this framework, the contribution focuses on Digital Twins. These are not simple 3D replicas of a territory, but models that aggregate data from multiple sources (regulatory, geospatial, environmental and utilisation data together with real-time data provided by sensors) to create a representation of a city or territory and generate useful information to guide action, possessing enormous potential yet to be explored for multiple applications, such as sustainable development strategies, urban and spatial planning, simulation and crisis management, and thus being able to increase the resilience of cities and territories. The reference to some significant case studies aims at highlighting how, through an integrated planning approach, the opportunities of digital and ecological transitions can be declined, highlighting the possible desirable interrelationships.

Asylum regimes are more than norms and policies: How actors and welfare services shape asylum across Europe

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Alicante-G03-O3 Demographic Change, Population and Migration, 0-C02, September 1, 2023, 9:00 AM

- 10:30 AM

Asylum regimes are often defined as the sets of norms and policies that define how asylum is implemented in a given country. In Europe, the fragmentation of asylum regimes has often been identified as a key reason explaining migration ‘crises’ and political disputes among member-states. In this paper, we argue that asylum regimes are not just about norms and policies, but are equally shaped by actors and services of the welfare regimes. To support this argument, our paper brings together some of the key findings of a larger exploratory study on the different modi operandi in multi-actor governance of asylum across European states. We focus on the role of nonstate actors for the access of asylum seekers to labor market and welfare services, and given the varying public-private mix we propose a typology of asylum welfare regimes in Europe. We observe that yet asylum welfare is to significant degree delineated by traditional welfare regimes sensu Esping-Andersen (1990), individual countries sharing a welfare regime have not necessarily developed one approach to securing asylum welfare over the past years. Our results highlight that the fragmentation of asylum regimes across Europe is not just the outcome of different norms and policies, but also results from different public perceptions, economic performances and capacities to engage municipalities.

The Long-Term Persistence of Gender Gaps in Regional Entrepreneurship: The case of Poland

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Alicante-S01-S2 Regional Differences in Gender Equality: Determinants and Consequences, 1-B02,

August 31, 2023, 4:45 PM - 6:30 PM

In this paper, we study determinants of gender differences in regional entrepreneurial activities. Our particular focus is on the historical level of female and male entrepreneurship in a region and its role in explaining the contemporary gender gaps in regional entrepreneurship. We combine both literatures on gender differences in entrepreneurship and on long-term persistence of regional entrepreneurship to explain the contemporary gender differences in regional entrepreneurship activities. Our empirical analysis is based on data from Poland that offers a unique case for our analysis due to the fact that in the past regions constituting contemporary Poland were under the rule of the Austro-Hungarian, German, and Russian powers. Poland was also one of the first European countries to allow women to vote and to work in public administration, making it possible to observe historical female employment rates. The results show that the gaps for the self-employed with and without employees change dramatically over time. We confirmed the existence of very interesting patterns, including following male patterns of employers and solo patterns of women, which may have influenced women's transition from solo self-employment to hiring employees. We argue that policy measures to promote gender equality in entrepreneurship should have a regional focus and consider specific historical contingencies of a region.

Income inequality and entrepreneurship in U.S. regional labor markets

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Online-G35-O1 Regional and Urban Labour Markets and Entrepreneurship, August 28, 2023, 11:00 AM
- 1:00 PM

The study examines how income inequality in the regional labor market may affect individual propensity to become entrepreneurship and the types of entrepreneurship pursued in U.S. metropolitan areas.

There is a growing body of literature on the relationship between entrepreneurship and inequality in region labor markets. Most of these studies have focused on the impacts of entrepreneurship on income inequality. However, the entrepreneurship literature is clear that local economic conditions can impact entrepreneurial decisions, suggesting a reversed causal direction from the majority of the current literature. For instance, the theory of necessity entrepreneurship posits that one can be forced to become an entrepreneur when they cannot obtain alternative employment opportunities. Therefore, there is a need to study how the undesired regional labor market conditions such as inequality may impact individual entrepreneurial activity. Another research gap in the literature is the lack of differentiation of entrepreneurship types when studying regional economic factors for entrepreneurship. In particular, there has been very limited understanding of gig workers due to the lack of high-quality data.

This quantitative study will rely on the new national survey on Entrepreneurship in the Population (NORC at the University of Chicago, 2022). NORC at the University of Chicago is conducting a five-year national survey on entrepreneurship from 2022 to 2026. The 2022 survey data with over 30,000 valid responses have been recently made available to scholars. The survey clearly distinguishes gig workers from business owners, nascent entrepreneurs, and freelancers. Multivariate regression analysis at the individual level based on the NORC survey data will be conducted to explain the propensity to become an entrepreneur, with distinctions among business owners, freelancers, and gig workers. The main explanatory variables are indicators of income inequality (e.g., Gini index) at the metropolitan level. Control variables at both individual and regional levels will be included based on the literature.

Using deep learning for EV market demand forecasting under dynamic market conditions: the case study of Jiangsu, China

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Alicante-G25 Energy efficiency and its effect on urban areas, 0-E01, August 30, 2023, 2:30 PM - 4:15

PM

Predicting the future market share of new energy vehicles is important for analyzing transport externalities, and optimizing infrastructure deployment. We estimate deep learning models for representing the market demand under dynamic market conditions. We use Artificial Neural Network Multi-Layer Perceptron (ANN-MLP) and Bidirectional Long-Short-Term-Memory model (BiLSTM) for analyzing the market dynamics between 2015-2022 in Jiangsu, China. Then, we formulate maximum, average, and minimum growth scenarios, and we use the model for predicting the BEV market in 2028. The model predictions are compared with the Gompertz model. We use publically available data about vehicle sales, price changes, fuel-to-electricity ratio, charging piles, driving range, and green license registration. The results show the advantage of the deep-learning models in generating realistic predictions based on market dynamics and covariates. The models present a good fit to historical data and encompass the complexity of the diffusion phenomenon, resulting in a realistic depiction of the diffusion progression and realistic future predictions.

Creative Revitalization - Art and Contents Tourism in The Peripheral Japan

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Alicante-S24 Outside the frame: creative, cultural and innovative dynamics in non-urban regions, 1-

D13, August 30, 2023, 11:00 AM - 1:00 PM

The social and industrial restructuring of rural societies in countries of the global north, where globalization and urbanization have had a significant impact, is reintroducing tourism, rural development, and regional revitalization to the agenda. Japan, as the country with the most severe rural decline and a super-aging population, has been working on various plans to establish the country through the tourism business, especially in rural areas. Although experience-based rural creative tourism has been the major focus of development in the Japanese tourism industry, it has received much less attention in the academic literature on creative tourism than other nations. This study seeks to investigate two of the unique growing active forms of creative tourism in rural Japan: rural arts festival tourism and content tourism. Through case studies and research of various forms of rural art and content tourism over the past five years, this study demonstrates that both rural art and content tourism provide several benefits and social innovation to rural areas. Art tourism can cover the creative transformation from elite art to daily culture through broad civil involvement and tourism contact. The contents of tourism can also incorporate pop culture into similar everyday culture, so attracting a younger and broader audience. Beyond the sphere of creative tourism, they both help the process of social enterprise and territorial rehabilitation. Many of these benefits are indirectly provided to rural areas. Overall, art tourism and contents tourism can round out a more active sort of cultural tourism 3.0 with its rural enhancement and cultural creation missions. The findings have the potential to encourage and support the cultural and economic development of rural communities worldwide. This study also outlines several management concerns originating from this sort of creative tourism that require additional research and consideration.

Regional higher education institutions – a panacea for peripheral innovation?

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Alicante-S70 Peripheral regions and the geography of innovation, 1-D11, August 30, 2023, 4:45 PM - 6:30 PM

This paper analyses peripheral regions in the framework of a knowledge economy and one of its infrastructural elements – regional higher education institutions (RHEI). The paper contributes to the rural innovation and smart specialisation debate by arguing that to be successful regional higher education institutions must act not only as educators but also as proactive institutional entrepreneurs, shaping regional strategies and institutional development. On the other hand, national innovation policies shall consider and systematically improve regional R&D and innovation capacity. The paper provides a theoretical background about the potential role of regional higher educational institutions in peripheral locations, gives some examples from the Nordic countries. The empirical part describes shortly the Estonian RHEIs based on the earlier Estonian Science and Innovation Policy Evaluation report sub-study and reflects the main findings from the recent evaluation reports. It concludes that the EU structural funds supported innovation policies have been rather increasing regional differences. The outputs and impact of the policy measures are not clearly and logically interlinked as they are initiated from different ministerial silos. The existing potential of RHEIs has been modestly utilised and the successful rural restructuring, introduction of new industries and bottom-up discoveries as the key to the smart specialisation depends mainly on local leadership and agency.

Spatial-temporal development trajectories of coworking spaces in urban areas: a tale of Central European capitals

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Alicante-S10-S1 Geographies of New Ways of Working, 1-C12, August 31, 2023, 2:30 PM - 4:15 PM

Coworking spaces are widely recognized as places with an increasing role for urban economics reflecting needs for flexible office spaces due to digital transformation in creative industries and other knowledge-intensive business services. Hence, the development of coworking spaces affected the urban space. However, previous studies on spatial location of coworking spaces cover cross-sectional analysis only. Therefore, our contribution's aim is to use time series data for comparison of spatio-temporal dynamics of coworking spaces in Central European capital cities. The usage of emerging hot spot analysis in 2D and 3D dimension detect show hot spots of coworking spaces in CBDs with their diffusion on fringes of the CBD in the last five years supporting the idea of a polycentric city. The result of the study has highlighted the importance of spatio-temporal dynamics research for understanding the effect of coworking spaces on urban planning and location strategies of coworking spaces.

Injecting Arts into Innovation with STEAM: A Case Study of an University-Based Innovation Intermediary

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Online-G09-O2 Innovation and Regional Development, August 28, 2023, 4:45 PM - 6:30 PM

University-based innovation intermediaries or “STEM assets” are claimed to play an important role in the development of innovation ecosystems, and in turn driving regional growth and development. They can be defined as physical facilities dedicated largely to the translation, development and transfer of scientific, technological or engineering innovation and knowledge and expertise which relates to new or improved business processes, products or services. A UK Research and Innovation funded large scale study in the West Midlands region of the United Kingdom compares different university-based STEM assets and their impact to regional development.

Findings of this study indicate that innovation intermediaries are an important magnet for talent into the region, contributing to a deep pool of highly skilled labour that makes the region attractive to other businesses. In-house skills are also made available to other businesses through joint research projects, contract research and consultancy services.

The focus of this paper is on one of the case studies: STEAMhouse. This is a university-based innovation intermediaries at Birmingham City University, Birmingham UK. The aim of STEAMhouse is to incorporate a highly active creative sector in Birmingham into the regional innovation ecosystem. STEAM is an approach that originates in education research with the aim to include the Arts into STEM (Science, Technology, Engineering and Medicine).

The analysis is based on semi-structured interviews and the purpose is to gain understanding of the particular contribution of this STEM asset in relation to: (1) Bringing together academia and industry (2) facilitating knowledge exchange; and (3) Setting local priorities, strategies and agendas.

The problem of attrition in impact evaluation: a practical assessment of incentives for investments in occupational safety and health

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Alicante-S03-S2 Counterfactual methods for regional policy evaluation, 1-B03, August 30, 2023, 4:45

PM - 6:30 PM

This paper is based on the case of the ISI calls, a program giving incentives to SMEs for OSH investments promoted by Inail, the Italian national insurance institution. The ISI calls are implemented through the mechanism of the click-day, i.e. firms applying for funding apply in a precise time and are funded on a first-come first-served basis. Since the available funds are exhausted in a few minutes (or even seconds), the mechanism can be assimilated to a natural experiment, where the applicants that arrived too late to be funded represent our control group. So, this case study represents an unique evaluation setting, seen that the vast majority of interventions in OSH are in the form of overall regulation and lack then of a counterfactual. One of the evaluation challenges is represented by attrition, which can bias the observed impact if the variables causing the exit from treatment are correlated with the outcome variable. Our paper will focus on the analysis of firms that were selected by the click, which either did not present the required documentation, or did not realize the investment, or had some irregularity. We will start by a descriptive section showing how the phenomenon varies among years and company sizes. Then we will discuss why it happened based on the survival profile and on the economic and financial profile (for companies only) of the firms leaving the treatment respect to the firms that received the complete funding. This will give us hints on the possible direction of the bias caused by attrition.

Assessing the effectiveness of incentives in occupational safety: why and how?

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Alicante-S21 Evaluation of safety and security policies, 1-D11, August 31, 2023, 11:00 AM - 1:00 PM

Currently, there is quite unanimous consensus on the need of policy interventions aimed at promoting and improving occupational safety and health, but there is no convergence on the most appropriate way to achieve the goal. Partly, this lack of knowledge is due to the almost complete absence of evaluation studies on this class of policies. The European Agency for Health and Safety at Work (2013) underlines that the development and implementation of OSH interventions, including policies, programs and their effects, are not evaluated by means of rigorous and scientific evidence-based research, denoting a general lack of quality in OSH intervention. Even less evidence is available for incentives, which are seldom applied in this field.

This paper is based on the case of the ISI Calls, a program giving incentives to SMEs for OSH investments, promoted by Inail, the Italian national insurance institution. The ISI calls are implemented through the mechanism of the click-day, i.e. firms applying for funding apply in a precise time and are funded on a first-come first-served basis. Since the available funds are exhausted in a few minutes (or even seconds), the mechanism can be assimilated to a natural experiment, where the applicants that arrived too late to be funded represent our control group. So, this case study represents an unique evaluation setting, seen that the vast majority of interventions in OSH are in the form of overall regulation and lack then of a counterfactual.

In the paper we will discuss the main research questions to whom impact evaluation exercises can give answer, as long as the main evaluation challenges for which literature gives little guidance. We will give practical application to the presented arguments, through an exercise of impact evaluation based on the incentives given to firms that carry out investments to prevent occupational accidents. This is made possible by the access to a complex system of administrative databases, used by Inail to manage the ISI calls and the occupational safety and health insurance system.

Determinants of resilience in rural territories: Evidence from Portugal

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Alicante-G03-O3 Demographic Change, Population and Migration, 0-C02, September 1, 2023, 9:00 AM
- 10:30 AM

Over the last decades, the territorial distribution of the Portuguese population has concentrated in a few municipalities, mainly in the metropolitan areas, in the coastal region between Lisbon and Braga, and in the southern coast. In general, the population decreased in the remaining territory and the rural territories have been experiencing the greatest population losses. Even so, not all rural territories have suffered the problem of depopulation with the same intensity: while some municipalities have seen their population shrink since the 1960s, others have managed to maintain some capacity to retain (and even attract) population. Considering these two distinct contexts in rural areas, this study aims to identify the determinants of the greater resilience of some rural territories. For this purpose, statistical data for rural municipalities in mainland Portugal over the last two decades are used. Resilience is understood as the ability of territories to withstand and overcome disturbances and crises, without changing their structural conditions. In terms of public policies, the identification of the factors that explain the existence of distinct levels of resilience is of great importance for the definition of development strategies and the promotion of territorial cohesion. In this study, the resident population growth rate is used as a proxy for territorial resilience. As determinants of this resilience, economic, social and environmental factors are explored, using dynamic models with panel data. The results show that migration, as well as characteristics related to the labor market and the activity of local authorities, are related to differences in territorial resilience.

This work is supported by national funds, through the FCT – Portuguese Foundation for Science and Technology, under the UIDB/04011/2020, UIDP/04011/2020 and UIDB/04007/2020 projects.

Determinants of demand for cities with higher education institutions: an approach based on fractional regression

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Alicante-S09-S2 University impacts on the local and regional economy, 1-C13, August 30, 2023, 2:30

PM - 4:15 PM

The reasons that lead students to choose a higher education institution in a certain city, is an extremely important piece of information for political and institutional decision-makers, in the domain of city policy as in the area of HEI. This research has as main goal to identify the determinants of demand for cities with higher education institutions. Through fractional analysis and based on a previous identification of university cities market areas - constructed with municipalities -, this research concludes that the distance between the location of students' family home and the location of higher education institution is the most robust variable to explain the student's higher education choice.

PRI Playbook 2: A user-centred, process-oriented guide to developing transformative innovation strategies

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Alicante-S32 Territorial Capacity for Sustainability-Oriented Innovation and Transformative Change, 1-E11, August 31, 2023, 2:30 PM - 4:15 PM

Rapid transformations of our socio-technical systems are needed to comply with the ambitious EU policy commitments of reaching climate neutrality by 2050 (UNEP, 2022), including major industrial transitions away from fossil-fuel dependency (EEA, 2019a). Such global transitions in fundamental human support systems such as in energy, transport, food, water and waste are giving rise to local tensions. As witnessed during the earlier stages of the pandemic and more recently with the energy and cost of living crises, these tensions require timely responses. By the time the negative consequences of the transitions begin to be felt it is often late to lessen their impact or to take advantage of new opportunities for the common good.

The necessary transformations do not seem likely with development policy as usual (EEA, 2019b). Adequate responses require a change in directionality, away from economic policies focused solely on economic growth, and towards the objective of sustainability, understood in a broad sense as long-term societal well-being that combines economic prosperity with social cohesion and a healthy environment (Pontikakis et al, 2022a; 2022b; Schwaag Serger et al., 2023). Striving for truly sustainable development will require a shift in ambition of public policy, from dealing with incremental change, to dealing with transformational change.

Partnerships for Regional Innovation (PRI) provides a framework for the design and implementation of place-based transformative innovation strategies. PRI covers an important gap in current place-based innovation policies, namely their inability to provide positive consistent societal visions for the future, and take tangible steps towards their realisation, including by drawing links between implicated public policies in other portfolios and levels of governance, and by engaging with societal stakeholders who are not active participants in publicly-funded innovation projects.

PRI proposes mission-oriented partnerships that allow variable framings of policy according to the goal (Pontikakis et al., 2022a). They can potentially allow the combination with innovation policy interventions with large physical infrastructures for energy, waste and transport, industrial policy (including skills), fiscal policy and others.

A first edition of the PRI Playbook was published in 2022 (Pontikakis et al., 2022a) defining the conceptual foundation of PRI and providing an inventory of tools in line with them. Co-creation of PRI is now taking place in the context of a Joint Research Centre-Committee of Regions pilot action on PRI, with 74 participating territories. As a result, a more process-oriented and user-centred Playbook is currently under development and due in autumn 2023.

Discovery processes for transformative innovation policy

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Alicante-S38-S1 Partnerships for innovation: building transformative innovation policies with local ownership, 1-D12, August 30, 2023, 4:45 PM - 6:30 PM

Smart Specialisation Strategies - S3, designed and implemented through entrepreneurial discovery processes – EDP during 2014-2020, are likely to continue to play an important role under the policy objective of a Smarter Europe in the next EU funding programming cycle 2021-2027. Innovation policy and S3 now should be aligned with EU Green and Digital transitions with the aim to contribute to systemic transformation. By selectively reviewing conceptual and empirical studies, this paper identifies critical lessons from Smart Specialisation implementation and EDP that may be relevant for Member States and regions adopting a new S3 innovation policy frame. In particular, in the context of the Partnerships for Regional Innovation (PRI), lessons from EDP practices may be useful for conceptualisation and development of the proposed Open Discovery Processes - ODP.

Representative Residential Property Model—Soft Computing Solution

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Alicante-G32-O2 Real Estate and Housing Markets Issues, 0-E02, August 30, 2023, 2:30 PM - 4:15 PM

Residential properties are a major component of the environment and economy and a key element for the quality of human life. Faced with disruptive ideological and technological changes in the world, real estate analysis has also become a key research problem for many academic centers and private institutions. Due to the complex nature of properties, they are one of the most difficult and troublesome subjects of analysis. Given the rapid advancements in competitive automated analytical models, the problem of data representative sample selection may prove to be a very wide-reaching subject. The aim of this paper was the assessment of the particular soft computing methods' (e.g., Self-Organizing Maps, Rough Set Theory) usefulness for selecting a representative property model. The obtained results confirm that the use of these methods leads to the creation of a model that enables a more reality-based view of the uncertainty and imprecise residential environment.

Local governments' collusion and European Cohesion Policy: Does the quality of institutions matter?

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Alicante-S03-S3 Counterfactual methods for regional policy evaluation, 1-C11, August 30, 2023, 2:30 PM - 4:15 PM

The quality of institutions is regarded as a fundamental factor for the success of the European Cohesion Policy. This work studies whether the control and the collusion of local politicians with criminals and pressure groups, one crucial aspect of the quality of government, is detrimental to the effective implementation of the EU Cohesion Policy. Exploiting southern Italy as a testing ground, this work analyses if mafia infiltrations in Italian municipal government – identified by the Italian Law 164/1991 - alters the allocation of EU investments toward thematics in line with the interest of criminal organizations harming the common interest.

Political supply or citizens' demand? The political determinants of early childcare provision in Italy *

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Alicante-S01-S2 Regional Differences in Gender Equality: Determinants and Consequences, 1-B02,
August 31, 2023, 4:45 PM - 6:30 PM

The political supply (features of the politician in charge) and the citizens' demand (interest groups) are two crucial political determinants of public service provision. By leveraging the role of gender, this work studies the relevance of political supply and citizens' demand on public early childcare provision in Italian municipalities. Does the gender of the Italian mayor (political supply) matter for public early childcare? Does female employment (citizens' demand) affect nursery school provision? I rely on a causal sharp RDD strategy in closed mix-gender elections and on an IV strategy to answer these two questions taking into account the many empirical challenges. I find that Italian female mayors do not provide larger early childcare provisions than their male counterparts whereas female employment is pivotal for the availability of childcare spots and the expenditures for children between 0-3.

Unpacking the black box of network externalities: how do they spread across territories?

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Alicante-G09-O4 Innovation and Regional Development, 0-C01, September 1, 2023, 2:30 PM - 4:15 PM

It has already been demonstrated that cross-border linkages among regions, companies and people may have large economic effects in terms of enhanced growth, innovation and productivity rates. However, it is not clear yet, whether and to what extent benefits generated by external connections remain circumscribed to the networked regions or may spill over borders, benefiting neighbouring regions too. This paper aims at filling this gap in the literature. Are spillovers generated by external connections localized or do they spread across space? Through which channels? Do spillovers occur within or across sectors? To provide an answer to these questions we investigate in a spatial panel setting with region, sector and year fixed effects whether and how network relations affect the performance of networked regions. We model external network relations at NUTS3 level by mapping linkages among Italian firms and their foreign subsidiaries. Preconditions for profiting from external networks are also explored.

Institutional changes and GVC: the experience of EU regions

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Alicante-S04-S3 Global Value Chains and regional development, 1-C11, September 1, 2023, 11:00 AM - 1:00 PM

The aim of this paper is to analyse whether and to what extent the formation and the shape of EU-centred GPNs has been conditioned by the proliferation of investment liberalization policies, like BITs, TIPs, and other multilateral agreements (IIAs). In particular, we want to answer to the following research questions: 1) Does the geographical extension of EU-centred GPNs mirror the geography of BITs signed by the country of origin of MNEs leading the networks?; 2) Is the impact of BITs homogenous across different sectors and/or regions belonging to the same country of origin?; 3) Does the strength of the protection offered by BITs matter for the EU MNEs' location decision process? To answer these questions we use a Pseudo Poisson Maximum Likelihood (PPML) approach, which provides two distinct advantages over traditional OLS panel estimates and addresses relevant econometric concerns, such as heteroskedasticity and the presence of zero-investment observation. In the benchmark regressions, we treat the binary BIT indicator as exogenous, conditional on a set of covariates. Then we explore the role of the quality of the BITs as a driver of the expansion of GPNs. In the last part of the study we provide evidence of both sectoral and geographical heterogeneity.

The Coronavirus pandemic and its local labour market impact – an investigation of self-employment in Great Britain

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Alicante-S76-S1 Global disruptions and their local labor market impact. An investigation into the spatial drivers of productivity and growth, 1-E11, August 31, 2023, 2:30 PM - 4:15 PM

Interregional patterns of self-employment have displayed persistence over time, including resistance to economic shocks. This paper investigates the impact of the COVID-19 pandemic on local self-employment across Britain using local area self-employment ranks prior to the pandemic and over the first year of the pandemic up to March 2021. The scale of the fall of the level of self-employment during the pandemic has been the key defining feature of local labour market change in Great Britain. Findings of the paper show that the long-standing relative spatial pattern of self-employment has remained persistent during the pandemic but there has also been some significant divergence from past trends. Change in local self-employment resulting from the pandemic is strongly associated with the scale of opportunities in paid employment and with demographic characteristics as local areas with a younger age profile, and to a lesser extent with a higher proportion of ethnic minority population, have slipped down the self-employment ranking. Change is largely unconnected with unemployment, sectoral specialisation and human capital which previous literatures on regional labour markets have focussed. Findings highlight the need for more integrative local economic policy responses.

A lifecycle perspective on the urban-rural divide in life satisfaction and happiness

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Alicante-S78-S2 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 11:00 AM - 1:00 PM

This study investigates the enduring hypothesis in the literature that rural areas promote greater wellbeing and that large cities cause a penalty on individual happiness. It offers a conceptual advance in using a lifecycle approach and a methodological innovation in using longitudinal micro-data. Previous research has struggled to identify causal effects, since people with greater wellbeing may be more likely to move to rural areas. A longitudinal approach helps disentangle cause and effect, including controlling for unobserved traits that may be linked with both wellbeing and choosing to live in a large city, smaller city or in a rural area. This more robust approach finds no happiness penalty of large cities or urban areas, challenging an engrained assumption in health and wellbeing research. Furthermore, urban-rural relationships with wellbeing differ across the lifecycle. Unobserved individual heterogeneity has a significant influence on the observed wellbeing divide for young adults and in midlife. Social relations and environmental factors of the local area mediate the urban-rural divide in wellbeing in pooled cross-sectional data in most life stages.

Sustainable development and the extractive industry. An assessment of the Mexican case (not competing for Epainos)

PhD Sabine Bacouël-Jentjens², PhD Grégory Levieuge³, Mr Jose Riascos¹, PhD Camélia Turcu¹

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Alicante-YS02 Economic Development and Agglomeration - EPAINOS, 0-D04, August 31, 2023, 11:00

AM - 1:00 PM

This study investigates the impact of mining on sustainable development in Mexico and tests whether the mining sector has an effect on consumption, inequalities, education, and the environment. Using data from 2,403 municipalities over a period of 30 years (1990-2020) using four waves of data, we find that the mining sector has mixed effects on sustainable development. The impact of mining depends on the characteristics of the mine, particularly its size and mineral extracted. While exploration of giant deposits tends to increase municipality income, it decreases the growth of consumption for neighboring areas. Negative spillovers are not present for the exploration of medium-sized deposits, and an increase in income for municipalities is observed. Additionally, mining tends to reduce inequalities regardless of the type of operation. The study provides a more nuanced understanding of the impact of mining on various aspects of sustainable development, contributing to ongoing debates on the relationship between natural resource extraction and sustainable development in Mexico.

Nightlights as a measure of local development: the case of Italy

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¹University Of Pisa, Pisa, Italy

Alicante-G40-R Spatial spillover a local development, 1-B01, August 30, 2023, 4:45 PM - 6:30 PM

In this paper, we show that, while there exists a strong cross-sectional correlation between nightlights and personal income and population, the dynamics of personal income and population can only be partially proxied by nightlights at the municipal level in Italy in the period 2012-2019 due to the presence of a downward trend in the intensity of nightlights, whose slope is positively correlated with the intensity of nightlights in 2012. We also discuss how the aggregation at NUTS 3 and 2 levels can (falsely) increase the capacity of nightlights to proxy for the local dynamics of personal income and population. Our findings point to a possible misuse of nightlights for the study of local development, at least for developed countries.

A dynamical taxonomy of population density: moving around in the Moran scatterplot

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¹University Of Pisa, Pisa, Italy

Alicante-S27-S2 Applications of Advanced and Innovative Methods in Regional Science, 1-C13,
September 1, 2023, 11:00 AM - 1:00 PM

In this paper, we analyse the spatial distribution dynamics of the population density of Italian municipalities over the period 1984-2019. Firstly, we refine the standard Moran-based classification, using as additional dividers the bisector and the estimated nonparametric Moran's I. The proposed taxonomy resembles other classifications of municipalities into urban and rural but has the advantage of being based on a very limited amount of information that is only population density and the definition of Local Labour Areas (LLA). This allows us to get a taxonomy for each year and study its dynamic over time. Moreover, we are also able to study the evolution of municipalities in continuous state space without relying on discrete taxonomy, therefore providing a more comprehensive understanding of the historic track that led to the current configuration. Our findings show the presence of three dynamic attractors, an urban attractor, a suburban attractor and a rural attractor, where all municipalities and their LLA are converging.

Navigating Regional Barriers to Job Mobility: The Role of Opportunity Structures in Individual Job-to-Job Transitions

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Online-YS03 Regional Development, August 29, 2023, 2:30 PM - 4:15 PM

Job-to-job transitions are associated with career progression and wage gains, thus regional differences in job mobility potentially contribute to and reinforce regional and social inequalities. However, career researchers have generally limited their attention to individual and employer characteristics and have neglected the spatial context in which job mobility occurs. This study aims at closing the research gap in the understanding of the regional contexts in which individual job mobility occurs. Using the theoretical concept of regional opportunity structures, logistic and multinomial regression models are set up to investigate three key aspects of region-related job changes: regional determinants of (1) general job mobility; (2) job mobility with wage gains; (3) simultaneous job and residential mobility. This study is based on individual data from the German Socio-Economic Panel study, enriched with regional indicators. The results show that job changes are negatively associated with labour market tightness, indicating that workers are less likely to change jobs in regions with a high ratio of job vacancies to unemployed workers. Fewer job-to-job transitions in tighter labour markets suggests that regional factors such as job availability and security play an important role in shaping job mobility, and that policies aimed at promoting job transitions may need to take into account the specificities of local labour markets. The effects of other indicators of economic opportunities remain insignificant, and there are no clear effects of other aspects of regional opportunity structures.

How many jobs can be done at home? Not as many as you think!

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Alicante-G08-O1 Cities, Regions and Digital Transformations, 0-D02, August 30, 2023, 11:00 AM - 1:00

PM

COVID-19 has dramatically accelerated the uptake of work-from-home (WFH) practices worldwide. Unique administrative data on the universe of Italian workers make it possible to assess for the first time the actual diffusion of WFH across sectors, regions and firms. Our data show that 12% of workers have in fact worked from home at the peak of the pandemic in 2020, suggesting that existing measures of WFH potential overestimate the share of jobs that can be undertaken remotely. We leverage the gap between the actual and potential share of WFH to examine the regional and firm-level determinants of WFH adoption. Our analysis provides suggestive evidence that WFH adoption at the peak of the pandemic crucially depended on a set of digital enabling factors.

Citizens' Experience-Based Dialogue in Sustainable Urban Development

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Alicante-G27-O1 Innovation and Sustainable Development, 0-C03, August 30, 2023, 4:45 PM - 6:30

PM

Cities around the world play an important role in sustainable development, and making cities inclusive, safe, resilient, and sustainable is one of the United Nations' sustainable development goals. In urban space, sustainable development and related sustainability challenges are not limited to ecological sustainability but also include the social and economic dimensions of sustainability. The role of city residents is central to urban development because urban space is not only created and built for citizens, but citizens themselves are key creators of urban space through their own activities and relations to their everyday living environments and other people. Prior research has recognized the importance of civic inclusion in the debate on the future of cities, including in the use and development of sustainability assessment tools. Various ways have been developed to involve citizens, for example through the collection of opinions and development proposals. Nevertheless, we still have very few ways of understanding or exploring the dimensions of sustainability embedded in the everyday experiences of citizens. The aim of this study was to examine how citizens' experience-based dialogue on the future of the city is linked to sustainability dimensions and sustainable urban development. This study utilizes a qualitative research approach and the data was gathered during facilitator-led group dialogues between the citizens of the European Green Capital 2021, city of Lahti, Finland. The analysis of the data is based on a qualitative content analysis method and an urban sustainability framework. This study contributes to urban development and planning research by integrating the citizens' experience perspective into the sustainable urban development and urban sustainability assessment tools context. In addition, our paper presents a holistic, literature-based urban sustainability framework that can be utilized as a qualitative urban sustainability assessment tool. The results of the study increase our understanding about the intertwined nature of the sustainability dimensions within citizens' experiences in urban context. Better understanding about the link between the different areas of sustainability and the everyday experiences of city residents is essential for the design of new development measures aiming towards more resilient and sustainable future cities.

Intertwining user-generated geographical data for planning and management of outdoor recreation

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Alicante-S69 The role of participatory approaches in tourism and sustainable development, 1-D13,
August 31, 2023, 4:45 PM - 6:30 PM

Outdoor recreation and nature-based tourism are increasingly important activities worldwide and the discussions about the role of everyday outdoor recreation for the wellbeing of urban dwellers has substantially increased after the outbreak of Covid-19 pandemic in 2020.

The changing demands and trends for outdoor recreation poses multiple challenges for planners and managers of recreational areas. These authorities require methods that can provide useful information for decision support including information about the number of visitors and their experience. To support planning and management, it is important to understand when and where people recreate, what do they do there, and who are using outdoor spaces for recreation, and why?

The past few decades have been described by the ubiquity, volume, and speedy development of geospatial big data, such as mobile phone data, social media data, sensors, and environmental imagery. These passive sensing systems have shown to provide multiple opportunities for monitoring and management of visitors in recreational and protected areas, for studying human-nature interactions and the spatio-temporal aspects of people's recreational activities.

Yet, geospatial big data, tells only a part of the story behind outdoor recreation. Passively sensed data remains limited in providing insights into outdoor recreation regarding who recreates and why and what do they do in certain locations. Planning and management require methods and data that provide useful information for decision support including information about urban dwellers personal characteristics and their motivations for outdoor recreation. For this, multiple studies have utilized active sensing methods, such as digital participatory mapping, to understand location-specific human values, perceptions, behavior, and preferences related to use of outdoor environments. These methods have also been applied in planning and management practices, but thus far mainly for citizen engagement for participatory planning purposes.

While active sensing methods complement passive sensing methods, there exists very few examples coupling the approaches. We review the literature on outdoor recreation and present an overview of the current use of passive and active sensing approaches. We focus especially on social media and mobile phone data as the examples of passive sensing approaches and digital participatory mapping (PPGIS, PGIS) as examples of active sensing approaches. We also discuss the pros and cons of using passive and active sensing data for planning and managing of outdoor recreation. Finally, we bring about the blind spots of current outdoor recreation research utilizing passive and active sensing approaches and suggest selected future research and practice directions.

Are the most attractive organizations to work for more socially sustainable?

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Online-G27 Innovation and Sustainable Development, August 28, 2023, 11:00 AM - 1:00 PM

The objective of this article is to compare companies that are considered great workplaces with those that are not, using a sample of 100 companies for each group during the period 2013-2021. This criterion is based on the ranking of the 100 best companies to work for in Spain published by the Revista de Actualidad Económica (RAE). Therefore, it is a comparison between companies within the RAE ranking and outside it.

First, it is analyzed whether the valuation obtained in the ranking increases with the permanence of the companies within it. In addition, the social characteristics are compared, in order to study whether the most attractive companies to work for are more socially sustainable than those not included in the ranking. Throughout this research, we will focus on the analysis of different variables such as talent management, remuneration, the work environment, CSR and training.

The analysis methodology will be based on descriptive, exploratory and inferential statistics, as well as information will be captured from the annual accounts of the SABI program of the companies under study that allow analyzing social sustainability. All this will be supported by a systematic review of the literature.

How are the excellent organizations to work for in Spain during the COVID-19 pandemic?

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Online-G30-O1 Covid-19 and regional and urban resilience, August 28, 2023, 4:45 PM - 6:30 PM

The most attractive organizations to work for are of special interest because they cause a major impact on the labor market and society. The aim of this article is to analyze the best companies in the labor market in Spain that remain every year in the ranking published by the Revista de Actualidad Económica, during 2013-2020 period.

The labor excellence of these companies is investigated taking in account the beginning of COVID-19 crisis, in addition to characterizing them with critical indicators like the gender of the management, European Union belonging, the location of its headquarters according to Autonomous Community, size, stock market price and whether they belong to the IBEX35.

A quantitative analysis by means of descriptive and inference methods allows us to conclude that excellent companies led by women stand out in Work Environment and CSR. Organizations outside the European Union achieve higher values. On the other hand, location of its headquarters does not influence valuation. The size does result in a total positive assessment, but the same doesn't apply if the company is listed on the stock market. Finally, it is observed that, faced with the challenge of COVID-19, these companies manage to maintain consistent labor excellence in environments where Talent, Compensation, Environment, Training and Total Valuation stand out. Therefore, valuable results are provided for the formulation of human resources policies.

It is not always about technology: Investigating Green innovation among clusters

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Online-G07 Regional Competitiveness, Innovation and Productivity, August 28, 2023, 2:30 PM - 4:15 PM

Clusters, defined as "geographically concentrations of interconnected companies and institutions in a particular field" (Porter, 1998), are essential in comprehending how specific locations can transition to sustainable practices (Bridge et al., 2013; Porter and Kramer, 2011). The issue of green innovation has garnered significant attention in response to pressing global economic and environmental challenges (Takalo, 2022).

Over the years, several factors have been identified to affect the diffusion of green innovation in clusters: the degree of collaboration along supply chains (Yang and Lin, 2020; Melander and Pazirandeh, 2019), knowledge transfer and sharing (Ter Wal and Boschma, 2011; Balland, 2012; Giuliani, 2013). In addition, the literature has highlighted the importance of institutional pressure (Chen et al., 2018; Cohen and Tubb, 2018; Porter, 1995).

Despite the evidence of clusters being conducive to green innovation, most contributions in this field have been based on case studies and firm-level surveys (Bellandi, 2021; Takalo et al., 2021). Only a few recent studies have considered a systematic measurement based on patent data (Messeni Petruzzelli et al., 2011; Du et al., 2021; Liu et al., 2022). However, prior researchs have suggested that relying solely on patent data to study green innovation may result in an incomplete understanding (Martínez-Ros, 2019), as the economic significance of patents varies across industries (Laursen & Salter, 2004).

The primary objective of this study is to assess the differences in green innovation among clusters and pinpoint the underlying factors that foster the dissemination of green innovation within these clusters. To accomplish this goal, we developed a ranking mechanism to identify the most prominent clusters in terms of green innovation. Unlike previous studies that solely relied on patents, our ranking incorporates a more nuanced definition of green innovation through topic modelling. We established our ranking by analyzing the websites of 31,833 companies constituting the 200-strong Traded cluster in Lombardy, Italy. We used the latent Dirichlet allocation (LDA) text mining method (Blei et al., 2003) to identify the prevalence of green innovation topics.

Subsequently, we performed a fsQCA to uncover potential causal relationships that could clarify the emergence of green innovation-focused clusters. The factors evaluated were based on a literature review. For knowledge spillover, cluster agglomeration level (measured by the LQ-Index) and RTA (patent-based). For the institutional pressure, the results of social progress in Lombardy's 12 provinces (NUTS-3) using the dimensions of the Social Progress Index, which include basic human needs, foundations of wellbeing, and opportunity.

Heterogeneity and Economic Geography: An agent-based model on the formation of Spatial Inequality

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Alicante-G28-O1 Segregation, Social and Spatial Inequalities, 0-C04, August 30, 2023, 4:45 PM - 6:30 PM

Abstract Economic Geography studies the formation and the evolution of economic spatial inequality. This study wants to enrich this literature by investigating the case of heterogeneous agents operating under bounded rationality in complex spatial structures. To achieve this, I propose a flexible macroeconomic Agent-based model endowed with Households and Firms interacting on a given spatial network. The agents' decision heuristics embed and reproduce the features usually employed in mainstream Economic Geography models, as relocation, migration, trade and transportation costs. This permits to evaluate and compare the predictions of Economic geography into a disequilibrium bounded rationality setting, to check the emergence and stability of agglomerated configurations by the economic agents, and to test policies, such as the variation of the transportation costs. The flexibility of the spatial structure, which consists in a network of locations provided in the initial calibration of the model, allows to check these results on a wide variety of spatial environments, including realistic ones. I test different relocation protocols for the agents, as well as different spatial maps, and perform experiments on different Transportation costs level. I find that the spatial configuration assumed by the model is deeply influenced by the chosen relocation metric and by the chosen spatial network. Usual New Economic Geography patterns of agglomeration might emerge, but seems to results from different mechanisms.

Too Hot or Too Cold? Temperature and Human Mortality: Evidence from Daily and Disaggregated Data in Italy

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Alicante-G22 Global Warming, Health and Environmental Issues, 0-D02, August 30, 2023, 2:30 PM - 4:15 PM

Anthropogenic climate change is causing temperature anomalies that are expected to increase average temperatures. This will also increase the likelihood of heat waves and heat islands. A growing body of literature has emerged to examine the effects of these projected temperature increases on various indicators of human health. However, as shown by recent work, the effects of temperature shocks may also differ across climate regions according to the historical distribution of temperatures. Our aim is to contribute to this literature by focusing on Italy. Besides direct impacts, this country is also particularly subject to climate change-related hazards, such as droughts, flooding, and other climate shocks. Specifically, we estimate the causal effect of temperature shocks on human mortality using highly detailed Italian administrative data on daily deaths at the municipal level. Temperature data are obtained from a reanalysis with a spatial resolution of 0.1 degrees and aggregated at each municipality over the 2011–2022 period. To refine our analysis and account for heterogeneity, we include controls for socioeconomic, demographic, geographical, and health factors. Our study documents that hot (cold) days are more harmful in colder (hotter) municipalities, suggesting evidence of population adaptation to climate change. Finally, using projections from SSP-RCP scenarios to estimate future temperature anomalies, we carried out a prediction exercise to forecast future deaths potentially attributable to climate change.

The impact of building a motorway network on urban sprawl: causal evidence from Portugal

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Online-G34-O1 Transport and Accessibility, August 28, 2023, 11:00 AM - 1:00 PM

The present study aims to investigate the effect of the development of the Portuguese motorway network on urban sprawl across mainland municipalities. We account for the endogeneity of motorways using dirt roads from the late 18th century as instrumental variables.

We see Portugal as a particularly interesting case. The country developed an extensive motorway network between the early 1980s, when motorways were almost non-existent, and the 2010s – indeed, according to the Eurostat, in 2019 Portugal had the fourth highest ratio of motorways relative to population in the European Union. At the same time, urban land expanded very considerably too; between 1990 and 2012, urban land in mainland Portugal increased by 55.9% (for comparison, total population grew by only 7.2% between 1991 and 2011).

We document the evolution of urban sprawl in Portugal along several dimensions. Our simplest measure of sprawl is, as in most studies, the growth of urban (residential) land, which we complement with the population density in these areas. In order to capture the degree of fragmentation in urban land expansion, we also consider the number of separate urban land units (“plots” or “patches”). In addition, we calculate a measure of the “non-compactness”, or shape irregularity, of the urban units. Finally, we analyse separately the “central” urban unit – the urban plot where the city council is located – and the other urban units in each municipality. This innovation allows us to examine an important within-municipality source of heterogeneity, that is, we can analyse if the effect of motorways operates through the contiguous development of the central unit (typically the largest one in each municipality) and/or the development of other areas.

We show that, on average, motorways cause an increase in both urban land and the population living in urban areas; as a result, there appears not to be an effect on population density. The effect on the number of urban plots is particularly strong, suggesting that motorways contribute greatly to the fragmentation of urban land. We find that motorways do not contribute to the contiguous growth of the central urban units (mostly towns and small cities); conversely, the area of non-central plots expands, and the irregularity of their shapes tends to increase as well.

New challenges for agriculture in developing countries: the case of olive growing in the Maghreb

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Alicante-G05-O2 Economic development in rural places, 0-D01, August 31, 2023, 2:30 PM - 4:15 PM

New technologies and organizational schemes are spreading out in developing countries for traditional crops. Olive growing has been a millenary activity in the Mediterranean basin, but now globalization is opening opportunities and arising challenges for new generations of farmers to deal with. Maghreb countries have adopted different national strategies using olive oil as a generator of foreign currency or limiting its production in favor of food security. Nowadays, things are changing because of the extension of welfare, the reduction of poverty and the opening of new niches in the internal markets. The aim of the paper is to understand how the process of changing is affecting agriculture in olive growing regions in Maghreb countries. The methodology used combine the analysis of quantitative available data from international and national bodies, the information obtained in three field works and the data extracted through the content analysis of 40 in-depth interviews carried out during 2020 and 2022 in four regions: The Rif, Mèknes, Marrakech and Sfax, with farmers, entrepreneurs, scholars, consultants and policy makers. The results show that the newcomer farmers are adopting new organizational and productive schemes. Knowledge and innovation are the most key elements for modern agriculture producing high-quality olive oil, either as a commodity or as a bottling product. New actors are entering the activity leaving traditional modes of growing out of the market. For the very next future great economic, social and environmental challenges, such as the competitiveness of companies, the inequality or climate change loom on the horizon.

The green transition and its potential territorial discontents

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Alicante-G13-R Urban Challenges and technological transformations, 1-B02, August 30, 2023, 11:00

AM - 1:00 PM

The impacts of climate change are unevenly distributed across territories. Less is known about the potential effects of climate policies aimed at mitigating the negative consequences of climate change, while transitioning economies towards low-carbon standards. This paper presents an analytical framework for identifying and assessing the regional impacts of the green transition. We develop a Regional Green Transition Vulnerability Index, a composite measure of the regional vulnerability of European regions to the socio-economic reconfigurations prompted by the green transition. The index brings to light strong regional variations in vulnerability, with less developed, peri-urban, and rural regions in Southern and Eastern Europe more exposed to the foreseeable changes brought about by the green transition. We also draw attention to the potential rise of pockets of growing ‘green’ discontent, especially if the green transition contributes, as is likely to be the case, to leaving already left-behind regions further behind.

Digging for Trouble? Uncovering the Link Between Mining Booms and Crime in Sweden

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Alicante-YS06 Sustainable Development, August 31, 2023, 11:00 AM - 1:00 PM

This paper evaluates the local effects of an exogenous economic shock, specifically, the mining boom that started in 2004 on crime levels in Swedish municipalities. The Becker theory of crime and different mechanisms suggest that there are competing effects that could result in an increase or decrease in overall crime rates. The identification strategy is based on the exogeneity of the mining boom and the geographical location of minerals. I use Synthetic Control Method to estimate the effect of the mining boom, using municipality-level panel data for the period 1996-2013. The paper focuses on two broad types of crimes: crimes against persons and wealth, which are also disaggregated to analyze heterogeneous effects by types of crime. I find evidence that the mining boom in Sweden negatively affects the number of crimes against persons per 100,000 individuals in mining municipalities compared with the Synthetic control unit. While for the number of crimes against wealth per 100,000 individuals, there is no significant result. The paper aims to contribute causal empirical evidence to the literature on the impact of commodity booms, specifically mining, on criminal activities since most evidence focuses on the energy sector.

The influence of social capital in the management of tourism enterprises in rural areas. An approach from a territorial perspective.

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Online-G19-O2 Cooperation and Local / Regional Development, August 29, 2023, 11:00 AM - 1:00 PM

Social capital has become an approach that has gained importance in the generation of value and knowledge exchange. Tourism enterprises, as well as the territorial dimension, have acquired great relevance to understand processes linked to development, as dynamic agents of local economies and living conditions; based on complex and heterogeneous networks that characterize and distinguish the different territorial instances. Entrepreneurship and social capital have a bidirectional relationship. On the one hand, entrepreneurial activity can contribute to the generation of social capital; and, on the other hand, social capital can favor the consolidation and development of ventures. For this, social relationships and networks are fundamental elements, and are sustained by territorial substrata that configure and reconfigure socio-economic dynamics; hence it is argued that a territorial context will be richer to the extent that its individuals and groups have relationships of greater or lesser scope and intensity.

In recent decades, entrepreneurship in the tourism sector has become the main activity of the local economy in some inland areas of Spain, and in others it has been incorporated and coexists alongside other traditional activities. From the academic point of view, studies on social capital, tourism entrepreneurship and territory have increased, but there are still insufficient studies that address these three aspects in an integrated manner; and to a lesser extent, those that generate cartographic outputs (maps) on social capital linked to tourism entrepreneurship in rural areas. In this sense, the research addresses the influence of social capital in the management of tourism enterprises in the Els Ports region, province of Castellón, Spain, from a territorial perspective.

The results show that there is a significant relationship between the stock of social capital and the development of tourism enterprises in the study area, conditioned by the existing territorial dynamics, which make individual, collective and/or institutional relationships, strengthen and enable cooperation between different actors. To this end, the analysis from a territorial perspective provides tools that allow the study of social capital and tourism entrepreneurship in a more holistic way, through the study of its territorial components. The results of the research aim to contribute to the generation of new knowledge, which will favor decision making, tourism management, as well as the implementation and evaluation of more accurate development plans and strategies.

A review of the social acceptance of European renewable energies in the literature

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Online-G24 Energy and Ecological Transitions, August 28, 2023, 11:00 AM - 1:00 PM

Social acceptance, defined as the active or passive approval by the public of a certain policy, is one of the most significant constraining factors in achieving government targets to increase the share of renewable energy. This study analyses 362 articles and reviews that have investigated the social acceptance of renewable energies, to obtain those whose geographical scope is the European Union or one of its member countries (73 documents). A bibliometric analysis and a critical appraisal were performed. The results show that all documents can be clustered into three groups, labelled as: Energy Planning (EP), Renewable Energy Driver (RED) and Social Acceptance (SA). The typology that enjoys the greatest notoriety in Europe is the analysis of Social Acceptance (SA) itself (65.75% of the documents), predominantly of renewable energies in general, without studying one in particular (47.37% of the documents). Within Europe, the countries most studied by the literature are Germany, Spain and Greece, which together account for 54.7% of the total. Although in Europe the most commonly used study methodology is of a qualitative nature (case study), quantitative studies are predominant. It has been found that the analysis of social acceptance is a relatively recent phenomenon (with the first peak of papers in 2016) and that 10 journals, whose predominant subject area is "Energy" and "Environmental Science" accumulate 72.60% of the papers published on this topic. Finally, this study performs an intensive review of those 32 documents with a European geographical scope that, through quantitative methodologies, quantify Social Acceptance (SA), identifying its determinants. These papers are based on various interview and questionnaire analysis techniques, and identify age, education level and salary as the main determinants of the approval of technologies that use renewable energy sources.

Compulsory solid waste collection in Poland – spatial inequalities and their determinants

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Alicante-G26 Spatial aspects of a Circular Economy, 0-C02, August 30, 2023, 4:45 PM - 6:30 PM

In 2013 Poland has introduced compulsory domestic garbage collection managed by municipal authorities. Since then, local authorities have to ensure that household waste is removed by a contractor chosen through competitive tendering. They are also allowed to apply different collection service price for sorted and unsorted waste.

The introduction of the new garbage collection system had to lead to an increase in recycling through the selection of domestic garbage. It was also supposed to cover all households with compulsory waste removal services and avoid the situation when some property owners were dumping the garbage anywhere rather than contracting removal services. However, while the environmental impacts of the new law have been not fully assessed yet, the introduction of new system led to a gradual increase in costs related to the garbage removal services for each municipality.

This paper aims at identifying the factors that influence the costs related to garbage removal services (e.g., private or public service delivery, local income, market competition, population density etc.) and the effectiveness of the waste management in particular areas. We also assess the impact of the new garbage collection system on market competition and the possible emergence of spatial monopoly patterns. As a consequence we are able to issue policy recommendations that could be applied in order to improve the existing garbage collection and removal system.

Cultural small towns in search of understanding, care and engagement

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Alicante-G04 Urban-Rural Relationships, 1-B01, August 31, 2023, 4:45 PM - 6:30 PM

The small towns, the "borghi" in the most widespread Italian denomination, participate fully to the geo-diversity of the urban and rural territory. In recent years, the enhancement of the peripheral material and intangible culture has entered the political-institutional agenda. The borghi capture the interest of travelers because, as James Hillman reported, they preserve a beauty capable of feeding our soul. In other words, they represent an anima mundi. Moreover, the demand for tourism has increased strongly also as a result of the restrictions of the pandemic, modifying, at the root, the models of life and use of time. Travelers are becoming more and more anxious to conceive of the holiday as a period for outdoor activities or even as a time to detoxify from the pressure of metropolitan life. In addition to tourism, new conditions are being recreated in the villages to develop phenomena of neo-residency, thanks to digital connections and the practice of smart working.

Urban regeneration real estate operations show positive examples of sustainable architecture but also improper forms of intervention.

The paper is divided in 3 sections:

- defining the characteristics of small and rural towns with high cultural value;
- the role of digital technologies to increase their attractiveness - Examples and study cases
- strategies for developing relationships between urban and rural territories

Urban nightlife recovery: An Analysis of the Effects of the COVID-19 Pandemic based on Mobile Phone Network Data.

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Alicante-G30-O3 Covid-19 and regional and urban resilience, 0-D04, September 1, 2023, 11:00 AM - 1:00 PM

With a wide variety of forms and intensity, nightlife plays an important role in cities, at many different levels. Nightlife supports a significant part of our social interactions, enhancing social wellbeing and community-building dynamics. Furthermore, nightlife is not only relevant for the social dimension of urban life, but also for the cultural and economic ones, with evening and night activities accounting for an important share of the leisure industry.

COVID-19 pandemic has affected all kinds of human activities, but the impact on nightlife has been particularly dramatic and expanded over time, given the difficulty of most nightlife spaces to adapt to the physical distancing and air quality measures implemented by most countries. Although this is a relevant topic, very few studies have analyzed the impact of the COVID-19 pandemic on nightlife, offering insights into the effect on specific sectors, or more general but limited explorations, usually based on interviews.

The objective of this study is to examine the post-pandemic recovery of nightlife in the cities whose urban nightlife was heavily impacted, with a comparison between countries and cultures. The analysis is conducted in the cities of Madrid (Spain) and Kyoto (Japan) using mobile network data. More specifically, the research conducts a detailed spatiotemporal analysis of the nightlife activity in both cities, considering three temporal scenarios: a pre-pandemic scenario, a scenario after the lockdown but affected by pandemic-related restrictions, and a post-pandemic or "new normal" scenario, with no restrictions. The study is based on the estimation of the hourly presence of people over the course of the day, with a particular focus on evening and night hours. Regarding the spatial dimension, the presence of people has been estimated according to similar grids in both cities, for an area defined with the same criteria.

Madrid and Kyoto are two large cities with cultural similarities e.g. renowned tourism, and differences e.g. different COVID-19 restrictions. The results unveil their diverse spatiotemporal patterns of nightlife recovery. The temporal analysis reveals the different levels of recovery in working days and weekends, as well as the shifts of the peak and valley hours. The spatial analysis shows the hot spot urban areas in terms of nightlife, and how these areas have evolved in the three different scenarios. Finally, the spatiotemporal analysis unveils the existence of spatial clusters with similar temporal profiles in terms of the presence of people, for the three different scenarios, in both cities.

Post-pandemic residential migrations: An analysis based on mobile phone data

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Alicante-G30-O3 Covid-19 and regional and urban resilience, 0-D04, September 1, 2023, 11:00 AM - 1:00 PM

The COVID-19 pandemic triggered remarkable residential migrations all around the globe, as a result of the new preferences of an important number of citizens who looked for a new place to settle down. The increasing desire for housing with more open space caused a migration flow from dense city centers to less dense sub-urban areas as well as to small towns, villages, and the countryside. This phenomenon is subject of enormous interest for urban planners and policy makers, who need to find answers to important questions: Who has migrated? When and for how long? What has been the evolution of this residential migration over time? Has it been consolidated three years after the pandemic given the new opportunities that teleworking offers to some citizen groups? Where have citizens migrated to? And from what particular urban areas?

In an attempt to answer some of these questions, this phenomenon has been recently studied from different perspectives. Most studies have offered a general picture of this new migration, valuable but with certain limitations, given that they were commonly based on census data, registered with a low spatiotemporal resolution, and more importantly, leaving aside migrants that may have not officially changed their residence, given the uncertain scenario they were facing.

The objective of this study is to conduct research on the residential migrations that have taken place with origin in Madrid metropolitan area since the COVID-19 pandemic, based on the analysis of mobile network data. The methodology followed allowed us to infer population residence from 2019 to 2022, and then estimate residential migrations between 2019-2020, 2020-2021 and 2021-2022. The study has been conducted with a high spatial resolution, making it possible to identify migrations from the different neighborhoods of the city to other neighborhoods, municipalities, neighboring provinces, or regions within Spain. The mobile network data also provided information about the sociodemographic profile of migrants, such as age, sex, or average income.

The results offer valuable insights into the dynamics of residential migration. Clear patterns have been identified based on the migrant's original residence, age, and income. The results also show how migration has evolved over time, providing some possible answers to relevant questions such as the impact of teleworking. The results are also compared to the migration figures of official census data, highlighting what we consider is an improvement in the measure of real residential migration.

Financial determinants of hotel bankruptcy in Greece.

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Online-G01-O1 Regional and Urban Development, August 28, 2023, 2:30 PM - 4:15 PM

The aim of the study is to identify the financial determinants of firm bankruptcy in the Greek hotel sector for the period of 2010-2020. Combining legal bankruptcy events and financial data from two credible databases, an imbalanced sample occurs with five and a half thousand hotels of which thirteen were declared bankrupt, belonging solely to the economic activity “hotels and similar accommodation” corresponding to NACE code 5510. The econometric method is a multi-period logistic regression with clustered robust standard errors, an approach widely used in finance, but with most applications examining aggregated rather than segregated sectors. With the assistance of a stepwise procedure for variable selection, the main results show that the likelihood of Greek hotel bankruptcy is an increasing function of leverage and size and a decreasing function of EBITDA to total liabilities. By extending the bankruptcy horizon by two years, leverage keeps its qualities, but statistical significance for liabilities coverage and size becomes intermittent. A comparison is done also with two related studies conducted in Greece but for earlier time periods, the one for the whole economy with the same methodology and the other for hotels with multiple discriminant analysis and the traditional set of Altman’s financial ratios. By loading the other studies’ variables into the multi-period logit, results differ in terms of relevance and statistical significance, as also the sign for size with the whole economy model, suggesting that updated industry-specific bankruptcy modeling is more appropriate. The implications of the study offer empirical early warning indicators of hotel default and can be informative for stakeholders involved in the sustainability of the sector.

Life cycle of tourism destinations and regional specialization as evolutionary processes: implications on spatial agglomeration and innovation policies

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Alicante-S12 Regional transitions: Adaptation and transformations in the tourism sector, 1-C14, August 30, 2023, 2:30 PM - 4:15 PM

Life cycle of tourism destinations and regional specialization as evolutionary processes: implications on spatial agglomeration and innovation policies

João Romão

The Tourism Area Life Cycle and the specialization processes within regional economic systems can both be perceived as evolutionary path-dependent processes. By discussing the interrelations between these two place-based mechanisms, the aim of this study is to provide a framework to analyse the integration of the tourism industry within smart specialization strategies considering the different characteristics of each stage of destination development. The concepts of relatedness, proximity and variety support this analysis of the role of tourism within processes of agglomeration based on the exploitation of different types of externalities, which may lead to innovative activities and new development paths.

The available resources constitute important sources of path dependence for regional specialization and diversification patterns, and also for tourism dynamics. They open opportunities for innovation and they can eventually be difficult to find in other places. Mobility of production factors is not free, due to the related transaction and transportation costs. On the other hand, technological and broader societal developments also influence patterns of consumption and production, along with the relevance of different types of externalities. The emergence of the digital and creative economies had deep implications on this and also on the type of spatial concentration of economic activities. The tourism industry is also changing, with a notorious development of urban tourism and a deep ongoing impact of digital technologies.

Describing economic specialization as a spatial and path dependent process is the starting point for this analysis. Next, tourism development is also presented as a spatial and path dependent process, leading to a systematization of the relations between the life cycle of destinations and the types of proximity and variety in which tourism can be involved. Finally, a connection between the life cycle of destinations and smart specialization strategies is established and synthesized.

This study concludes by discussing how the framework proposed can be applied to the empirical analysis of different cases where tourism assumes a relevant role within regional economic structures, implying that the sector has reached the stage of development (at least), justifying a central position within smart specialization strategies - with not only the related development opportunities but also the precautions regarding the high vulnerability of tourism to negative external shocks and the eventual negative impacts of the living conditions of local populations.

The dynamics of Europe's economic and demographic centres using a potential model

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Alicante-G34-O3 Transport and Accessibility, 0-E01, September 1, 2023, 11:00 AM - 1:00 PM

As any change to the boundaries of a study area must affect the location of its midpoint, so Brexit turned Gadheim, a small Bavarian village, into the new midpoint of the EU in 2020. The exact location of such a midpoint depends on a number of factors, including the research methodology, the weighting of the “masses” involved and the measure of distance decay adopted. The aim of this study is to present the theoretical background for the trajectory, or path, followed by the economic and demographic centres of Europe and of the EU, using different research methods, including various dimensions of the potential model (spatial extent, time or distance decay, travel duration and barriers or restrictions on borders), spanning the period from 1950 to 2020 for centres in Europe and, for the centre of the EU. Interestingly, the European geographic midpoint (Geographical Midpoint of Europe) is relatively distant from the European core (Blue Banana, Hot Banana, European Megalopolis, European Backbone or Liverpool-Milan axis), i.e. a densely populated, highly urbanised area known for its many decades of domination in terms of GDP per capita. The rapid economic growth observed in central-eastern Europe, combined with the economic stagnation of southern Europe after 2008 (Greece, Italy, Spain and Portugal) has resulted in an interesting potential trajectory of the economic centre of Europe towards the north-east.

The Hidden Costs of the Sharing Economy: Tax Dishonesty by Airbnb Hosts

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Alicante-S06 Exploring the Economic Impacts of Short-Term Rentals on Regions and Cities, 1-C12,

August 30, 2023, 11:00 AM - 1:00 PM

The rise of the sharing economy has enabled more efficient use of particular resources and the generation of additional income streams for individuals via collaborative peer-to-peer, platform-mediated transactions. In this paper, we study one of the potential dark sides of this phenomenon: the taxes evaded in those transactions. We integrate detailed data on Airbnb rental activities with individual-level administrative microdata to address two main questions: First, who participates in the sharing economy as a host on Airbnb? Second, how much taxes are potentially evaded on Airbnb transactions, and which hosts are more likely to under-report the income they earn on short-term rentals? We leverage the strict housing regulations in Denmark and detailed data on 27,734 listings and 22,834 unique hosts that were active in Copenhagen and surroundings in 2017-2018 to provide novel evidence on the different types of Airbnb hosts and uncover substantial levels of undeclared income earned on the platform. We find significant associations between individuals' socio-economic background and their participation on Airbnb as a host. Our analyses furthermore reveal non-negligible effects of these rental activities on undeclared income - back-of-the-envelope calculations suggest that nearly 420 million DKK in income may have been undeclared just in the Copenhagen area in those two years combined, but less conservative estimates point to under-reporting that may exceed 1 billion DKK. Finally, we identify individual characteristics that significantly predict income under-reporting in this context. Our findings can be informative for policymakers and motivate future research on the impact of platform regulation on individual behavior.

Worker Sorting, Industry Sorting, and Agglomeration Effects

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Alicante-G35-O2 Regional and Urban Labour Markets and Entrepreneurshi, 0-E02, September 1, 2023,

9:00 AM - 10:30 AM

Significant special wage disparities can be observed in virtually all countries with free market economies. In particular, larger cities offer higher wages compared to more rural areas. There are at least two major explanations for this observation: (1) people with characteristics that are related to higher wages prefer to live in larger cities and (2) the same worker becomes more productive if she or he is located in a larger rather than a smaller city. In this paper, we shed light on the relative importance of those explanations and demonstrate that, after controlling for worker and industry sorting, there is still a significant agglomeration effect that makes wages increase with the size of local industries. We find that 3.8 percent of the variation of individual wages in a full sample of all workers subject to social security in Germany for the years 2011-19 can be attributed to factors that are specific to industry/region-cells. Furthermore, the region/industry-specific wage component increases with the number of workers in this cell with an elasticity of 0.022, which provides evidence for the existence of agglomeration effects. We contribute to the literature on spatial wage disparities in at least three ways. First, we demonstrate how the wage decomposition by CRY can be adapted to measure the magnitude of Marshall-Arrow-Romer-type agglomeration effects. Second, we discuss the intermediate results of industry- and region-specific wage premia. Those premia reveal the various sources spatial wage disparities and are informative to (local) policymakers. Finally, we measure the relative magnitude of four different mechanisms that explain spatial wage disparities.

Remote working and coworking spaces rise in peripheral areas: the case of Lombardy region, Italy

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Online-G08 Cities, Regions and Digital Transformations, August 28, 2023, 2:30 PM - 4:15 PM

In the following months after the spread of the Covid-19 pandemic in 2020, we have witnessed to a rescheduling of working methods. Indeed, the need of maintaining “social distance” has decreased the commuting flows to many large cities and has increased the remote working arrangements. Remote workers, whose majority are knowledge workers, mainly worked at home or second home, generating in their municipalities a potential demand for third workplaces, such as coworking spaces. As many studies suggested, the home is often an unsuitable place to work, because it is too small, noisy, etc. Using TIM’s mobile phone data (TIM Big Data – Data Visual Insight) as a proxy for the mobility during the pandemic period (2020), the Participation, Labour and Unemployment Survey (PLUS, 2021), and Italiancoworking data (2021), the paper aims to analyze the Lombardy case study in Northern Italy, and in particular to investigate the rise of new coworking spaces, driven by the potential demand of remote workers. A focus is made on peripheral and rural municipalities (based on Inner Areas – SNAI classification): have these territories been able to attract remote workers through the creation of new coworking spaces? Indeed, some peripheral and rural areas have promoted policy measures aimed at attracting remote workers, contributing to the development of the local ecosystem.

Local Economy, Housign Prices and Neighborhood Change

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Online-YS01 Housing and Identity - EPAINOS, August 29, 2023, 2:30 PM - 4:15 PM

This paper investigates the impact of real estate prices on local economic activities within cities. It combines a novel geo-located dataset of retailers and services with information on the sale and rental prices and develops an empirical strategy based on IV panel techniques to address endogeneity concerns. The instrument adopted is unconventional, i.e the city heating district system. The results indicate that prices affect positively the variety of products and services offered in an area, and negatively the tradable and non-tradable sectors. However, price changes induced by demographic or gentrification patterns lead to a remarkable positive effect on all sectors and the variety supplied in an area. The findings highlight the role of neighborhood change in reshaping cities.

Limits and opportunities of periruban proximity tourism

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Online-S53 Proximity tourism and local development. Theoretical insights and case studies, August 29, 2023, 2:30 PM - 4:15 PM

After the Covid-19 pandemic, increased sensitivity to environmental, ethical, and health problems accelerated the rise of new tourism and tourist practices, distant from international mass tourism. In such a context, proximity tourism is gaining new attention among regional scientists, namely because of its impact on local communities and ecosystems and the local economic system. Intuitively, proximity tourism identifies a type of domestic tourism characterised by limited travel distance and congestion. For this reason, it is also often indicated as sustainable tourism. However, the definitions of proximity tourism are diverse, and a solid debate is still to come. For instance, some authors identify this type of tourism in short-range routes and a duration that goes from a single overnight to a weekend. Other authors, conversely, include in proximity tourism also daily visits of at least 4 hours characterised by innovation and low-impact means of transport. Likely, proximity tourism is poorly debated because of its limited (or underestimated) impact on the local economy compared to international tourism. Moreover, proximity tourists are far more challenging to detect than international ones, due to the often informal nature of close-to-home travels. At the same time, a debate is relevant, especially today, that international mass tourism showed its weaknesses.

How do regions adopt new technologies? AI adoption in the Netherlands

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Alicante-S60 Economic transformation and the geography of firms, human capital and growth, 1-D12,
September 1, 2023, 11:00 AM - 1:00 PM

This paper studies AI adoption in regional labour markets. We use the demand for AI-related skills in online job vacancies for the period 2010-2020 for the Netherlands as a measure of AI adoption in firms. We document a rapid increase of AI related vacancies in the past decade, especially in the professional and technical occupations and in urban areas. Moreover, we find spatial differences in AI adoption that can only be partly explained by sector structure and the effect of agglomeration economies. We hypothesize that firms are more prone to adopt AI if similar firms in same regions already use AI. This would indicate that local knowledge spillovers remain important in the regional adoption of new digital technologies and the subsequent automation process.

Urbanization and Slums: Evidence from Ecuador

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Alicante-G01-O6 Region Urban Development, 0-B02, September 1, 2023, 2:30 PM - 4:15 PM

Slums represent one of the challenges of urbanization in developing economies. This paper analyzes the relationship between slums, urban population, and city expansion in Ecuadorian cities between 1990 and 2010. In particular, we define a slum severity index based on a set of household characteristics such as housing material, basic services, and overcrowding rate and we focus on the growth of territorial extension of cities occurred between the 1990-2001-2010 censuses using historical maps to define the territorial extension of urban areas across periods. We use a two step-methodology to analyze this relationship and perform IV estimates to handle the endogeneity of the relationship. Our results point out that, while in general terms larger cities present a lower level of deprivation with respect to smaller cities, in newly created areas it happens the opposite, i.e. newly created areas present higher slum characteristics in larger cities. The analysis of the drivers suggests urban poverty as the main determinant behind the detected results, while both rural-urban migration and faster urban population growth seems to play a minor role.

Understanding multilevel trade-offs in the sustainable transition of metropolitan food systems

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Online-S71 Transition to climate neutrality and energy transition: regional development driver or challenge?, August 29, 2023, 2:30 PM - 4:15 PM

Problem statement: Metropolitan food systems are primarily responsible for pollution, resource depletion and biodiversity degradation. However, they are also an important source of income and employment. A sustainable transition of metropolitan food systems should contain their environmental impact while supporting income and employment. Due to the length and complexity of supply chains, any change in food consumption patterns within a metropolitan region can produce environmental and socioeconomic effects in other sectors, regions and countries. **Research question/aim:** This paper aims at providing a scientifically sound tool for better understanding complex food system dynamics and supporting policy making for transitioning towards more sustainable metropolitan food systems (MFS). **Theoretical approach:** The theoretical approach builds on three main pillars. 1. From global to local. Larger and higher-income urban centres contribute disproportionately to emissions and control activities that are crucial for reducing the food carbon footprint. Furthermore, they mobilise many citizens and resources. 2. From processes to actors. Both metropolitan governments and households can drive a change in food supply chains and production patterns in many regions. Their preferences and choices should be attributed a central role. 3. Direct and indirect effects. Any change in private consumption patterns and public procurement policies causes substitution effects between products of different types and origin. To evaluate the actual sustainability of these choices, the environmental and socioeconomic impact produced along these different supply chains must be considered.

Methodological approach: The methodological approach proposed is coherent with the three conceptual pillars above. First, the construction of a multiscale model to represent the interactions between a metropolitan region and the rest of the world. Second, the calibration and simulation of the model on world input-output tables and regional statistics to account for local preferences and their environmental and socioeconomic effects. Third, the simulation of alternative scenarios like a change in public procurement policies and a change in consumer preferences to investigate the existence of potential trade-offs between environmental and socioeconomic goals at the regional and global level.

Conclusions: The approach proposed identifies the existence of potential implicit trade-offs between local and global, environmental and socio-economic effects that occur along different food supply chains. These complex and multilevel trade-offs require the adoption of a systemic perspective and the use of modelling and simulation techniques which attribute a central role to demand and preferences.

Assessing the Effect of Environmental Feebate of Private Cars on Economic Welfare

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Alicante-S55 Climate economics, 1-C14, September 1, 2023, 2:30 PM - 4:15 PM

To encourage consumers to purchase low emission cars, countries implement environmental feebate programs. These schemes levy high purchase taxes on new cars with high emission levels, and rebate new cars with low emission levels. However, it is unclear whether these programs are effective in supporting environmental goals and in enhancing overall welfare. We investigate an environmental feebate scheme introduced in Israel in 2009. Whereas similar policy measures introduced in other countries at around the same time aimed at reducing only CO₂ emissions, the policy in Israel was more comprehensive in that it was the only feebate scheme in the world that included all 5 key car pollutants (CO₂, NO_X, THC, CO, and PM). We use data of all new cars marketed in Israel between 2007-2018 and employ a differentiated products modeling approach to assess the market under the feebate scheme. We then use simulations to generate market outcomes had the feebate scheme not taken place. Our findings indicate that, under the feebate scheme, retail prices were higher and fewer cars were sold, thereby generating lower (higher) consumer (manufacturer) surplus. Surprisingly, the feebate scheme has proven counterproductive to policymakers' intentions of decreasing emission, as emissions have increased. While the overall welfare effect of the policy was close to null, we show a positive association between the rebate size on a product and manufacturer markup. This finding suggests that manufacturers strategically took advantage of the environmental policy to increase their markups. We discuss the policy implications of these results.

Online pricing and market volatility in seven national markets: Evidence from a price comparison website

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Alicante-G10-O2 Technological Change and Diversification, 0-C03, August 31, 2023, 4:45 PM - 6:30 PM

In recent years, the use of price comparison websites has increased substantially. Cross-border retailing has also been increasing, at least until the advent of COVID-19. If markets become more integrated due to increased cross-border trade, and if increased use of price comparison websites increases the frequency of price changes and reduces retail margins, this could potentially make markets more susceptible to aggregate economic shocks (Gorodnichenko and Talavera, 2017; Cavallo, 2018).

Previous studies regarding the macroeconomic effects of increased use of online markets are mainly from the U.S. There are, however, several reasons why the situation in Europe could be different. One difference is that while U.S. states share a single language, there are 24 official languages spoken in the European Union, making cross-border trade more difficult. In addition, although the introduction of the EURO has reduced the number of currencies, several countries in the north of Europe have opted out of the EURO. Of the seven countries in our study (Denmark, Norway, New Zealand, Finland, France, Sweden, and Great Britain), only Finland and France have adopted the EURO. Another difference between the U.S. and Europe is in the propensity to migrate as a response to economic shocks, and although American state-to-state migration as a response to economic shocks is declining (Molloy et al., 2011; Beyer and Smets, 2015), migration is still more common between U.S. states than between European countries (Beyer and Smets, 2015).

All these differences could make the impact of increased market integration using online marketplaces and price comparison websites have a different impact on macroeconomic stability in Europe as compared to the U.S. As such, the goal of our research is to study pricing by retailers marketing their products through the price comparison website PriceSpy in seven different national markets, six of which are in Europe. We aim to answer the following questions; Firstly, what is the frequency of price changes for online retailers in the seven different markets, and is there a tendency toward an increase in the frequency of price changes during the period under study? Secondly, what is the within-country price dispersion for identical products in the seven markets, what is the between-country price dispersion, and how have this changed during the study period? Thirdly, what is the degree and timing of exchange rate pass-through in these seven markets, and how does it compare to previous findings from the U.S.?

Climate change and labour-saving technologies: the twin transition via patent texts

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Alicante-YS06 Sustainable Development, August 31, 2023, 11:00 AM - 1:00 PM

This paper provides a direct understanding of the twin transition from the innovative activity domain. It starts with a technological mapping of the technological innovations characterised by both climate change mitigation/adaptation (green) and labour-saving attributes. To accomplish the task, we draw on the universe of patent grants in the USPTO since 1976 to 2021 reporting the Y02-Y04S tagging scheme, defined by the USPTO as patents referring to green technologies. After such identification, by means of a textual-content algorithm, we identify those patents reporting an explicit labour-saving heuristic. We characterise their technological, sectoral and time evolution and their overall technological penetration. Finally, we explore their impact on employment share at state level in US, using SUSB data. In a nutshell, our findings challenge the common understanding of the “green transition” as only labour augmenting.

Determinants of the price of Airbnb accommodation through a Spatial Quantile Regression model. Madrid case.

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Online-G36-O1 Tourism and Overtourism Issues, August 28, 2023, 4:45 PM - 6:30 PM

-Airbnb has become one of the most popular tourist accommodation alternatives since 2008 due to its low “prices” and interactions with the local community, however, it has disrupted the rental accommodation market in several cities where it has been installed. Although pricing is a key dimension in the hosting industry, research focusing on determining the factors that influence platform hosting industry pricing is quite sparse. The objective of this study is to identify which factors influence the pricing of the Airbnb offer in the city of Madrid, since Airbnb prices are related to the increase in residential rental prices and the gentrification of the cities. This is how 20 factors (explanatory variables) are analyzed through 4 categories: property attributes (4 variables), host attributes (2 variables), trust (7) and location (7). In addition, two different periods are analyzed, 2019, the date prior to the COVID-19 pandemic period, and which was also the year with the highest growth in tourism worldwide. The second period, 2022, the year in which the predictions for the growth of tourist flows are once again optimistic after the mobility restrictions caused by COVID-19 have been overcome worldwide. The results show that the specific characteristics of the home, the qualities of the accommodation, the online reviews along with the professional status and good reputation of the hosts explain most of the prices on Airbnb, which may be related to changes in the residential and tourist rental market, and with urban gentrification in some of the neighborhoods of the city of Madrid.

The territorial dimension in the expansion of renewable energies in Spain: A Russian Doll model

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Online-G24 Energy and Ecological Transitions, August 28, 2023, 11:00 AM - 1:00 PM

Renewable energies have undergone a notable expansion thanks to technological progress which has allowed a significant reduction in both the cost of installation and the cost of generating electricity from these green energies. This expansion has been encouraged by the urgent need to replace fossil fuels to curb the problems caused by pollution and climate change, as well as to guarantee energy supply.

Even though there is now a broad consensus on the convenience of making this energy transition towards a decarbonised model, the expansion of green energies is encountering the rejection of some sectors of the local community in which renewable energy plants are installed, giving rise to what is known in academic literature as the NIMBY (not in my back yard) effect. This opposition has been increasing as renewable energy farms have proliferated as part of national policies that set ambitious targets for investment in clean energy sources. For example, the National Integrated Energy and Climate Plan (PNIEC) approved by the Spanish government for the period 2021-2030 sets the goal of reaching 74% of electricity generation from renewable sources by 2030.

Although these objectives are defined at state level, the different territorial administrations (Autonomous Communities and municipalities) play an important role in the implementation of the PNIEC. In Spain, the Autonomous Communities are responsible for authorising electricity installations that are in their territory and do not have effects outside it, a circumstance that generally affects renewable energy installations which, by their very nature, tend to have an intra-regional scope. For their part, municipalities, which have important urban and land-use planning powers, are also a key player in the expansion of renewable energies. In short, the development of green energies depends on the decisions taken at the different territorial levels of government; decisions which, in turn, are conditioned by the specific circumstances of each territory.

There is also a risk that this variety of actors involved, and the confluence of different interests (environmental, economic, social, and political) could lead to a disorderly expansion of investment in renewables.

This paper aims to analyse the determinants of the expansion of renewable energies in Spain, considering the dual municipal and regional dimension. The combination of these two territorial spheres will provide a more accurate picture of the drivers and barriers to investment in clean energy sources.

To this end, a multilevel model is estimated using information from different statistical sources.

Can residents shape climate policy for their cities? Case study of citizens' panels held in Polish cities

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Alicante-G21-O2 Climate Adaptive and Resilient Regions and Cities, 0-D02, September 1, 2023, 11:00 AM - 1:00 PM

More and more often, the leading topic of public debate is no longer economic growth, but the health of residents, better quality of the urban environment and adaptation to climate change. The carbon footprint and, more broadly, the ecological footprint of cities, both Polish and European, continues to grow and is much higher than the capacity of the urban environment and their resilience to increasing pressures (https://www.c40.org/why_cities). A key challenge for urban communities in the 21st century is to reduce CO2 emissions, a greenhouse gas (Levy, 2010), causing far-reaching global consequences of climate change, which are, however, felt the most locally (effects of heat waves, torrential rains, smog). As a result, cities and their inhabitants are becoming important actors in building climate neutrality at the local scale. In addition, the importance of the responsibility of all users of the environment for its quality and for ensuring the conditions for a "good life" and treating the city as a common good is increasing (Ostrom 1990; Jacobs 2014).

Among the principles of urban development policy, the role of 'the dissemination of public participation, understood as the participation of city and functional area residents in defining and solving local problems and making key decisions' is highlighted (New Leipzig Charter, 2019; Landry 2013). A relatively new tool for the democratisation of urban policy is citizens' panels, where residents work out a common position on issues relevant to themselves in a deliberative process. The citizens' panel allows for an individualised approach and enables the development and testing of flexible and innovative tools, solutions or alternative legislation in a real urban context.

In Poland, more and more cities are organising citizens' climate panels. The main aim of the presentation will therefore be to review the practices of Polish cities and to identify the recommendations developed in the context of climate policy making. The example of Łódź, a post-industrial city, organising a citizens' panel (November 2022-May 2023) to answer the question "How to reduce harmful greenhouse gas emissions in Łódź by 55% by 2030?" will be presented in particular depth.

Geographic immobility across three generations

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Alicante-G28-O2 Segregation, Social and Spatial Inequalities, 0-D03, September 1, 2023, 9:00 AM -

10:30 AM

This paper adds to a growing field of research that brings older-generation family members into the study of individual mobility behaviour within countries. Research concerning internal migration increasingly acknowledge the role of family members also outside the household as important factors in mobility and immobility decisions. Our analysis is carried out from the perspective of immobility, thereby answering recent calls among geographers and migration scholars to acknowledge immobility and staying not merely as the absence of mobility, but as meaningful processes in their own right. Our overarching research question is whether there is an intergenerational transmission of immobility. Is the geographic immobility of parents and grandparents reflected in the immobility of individuals? Focus is given to differences by ethno-linguistic affiliation and regional characteristics, such as different levels of urbanity, the ethno-linguistic population composition, and geographical scale. Finland offers a highly useful case due to its official recognition of two official languages, and thereby two main ethno-linguistic groups, characterized by historically different mobility patterns and geographical concentrations. We use register data of the entire Finnish full population, meaning all individuals who ever had lived in Finland some time in the period 1970-2020. For all individuals, these administrative records include information on ethno-linguistic affiliation, measured through each person's unique mother tongue. Although in practice many individuals are bilingual, only one mother tongue can be officially registered. Shifts are rare, and we have coded individuals as Swedish speakers if they have ever been registered as such. Additionally, all registered individuals have information on municipality and region of residence at birth, and links to the parents if they were alive at the end of 1970. Data are provided by Statistics Finland. We find that local ancestral ties are related to sedentary behaviour. The grandparental generation is especially related to Swedish speakers' immobility, and having ties from two generations back is even more strongly associated with immobility. Intergenerational ties are especially related to immobility in regions characterized by urbanization. The results reflect the history of immobility accumulated across generations. Being historically more immobile, it is natural that Swedish speakers also show higher shares of local ancestry. Older generations function as important geographical attractors, as they provide an important social support network, especially in periods of family formation and change. Even older generations than those studied here are probably part of the mechanisms behind our results.

Impact of Income Diversification on Labor and Land productivity for rice farmers in central and Isarn region of Thailand

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Online-G05 Economic development in rural places, August 28, 2023, 2:30 PM - 4:15 PM

Income diversification is one of the risk management tools farmers apply in order to cope with different risks they can come across to during the production process. This tool allows rural households to answer their basic needs within an unstable economic situation or even to generate extra income for further investment in the future. However, there are some fears that diversifying income would be at the expense of farm productivity since labor is reallocated from farm to off-farm sources. In this paper, we have analyzed the impact of income diversification on the farm labor and land productivity in central and northeastern region of Thailand using cross sectional data based on interviews with 684 farmers. On average, Thai farmers have low-medium diversification index with at least two income sources and 31% as the share of their off-farm income. These measures have different trends with respect to income distribution. Even though farm income remained the main source of income for all farmers, remittances constituted the main source of off-farm income among all households. As the household's total income increases, income from own businesses increased simultaneously. Results show that while the labor productivity was significantly affected by the three measures of diversification (NIS, OFS and HDI), land productivity, on the other hand, was only affected negatively by the OFS. The HDI, OFS, age, household size, having livestock and subscribing to the village fund had a negative impact on the household's labor productivity. However, the NIS, hired labor input, cost of machinery, secondary education, age squared, belonging to the large rice field group and being in central region affected the labor productivity positively. On the other hand, the OFS and the cost of cultivation squared had a significant negative effect on the land productivity, but the cost of cultivation, male farmers, large rice group and central region had a positive effect on the yield. We conclude that having off-farm income does indeed reduce farm productivity in rural central and isarn regions of Thailand. Some new measures to reach a compromise between diversification and productivity are yet to be investigated.

Foreign Direct Investment and Quality Upgrading Spillovers in Indonesia

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Alicante-G15-O3 Trade and Global Value Chains, 0-D01, September 1, 2023, 9:00 AM - 10:30 AM

This study examines whether and to what extent inward foreign direct investment (FDI) contributes to quality upgrading of local firms in developing countries. Product quality is key for firms' export performance. Furthermore, recent studies stress that non-exporting firms are also considerably involved in global competition through production networks. For example, multinational enterprises (MNEs) attracted to developing countries source their inputs from local firms that can meet strict requirements on product quality. Therefore, upgrading product quality is a concern not only for exporting but also for non-exporting firms.

Many studies have identified the spillover impact from MNEs on productivity, wages, or employment of local firms. In contrast, only a few have examined their impact on product quality. Furthermore, the focus of those studies is limited to exporting firms. Hence, it remains an empirical issue whether quality upgrading spillovers from MNEs benefit the majority of local firms not engaging in exporting activities. If the enhanced opportunities to transact with MNEs increase the incentives of local intermediate suppliers to upgrade the quality of their products and if they can learn MNEs' advanced technology and business practices for that purpose, attracting inward FDI contributes to the host economy by strengthening the competitiveness of both local exporters and intermediate suppliers.

To identify quality upgrading spillovers, we employ the Indonesian manufacturing census. Indonesia constitutes an important part of the international production networks and thus, quality upgrading matters for local intermediate suppliers. Furthermore, the firm-product level data allow us to classify goods between exported and non-exported ones and between intermediate and consumption ones. Using the unit price and quantity shipped of individual products, we first estimate the quality of each product in a theory-consistent manner. Then, we relate product quality estimates to variables that measure the intensity of MNE activity within a region.

Our results are summarized as follows. While previous studies confirm the quality upgrading spillovers on exporting firms from inward FDI into upstream industries, we find that inward FDI into downstream industries is key for product quality improvement. Regardless of their export status, any local firms producing intermediate products can benefit from MNEs located in the same region. These findings suggest that quality upgrading spillovers should be effective in enhancing the competitiveness of local firms, particularly of those involved in global competition.

Estimate of the Coefficients of Water Environmental Emissions for Model Simulation of the Environment Policy Evaluation in Finland

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Online-G42 Human environmental interactions, August 28, 2023, 4:45 PM - 6:30 PM

The objective of this study is to estimate the emission coefficients of water pollutants from point and non-point sources. The emission coefficients are needed for simulation and model analysis of water environment policy evaluation in Finland. Point sources refer to sources of water pollutant emissions from socio-economic activities, while non-point sources refer to sources of water pollutant emissions from land use. First, we attempt to quantify the relationship between socio-economic activities and water pollutant emissions in Finland. Socio-economic activities refer to production of several industrial sectors and household consumption, which discharge water pollutants. Finland, the target area of this study, has a land area of about 338,000 km², more than 70% of which is covered by forests and semi-natural areas. Nearly 90% of the land, including wetlands and water bodies, is in natural environments. Emissions of water pollutants from land use, including these natural environments, are also estimated. Helsinki, the capital and largest city, is located in the southernmost part of the country, facing the Gulf of Finland, and has a population of 665,058 (2023). The economic activities of these cities result in the discharge of some water pollutants, including total nitrogen and total phosphorus. In addition, parts of Finland face the Baltic Sea, and water pollutants generated by land area activities flow into the sea through rivers. The Baltic Sea and other surrounding sea areas in Finland are still evaluated as eutrophic sea areas. In order to improve the water quality of Finland's inland waters and surrounding sea areas, it is necessary to clarify the structure of water pollutant emission from point sources and non-point sources, and to evaluate water environment policies through model simulation analysis using emission coefficients.

A new classification and methodology for monitoring the smart specialization strategy

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Online-G16 Smart Specialization, August 28, 2023, 4:45 PM - 6:30 PM

The Smart Specialization Strategy (S3) is above all a policy direction that emphasizes the role of research and innovation as a driving factor for development and territorial competitiveness. In emphasizing the role of innovation, S3 has also introduced an additional novelty: strengthening the link between research and innovation.

The aim of this work is to build a classification of enterprises that represents all the dimensions of smart specialization, such as innovation, r&d, human capital, business relations, environmental sustainability, ability to drive the development of the territory.

The work begins with a conceptualization work, which analyzes the main lines of the S3 and tries to define a general theoretical model, preserving the multidimensional approach that combines the fundamental dimensions, in order to identify potential S3 enterprises in the territories. Five S3 dimensions have been identified: innovative capacity, r&d, human capital, driving ability to drive the development of the territory, level of economic performance (e.g. added value).

After defining the latent dimensions and sub-dimensions of the S3, the variables that measure the S3 dimensions were researched. The elementary indicators were detected in the 2019 business census of the Italian national statistician institute, with a specific S3 section of the survey questionnaire.

After selecting the elementary indicators, various aggregation methodologies were tested for the construction of a synthetic index of potential S3 companies. The most convincing methods turned out to be the Wroclaw taxonomic method and the Mazziotta–Pareto index (MPI) for summarizing a set of individual indicators that are assumed to be not fully substitutable.

The construction process of the synthetic indices (Oecd 2008) was followed: definition of the theoretical framework, selection and normalization of the elementary indicators, aggregation in a synthetic index on potential companies S3. The S3 summary index is then constructed by selecting enterprises with values above the median for each of the five S3 dimensions: each dimension consists of an index with a score ranging from 90 to 130.

The classification defined and described in this work makes it possible to evaluate the areas of specialization chosen by each Italian region and to indicate on which dimension an area is stronger or weaker, in order to give indications on investments and intervention priorities.

Adaptation of glacier tourism to climate change: a regional economic perspective.

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Online-S12 Regional transitions: Adaptation and transformations in the tourism sector, August 29, 2023, 11:00 AM - 1:00 PM

Mountain territories, and especially upper valleys have been the subject of different economic dynamics since more than two centuries, leading some remote territories to become international resorts or tourist spots. Glaciers are a particularly good example of this evolution: from a mostly negative perception by inhabitants before the XVIIIe century, they became highly attractive places with tourism development. However, current climate change, resulting in a drastic shrinkage of glaciers around the world could transform the value of glaciers. In this context, it seems important to understand how environmental changes can and could transform some tourist territories by influencing their resource. Drawing on a relational and territorial approach of the resource, the aim of this conference paper is to present the processes leading to the construction of glaciers as cultural and economic resources, and how those processes are nowadays put to question and reoriented by the consequences of climate change.

Regional innovation policy between related and unrelated diversification: One size does not fit all

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Online-G16 Smart Specialization, August 28, 2023, 4:45 PM - 6:30 PM

We contribute to the literature on the role of regional policy in accompanying and fostering industrial, technological and sectorial transformation. We use econometrics and general equilibrium modelling to assess the rationale for related diversification and understand the relevance of different region-specific interventions. Our results suggest that all regions can benefit from diversification achieved by introducing new technologies closely related to their existing ones. However, this related diversification has a greater potential for more peripheral and less developed regions, rather than for the more developed regions that should rather pursue more path-breaking ways to innovate. This offers interesting implications for policy interventions such as Smart Specialization in the European Union, calling for a differentiated approach depending on the technological space of the various regions. This evidence also highlights interesting consequences of related diversification on convergence and regional cohesion.

Kaldor–Verdoorn’s Law: Do Institutions Matter? Evidence from Italian Provinces

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Online-G07 Regional Competitiveness, Innovation and Productivity, August 28, 2023, 2:30 PM - 4:15

PM

Kaldor-Verdoorn’s law, as is well known, predicts that demand growth has a positive effect on productivity growth. A rich literature studies the effects of institutions on economic performance and productivity dynamics, while the literature on the interaction between institutional variables, on the one hand, and the effect of demand on productivity, on the other, is scarce. To date, no such studies are available with regard to Italy. Starting from the consideration that such a country is characterized by strong differentials in growth, productivity and institutional settings between the Centre-North and the South, in this paper we study the effect of institutional variables, in particular the so-called IQI index, on the functioning of Kaldor-Verdoorn’s law in Italy. To do this, we make use of panel SVAR models applied to NUTS-3 Italian data provided by ISTAT and the IQI dataset (developed by Nifo & Vecchione) for the period 2004-2019. Although findings validate Kaldor-Verdoorn’s law, the quality of institutions does not influence productivity, neither in the northern nor in the southern provinces. This implies that, at least from the point of view of the functioning of Kaldor-Verdoorn’s law, preferential investments in the most productive areas of the country are not justified.

From regional agglomeration to innovation. Unraveling the pathway

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Alicante-S02 Wine tourism, heritage and sustainability: Three drivers of territorial development in wine regions, 1-B03, September 1, 2023, 9:00 AM - 10:30 AM

Winemaking is an ancestral activity characterized by its strong roots in the culture, heritage, and people of the producing regions. In addition to providing important health benefits, it is a product that is widely accepted by society. However, the socioeconomic context is evolving at a rapid pace, and new requirements and needs are forcing companies to innovate in order to remain competitive in the markets, especially in terms of sustainability. The main aim of this paper is to analyze the main drivers of green innovation. Particularly, is assessed the influence of green transformational leadership on green innovation, as well as the mediating effect of green motivation and green creativity in this relationship. For this purpose, were analyzed 196 Spanish companies in the wine industry. To perform the data analysis, the variance-based structural equation modeling technique PLS-SEM was used. The results show a positive and significant relationship between green transformational leadership and green innovation of wine companies. Furthermore, green motivation and green creativity exert a mediating effect in this relationship. It is concluded that wine company managers must drive the environmental motivation and creativity skills of employees by creating an atmosphere conducive to the development of environmentally favorable innovations.

Human capital needs in smart destinations

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Online-S59-O2 Tourism sustainability as a source of job creation and wealth, August 29, 2023, 11:00 AM - 1:00 PM

During the last decade, the Academia and tourism stakeholders' interest in Smart Destinations has sharply risen. The concept emerged as an evolution of Smart Cities but presents several particularities given the specific characteristics of the tourism activity. One of them refers to the knowledge and skills that human resources in hospitality and tourism may need to work in Smart Destinations. In other words, individuals willing to work in the industry may need a certain set of skills and knowledge different from the ones required in traditional tourism destinations. Currently, most of the research discusses the need for data analytics and ICT profiles in job positions in the back and front offices, in addition to language knowledge and soft skills. Besides, entrepreneurship appears to be also determinant in contributing to the development of Smart Destinations as it may add flexibility and novel ideas to them. However, the first step to getting the desired human resources is to provide specialised and up-to-date education and training, which may allow current and future hospitality workers to increase their human capital and, consequently, the productivity of the tourism industry in the given Smart Destination. Nevertheless, rethinking the mentioned skills and knowledge requires identifying where they are lacking, which turns highly challenging because of the difficulties in measuring skills and educational mismatches. In fact, Smart Destinations may need adaptative workers with problem-solving capacity and ease with learning new technologies instead of focusing on education levels or certain fixed skills.

Sustainable tourism employment in rural areas

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Online-S59-O1 Tourism sustainability as a source of job creation and wealth, August 28, 2023, 11:00 AM - 1:00 PM

The tourism industry is widely known as positive for creating employment, especially for people with difficulties accessing the labour market. In this sense, it is also commonly proposed as a solution to rural areas' survival as an economic lifesaver for them. However, not all individuals are suitable for being good tourism employees as they may not match the required knowledge and skills. Thus, the mismatch between the available human resources and the actual needs may turn into low-quality services or into importing human capital from outside a particularly rural area, which are undesired effects of tourism in a region. Besides, these territories also suffer from an aged population, most of which are men, which may prevent businesses from hiring skilled workers. This issue may be the prelude to unsustainable tourism employment and consequently to postponing the extinction of these rural villages. In this context, this work discusses the methodologies devoted to understanding the actual labour force in rural areas and how they match the industry's needs. In addition, the problems that arise from the extant outdated databases and the lack of capacity to update them, together with funding limitations are identified and discussed. All in all, some guidelines for future research are presented.

Exploring telework options and changes in place of residence in the region of Madrid during the pandemic

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Alicante-G01-O6 Region Urban Development, 0-B02, September 1, 2023, 2:30 PM - 4:15 PM

Exploring telework options and changes in place of residence in the region of Madrid during the pandemic. Recent studies have confirmed that the pandemic caused significant changes in internal migration patterns around large urban areas in different geographic contexts. In the case of Madrid, an increase in the negative net balance of the central city has been documented, with a decrease in arrivals from other urban areas of the country and an increase in emigration flows to the suburbs and especially to rural areas (thus reinforcing counter-urbanization trends). As in other large urban areas, the temporal condition of these alterations is being discussed. In this context, this research aims to contribute in two directions. First, it studies the changes of residence in the Madrid region during the pandemic and its permanence, with special attention to the migration patterns from/to the central city of Madrid. Second, the role of distance to the core city of Madrid and the population density of the destinations is explored, also incorporating the propensity to telework as an explanatory factor. The study is based on the analysis of changes in place of residence between 2019 and 2021, collected by the Residential Variation Statistics compiled by the National Statistics Institute (INE). Additional information from Madrid city council has been also examined. This information is used to calculate out-migration, in-migration and net-migration rates. On the other hand, information on workers' affiliation statistics collected from the Social Security is used to estimate the population's propensity to telework.

Diversification strategies towards the production of essential COVID-19 products in the Spanish regions.

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Alicante-G10-O2 Technological Change and Diversification, 0-C03, August 31, 2023, 4:45 PM - 6:30 PM

The severe shortfall of various essential products to fight coronavirus (i.e. face-masks, medical equipment and supplies, hydrogel solutions), especially in countries heavily dependent on external markets for some of these product like Spain, could courage firms to adopt diversification strategies towards the fabrication of essential COVID-19 products. The government response, which included the subsidizing of the production and changes in the certification procedures affecting health products, facilitated the process. The objective of this research is to contribute to the understanding of the role of technological relatedness between activities in the diversification strategies of Spanish firms. We modeled the employment transitions in a sample of more than one million workers in order to estimate the skill-relatedness between Spanish industries. We used the information of the Continuous Sample of Working Histories compiled by the Spanish Social Security office. This is a set of anonymous microdata obtained from a random non-stratified sample. The data of the 'industrial space' resulting from this analysis is used to measure the influence of relatedness in the manufacturing of the different essential COVID-19 products groups. The different criteria and procedures applied to estimate the skill-relatedness ratios, as well as the robustness issues and preliminary results at regional level are discussed.

The sustainability of Cultural Heritage. Economic growth within the framework of the Sustainable Development Goals of the 2030 Agenda.

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Online-S59-O2 Tourism sustainability as a source of job creation and wealth, August 29, 2023, 11:00 AM - 1:00 PM

In light of the world situation experienced with the COVID-19 pandemic, the production crises of 2021 and 2022, and the imminent economic crisis that looms over international relations, the need to reformulate the existing relationship between the Cultural Heritage, as the basis of the main international motivation of tourist movements, and the economic impacts that it generates in the regions, in addition to the legal, social and artistic issues that it suggests.

The traditional ways of seeing Cultural Heritage have become obsolete to respond to the new reality of today's societies. The central objective of this course is focused on providing a general framework on the subject of cultural heritage, economics, legal science, urban architecture, artistic restoration, etc. in a transversal way, exposing, in this way, the challenges presented by the public management of Cultural Heritage in the 21st century and in view of the Sustainable Development objectives of the 2030 Agenda.

The management of Cultural Heritage has as its starting point the legal protection and conservation of certain objects especially appreciated, produced by human activity in a more or less distant past, which have lasted until the present, that is, what has come to call the "Inherited Resources of the Past" (Dwyer and King, 2007). Advanced societies do not cease in the continuous generation of new patrimonies administratively protected under a modern legal system, developed during the last two centuries, and in which Spain and Mexico are in the international vanguard. The sustainable management of Cultural Heritage requires reconciling conservation with the new economic and social perspectives, simultaneously opening the object of study and development to new perspectives on the matter, in which tourism is key.

The course is divided into two days, where eight individual dissertations are presented in which the topics discussed above are addressed transversally, in addition to detailed case studies in Spain and Mexico. In the same way, as theoretical-methodological reflections on the subject, two dialogue tables are proposed in which the participating experts will give their vision of the situation of Cultural Heritage in view of the objectives of the 2030 Agenda and its resilience process in the face of the challenges of a very unstable economic future on the 2023-2025 horizon.

The sustainable consumption of energy in the lodging industry in Seville.

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Online-S59-O1 Tourism sustainability as a source of job creation and wealth, August 28, 2023, 11:00

AM - 1:00 PM

In recent decades, the Tourism Sector has become one of the main economic branches in job creation (334 million jobs) and added value (10.4% of GDP) in world terms until 2019 (WTTC , 2020). In this sense, there are studies that seem to link the economic growth of tourism with an increase in global CO₂ emissions, such as the 2007 report carried out jointly by UNEP and the UNWTO (2007), which showed that tourism is responsible of around 5% of global CO₂ emissions, where the accommodation subsector accounts for 20% of tourism emissions. Also Scott et al. (2010) evaluated the contribution of tourism to climate change, and found that the sector contributed between 5.2-12.5% in 2005, in all the emissions produced. The World Tourism Organization and International Transport Forum (2019) predicted that by 2030, CO₂ emissions from tourism will increase by 25%, mainly due to the high energy intensity of its activity (Sun et al., 2019). Similarly, it should be noted that since the beginning of 2021 and up to the present, the cost of energy use, associated with the use of fossil or non-renewable resources, has experienced unprecedented global growth in more than 40 years, accentuating the situation in Spain, where renewable energy creation systems still do not reach 40% of total production (Ministry of Energy, 2022), assuming a clear influence on the cost structure of the tourist offer. Seville (Spain) registered 3.12 million tourists in 2019, being one of the main tourist destinations in Spain (Centro de Gestión de Datos de Turismo de Sevilla, INE, 2020), so in this process of recovering the figures of pre-pandemic growth, it may be interesting to assess how the accommodation subsector in Seville and the metropolitan area is prepared to assume the commitment of the 2015 Paris summit to reduce CO₂ emissions. In this sense, this work raises the objectives of visualizing the state in which the physical capital structures associated with the hotel accommodation facilities of the city and metropolitan area of Seville are located as a tourist destination, organizing it around the facilities that use systems of self-generation of energy, systems that reduce energy consumption or those that have a traditional energy consumption, preparing a diagnosis that allows gathering the motivation of the property owners to place themselves in one of the options proposed.

Struggle on real/digital streets in Mexico City. Analysis of violent speech against bicycle mobility on Twitter

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Alicante-G34-O1 Transport and Accessibility, 0-D02, August 30, 2023, 4:45 PM - 6:30 PM

Sustainable mobility is a global strategy in cities. One way to achieve this target is to incentive mobility by bicycle. In Mexico City cycling infrastructure has increased in the last 4 years and this provoke the rise of mobility by cycling. However, the streets in Mexico City are public contested spaces. Every day it can be found violent accidents against cyclists provoked by car owners. Simultaneously, this violence in public urban spaces can be found in digital spaces like Twitter. For example, threats or violent speech against cyclists or cycling activists. In this sense, the main target of this paper is to analyse the violent speech about bike infrastructure and activists in the digital sphere and its reflection in the real realm and the struggle for public space in both dimensions. The work makes use of data science. Firstly, it is harvested tweets with mentions of cycling activists or infrastructure. Secondly, pre-process text mining is carried out. Finally, it is implemented machine learning algorithms in order to identify the violent and hate speech on tweets. The main results of the study point out two directions of reflection. Firstly, there is a spectrum of violence on cycling on Twitter. In other words, it found different and continuous levels of violence, which can be from range and sarcasm to physical and fatal threats. The second stream of results is directed to the spatial pattern of this digital violence in the city. The results of this work could be used by stakeholders in sustainable mobility and diary violence against it. At the theoretical level, this paper fills the gap in the digital dimension of mobility-contested spaces.

Intraurban Geography of Education Levels of Knowledge Intensive Services (KIS) in Mexico City Metropolitan Area

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Alicante-G09-O1 Innovation and Regional Development, 0-D03, August 30, 2023, 11:00 AM - 1:00 PM

The primacy of the service sector in the global economy has modified innovation processes in functional and spatial ways. KIS are keystones in the innovation process due to their high-level employment qualification. Although the KIS location patterns have been widely studied in Latin American cities on inter and intra-urban scales, previous works have only focused on the location of establishments or total employment, and few of these have studied the level of qualification of the employment.

The main objective of this article is to analyze the intra-urban distribution of employment by level of education in KIS in the Mexico City Metropolitan Area (MCMA). Methodologically, KIS are classified by 'intensity' and 'type' of knowledge in their activities: analytic, synthetic, and symbolic. Employment qualification is obtained from the microdata, which provides the education level of the employed in a categorical way: basic, middle, and high education. To identify the formation of high-qualified employment clusters, the Location Quotient (LQ) and a Spatial Autocorrelation Index are implemented.

The results reinforce that KIS are based on highly qualified people compared to the total economy. Although there are differences between KIS types. The symbolic, analytical, and synthetic KIS report 30.5%, 70.6% and 75.5% of their employees are highly educated, respectively. These percentages contrast with metropolitan high-educated employment (16.6%). Spatially, the results suggest the formation of clusters of qualified employment in KIS with geographical links to industrial zones, medical research centers, and universities, configuring a polycentric spatial pattern. These results contribute to reflecting on the role of KIS in the development of knowledge-intensive cities and the existence of a spatial mismatch between the location of KIS establishments and the location of highly educated employment.

Scaping from the middle-income trap: An historical perspective over the European regions

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Alicante-S42 The long run sources of regional disparities in Europe, 1-E11, August 30, 2023, 2:30 PM - 4:15 PM

In this paper we adopt a long run perspective to analyze the economic growth of the European regions. We want to observe the impact of agglomeration (population density), jointly with other characteristics associated to modern economic growth (industry share, coal abundance, specialization...), and the importance of spatial dependence in determining GDP per capita growth in the different phases of European growth since 1900 to 2015. Our purpose is to identify potential differences across time and to uncover those forces present in the regions that have persistently placed the top positions in Europe in terms of GDP per levels. We want to answer the question of why some regions rich regions shrink while other persist at the forefront and to explore are the deeper forces of their survival. For that purpose we use the Roses and Wolf's (2021) datatabase for 173 European regions at Nuts-2 level.

What drives registration of electric vehicles at the household level in Sweden - from early adopters to early majority, 2016–2020?

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Alicante-G34-O1 Transport and Accessibility, 0-D02, August 30, 2023, 4:45 PM - 6:30 PM

In recent years, sales of rechargeable passenger cars have increased rapidly in large parts of the world. However, we know little about the distribution of electric car (EV and PHEV) ownership among different household groups. In this study we use detailed Swedish socio-economic data at the household level (4,9 million households) and their new registrations of privately owned vehicles (128 000 in total, of which 25 000 were EV and PHEV in 2020) into the Swedish Vehicle Registry, to examine who were the early adopters in 2016, and how the market has developed into the early majority in 2020. The study also includes controls for different ways of having access to a car, i.e., owning, having a company car, or leasing.

Several logit regression models are estimated to find important explanatory factors and changes over time. Findings in previous studies, dominated by stated preference studies, are partly confirmed. We show that individuals who live in houses, have more than one car in the household, and who are both highly educated and have an income above average, would be more likely to purchase an electric vehicle. By controlling for regional variations, i.e., groups of municipalities based on size and location, and urban density we find support for a higher probability to acquire an EV in larger urban areas, but at the same time a lower probability among households located in urban centers of the municipalities.

Sweden is currently far ahead in EV sales compared to most other countries. This makes Sweden a suitable case to increase the understanding of how EV ownership spreads through different socioeconomic household groups. The results will, therefore, be useful to understand how EV ownership might spread throughout other parts of the world.

Microeconomic impact of European regional innovation policies in the period 2007-2020 in Andalusia: evidence through business innovation indicators

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Online-G09-O1 Innovation and Regional Development, August 28, 2023, 2:30 PM - 4:15 PM

We carried out an assessment of the impact of European regional innovation policies on the main indicators of business innovation in Andalusia. As a Convergence Objective Autonomous Community of the European Union, Andalusia benefited from a significant volume of resources between the 2007-2013 and 2014-2020 programming periods. The proposed analysis seeks to identify the impact of participation in this programme on the basis of the main microeconomic indicators available (projects, funds received, evolution of spending on research and development, innovation, patents, collaboration networks, turnover, etc.). This impact is broken down taking into account the sector, size of companies, location, etc. The results show an uneven impact depending on business characteristics and highlight the existence of a significant leakage of resources to other territories. These results will also allow recommendations to be made for the future implementation of research, development and innovation policies.

Analysis of the impact of the Technology Fund and the Smart Growth Programme on the innovation indicators of Andalusian companies

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Online-G09-O2 Innovation and Regional Development, August 28, 2023, 4:45 PM - 6:30 PM

As a Convergence Objective Autonomous Community of the European Union, Andalusia was a beneficiary of the significant volume of European resources for regional innovation mobilized by the 2007-2013 Technology Fund and the 2014-2020 Smart Growth programme. For this reason, we evaluate the impact of these technology policies in Andalusia through the main business innovation indicators, differentiating companies' size, participation in innovation and rol. The proposed analysis (through the study of projects, funds received, etc.) seeks to identify the impact of participation in this programme for Andalusian companies according to their characteristics based on the impact on the main business innovation indicators available (investment and expenditure on research and development). This impact is uneven depending on the characteristics of the companies.

Digital Divides in Wales: examining differences in access to remote learning before and during Covid-19 pandemic

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Alicante-G08-O2 Cities, Regions and Digital Transformations, 0-C01, August 31, 2023, 4:45 PM - 6:30 PM

The Covid-19 pandemic has brought the issue of digital divides to the forefront, particularly in the context of remote learning. In Wales, the remote learning platform – Hwb, has been an important resource for facilitating online learning during the Covid-19 pandemic. However, disparities in access have created spatial and social inequalities, with pupils from disadvantaged backgrounds facing barriers to remote learning. This research employs statistical analysis of Hwb learning platform access data to identify the socio-economic and geographic factors that contribute to these inequalities before and during the Covid-19 pandemic. The findings reveal inequalities in remote learning access, with pupils from disadvantaged backgrounds facing the most challenges. By highlighting the spatial and social inequalities that exist in access to remote learning (Hwb learning platform), this research aims to promote awareness of these issues and allow for more targeted policies to address them.

Urban morphology dynamics of post-socialist cities from Central and Eastern Europe

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Alicante-G01-O7 Region Urban Development, 0-C01, August 30, 2023, 11:00 AM - 1:00 PM

The study of post-socialist cities in Central and Eastern Europe (CEE) has mainly focused on their political and socioeconomic dimensions, with less emphasis put on their spatial identity. To address this gap, this study uses GIS and statistical analysis to examine the morphological and functional characteristics of 93 cities across 11 CEE countries. By constructing multiple profiles through radial analysis, the study presents data on the percentage of new built-up areas in Functional Urban Areas between 1990 and 2018, the percentage of total built-up area in 2018, and the spatial clustering of land-use types using Location Quotients. The findings show that post-socialist cities in Central and Eastern Europe have experienced significant urban expansion, with distinct residential and industrial/commercial specializations, as well as the growth of brownfields. The research aims to offer a more nuanced understanding of the spatial identity of post-socialist cities in CEE, as well as quantitative data that can assist urban planners and policymakers in developing more effective strategies to address the diversity and heterogeneity of these cities, as well as to accommodate their specific morphological and functional characteristics.

The effect of the cultural and creative industries on the well-being of regions: a machine learning approach

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Alicante-S17 Creative regions, 1-C12, September 1, 2023, 2:30 PM - 4:15 PM

In recent years, disruptions ranging from the Great Recession, the Covid-19 crisis and the climate crisis have brought to the surface some of the imbalances in the current economic system and their damaging effects on the well-being of current and future populations, especially in some European regions. This raises the need to redirect regional economies towards new productive models that focus on well-being and are, in turn, capable of meeting the challenges of post-industrial societies and the ecological transition. The cultural and creative industries (CCI) have aroused growing interest in this respect and have been identified, from academic and institutional spheres, as a potential vector for well-being generation. However, there is hardly any widespread quantitative evidence of their causal impacts on multiple dimensions of well-being. In order to fill this gap, an analysis is carried out for 209 European regions using CCI employment data from the Labour Force Survey as the explanatory variable of interest, and a panel of well-being indicators from the regional version of the OECD Better Life Index as dependent variables. The Better Life Index includes 11 dimensions covering issues related to material conditions, quality of life and sustainability of future well-being. After specifying 11 causal models, one for each of the dimensions, causal forests are applied. An optimal fit is obtained for all models except housing and safety. Evidence of positive effects is obtained for most of the dimensions (access to services, civic engagement, community, education, environment, health, housing, income and jobs), while they are not significant on safety and, paradoxically, the effects are negative on life satisfaction. All in all, CCIs are generally able to improve quality of life and objective (but not subjective) regional well-being, although the effects are very heterogeneous and may differ considerably across European regions.

A novel test of time series convergence

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Alicante-G01-O3 Region Urban Development, 0-B03, August 30, 2023, 2:30 PM - 4:15 PM

This paper extends the definition of time series convergence beyond the conventional parity condition by allowing for positive cointegration between pairs of unit roots. The paper also develops a novel one-sided test of time series convergence and presents its asymptotic properties under the null hypothesis of no convergence and the alternative hypothesis. The test is robust to general forms of weak dependence in the transitory components and does not require the estimation of the cointegration coefficient. These features are illustrated in a Monte-Carlo simulation exercise for a battery of ARMA(1,1) innovations of the unit root processes. As a byproduct, we propose a methodology to detect convergence clubs. This procedure is based on centrality measures of network dependence given by the degree and betweenness. The empirical application analyzes regional data on population and per-capita income at the NUTS-2 level from France, Italy and Spain. Our results uncover the presence of different convergence clubs for population dynamics and convergence to a single regime for per-capita income.

Territorial governance of Research & Innovation funding: How to measure its performance?

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Alicante-G17-O1 Quality of government across space and time, 0-C03, August 30, 2023, 2:30 PM - 4:15 PM

The concept of governance is associated with the process of decision-making (political and administrative) at all levels and the complex systems in place to ensure the sound management of the territory's affairs. The most known regional index for measuring the Quality of Governance (QoG), was developed by Charron et al. (2015), and is the result of survey data to capture the perceptions about the QoG. Our paper contributes to existing literature by proposing a novel and objective indicator to measure the QoG of Research and Innovation funding in the EU regions (Nuts 2-level), using data of the programming period 2014-2020. It includes seven dimensions: (i) Equitability and competition; (ii) Inclusiveness; (iii) Participation; (iv) Effectiveness; (v) Transparency and accountability; (vi) Consistency and; (vii) Openness. To estimate the index, we use data from different sources namely: (a) micro-level data on Cohesion policy (including INTERREG) and H2020 beneficiaries from Kohesio, Keep.eu and Cordis webpages respectively; (b) data about Cohesion policy evaluation and spending of funds from Cohesion Open data platform; (c) EUROSTAT data on characteristics of territories regarding their R&D expenditures and GVA by sectors. Our study will allow regional-level mapping of the quality of the R&I funding spending of the different EU regions. Bearing in mind that this spending is associated with government and managerial choices (with the system designed to implement the policy actions), our indicator is a good proxy to measure governance. To test the validity and consistency of the results of our index, we will assess its correlation with the QoG index developed by Charron et al. (2015), the score/classification of the regions in the Regional Innovation Scoreboard, their level of development (lagging and non-lagging regions), among others.

Tri-border Areas and the Location of Economic Activity in Open Economies

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Alicante-G23-R Regional policy environment and noise, 0-D03, August 31, 2023, 2:30 PM - 4:15 PM

This paper analyses the effect of free trade agreements on the location of economic activity within countries. We exploit the variation of free trade agreements on the distribution of night light emissions at tri-border areas (also called tripoints, trijunctions, triple points), i.e., the exact locations where the borders of three countries touch. We run difference-in-difference estimations where we compare the bordering regions of two countries treated by a trade agreement versus the bordering region of the third country as control. These regions are defined as buffers from the tri-border points. Our results show that regional trade agreements increase economic activity in cities in those regions near the international land frontiers. We also report that the positive effects decay for distances further away from the border. Moreover, running event study estimations, we show that the impact of trade agreements is only robust for the cities within those regions and not for the regions overall, as measured by light intensities. Lastly, heterogeneity analyses show that cities in WTO member states have the only sizeable effects, that medium size cities experience a larger impact of TAs on growth, and that cities further away from the borderline experience relatively weaker effects.

Drought resilience and drought impact in the Brazilian food system

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Alicante-G21-O2 Climate Adaptive and Resilient Regions and Cities, 0-D02, September 1, 2023, 11:00

AM - 1:00 PM

One of the main criticisms of using composite indicators for assessing the vulnerability or resilience of a system to natural hazard is the lack of robustness check and validation of the indicators. Are the less resilient or more vulnerable places to a certain hazard more impacted by it? We will try to answer this question by investigating the relation of resilience to drought of Brazilian municipalities and the changes in its crop productivity. We will do a two step analysis. In the first step, we are going to use data from the agricultural census of the Brazilian Bureau of Statistic (IBGE) to calculate an index of drought resilience for the years 2006 and 2017 for the municipalities in Brazil that produce the basic food and are exposed to droughts. In the second step, we are going to evaluate the relation between resilience to drought and the changes in crop productivity of beans, rice, corn, cassava and milk (the basic food in Brazilian food system). By these analyses, we can identify if the resilience to drought changes in the period of analysis, the components responsible for the changes, and if such changes are reflected in the production of basic foods.

Vulnerability and Adaptive Capacity to Natural Hazards in Timor Leste using Extended Q Analysis and Three Stages Regression

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Alicante-S55 Climate economics, 1-C14, September 1, 2023, 2:30 PM - 4:15 PM

The paper is about the vulnerability of people and places to natural hazards. We propose a bottom-up method to map natural hazards' vulnerability, adaptive capacity, and exposure, and apply it to the people and places of Timor Leste. Our analysis is based on five hundred fulfilled questionnaires collected in ninety villages and six municipalities of Timor Leste, on Census Data, and on orography data. We use an extended Q Analysis to evaluate people's adaptive capacity, cluster analysis on orography to estimate exposure, and three stages of regression to relate declared vulnerability with estimated adaptive capacity and exposure. The adaptive capacity relates directly to the attitudes expressed in the rankings on hazards, assets, reactions, and expectations of the features of the respondents; and exposure related to the territorial orography. Results show not only the consistency and applicability of the method but also highlight recommendations to reduce vulnerability and increase adaptive capacities such as the increase of accessibility to Dili and the promotion of buildings on the hills instead of the plains.

Differences between Czechia's and Hungary's automotive GVC participation and their consequences

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Alicante-S64 From Dependence to Embeddedness”: FDI Driven Global Value Chains and Policy Alternatives to FDI-Based Regional Development in Central and Eastern Europe, 1-B11, August 31, 2023, 4:45 PM - 6:30 PM

The automotive industry plays a significant role in the economies of Czechia and Hungary, as both countries are highly integrated into global value chains, firstly related to their participation in regional (European), German-led global value chains, and secondly, in GVCs organised by outside European countries (mainly from Asia) aimed at producing for and supplying European markets. This integration of the two countries is based mainly on providing lower value added activities compared to the core (developed) automotive economies. Using and statistically analysing data on trade in value added (TiVA) and input output tables and firm-level data from Orbis, we explore the origins, organizational and ownership structures, and geographic locations of automotive manufacturers in both countries. Besides the similarities (dominance of foreign-owned firms in the industry, high level of integration in/dependence on GVCs, geographically relatively concentrated production capacities), we call the attention to the differences between the two countries: higher inclination to upgrading by both domestic and foreign firms in Czechia and lower skill intensities and connected to that higher regional dispersion of the capacities compared to Hungary. Through these two differences, we highlight, that Czechia could strengthen its position in the integrated periphery of the industry with moving towards higher value-added activities and benefitting from less adverse regional inequality compared to Hungary. On the other hand, Hungary can upgrade rather through higher local value added of already existing capacities, reinforcing the regional concentration and foreign ownership dominance in the industry. However, we emphasize that it remains to be seen, how the transition to electric vehicle production made mandatory by regulatory changes in Europe, changes the industry landscape in the two countries and how existing policies are responding to this challenge shaping these changes.

Regional specialisation and start-up creation in European rural areas

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Alicante-S77-S3 Economic Complexity for Industrial and Innovation Policy, 1-E11, August 31, 2023,

4:45 PM - 6:30 PM

There is a considerable academic research and policy interest in innovative entrepreneurship and start-ups. However, few studies have analysed the territorial determinants of start-up creation and there is virtually no evidence on the relationship between pre-existing territorial innovative capabilities and start-up formation in rural areas. In this paper, we contribute to address this gap by studying the relationship between regional (economic, scientific, and technological) specialisation and start-up emergence in rural areas, through the lenses of economic complexity. With the aim to shed light on the potential sources of knowledge that are used by start-ups, we rely on recent economic complexity techniques (Pugliese et al., 2019) which allow analysing multilayer networks and combining data on startups, trade, technological and scientific outputs. The main objective of the study is to shed light on the relevant sources of knowledge for start-ups and better inform policy initiatives supporting innovative entrepreneurship in European rural contexts.

Business Ecosystem Development on Oulu Region – Influence of Public Financing for International Support Services and Export Development

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Alicante-G11-O1 Entrepreneurship and Regional Development, 0-E01, August 30, 2023, 11:00 AM - 1:00 PM

ABSTRACT

This paper focuses on business ecosystem development and public financing influence on development work in the Oulu region. Based on an in-depth qualitative analysis of eleven ISS (internationalization support service) organizations and eight SMEs, tentative findings reveal that various development tools of ISS organizations and publicly financed project actions have strengthened new international businesses and increased export activities for SMEs, affected positively regional growth and developed and tightened business ecosystem work on Oulu region. The analysis indicates weaknesses in regional cooperation and decision-making and ambiguity in regional cooperation with organizations and SMEs. Also, the paper presents suggestions for future planning and needs for future financing and development work for the Oulu region's business ecosystem development. This paper contributes to the extant literature by being one of the first studies to specifically highlight public financing influence on regional development, decision-making, and SME support services.

There are opportunities for future decision-making and development work to use this paper's results for more open, comprehensive, and confidential decision-making on long-term planning and business ecosystem development on regional and national levels. In addition, tentative findings increase knowledge and understanding of regional development for developing organizations and export-oriented SMEs. Moreover, this paper is one of the few regional business ecosystem studies highlighting the role of development work and public financing influence on the regional level, sharing knowledge of SMEs' key persons and the leaders of regional development organizations, and publicly financed services.

From organizational capabilities to corporate performances: at the roots of productivity slowdown

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Alicante-S77-S3 Economic Complexity for Industrial and Innovation Policy, 1-E11, August 31, 2023,

4:45 PM - 6:30 PM

This paper is one of the first attempts at empirically identifying organisational capabilities – in this work concerning Italian firms. Together, it proposes new evidence on the link between capabilities and economic performances. In order to do so, we employ the Indagine Multiscopo del Censimento Permanente delle Imprese (IMCPI), a survey carried out by the Italian Statistical Office (ISTAT) in 2019, covering the three-year period 2016–2018, addressing a wide range of organizational characteristics including various organizational routines, human resource management, internationalisation strategies and many others. Our contribution is threefold: first, we aim at detecting what practices and combinations of them result in underlying different capabilities; second, we propose a taxonomy of the production system, both at firm- and sectorlevel based on the mapping of such capabilities, third we study the performance outcomes of different capability-taxa in terms of productivity growth.

Regional place-based policies: the quality of governance of territorial policies adopted by the regional government of Sardinia

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Online-G02 Regional and Urban Policy and Governance, August 28, 2023, 11:00 AM - 1:00 PM

The integrated territorial development policies launched in Sardinia by the 2014-2019 Regional Development Programme promote the involvement of territories in the definition of local development strategies, according to the place-based approach. This means pursuing the valorisation of local peculiarities and the identification of existing links between economic issues and territorial dynamics, as part of an innovative approach in the implementation of the development strategy for interior areas. This work intends to propose an evaluation tool for these public policies with regard to the dimensions of governance in the implementation of participatory and integrated local development projects, starting from the analysis of the 2014-2020 regional programmes, in order to orient the new 2021-2027 programmes towards an optimisation of their strategies, with regard to the dimension of multi-level governance and the relationship between institutions, organisations and public and private operators. Through a survey involving a selected sample of policy implementation actors, we analyse the links between territories and public policies and provide a multidimensional analysis system on the quality of governance of local development processes. A proposal for the evaluation of territorial development projects is constructed through the analysis and articulation of the dimensions identified to measure the quality of governance local public policies.

The research conducted highlights some of the critical issues that have emerged in the implementation process of the integrated territorial programming supported by the Autonomous Region of Sardinia in the 2014-2020 programming period and focuses on the needs and, in part, the tools to overcome them. The fundamental issue remains that of the long timeframe of strategic transformations and the fact that these timeframes, like the needs, change from territory to territory.

The approach promoted in Sardinia by the local integrated policies, however, introduces important methodological innovations that, although they can be improved through optimisation processes, first and foremost of the administrative capacity of the territories to overcome the problems identified in the implementation phase, to the advantage of enhancing the dimensions of efficiency and effectiveness of governance, find the stakeholders agree in appreciating the process and the support for local development.

Is ChatGPT Really Replacing Cognitive Jobs?

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Alicante-S79-S2 (SAS) Is the New Economic Geography (NEG) Still Alive and Well in 2023? Smart Algorithmic Places and Artificial Intelligent Spaces, 1-E12, September 1, 2023, 11:00 AM - 1:00 PM

The recent release of ChatGPT, or Chat Generative Pre-Trained Transformer—a super-smart Generative Artificial Intelligence (A.I.) system, has triggered new waves of concern regarding job automation. Given the capabilities of ChatGPT and related platforms, particularly in natural language processing and content creation, there is the potential that such systems could lead to cognitive automation, involving not only routine tasks but also those considered to be non-routine. On the other hand, throughout history, new technologies have always created more jobs than they replace. Will the effects of ChatGPT be any different? This study attends to this question, focussing on employment patterns in the United States Metropolitan Statistical Areas (MSAs). We will first perform text analytics and machine learning on the U.S. Department of Labor O*NET skills descriptions to develop probabilities that different occupations involve skill sets relating to generative A.I. and natural language processing. We will then employ panel econometric modeling to assess the extent to which A.I. systems like ChatGPT have replaced cognitive jobs over the last few years. Employment figures by occupation and MSA will be extracted from the Current Population Survey (CPS), which provides data on a monthly basis. From this exploratory analysis, we will develop recommendations for further research while reflecting on the implications of cognitive automation and related developments for New Economic Geography (NEG).

Digitalization, Technology Acceptance and Local Milieus: Adapting technologies in German Firms across Different Regional Contexts.

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Alicante-S15-S2 Digitalisation, global shocks and new inequalities, 1-C13, August 31, 2023, 2:30 PM - 4:15 PM

Technological change is not new in societies. A unique combination of crisis events in the form of a combined COVID-19 pandemic and an energy crisis though emphasizes the importance of considering the use of new technologies in firms and the use of digitalization in their operations. The adaptation of technologies would amongst others depend on acceptance and adoption as reviewed in Taherdoost (2018). Firm internal factors are important in using digitalization technologies. In addition the firm size and local milieus matters for abilities of firms to adopt technologies, as for instance pointed out in Kelley and Helper (1999). This is also stressed by broad theories such as regional innovation systems, urbanization driven by creative classes and knowledge spillovers in agglomeration economics.

We consider the intersection between firm size, acceptance and local milieus of firm as measured by rural and urban types of geographies. In doing this, we use the new SOEP-LEE2 dataset (Matiaske et al., 2022) to investigate these intersections. Our starting point is to determine if the use of digitalization technologies varies by firm size, while controlling for human capital inputs as measured by the composition of workers by skill groups. In this, we also address if different skill groups are differently important in using these technologies for different firm sizes. While doing this, we also investigate if these effects are markedly different for entrepreneurs (self-employed). Our next intersection addresses technology acceptance, as we investigate if a critical attitude internally in firms among workers matters differently for larger and smaller firms. On the one hand, larger firms may have more channels of cooperation through e.g. work and staff councils smoothing the process, while smaller firms have a stronger entrepreneurial spirit that may also foster acceptance. While firm internal factors may be important, we finally consider the intersection with local milieus. The use of technologies by firms may generally vary by local milieus from knowledge spillovers in regional innovation systems or a stronger network among creative individuals. This may also moderate the effects of acceptance of technologies in firms.

Tourism and Discontent - The case of Austria

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Online-G36-O1 Tourism and Overtourism Issues, August 28, 2023, 4:45 PM - 6:30 PM

In the recent years we have witnessed multiple examples in which discontent and feeling “left behind” surprisingly fast turned into aggressive “anti-system” demeanor. The explosiveness of this topic is depicted by the surge of populist party’s support in form of a non-hostile ballot box revolt and a fortiori, by attempted coup d’états, with the 2021 United States Capitol attack being one of the most recent and prominent examples of exploited dissatisfaction and frustration by populist pied pipers. While most of the international studies focus on either individual’s voting behaviour or national cross-country comparisons over time, a sub-national analysis elaborating on the spatial variation of the surge in populist parties’ support is oftentimes neglected. Therefore, this paper addresses the relationship between the FPÖ vote share at the parliamentary elections 2013, 2017 and 2019 as an expression of discontent and other underlying demographic and economic factors on a municipal level. Through the application of spatial econometric tools, the correlation between these individual factors and the FPÖ’s electoral result, as well as the identification of spatial variations and patterns thereof, addresses this empirical void. While some factors leading to discontent in Austria confirm the findings from other discontent studies, this paper focuses on the effects of immigration and tourism on the populist vote in Austria. The results show, that a higher share of foreigners, supplementary to a high level of employment in the tourism industry per municipality, lead to lower electoral result for the FPÖ at the respective parliamentary elections implying an important role the tourism sector has for elections outcome.

The Political Culture of Regions and Moving Intentions: Understanding the Political Motivations Behind Internal Migration

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Alicante-G03-O6 Demographic Change, Population and Migration, 0-C03, September 1, 2023, 11:00 AM - 1:00 PM

An academic debate in the US and increasingly in Europe has emerged on the relationship between internal migration and the geographic polarization of party supporters. The debate began with Bishop and Cushing's Big Sort thesis, which argues that people choose places compatible with their lifestyle and worldview, leading to communities of like-minded people who live and vote similarly. However, the literature has mixed empirical evidence on how political aspects of the region shape moving behavior and intentions, and most studies have focused on party support and Anglo-American context, leaving the impact of other political aspects and the generalizability of the findings unclear. For Germany, this study investigates the influence of the regional political culture on the individuals' moving intention, while taking into account other migration incentives such as labor and housing markets. Combining individual survey data from the German Socio-Economic Panel (SOEP) with regional data from the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR), hierarchical logistic regression models are applied. It is expected that the intention to move is higher among residents whose political preferences, orientations, values, and attitudes are opposed to the political culture in the region. This study contributes to the literature on geographic polarization by providing new insights into the political motivations to move and by expanding our knowledge of political geography through regional sorting. It clarifies the extent to which aspects of a region's political culture influence the intention to move, considers other political factors of relevance and competing explanatory approaches.

Mapping interregional twin transition opportunities in Europe

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Alicante-G10-O1 Technological Change and Diversification, 0-D04, August 30, 2023, 11:00 AM - 1:00

PM

European regions possess different innovation potential built on specialized knowledge and varying technological foundations. These diverse innovation capabilities are crucial in developing necessary new technologies to master the ongoing green and digital transition. However, collaboration between regions is limited. To increase interregional cooperation and spur the development of green and digital technologies, complementary linkages must be identified. In this study, we provide an overview of interregional collaborations already in place and potential new collaborations between regions. We give special emphasis on collaboration opportunities between economically leading and lagging regions and between economically lagging regions. This not only provides new impetus for European regional innovation systems, but also shows how cohesion across regions can be improved at the same time.

Proposal for a robust delineation of labour market regions for Germany

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Alicante-G35-O1 Regional and Urban Labour Markets and Entrepreneurship, 0-D03, August 30, 2023,
4:45 PM - 6:30 PM

In this study, we revise and improve our previous delineation of labour market regions (Kropp/Schwengler 2016) by balancing density and self-containment as recommended by Martinez-Bernabéu and Casado-Díaz (2021) and by combining the results of different clustering methods. Based on current commuting data at the level of associations of municipalities in Germany, we try to optimise the quality of a functional delineation of labour market regions.

Our approach follows three steps. First, we use various methods (a graph-theoretic approach, the Travel-To-Work-Areas method, and clustering algorithms from network analysis) to generate an extensive set of meaningful delineations. Second, we select a small set of "best" delineations that balance self-containment (modularity) and a new density indicator. Third, we combine these delineations by identifying cores (regions that are equal in all selected delineations), parts (regions that sometimes belong to only one core region and in other cases are independent) and other regions (belonging to different or no core regions). The latter are finally redistributed to cores or parts according to dominant commuting flows.

This procedure results in the delineation of 36 main labour market regions, which include 117 sub-regions. Our result is a robust delineation because it combines main features of several clustering results. Using density and modularity indicators ensures that both self-containment and density are taken into account. The hierarchical result of main and sub-regions meets the diverse needs of researchers and policy makers.

Metropolitan governance an effort to coordinate city-hinterland relations

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Alicante-G02-O3 Regional and Urban Policy and Governance, 0-C01, September 1, 2023, 9:00 AM -
10:30 AM

Governance structures in urban agglomerations seem to become important whenever city-hinterland interactions, interlinkages and interdependencies need to be coordinated due to growing conflicts which may arise between different functions within the autonomous administrative competences in the core city and the hinterland communities. Metropolitan governance is one concept that focuses on the planning of land use, infrastructure and public services and highlights the importance of the institutional perspective. In order to provide stable governance structures capable of dealing with the growing conflicts between cities and their hinterlands, well-functioning institutions are needed. There is existing empirical evidence about the importance of governance structures in metropolitan areas in terms of productivity and there are arguments that well-functioning coordination bodies help to mitigate administrative fragmentation. These empirically observed implications of city-hinterland relations on the institutional capacity of urban agglomerations disclose weaknesses within the existing governance structures which leads to the question of how metropolitan governance is defined and implemented.

The complexity of city – hinterland relations from a governance point of view is argued from the multi-level as well as a multi-stakeholder perspective. Such a multi-level governance setting includes both legitimate and non-legitimate stakeholders and the interlinked challenges and sources of conflicts (e.g. spatial, institutional) and thus demands a systemic view, which needs to encompass both the micro (stakeholder level) and the macro (framework conditions or system related conditions) level of city - hinterland relations and should ideally start from the identified problems to be solved.

This paper focuses on the relevance and the impact of specific coordination mechanisms helping to promote sustainable city – hinterland relations. From a theoretical point of view, it argues along the functional interdependencies and raises the question of whether, when, and how city governments decide deliberately for or against a coordinated and cooperative procedure. This leads to the underlying research question: How are city-hinterland relations coordinated and what are factors preventing cities to initiate and follow a cooperative procedure?

The paper focuses on existing evidence about functional interdependencies in metropolitan areas and aims at investigating cooperative procedures as a mean to coordinate city – hinterland relations. Thus, this paper conducts a systemic analysis of metropolitan governance along five key components, including enabling and constraining factors, the underlying governance models, type of cooperation, types of stakeholders, and other systemic components.

Evaluation of OSH policies: results on the impact of incentives to the adoption of Risk Management Systems

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Alicante-S03-S3 Counterfactual methods for regional policy evaluation, 1-C11, August 30, 2023, 2:30

PM - 4:15 PM

No one, neither in politics nor in sciences dares to argue against the necessity to fight to reduce the impact of working conditions on worker's health. Perhaps such a wide consensus on the importance of this goal is one explanation for the general lack of evaluation studies (The European Agency for Health and Safety at Work 2013) on occupational safety and health policies (OSH). Nevertheless, acquiring more information on the effectiveness of the different tools available for the policy maker could help to afford those situations that are refractory to change and move towards a more effective policy mix. At present this last is heavily unbalanced, with the greatest majority of interventions concentrated in regulation and related enforcement mechanisms (inspections and sanctions).

The Italian case offers us an interesting case study, because in 2008, a system of economic incentives has been introduced, providing grants to SMEs that invest in the OSH field. This represents a sort of revolution, because it leverages the corporate social responsibility towards their workers. This experimental policy, called the "ISI calls" (bandi ISI) is the most long lasting (12 years), richest in terms of money granted (2 billion euros) and widest in terms of firms involved OHS policy based on incentives. Despite this, at the policy level the balance is still leaning in favor of sticks rather than carrots.

Up to now, the evaluation analyses performed by Inail on the ISI calls mainly concerned implementation processes and performance monitoring, reporting, and accounting. Recently, the need for an ex-post evaluation of the impacts emerged. Therefore, Inail is funding a research project aimed at identifying appropriate models to assess the impact of ISI incentives and to highlight their strengths and criticalities as an economic support to SMEs. The ISI call, implemented through the mechanisms of the click-day, represent a case of natural experiment, nevertheless, many evaluation challenges (previously discussed in Colagiaco et al. 2018) are present for this type of policies, in which the literature is practically non-existent.

In this paper we will present results of the impact evaluation of the ISI calls aimed at funding the implementation of "Risk Management Systems". The analyses are based on administrative data on participating firms. A profiling of the several subgroups of firms (selected or non-admitted, funded or not funded) will be provided. Moreover, we will integrate this analysis with data on the safety profile of the firms.

Interdisciplinary research in Critical Zone studies: Integrating socioeconomic and natural sciences to study the LUC impact in the Italian Alps

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Alicante-S22 Spatial dimensions of climate change, 1-D12, August 31, 2023, 2:30 PM - 4:15 PM

In sustainable development studies, the issue of the critical zone (CZ) ecosystem functioning has gained increased attention among regional scientists. The CZ concept identifies the stratigraphic section of the Earth's surface, which provides all the essential elements for supporting life (Xu Liu, 2017). By its constituent components (vegetation, soil, water, and rocks), the CZ provides many essential ecosystem services (Field et al., 2015), thus playing a fundamental role in the perspective of local and global sustainability.

However, its embracement in regional studies and policies is problematic, principally due to the different geographical scales used to analyse the CZ in the different disciplines. In fact, regional studies usually collect data at the micro-urban scale, at least. Conversely, natural scientists generally study the CZ either via field/in situ measurements on very small areas (around 1-5 ha each), or via remote sensing satellite data.

The contribution illustrates how these limits have been faced within the international project ABRESO, funded by the Belmont Forum. Using an interdisciplinary approach, the project studies the impact of the abandonment of traditional activities in the Alpine area on the ecosystem services provisioning, such as biodiversity conservation and soil sustainability, as well as the actual perception of the ongoing change by different stakeholders and its subsequent integration into local land management practices and policies.

More specifically, advanced techniques that integrate Earth Observation, biogeochemical analyses, and socio-economic investigation are used in the Italian sites to understand in which extent geo-biophysical and social landscapes reciprocally interact. The contribution illustrates the methodological solutions adopted. In particular, the environmental variables collected for ecosystem monitoring and to study and upscale the ongoing dynamics in the CZ include snow cover and phenology parameters, soil organic carbon, and land use change maps extracted from time series of satellite imagery. Then, the observed processes will be compared to the perception of different stakeholders (local population, policy makers, tourists, business keepers, etc.) to unveil new insights into the way land use change in the mountain areas influence and is influenced by the local land management practices and policies.

The Ecological Transition and the Territorial Development Gaps.

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Online-S37 Territorial Intelligence and Ecosystem Innovation. New archetypes for Ecological Transition, August 29, 2023, 11:00 AM - 1:00 PM

The article addresses the challenges of the Ecological Transition, which presupposes a new social and economic model rethinking how we live together in a territory to reduce environmental impact. It deepens the concept of Territorial Intelligence and highlights how a change to a participatory and territorial approach to governance supports sustainability and innovation. The attention to the territory as a convergence between physical space and the actors' living network allows a systemic vision considering the complexity of the social and economic construct. Territorial Intelligence recognizes local actors' participation as fundamental in territorial and economic planning. It formalizes information technology and communication to accelerate a concerted action for sustainable development. Comprehending the territory, on the broader exception, without delimited and predetermined boundaries implies knowing how institutions, collective action, governance, social capital, and creativity converge as fundamental mechanisms for local development and innovation. Reading the territory using technological tools becomes essential to support exploratory investigations, organization, management, evaluation, and forecasting for sustainable growth. In support of this conceptual formalization, the work analyzes the participatory evolution created by a territorial governance approach in a less-developed European region such as Sicily. To this end, it proposes two methodologies that can support a territorial analysis and be at the service of computerized shared knowledge, such as Social Network Analysis and Geographic Information systems.

Spatial patterns of innovation

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Alicante-G09-O2 Innovation and Regional Development, 0-C02, August 31, 2023, 4:45 PM - 6:30 PM

This research aims to discover spatial patterns of innovation through the location choices of firms over time. By investigating spatial patterns of new growing industries over a period of time, a model can be built to further investigate firm location choices. This model explores innovation patterns in space taking into account influential factors such as relatedness, physical network (distance from each other, distance to transportation hub), and agglomeration. Ultimately, the model aims to predict spatial patterns of innovation.

Bringing the location factors to the center of the study will contribute new insights of innovation processes. First, a new mechanism of innovation is explored using continuous space, unlike previous studies using primarily discrete spatial units. For example, relatedness studies in Evolutionary Economic Geography discovered a critical mechanism of innovation in regional development, but the location behavior of innovation has not been discovered using discrete units, nor the spatial and industrial variations of innovation. Although regression models, which incorporate spatial neighboring effects or spatial heterogeneity with dummy variables, are able to indicate spatial relationships, the locational distribution of innovation and its process on space over time cannot be identified. Second, a holistic approach of investigating innovation complements the conceptually discrete approach. Often innovation studies, especially relatedness studies, investigate innovation processes with separate focal points such as either production side (product space) or knowledge creation side (technology space). This type of approach provides generalized trends in certain parts of economic activities, but ignores a holistic view of development. Therefore, in this study, innovation patterns are investigated taking holistic economic activities into account such as knowledge creation part, producing part, supporting part, and consumption part of industries together, along with the influential factors.

To operationalize the research, aiming to answer how innovation diffuses in space, spatial statistics using R and GIS are used as the main methods, incorporating econometrics for the relatedness measurements. Utilizing longitudinal LISA data (firm data in the Netherlands) facilitates not only observing location patterns with firm location information, but also measuring industrial relatedness with multi-digit industrial codes (standard business classification). The location patterns of innovation are analyzed with the firm location information from LISA on GIS, which facilitates spatial analyses such as distance, emerging hotspots, and also visualization of the innovation patterns in space.

Dominant Industry and Lock-in Ripple Effects on the Local Economy: a path renewal and local economy in Geoje, South Korea

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Alicante-S68 Islands as 'socio-spatial laboratories' for sustainable development, 1-B11, September 1, 2023, 11:00 AM - 1:00 PM

This research investigates regional economic lock-ins and its ripple effects on local economies. Under regional lock-ins of path dependence theory in evolutionary economic geography, the ripple effects of shipbuilding industry in Geoje, South Korea are examined to measure how strongly its local economy is tied into the dominant industry. This ripple investigation is to provide a novel sight of how the local economy could be renewed towards a more stable and resilient one. Using spatial analyses with GIS and econometrics, the statistically significant relationships are found between the shipbuilding industry, and regional economic indicators such as employment (total number of employees) and economic structure (industrial diversity) in each administrative division. These statistical models take spatial and time factors into account in order for the analyses to provide deeper insights of the lock-in effects in Geoje. As the research results indicate, the shipbuilding industry has statistically significant positive relationships with the both indicators, but low coefficients for the industrial diversity. However, even with the low coefficients between the shipbuilding industry and the industrial diversity, the spatial econometrics model (dynamic Spatial Durbin Model (SDM) with common factors) indicates the industrial diversity of one spatial unit impacts its neighboring units. Therefore, diversifying the economic structure and employment in the shipbuilding industry can provide the ripple effects throughout Geoje. In order to maximize the ripple effect, the attention of the national, regional, and local governments should focus not only on the industry itself but also on intentional plans connecting regional firms to diversify regional economic structures and employments for a more resilient local economy.

The Impact of Smart Specialisation and Industry 4.0 on firms' performance

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Alicante-S26-S3 Defining and measuring inequality across social and spatial scales: limits, thresholds, realities and perceptions, 1-C12, September 1, 2023, 9:00 AM - 10:30 AM

This study examines the effect of EU-funded projects related to Smart Specialisation Strategies (S3) and Industry 4.0 (I4) on the performance of Italian firms that received European Regional Development Funding (ERDF) between 2014 and 2020. By reviewing data on employment, turnover, and other economic indicators, this research analyses the effect of S3 projects on Italian firms' performance. The study assesses the degree to which S3 is linked to recipient businesses' success and analyses the processes by which S3 can improve company performance. The findings of this research contribute to a better understanding of the effectiveness of S3 in promoting regional economic growth and identifying the factors that influence the success of ERDF-funded firms. Additionally, the analysis focuses specifically on the S3 that features Industry 4.0 (I4) with the aim of understanding whether the projects related to these new technologies have a higher impact on the firms that undertake such activities. To assess if the projects related to S3 or I4 have an additional effect with respect to the other ERDF-funded projects, the analysis uses an event study difference-in-difference method, using different control groups to assess the impact of the projects. The analysis results offer further evidence regarding the impact of the European Fund on firms' performance, enhancing our understanding of how the Cohesion Policy is effectively providing support to businesses within the EU.

Exploring urban transformations in the aftermath of the pandemic through user-generated data

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Alicante-G30-O3 Covid-19 and regional and urban resilience, 0-D04, September 1, 2023, 11:00 AM -
1:00 PM

The main motivation of this research is the identified gap in the literature that focuses on the contrasting diagnosis of urban and economic activity before and after the pandemic at the neighbourhood level. In this regard, this study contributes to the understanding of the transformations of cities caused by the pandemic and the monitoring of changes over time. Furthermore, it is situated within the framework of geographical and spatial analysis research that addresses the consequences of the crisis in cities by implementing GIS software and big data technologies to provide urban data and evidence-based knowledge as one of the Sustainable Development Goal 11 proposed aspects for pandemic response plans. For this purpose, Google Places and Twitter are adopted as the main sources of information. Precisely, data from these location-based have demonstrated to be a valuable resource in recognizing and studying the interrelationships and patterns between human behaviour and its geographic context, enabling the evaluation of a wide range of urban phenomena. Specifically, a mixed qualitative and quantitative methodology is proposed to assess the increase and decrease of economic activity (Google Places) and human presence (Twitter) in urban spaces across two periods: pre- and post-pandemic. Two areas of distinctive socio-economic backgrounds in three cities located in countries that applied various pandemic restriction measures are selected as case studies. The results obtained can provide beneficial insights for understanding the changes that have occurred in urban settings and for informing decision making for urban regeneration that is prepared for potential disruptive situations in the future.

Unlocking the potential of social media data for analysing the perceived accessibility to LRT stops and surrounding areas

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Alicante-G34-O3 Transport and Accessibility, 0-E01, September 1, 2023, 11:00 AM - 1:00 PM

Urban accessibility to transportation systems has been identified as a key factor in meeting the Sustainable Development Goals of the 2030 Agenda, with a particular focus on Goals 5 (Gender Equality), 10 (Reducing Inequalities) and 11 (Sustainable Cities and Communities). This research seeks to build knowledge about the underlying relationship between the perceived urban accessibility to transport infrastructures and the physical and social aspects of the built environment. Specifically, the aim of this study is to assess the potential of Light Rail Transit (LRT) stops and their surrounding areas to facilitate a transition towards more accessible, multimodal, and active mobility in cities. Three specific aspects are adopted as a proxy to estimate the degree to which the built environment contributes to the perceived accessibility of an LRT stop: the amount and diversity of economic and urban activities of the LRT surrounding areas; the citizen preferences; and the spatiotemporal presence of people. Data from technology-based participatory sources such as social media are adopted as they have been found to be reliable for identifying citizen perceptions, preferences, and opinions, as well as for monitoring spatiotemporal patterns in the physical and functional configuration of the city. The findings of this study will provide insights into the extent to which LRT stops and their surrounding areas can encourage a more accessible mobility.

Spatial econometric analysis of energy access inequalities in africa using panel data (not competing for Epainos)

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Online-YS02b Place-based Development - EPAINOS, August 29, 2023, 2:30 PM - 4:15 PM

The COVID-19 pandemic has exacerbated energy access inequalities in Africa. To address these inequalities, innovative and sustainable public policies are needed to support the economic and social development of the continent. These policies should promote energy access and provide decent job opportunities for the population. In this context, this article analyses energy access inequalities in Africa, the role of innovative public policies to reduce poverty and inequalities, and how access to energy can create decent jobs for African populations. From an empirical point of view, a spatial econometric methodology on panel data was used to analyze energy consumption data and socio-economic indicators for 46 African countries were collected from the World Bank databases, and an econometric model was formulated to explain energy access. This model can help to understand the impacts of innovative public policies on energy access and poverty and inequality reduction in Africa in the era of COVID-19. The explained variable of this model is energy access, measured by the percentage of the African population that benefits from it. While the explanatory variables include GDP growth, final consumption expenditure of public administrations, employment/population ratio, primary school enrolment rate, poverty rate at 2.15 dollars per day and the Gini index. The results show that there is a strong heterogeneity between the different countries, with some having a very high electricity access rate and others having much lower rates. The majority of countries that fall into this category are located in Sub-Saharan Africa, where access to electricity is limited due to lack of infrastructure and lack of funding. In addition, the Hausman test shows that the fixed effects SDM model is the optimal model. In conclusion, this fixed effects SDM model can be used to analyze and predict electricity access (% of the population) from the studied explanatory variables. Based on these results, innovative public policies are needed to reduce energy access inequalities in Africa, which should also ensure that energy infrastructure is available for rural and poor communities, and that it is designed to be sustainable and environmentally friendly.

Enterprising communities as enablers for the socio-ecological transition in marginal rural areas: an Italian empirical assessment

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Alicante-S45 Commons as Enablers of Territorial Transition: Evidences, Assessment and Theoretical Perspectives, 1-C11, August 31, 2023, 11:00 AM - 1:00 PM

Enterprising Communities are social transformation practices developed by self-organised groups of citizens. They arise in both rural and urban areas to meet place-based socio-economic needs, implementing innovative solutions in goods and services provision through a collective experiment in a defined place. Thanks to their governance model, Enterprising Communities lead to the building of commons (De Angelis, 2017) or have a primary role in governing them (Ostrom, 1990), with particular regard to marginalised contexts such as transitioning rural areas. As different territories have diverse local factors at the basis of their economic and social development (Coffey & Polèse, 1985), Enterprising Communities can take on several community-led models. Covid-19 accelerated their role and is expected that the current geopolitical, climate, and energy crises will further foster cooperation through different Enterprising Communities models such as Community-based Cooperatives, Energy Communities, and Collaboration Agreements. However, the dialogue between such community-led models and policy-driven initiatives is still lacking, resulting in missed opportunities for local economies to thrive.

Therefore, how do Enterprising Communities enable the socio-ecological transition in marginal rural areas through a dynamic interaction between local resources and their policy-driven initiatives?

The empirical analysis starts from the results of the project “Comunità Intraprendenti” (EURICSE, 2022), which mapped about 700 Enterprising Communities in Italy. Through a mixed methods approach, the paper contributes to debates on the role of Enterprising Community in the socio-ecological transition. Meanwhile, it provides policy guidance through a system innovation perspective to integrate community-led models and policy-driven initiatives in transitioning rural areas.

'Locations' in Digital Age: The Economic Geography is not Dead

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Alicante-S79-S1 (SAS) Is the New Economic Geography (NEG) Still Alive and Well in 2023? Smart Algorithmic Places and Artificial Intelligent Spaces, 1-E12, September 1, 2023, 9:00 AM - 10:30 AM

The rise of digital age and Information and Communication Technologies (ICT) have had immense impact on geographical distance and time. The geography has become more fluid in nature while distance have become compressed. The location of industrial and commercial units has become more flexible and less restrictive. For many, this rise of digital technologies is heralding a death of geography and distance. However, the 'death' narrative seems to be premature conclusion. Using case study of highly digitalised and ICT driven 'warehousing enterprises' at the periphery of Mumbai, this paper argues that weight and distance do matter in industrial locations. The death of distance may be true for the information and capital flows because of new technologies, but not for material goods and labour. As such, the locational decision in sustainability of industries remains a factor of prime importance, and industries do move to take relative advantage of either labour, good harbour/ports, market, raw materials, transaction costs, and/or agglomerate to save production costs, etc. The paper argues that impact of digitalization and ICT on economic geography has been 'transformative' in nature rather than 'obliterative' of geography. The paper evaluates the importance of locations in the digital age through empirical study.

The Effect of Values, Trust, and Risk Perceptions on Support for Policy Tools in the Field of Covid-19: Comparative Study

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Alicante-G18-O2 Institutions, Political and Decisional Processes, 0-D02, August 31, 2023, 4:45 PM - 6:30 PM

One of the exciting questions related to health systems' success during the Covid-19 pandemic is public support for the policy tools used during this challenging period. While by no means the only reason for success, public legitimation can help cooperation and voluntary compliance with government tools (An and Tang 2020). Policy tools (or instruments) are a government's ways of enacting its policies (Salamon 2002; Howlett 2011). Tools used in the context of Covid-19 included travel restrictions, social distancing, information, and loans (Capano et al. 2020). Several studies have explored the use of various policy tools during the pandemic (e.g., Capano et al. 2020; An and Tang 2020). However, these studies mostly took a top-down perspective, examining how governments implemented (or should implement) policy tools. In contrast, this study adopts a bottom-up perspective to explore the connection between the public's values, trust, and risk perceptions and support for policy tools in the area of immunization.

This comparative study is based on a survey administered to the general population (18+) in Israel and the United Kingdom – two very different cases. Drawing on the Moral Foundation Theory (MFT) of social values, such as care/harm, authority/respect, and fairness/ reciprocity, we are exploring the effect of values, trust, and risk perceptions on the support for policy tools. For the dependent variable, we developed a new scale of 12 policy tools representing different levels of government coercion, for example, electronic tracking of unvaccinated citizens, allowing vaccination exemptions on the grounds of conscience, and launching a media campaign on medical hazards attributed to Covid-19.

Preliminary findings reveal significant differences between Israel and the UK in institutional and general trust. The differences in values and risk perceptions are less dramatic. In the UK authority and fairness had a significant effect on support for coercive policy tools. Ingroup had a significant effect on support for free market policy tools. Risk and trust in institutions were mediating factors for both types of policy tools. In Israel, risk perception was the main factor affecting support for different policy tools.

The empirical findings can enrich our theoretical understanding of the diverse contextual conditions, such as public support, that affect the efficacy of policy tools in health systems. They may also have practical implications; for example, they could guide policymakers' choice of policy tools in the design stage.

Institutional quality, related variety and regional economic resilience in China

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Alicante-S23-S2 Rethinking regional resilience, 1-D11, August 30, 2023, 2:30 PM - 4:15 PM

The outbreak of COVID-19 epidemic has had a prolonged impact on urban economic activities. Cities with better economic resilience are more capable of resisting the shock brought by the epidemic and realizing post-epidemic economic recovery. In such an uncertain environment, both governance capability and local industrial varieties have significant impacts on economic resilience. On the basis of previous works from evolutionary economic geography and institutional studies, this study uses nighttime light intensity as a proxy for economic resilience at prefecture-level and proposes that, at least in the short term, the effect of governance quality on economic resilience can be moderated by local industry varieties. The government's intervention should follow the risk transmission mechanism of the regional industrial network. Besides, taking into account the institutional basis of China's central-local relations, local governments have to firmly follow top-down policies issued by the state government to better enhance economic resilience under the epidemic.

The impact of COVID-19 on the efficiency of companies: sectoral and spatial aspects (on the example of the Novosibirsk region)

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Alicante-G30-O1 Covid-19 and regional and urban resilience, 0-D01, August 30, 2023, 4:45 PM - 6:30 PM

The research is aimed to explore direct and indirect impacts of COVID-19 to financial indicators of Russian companies and find out whether the impact of covid-19 and other factors on business performance is constant in space. We want to test the following hypotheses: 1) industries related to offline interaction have been hit more by covid than others; 2) the efficiency of the firm depends positively on the efficiency of its neighbors (both in non-crisis times and in times of crisis); 3) the impact of covid-19 on affected industries is stable in space.

We used information about 2117 companies in the Novosibirsk region from the "Spark-Interfax" database. We built two Geographically Weighted Regression (GWR) - for 2019 and 2020 years separately. The dependent variable is the sales margin (SM), the independent variables are dummy variables for various industry groups (offline-services, transport, goods and industries not directly affected by the pandemic), the spatial lag of the SM, the age of the company, its scale, capital intensity, share of borrowed funds in assets, agglomeration effect and "municipal" variables - logarithms of the average salary in the municipality and municipal investment in fixed assets.

The results showed that:

- 1) transport and related industries were significantly affected by covid (in 2020, the SM for them decreased by 1.3 p.p.);
- 2) large companies turned out to be more resistant to the epidemic than small businesses (in 2019, the size did not affect the SM, in 2020, the SM in small companies decreased by 10-20% compared to large ones);
- 3) if in 2019 the share of borrowed funds in assets did not significantly affect the SM, then in a crisis situation, companies with a high level of debt were in a worse position (a high level of debt is usually found in companies that are already in an unstable situation (developing / in crisis, etc.), and the epidemic and restrictions multiply this effect);
- 4) both in 2019 and 2020 there was a positive significant spatial effect, and in 2019 it was more significant: 0.23 / 0.12 p.p. respectively as a result of a change in SM in neighboring companies by 1 p.p. (in 2020 there was less offline interaction in general, so the spatial effect decreased);
- 5) the regression coefficients, their significance and changes for the Novosibirsk region are stable (possibly due to the fact that only one region is considered).

An Empirical Analysis on the Multi-Sectoral Effects of Demographic Change on Thailand's Economy

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Alicante-G03-O4 Demographic Change, Population and Migration, 0-C04, August 31, 2023, 2:30 PM - 4:15 PM

The rate of birth is declining worldwide. Declining fertility, once only a common phenomenon in high-income countries, has been observed in middle-income countries as well in recent decades, among which is Thailand. The total fertility rate, which was 1.8 in 2009, dropped to 1.5 in 2021, well below the population replacement rate (the level at which the population is maintained between generations) of 2.0. In the society of Thailand, the declining fertility rate, coupled with longevity, results in a seriously low fertility and aging population.

Demographic change due to declining the rate of birth and an aging population means that the working-age population will decline as the proportion of the population and a shift to elderly workers in the age distribution in the working-age population leading to lower productivity growth. A slowdown in economic growth and depression of the economy will exacerbate wages, the employment rates, and other labor conditions, further affecting households' fertility selection behavior, which will be reflected in a further birthrate decline. Future economic growth in Thailand depends on how population changes are strategically addressed. Therefore, it will be essential to implement policies with a perspective that comprehensively understands the economic conditions and social trends surrounding the declining birthrate and aging society. In this regard, this study constructs a model linking demographic, a fertility, and multisector models based on an input–output (IO) table. We then evaluate the medium- to the long-term impact of the declining birthrate and aging population on the Thai economy by applying the model and conducting simulations focused on potential population-related policies.

Evaluating the Impacts of COVID-19 on Regional Travel in Japan: Focusing on Overnight Guests and COVID-19-related Policies at Prefecture Level

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Online-G36-O2 Tourism and Overtourism Issues, August 29, 2023, 11:00 AM - 1:00 PM

COVID-19 has brought about major changes in travel and stay associated with tourism and business. The decline in consumption by tourists and business travelers in business cities and tourist areas has had a major impact on industries and regional economies related to lodging, eating and drinking services, tourism, and transportation services. Various policies and assistance measures were implemented to support stagnant regional economic activities. The recovery of industries impoverished by the corona disaster and the revitalization of regional economies have become important issues (Financial Policy Research Institute (2022)). In tourist areas, sustainable regional tourism, including disaster resilience, is required (Japan Tourism Agency/UNWTO 2020). The purpose of this research is to develop a statistical analysis method and assess the effects of the spread of COVID-19 and the introduction of corona-related policies on overnight travel. In this paper, using a multiple regression model, we attempt to evaluate the impact of the introduction of policies such as the declaration of a state of emergency, the GoTo Travel Campaign, vaccinations, and the Tokyo Olympics on the number of overnight guests in each prefecture.

The Development and Application of an Urban Inclusion Index

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Alicante-G10-O1 Technological Change and Diversification, O-D04, August 30, 2023, 11:00 AM - 1:00 PM

The importance of urban inclusion in urban human rights research, policy and practice has been growing both as an academic area and in terms of its application. For the ideal of urban inclusion to be achieved, cities need to be able to understand their own current state of urban inclusion as well as barriers and progress toward urban inclusion. There is therefore a need for comprehensive tools to assess themselves with respect to urban inclusion. This paper details the development and application of an urban inclusion index, which was constructed to be applied to cities in the Asia-Pacific region. The index was developed to be used by cities to evaluate their work, and set long-term goals to guide future actions for the promotion and improvement of inclusion and anti-discrimination policies at local level, contributing to the fulfillment of the universal human rights obligations and commitments. The index is currently being applied to cities as a pilot project. The paper reflects on the development process and application of the indicators, to uncover its strengths, weaknesses, and failures. The paper uses qualitative methods, analyzing data from extensive records that were kept, in-depth interviews with the team involved in the development process and representatives of pilot cities, and expert opinions. The process of reflection is expected to provide lessons for the continued evolutionary improvement and further application of the indicators. The lessons may also be used to guide future developers of urban measurement indexes, and a template for evaluating their development process.

Geography of innovation and entrepreneurship in South Korea

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Alicante-G11-O2 Entrepreneurship and Regional Development, 0-C04, August 31, 2023, 4:45 PM -

6:30 PM

In the knowledge-based economy era, innovation and entrepreneurship activities in advanced economies are being concentrated in tech clusters, particularly in the inner city of metropolitan areas. Recently, the startup ecosystem in the Seoul metropolitan area has been rapidly growing. Therefore, it is necessary to examine whether there is a geographical distribution of innovation and entrepreneurship in South Korea and the Seoul metropolitan area, similar to that of global tech clusters. In this study, the spatial distribution of innovation and entrepreneurship activities in South Korea was examined at macro and micro geographical levels, using regional and municipal units for the macro level and hot-spot analysis using Getis-Ord G_i^* at the micro level. Using data on venture capital investments in 871 Korean firms in 2021, the authors discovered that the spatial distribution of innovation and entrepreneurship is highly concentrated in the Seoul metropolitan area, a global city with abundant talent, and is further concentrated in the Gangnam district, the inner city within Seoul. At the micro level, 14 innovation clusters were identified in the Seoul metropolitan area, each exhibiting spatial labor division according to the industry life cycle. In summary, this study demonstrates that the geography of innovation and entrepreneurship is a common phenomenon globally, and effective urban and regional policies should be formulated based on this understanding.

Evaluation of the optimal location of fire stations considering the burden of emergency transport operations and disaster prevention

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Alicante-G41 GIS and Location Modelling, 1-B02, August 30, 2023, 4:45 PM - 6:30 PM

The population of Japan has been declining since 2004 and the average age of the population is expected to become increasingly older. The number of emergency calls in Japan has been increasing every year, and has increased by approximately 1.59 times in the past 19 years (from 4.18 million calls in 2000 to 6.64 million calls in 2019). Moreover, the travel time from the fire station to the site of the emergency has increased by 3.2 minutes over the past 20 years (from 6.2 minutes in 2001 to 9.4 minutes in 2021), and the travel time to the hospital has increased by 14.3 minutes over the past 20 years (from 28.5 minutes in 2001 to 42.8 minutes in 2021), so the burden on emergency transport operations has increased significantly in recent years.

Based on this background, the purpose of this study is to quantitatively discuss the optimal allocation of fire stations from the viewpoints of emergency transport workload and disaster prevention and in consideration of the relocation of the Misato sub-branch station of the Kochi City Fire Department.

First, we constructed a system to calculate the travel time from the fire station to the site of an emergency located on a road network in Kochi City, and the total travel time from the fire station of the Kochi City Fire Department.

Second, three potential sites for relocation (P1: near the entrance intersection of Kochi Medical Center, P2: near the entrance of Nozomigaoka, and P3: near the east side of Totsu Elementary School) were selected, satisfying the following conditions: a tsunami is not expected in the event of a Nankai Trough earthquake and a fire station more than 2,000 m² could potentially be constructed.

Finally, the total travel time from the Kochi City Fire Department fire station to the emergency stations at the three potential relocation sites (P1, P2, and P3) was calculated.

As a result, the total arrival time from P1 is the shortest at 147,216 minutes, and P1 was selected as the optimum place for relocation of the current Misato sub-branch station.

The impact of FDI-related labour mobility on the innovation performance of domestic firms: evidence from V4 countries

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Alicante-S64 From Dependence to Embeddedness": FDI Driven Global Value Chains and Policy Alternatives to FDI-Based Regional Development in Central and Eastern Europe, 1-B11, August 31, 2023, 4:45 PM - 6:30 PM

The topic of foreign direct investments (FDI) and its impact on domestic economies has gained major attention in scientific discussion across disciplines. In case of innovation economics and economic geography, literature often deals with the effect of so-called knowledge spillovers, which reflect the knowledge sharing, knowledge absorption and its following application, on the economic and innovation performance of the firms (Narula and Driffield 2012).

Although spillovers are in general estimated to positively impact domestic economies, more differentiated picture may be observed, when distinguishing between different spillover types (horizontal and vertical) and spillover channels (e.g., product demonstration, labour mobility, competition in the market) (Demena and Murshed 2018). The highest discrepancies can be seen with regards to horizontal knowledge spillover between MNE subsidiaries and domestic firms, especially when firm-level panel data is considered (Rojec and Knell 2018). Here specific research gaps can be observed. For example, when investigating the effect of the horizontal knowledge spillover on the innovation performance of domestic firms, the previous authors have mostly dealt with quantity of innovations (e.g., number of patent applications), whereas quality of the innovations remained unconsidered. Moreover, when looking at employee mobility, no differentiation between founders of own entrepreneurial firms and employees of domestic incumbent firms was normally made. This is where this paper ties in.

The purpose of the study is to investigate the impact of labour mobility from MNEs to domestic firms on the innovation performance of the firms in Visegrad group (V4) countries. Adding to existing literature, the analysis includes not only the quantity, but also quality of innovation, including both impact and novelty dimension. Additionally, the variable, indicating whether the domestic firm was founded by former MNE employee or presents an incumbent firm, is considered. The analysis is based on the employer-employee-level panel dataset for the period from 2005 to 2019, which covers innovation activities across V4 countries. In addition to firms with former MNE employees, their statistical twins were included in the econometric analysis as the reference group to prove the robustness of the results and impact of FDI-induced knowledge spillover. Initial results indicate the differentiated impact of labour mobility on domestic firm innovation performance depending on firm type and industry characteristics.

This study thus contributes to the theoretical discussion on the FDI impact on domestic firm innovation performance as well as provides implications to policy-makers and managers with regards to the funding of high-skilled human capital.

A regeneration Rural & Creative Lab in Salento by Officina Keller

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Online-S24 Outside the frame: creative, cultural and innovative dynamics in non-urban regions, August 28, 2023, 2:30 PM - 4:15 PM

This contribution presents an example of a project for the cultural, economic, and social regeneration of the Ostuni village in Salento, Italy.

First, an introduction will set the theoretical framework and highlight the importance of community-based projects in achieving social, cultural, as well as territorial regeneration. In fact, the current EU policy for rural areas and the national Italian policy related to the “Piano Nazionale di Ripresa e Resilienza” both emphasize the importance of revitalizing the small and heritage villages. These policies highlight the need to undertake regeneration actions which are community-based and bottom-up, in the sense that they are directly created by the community that populates the small villages and have a strong social connotation.

Then, it will be shown that Creative and culture industries (CCIs) are the best organizations to reach these goals and on the current legislative Italian limitations on this topic. I will provide few examples of projects led by CCIs and aimed at promoting cultural and social innovations in rural and urban areas in the Southern of Italy. I will highlight their main objectives and methods, as well as presenting the benefits that they allowed to reach in terms of improvement of the quality of life of the communities involved and of developing of a territorial identity.

Finally, I will present a practical example that I am carrying on as member of the Officina Keller CCI: a Rural & Creative Lab to be built in Ostuni, in Southern Italy.

Officina Keller aims at enhancing and developing the economy in inner areas, as well as to promote innovation and culture also from a sustainable perspective. Among the main goals of this model, one of the most relevant one is to support, regenerate and prevent adolescent social and educational dispersion through the construction, for example, of an art and architecture forest that connects what are the vocations of the territory with art and technology. The idea behind the project, which is intended as a pilot case for one of the first “rural laboratories” in Puglia, is that it can demonstrate the applicability and efficiency of CCIs as developers of labs model able to enhance the identity of the community in rural areas. The Officina Keller’s model can thus be read as the first step of a larger project that aims to redevelop the urban area in the name of modernity, while respecting its tradition and natural peculiarities.

Enhancing the Attractiveness of EU Regions to Foreign Direct Investment in Knowledge-Intensive Sectors: What Factors and Policies Matter?

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Alicante-G07-O1 Regional Competitiveness, Innovation and Productivity, 0-D01, August 30, 2023,

11:00 AM - 1:00 PM

This research paper examines factors and policies underlying the attractiveness of EU regions to foreign direct investment (FDI) in high-value knowledge-intensive sectors such as aerospace, pharmaceuticals, information and communication technologies and software. Understanding what drives the location choice of FDI in high-value sectors is important for designing policies aimed at enhancing the competitiveness, innovation and productivity of EU regions. We analyse the location choice of 33,482 new greenfield FDI projects in high-value sectors across EU regions over the period 2003–2020. The analysis uses a newly generated dataset combining information on new greenfield FDI projects across EU regions and countries over the past two decades (sourced from the Financial Times fDi Markets database) with data on location-specific factors that influence the location choices of FDI projects (sourced from the European Commission, Eurostat and OECD). To identify and quantify the importance of location-specific factors that influence the location choice of new FDI projects, we use a Poisson model with fixed effects. The main findings indicate that the attractiveness of a given location to high-value FDI is positively associated with EU market potential, market growth, the participation rate of the working age population in education and training programmes, workforce skills, the presence of agglomeration economies, R&D expenditure in the public sector, government funding of business expenditure on research and development and broadband access. While the educational attainment of the working age population and R&D expenditure in the public sectors enhance the attractiveness of a given region to FDI in services, these factors are not as important for FDI in manufacturing. Finally, our results indicate that investors from the EU value location factors differently to investors from non-EU countries. While the participation rate of the working age population in education and training and broadband access are associated with enhanced attractiveness to FDI in high-value sectors by non-EU investors, these location-specific factors do not affect the attractiveness of a given location by EU investors over and above other determinants of FDI.

Place base and multilevel dimension of the transition to sustainability in the aerospace European industrial ecosystem: a systematic review

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Online-S71 Transition to climate neutrality and energy transition: regional development driver or challenge?, August 29, 2023, 2:30 PM - 4:15 PM

Recent literature on shaping socio-technical transitions and Multi-Level Perspective turned considerable attention to the role of policy mixes in shaping socio-technical systems towards sustainability (Kanger, Sovacool, and Noorkõiv 2020; Rosenbloom 2017). However, the identification of the role of the territorial level and multilevel dimension on policy intervention have remained relatively neglected topics. (Geels 2014; Kanger et al. 2020; Pickard and Pasqualino 2022) Under this approach, our work explores the territorial dimension of the transitions to sustainability in the strategic industrial ecosystems identified by the European Industrial Strategy (European Commission 2021a). Our research analyzes the case of the European Aerospace and Defence industrial ecosystem (A&D) conducting a Systematic Literature Review on the territorial dimension of the policy intervention for the transition to the sustainability in this ecosystem.

The structure of agricultural production technologies of Brazilian family farms

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Alicante-G05-O1 Economic development in rural places, 0-C04, August 30, 2023, 11:00 AM - 1:00 PM

Family farming has played a pivotal role in the Brazilian agricultural sector for several decades. In recent years, there has been a structural reorganization of the Brazilian agricultural sector characterized by a decline in the role of family-farms and the emergence of large corporate non-family owned farms. These changes have also been marked by a productivity dispersion as resources have been reallocated away from small family-farms towards these large corporate entities not only raising the level of aggregate productivity among these large firms but also leading to a structural reorganization. Using a panel of Brazilian agricultural census data for the years 2006 and 2017 at a micro regional level, this study proposes to analyze the production technologies of small family-owned farms through a stochastic frontier model and to subsequently decompose a total factor productivity (TFP) index into various components that measure technological change, technical efficiency change, scale-and-mix efficiency change and environmental change. This will improve our understanding of the structural changes taking place across small family-owned, and the results can be used by decision-makers and other stakeholders to design policies that help improve the viability of the Brazilian agricultural sector.

Urban Land Use Regulation in Poor Areas: An Evaluation of the Implementation of the Special Social Interest Zones in Brazil

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Alicante-G28-O5 Segregation, Social and Spatial Inequalities, 0-D01, September 1, 2023, 2:30 PM - 4:15 PM

Despite its mean-income country status, with about 85% of its population living in cities, Brazil is a highly urbanized country. This situation reflects its very quick urbanization transformation (in 1970, for example, only 55,9% of its population was living in cities) that, unsurprisingly for a country that is still developing, has posed a series of challenges associated with the provision of adequate housing and urban infrastructure for its population. This situation, aggravated by decades of macroeconomic instability, ended up formatting a clearly segmented urban structure: the richest and middle-class families occupy areas best served by urban services and closer to employment centers and the poorest families prevail in the areas peripheral with a lack of adequate infrastructure and urban services. Developed initially in midst of the country's re-democratization process in the 1980s, the implementation of the Special Social Interest Zones (ZEIS) in Recife, Brazil, represented a pioneer public policy reaction to this process of social residential segmentation of Brazilian cities. Aimed at low-income housing areas, the policy imposes specific and restrictive regulations of land use in delimited and continuous areas (zones) of the city (for example, lots merging is not allowed). Its objectives are the urban and land tenure regularization of households, the provision of adequate infrastructure, and the guarantee of the permanence of individuals in their original sites in the city, supposedly with access to the economic dynamics of the city. At present, there are 74 ZEIS in Recife, which correspond to a total area corresponding to 12% of the city area and are home to about 41% of its inhabitants. Despite more than 30 years of implementation of the ZEIS in Recife, there is no study evaluating the impact of this policy on the well-being of its beneficiaries. This research intends to start filling this gap. More specifically, we intend to evaluate the impact of the implementation of the ZEIS in Recife on urban infrastructure services (access to general sanitation facilities, access to a general drinking water network, and garbage collection services), on the percentage of households that are owned, and on the number of bathrooms per household. We use information from the census tracts compiled from the demographic censuses of 1991, 2000, and 2010 and a difference-in-differences strategy. Our set of results indicates important positive effects of the ZEIS on access to general sanitation facilities and general drinking water, but no impact on the other outcomes.

The spatial extent of human capital spillovers in a transition country: Evidence from Brazil

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Alicante-G08-O1 Cities, Regions and Digital Transformations, 0-D02, August 30, 2023, 11:00 AM - 1:00 PM

The available knowledge about the spatial scope of agglomeration gains concerns almost exclusively the urban context of developed countries, being very little known for the developing countries' urban context. Actually, the available evidence for these countries is almost entirely based on aggregated geographic data and indicates that the effects of agglomeration economies are greater compared with estimates for developed countries. In this paper, we investigate the spatial extent of the human capital externalities' effect on the wage earnings within the cities in Brazil, an important developing country. For this, we use precise geo-referenced employer-employee panel data, exogenously determined cells, and different spatial distance bands. We deal with the spatial sorting and endogeneity in the wage-human capital externalities relationship with controls for observable and unobservable individual and establishment characteristics and shift-share regression designs based on the exogenous expansion of higher education in Brazil. Our main results indicate that distance seems to be still more important in developing countries' context. There is a spatial pattern in the human capital spillovers generated by the proximity of college-educated workers. Adding 1,000 college-educated workers up to 1 km would increase the wages of workers on average by 6.78 percent, on the other hand, the effect for the 1-5 km or 5-10 km range are 1.95 and 1.27 percent, respectively. These results are robust even when we combine different controls, such as worker-plant and worker-city matches.

The impact of the second lockdown policy on general health status: evidence from the UK

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Online-G43 Spatial aspects of COVID pandemy, August 28, 2023, 2:30 PM - 4:15 PM

Using 2019 pre-pandemic data from the UK Household Longitudinal Study (UKHLS) and November 2020 pandemic data from the UKHLS COVID-19 survey, this work aims to assessing whether the general health status of the UK population is affected by the different periods of implementation in UK regions of the second “Stay-at-home” lockdown policy, observing the heterogeneous effect across UK regions and by gender. In particular, the second lockdown policy was introduced as mandatory in November 2020 in England and in January 2021 in Scotland.

The findings show that in November 2020 the second "Stay-at-home" measure reduced the probability of falling into the highest health status categories in England by 10 percentage points compared to Scotland. Furthermore, the impact was statistically significant for women, with a reduction in the probability of having a very good/excellent health status of 15 percentage points.

Overall, the findings confirm that even during the second wave of the pandemic, coronavirus disease exacerbated existing inequalities and amplified the gradients of exposure to the disease itself and the economic impact of the several lockdown policies implemented.

Paradox of the technological revolution in recovery of the economy

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Alicante-G53 City analysis miscelaneous, 0-E02, September 1, 2023, 2:30 PM - 4:15 PM

The COVID-19 recession decreased business, which included digital technologies. At the same time, pandemic accelerated the adoption of digital solutions and innovations.

Some of business meeting 'technological revolution', like digital banking and telemedicine services, some of business not accelerated the adoption of digital solutions and innovations. So, the digital economy is growing rapidly but business still working different.

During the Covid 19 pandemic, digital technologies keep people and businesses connected. At the same time, about 50 percent of the world's population don't have using mobile internet, means no access to the digital technologies and digital services (smartphones with mobile app designed and developed to work with a network connection)

And today the share of internet users in urban areas is twice as high as in rural areas. This seems like some kind of technological revolution limitation by regions.

But researchers estimating are that with than 60 percent of global GDP expected to rely on digital communication technologies!

How about blackout, or 'offline' internet crisis?

For exemple, the European Union only for post-pandemic times implementing a financial plan 'to preparing a green, digital and resilient recovery of the economy' (REACT-EU)

Regional effects of female employment rates in Spanish Labour Market Areas: a spatial analysis

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Alicante-S01-S1 Regional Differences in Gender Equality: Determinants and Consequences, 1-B03,

August 30, 2023, 2:30 PM - 4:15 PM

This paper examines the effect that Labour Market Areas' characteristics have on female employment rates in Spain to identify which regional aspects favour or hamper the good labour performance of this group. It address this issue in a novel way by using geographical units coded according to the commuting flows of workers, the Labour Markets Areas (LMA), and by considering the possible existence of spatial relationships between markets through the use of spatial econometric techniques. This type of techniques considers the possibility that individuals' decisions are not only conditioned by the contextual factors associated with the market in which they reside but also by the evolution and situation of their environment. The use of these methods combined with the use of functional areas and a rich data source, such as the 2011 Population and Housing Census, allows us to delve deeper into the behaviour of these phenomena and to obtain results that will be relevant when formulating public policy recommendations.

The evidence obtained shows that female employment rates follow a process of local spatial dependence, being influenced not only by the characteristics of the market itself but also by the characteristics and shocks derived from neighbouring regions. Among the territorial characteristics that have a positive impact on the female employment rate, results highlight the higher proportion of women with a university education, while a higher proportion of women between 40 and 50 years has a negative influence. These characteristics, also observed as relevant in neighbouring markets, highlight the existence of an imitation effect between markets. This spatial pattern also shows that there are certain relationships of a broader nature which origin can't be identified but that could derive from the important regulatory influence of the Autonomous Communities, or the presence of a greater similarity between the closest markets in economic or cultural terms, among others. All in all, the evidence shows the relevance in adopting an adequate territorial approach that consider geographical discrepancies and the possible diffusion effect between regions in order to implement employment policies.

The drivers of intra- and inter-regional labor mobility over the industry life cycle of the high-tech sector

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Alicante-S18-S3 Drivers and impacts of migration: new insights on the role of local labour markets, human capital, remote work, and (family) networks, 1-C12, September 1, 2023, 11:00 AM - 1:00 PM

In this article we analyse for the first time how sector-specific, and region-specific features affect intra- and inter-regional labor mobility along the industry life cycle. Using uniquely-detailed panel-type data from the Finnish high technology sectors, our analysis demonstrates that the influence of different features varies for different types of job-changes and labor-mobility and also varies through the industry life cycle. We find that the classic agglomeration-type arguments regarding labor search and matching do operate throughout all of the stages of the industry life cycle, although in quite different ways. In particular, there are common aspects which help to insulate clustered localities against adverse economic shocks.

Beyond the Beaches: Unraveling the Impacts of Tourism Expenditure on the Croatian Economy at Regional Level

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Alicante-S12 Regional transitions: Adaptation and transformations in the tourism sector, 1-C14, August 30, 2023, 2:30 PM - 4:15 PM

Tourism is an important sector for the Croatian economy, and its contribution to the national GDP is substantial. However, there is still significant lack of the knowledge on the overall effects of tourism expenditure at regional level in Croatia. This paper aims to analyze the effects of tourism expenditure in Croatian NUTS 3 regions using interregional input-output model.

The study uses data from the Croatian Central Bureau of Statistics to construct the Croatian interregional input-output table for the year 2018. Tourism expenditures are distributed across economic activities to form the shock vector of tourism demand based on the data on Croatian foreign and domestic tourism expenditures patterns available in the Survey on attitudes and expenditures of tourists in Croatia for 2019 prepared by Croatian Institute for Tourism. The methodology provides the analysis of regional tourism economic effects (GDP, employment) and tourism-related carbon emissions in 21 regions and across different regional sectors.

The results show that tourism expenditure has positive regional economic effects, as its share in generation of output, gross value added and employment in the Croatian NUTS 3 regions is significant, with expected differences between coastal and continental regions. The study also finds that the carbon emissions related to tourism expenditure are mixed, with some regions experiencing larger contribution of tourism expenditure to carbon emissions based on the transport mode used for the tourism travel.

This study is a novelty since it presents the first-time development of an interregional input-output table for Croatia and its application. The results reveal regional tourism expenditures' economic effects and tourism related carbon emissions across Croatian NUTS 3 regions. Hence, the study provides a valuable tool for Croatian regional policymakers in their decision-making processes. The results suggest that promoting sustainable tourism practices and investing in environmental protection in transport sector can help mitigate the negative environmental impacts of tourism while maintaining the economic benefits.

Populism, Nationalism, and Economic Protectionism: A Complex Nexus

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Alicante-YS08 Political Institutions, August 31, 2023, 11:00 AM - 1:00 PM

We examine the changes in policy measures implemented by populist governments after coming into power in different historical and geographical contexts. We employ the dataset developed by Funke et al. (2022), based on Cas Mudde's minimalist definition of populism, and expand it to several additional policy variables. We find that populist governance is rather heterogeneous both in terms of instruments and outcomes and that it varies depending on historical context, geography, and ideology. We conclude that we should contemplate a more nuanced definition of populism for a better understanding of the phenomenon.

The role of Government Support for Development of University Science and Technology Parks in Selected Central Europe Countries

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Alicante-G09-O1 Innovation and Regional Development, 0-D03, August 30, 2023, 11:00 AM - 1:00 PM

Science and technology parks represent one of the tools that are used to support the cooperation of universities and companies and thereby improve the overall research and innovation activity in the regions. Their advantage is that they can carry out commercial innovation activities more easily than a university and at the same time establish cooperation with businesses more effectively. However, such institutions did not exist in the post-communist countries of Central Europe. In order to catch up with the innovative performance of the more advanced countries of Western Europe, governments have invested significant financial resources to build these institutions. Our research was focused precisely on the ways in which the three selected countries Poland, the Czech Republic and Slovakia supported the creation and functioning of these institutions. The research was carried out in the form of interviews with relevant stakeholders and the study of documents and outputs of these institutions. It turned out that the government support had a fundamental impact on the initial functioning of these science and technology parks, while we can observe a significant country effect of support. At the same time, the institutional anchoring of the parks, the selection of appropriate focus and activities and their connection to the regional innovation system proved to be key factors for the successful functioning of these parks

Car ownership and school commute in Warsaw: A qualitative study of values, practices and narratives.

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Online-G34-O1 Transport and Accessibility, August 28, 2023, 11:00 AM - 1:00 PM

Car ownership and school commute in Warsaw: A qualitative study of values, practices and narratives.

The objective of this study is to identify practices and attitudes to car ownership and transport in Warsaw, Poland, with a view to how a shift towards other mobility options might be envisioned. This paper is based on survey data and focus group interviews (FGIs) from the CoMobility project (see below). The survey targeted school parents in Warsaw and we have carried out four FGIs with mothers in Warsaw who follow their kid to school.

This paper will contribute with new data on how parents consider car ownership and use vis-à-vis other urban mobility options in a post-communist context on their daily school commute.

Extant studies suggest that people have both negative and positive attitudes to a given transportation mode, but that this changes with context. It may not be the existence (or lack of) other transportation alternatives that directs peoples' choices, but their ambivalent attitudes and motivational conflicts (Hoffmann et al., 2020). For instance, both non-car and car-users may hold more or less the same attitudes towards transportation modes in a given context, even though they choose different alternatives, e.g. that car users may share non-car users' negative attitudes to driving cars in a city center etc. While the material we present also show these motivational conflicts both among car-users and those who do not use a car for the school commute, the data also provides insight into the different rationales and justifications parents have when choosing the preferred transport mode. Our data also indicate a bias among car users against public transport that can be challenging to overcome: In general perceptions among car users and owners relate car ownership to relative affluence and independence, whereas using public transport is considered 'backward' and dirty. On the other hand, those preferring public transport, profess the independence and the ability to multi-task (read e-mails etc) that using public transport offers. What might seem to be a big divide, is in both cases related to making moral justifications of their everyday lives.

A full paper will be developed spring 2023.

[CoMobility benefits from a €2.05 million grant from Iceland, Liechtenstein and Norway through the EEA Grants. The aim of the project is to provide a package of tools and methods for the co-creation of sustainable mobility in urban spaces. See <https://comobility.edu.pl/en/about-the-project/>]

Assessing the equity impacts of public transport-based accessibility: The case of the Trondheim bus rapid transit system

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Alicante-G34-O4 Transport and Accessibility, 0-B02, September 1, 2023, 2:30 PM - 4:15 PM

In recent years there has been an increasing interest in developing methodologies for evaluating the equity impacts of public transport projects, such as the impact of transit investments on accessibility to employment opportunities. Most studies have tended to focus on either the spatial, horizontal, or vertical equity impact of public transport projects. Given limited public resources there will in most cases be important trade-offs between different transit network design principles and the different equity standards. To understand the distributional impacts of restructurings in public transport services it is therefore important to have methodologies that can evaluate the impacts on potentially diverging equity targets.

In this study a holistic methodology is proposed for evaluating the spatial, horizontal, and vertical equity impact of transit network restructurings on job accessibility using a combination of GINI coefficients/Lorenz curves and the Theil Index. Of the three outlined equity principles, we will operationalize spatial equity as the equal distribution of job accessibility across space and horizontal equity as the equal distribution of job accessibility across the population. Finally, vertical equity will be operationalized as a distributional principle where socially disadvantaged groups should not be worse off than more advantaged population groups.

The study will use the restructuring of the bus system in the Trondheim Metropolitan Area in 2019 to test the evaluation methodology. In the restructuring in the Trondheim Region a bus system primarily operating direct lines through the city center was replaced with a feeder-based bus rapid transit (BRT) system operating a reduced number of lines through the city-center. Using a GTFS-based network model, public transport accessibility to jobs before and after the BRT-implementation will be calculated. Combined with geocoded information from the Norwegian Entity registry, detailed residential grid data, and an individual-level micro dataset with socioeconomic, workplace and residential information, the data allows for developing a spatially disaggregated and comprehensive methodology for assessing equity impacts.

Naming and framing a marginal tourism destination close to an urban tourism hub: The case of Campina de Faro

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Alicante-S69 The role of participatory approaches in tourism and sustainable development, 1-D13,

August 31, 2023, 4:45 PM - 6:30 PM

Taking the coastal plain of Campina de Faro by the Algarve coast as a case in point (cf. Batista, ERSA2023) this paper reports selected results of an investigation carried out by researchers of Copenhagen Business School in collaboration with the Portuguese Pilot under the H2020 project INCULTUM – Visiting the Margins. The point of departure is a special focus taken on Danish visitors to Algarve and their image (or lack of such) of Campina de Faro. More than 100.000 Danish tourists visit the Algarve coast per year, yielding it the third-largest destination in Portugal after Madeira and Lisbon. However, an exploratory survey among 117 recent Danish visitors to Portugal (among which 34% had visited Algarve) showed that only 5 persons (4%) had ever heard the name ‘Campina de Faro’ and only 3 had actually been there. Moreover, when the respondents at large were asked what they would imagine ‘Campina de Faro’ to be, 59% said they had had no idea at all while the rest expected it to be some facility or place in or near Faro – predominantly a camping site (17 respondents) or, alternatively, a lighthouse, an airport, etc.

On this background, continued research addresses the pivotal role of the name of a location (as illustrated by Campina de Faro) in crystallizing a salient and adequate place-brand image among key target audiences while also aligning it with the brand identity desired by local communities. In the case of Campina de Faro, a bottom-up participatory approach is for many reasons preferable to larger-scale marketing campaigns. This calls for a so-called low-budget route of brand development which presupposes a subtle interplay between the inherent properties of the name itself (the Joyce Principle) and cues immediately extractable from being physically (or virtually) preset at the location and/or in its immediate surroundings (the Juliet Principle). This renders it crucial what people actually see and do when exposed to the location and/or its name, and how the local inhabitants contribute to the brand-building process in word and deed. The latter aspect may include also, for instance, testimonies by older residents passing over knowledge and experience to younger generations, and to tourists.

The end goal is to set up operational guidelines to support organic naming and framing processes facilitating efficient place-brand building under the special conditions just outlined. For this, we rely, inter alia, on the results of ongoing follow-up investigations conducted on site.

Polycentric development through architectural heritage and multi-criteria decision (MCDA) analysis: A case study from Northern Greece

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Online-G01-O2 Regional and Urban Development, August 28, 2023, 4:45 PM - 6:30 PM

Polycentricity is a multilevel concept referring to the interlinkages among neighboring spatial entities with common characteristics, creating synergies and spatial networks. Also, polycentricity is interpreted in two dimensions, the morphological, reflecting the nodal characteristics' aspect and the functional, examining the spatial interactions between the nodes. Focusing on the city scale, urban polycentricity is one form of polycentricity with increasing momentum in academic research and strategic planning, especially during the last decades. It is anticipated that polycentric urban structures could result in improved city performance through the equal distribution of various urban performances. Hence, spatial structures based on relatively regionalized and polycentric patterns could stimulate urban and regional performance on a more sustainable basis.

Cultural heritage is a crucial indicator of integration in a polycentric network fostering cultural, social and economic exchange. Architectural heritage with its connotative meanings as part of cultural heritage is regarded as a 'living organism' and dominant component of cultural evidence. Architectural assets could be considered as nodes of polycentric networks able to stimulate synergies for economic and social development.

This paper investigates the challenges of implementing polycentric urban planning based on architectural cultural heritage. The Region of Eastern Macedonia and Thrace in Northern Greece, with rich architectural heritage, is selected for the implication of the proposed methodology. The paper focuses on morphological polycentricity and the potential inherent interconnections among selected architectural assets of the 18th and 19th century as nodes of the networks.

Following this research strand, a polycentricity index is introduced as a methodological tool for networking architectural cultural assets on urban and inter-urban scale. In this context the methodological approach of multi-criteria decision analysis (MCDA) is utilized to compare alternatives with strengths or weaknesses to the objectives set. The MCDA methodology is used in this paper for the quantification of qualitative values and assemblage of the degree of polycentricity and architectural heritage attributes, in order to construct the new polycentricity and architectural assets index. The ultimate goal is to propose polycentric networks based on the area's architectural heritage for further sustainable regional development opportunities.

The evolvement of citizen entrepreneurship

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Alicante-G11-O3 Entrepreneurship and Regional Development, 0-C04, September 1, 2023, 9:00 AM -

10:30 AM

The paper aims to enhance understanding of citizen entrepreneurship by decomposing its evolvement in time, focusing on subsequent phases and their boundaries. After Mitra (2019), by citizen entrepreneurship, we understand the involvement of citizens, as users, producers and collective governance gatekeepers, in the private, social and public entrepreneurship process. By applying an interdisciplinary perspective and by combining different streams of literature (capabilities approach, urban commons, social innovation), we outline the conceptualization of citizen entrepreneurship and identify its four constituting transitional stages: citizen engagement (recognition of common good existence by a community), collective efficacy (as an element of territorialized norms and rules), citizen capabilities as a desired effect (as at least one of perceived benefits), and hybridity perceived as a value (from combining public, private and civic regimes). It leads us to the citizen entrepreneurship framework, the central contribution of our paper. The framework consists of four mentioned pillars, each extended to include further stages, and illustrates how entrepreneurship in the hands of citizens evolves over time. We apply a qualitative approach and explore five cases to verify this framework and pretest its validity in decomposing citizen entrepreneurship. We chose in-depth interviews with citizen entrepreneurs, which we extend with field studies. Different locations and activity profiles help us get to the heart of citizen entrepreneurship and provide the diversity and specifics needed. Applying investigator triangulation (one former citizen activist working for a city, one urban studies scholar, and one entrepreneurship scholar) enabled us to reach out to respondents, build trust, and analyze their responses from complementary yet different research perspectives. We adopt pattern matching analytical logic for data analysis, which allows us to check whether our empirical material supports our theoretical construct (Pauwels & Matthyssens, 2003). Acknowledging the peculiarities of each case and its reference to the framework, we recognize common features across all cases, which we characterize in the paper, referring to the research on entrepreneurship to get an insightful picture of citizen entrepreneurship. The result is the verified and extended framework of citizen entrepreneurship that helps to understand its evolving nature, together with practical implications for individuals involved or planning to engage in this type of entrepreneurial activity.

Barriers to diversity in regional innovation systems

Prof. Marte C.W Solheim

Alicante-KL4 - Keynote Lecture - HYBRID Session, SA-SALÓN DE ACTOS, August 31, 2023, 9:00 AM - 10:30 AM

The global megatrends shaping the world today, requires tapping into diversity in a broad sense. Gender Equality and Diversity are linked to innovation, financial performance, and providing sustainable solutions. Moreover, diversity is crucial for policymaking, as it allows for a wider range of perspectives fostering more effective decision-making.

Nevertheless, extant research has highlighted barriers for tapping into diverse potential, such as barriers for obtaining venture capital for females and ethnic minorities. The geographic dimension is coloring mechanisms of inclusion such as typical barriers in specialized innovation systems being strong networks between a fixed set of local actors, which might hamper alternative ideas and competence, whilst diversified innovation systems are colored by fragmentation potentially hindering knowledge exchange between actors.

In her talk, Solheim reflects upon some of the barriers of including a diverse set of actors in innovation, and the contextual factors affecting this, as well as highlighting broader inclusion practices.

The Recovery Plan: where and for whom is (or is not) working in the peripheral areas of Italy

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Alicante-S44 Peripheral areas: from marginality to places of opportunity, 1-D11, September 1, 2023,
9:00 AM - 10:30 AM

Nowadays, tackling the social and economic challenges of peripheral areas and of the most marginalised territories is on top of the policy agenda of the European Union.

In these areas, the long-standing socio-economic backwardness risks to be intensified by the consequences of the Covid-19 pandemic. The actual challenges consist in mitigating the increasing interregional and intergenerational inequalities between and within countries, which are leaving peripheral areas, especially those hit by natural disasters, struggling. In this context, the use of common resources of the wide-ranging recovery package mobilised by the European Commission and allocated through Recovery and Resilience National Plans represents an unprecedented opportunity. Member States are now called to demonstrate their capacity to provide a swift and effective response to the crisis by fostering recovery, increasing cohesion, and leading the transformation across the European Union. Policy makers and institutions at both the EU, national, regional, and local levels are faced with the choice of where, how, for what, and for whom to mobilise these resources in order to produce timely and effective impacts to reach the overarching objectives set by the Commission. If these efforts to foster the relaunch prove to be unable to engage the segment of the population (i.e. young people and women) and the territories (i.e. the most peripheral and disadvantaged) which are most in need, this would likely fuel the discontent of dissatisfied citizens and areas. By leveraging an evidence-based approach to policy design and implementation, this paper aims to contribute to the ongoing and still unexplored scholarly and policy debate on recovery measures. The paper develops a new conceptual and empirical framework to shed light on the effectiveness of recovery projects by addressing a single very specific driver of their possible success (or failure): the allocation and ability to engage the neediest segment of the population and territories. If it is true that an effective targeting is not a sufficient condition for a successful intervention, it will certainly contribute to the achievement of the objectives. By relying on novel and timely administrative data on the Italian Recovery Plan, this presentation will provide evidence-based insights for the assessment of this unprecedented public intervention.

The rural happiness paradox in developed countries

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Alicante-S78-S2 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 11:00 AM - 1:00 PM

At the 62nd ERSAs Congress, I suggest presenting my paper entitled "The rural happiness paradox in developed countries", which was published in 2021. In this paper, a national Danish survey is used to explore the rural happiness paradox in developed countries. This paradox revolves around the observation that rural residents tend to report higher subjective well-being than urban residents in developed countries. Based on three different rural-urban classifications, the paper provides a solid confirmation of the rural happiness paradox in Denmark. The paper tests three hypotheses regarding the factors behind the rural happiness paradox and finds strong support for two of the hypotheses. Thus, higher bonding social capital in rural areas and higher access to nature amenities in rural areas were found to contribute to the rural happiness paradox in Denmark. As for the third hypothesis, the paper finds no significant evidence that rural-urban differences in spatial location satisfaction (measured by the correspondence between actual and preferred residential location on the rural-urban continuum) contribute to the rural happiness paradox in Denmark.

The Role of Natural Disasters in Gender Disparities in Regional Labor Markets

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Alicante-S01-S1 Regional Differences in Gender Equality: Determinants and Consequences, 1-B03,
August 30, 2023, 2:30 PM - 4:15 PM

This paper investigates the role of natural disasters in gender disparities in regional labor markets and entrepreneurship for the case of Italy. The empirical analysis is based on the detailed data on earthquakes in Italy provided by the National Institute of Geophysics and Volcanology (INGV), which cover the time period from 1005 until 2015 and contains information about the location and intensity of each earthquake that happened during this period of time. This data is merged with the most recent Census data from the year 2011, which provides official statistics about the main socio-demographic and economic characteristics of the population in Italian provinces. The results suggest that natural disasters have pronounced significant effects on gender disparities in regional labor markets in Italy. In particular, regions that experienced more intensive earthquakes in the past tend to have more pronounced gender gaps in labor force participation rates, while the effect is particularly strong for gender differences in regional self-employment rates. This is consistent with the recent literature emphasizing that female population is more vulnerable to natural disasters. Moreover, additional results suggest that regional gender disparities seem to persist over longer periods of time, but they tend to decrease in the absence of repeating natural disasters. The results suggest that natural disasters are an important driver of gender gaps in labor market outcomes including entrepreneurship that has largely been ignored in the previous literature. This has important implications for policy makers aiming at promoting gender equality and female entrepreneurship, especially, in regions that tend to have a high risk of natural disasters.

Evaluating service times in parcel delivery based on a cargo bike pilot study from Innsbruck, Austria

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Alicante-G34-O1 Transport and Accessibility, 0-D02, August 30, 2023, 4:45 PM - 6:30 PM

Globally, CO₂ emissions from transport sector grow faster than in any other sector. The trend of urbanization leads to an increase in demand for both people and freight transportation. In order to reach the climate goals until 2050, sustainable solutions for transportation are needed. One of the solutions for freight delivery are two echelon networks, where an environmentally friendly transport mode such as cargo bike can be used for the last mile delivery. Cargo bikes have several advantages over conventional vans and have been actively considered for freight delivery by practitioners and researchers. However, there is a lack of studies of service times needed for a driver to park the cargo bike, and hand over the parcel to the customer. The service times are an important parameter for scheduling and planning of daily routes and good estimation of service times can help to better utilize the vehicles and drivers. The focus of this research is the analysis of service times obtained from a cargo bike pilot study from the city of Innsbruck, Austria. Data were collected during four weeks in 2021. Statistical metrics have been used to reliably and systematically estimate the service times and to evaluate factors which directly affect them. The results of the analysis can help logistic service providers achieve more accurate planning of delivery routes, prevent delays and increase the service level.

Headwind at the Ballot Box? The Effect of Visible Wind Turbines on Green Party Support

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Alicante-YS08 Political Institutions, August 31, 2023, 11:00 AM - 1:00 PM

Whether pro-renewable political parties win or lose at the ballot box when wind turbines are built near voters' homes is still not well understood, particularly with regard to voter motivation and channels of influence. We contribute by using new fine-grained data on the location of wind turbines in Germany to determine the visual exposure of residential areas to wind turbines. This allows us to estimate the change in the vote share for the German Green Party after voters see a wind turbine from their neighborhood for the first time. In most election periods, we find no significant effect of visible wind turbines on the Green Party vote share, suggesting that voters did not change their support for pro-renewable policies. Yet, for municipalities first visually exposed in the 2017 and 2021 election period, we find a negative effect. In these municipalities, a growing number of citizens' initiatives have emerged prior to construction, indicating that wind energy expansion is expanding to less supportive areas where strong opposition has formed. With the exception of two legislative periods from 1998 to 2005, the party had little influence on fundamental expansion strategies and hardly any on local site decisions, implying a shift in the general attitude towards the expansion of renewable energies, rather than a punishment effect. The negative effect of visual exposure decreases with increasing proximity, but does not increase with the number of visible turbines.

Combatting Vacancy in Urban Housing Markets. An international comparison

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Alicante-G32-O3 Real Estate and Housing Markets Issues, 0-D04, August 31, 2023, 2:30 PM - 4:15 PM

Vacancy is regarded as a widespread problem on housing markets. Policy makers try to combat it in several ways since it is considered detrimental to the affordability of housing. First an overview concerning the characteristics of vacancies and their measurement will be given and international approaches to combat them undertaken. Then the instrument of applying a tax will be examined, and how suitable it is for Austrian housing markets and what impact such a tax can have (with a special focus on the city of Graz). This paper also examines multiple ways of assessing vacancy rates and the results of assessments in Austrian cities. Since taxes with steering effects on housing markets are only possible on a federal level, this leads to the conclusion that the taxes on vacancies implemented on a regional and local level are set too low to have a significant impact on vacancy rates or housing prices.

High Technology Cluster Innovation Performance: A Global Perspective (1975-2019)

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Online-G09-O1 Innovation and Regional Development, August 28, 2023, 2:30 PM - 4:15 PM

This research explores the global development of four patent-rich high-technology sectors from 1975-2019 in terms of cluster formation trends, innovation performance, agglomeration and inter-cluster knowledge networks. The descriptive and explanatory analysis is framed within the context of sector- and cluster life cycle theories. The pharmaceuticals and semiconductor sectors are considered mature, while the information technology and solar photovoltaics sectors move from the initial exploration phase to growth, and then to a mature development phase during the study period. The empirical results show that agglomeration and knowledge network factors have a strong influence on cluster innovation performance right before, during and soon after the high-growth phase of the sectors. In the mature sectors, more recent periods show a positive influence of knowledge network factors and a negative influence of scale-bases agglomeration in the pharmaceuticals sector. The semiconductor sector shows a positive influence of network connectivity, which may partly explain the sector's high spatial concentration in clusters. These observations can be explained by long-term trends in these respective sectors.

Public sector wage compression and wage inequality: Gender and geographic heterogeneity

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Alicante-G35-R Regional and Urban Labour Markets and Entrepreneurship, 1-B03, August 30, 2023,
11:00 AM - 1:00 PM

Studies of wage inequality concentrate on private wages. Public sector wages are typically assumed to contribute to overall wage equality. We challenge this understanding in an analysis of the relative skill premium in public versus private sectors. Heterogeneity of relative wage compression is investigated with respect to gender and geography. There is a geographic aspect of wage inequality since city labor markets are different from labor markets in the periphery. The combined geographic and private-public dimensions affect overall wage inequality. The main result is that relative public sector wage compression is a male phenomenon and prevalent only in large cities. Wage setting for female workers in the public sector increases wage inequality in all regions, particularly in the periphery.

We apply the standard framework of wage inequality analysis, Mincer equations, to analyze the relative college premium between public and private sectors. All comparisons of public and private workers struggle with selection issues. The regression models include observed individual worker characteristics and capture unobservables using fixed effects for regions, workers and firms. The identification consequently is based on shifters between the sectors and movers between city-size groups. Compared to existing studies we also account for unobserved firm quality, motivated by recent studies of matching in the labor market.

To estimate the relative skill wage premium, we use register data for Norway during 2001–2014. The skill premium is measured by the college-educated to high-school-educated wage gap for private and public sectors separately. The raw data confirm the pattern of relatively lower skill premium in the public sector. However, in the aggregate, more compressed wages in the public compared to the private sector is fully explained by differences in observed and unobserved worker characteristics in the two sectors. Addressing gender and geographic heterogeneity reveals interesting structural variation. Public sector wage compression is only found for male workers in large cities, while for female workers, the public sector increases wage inequality in all regions, particularly in the periphery. The result is consistent with policies promoting recruitment of high-educated female workers and expansion of public services in the periphery counterbalancing the desired equality effect of public wages. Our main finding is that the public sector reduces urban wage inequality for men, while it adds to wage inequality in the periphery. This brings new evidence to the policy debate about wage inequality and regional differentiation of public sector wages.

Exploring the Combinatorics and Spatial Distribution of Novelty in AI Inventions

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Alicante-S79-S2 (SAS) Is the New Economic Geography (NEG) Still Alive and Well in 2023? Smart Algorithmic Places and Artificial Intelligent Spaces, 1-E12, September 1, 2023, 11:00 AM - 1:00 PM

Invention in Artificial Intelligence (AI) has accelerated radically in the past 10 years. The transformation of computing speeds, availability of big data, and proliferation of AI techniques have allowed AI applications to diffuse rapidly across economic sectors. Yet, in many ways, AI has failed to live up to expectations of its transformative potential. Most of the invention taking place has been within a narrow set of AI methods applied in a similar manner, making the new economic geography of AI invention appear very similar to the geography of invention generally. However, inventive novelty in AI has been increasing, this research examines inventive novelty in AI and how novelty of invention in AI is related to invention in other technologies in the same micropolitan and metropolitan areas.

Investigating young people's job choice and related life-defining decisions: A trade- off approach using Conjoint Analysis

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Alicante-G35-O2 Regional and Urban Labour Markets and Entrepreneurshi, 0-E02, September 1, 2023,
9:00 AM - 10:30 AM

The topic under investigation of our research are the job preferences of young residents of the region of South Tyrol aged between 15 and 29 years. More specifically, the research question is, what these young people's life expectations are, with a specific focus on their future or ideal workplace. We thus want to investigate which role the own job plays in young people's life plan and if personal preferences about housing, mobility and social surroundings impact respondents career preferences. As far as the methodology is concerned, an Adaptive Choice Based Conjoint Analysis (ACBC) is used to investigate the respondents job preferences. Originating from market research areas, we adapted this research method to our case to predict how young people make the complex decision of choosing and evaluating potential work offers and places. ACBC uses repeated answers to investigate how important each attribute is in driving each respondent's decisions and which levels within each attribute are preferred (and by how much). Additionally, this method helps us investigate if respondents display non-compensatory behaviours.

Using the micro level data obtained with the ACBC analysis, we hope to gain a more specific insight into the factors which drive individuals' job and career choices, as they help us to obtain a personal and differentiated preference scheme. A series of questions related to the topics of mobility, housing and the social and familiar surroundings is then supposed to help us evaluate and describe potential clusters of young people and their respective preferences. In addition to regression and cluster analysis, we hope to obtain other interesting micro level data to include in our publication. Finally, we will add a qualitative section to be informed with stakeholder interviews about the topic.

To carry out this analysis, a representative sample of 1.500 young residents of South Tyrol between 15 and 29 years will be interviewed in the following weeks using CAWI technique. In an earlier questionnaire, the attributes for the ACBC were selected with the help of a MaxDiff exercise, completed by 130 respondents of the same age group, to guarantee the relevance of the asked items. With our analysis we want to inform employers, policy makers and other stakeholders about what changes in attitudes and preferences they are to expect in the future labour market. The tentative results and some conclusions will be ready to be presented during the conference.

What contributes to a gender-friendly park? Understanding female visitor preferences using large-scale social media data

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Online-G42 Human environmental interactions, August 28, 2023, 4:45 PM - 6:30 PM

Urban parks and green spaces provide critical access to nature for urban dwellers, leading to diverse benefits for physical, mental, and social well-being. Meanwhile, these health benefits of urban parks can vary substantially among demographical and social groups, such as genders. While understanding gender disparities in park visitation and health benefits is essential for designing more inclusive and gender-friendly parks, scholars can lack data and tools to generate relevant park-level information. The considerable time and labor cost of traditional observation methods limits them to scale, making it nearly impossible for city-wide empirical studies. In this study, we propose a novel measurement of parks' relative attraction to female visitors-female visitor proportion-and quantify it using large-scale publicly available social media data. We then associate female visitor proportion with diverse park attributes through ordinary least squares (OLS) regressions. We find that parks with higher quality levels and the presence of child facilities are associated with higher park-wise female visitor proportion. On the other hand, park area, neighborhood population density, and neighborhood walkability, while associated with park visitation, do not have significant effects on female visitor proportion. This research contributes to the growing line of research that pays specific attention to disparities among user groups of urban public spaces and provides a new approach to data collection and analysis enabled by the advancements of urban big data and computation.

Assessing the Determinants of Foreign Direct Investment in European City Real Estate Markets using the Gravity Model: An Empirical Investigation

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Alicante-G32-O3 Real Estate and Housing Markets Issues, 0-D04, August 31, 2023, 2:30 PM - 4:15 PM

Using data collected from the Financial Times, this study employs the gravity model in trade to investigate the foreign direct investment (FDI) in the real estate sector of European cities from 2003 to 2022. The study focuses on the impact of housing prices and other economic indicators on FDI inflows and examines the effect of the COVID-19 pandemic on FDI flows in the European city real estate markets. The empirical findings from panel data analyses reveal that GDP and population have positive impacts on FDI flows. Furthermore, the analysis demonstrates that housing prices and the country's risk are significant determinants of FDI inflows. The study also examines the impact of the COVID-19 pandemic on FDI flows in the European city real estate markets. The analysis reveals a significant decline in FDI inflows in 2020 due to the pandemic's adverse impact on the global economy. However, the study also finds a partial recovery in FDI inflows in 2021 and 2022, indicating that the European city real estate markets remain attractive to foreign investors.

The study highlights the need for policies that promote a stable economic environment and an attractive investment climate in the post-COVID-19 era, as well as the importance of monitoring global economic trends and adapting policies accordingly.

Economic-territorial disparities of the urban agglomerations of the central region of Guanajuato. Urge for a balanced territorial urban management

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Alicante-G01-O2 Regional and Urban Development, 1-C11, September 1, 2023, 2:30 PM - 4:15 PM

Currently, cities around the world continue to grow rapidly and are centers of economic and social dynamism, but although it has been proven that there is a positive link between urban areas and economic development, as established by the United Nations in World Cities Report 2022, it is also true that they increasingly concentrate a large number of populations that are being excluded from the benefits generated by global economic dynamics. Of course, economic and social inequality is not only exhibited within cities, but also a disparity between urban spaces.

In Mexico, this reality is evident, as Sánchez Almanza (2016) points out, urban development has been a historical process marked by inequality, since, according to the economic models applied, cities and their development have been configured. Thus, according to the economic model adopted in our country, the patterns of spatial distribution of economic activities and the population have been transforming, but these transformations have not meant the disappearance of economic and territorial disparities between cities in Mexico, rather these imbalances persist.

Derived from the above, this paper aims to examine the economic and territorial disparities of the main urban agglomerations in the central region of the state of Guanajuato, a result of the trade liberalization model, in which the urban agglomerations most integrated into global circuits capital cities have been the ones with the greatest economic dynamism, while the less integrated cities have lower economic growth and the lowest level of general living conditions. Likewise, the work intends to recognize and value the guidelines of the territorial approach to development to be considered and generate a new urban management that promotes a decrease in economic and spatial inequity.

For the analysis of the economic and territorial disparities of the main urban agglomerations of the region and their relationship with the trade liberalization model, we apply the methodology proposed by OECD (2005) with which the trade openness index of a territory is obtained, based on the volume of exports and imports and their relation to GDP. In addition, we adopt the methodology used by ECLAC (2022), according to the EUROSTAT (2011) approach, which allows analyzing territorial disparities based on GDP per capita. In the same way, we calculated the territorial index of general living conditions, to examine social inequalities through the variables: life expectancy at birth, infant mortality rate, average years of study, and population in a condition of monetary poverty.

The urban-rural digital and green divides and their implications for Europeans' well-being

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Online-S14 Digital in(equality) and sustainable cities, August 28, 2023, 11:00 AM - 1:00 PM

The twin digital and green transitions are giving rise to unprecedented changes in European economies. The twin transition is a key policy objective for the European Commission, which seeks to establish a new economic growth model based on a green, digital, and resilient economy. Consequently, it is of great interest and relevance the analysis of their implications in people's well-being as well as the geographical differences of these effects.

The aim of this paper is to unravel the spatial divides in the triplet: digital use, environment, and well-being. Specifically, the focus of this paper will be on the analysis of the urban-rural disparities that shape Europeans' use of digital technologies, their environmental awareness and their level of well-being as measured by life satisfaction. Given the novelty of the twin transition, there is little empirical evidence on this issue. So, one of the major contributions of this paper will be to provide empirical evidence in an area for which it is scarce. In addition, while the urban-rural digital divides are well-known in the literature, much less is known on the extent to which they might constraint individuals' well-being and their environmental attitudes. Then, a second contribution of this paper would be to assess such an issue.

To achieve these goals, this paper uses microdata from the last round of the European Social Survey (ESS10) which collected information from representative samples of the population aged 15 and over living in each of the European Member States. Using these microdata, a system of three-simultaneous equations will be estimated to assess the importance of urban-rural disparities over individuals' digital use, their environmental awareness and ultimately, their level of life satisfaction. Such modelling will consider the endogeneity of internet use, the connection between this usage and environmental awareness and corresponding importance of these two elements on individuals' life satisfaction.

Overall, these preliminary results suggest that, though rural areas are still being excluded from the digitalization process, such a gap does not translate, at least by now, into lower levels of well-being of the population in those territories. In addition, the statistically significant link between internet use and life satisfaction may indicate that, to the extent that the urban-rural digital divides are bridged, there are additional well-being gains for Europeans in rural areas.

Climate change as the axis of Colombian environmental policies

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Online-S48 The Growing Suburban Sprawl in Global South (Asia and Large Latin American Cities). New challenges and visions for: urbanism, informality, inequalities and climate change, August 28, 2023, 4:45 PM - 6:30 PM

Climate change is one of the greatest global challenges facing humanity in the current century. Research shows that the impacts of climate change are not the same for every country and region. In particular, the countries of the global south have unpredictable and different climatic conditions that require effective public policies for adaptation and mitigation. In most of these countries, the institutional framework is neither organised nor efficiently coordinated to respond to the impacts of climate change on the different economic sectors and communities. In Colombia, public environmental policy is implemented by the Ministry of Environment and Sustainable Development, and focuses on providing guidelines for planning, protection, prevention and control in the management of natural resources to solve the country's environmental needs and problems. However, the policy is not clear regarding the increase in atmospheric temperature, the rise in sea level, the reduction and instability of the precipitation regime, elements of climate change that can generate adverse impacts on ecosystem services, economic activity and the well-being of the population. Colombia's public policy approach to climate change promotes management to advance on a climate-resilient and low-carbon development path that reduces the risks associated with alterations due to the effects of climate change, which is articulated with the public and private decisions involved in the country's development; but it is not clear to what extent the environmental policy guidelines are considered in those of climate change. Therefore, the objective of this paper is to identify the challenges posed by climate change from the environmental policy discourse for Colombia in terms of public policy. It also seeks to identify the importance of ENVIRONMENTAL POLICIES in the national sustainable development agenda and in climate change mitigation and adaptation measures. A methodology is proposed in which, based on an exhaustive review of the urban-regional instruments of environmental and climate change policy, elements of convergence and divergence of the two policies are identified and their possible articulation that contributes to decision-making and the elaboration of realistic climate action plans with the complex territories where they are to be implemented. Consequently, a hierarchical analysis type multi-criteria decision-making method is proposed to identify the levels of weighting of the interrelationship between elements of environmental and climate change policy for Colombia.

The combination of remote sensing and social sensing data highlights disparities in the quality of broadband connectivity among cities worldwide

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Online-S14 Digital in(equality) and sustainable cities, August 28, 2023, 11:00 AM - 1:00 PM

One of the defining trends of contemporary society is the simultaneous rise of urbanisation and digitalisation. While digital broadband access is critical for facilitating this transformation, there can be significant discrepancies in its availability across different regions. In this contribution, we take a comparative approach to explore the relationship between urbanisation and digitalisation, focusing on the quality of broadband access in urban areas using geospatial data processing. To conduct our analysis, we combine open and free data from Earth Observation programmes, such as Copernicus and Landsat, with social sensing data to evaluate broadband quality at the grid level using data from Ookla®. We stratify our analysis to identify whether high-income countries have better broadband connectivity in urban centres than developing economies, whether urban centres with larger populations have an advantage in regions with low connectivity, and whether urban centres that have experienced recent population growth have a broadband speed advantage. Our work highlights the nature and extent of deprivation resulting from uneven access to digital infrastructure. We found significant disparities in internet download speeds across the world, with geography and income level playing significant roles. Additionally, we found that mobile and fixed broadband connectivity have different performance levels, with mobile connectivity providing a higher performing alternative in less affluent countries. In summary, this contribution examines the interplay between urbanisation and digitalisation by investigating broadband access quality in urban centres across the world. Through our analysis, we identify inequalities in digital infrastructure and suggest possible alternative solutions to mitigate the negative impacts of uneven access.

Cultural Empowerment of the Corrupted Bank Middleman for the Poor in Rural India

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Online-S07 Culture Based Development (CBD): Cultural Context and Social Psychology in Confronting Urban and Rural Challenges, August 28, 2023, 2:30 PM - 4:15 PM

The aim of this paper is to identify the caste that most often takes the role of a Bank Middlemen between the poor and the loan giving institutions in rural India. We would like to understand what is the relative socio-economic positioning of this caste that empowers it to undertake this role and how strong this power holds.

The paper seeks to increase our understanding of the socio-economic empowerment of certain cultural 'clubs'. To achieve this, we conduct primary data collection, since caste identity is not easily accessible as information on individual level, especially in the context of corrupted behaviour. Thus, only snowball sampling can allow for this type of information to be obtained.

We gather data about the experience of the poor rural bank client with corrupted middlemen, posing questions about their own cast, the cast of the middleman and their perceived socio-economic sources of bargaining power in this setting. We also ask the rural bank client: (i) whether they would be willing to report the corrupted middleman to an authority handling such complaints and (ii) we will give them the opportunity to report the person to us. Previous research shows that opportunity to file complaints decreases bureaucratic inefficiency.

We add value to this with insights on cultural bargaining power and differences between expressive behavior (stating the willingness to report corruption) and actual behaviour. To explain cultural empowerment and quantify the difference in cultural power we employ the Culture Based Development paradigm and its approach to measuring individual and local cultural capital.

Using a plethora of econometric techniques with a clear identification strategy, we find evidence for the role of cultural capital in the empowerment of the middlemen in the grey part of the banking sector in India and the willingness of individuals/bank clients to report these cases.

Abandonment of Homeownership is Costly for Owners in a Shrinking Society: A Hidden Vacant Housing Problem

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Alicante-G32-O1 Real Estate and Housing Markets Issues, 1-B02, August 30, 2023, 11:00 AM - 1:00 PM

This paper conceptualizes how the difficulty for owners in abandoning their property ownership affects housing market structure and short/long-term consequences of the shrinking society. Using Japan as a case study, we develop a framework of market for existing houses facing low demand. The framework shows that the property prices can be negative from the burden for owners to keep the unused assets. Since market transaction is possible only with positive prices, the resale market disappears, which leave the properties vacant without changes of ownership. The implications are: (i) in the short-term, a need for volunteer maintenance becomes a heavy burden for absent owners, while it retains the quality of neighbourhood environment; and (ii) in the long-term, failure of property transaction does not update registration information, which diverges ownership of the neighbourhood's lands or leads their true ownership unknown, hindering future conversion of the assets to other profitable purposes such as farmland and greenery. We argue that such problems arising from the difficulty for owners in abandoning their property ownership are more pronounced in Japan, but are common in shrinking society.

Evaluation of Educational Efficiency in European Countries – A Study on Improved Ratio Minimization in Data Envelopment Analysis

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Alicante-S78-S2 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 11:00 AM - 1:00 PM

Education is one of the important indicators for evaluating the long-run economic potential of a country. Its role has been extensively examined in the empirical literature. An important strand of model-based research on the evaluation of educational performance originates from Data Envelopment Analysis (DEA). This operational approach has recently gained much popularity and has also led to a range of new methodological DEA variants. For example, a Distance Friction Minimization (DFM) approach is a method developed in the context of DEA in order to generate an appropriate (non-radial) efficiency-improving projection model, for both input reduction and output increase. DFM however, has an important limitation in that only one input/output item which most contributes to a DEA efficiency increase has a projection, whereas other input/output items have no projection at all (in most cases). Therefore, relaxing the restriction caused by the specific input/output item deserves more attention in DFM projections. Based on the above mentioned DFM approach, this paper proposes a new Improved Ratio Minimization (IRM) approach which enables to allocate an improvement projection to several other weighted input/output items. It therefore extends the restrictive DFM projection on one specific input/output item. This paper aims to test empirically the new approach on the basis of an educational efficiency evaluation of European countries, by considering public and private spending on education as input items and academic performance (reading, mathematics and science) as output items. In particular, this paper examines in more detail the role of ‘bullying’ as an undesirable output, using a recently developed Value Inversion model. This study thus provides an efficiency improvement projection of educational efficiency of European countries based on IRM and DFM approaches, compares differences in results, and discusses the usefulness of the IRM approach.

Spatial spread of pandemics - Spatial relations of the five wave of the Covid-19 on the example of Győr-Moson-Sopron county

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Alicante-G30-O2 Covid-19 and regional and urban resilience, 0-D04, September 1, 2023, 9:00 AM - 10:30 AM

Many disciplines deal with the analysis of the spread of epidemics (or pandemics), and regional science is no exception. Spatial relations and regional inequalities are the determining variables of the intensity, extent and severity of the spread of an epidemic, so it is essential to investigate epidemics from a regional perspective. Mathematical, statistical, network, and spatial simulation models can be used as methodologies for investigating the spatial spread of epidemics, but in this study, statistical methods are used as a basis. A possible way to reduce the severity of epidemics - be it health or economic effects - is to slow down the intensity of the spread. To this end, we carried out the research that served as the basis of this study and examined the Győr-Moson-Sopron county during the period when the pandemic caused by the Covid-19 coronavirus was most intense in our country, just as it was in most countries of the world, too. The purpose of the research was to register the intensity of the spread of the today's epidemics, and therefore the dynamics of the negative effects caused by the epidemics. Among the statistical methods, we used the mapping methodology as the first, separating the five waves of the Covid-19 pandemic in the case of the Győr-Moson-Sopron county. The next part of the analysis contains cross tables that differentiate the severity of the epidemic by gender and age with distribution ratios. Finally, as the quintessence of the study, we characterized the differences between the five waves in terms of the intensity of the spread of the epidemic with dynamic intensity ratios. During the modeling, the spatial relations appears in such a way that the large city of the examined area, its agglomeration, and the rural area were demarcated in order to register the influence of territorial differences on the intensity of the spread of the epidemic.

Measuring spatial and social inequalities in Hungary between 2010 and 2020 and estimating them using spatial econometrical methods

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Alicante-G40 Spatial Econometrics, 1-B02, August 31, 2023, 2:30 PM - 4:15 PM

In today's digitalizing global economy, competition between regions and municipalities intensifies across borders. In addition, in the recent period, two world economic crises emerged different ways. One was the global financial crisis, and another was the global social and economic challenges of the Covid-19 pandemic and the Russo-Ukrainian war. The world was characterized by relative economic prosperity in the period between the two shocks. Still, it can be stated that the analyzed regions' competitiveness over time plays an important role in post-crisis recovery. It is not different in the United States, the European Union, and, within it, Hungary. It can be stated that the regional revealed competitiveness in Hungary between 2010 and 2020 showed a characteristic geographical pattern, which needs to be analyzed.

Consequently, the study aims to examine the geographical patterns of competitiveness and income disparities in Hungary between 2010 and 2020 and to shed light on some aspects and their interrelations. To identify spatial and social processes, we formulated research questions and analyzed these questions with spatial econometrical methods, like Eigenvector Spatial Filtering.

As a result, a decrease in spatial income inequalities between territorial units and, simultaneously, an increase in income disparities within territorial units can be observed that are geographically differentiated. The study concludes that there is an important spatial difference in the performance of the LAU1 units of Hungary regarding the regional revealed competitiveness, which was influenced by various economic, spatial, and social factors between 2010 and 2020.

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Green space at new housing estates. Flat price vs. accessibility to good quality greenery

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Alicante-G32-O4 Real Estate and Housing Markets Issues, 0-E02, August 31, 2023, 4:45 PM - 6:30 PM

Awareness of the need for human contact with greenery is growing. Green areas positively affect our health. It applies in particular to greenery in a direct neighbourhood of the housings. When it comes to new housing investments, greenery is an important element of marketing, but during research it occurred that its quality is low. At the same time the residents can't fulfill their needs to be surrounded by nature. Both when spending time in greenery outside near flat on recreation and while viewing nature from windows.

Thesis of our study is that even expensive flats do not necessarily have an access to good quality greenery, as the price isn't the factor that makes an estate greener. Residents are excluded from close and direct contact with good quality greenery. We analysed new housing estates in Poznan, one of the biggest cities in Poland. The research included two stages. The first stage was to assess greenery quality according to developed factors, based on data about: 1) area of the greenery in comparison with the area covered by hardscapes within the site; 2) pre-existing greenery inventories; 3) new greenery inventories; 4) green area functions and accessibility. In the second stage of the research we compared data about greenery quality with information concerning economic value of the statistic flat in the estate.

The research showed that greenery is not a factor which affects price. The quality of the greenery in the new estates is on a similar level notwithstanding the price. Initial potential of the site resulting from pre-existing greenery is not used by developers as most of the trees are removed. Developers do not take actual actions in the field of environmental compensation. What leads to lowering the quality of greenery, public space and living conditions in the city.

Availability of green infrastructure as a pathway towards more stress-resilient cities.

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Alicante-G30-O1 Covid-19 and regional and urban resilience, 0-D01, August 30, 2023, 4:45 PM - 6:30

PM

Green infrastructure is an essential element of the stress-resilient city structure. Providing residents with access to these green spaces can help reduce this stress and thus improve the city's overall resilience. This is an issue that is particularly significant under the long-term stress caused by the Covid-19 pandemic or the armed conflict in Ukraine, which can lead to significant erosion of public health and psycho-physical well-being.

This paper aims to investigate whether the accessibility of green areas in three urban spatially different cities in Poland shows a relationship with the level of stress of their inhabitants, and to identify a new approach to shaping the spatial form of the city for reducing the stress of city inhabitants and in building city resilience.

The paper hypothesises that groups of residents with better access to green spaces show lower stress levels, which translates into the resilience of the entire city organism.

The study investigated both the subjective level of stress experienced by residents and objective stress, as determined by the salivary cortisol levels of the people surveyed. The above results were juxtaposed with spatial analyses of accessibility to green spaces using geographic information systems (GIS).

Such an interdisciplinary and innovative study made it possible to verify the assumptions made and to develop guidelines conducive to building a stress-resilient city. Conclusions from the research and analysis carried out can be used in adapting the spatial structure of cities to the needs and expectations of citizens, as changed by new stressors. Above all, however, to increase and build city resilience through better use and increased accessibility of cities' natural resources, which, according to the research conducted, influence the health of their inhabitants.

The Effects of Economic and Social Crises of the 2000s on the Gross Value Added in Central-Eastern Europe

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Online-G40 Spatial Econometrics, August 29, 2023, 11:00 AM - 1:00 PM

Territorial economic and social disparities remain a major problem for the European Union nowadays. There are not two regions which have the same characteristics and starting conditions, resulting in significant disparities in the long term. The aim of this study is to analyse the impact of the economic and social shocks of the 2000s (the economic and financial crisis of 2008-09 and the current pandemic situation) on the economies of four countries (the Czech Republic, Slovakia, Poland and Hungary) in the Central and Eastern European (CEEC) countries.

The paper presents county-level differences in gross value added as a characteristic indicator of development in these countries and their changes in response to external shocks. The methodology used is based on classical descriptive statistics, convergence analyses and spatial autocorrelation studies.

The results show that the impact of the shocks of the 2000s varies across counties, with some areas being able to increase their gross value added even during the crisis period. The within-country and between-country convergence analyses show that sigma convergence was partially achieved within the countries under review, while beta convergence was also achieved only within Hungary and Slovakia and at the aggregate regional level between 2005 and 2020.

However, it is also worth to note that the first and second waves of the economic and financial crisis and the pandemic had an uneven impact on the region's counties (some suffering greater depreciation, others less), which further increased territorial disparities. Spatial autocorrelation is significant in both the broader and narrower study area, but patterns remain fairly stable through the period of exogenous shocks.

The regional diffusion of web technologies in Europe: Is there a digital diffusion divide?

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Alicante-G10-O1 Technological Change and Diversification, 0-D04, August 30, 2023, 11:00 AM - 1:00 PM

In the early years of digital revolution there were high expectations about the democratization of internet and the decrease or even the disappearance of regional disparities. Internet based technologies are relatively easy to develop, and diffuse. Traditional diffusion barriers like information asymmetries, high costs, and tacit knowledge do not really inhibit internet technologies. However, expectations have proved to be not true; in fact, regional difference seem to remain or even decrease in the digital era. The first digital divide reflected to differences in internet access. Even after controlling for internet access alterations, there are still considerable differences exist about the use of digital technologies by the population called the second-level digital divide. However, results were not robust enough to provide strong support for the digital diffusion divide amongst firms.

In this paper we are aiming to test the presence of digital diffusion divide postulate of ten WEB based technologies in regional level by using Crunchbase data for the European NUTS2 regions in the 2000-2022 time period. We test three hypothesis:

Hypothesis 1: Geography plays a significant role in Web based technology diffusion the in the European NUTS 2 regions; there is a significant spatial effect.

Hypothesis 2: Developed, highly agglomerated places are the starting points of technology diffusion in the European NUTS 2 regions.

Hypothesis 3: Web-based technology diffusion is significantly stronger in developed regions as compared to less developed regions – positive per capita GDP effect

If all three hypothesis are valid, then we have strong evidences that digital divide exists among European regions.

A spatial autoregressive estimation methodology results reinforced strong spatial effect in all cases; however in a varying degrees. All technologies diffuse from the classical development center of UK, France, Netherlands, West German, Belgium, Swedish, Danish regions. Hypothesis 3 got only partial support, the per capita GDP had varying effect on web-based technology diffusion – seven times positive three times negative effect. Altogether, we had strong evidences about the existence of third level digital diffusion divide .

Regional Trade Agreements and Harmonization of Environmental Regulations

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Alicante-S19 Regional development under the new wave of globalization and current introverted economic policies — Tourism, migration and RTA, 1-D11, August 30, 2023, 11:00 AM - 1:00 PM

Recently, countries are increasingly using regional trade agreements (RTAs), such as free trade agreements (FTAs) and customs unions (CUs), to cooperate on environmental issues by including environmental provisions in RTAs and harmonizing environmental regulations among member countries. Greening RTAs with regional environmental regulations prevents a country from unilaterally imposing country-specific regulations benefiting its own. However, such RTAs may harm non-member countries and hinder multilateral free trade and environmental regulations that maximize global welfare.

We examine whether countries form RTAs with regional environmental regulations and join a multilateral trade agreement (MTA) with a common environmental regulation that maximizes world welfare. Each government imposes an environmental tax to mitigate negative externalities caused by the consumption of differentiated goods. The main finding is that a deep FTA with regional harmonization of environmental taxes may act as a stumbling block for an MTA with multilateral harmonization of environmental taxes if the degree of product differentiation is intermediate. In contrast, a deep CU with a regional environmental tax serves as a building block, even if negative consumption externalities are transboundary.

This result is different from the well-known traditional result on RTAs that, given symmetry in countries, an FTA serves as a building block for multilateral free trade. The reason is that, although countries are intrinsically symmetric in our model, a deep FTA with environmental taxes causes endogenous asymmetry in environmental tax rates between member and non-member countries. This endogenous asymmetry makes participation in a deep MTA costly for a non-member because it needs to raise its environmental tax sharply to the multilateral environmental tax. Hence, a deep MTA is blocked by a non-member. This is in line with the finding that multilateral trade liberalization is not always realized between exogenously asymmetric countries.

Ecosystem services, nature preferences, and valuation of visits to urban green and blue spaces – an interdisciplinary approach

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Online-G42 Human environmental interactions, August 28, 2023, 4:45 PM - 6:30 PM

Nature in cities provides essential ecosystem services and increases human health and wellbeing. Ecosystem-based management is an important approach for managing urban green/blue spaces, and understanding the value that people place on urban nature can help to improve planning and management, promote urban nature investments, and enhance ecosystem services to create more equitable, sustainable cities. Previous studies aimed to determine the value that people place on urban nature, but many were limited in that they were from the perspective of conservation rather than utilization of environmental resources and did not integrate on-site urban nature site characteristics with the ecosystem services and nature preferences of urban residents. In our interdisciplinary study, we investigated urban residents' valuation of urban nature site visits (i.e., using the Contingent Valuation Method) using publicly available geospatial data of on-site environmental features with a web-based survey of residents and their ecosystem services attitudes, nature preferences, and demographics. In our case study of Tel Aviv-Yafo, we developed a multiple linear regression model to determine residents' valuation of urban nature site visits and its association with these variables. We also compared visitor and non-visitor preferences and their desired future improvements for urban nature sites. We found that a higher willingness to pay (WTP) to visit urban nature sites was positively associated with ecosystem services such as relaxation opportunities, lower air temperatures, and biodiversity, which have important management implications that can help to meet both social and environmental management goals in urban ecosystems. Overall, participants gave relatively high preference ratings for various green and blue components of urban nature sites, but our model showed mixed results for these features in terms of their valuation, implying that some participants may not feel a monetary obligation towards paying for urban nature components which are perceived as meant to be openly accessible and free. Even so, both visitors and non-visitors indicated that improving existing urban nature sites was important (83% and 85%, respectively), followed by creating new sites (62% and 49%, respectively). In recognizing the great value that urban residents place on urban nature, we recommend that managers/planners work collaboratively with diverse stakeholders to integrate values for urban ecosystem services and preferences into participatory environmental decision-making. Urban ecosystem management should include improvements that incorporate aspects highly valued by residents and a range of green and blue components to promote human and environmental health.

Online Real Estate Agencies and UK Housing Market

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Online-G32 Real Estate and Housing Markets Issues, August 29, 2023, 2:30 PM - 4:15 PM

This paper explores the interpersonal vocal communication of managers with analysts during earnings conference calls. We apply a novel machine learning technique to a sample of more than 600,000 earnings call Q&As to generate vocal emotion measures. We show evidence of emotionally reciprocal interactions in analyst-manager conversations. Negative questions asked by analysts are likely to evoke negative vocal responses from managers. This vocal reciprocity is stronger when the respondent manager is female, but weaker when the analyst is new to the firm and when the analyst dialogues with the CEO or with an older manager. We also document that analysts incorporate emotionally charged information when forecasting earnings.

On Vectors Attract Pedestrian Behavior

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Online-G44 Modelling pedestrian behavior, August 29, 2023, 11:00 AM - 1:00 PM

As the population declines and the birthrate declines and the population ages, the elderly will become the center of the city. In addition, although intensive urban structures have been studied in recent years, it is expected that walking and public transportation will be the main means of transportation. From these facts, there is a possibility that the occurrence of crossing violations and the mortality rate will be less likely to decrease as the number of pedestrians and the elderly increases. One of the causes of crossing violations is that the conventional design methods have been planned to prioritize cars, making it difficult for pedestrians to use. Therefore, I thought it was important to focus on the case where the flow line of the pedestrian could not be controlled.

Therefore, as basic research for designing and planning a city that is safe for moving pedestrians, this research aims to predict the behavior, mainly focusing on the flow lines of pedestrians.

In the analysis of the survey results, the focus was on the trajectories taken from the videos. The difference between the direction of the trajectory of the pedestrian's crossing violators and the direction to a destination will be used in the evaluation. The larger value, the more likely it is that the sidewalk will not be able to control pedestrians, i.e., that crossing violations will occur from there if there are no guardrails, etc.

The analysis method involves fitting a virtual grid to the station square and calculating the trajectory of the pedestrian's crossing violators and the value of the applicable mesh.

In this study, pedestrian movements were captured on video, and the characteristics of their trajectories were analyzed. As a result, the relationship between the staying population density and pedestrian flow lines was found. The value that controls or promotes pedestrian flow lines on the sidewalk itself, was visualized as a simple predictor of where pedestrian crossing violations would occur. In the future, we plan to increase the number of data samples and analyze the characteristics of the data over time and the relationship with other traffic in more detail, as is the case with the data on accidents involving people and vehicles.

Housing as driver for integration? An empirical analysis based on a quasi-experimental setting

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Online-G03-O2 Demographic Change, Population and Migration, August 28, 2023, 4:45 PM - 6:30 PM

Using a quasi-experimental setting, I examine the effect of housing on integration for recent refugees in Germany. In contrast to previous studies investigating the effect of placement policies on integration, my approach does not focus on regional, but on housing characteristics. The fact that Germany assigned recent refugees not only to a location, but also to a certain type of accommodation, which is either private or shared, provides exogenous variation that allows for studying the effect of housing on integration appropriately. I argue that the housing situation is an equally important determinant in the integration process as location, but in a more comprehensive and measurable way. Derived from theory and associated academic findings of locational placement on integration, I assume that the placement to private accommodations accelerates refugees' integration process, while shared accommodations decelerate integration. Referring to popular integration dimensions, this may be especially true in terms of language acquisition, social integration, and the identification with the host country. For structural integration, e.g. employment, I expect in the special case of recent refugees and their lack of "ethnic economies" no differences between refugees in private and shared accommodations. Preliminary results from fixed effects regression that control for unobservable individual heterogeneity based on the IAB-BAMF-SOEP Survey of Refugees confirm the outlined considerations regarding effect direction and size. The study contributes to the literature by offering a new perspective of placement policies on integration and providing practical implications for governments.

How do independent cruise passengers move around the city? Evidence from a survey and a tracking experiment in Barcelona

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Alicante-G36-O2 Tourism and Overtourism Issues, 0-D04, September 1, 2023, 2:30 PM - 4:15 PM

How do independent cruise passengers move around the city? Evidence from a survey and a tracking experiment in Barcelona

Cruise ships can bring thousands of passengers to a city at once, and their movement patterns can impact local mobility dynamics. Understanding the mobility of cruise passengers is crucial for city planners in tourism cities in order to promote sustainable mobility and to guarantee the well-being of the host community. Currently there is a heating debate about the cost and benefit of cruise tourism, our study aims to understand how independent cruise passengers (i.e., those who visited the city on their own) move in time and space, what modes of transport they use, and how such mobility patterns vary according to their socioeconomic profile and visit characteristics. We focus on the city of Barcelona, considering it is one of the main destinations of cruise ships in Europe. To analyze mobility patterns of independent cruise passengers, we use a survey conducted after the visit to the city, and we complement these data with a GPS-based tracking experiment. Between July and October 2022, we collected 891 complete surveys, and we had GPS data for 792 participants. Based on initial findings from GPSes data, there is a very dense concentration of cruise passengers in La Rambla and around Sagrada Familia and nearly one third of visitors used hop on hop off buses for sightseeing. With preliminary analysis of questionnaires data it appears that independent cruise passengers mostly travel as families, including couples, and they first rely on public transportation to access the city. Most visitors spend between 4 to 6 hours exploring the city, and while they generally do not have specific plans for their visit, they tend to concentrate their time on 2-3 main tourist attractions. Walking is the preferred mode of transportation for city exploration. Among motorized means of transportation, subways seem to be the preferred option, especially to reach tourist points of interest that are farther from the port. With this study we aim to contribute to the understanding of the movement patterns and spatial utilization of this type of visitors, to inform future studies as well as local authorities. Additionally, this knowledge can assist in planning for the economic benefit of both local businesses and the government while guaranteeing local residents' wellbeing.

Keywords: Tourism, mobility, cruise, walking,

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Getting started with Broader Welfare at the city level: a comparison with SDGs and the Doughnut Economy approaches

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Alicante-S78-S1 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 9:00 AM - 10:30 AM

GDP is a primary societal and economic indicator which plays an essential role in our society. It has dominated main government agendas to foster societal progress based on the economic growth paradigm. However, GDP cannot capture the whole spectrum of the complex economic system. At lower spatial levels, such as regions or cities, GDP has more profound limitations because it does not account for rising inequality, informal economies or environmental damages. In this article, we investigate the main overlaps and differences between SDGs, Doughnut Economy and BW and how they have been operationalised into indicators for SD at the city level. In particular, we first study their theoretical origins within the Sustainable Development (SD) discussion. Secondly, we scrutinise how these approaches have been implemented as SD metrics at the national and city level. We explore the type of data, indicators and methods used to formulate SD metrics. Finally, we discuss how these approaches, seen as SD metrics, can contribute to improving urban governance for transitioning towards a sustainable urban future. To do so, we introduced four metaphors for looking at cities: machine, organism, network and melting pot. We explore how these visions can influence the current and future formulation of indicators for SD of cities through these lenses. Ultimately, we discuss how Amsterdam can adopt an improved BW measurements approach that better aligns with its main sustainability challenges.

How has the Pandemic Changed Drug Use Patterns in Germany?

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Alicante-G30-O3 Covid-19 and regional and urban resilience, 0-D04, September 1, 2023, 11:00 AM -

1:00 PM

The COVID-19 pandemic and its accompanying policies have fundamentally changed everyday life and exposed people to severe stress factors such as fear of the illness itself, but also its indirect effects: social isolation, shortfalls in childcare facilities and schools, and higher unemployment risk. Hereby, some groups were more affected by the pandemic than others: women and older people were found to suffer more from isolation and the more insecure situation on the job market was more difficult for already financially disadvantaged people. Many studies using wastewater samples from European cities found that drug consumption has changed substantially during lockdowns compared to earlier years or the post-lockdown period. The effects differed across substances and cities. Previous studies only observe changes at the city level. However, not only the consumption of different drugs is affected differently by the lockdown, but also drug consumers react heterogeneously across socio-demographic groups. We estimate the impact of the first lockdown on the consumption patterns of illegal and legal drugs of different socio-demographic groups in five big German cities: Berlin, Hamburg, Frankfurt am Main, Saarbrücken, and Dresden. This study uses wastewater samples covering different time periods in the pre-COVID years 2017-2020. By applying a difference-in-differences (DiD) framework this study estimates the effect of the lockdown on the consumption of illegal and legal drugs and examines heterogeneous effects across socio-demographic characteristics. According to the existing literature on heterogeneous drug use patterns across socio-demographic groups, we expect the effects of the lockdown on drug use to vary substantially.

Business dynamism and spatial productivity. Evidence from European NUTS-3 regions

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Alicante-S76-S1 Global disruptions and their local labor market impact. An investigation into the spatial drivers of productivity and growth, 1-E11, August 31, 2023, 2:30 PM - 4:15 PM

The current paper exploits the business dynamism theoretical concept to shed further light into the declining productivity trends in the OECD countries. Notably, the comprehensive analysis investigates region- and industry-specific effects. Drawing on an extensive dataset, covering 581 European NUTS-3 regions between 2008 and 2018, the dynamic GMM analysis fails to identify consistent economy-wide productivity effects from business dynamism. Nevertheless, the industry-level approach uncovers positive impact in some economic sectors (trade and public administration), which extend over multiple years. In line with the theoretical expectations, we reveal divergent trends once we distinguish between firm birth and death rates. Finally, the analysis highlights far-reaching regional heterogeneity by illustrating that the effects materialize mostly in rural regions. From a policy perspective, the reported results indicate the necessity for place-sensitive policies to relax labor market rigidities and thus stimulate market entry, as well as policies allowing the spread of productivity gains to incumbent firms.

Creative occupations and innovation in urban and non-urban EU regions

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Alicante-S24 Outside the frame: creative, cultural and innovative dynamics in non-urban regions, 1-

D13, August 30, 2023, 11:00 AM - 1:00 PM

Innovation dynamics are crucial drivers for development, and as such, they have received significant attention from researchers and policymakers. The role of cultural and creative occupation has been recognised at various levels, such as growth, employment, and innovation. Several authors argue it plays an essential role in promoting innovation since cultural and creative workers encompass a wide range of professionals capable of producing a multitude of new products and services and providing ideas and new approaches to other activities. Additionally, while it is well documented that innovation and knowledge creation concentrate in cities, recent research has shown that non-urban and peripheral areas also engage in innovative activities. However, there is still a gap concerning regional studies and their contribution to innovative development at the sub-regional level. This article investigates how creative occupations across urban, intermediate, and peripheral regions affect innovation performance. In our empirical analysis, we will analyse 229 NUTS2 regions of the European Union in the period 2011-2020. As a measure of innovation, we will examine both trademarks, which better capture soft innovation, and patents, a commonly used measure associated with technological innovation. We obtained data from EUIPO trademarks and REGPAT patents. We employ the Eurostat classification for cultural and creative occupations as the main explanatory variable at ISCO 3 digits. Data will be evaluated for the period 2011-2020. Preliminary results show that cultural and creative occupations are positively associated with the number of trademarks per capita, especially in non-urban regions, including rural and intermediate regions (while there is no significant association with urban regions). In turn, cultural and creative occupations show a positive association with patents per capita in intermediate regions, while it is negative for rural regions. A greater female workforce participation in creative and cultural occupations is also positively associated with innovation in terms of trademarks per capita.

The geography of occupations in the European Union

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Alicante-G10-O2 Technological Change and Diversification, 0-C03, August 31, 2023, 4:45 PM - 6:30

PM

This study evaluates the opportunities for regional diversification in Europe over the last decade. We use microdata from the European Labour Force Survey to empirically test the entry and exit of occupational specializations at the regional level. Our results show that NUTS 2 regions are more likely to diversify into new occupations related to their existing local labour markets. So, the new opportunities for diversification are path-dependent, that is, they depend on the previous occupational structure of the regions. Relatedness is especially important for diversifying toward complex occupations, thus increasing the potential economic benefits of the regions. However, there are significant regional heterogeneities in this related diversification process. Relatedness is positively associated with occupational specialization but loses strength as GDP per capita increases among European regions.

House Condition Assessment: The impact of the wisdom of the crowd on valuation

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Alicante-G32-O2 Real Estate and Housing Markets Issues, 0-E02, August 30, 2023, 2:30 PM - 4:15 PM

Assessing the condition of a property is an important part of determining its value, but also the location which is partly determined by the immediate surroundings of a house is of high importance. To assess the condition of a house, an appraiser evaluates certain (exterior) characteristics according to a scheme in which each characteristic is weighted for the final condition classification. Such a condition assessment can also be made from pictures of the exterior which naturally show features of the surroundings but do not require an on-site visit. Therefore, this article examines the extent to which 102 students, as a sample of the general population, evaluate the condition of 100 single-family houses pictures of the exterior. Four of the pictures have been manipulated, the rest is controlled for different features that are visible in the surroundings. The main result is that the wisdom of a crowd assessment of the condition significantly increases the adjusted r-squared in a hedonic model compared to all single condition assessments. Furthermore, the focus of the scrutiny is on the effect of the surroundings on the assigned class. Despite of the fact that 66% of the mode answers of all the students correspond to the assessment of experts we also find that e.g. the existence of a pool biases the assessment of the participants to a too positive class assignment. Furthermore, it seems that the amount of greenery as well as the weather conditions in the background bias the assessment of students. Colour or black and white seem not to influence the assessment.

Methods to reconcile inconsistent data With an application to 2017 regional NUTS2 IO world tables for the EU28

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Alicante-S39 Dependency of regions in a fast-changing world: New contributions from regional IO modelling, 1-D14, August 30, 2023, 2:30 PM - 4:15 PM

Entropy-based estimation methods are the working horse in reconciling inconsistent data. They are based on information theory and commonly used in merging different sources of data in, for instance, the system of national accounts as represented by supply and use (SU) or Input-Output (IO) tables. We show that entropy-based methods have a bias toward the reliability of reconciled small numbers at the cost of the reliability of large numbers. As a consequence, these entropy-based methods may give unreliable results when there is a large variance in the size of the numbers that have to be reconciled. This can be detrimental in the analysis of dependence for trade policies (e.g. Brexit) or economic propagation effects of sudden events (e.g. Covid, energy supply, disasters, wars) via value chains since they are based on trade-linked systems of national accounts with trade flows that are typically characterised by such a large variation in size. We propose an estimation methodology based on the root mean square weighted error and percentage error (RMSWEPE) which gives more balanced estimates of the reconciled data. This methodology is numerically easy and can therefore be applied to large datasets. We illustrate the applicability of the methodology by the estimation of the 2017 regional NUTS2 trade-linked SU and IO world tables for the EU28.

Measuring spatial dispersion: an experimental test on the M-index

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Alicante-G40 Spatial Econometrics, 1-B02, August 31, 2023, 2:30 PM - 4:15 PM

We assess the viability of a geographic approximation aimed to reduce the computational intensity necessary to measure spatial agglomeration with Marcon & Puech's (2017) M index. Indeed, despite representing a potentially very accurate way of measuring spatial distribution, M has not been sufficiently exploited so far because its computation needs crossing every point (i.e. firms, plants) with each other within the area under analysis: such a figure grows to unmanageable levels when the area is larger than a neighborhood or when every industry is taken into account. Consequently, applications of M have been exclusively experimental and circumscribed to very limited areas or to a handful of sectors. This seems much regrettable since M provides many advantages compared to more conventional measures of spatial distribution and also to other distance measures.

In order to verify whether a slight geographic approximation is tolerable – which would be consistent with Marcon & Puech's assumption that “cumulative functions are insensitive to errors at smaller scales than the distance they consider” - we compute both actual M (with no approximation whatsoever) and approximate M for every industry in Sardinia. Our aim is to compare the results obtained when plants are located exactly where they are with those obtained when plants' positions are approximated to the centroid of the municipality where they are located.

We rely on a comprehensive dataset that allows us to identify the location, the industry and the number of employees for every single plant, and not only for entire firms. Our dataset's scope is not restricted to manufacturing, as it is often the case, but covers every area of activity, ranging from construction to transports and from retailers to other service industries. Moreover, we did not consider distance between approximated positions as the crow flies, but we relied on actual street distance and travel time between them: in the frequent case of orographically dishomogenous territories, it might be the case that such a measurement reflects the actual distance between the approximated locations of establishments even more accurately than the theoretical flying distance between actual locations. If our approximation in the location of plants is positively outweighed by the great accuracy of M in operationalizing detailed geographic and economic information, then such an index could really be exploited for assessing agglomeration and dispersion patterns across space and along time, especially when much information is available, as it is ever more often the case.

Do Actual and Subjective Inequality Meet Halfway in Left Behind European Regions?

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Alicante-G28-O3 Segregation, Social and Spatial Inequalities, 0-D03, September 1, 2023, 11:00 AM - 1:00 PM

Spatially uneven development has been conceptualised as the problem of regions ‘left behind’ in the European Union, the United Kingdom, and other countries. Importantly, the challenges faced by left behind places, whose residents struggle to win back their prosperity, are multifaceted and commonly encompass economic, social, demographic, and political issues. A complexity of the ‘left behind’ problem is accompanied by increasing interpersonal and interregional inequality, calling for a better understanding of these intertwined processes.

Despite growing interest in actual regional disparities, little is known about the patterns of subjective dimensions of inequality, especially in light of the dichotomy between advanced, “core”, regions and left behind, “periphery”, ones. Actual inequality, which is typically reflected in a measure of the distribution of assets or resources, is the first important objective dimension. What people’s perceptions of inequality are, i.e. perceived inequality, and what citizens wish it to be, i.e. desired inequality, are two additional, and commonly understudied, subjective aspects. The subjective dimensions of inequality, summarizing people’s reading of the reality and wishes, become crucial in the context of the entrenched actual regional disparities.

In this paper we study three different definitions (and measures) of income inequality and look at their patterns. We pay particular attention to how income inequality is perceived and what it ought to be in left behind places vs. more advanced regions of the EU Member States. As for the classification of regions, we use beyond the GDP approach and consider multiple aspects of regional economic disadvantage to complement the commonly applied GDP-based criterion.

Our findings show a non-trivial relation between three “types” of income inequality. We find that actual income inequality fuels people’s perceptions in left behind regions suggesting that their residents are concerned about interpersonal income differences, and therefore do not get accustomed to higher objective (actual) inequality. An opposite scenario occurs in more developed regions where the high level of actual income inequality is reflected in an underestimated perception of it. Consequently, the “paradox of inequality” might be more complex than previously thought since it is observed in European “core” territories, but not in its “periphery” ones. Moreover, the residents of “places that do not matter” wish actual inequality to decrease, unlike those in more developed regions.

Spatial distribution of the tourism carbon footprint in a Spanish region

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Alicante-G15-O2 Trade and Global Value Chains, 0-B03, August 30, 2023, 4:45 PM - 6:30 PM

The objective of this paper is to provide a spatial detail into the impact of domestic and foreign tourism in a particular Spanish region, Castilla-La Mancha, by combining the granularity of tourists' mobility data based on mobile phones with the calculation of the tourism carbon footprint using a multiregional input output (MRIO) approach. To our knowledge, this is the first instance this type of data is combined with IO data to allocate the carbon footprint spatially by municipality.

Recent studies have focused on analysing the impact of tourism on sustainability from different perspectives (Cai, 2016; Cardenete et al., 2022; Lenzen et al., 2018; Sun et al., 2020). The recent experience due to the pandemic and the lockdown has increased the need for in-depth studies of the consequences of changes to tourism patterns, particularly if this industry is to approach the sustainable goals set in the Glasgow Declaration on Climate Action in Tourism.

Expenditure surveys, such as EGATUR (for foreign tourism) and ETR/FAMILITUR (for domestic tourism), provide data according to different characteristics. Data by the Satellite Tourism Account (STA) bridges the gap between expenditure data from surveys and demand according to national accounts, so we can calculate the carbon footprint for both types of tourism, following the methodology in Cadarso et al (2022). We use a MRIO approach with the FIGARO database for 2020, including data for CO₂ emissions. This database also has regional detail, so a more precise calculation can be made using the specific production structure in a particular region, by nesting its IO data within the general model. To obtain our vector of demand, we allocate STA tourism demand to the chosen region from its share in expenditure surveys.

That footprint is, however, not homogeneously distributed within the territory. Locations receive vastly different amounts of tourists, from different origins, with varying levels and pattern of spending. From the calculated carbon footprint (including specific regional IO data), number of tourists and nights, spending levels per nationality for foreign tourists from EGATUR and the detailed information on province of origin, level, and pattern for domestic tourists from the ETR/FAMILITUR, we will obtain a carbon footprint per tourist and night (according to their country or province of origin). We will then distribute that impact spatially according to the number of tourists and length of stay in the municipalities that make up the Castilla-La Mancha region from the data on mobile phones.

Push and pull factors for leisure mobility to non-urban areas

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Alicante-G34-O4 Transport and Accessibility, 0-B02, September 1, 2023, 2:30 PM - 4:15 PM

Sustainability of mobility for leisure and tourism in exurban areas gains increasing attention following growing popularity of outdoors leisure and avoidance of people-dense activities during and after the COVID-19 pandemic. Scarce public transit connections and distance friction exacerbate inequalities in transport accessibility to non-urban areas. Understanding motivations and mechanisms of mobility flows for leisure and tourism towards the non-urban areas is critical for addressing the difficulties in sustainable development of non-urban destinations.

Using spatial interaction models, this paper examines spatial mobility between non-urban and urban locations around the Stockholm-Uppsala greater area. Mobile phone data records were analysed, and OpenStreetMaps data was complemented to provide information on land cover and amenities such as schools, markets, hospitals, and cultural amenities. The data from OpenStreetMaps was utilised as proxies for push and pull factors. The study's hypotheses are as follows: i) natural amenities are pull factors to non-urban areas, and urban amenities are push factors from non-urban and towards urban areas; ii) push factors from non-urban areas will have a weaker effect during holidays and leisure times; iii) push factors will have an even weaker effect during the COVID-19 pandemic, but this effect will vary according to individuals' socioeconomic characteristics and ability to travel; and iv) distance decay will follow a similar pattern, with less decay from urban to non-urban during the pandemic but high decay from non-urban to urban. The findings of this study will reveal inequalities in mobility by socioeconomic characteristics and between urban and non-urban areas.

Developing participatory engagement in a rural destination

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Alicante-S69 The role of participatory approaches in tourism and sustainable development, 1-D13,

August 31, 2023, 4:45 PM - 6:30 PM

Developing participatory engagement in a rural destination

A challenge in developing a place into a sustainable destination lies in the balance of developing an attractive place for inhabitants, tourists and companies while preventing the potential negative aspects related to pollution or socially negative impacts on inhabitants (Milano, Novelli, and Cheer, 2019). This presentation is based on findings from a project which aims to show how digitalization can promote the visitor's and the destination's role in the realization of a sustainable visit in a rural/peri-urban proximity. A sustainable visit means that the visiting activities should generate positive and minimize negative effects for the environment and society that visits may otherwise entail. The contribution is to enable a destination's planning and implementation of the visitor's stay and thereby facilitating a more even distribution of visitors in a region. However, this cannot be done as a top-down project, as research shows the importance of developing participatory models (see e.g., Wang, Fesenmaier, 2007). To reach a co-creation of value through stakeholder participation, a model was developed and designed within the Horizon2020 project, INCULTUM. In this paper, a methodology for collection of data was developed, including surveys, GPS-loggers, like-buttons, and post-visit matching of data to phone mobility and GIS- amenity distribution maps. As a result, we present the methodology that entails passive, active, and participatory collection of data. Through the different levels of stakeholder engagement, a methodology of knowledge co-creation related to policy and strategy formulation is developed.

Environmental attitude, perceptions and values for lagoon ecosystem services

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Online-G42 Human environmental interactions, August 28, 2023, 4:45 PM - 6:30 PM

This study explores people's environmental attitudes and perceptions for assigning economic values to ecosystem services improvement. Primary data were collected from a sample of 517 residents in the Veneto Region. Respondents' environmental attitude was measured using the New Ecological Paradigm (NEP) scale. Economic values were derived from a Choice Experiment survey. The results showed that respondents had a high level of environmental concern on most scale issues. The principal component analysis (PCA) applied in this study determined three dimensions of the NEP scale: anti-anthropocentrism (pro New Ecological Paradigm items), human domination (pro Dominant Social Paradigm items) and limits of nature. The multidimensional nature of the NEP scale revealed the complexity of analyzing environmental attitudes. A mixed logit model was used to estimate the relation between people's willingness to pay (WTP) for a hypothetical regional policy aiming at improving the lagoon ecosystem services with their socio-economic characteristics and the PCA results. We found that environmental attitudes, knowledge, and individual characteristics positively related to people's WTP.

Zero Waste Cities

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Alicante-G17-O2 Quality of government across space and time, 0-D01, August 31, 2023, 4:45 PM -

6:30 PM

At present, we are facing an economic sea change towards a more circular economy, with waste reduction and efficient management at its core. Reducing municipal waste is a challenge for urban policymakers around the world, but often it is unclear what the best strategies for effective waste management are. We analyze to what extent participating in the Zero Waste Europe (ZWE) initiative can act as a commitment device and to what extent waste is reduced compared to other cities without the same status. Zero waste concerns itself with the conservation of resources throughout the life cycle of a product - from raw material sourcing to production to disposal - as well as increased recycling and composting, conscious energy consumption, and efficient manufacturing. ZWE fosters the zero-waste transition by creating the legislative, financial, and cooperative groundwork necessary. There are currently 460+ European cities committed to becoming zero waste.

Exploiting novel Italian municipal-level waste data between 2010 and 2020 allows us to compare the trajectory of the 310 towns that joined the ZWE initiative at different points in time to a control group. We discuss the importance of socio-economic, geographical and institutional factors, as well as self-selection into the program. In a preliminary econometric analysis, we check for evidence of an environmental Kuznets Curve (EKC) for municipal waste. The EKC hypothesis supposes environmental degradation and income per capita share an inverted U-shape relationship, suggesting that economic development initially deteriorates the environment and then redresses at some level of economic growth. We seek to find whether the hypothesis holds true for the specific issue of municipal waste.

Our dataset shows wide variation in municipal waste per capita levels across Italy. Summary statistics reported in Table 1 indicate more efficient waste management systems among treated cities in terms of separate collection and recycling. The preliminary analysis gives evidence of an EKC in municipal waste, with zero waste cities tending to be located near to or below the curve as seen in Figure 1. In subsequent analyses, we hope to explore this at a deeper level. Table 2 provides an overview of different specifications illustrating the inverted U-shaped relation between municipal waste and GDP. As we move forward with our inquiry, we will next conduct an econometric analysis to see if participation in ZWE causally lowers waste levels or whether there is self-selection in the way that already efficient cities join the initiative.

The convergence process in Romania: a multidimensional approach

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Online-G01-O2 Regional and Urban Development, August 28, 2023, 4:45 PM - 6:30 PM

Economic convergence has usually been considered as a process of catching up of less developed regions towards core regions. However, economic convergence is not able to express the complexity of change in human well-being and quality of life. Therefore, we expand the use of the convergence concept beyond the traditional GDP-based approach taking into consideration social variables as well. More exactly, we test in this paper whether there is a social or economic convergence process towards a homogenous stable state/economy in Romania in the period 1990-2020. In order to depict the social and economic convergence of the analyzed territorial units we have applied a four-step econometric model. First, we have applied one of the most commonly used method for estimating convergence, namely the σ and β -convergence statistics, also considering the spatial econometrics estimation method in order to test the existence of spatial dependence. In order to point out that several territorial units tend to show a homogenous growth/development path or form clubs of convergence, we have applied the log t convergence approach. The results suggest that economic indicators (GDP/capita, income/capita) tend to diverge, while some of the social indicators (life expectancy of birth, secondary education) have a tendency to converge. Further on, the analysis also shows that the formation of convergence clubs is stronger in the middle/average- and least developed regions, the well-developed ones having unique development paths.

Heterogeneity behind skill-relatedness

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Alicante-G03-O2 Demographic Change, Population and Migration, 0-C02, September 1, 2023, 11:00 AM - 1:00 PM

The existence of skill-relatedness stems from our labour market behaviour. The nature of the labour flows estimated in this way is crucial to understand in many areas, but surprisingly little is known about the geographical and socio-economic aspects of the formation of the skills network. A deep-rooted social structure underlies the creation and persistence of links between industries, occupations, or technologies. In practice, mainstream estimation methods mask such regional differences. Most research on skill linkages usually aggregates or averages data across industries and regions. These simplifications, however, hide some critical information about the underlying structure of the skills that the labour flow network is trying to capture.

Moreover, simplification is a waste of information and compromises the internal validity of the research by systematically under- or even over-measuring linkages for specific labour market groups or regions. In this paper, we use models from information theory to explore the geographical fragmentation and heterogeneity of Swedish labour market regions. The results show significant variance between the different types of regions; the lower the population density of a region, the more it differs from the national pattern. We also find that the differences are even more pronounced when we decompose the patterns by social and economic segments such as immigrant status, gender, and level of education. We believe our findings help calibrate policy interventions better, mainly when they target a specific region or a particular labour market group.

The Link between Territorial Capital and Urban Transformative Capacity

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Alicante-S32 Territorial Capacity for Sustainability-Oriented Innovation and Transformative Change, 1-

E11, August 31, 2023, 2:30 PM - 4:15 PM

Although the concept of territorial capital and urban transformative capacity have been among the most popular research issues in regional science and urban studies for the last couple of years, being relatively new topics, there are still plenty of open questions that need to be addressed and deserve further research. Notwithstanding, both research issues have evolved significantly over the past two decades. It can be evidenced that territorial capital and urban transformative capacity have important properties, characteristics and functions, as well as both research domains fit well with many current approaches and discourses in academia and policy-making. Although previous work is rich and useful, as well as significant progress has been made on both topics, such efforts are not necessarily enough for capturing the linkages between them. The co-existence of territorial capital and urban transformative capacity in regional science begs a set of questions. For instance, at root, is there any reason for simultaneously studying these concepts? Besides, what exactly are the differences and similarities? What can the two approaches offer each other, and what is the mutual benefit by sharing strong points? Accordingly, the overarching aim of the paper is to reveal some of the linkages between the two research topics and develop a set of mutually reinforcing muscles to compensate each other's shortcomings, with a particular focus on the interplay between factors and assessment techniques, that are already there, yet unrevealed. An extensive systematic literature review on recent advancements of territorial capital and urban transformative capacity research is carried out to uncover the similarities and differences, as well as point out unique strengths. If we look for ways to combine the strengths of the two research domains, we might be able to create some hybrid approaches and explore mutual concerns in planning and assessment, which may be more profitable to optimise the perceptions of researchers and practitioners about the process and achievements in sustainability transitions, agility and response capability of cities and regions, and urban and regional capacity development. The common strengths suggest a number of ways for practicing planners to begin incorporating the two issues into a comprehensive planning and assessment framework.

Collective action in times of crisis: Lessons from community initiatives in Boston and Medellín

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Online-S47 Urban challenges in time of multiple crises and of the twin transition, August 29, 2023,
11:00 AM - 1:00 PM

The COVID-19 pandemic had widespread socio-economic impacts, disproportionately affecting the most vulnerable communities. The pandemic worked as a catalyst for collective action driven by new or existing community initiatives. As we enter the post-pandemic era, many of these initiatives are expanding their action as local, mutual-aid networks, helping communities pool their resources and become more resilient. We examine an array of such initiatives in two case studies—Boston, USA, and Medellín, Colombia. Our aim is to identify shared qualities of community initiatives that support their flexibility of action in the face of disruption, contribute to community resilience, and enable transformative change.

The information analyzed is based on more than twenty interviews with participants and organizers, realized in the two case studies, revealing multiple aspects of the initiatives and their processes. We analyze different aspects of these initiatives including their size; thematic focus; organizational structure; level of resilience; area of operation; the beneficiary population; the use of digital tools as enablers and means of communication; as well as connections with other initiatives and institutions. The initiatives are then categorized according to their characteristics, and their timeline of action is correlated with threats and transformations observed locally and globally, to identify interconnections among types of community action and resilience capacity.

Sustainable Finance – A Way to Improve Social and Economic Sustainability. The Romanian Experience

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Online-S47 Urban challenges in time of multiple crises and of the twin transition, August 29, 2023,
11:00 AM - 1:00 PM

Sustainable finance is a concept that refers not only to environmental problems, but also to social objectives such as those social goals included in the 2030 Agenda for Sustainable Development. Summarizing, it refers to societal impact. In literature, this term - societal impact – is used with the meaning of social, environmental, medical or cultural impact (Rizzi F. et al., 2018; EVPA Report, 2017).

The current challenges regarding the future development of the social finance market refer to the opacity of its conceptual bases. For this reason, this article aims, among others things, to clarify the basic concepts and instruments of social finance and their continuously developing market, analyzing the literature in the field. Thus, first of all, we analyze the structuration processes that take place in social finance and the institutional actors involved. Also, a conceptual delimitation of social investments and the way in which they are selected is necessary.

Last but not least, reviewing the literature, this article addresses to the analysis of the financial instruments (FI) used on the social finance market and their impact, also addressing the issue of the usefulness of tailored finance of a social purpose organization.

Regarding the experience on the social finance market in Romania, this article aims a static and dynamic analysis of the financial instruments used, as well as of the entities in the Romanian social economy, proposing solutions to improve public policies in terms of sustainable finance and social economy from our country.

Internet and firm productivity: a multilevel approach based on experienced broadband speed data

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Alicante-S15-S1 Digitalisation, global shocks and new inequalities, 1-C13, August 31, 2023, 4:45 PM - 6:30 PM

The discussion about the productivity gains from digital technologies is almost as old as digital technologies themselves. From early futuristic approaches to the various forms of the productivity paradox, there are still open questions regarding if and how the internet can lead to positive economic effects. The usual caveat to unpack this relationship is data about internet usage that is detailed enough to be linked both to economic outputs and places. We develop a multilevel framework and combine firm-level microdata with novel internet speed microdata illustrating how connectivity has been experienced by end-users. We observe firms, their productivity, and other firm characteristics and estimate the effects of broadband speeds after accounting for spatial effects and platial characteristics. Our results indicate that it is differences in the top 90th percentile) internet speeds that are associated with higher firm productivity rather than variation in the median. These results vary by sector and depict a clear urban benefit. They have significant policy implications, highlighting the material impact of rollout decisions and presenting policymakers with dilemmas regarding efficiency vs. equity.

CircuPuncture: Strategy of building Circular Territorial Cluster

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Alicante-G26 Spatial aspects of a Circular Economy, 0-C02, August 30, 2023, 4:45 PM - 6:30 PM

The transition of economies towards a circular economy is a necessity. To facilitate the implementation and transition of assumptions of Circular Economy in regions, there is a necessity to introduce a new way of managing circular territorial clusters, by applying the CircuPuncture model. Participants involved in the circular territorial cluster are partners (institutional or individual) with varying degrees of autonomy and their own objectives. The autonomy of individual partners fosters innovation and experimentation. The cooperation between them is renewable and long-term. The traditionally understood organizational hierarchy loses its importance and the dominant structure is flat. By moving away from formally independent units, better conditions for cooperation are created. The form of coordination between parties is negotiation and agreement, rather than competition. There is a higher level of flexibility and adaptability of individual organizations as well as the entire circular territorial cluster. Circular Regional Cluster (CRC) is a kind of locally embedded economic network. Embedding in this case has a strong link to the existence of short supply chains for raw materials and goods. In this network, besides the classical actors for Helix models (Triple, Quadruple, Quintuple Helix), citizens (Society) play an important economic role. Here, society is seen as a co-producer, who is an active, economic market participant. The CRC is a multi-sector network due to the thematic scope of the Circular Economy (CE). The aim of our research is to describe the main assumption of a framework for the management of the CircuPuncture model that supports the implementation of circular economies in traditional economies.

Design thinking and intangible cultural heritage- the perfect alliance? The impact of using the method on regional intangible heritage management

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Alicante-G37 Cultural Heritage and Regional Development, 0-E01, August 30, 2023, 4:45 PM - 6:30 PM

Modern theories of heritage management treat it as a resource and a process that can be shaped according to the needs of the recipients. New products, services, images of regions are created on the basis of heritage. Heritage is important in the modern view of local development management. Elements of cultural heritage are increasingly becoming a field of exploration for designers, whom they inspire to create innovative solutions both for individuals and communities. The broad impact of heritage on the development of the region indicates that it needs to be managed consciously and holistically, also with the use of creative working methods and tools. One of them is the design thinking method, which offers a holistic view on the societal needs in relation to the heritage. The article presents results of the research conducted by the author in the field of application of the design thinking method to the management of intangible cultural heritage of the region in Poland. It presents the findings confirming that the use of design thinking in that field brings added value for the regions, as it influences the emergence of tangible and intangible solutions, equips heritage managers with tools to improve their work, brings solutions closer to the needs of the users, strengthens the belief in the importance of the occurrence of intangible cultural heritage for the region and strengthens the social ties of depositors. The research conducted by the author used a triangulation of methods, quantitative and qualitative research, including a scientific experiment in the form of a design thinking workshop. The adaptation of the method to the intangible cultural heritage and its impact on the regional development will be discussed, the optimal model of the process will be presented, as well as its barriers and limitations.

Distance effects on commuting flows across France and across its national borders

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Alicante-G13-O1 Urban Challenges and technological transformations, 0-E02, August 30, 2023, 11:00

AM - 1:00 PM

Daily mobility flows, in particular commuting, have major social and environmental impacts. Understanding those flows is essential for urban and transportation planning. The acceptance of teleworking in the past few years has changed the way distance is perceived, allowing commuters to seek residential advantages in greater distances from their job places. In border regions, where income and social benefits differentials across countries add to the distance trade-off, these changes may well trigger even more substantial changes in commuting patterns. Given the current lack of robust post-COVID data, we suggest to explore internal and cross-border mobility patterns before the pandemic. More precisely, this paper studies the mobility patterns of all commuters residing in France and compares those working within the country and across the border. The aim of the paper is to quantify both the repelling effect of distance and identify whether it is of the same magnitude across borders. We also aim to discover spatial heterogeneity, with varying roles of the different borders of France (with Belgium, Luxembourg, Germany and Switzerland). To that end, we first estimate spatial interaction models (unconstrained and doubly constrained models) for France as a whole to retrieve the general effect of distance then include border dummies and interactions. We also analyse residuals to identify border's permeability. We highlight and discuss preliminary results.

How scientific knowledge development affects the role of universities in regions? The case of Vestland, Norway.

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Alicante-S09-S2 University impacts on the local and regional economy, 1-C13, August 30, 2023, 2:30 PM - 4:15 PM

Over the past four decades, universities have been recognized as significant actors in fostering regional innovation and contributing into local (economic) development in places where they are located.

Among the different early conceptualizations of the role of universities in regional development and innovation, is their traditional role, the one of education and research. Despite the new demands emerged in the transformation of universities' role, due to several complex societal challenges, the emphasis on their traditional role has not lost its validity and legitimacy. Indeed, universities through the expansion, strengthening, and evolution of their scientific networks, tap on regional, national, and international knowledge resources. However, how these knowledge resources affect and transform the role of universities in terms of regional innovation and development?

Empirically, we aim to answer this question by investigating scientific collaborations of the three higher educational institutions in the region of Vestland, Norway for the last ten years. To do so, we used mixed methods, combining social network analysis with interviews. First, we mapped the scientific knowledge networks of the three universities through the publications of their scholars. Then, we analyzed the evolution of the three networks, in terms of locations of co-authors and scientific fields, dividing the network in three non-overlapping periods. Finally, we used interviews to understand the changes in the role of these three universities to the regional development of Vestland. Preliminary findings show that the role of universities is reflected in their scientific activity, while the three universities position themselves differently in their context.

Green technological knowledge as key for resilience after Covid-19: the Norwegian case

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Alicante-S23-S1 Rethinking regional resilience, 1-D12, August 30, 2023, 11:00 AM - 1:00 PM

Green technological knowledge production is important for the transition towards sustainability. Within the literature of sustainability transitions, green technological knowledge is a fundamental element for the production of green innovation. However, during the recent Covid-19 crisis, the introduction of green innovations is contributed also largely to the resilience of firms and organizations. But still, little is known on the effect of green technological knowledge on the firms' and consequently regional resilience.

Before the Covid-19 pandemic outburst, firms have introduced (or not) several green innovations, contributing to the transition towards sustainability. This alongside other firm characteristics has helped them to face the consequences of the pandemic crisis. On the other hand, the response of the firms to the pandemic crisis cannot be space indifferent, as firms are part of regional systems. There is limited empirical evidence on how spatial determinants have affected the response of the firms to the pandemic crisis. Which are the regional characteristics that drive the firms' resilience after Covid-19? Did the regional green technological capabilities play a role in the maintenance of this resilience? How did this process affect the resilience of the entire region?

To give answers to the above questions, we considered the case of Norwegian firms and economic regions, and their response to the pandemic crisis. We combined data from PATSTAT registry, including all granted patents on green technologies (Y02) with at least one inventor located in Norway, and the Community Innovation Survey (CIS). Our level of analysis is both the firm and 85 economic regions of Norway which corresponds to the NUTS-4 European regions.

Economic and Environmental Impacts of Dedicated Freight Corridors in India

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Alicante-G34-O5 Transport and Accessibility, 0-B03, September 1, 2023, 2:30 PM - 4:15 PM

Dedicated Freight Corridors (DFCs) shall transform the existing logistics networks in India, which can boost up economic growth. DFCs can potentially trigger significant modal shifts from road transportation to railways, which can reduce CO₂ emissions.

We built an economic geography model of the Spatial General Equilibrium Model called Geographical Simulation Model, based on Spatial Economics, featured by urbanization, economic clustering, and transportation costs. It is equipped with modal choice among road, rail, ship, and air.

We compiled a geo-economic dataset for DFCs, whose Indian part is consisted of district level and 576 regions, which is well suited for the study of intra-national large scale infrastructure project analysis.

Scenarios

We conducted three scenarios for 2040: 1) West DFC, 2) East DFC, and 3) All DFCs. We compare these results with the baseline scenario where DFCs are not completed and completed.

There are significant impacts both in economic and environmental terms. When both DFCs are operational, real GDP per capita shall increase around 0.96% in 2042. If we only have one DFC, the impacts shall be less than half of this, showing that there are synergy effects, where implementing both projects together has more significant consequences than the sum of each. On the environmental side, though freight flows and economic impacts increase, both DFCs can reduce CO₂ emissions by about 24.21% compared to the case without DFCs. Again, the implementation of both DFCs can bring larger impacts to reduce CO₂ emissions than those with only one DFC. These suggest that the direct impacts of reducing CO₂ are far larger than the increasing CO₂ due to stimulating economic activities.

Cultural Valuation of Being Human: The Impact of Chat GPT Poetry on Eco Awareness

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Alicante-S08 Local Cultural Context and Its Emoting Variations: Machine Learning Approaches, 1-C13,
August 30, 2023, 11:00 AM - 1:00 PM

A core toy model in Culture Based Development (CBD) is the model of cultural valuation of economic assets. Previous CBD research has provided evidence for the cultural valuation anomalies under the information treatment that a given asset is produced by an AI – namely people tend to under-evaluate music when they learn it is composed by AI and to upgrade their evaluations for the human compositions (see, Tubadji, Huang and Weber and then Tubadji (2021) and Tubadji and Huang (2023)). The current study aims to first replicate the above-described CBD experiment, this time using a different form of art – poetry (in its short form – haiku), composed respectively by human poets and by different versions of Chat GTP algorithms. Second, the current study extends the inquiry by posing the research question – are people’s emotions, perceptions and awareness about the ecology and the world more readily impacted by the huma creative art product or by the AI generated art. There are reasons to believe that either is potentially plausible. As machines do not cheat, they are more trustworthy so they may be perceived as more worth following one’s recommendation and advice. However, the literature shows that people prefer human-error exhibiting car navigation systems than more efficient GPS systems. Our analysis equips us with further insights on the potential for impact by ChatCPT and related AI technologies on the evolution of the socio-economic discourse. Potential reasons for our results stemming from the very language optimization procedures that are fundamental in information science are offered as speculations, which in light of our analysis are worth further research.

Culture Based Development (CBD): The Market for Cultural Valuation and the Rural-Urban Challenge

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Alicante-S07 Culture Based Development (CBD): Cultural Context and Social Psychology in Confronting Urban and Rural Challenges, 1-C11, August 30, 2023, 4:45 PM - 6:30 PM

A core toy model in Culture Based Development is the model of the demand and supply for cultural attitudes – i.e. the market for cultural valuation. According to CBD, the market for culture is where the individual living attitude demand and the local inherited attitude supply find their most efficient level of affinity to any object or subject in life. The market for culture is theoretically explained as a process of market clearance on the market for cultural valuation from which the price on all other markets is derived. This CBD theory is next empirically illustrated with the case of shifting cultural demand and supply on individual and local level in Iran. Data from the WVS (in its waves 4, 5 and 7) with difference in differences approach and instrumental variable related to changing mosques attendance and numbers of historic mosques in the locality where one is born. Difference in differences and instrumental variable approach are used to identify the impact from culture. The distinction between individual and local effect is demonstrated through the use of hierarchical modelling. The empirical work validates the theoretical claims of the CBD model of market for cultural valuation and reveals some of its intricacies. The main contribution of this paper is clarifying the evolution over time of the cultural attitude as a source of cultural valuation of the reality per se. While cultural economics has postulated that there is cultural valuation on top of the economic valuation (Throsby 1999) and while we know that cultural taste (for discrimination) plays a crucial role in economic choice (with individual and regional variation (Becker 1955), it is still little known how does the cultural taste emerge and evolve. The current paper sheds some light on the link between these notions from construction and deconstructionist Wittgenstein point of view, and empirically evidences the important dynamics of culture and its evolution over time in relation to the socio-economic reality of interaction and choice. In this context, I importantly bring new evidence on the different challenges and corresponding cultural hysteresis (i.e. disproportional change) that emerges in cultural attitudes across space within the same institutional context (Iran) along the urban-rural divide.

Regional smartness and territorial innovation – Romanian case study -

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Alicante-G16 Smart Specialization, 0-C02, August 30, 2023, 2:30 PM - 4:15 PM

The paper aims to evaluate, using an innovative methodology, the smartness level of the development regions in Romania, more precisely: the ability of NUTS II regions to capitalize on their human, structural and relational capital and their ability to integrate different actors and territories into regional innovative practices.

The analytical approach was subordinated to the hypothesis that a high level of regional smartness ensures a favourable climate for the development of smart initiatives at the regional level, including in rural areas that operate in close connection with the regional system assembly.

In the regional smartness assessment, a methodology based on Stochastic Multicriteria Acceptability Analysis, advanced within the Horizon 2020 PERCEIVE project, was chosen. By applying the SMAA method, it is possible to determine how intelligent each of the NUTS II regions in Romania is. The regional smartness parameters were analysed in their temporal evolution (in the years 2013 and 2020) in order to evaluate to what extent territorial disparities deepen or are overcome under the influence of different policies and programs that address territorial development.

The results of the study show a positive evolution along the previous EU multiannual framework programme (2013-2020) by reducing the gaps between regions in terms of regional smartness. Therefore, there are favourable premises for intelligent, technology-based growth in all the territories of Romania. However, in the period 2013-2020, some regions recovered the pre-existing gaps regarding the level of intelligence faster (South West, West, South), and others lost the comparative advantages they had at the beginning of the analysed period (North West, North East, Bucharest).

Energy Transition Metals and Economic Development in Latin America

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Online-G01-O3 Regional and Urban Development, August 29, 2023, 11:00 AM - 1:00 PM

This paper aims to analyze the role of energy transition metals (ETM) in the development of regions, in Latin America countries, conditional on the local quality of institutions. As an increase in the demand of ETM is expected in line with the energy transition needs, several countries, ETM producers, may profit from the bonanza or, on the contrary, may fall into a natural resources curse. We aim to identify these effects at a disaggregated level. To do this, we construct and use an original dataset on 18 Latin American countries, at regional level, employing geo-localized data on the ETM mines locations. We also build a new regional index of the quality of institutions. We find that ETM do not have a direct impact on regional growth, rather its effect is conditional to the quality of institutions.

Spatial Explanation of Life Expectancy

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Alicante-S78-S1 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 9:00 AM - 10:30 AM

This study investigates the deviation between male and female life expectancy in Sweden using a super local measure. Unlike previous studies that used larger geographic units, we focus on bespoke neighbourhoods by a k nearest neighbour approach to capture more precise information about the impact of socioeconomic and environmental factors on life expectancy. We employ multilevel models to isolate the effects of specific environmental factors such as natural amenities, urbanization, and farm domination and also socioeconomics on life expectancy. Our results show that neighbourhoods dominated by natural amenities, such as lakes and rivers, have a positive effect on female life expectancy but a negative effect on male life expectancy. We also find that urbanization has a negative association with life expectancy for both men and women, but the effect is stronger for men. In detail the main findings of the study are:

Using a super local measure of life expectancy, we found significant differences between male and female populations in Sweden.

Neighbourhoods situated around ocean, sea, lakes, and rivers have longer life expectancy for women, but shorter life expectancy for men.

The dominance of urban qualities in a neighbourhood is associated with a decrease in life expectancy, particularly for men.

We found a negative association between life expectancy and farm domination in both male and female populations.

The use of multilevel models and null models helped to uncover the effects of specific neighbourhood characteristics on life expectancy, while controlling for other factors.

Our study provides new insights into the relationship between environmental factors and life expectancy and highlights the importance of using small geographic units to capture more accurate information about local variations in life expectancy.

Enhancing supply chains agility - Automotive producers in Central Europe developing logistics capabilities in times of the Russia-Ukraine war

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Online-G41 Space and supply chains, August 28, 2023, 2:30 PM - 4:15 PM

Since 2019, automotive supply chains have been challenged by the Covid-19 pandemic. Another unexpected event stroke the industry hard in the first half of 2022. Both the war caused by the invasions of Russian troops in Ukraine and the sanctions against Russia resulted in supply chain and transport link disruptions and production losses for European companies. The Covid-19 pandemic was an opportunity for companies to build their supply chain resilience still the war in Ukraine resulted in new uncertainties and challenges. Problems were announced by all car producers in Europe. This paper investigates the proactive and reactive measures applied by Czech and Hungarian automotive companies under the circumstances of the war in Ukraine. We apply the qualitative methodology and analyse interviews with companies' managers to learn about the applied measures. The results revealed that the resilience gained in the Covid-19 pandemic involves proactive measures that have been kept since then. The mainly discussed reactive measures are production replanning and alternative transportation. Adopting the multiple sourcing strategy in the automotive sector is limited and reactive rather than proactive. The important antecedent of agility is information sharing and cooperation inside the multinationals.

The concept of sustainable development in retail trade in Poland

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Alicante-S20 Sustainable retail trade and changes in urban space, 1-C13, August 30, 2023, 4:45 PM -
6:30 PM

Retail is undergoing an unprecedented transition. The internet has led to new sales channels and new opportunities to reach out to customers, and globalization has opened markets and introduced new competitors. Sustainability has moved up the agenda for retail players. All companies in the retail sector and the business world in general, are changing their philosophy and way of doing business to be more sustainable. Because for consumers it not only matters that brands do well, they want them to give the best of themselves and not only worry about economic aspects, but also monitor their social and environmental impact. However, is sustainability possible in the retail sector in Poland?

Legal issues concerning generative AI technologies

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Alicante-S35 Institutions, digitalization and territorial transformations, 1-D12, August 30, 2023, 2:30 PM - 4:15 PM

We are witnessing an accelerated technological evolution that has enabled the development of artificial intelligence in various fields, allowing it to gradually infiltrate the entire society. We intend to cover only a small subset of AI technologies in our paper, that of smart assistants or, in other words, Generative Artificial Intelligence (GenAI).

Our objectives are to shed light on the legal issues that GenAI can cause and to find solutions to them. We will begin with a definition of GenAI in the much broader context of AI technologies. Answers to a few essential questions are to be found: "How does GenAI work?", "What could GenAI be used for?", "What legal issues could arise from using a GenAI?".

To accomplish our goals, we will first conduct a literature review to define artificial intelligence (AI) in general and GenAI in particular. Several case studies (still pending) in US courts will be used to illustrate the magnitude of the legal problems and to test the feasibility of possible solutions in both the national and EU legal systems. Another methodological approach will be a desk-based research which will include an overview of the most common Generative AI Terms & Conditions on this subject.

The Impact of COVID on the Urban-Rural Happiness Gradient

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Alicante-S78-S2 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 11:00 AM - 1:00 PM

Research has shown that people in the developed world tend to be less happy in cities than in rural areas—the so called “urban-rural happiness gradient.” The recent COVID-19 pandemic offers an opportunity to explore how cities were impacted. Not all groups of people experienced the pandemic equally and we are particularly interested in exploring how living in a big city upended life during the pandemic, resulting in less happiness. One of the disadvantages of large cities and dense settlements is the greater spread of infectious diseases compared to rural areas. Thus, in this paper, we examine how the COVID pandemic affected happiness in the largest cities compared to rural areas by exploring the World Value Survey and the General Social Survey datasets.

Crimes, housing prices and gated communities

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Alicante-G32-O2 Real Estate and Housing Markets Issues, 0-E02, August 30, 2023, 2:30 PM - 4:15 PM

We investigate effects of crimes in housing markets. Using unique data on gated and non-gated subdivisions, we identify capitalization effects of crimes on housing prices. For this, we decompose data on crimes in gated and non-gated crimes for gated and non-gated property. Data from Orange County Florida over 2010-2013 indicate that crimes are associated with lower house prices. We find a mean effect of 2 per cent lower house prices for every crime within 520 feet and 180 days prior to the house transaction. For non-gated property we find a mean effect of 1 per cent lower house prices for nearby non-gated crimes. For gated property we find a mean effect of 8 per cent lower house prices for every nearby gated crime.

The long-term consequences of brain drain related to depopulation on social and territorial cohesion

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Alicante-S18-S1 Drivers and impacts of migration: new insights on the role of local labour markets, human capital, remote work, and (family) networks, 1-C14, August 31, 2023, 2:30 PM - 4:15 PM

This paper contributes to the Brain Drain discussion with a territorial analysis with a focus on the North of Netherlands and a limited comparison with similar areas in Germany and Denmark. The aim of this paper is to shed light on the consequences of brain drain and, more broadly, brain circulation on social and territorial cohesion. The paper identifies the economic sectors and job categories most affected and explore how regional economies can adapt to a shrinking (highly skilled) labour force and still achieve a shift to a more productive knowledge-based economy. It will investigate the long-term consequences, the different drivers, and potential comprehensive solutions at all levels of governance to stop or even reverse brain drain. To shed light on this the focus of this study is on the North of the Netherlands covering the three northern provinces Groningen, Fryslân and Drenthe. This region borders the UNESCO World Heritage Wadden Sea, the largest tidal flat system in the world, with Outstanding Universal Nature Value, stretching along a coastal strip of about 500 kilometres from the North of the Netherlands via Germany up to Denmark. Due to data problems a detailed comparable analysis encompassing the whole area in the three countries is not well possible. Therefore, the findings for the North of the Netherlands will be compared with the coastal areas in Germany and Denmark.

Geography, Asset Prices and Depreciation: Commercial real estate properties and investors across Europe

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Alicante-G52-New Trends in Urban Development, 1-B03, August 30, 2023, 4:45 PM - 6:30 PM

This paper investigates the geography in depreciation rates for commercial real estate properties across Europe with varying climate risks. First, we examine how many properties are at risk within our sample. Second, we investigate which type of buyers invest in commercial real estate properties with a high climate risk profile. Third, we investigate differences in net depreciation rates across Europe based on a comparison of asset prices for properties of different ages, and examine heterogeneity across institutional, public and private investors. We use a comprehensive database of commercial real estate property sales across Europe covering 2010 to 2017 with detailed information on the type of investor seller and buyer. We find significant variation in depreciation rates across space and over market segments. We also examine regional variation in depreciation rates by probing more deeply into drivers including flood and landslide risk, and regional population, unemployment, and income.

Urban policy response to radical innovation in sustainable energy: university spin-offs and local Triple Helix interaction

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Alicante-G13-R Urban Challenges and technological transformations, 1-B02, August 30, 2023, 11:00 AM - 1:00 PM

In the frame of fastening the energy transition, this paper pictures several risk-taking strategies of young high-tech firms in bringing energy inventions to market, and ways in which urban policy (municipalities) may provide supporting facilities. Derived from a longitudinal study of a 100 firms in northwest Europe, two findings make a contribution to practice. Firstly, a share of almost 40 per cent of university spin-off firms fails in market introduction, and if market introduction reached, 30 per cent is relatively late. This development calls for attention to acceleration and risk-taking concerned. However, risk-taking firm strategies like targeting radical inventions and new markets, tend to hamper early market introduction. Secondly, urban policy is supportive in filling risk-related needs, in particular in large metropolitan cities' networks. Cities (municipalities) may act as launching customer and provide sites and organization for practical experimentation (e.g. in living labs), alongside steering on cross-faculty application platforms at university that also connect with city functions. Cities' initiatives, however, tend to be fragmented and miss priority. Partnering in Triple Helix networks with local universities and business may improve the situation, for example by priority setting, better alignment and integration. Urban policy has also a role to play in improving broader conditions, like attraction of related R&D firms to the city/region and attraction and retention of top-class researchers.

University spin-off firms: a longitudinal study of growth and market introduction of new technology in contrasting Triple Helix Ecosystems

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Alicante-G11-R Entrepreneurship and Regional Development, 0-B02, August 30, 2023, 4:45 PM - 6:30 PM

Much research has paid attention to establishment and growth of university spin-off firms (USOs). Except for so-called ‘gazelles’, growth has remained modest among these firms. At the same time underlying mechanisms of poor growth turn out to be difficult to understand. In this context, much attention has gone to quality of founding teams (diversity) following the ‘upper echelon approach’. Results on diversity among founding team members are, however contradictory, namely, benefits from team diversity due to rich capabilities and information, versus risks of fragmentation and fault-lines within teams. In previous research, dynamic approaches have been adopted pointing to balancing mechanisms within teams as well as between teams and networks over time, but the age-pattern of connected events like market introduction, but also failure (exit) have seldom been addressed (e.g. see Mathissen and Rasmussen, 2019, for an overview).

Given this background, the paper investigates founding teams’ influence on growth and market introduction, including balancing networks in two contrasting Triple Helix Ecosystems: Delft-Rotterdam in metropolitan Randstad in the Netherlands and Trondheim in low urbanized Trøndelag in Norway. A longitudinal approach is followed in two parts of the paper in order to reveal trends in causality.

The role of Regional Policies in Mitigating Economic Impacts of shocks – an illustration from Covid-19 policies in the Netherlands

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Alicante-S39 Dependency of regions in a fast-changing world: New contributions from regional IO modelling, 1-D14, August 30, 2023, 2:30 PM - 4:15 PM

Macro-economic shocks seem to increase in size and frequency. Brexit in 2016 caused a shock in trade, investments, and migration networks across Europe. Research shows that even with the current soft Brexit, regions are impacted severely by interregional barriers (Thissen et al. 2020, Springford 2022). Competitiveness, interregional relations, and resilience are again keywords in the Covid-19 pandemic shock where lock-downs in specific regions generate ripple effects through the world economy via trade, commuting and FDI networks. A mature literature shows large sectoral and regional heterogeneous impacts across European countries, affecting health conditions and economic development in various ways (McCann et al., 2021, Bourdin et al. 2022). Some recent papers covering German, Swiss, French, and Chinese local policies argue that these temporary spatial policies may be more effective in battling health implications of the pandemic than national ones (Huber & Langen 2020, Qiu et al. 2020, Weber 2020, Bonardi et al. 2020). A discussion of distributional fairness led to the acceptance of national policies rather than regional ones in The Netherlands (Edelenbos et al. 2023). On mitigating economic impacts by regional policies, the literature is not well developed. The fairness argument and identification problems contribute to policy-regionalisation being a “wicked problem”.

We analyse the degree to which firms and consumers in different regions are exposed to region-specific demand and supply bottlenecks due to implemented policies and rulings. We use mixed techniques based on multi-regional input-output modelling in combination with mixed integer optimization problems to illustrate the benefits for the Dutch economy when pandemic-related rulings will be regionally and sectorally differentiated. We show that the economic importance of a regionally differentiated approach to Covid-19 related policies and rulings (on safety, distancing, working from home, and changes in attitudes) is large and beneficial to mitigate economic impacts. The benefits of a regional coordinated approach are substantial (up to several percentages of GDP, and one-third of the national economic impact). Regional economic impacts due to the rulings affect production possibilities and supply differently over the regions, while the regionally differentiated impacts to demand lead to regional ripple effects via multiregional value chains that spread the effects over space. We extend the methodological and empirical discussion to other shocks, like that of the war in Ukraine with its sector (fuel, agriculture) and regional (specializations) specific effects.

The social impact of digitalization on the labor market during the pandemic: a spatial analysis

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Online-G35-O1 Regional and Urban Labour Markets and Entrepreneurship, August 28, 2023, 11:00 AM
- 1:00 PM

The scientific discussion about the impact of digitalization on the labor market theoretically predicts a negative socio-economic effect in the form of an increase in technological and structural unemployment, but empirical studies in the short term do not confirm the hypothesis. Assuming digitalization as a driver of markets, a research question is the following: is there a catalytic role of the pandemic in the impact of digitalization on the labor market? The hypothesis of the study is the assumption of a reduction in the unemployment rate during the pandemic under the influence of digitalization, taking into account spatial interactions.

Model. For the Eurasian Economic Union (EAEU) countries for the periods of 2016-2019 and 2016-2020, we evaluated panel data models with the following dependent variables: an integral indicator of unemployment, the number of unemployed aged 55 years and older. To analyze the Russian regional labor markets during the pandemic, we obtained estimates of an econometric model with spatial lags by the SAC (Spatial Autocorrelation) type with fixed effects in the time period of 2016-2019 and on cross-sectional data for 2020.

Results. The study found synchronization of unemployment rates in the EAEU countries. In 2020, there is a decrease in gross value added and in the share of investments for the type of activity "Information and Communication" in Armenia, Belarus and Kyrgyzstan. The integral indicator of unemployment shows the highest values for Armenia and Russia. Model estimates indicated that the pandemic period changed the nature of the impact of digitalization on unemployment among older citizens in the EAEU countries: in models for the period 2016-2020 a statistically significant decrease in the integral indicator of unemployment and the number of unemployed aged 55 years and older was found under the influence of the gross value added of the type of activity "Information and communication".

Econometric estimates were not found statistically significant impact of digitalization on the unemployment rate in the regions of Russia in the period 2016-2019. In 2020, during the pandemic, there is a statistically significant negative impact of household digitalization on the unemployment rate in the regions.

Conclusions. We empirically found negative impact of digitalization on unemployment in 2020 both in the EAEU countries and in Russian regions, in the absence of it in the pre-pandemic period. That fact confirms the research hypothesis about positive social effect of digitalization in the labor market.

Mobility patterns of individuals during natural disasters: case of izmir earthquake

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Alicante-S66 Building resilient communities future: opportunities and challenges addressing the 2030 Agenda for Sustainable Development, 1-D13, September 1, 2023, 11:00 AM - 1:00 PM

Human mobility, especially in natural disasters (earthquake, landslide, rockfall, tsunami, volcanoes, flood, etc.) and in man-made disasters (nuclear explosion, oil spill, toxic waste), differs from its normal routine and creates chaos environments with different uncertainties. This unpredictable mobility situation also makes it difficult to respond to emergencies in a timely manner. Considering the earthquake in particular, it is known that human movements that develop in response to the stimuli that have emerged since the earthquake, combined with other movements that will occur within the framework of cooperation and coordination, create a mobility anomaly at the urban and regional level. Therefore, being able to predict behavioural patterns for the mobility of individuals in emergencies such as earthquakes is important in reducing vulnerabilities. According to the studies conducted on the subject, the patterns of actions and behaviours aimed at reducing risks during and after a disaster vary greatly according to personal characteristics and conditions. Socio-demographic characteristics such as age, gender, marital status, number of children and education level are associated with disaster preparedness. On the other hand, some features that give clues about the economic structure, such as income level and housing ownership, seem to affect the preparations for disaster risk reduction. Another psychological factor that can significantly affect behaviour and response actions during and after disasters is the “disaster experience”.

From this point of view, the aim of the study is to figure out the relationship between human mobility patterns in earthquakes and socio-economic characteristics of individuals. For this aim, the earthquake that took place in the Aegean Sea off the Samos Island on October 30, 2020 and caused destruction in İzmir province is selected as a case study and a household survey was conducted with 385 earthquake survivors. The results of the study show that the mobility behaviour may vary according to individual characteristics. Based on the data obtained, it is understood that such studies should be used for support purposes in order to manage the risk in future disasters and to prepare the government and local governments for disasters.

The effects of Syrian immigrants on local labour markets in Turkey: Evidence from two exemplary cities

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Alicante-S18-S1 Drivers and impacts of migration: new insights on the role of local labour markets, human capital, remote work, and (family) networks, 1-C14, August 31, 2023, 2:30 PM - 4:15 PM

Over 5.6 million people left Syria since 2011 and sought safety in Lebanon, Turkey, Jordan and beyond. Turkey hosts 4.1 million refugees including 3.7 million Syrians and 400,000 asylum-seekers from other nationalities (UNHCR, 2020). Most of the Syrian immigrants (approximately 98%) do not live in refugee camps but in urban areas (DGMM, 2020). Therefore, majority of the immigrants undertake informal occupations. The limited availability of low paid jobs makes it also difficult for women to participate in the labour market. Although, women represent 46.2% of the Syrian immigrant population in Turkey, only 15% of them are involved in an income generating activity (ILO, 2020). Informality exposes Syrians to numerous risks and multiple types of vulnerabilities.

This study analyses the effects of Syrian immigrants on local labour markets in two Turkish cities and contributes to urban migration studies with its original conceptual framework and empirical findings. We take a frontier immigrant town historically linked to Syria (Gaziantep) and an inner-city with diverse immigration influx experience (Kayseri). Immigrants' voluntary settlement in a number of secondary industrial centres, such as Gaziantep and Kayseri, across Anatolia shows stark geographical, economic and social differences and is a source of major urban transformation as well as stress. Gaziantep attracted immigration from neighbouring countries. In inner Anatolia, Kayseri presents a unique case as a frontline/inland town which has been a destination for the re-settlement of immigrants from diverse origins. However, none of these cities have history of having distinct diaspora communities. Hence, mass international migration is a new phenomenon.

Our main question to explore how Syrian migrants integrate in labour markets and how they interact with institutional processes in selected cities. We develop an original conceptual framework with perspective from sociology, geography, and urban studies. These investigate moral boundaries and contestations (Lamont, 1992; Sivas, 2021), precarious labour relations (Daly et al., 2020), inclusivity and informality of urban institutions (Kemeny and Cooke, 2017), spatially biased knowledge production (Schmiz, et al. 2020) and informality and entrepreneurship (Aliaga-Isla and Rialp, 2013). The empirical evidence for the paper comes from semi-structured interviews with all adult individuals of selected 20 families, interactive group sessions and focus group discussions mixing diverse actors. These allowed the team members make wide-ranging observations and collect rich narratives on experiences and ideas regarding how migrants from different socio-economic backgrounds perceive life in their host cities and how policy actors respond to this evolving issue.

Cattle as means to land appropriation? An econometric analysis of Amazon deforestation

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Alicante-G23 Human - Environmental Interactions, 0-D03, August 30, 2023, 2:30 PM - 4:15 PM

Deforestation continues to plague the Brazilian Amazon, and poses a serious threat to the fight against climate change. Pristine forests on public and private lands are cleared, legally and illegally, for the production of commodities but also land speculation. Within this mechanism, the role of cattle is unclear, as it may act as a means to land appropriation, or an end in itself. In this paper, we present empirical evidence on the causal effect of cattle ranching on Amazon deforestation. We exploit exogenous variation in Chinese beef demand for causal identification of our econometric model, and implement novel spatial econometric methods to accurately model spillover effects across regions. We find that the deforestation impacts of cattle, when disentangled from other drivers, are lower than one would expect. We posit political uncertainty, which drives land speculation, as an alternative explanation for high deforestation rates. Our findings suggest that resilient policies and strong, independent institutions are needed for a sustainable reduction of deforestation rates in the Brazilian Amazon and beyond.

The incidence of french Rural Development Program on employment and migration.

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Online-S03 Counterfactual methods for regional policy evaluation, August 29, 2023, 11:00 AM - 1:00 PM

Since the 2000s, the Common Agricultural Policy (CAP) has become one of the key components of rural development policy, which takes the form of a national programme in France ; however, few studies have been dedicated to assessing its impact on the attractiveness of rural areas. This article presents the results of an evaluation of the specific impacts, during the period from 2007 to 2013, of the European rural development measures and measures relating to quality of life and diversification of the rural economy applied in France on the economic and residential attractiveness of the municipalities benefiting from the measures. The impacts of the projects are estimated using a difference-in-differences method with propensity score matching. The evaluation reveals little impact on residential attractiveness. However, it also allows for the identification of positive impacts on face-to-face jobs linked to local services, with around 80,000 jobs having been created during this period at a cost of EUR 18,000 per job, which is lower than has been seen with comparable policies.

Innovative actions for the transformation of regional policies towards sustainability: Navarre and its sustainability assessment procedures.

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Online-S38 Partnerships for innovation: building transformative innovation policies with local ownership, August 28, 2023, 11:00 AM - 1:00 PM

The 2030 Agenda has become a useful tool for the design of national and regional development strategies. It is also helpful for local government (evolution of Agenda 21), and for private corporations when they have to design some of their Corporate Social Responsibility actions and instruments, as well as for foundations and NGOs. Policies are generally aligned with the goals and SDGs through indicators, that is, goals are established through measurable parameters.

The Navarre Sustainable Strategy 2030 (ENS·2030·NEJ) goes one step further and allows a comprehensive ex-ante and ex-post evaluation of the effect that various public interventions have on sustainability through the use of qualities. It is conceived as a framework document and a translation to the regional and local level of international resolutions on sustainable development. It helps in the analysis of the diversity and complexity of regional policies, collecting the systemic approach of the 2030 Agenda. It considers the multidisciplinary, multiscale, multilevel, and multiple interrelationships with a common goal: resilience and solidarity. It is structured in strategic areas, which bring together transformative policies (those that serve to draw a model of regional development in Navarre in the horizon set by the 2030 Agenda, attempting to address the major challenges identified), and these are broken down into lever initiatives.

The 2030 Agenda can go with other evaluation tools, such as the ENS·2030·NEJ, that allows the assessment of the effects of such policies and enables making management and improvement decisions, even before implementation (ex-ante evaluation). This is also an intelligent and innovative specialization process that goes one step further and, together with S4 (the Smart Specialization Strategy for Sustainability in Navarre) will help to progress in a more quickly and efficiently way towards the achievement of the Sustainable Development Goals of the 2030 Agenda.

In summary, it is considered that the Government of Navarre contributes to innovation in the design and evaluation of sustainable public policies through this set of tools and also to the intelligent development of the region. Furthermore, it takes up and institutionalizes a specific evaluation procedure for sustainability effects that is integrated into the general procedures for public policies evaluation.

A proposal for the generation of supra-appellation of origin in the case of Spanish wine based on consumer perceptions

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Alicante-S02 Wine tourism, heritage and sustainability: Three drivers of territorial development in wine regions, 1-B03, September 1, 2023, 9:00 AM - 10:30 AM

Appellation of origin (AO) have been an element of regulation in the markets of wines in the Wine Old World. In addition, because of the increase in quality that they have promoted, they have become an element of (collective) reputation that increases the value of the wines.

However, the emergence of new AO and the growing fragmentation in some countries prevent them from functioning as brands in international markets, especially in the most remote ones.

A potential policy in this regard for the international consumer is the reduction in the number of AO. In this sense, this possible reconfiguration of the AO must manage to reconcile the fragmentation tendencies of the old ones and the generation of new denominations with the guarantee of quality and similarity of the production of the wineries within the different AO.

This paper proposes the generation of supra-AO from the grouping of the current ones, so that they can operate at these two levels simultaneously. For the domestic market, it is likely that this concentration would mean a loss of variety, which is why the current denominations would probably continue to operate as a brand. But abroad there would be a reduction in the number of AO variety, which allows a greater presence of these new supra-AO in each of the markets, which in some way allows their establishment as a brand.

We developed a methodology that intends that the grouping of denominations is done in such a way that the final consumer can identify the similarities between the wines of a certain denomination. It is the tastes of the consumers that, in the last instance, guide the process of conformation of these supra-AO.

For this, Vivino's tasting notes are taken for more than 12,000 Spanish wines. Based on the flavors detected by consumers and expressed on this website, a methodology is developed that, based on a series of cluster methods, establishes a grouping of the flavors of these wines.

Ultimately, the proposal for the Spanish case does not imply the elimination of the current denominations, but rather grouping the existing one for commercial purposes. The ultimate goal is to ensure that appellation of origin operate as a brand, generating value for Spanish wine, in a context of strong international competition and especially in the most remote international markets.

Heterogeneity and diversification strategies in exports: The case of the protected Spanish wine industry

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Alicante-G34-R Transport and exports, 0-E02, September 1, 2023, 11:00 AM - 1:00 PM

This paper analyses the determinants of firm's export propensity in the Spanish protected wine industry. In order to do so, we propose an empirical model that introduces business heterogeneity, the location of firms through their corresponding appellations of origin, and some indicators to identify the strategies followed by the firms, specifically, the horizontal and vertical differentiation as well as innovation in the production processes. We build a three level database that contains information on the wines produced, the wineries and the firms that own the wineries, allowing the identification of the production and geographical differentiation strategies. Results show a statistically significant positive effect on exports of size, financial strength, differentiated production processes, the existence of a network, vertical differentiation of production, geographic diversification and price competitiveness. On the other hand, the age of the wineries, the horizontal diversification of products and the presence in high price segments, they all have a statistically significant negative effect on export propensity.

Good-life cities. Identifying the local conditions driving subjective well-being

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Alicante-S78-S4 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 4:45 PM - 6:30 PM

This paper aims to contribute to the identification of the drivers of city dwellers' subjective well-being by exploiting micro-data on individuals' life satisfaction combined with cross-sectional differences in physical, environmental, and socio-economic conditions across European cities. In doing so, this study should help shed light on the reasons underlying the urban well-being paradox. We consider four different explanations for such a paradox. First, agglomeration can be a source of negative externalities captured by subjective well-being. According to this view, negative agglomeration externalities might more than offset the well-documented benefits of agglomeration – such as easier and more efficient access to jobs, higher productivity, and income, among others – which results in a lower overall subjective well-being among city dwellers. If this is the case, part of the “unhappiness” of cities could be captured by city-level characteristics, such as congestion, environmental quality, crime, and presence/absence of amenities, among others. A second reason for the urban well-being paradox is connected to the self-selection of less happy individuals in cities. In turn, this might have different explanations, from objective worse circumstances in cities to cultural aspects (i.e., to idiosyncratic sources of happiness in city living). A third explanation, partially linked to the previous one, is related to the heterogeneity of city population combined with different willingness to migrate by the various population segments (see Morrison, 2020). According to this view, a relatively small share of very mobile people drives the rural-urban migration and the observed continuous growth of cities. Larger shares of incumbent city residents are less satisfied although they have more constraints to change location. As a result, the average life satisfaction in cities can be lower than what observed elsewhere, even in cities which are growing. Finally, the idea of spatial equilibrium can be another effective explanation on why we observe lower levels of life satisfaction in cities compared to rural areas. More specifically, reconciling the urban well-being paradox with spatial equilibrium would require treating life satisfaction as an argument of the individuals' utility function – thus as a type of amenity – rather than as a proxy of utility (Glaeser et al., 2016; Chauvin et al., 2017). In the analytical framework of this study, such an assumption would be consistent with a negative relationship between life satisfaction and real income across European cities (in the long run, more happiness should compensate for lower economic prospects).

Intermediary cities and towns: definition, trajectories, and development prospects in OECD countries

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Alicante-S62 The role of intermediary cities and towns in regional development, 1-E11, August 30, 2023, 4:45 PM - 6:30 PM

This paper aims at providing a definition of intermediary cities and towns and to assess their specific demographic trends during the last decade across OECD countries. Ultimately, the goal of this study is to understand the role of intermediary settlements for regional development, especially for regions otherwise too remote. More specifically, settlement networks composed of intermediary cities and towns can actively contribute to improving local and regional well-being, provided that they are endowed with the supply of key services (e.g., health, education, finance, transport) accessible to people and businesses.

The paper provides three main contributions. First, it provides a conceptual and operational definition of “intermediary settlements”, namely cities and towns with specific criteria in terms of size, hierarchy, and functions. Those criteria make them centres for a wider regional territory connecting urban and rural areas, including in more remote contexts. Second, intermediary settlements’ population trends during the last decade are assessed and compared with those of other types of settlements by applying novel granular data on population, accessibility, and availability of services (health, education, finance) at a settlement level. Third, the specific characteristics of intermediary settlements associated to trends of population growth relative to national average are investigated. The definition of intermediary cities and towns includes three main criteria. First, settlements need to meet population size thresholds to ensure they are in the intermediate portion of the city-size distribution and not in the tails. Second, intermediary settlements need to be regional centres, meaning that they need to be available for a significant amount of space surrounding them rather than being satellites of other larger agglomerations. Third, intermediary settlements need to be centres of service provision for a wider population base than that corresponding to its population.

Overall, intermediary settlements account for near one fourth of total settlements’ population. However, our results reveal a strong heterogeneity across countries – including in terms of their size, the function they play, and their role within the national urban structure – which manifests in differentiated development trajectories. Population growth in intermediary settlements have been slower than other types of settlements – especially larger agglomerations – in most countries. The degree of remoteness as well as the absence of some key-services are possible explicatory factors for demographic trends.

Detecting Relatedness

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Alicante-G10-O2 Technological Change and Diversification, 0-C03, August 31, 2023, 4:45 PM - 6:30 PM

Relatedness is an activity-specific and place-specific index which measures the connectedness of an activity to an economy. The standard relatedness index represents an unreliable input for strategic decisions but, as defined, it may leave out much of the strong connections which are crucial for meaningful estimation of the feasibility of transitions to new potential activities. We propose a powerful correction of the index which enables to consider the whole region's economic structure and all the activities' connections, including those linking underdeveloped - but potentially crucial - activities. Our results confirm our hypothesis according to which our adaptation of the existing index not only better captures the relatedness of potential activities to the regional economy, but also outperforms the original index much more in high-income regions (evidence in space) and in recent years (evidence in time).

The regional labour market for Medical Specialists: the effect of demand shocks and spatial mobility on job quality.

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Alicante-S18-S3 Drivers and impacts of migration: new insights on the role of local labour markets, human capital, remote work, and (family) networks, 1-C12, September 1, 2023, 11:00 AM - 1:00 PM

The international literature has documented many cases where, in mostly peripheral regions, hospitals struggle to fill vacancies for Medical Specialists. This holds true also in the setting of The Netherlands, where distances and geographical diversity arguably are relatively limited. Earlier research in the Dutch context has demonstrated that, in spite of the relative short distances, regional differences in waiting times between med school and further specialisation, and subsequent entry into the field persist.

Limited spatial mobility appears part of the issue. Conversely, it has been noted that recently graduated doctors and specialists are finding it harder to enter the profession: often only part-time or short term contracts appear on offer. In addition, migration abroad is deemed necessary. The current paper dives deeper into (regional differences in) this seeming discrepancy and investigates the quality of the labour market entry in relation to (trends in) spatial mobility. We use registry data from Statistics Netherlands to map out the entry into the labour market for this group. We use a system change in declarations, which has led to an increase in the amount of doctors operating via their own business, to study the effect of demand shocks.

Urban Renewal and Residential Displacement: A Case Study of One Finnish Neighborhood

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Alicante-G28-O2 Segregation, Social and Spatial Inequalities, 0-D03, September 1, 2023, 9:00 AM - 10:30 AM

This article examines the effects of a major urban renewal project on housing prices and displacement. Over the past decade Myllypuro, a neighbourhood in eastern Helsinki, has undergone a significant increase in reputation and overall neighborhood attractiveness after being the target of many urban revitalization programs, public projects, and infill development. If a neighborhood becomes more attractive, the demand for housing, and thus house prices and rents, should increase in the area. While an increase in housing stock value may then be seen as a sign of a successful renewal program, this increase in prices may also lead to gentrification and displacement of current low-income households who are no longer able to afford the higher housing costs.

Access to rich register data and detailed location information allows us to perform our analysis on the individual and household level, an opportunity that is rarely available but remarkably useful when analyzing neighborhood dynamics. The empirical part of this study is twofold. First, we employ a hedonic regression with a difference-in-difference estimator to analyze changes in the value of housing stock. Second, we use similar methods to assess the moving behavior of low-income residents in Myllypuro. We compare our results against two control groups: within Myllypuro and between Myllypuro and several similar neighborhoods in the vicinity.

Comparing city size distributions: Gridded population vs. nighttime lights

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Alicante-G01-O7 Region Urban Development, 0-C01, August 30, 2023, 11:00 AM - 1:00 PM

This paper compares the size distributions of cities when they are measured using gridded population and nighttime lights data. In doing so, we exploit recent and accurate satellite imagery to proxy urban economic activity. Our results suggest that, at country level, urban population is more equally distributed than light emissions. Further, the degree of urbanization and the availability of natural resources are robustly related to the parameters that characterize national city size distributions. Calling assumptions established for urban nighttime lights into question, our findings do not support a Pareto function for their distribution. Moreover, we obtain evidence of a nonlinear and heterogeneous link between urban population and night lights. Grounded on our empirical analysis, we also provide a theoretical framework that relates the difference between the distributions of population and light emissions to the magnitude of agglomeration economies.

Catching up and Repositioning on Regional Disparities: Romania in Central and Eastern European Development Context

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Alicante-S42 The long run sources of regional disparities in Europe, 1-E11, August 30, 2023, 2:30 PM - 4:15 PM

This paper analyses the economic and social changes and development in Central and Eastern European countries, focusing on the changing position of Romania, after the 1989/90 regime change until 2022, focusing on the period since the Romania's EU accession. The notion of social changes as development has been operationalised starting from Human Development index, using the Sen's multidimensional concept of development. Data sources own built database, using basic data from UNDP, EUROSTAT on NNUTS 1 and NUTS2 level.

The main research questions of the project are: (1) has Romania's position in the CEE context changed in terms of socio-economic development between 1990 and 2022? (2) What factors have influenced Romania's repositioning in the context of intra-EU and candidate CEE countries in terms of socio-economic development patterns?

Methodologically, these components have been measured by means of different economic and social indicator data series, according to the dimensions of Human Development Index: (1) economic and labour force market, (2) human capital and education indicators, (3) population change and health. The indicators used in the analysis, beside the HDI index and its components we used more indicators for each dimension (like increase in actual individual consumption, Gini index, employment in services, students in tertiary education, healthy life expectancy), using bivariate and multivariate statistical methods, too. Two approaches have been borne in mind: the first one is external comparison whereby we shall analyse the situation of Romania in comparison with Central and Eastern Europe, i.e. in a regional comparison.

For testing the repositioning hypothesis of Romania, we used multiple hierarchical cluster analysis models, using a set of variables of development (HDI component indicators and other variables: According to the results, we can see the change of configuration of the countries between 1995, 2005, 2015 and 2020.

According the results, while in 1995 Romania was in the same group with Estonia and Poland. In 2005, after the depression of the 1990ies, it was grouped closely with Bulgaria and Serbia. But after 9 years of EU accession, Romania was closely associated with Croatia, and, on second level, with Hungary and Latvia, so the lower developed Baltic and Visegrad countries, and the distance from non-EU countries increased.

Regional Development Differences and Cultural Value Patterns: The Romanian case

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Alicante-S07 Culture Based Development (CBD): Cultural Context and Social Psychology in Confronting Urban and Rural Challenges, 1-C11, August 30, 2023, 4:45 PM - 6:30 PM

Starting from the inequalities of regional economic and social development in Romania, this article aims to study regional differences in the dimensions of cultural values, starting from Hofstede and completed with generalized trust, and their role in subjective income. From a methodological point of view, the study considers bivariate and multivariate statistical analyses on the definition of the dimensions of cultural values through which we can study regional differences in Romania. The territorial units aggregated for the analysis were created through cluster analysis in which we used more than 20 economic and social development variables.

The paper also seeks an answer to the question of explanatory factors of the material subjective income situation at the individual level, and here, we test the role of cultural indices such as generalized trust, uncertainty avoidance, and power distance.

Comparative studies at the European level have shown (see Van Schaik 2002, 2005, Rimac–Štulhofer 2004, Hauser–Tappeiner–Walde 2015) that Romania and other countries with similar levels of development in 1999/2000, such as Bulgaria, Croatia, Latvia, Slovakia, Bulgaria, and Turkey, have an extremely low generalized trust index, especially in the European context. Thus, we hypothesized that differences in economic and social development in Romania may be associated with significant differences in the level of generalized trust at the individual level.

Additionally, as Putnam (1993) pointed out, large regional differences in economic development have cultural roots, especially if they are also deduced by significant historical differences in political culture, power relations and institutional culture, as is the case in Italy between North and South but also in Romania, if we look at multicentury cultural-political influences (Austrian, Ottoman, Tsarist). Accordingly, we hypothesize that (1) regional differences in economic-social development in Romania can be explained, to some extent, by different levels in patterns of psycho-cultural values, especially uncertainty avoidance, power distance and generalized trust. (2) At the level of individual values, the material situation of individuals/households can also be explained by different relations to power (distance), trust or uncertainty, beyond the usual sociodemographic characteristics, but the role of education cannot be minimized in this case.

Analysis of the presence of an organic farmland premium price

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Online-YS02b Place-based Development - EPAINOS, August 29, 2023, 2:30 PM - 4:15 PM

The European "Green Deal" sets a goal of 25% of land in organic agriculture by 2030, compared to currently 8.5%. However, the transition to organic agriculture is not encouraged because it does not generate additional income for farmers. This lack of monetary incentive slows the conversion dynamics of farmers in

France.

In order to solve this problem, we are looking to identify other sources of income allowed by organic farming. We are assuming here the existence of a "premium" for organic farmland (organic land would be sold at higher prices than conventional land), allowing the farmer to realize a capital gain.

The existence of this premium is justified as the payment for the relatively more numerous ecological services on conventional

land (reduction of erosion, improvement of soil water storage capacity, etc.). In this study, we compare the sales prices of 189,000 lands sold between 2017 and 2020 (16,349 of which are organic). The results, based on an OLS regression controlling for Ricardian rent and the determinants of residential rent, show that organic land is sold at a lower price than conventional land. To check the robustness of the effect, we perform two types of matching, the first based on a Propensity Score Matching and the second by minimising the

geographical distance. The results show that organic land is sold at a lower price (3% less, i.e. around 200€ per hectare) than the same conventional land. This can be explained by a spatial mismatch between the

supply and demand of organic land. If an organic farmer wants to buy farmland, he will have a conventional opportunity about 3km from his farm compared to 6.3km for an organic opportunity.

This average difference

of 3km allows us to understand the non-difference in prices between the two types of land.

Innovation reactions as an engine for regional resilience: The case of a traditional industry cluster in Brazil

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Online-G01-O1 Regional and Urban Development, August 28, 2023, 2:30 PM - 4:15 PM

This paper examines innovation as a reaction to a shock in the process of regional economic resilience. A single case study that considered the impact of the COVID-19 pandemic was conducted with a footwear cluster in São João Batista, Santa Catarina, in the South Region of Brazil. After the data were collected through interviews with different regional actors, a thematic analysis was performed with categorical saturation. The findings show that workers, small industries, and outsourced firms providing manufacturing services were especially affected. In addition, the cost of rent shaped workforce emigration, which limited the region's economic recovery. The reaction included measures to absorb the shock, business expansion efforts, entrepreneurship, support for industries, and innovation, particularly process innovation. In terms of its implications, this paper supports the complementarity of innovations as an adjustment to a shock. It also suggests that the nature of the shock influences the relationship between types of innovation and regional economic resilience. Finally, this paper argues that innovation is a robust mechanism that drives resistance and economic recovery, opposing the theoretical segmentation between moments of absorption and creative response. These findings enhance our understanding of the effects and reactions to a pandemic shock in a traditional industry in an emerging economy.

Exploring the polyhedral concept of teleworking. The need for a multi-theoretical approach in urban studies

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Alicante-G13-O1 Urban Challenges and technological transformations, 0-E02, August 30, 2023, 11:00

AM - 1:00 PM

With the emergence of COVID-19 at the beginning of 2020, our society entered a health crisis that further developed into an unprecedented social and economic crisis with the pandemic. The economic and welfare systems have undergone significant changes during and in the aftermath of the event, including the introduction of teleworking as a new complementary work model to in-person office attendance. The technological transformation imposed in households has presented challenges not only to workers' capacity to carry out their respective tasks at home but also on a larger scale affecting urban, social, and productive areas. However, studies analyzing and evaluating the consequences of teleworking have been developed as isolated fields of study without a conceptual and analytical framework that captures the realities of teleworking in cities. This communication aims to conduct a literature review on the consequences of teleworking from across scales with an interdisciplinary approach. It subsequently explores discussions on possible frameworks that allow for a holistic analysis of its implications in cities. Therefore, it is necessary to understand the repercussions of teleworking at an individual level before analyzing its consequences on an urban scale. Firstly, previous studies dealt with, to a greater or lesser extent, the repercussions of teleworking on workers' vulnerability, such as the risk of energy poverty, the challenges in family conciliation, and the optimal adaptation of homes to professional activities. These perspectives offer a starting point for the social analysis of teleworking in urban areas.

Secondly, the literature indicates the professional and social isolation of teleworkers. Although some authors point out the advantages of coworking spaces as optimal economic micro spaces for breaking that isolation through the configuration of cooperation networks, we call for in-depth research in this area to fill the gap in understanding the relationship between coworking spaces and post-COVID teleworkers. This perspective provides a starting point for analyzing the spatial changes in productivity resulting from teleworking in cities.

Finally, these two perspectives on teleworking need to be considered together for a holistic view as previous studies separately develop each issue, losing interesting insights which might take place in the intersection of these issues, namely, the introduction of teleworking, at-home vulnerability, including energy poverty and family conciliation, and coworking space. We argue that urban studies require a multi-disciplinary approach to understand the polyhedral nature of teleworking.

Proximity tourism in a peripheral area: the Mountains of Pistoia, Tuscany

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Online-S53 Proximity tourism and local development. Theoretical insights and case studies, August 29, 2023, 2:30 PM - 4:15 PM

The Pistoia Mountain area, 30 km from Pistoia and about 90 km from Florence, was the traditional holiday resort of the local bourgeoisie, a tourist model that disappeared from the 1980s onwards. However, its main municipalities, San Marcello Piteglio and Abetone Cutigliano, saw a strong increase of tourism in 2020, during the Covid pandemic. The phenomenon repeated, and further strengthened, in 2021 and 2022, fostering the interest of local stakeholders on the role of the proximity tourism in developing the area, also thanks to a study made by CNR and University of Florence. The research revealed the characteristics of the tourist supply and demand, with the various types of accommodations, from traditional small family-run hotels, to the new B&Bs managed by families, to the business model that rents second homes through OTA platforms (Airbnb, Booking, etc.), and the various types of operators (restaurants, nature guides, farmers, bicycle rental services, etc.) Interviews and focus groups conducted with entrepreneurs and stakeholders made a SWOT analysis, used for defining public policy proposals to exploit the strengths of the tourism filière, reduce its weaknesses, exploit the new tourism models and avoid the threats from bad economic and social scenarios.

Our study highlights the opportunities that are based on the richness of the natural assets and on the heterogeneity of the tourist filière, which satisfies numerous segments of the demand (food and wine, culture, outdoor sports, etc.), but also noted the negative effects of the environmental threats (impact on the ski-resort) and the difficulty of integrating the initiatives promoted by local administrators (area brand of origin, fairs, shows, new infrastructures, etc.) and that ones from individual entrepreneurs (websites, promotional offers, etc.).

Among the most innovative proposals that are being implemented are: i) the set-up of a public center (Mo.To.RE.) for providing services and professional training to operators; ii) new integrations between the tourism and forestry filières (forestry therapy); and between the tourism and mechanical filières (pure active ingredients from red pine needles).

Knowledge spillovers from R&D centers of MNEs in less developed regions

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Alicante-G09-03 Innovation and Regional Development, 0-C04, September 1, 2023, 11:00 AM - 1:00 PM

In the recent 20 years, multinational companies have increasingly expanded and opened research divisions/centers in former command economies in Central Europe. This contributes to higher rates of patent offshoring in these regions (Kadlec et al 2022), as knowledge production is highly concentrated under the control of foreign companies. Therefore, this contribution reveals whether capabilities from the R&D centers of MNEs spill over to domestic entities in different regional ecosystems. We focus on Czechia at both the national and regional levels and also distinguish between metropolitan and non-metropolitan regions. Furthermore, we also estimate whether MNEs contribute to technological diversification to more complex technologies. We match patent (REGPAT) and firm-level (Orbis) data and assign each patent to a specific firm establishment or institution. This enables us to map the knowledge spillovers from both - the inventions assigned to Czech establishments as well as those offshored to establishments abroad.

Energy inequality indicators: a systematic literature review for an integrated definition and measurement improvement

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Alicante-G52-New Trends in Urban Development, 1-B03, August 30, 2023, 4:45 PM - 6:30 PM

In recent years, resilience of the society has been increasingly tested in the face of major obstacles, and the fight against deepening energy inequality is becoming a major obstacle to the transformation into a climate-neutral society. However, the transformation of modern society into a climate-neutral society is an urgent challenge to ensure prosperity opportunities for future generations, balancing economic, technological, ecological, social, psychological development in the present. This goal is the cornerstone of Europe's green course and is in line with its commitments under the Paris Agreement on Climate Change in a global context.

Starting from the 2020Y two opposite trends have been observed in almost all areas of life as a result of the global pandemic, with industrial activity paused and stagnation prevailing: a significant reduction in emissions on the one hand, and a severe economic downturn on the other. From the beginning of 2022Y in the face of geopolitical tensions that led to a sharp rise in energy prices and energy affordability are becoming major societal challenges. This raises the question of how the transition to a climate-neutral society should take place in order to coordinate the green course and ecology with a prosperous economy in the future as well as to ensure energy justice and reduce energy inequality.

The research aims to conduct a systematic literature review to identify the main indicator of energy inequality and provide recommendations for an integrated definition and measurement improvement. Such theoretical and empirical research on energy inequality is essential, especially in finding the ways for its reduction.

To implement research objective a systematic literature review was performed. The research is carried out in several stages. Firstly, the main indicators of energy inequality are identified. Secondly, the findings of the systematic literature review are categorized according to the objectives pursued. Finally, recommendations for an integrated definition and measurement improvement are presented. The methodology itself include an integrated analysis of macroeconomic energy justice and energy inequality statistics.

The effectiveness of the EU Cohesion policy – a reality check from Slovakia

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Alicante-G02-O1 Regional and Urban Policy and Governance, 0-C02, August 30, 2023, 11:00 AM - 1:00 PM

Several studies on the effectiveness of EU Cohesion policy focus on the micro-level. In our prior research, we have investigated the impact of Cohesion policy expenditure at the beneficiary level, focusing on individual companies, and estimated the effect of EU Cohesion policy grants on firms' performance in Slovakia within the 2007-2013 programming period. The impact was measured by profit, value added, debt dynamics, asset growth, and other performance indicators. In this paper, we complement the microeconomic results for Slovakia by analysis of the regional level, following the approach of Bachtler and McMaster (2008), Mohl and Hagen (2010), Pellegrini et al. (2013), Lovrinovic and Nakic (2016), Becker and Egger and von Ehrlich (2017). To evaluate the effectiveness of the Cohesion policy, we use econometric models of classical and spatial econometrics to describe Slovak regional development vis-à-vis EU Cohesion policy goals, to be achieved through specific policies implemented by the Slovak government throughout the period. The paper presents partial results of project VEGA under grant no. 1/0837/21.

Promoting Gender Equality and Local Development: The Role of gender-responsive budgeting on the regional level in Morocco

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Alicante-G28-O4 Segregation, Social and Spatial Inequalities, 0-C03, September 1, 2023, 2:30 PM - 4:15 PM

Fiscal decentralization has gained significant attention as a policy tool to address territorial inequalities and promote local development. In Morocco, recent efforts towards decentralization have led to the transfer of responsibilities and resources from the central government to local authorities. However, gender inequality remains pervasive, and women's access to resources and decision-making power is limited. This paper examines the potential of gender-responsive budgeting (GRB) to address gender inequality on the regional level in Morocco, focusing on the Marrakech-Safi region. Specifically, we explore the feasibility of implementing gender-responsive budgeting at the local level in Morocco and to which extent the approach can promote gender-responsive policies and ensure that the needs and perspectives of women are integrated into local budgets. The paper also critically analyzes the budget expenditures, examines the region's resource allocation, and evaluates local authorities' capacity to contribute to implementing the approach. Drawing on empirical evidence, we argue that gender-responsive budgets can promote inclusive and equitable local development while also addressing gender inequalities at the local level. Our findings have important implications for policy and practice, highlighting the need for more robust institutional frameworks to support gender-responsive budgeting in the context of fiscal decentralization in Morocco.

Homogenous market area determination - one step further towards property valuation objectivity decrease

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Alicante-G32-O2 Real Estate and Housing Markets Issues, 0-E02, August 30, 2023, 2:30 PM - 4:15 PM

Every real estate market analysis cannot be conducted without a necessary identification of sub-markets, or market unit areas. The identification is vital in relation to price formation phenomena and factors affecting real estate value that from the elementary (principal) assumptions are (must be) homogeneous. The problem is up-to-date and vital in wider international discussions as evidenced by numerous publications. Definition of the homogeneity of the area related to the property markets is strictly connected with the aim of the property analyses. In property market analyses and valuation, the most popular issue when the submarkets and homogeneity of the area should be defined is comparable property transactions selection. From this point of view, a homogenous unit is an area in which a certain number of real properties subject to an appraisal demonstrate the same impact of the location on their value. In other words, all the real properties located in a given elementary area formally do not differ in terms of their locality. Considering the research problem presented above, the main objective of the presentation is to provide the current state of art solutions overview and original solutions formulated by the author.

Building food as a territorial common: what role for food policy councils?

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¹Inrae, Castanet Toloson, France

Alicante-S45 Commons as Enablers of Territorial Transition: Evidences, Assessment and Theoretical Perspectives, 1-C11, August 31, 2023, 11:00 AM - 1:00 PM

Since the beginning of the 21st century, a growing number of local authorities have been involved in the definition and implementation of territorial food strategies. These approaches share the idea that the mobilization of the diversity of stakeholders in the areas concerned is an asset for expressing and mobilizing the actors of the territory beyond the public authorities and the representatives of agriculture. The definition of a collective strategy in favor of the reterritorialisation of the agri-food system and a transition towards more sustainable practices requires defining collective objectives and translating them into an action program. To do this, ad hoc governance mechanisms are increasingly being put in place. Among them, the model of food policy councils tends to spread.

The first FPC was established in 1982 in Knoxville Tennessee. FPC can be defined as collaborative, member-driven organizations that bring together stakeholders from the private, public, and community sectors (e.g., not-for-profits and charities) to explore opportunities for implementing integrated strategies to improving local and regional food systems. The key features of FPCs – which differentiate them from other food systems organizations – are: (1) their use of a cross-sector committee to guide decisions and activities; and, (2) their use of a systems approach to food (Schiff et al., 2022).

These FPCs can be likened to forums for debate and governance that place food as a common good for local communities who wish to seize food as a strategic dimension of the development of their territory.

Our communication therefore aims to analyze FPCs as governance mechanisms defining the rules of deliberation and governance of the resources necessary to respond to the issues associated with food in the territories.

After recalling what FPCs are and the history of their implementation, the communication will analyze to what extent these coordination mechanisms can be assimilated or distinguished from forms of governance of the commons. In a third part, the communication will illustrate the point from the example of two FPC in the South-West of France, that of Bordeaux and that of Ariège.

R&D investments, labour market outcomes and geography

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Alicante-S60 Economic transformation and the geography of firms, human capital and growth, 1-D12,

September 1, 2023, 11:00 AM - 1:00 PM

Investments in research and development (R&D) are well-known to be essential for firm success. As research is a learning process, investments in R&D may not only lead to an increase in a firm's stock of capabilities, but also in the human capital of workers. Yet, despite the well-documented impacts of R&D investments on firm growth, we lack evidence on the individual-level effects of R&D. In other words, for workers who benefited from firm expansion, we know little about their labour market trajectories, and especially whether the experience of working for R&D-investing firms leads to better labour market outcomes.

Combining a biennial survey series on R&D investments with a longitudinal matched employer-employee dataset from Statistics Sweden, this study examines the labour market outcomes of workers who were hired when their employers make investments in R&D. We also consider how such outcomes would differ in different regional contexts. Results show that R&D is a learning process for individuals. On average, compared to employees working for non-investing firms, research personnel recruited by R&D investors have a higher probability of upgrading their occupations during later job switches. Among the rest workforce, managers from R&D investing firms have a higher chance of joining start-up firms. Importantly, both labour market outcomes have a strong geographical dimension, as they are shown to be particularly applicable in periphery regions, triggering important regional industrial dynamics. Results strengthen our current knowledge of the learning effects of R&D, and provide important implications for regional policies.

A tale of territorial governance in two innovation clusters – Comparison of Cité Biotech Laval (Canada) and Polepharma (France)

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Alicante-G09-03 Innovation and Regional Development, 0-C04, September 1, 2023, 11:00 AM - 1:00 PM

In the regional innovation ecosystem, the territorial governance underlines the organization and coordination mechanisms among the key stakeholders. Serving as the basic territorial and functional component a region's innovation ecosystem, the clusters aggregate the collaboration among key stakeholders and contributes to the global competitiveness of local industries.

In this study, we analyze the territorial governance mechanisms of different types of innovation clusters. Specifically, we compare the geographical, organizational and institutional distinctions of cluster agglomerations based on geographical proximity, and cluster networks based on organized proximity. We compare the locations of cluster members, the organizational logic, and the roles of institutional agencies in both types of clusters. On this ground, we further discuss the policy implications on how the territorial governance in cluster formation contributes to the regional innovation competitiveness.

To fulfil these objectives, we conduct comparative case studies on Cité Biotech Laval and Polepharma, two large innovation clusters of pharmaceutical industry in Canada and France respectively.

Comparing their different geographical, organizational, and institutional characteristics, we argue that, although both types of clusters have a strong tendency of spatial agglomeration of local cluster members, cluster networks are more effective in establishing pipelines outside the cluster territory. In terms of organizational logic, the members of industrial clusters share higher degree of institutional similarity, whereas the members of cluster networks share higher degree of social adherence. In both networks, governmental authorities play the key role in launching innovation initiatives, providing public funding and implement innovation policies. Nonetheless, mediating government policy-making and citizen participation in the territorial governance, the innovation intermediaries play varied roles in both clusters. In the industrial clusters, the intermediaries mostly play the indirect roles of orchestrator that maintain the network connectivity and facilitator of knowledge diffusion. In the cluster networks, in addition to these two roles, the intermediaries also directly intervene in local innovation activities as the brokers that organize key events, innovators that initiate innovation projects and new ventures, and mediators that intervene the corporate decision-making of cluster members.

In this study, we integrate the geographical, organizational, and institutional features of territorial governance in the formation of clusters. Moreover, by comparing different configurations of industrial clusters and cluster networks, we also highlight the determinants of local innovation ecosystem configurations and global innovation network connectivity in regional territorial governance. Furthermore, we address the different roles of innovation intermediaries in both clusters, and how they affect regional innovation competitiveness.

Regional Convergence of Central and Eastern European Countries: Systems of Regional Innovation as Growth Motor for Economic Development?

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Alicante-G09-O2 Innovation and Regional Development, 0-C02, August 31, 2023, 4:45 PM - 6:30 PM

This study explores the regional convergence and divergence of economic development for Central and Eastern European (CEE) countries, including an in-depth analysis of different EU-border countries from the inside and outside of the EU (e.g., Ukraine and Poland). The authors analyze the impact of innovation and institutional factors on the development of regions inside these countries. Hence, the intention is to contribute to the literature on economic transitions driven by the regions. Furthermore, it identifies the reasons behind the differences or similarities in economic development between European and non-European CEE regions. The study aims to fill the existing gap by providing a comprehensive analysis of the regional convergence and/or divergence factors of innovation and institutions for the regions on both sides of the EU border in the period 2000-2020. By applying a standard panel regression three research questions are addressed: (1) Are institutions and innovations relevant for economic growth and are these framework conditions important for catching up for economic convergence? (2) Are there differences between European and non-European CEE country regions? (3) Do EU border regions stand out in this development? This paper concludes that for successful economic development and convergence innovations and institutions matter and the regional innovation systems need to be addressed by the current EU-policy smart specialization strategy.

Agglomeration effects of immigrants and natives: Heterogeneity based on country of birth

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Alicante-YS01 People-based Development and Policies - EPAINOS, August 31, 2023, 11:00 AM - 1:00 PM

I investigate the urban wage premium for natives and groups of immigrants based on country of birth. The findings presented here add to the scarce literature on the agglomeration effects of immigrants. Using rich administrative data for Norway from 2008-2019 with information on labor participation back to 1993, I find that immigrants from low-income countries lag behind natives and immigrants from high-income countries from a lack of an immediate large-city earnings premium. The gap is increasing over time as immigrants from low-income countries have a lower return to work experience accumulated in cities than natives and immigrants from high-income countries. However, when separating the sample based on educational attainment, the results suggest that the lower return to urban experience for immigrants from low-income countries is mainly driven by primary educated individuals. I find that the return to acquired urban experience is higher for individuals with higher initial ability, as measured with worker fixed effects.

Great or Grim? Disagreement about Brexit, Economic Expectations, and Spending

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Alicante-G18-O2 Institutions, Political and Decisional Processes, 0-D02, August 31, 2023, 4:45 PM - 6:30 PM

Brexit is one of the defining European political events of the last decades, and there is well documented evidence of polarisation among the British electorate. But does this polarisation influence economic behaviours? We combine household survey and administrative data to study the effects of the Brexit vote on household economic expectations, spending intentions, and actual economic behaviour. We find that the Brexit vote had immediately enlarged the view divergence between pro-Brexit and anti-Brexit voters in assessing the general and personal economic situations, as well as household plans on major purchases and general spending. The divergence remains strong even after controlling for distinctive individual socioeconomic characteristics. We use quarterly housing and licensed automobile transaction data at the Local Authority level to measure actual economic behaviours. On average, a 10% difference in the share of Leave voters is associated with a 5.98% increase in the gap of housing transaction volume per capita and a 0.78% increase in the gap of licensed automobile stock per capita after the Brexit vote. Furthermore, the divergence in economic expectations, spending intentions, and actual economic behaviour has been long-lasting, until at least the end of 2019. Contradicting recent research, our results indicate that “partisan bias” in the context of a once-in-a-lifetime political event has a strong and consequential effect on economic behaviour.

Social attitudes of university students towards the digitalization of education. The case of the Wielkopolska region, Poland

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Alicante-G08-O1 Cities, Regions and Digital Transformations, 0-D02, August 30, 2023, 11:00 AM - 1:00 PM

Distance learning in all types of schools was forced by the COVID-19 pandemic. Previously, in Poland, this form of teaching was used sporadically, basically only with regard to extracurricular activities. The vast majority of academic teachers did not have any experience in this field. Digitalization radically changed education for students. The large-scale introduction of new forms of distance learning and methods of knowledge transfer and enforcement created a number of challenges but also opened up new opportunities. The presented study attempts to identify the social attitudes towards the digitalization of education during the COVID-19 pandemic expressed in the opinion of university students of the Wielkopolska region, Poland.

As a theoretical background, we use in this work behavioral direction, namely the concept of social attitudes. Attitudes can be defined as the expression of a person's cognitive-emotional state, connected with a specific tendency to act. The concept of an attitude reflects three basic aspects, namely knowledge about an attitude object (a), its evaluation (b), and behaviors towards it (c).

Analyses of social attitudes covered the following issues: (a) recognizing the knowledge of students about the tools that enable participating online classes; (b) analyses of students' evaluation of their studying conditions during the pandemic (availability of basic equipment for studying), learning about students' evaluation of the organization and delivery of online classes, (c) identification of the advantages and disadvantages of remote studying experienced by students during the pandemic.

The research was carried out on the basis of empirical material obtained from questionnaires addressed to students from public and private universities in the Wielkopolska region. We received more than 3000 questionnaires from students studying at 12 public and three private higher education institutions. The applied approach allowed us to obtain representative results, which may transpose into generalizations on the scale of the entire country.

Estimating Multiregional Input-Output Tables for Swedish Regions - Trade Modelling Comparisons

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Online-G39 Methods in Regional Science or Urban Analysis, August 29, 2023, 2:30 PM - 4:15 PM

The purpose of the paper is to discuss experiences from the ongoing project for estimating and validating interregional trade in the new multiregional input-output (MRIO) tables at Statistics Sweden. In the paper we investigate a novel method for estimating interregional trade flows in sectors where no or little survey data of trade patterns are available.

The project is part of a quality assurance initiative to develop interregional input-output tables for research, policy assessment and planning. For this effort to be successful, it is necessary to add further resources for the collection of interregional trade statistics and the consistent modelling of interregional trade using a combination of survey and non-survey tools.

There are many techniques for updating or estimating multiregional input-output tables using non-survey methods. A common method for estimating trade matrices is the gravity-RAS approach where unobserved trade flows are estimated using a gravity model in combination with the RAS-algorithm for fitting the estimated matrix to total production and consumption in each region. This is the method used in both previous Swedish MRIO-projects as well as in the process for estimating Production-Consumption-matrices for the Swedish National Freight Transport model SAMGODS.

A drawback of the used method is that it requires survey data on regional commodity flows, which can be expensive and difficult to collect. The estimation procedure uses survey data to estimate parameters in a gravity model. This model is then utilized to generate à priori matrices that is fitted to data on regional production and consumption using RAS-balancing.

In this paper, we investigate an alternative method for estimating the parameters in the gravity model using an error function that penalizes errors in the marginal constraints. This way, we can use regional data already available to find the most likely gravity model trade patterns that fits the data.

Comparisons of estimated gravity models using historical trade flows for Sweden have shown that the method, in many situations, produces results that are similar to more traditional survey based estimations techniques. In this paper we investigate the properties of this new method further in a simulation study where different ways of estimating MRIO-matrices are compared using Monte Carlo simulations.

Global transformation to a post-urban world: An interaction cost perspective

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Alicante-G52-New Trends in Urban Development, 1-B03, August 30, 2023, 4:45 PM - 6:30 PM

After an unexpected wave of counterurbanization in the 1970s, the emergence of the knowledge economy in the 1980s and onwards meant a re-urbanization and “a dramatic wave of urban restructuring” (Brenner and Schmid 2015: 151). Already 1970, Lefebvre (2003, English translation) presented an “anticipatory hypothesis” on a “complete urbanization. In the early 1990s, Sassen (1991) and Friedmann (1995) launched concepts of “global cities” and “world cities” and just over a decade later, Glaeser (2011) proclaimed “The Triumph of the City”. However, there is also a growing awareness that the current, almost total domination of cities in the world – in an economic, cultural and social meaning – is an expression of a new stage of human civilization. A “post-urban world” (Westlund 2018) or “planetary urbanization” (Brenner and Schmid 2015) are two of the concepts being used to describe the current, emerging era. Having their roots in different research fields, the contents of the two concepts show many similarities. Brenner & Schmid (2015: 166) has proposed “a new epistemology of the urban” in which “three mutually constitutive moments—(i) concentrated urbanization, (ii) extended urbanization and (iii) differential urbanization” play a decisive role. Westlund (2018) has claimed that the traditional urban-rural dichotomy is being dissolved and replaced by on the one hand polycentric city-regions, and on the other vast peripheries, whose only role is to supply urban demand with raw material, energy and leisure experiences. Thus, there is a growing awareness of the changes that the planetary urbanization/post-urban world are reflections of, but there is a lack of analysis of the driving forces behind this global transformation. Based on fundamental economic theory, this paper aims at analyzing the driving forces of the planetary urbanization/post-urban world, by using a spatial interaction cost perspective. Based on this analysis, an agenda for further research is formulated.

Spatial econometric analysis of gentrification and crime in Indonesia

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Online-G01-O3 Regional and Urban Development, August 29, 2023, 11:00 AM - 1:00 PM

Gentrification is often regarded as a positive phenomenon, which may bring about development and increase of life quality in a region. Due to the government's urban development policies, such as the new town development and capital city relocation, gentrification process is present throughout Indonesia's urban and rural areas. However, previous studies using data from urban and rural areas from other countries have shown the negative effects of gentrification, particularly on crime. Most of those studies have explored the effect of gentrification on crime through sociological mechanisms, even so the economic theories argued that the effect may be in a reverse direction. Several concerns arise in the construction of econometric specification between gentrification and crime variables. First, endogeneity problems may potentially harm the estimation result if not handled correctly. These problems include measurement error of the gentrification variable, reverse causality between gentrification and crime, and sorting issue, which is a common problem in the field of urban studies. To control for these problems, instrumental variable technique will be used to reduce the degree of biases. Second, several previous studies argued that gentrification and crime may have spatial effects; the neighbour value of the gentrification and crime variable may affect crime level of an observation. Previous studies very often overlooked these spatial effects. Therefore, the present research aims to estimate the effect of gentrification on crime in Indonesia, considering both the economic and sociological mechanism behind them and the methodological problems. This research proposes a spatial 2-SLS specification using data from Indonesia's national socio-economic survey and village potential data to address related potential methodological issues, specifically endogeneity and spatial effects.

Population changes across European regions according to the Webb's typology

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Alicante-G03-O3 Demographic Change, Population and Migration, 0-C02, September 1, 2023, 9:00 AM
- 10:30 AM

Population and its structure are mostly determined by migrations and natural increase. But European regions differ from the intensities, directions, and dominant factors of their population changes. These result from different geographical, social, cultural, economic, administrative, and political conditions but also some exceptional circumstances like economic crises, pandemics, natural disasters, military conflicts etc. Therefore, our main interest is to see the population changes over time, their dominant factors, and spatial diversification across European regions with a special attention to the period of COVID-19 pandemic.

The aim of this paper is to study the population changes across Europe. We concern the situations of more than one thousand European NUTS 3 in the last five years using Eurostat database. We use crude rates of natural change and net migration. We apply Webb's typology to recognise their population changes resulting from natural increase and migration flows.

Our research study results in eight types of NUTS 3 according to the major factor of population growth, and population decline. We identify which types of population changes are dominant across European regions, and what their spatial structure is. We compare population changes of NUTS 3 in terms of their urbanisation, and geographical location to see the demographic challenges, they face in the forthcoming years.

Can a region achieve territorial revitalization through industrial path renewal?

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Alicante-G19-O2 Cooperation and Local / Regional Development, September 1, 2023, 9:00 AM - 10:30 AM

Through the conceptualization of territorial revitalization and its specification to industrial regions, we study the interaction between local industrial trajectories and territorial revitalization.

Relying on a definition of a territory as a complex system, the adaptive cycle approach by, and interdisciplinary discussions, we define revitalization as a set of actions and projects bringing systemic and radical changes in the territorial system. We discriminate revitalization from other dynamics according to five principles: 1) conscientization process; 2) planning; 3) localized innovation; 4) intentionality of action; 5) radical change. Analyzing revitalization dynamics are particularly relevant when simple adjustment and incremental changes are not enough to overcome a situation of turmoil.

We then specify this framework for industrial regions by relying on different schools of thought from regional sciences: research on Old Industrial Areas, evolutionary economic geography and research on territorial development. The purpose of this article is to take a new perspective on what constitutes the vitality of a territory beyond mere economic development, and to discuss the stakes of this new conceptual framework.

Our case study focuses on two industrial territories located in Nord Franche-Comté (North-East of France): Belfort, centered on the energy sector and dominated by two international industrial, Alstom and General Electric, and Montbéliard, in a mono-industry situation strongly dependent on the car company Stellantis (previously Peugeot). Both local territories are subjected to an intense rhythm of restructuring from its leading companies and sectors, in particular between 2000 and 2019.

Through this field study, we show that industrial path renewal is an essential condition but not sufficient for territorial revitalization. Indeed, revitalization prerequisites would be the radical challenging of classic diagnosis and modes of action. It would also entail specific efforts to reembed industrial dynamics in the territorial system and make the new industrial path coherent with the one emerging from the territorial scale, especially through careful identity and resources renewal. This implies the involvement of a larger set of actors, an issue that goes largely beyond the field of economic dynamics.

Entrepreneurial paths to successful labor market integration: The role of socioeconomic segregation and ethnic enclaves

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Alicante-G60-R Covid segregation and tourism, 1-B03, August 30, 2023, 11:00 AM - 1:00 PM

We employ sequence analysis to explore the heterogeneous labor market paths of entrepreneurial Iraqi immigrants in Sweden, who we follow from their year of immigration (2006-2009) to 2019. To reduce endogeneity, especially reverse causality, individual and geographic characteristics during the first five years after immigration are used to explain the subsequent labor market careers of the Iraqi immigrants. Additionally, in the empirical estimations, we control for the fact that entrepreneurial individuals may be different from the rest of the population. The results show that residing in an entrepreneurial ethnic enclave increases the probability to engage in self-employment, while socioeconomic segregation decreases the chances that the chosen labor market path leads to self-sufficiency in terms of income. Additionally, having self-employed Iraqi neighbors seems to promote mainly necessity entrepreneurs, who show a low degree of participation on the regular labor market. As expected, individuals with a higher education level are more successful on the labor market, and their entrepreneurship is more likely to be driven by opportunity than necessity.

Flying Blind Into the Fifth Industrial Revolution (Decarbonization)? The 2023 Annual Business Survey May Be Able to Help

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Alicante-G24 Energy and Ecological Transitions, 0-D04, August 30, 2023, 2:30 PM - 4:15 PM

Despite the urgent imperative to decarbonize the economy as quickly as possible to avoid the catastrophic consequences of a more than 2 degree Celsius increase in global temperatures, national statistical offices have been slow to produce data on decarbonization. This presentation will outline the decarbonization and environmental innovation questions included in the 2023 Annual Business Survey (ABS) that will be in the field June through December. The real value added of these questions is the ability to link these data to highly detailed information on energy use and expenditures in the Manufacturing Energy Consumption Survey and the Economic Census, collected in the same calendar year. Different theoretical constructs for examining the spatial dimensions of decarbonization such as the implications of the different energy densities of fossil and renewable sources will be discussed along with a summary of the types of research questions that can be investigated with these data. What differentiates this Fifth Industrial Revolution from all those that came before is that we only have one chance to get this one right. The objective of the presentation is to stimulate blue sky thinking on urgent data needs, using the decarbonization module in the 2023 ABS as a point of departure.

Grassroots Design Meets Grassroots Innovation: Rural Design Orientation and Firm Performance

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Alicante-S24 Outside the frame: creative, cultural and innovative dynamics in non-urban regions, 1-D13, August 30, 2023, 11:00 AM - 1:00 PM

The study of grassroots innovation—the introduction of new products or processes not necessarily reliant on formal R&D or science and engineering inputs—has hugely benefited from the development of the Oslo Manual and data collected in the Community Innovation Survey (CIS). In contrast, the study of grassroots design—applying structured, creative processes to the usability or aesthetics of a product without input from professional designers—remains under investigated. If design comprises a mediation between people and technology, then the process by which the utility from new grassroots inventions is transformed into innovations valued in markets cannot be fully understood. This paper uses US data on the design orientation of respondents in the 2014 Rural Establishment Innovation Survey linked to longitudinal data on the same firms to examine the association between design, innovation, and employment and wage growth. Findings from the research will inform the value of adding questions to the CIS able to elicit the design orientation of firms. The focus on rural firms will also inform the EU-funded research project examining the contribution of creative and cultural industries to non-urban areas (IN SITU). From the US context, the research will inform questions to be investigated in the recently collected 2022 Annual Business Survey—the US peer survey to the CIS that also contains a Design module.

The impact of innovations and threats on travel behaviour - which can and should be monitored in FUAAs?

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Online-G34-O1 Transport and Accessibility, August 28, 2023, 11:00 AM - 1:00 PM

Local governments are facing a considerable challenge of accurately verifying cities and the citizens' needs while considering human mobility. The purpose of this policy is to plan and provide appropriate transport networks adapted to modern travel trends. Unfortunately, it sometimes happens that the previously planned investment does not correspond to the space users' new needs.

That is why, there is a need for monitoring the dynamics of travel behaviour based on a comprehensive list of determinants that temporarily or permanently change travel behaviour in functional urban areas. On the assumption that people are increasingly adapting to unpredictable situations in a way that can permanently change their travel behaviour as well as admitting that the set of factors influencing their travel choices is expanding, the extensive list of conditions of changeability, with particular emphasis on technological innovation (opportunities) and threats that affect contemporary changes in travel behaviour should be created.

The purpose of this study is to identify innovations and threats that have an impact on travel behaviour in functional urban areas (FUAs), classify them and measure the level of their significance to daily commuters. A comprehensive perusal of literature was carried out to identify key players and key factors which can impact travel behaviour in FUAs. The list of factors of key travel innovations and threats which can impact communication habits in FUAs, was expertly assessed and on the basis of the expert survey conducted in European OECD countries the factors were ranked. Finally, the ability to monitor the appearance of agents in the space of FUAs was determined.

This research results will be helpful in carrying out operations aimed at the optimisation of the use of various means of transport, with environmentally- friendly transport being preferred.

Doubly Cursed? The Effects of Resource Rents and Elections on Human Capital Investment in Colombia

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Alicante-G18-O1 Institutions, Political and Decisional Processes, 0-C04, August 30, 2023, 2:30 PM - 4:15 PM

Decades of research on political budget cycles (PBCs) has established that politicians tend to behave opportunistically by promoting expansionary fiscal policies before elections in order to advance their political careers. While existing evidence of PBCs is fixated on the national-level, subnational-level analysis remains scant and limited. This article studies whether resource rents fuel political budget cycles (PBCs) in Colombia at the subnational level. In particular, it examines whether a fiscal reform, which redistributes royalty revenue between subnational governments, limits the negative development impacts of resource rents and PBCs. Using municipal-level data and system generalized method of moments (GMM) estimation method to account for potential endogeneity, we found that municipalities invested in health and education according to the size of the resource rents they received. We also found that the fiscal policy reform in Colombia made municipalities' decisions about investment in human capital less reliant on resource revenue, especially for producer municipalities, as their ability to finance electoral transfers towards sectors visible to voters was restricted by the new policy. Our study contributes to the literature in two ways. Firstly, in stark contrast to research in resource curse, which usually relates resource abundance to all forms of economic pathologies and under-development, we find that resource rents are associated with higher levels of investment in human capital in producer municipalities. Secondly, relatively few studies have examined PBCs and resource rents in parallel at the subnational level. Our study advances this research agenda using municipality-level data in Colombia. The subnational level analysis may explain why previously research that employed a national-level design fails to uncover the effect of resource rents on PBCs.

Job Satisfaction and the ‘Great Resignation’: An Exploratory Machine Learning Analysis

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Alicante-S78-S3 (SAS) The Geography of Happiness: The Urban Paradox in Well-Being, Satisfaction And City Love, 1-E12, August 31, 2023, 2:30 PM - 4:15 PM

Labor market dynamics is shaped by various social, psychological and economic drivers. This study examines the determinants of job satisfaction using a large survey data, namely the LISS Work and Schooling module on an extensive sample of persons from the Netherlands. To handle these big data machine learning models based on binary recursive partitioning algorithms are employed. Particularly, sequential and randomized tree-based techniques are used for prediction and clustering purposes. In order to interpret the results, the study calculates the sizes and directions of the effects of model features using computations based on cooperative game theory. The findings suggest that satisfaction with the social atmosphere among colleagues, wage satisfaction, and feeling of being appreciated are major determinants of job satisfaction.

Culture-Based Development in the City: The Neo-Weberian Smartness

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Alicante-S07 Culture Based Development (CBD): Cultural Context and Social Psychology in Confronting Urban and Rural Challenges, 1-C11, August 30, 2023, 4:45 PM - 6:30 PM

What makes for a ‘smart city’ indeed? We first systematize the existing definitions from a growth theory perspective into: (i) smartness in terms of inputs for growth (especially human capital) and (ii) smartness in terms of output (i.e. accumulated wealth and well-being). Next, employing the Culture-Based Development (CBD) paradigm, that defines local cultural capital as the stock of living culture and cultural heritage, we hypothesize that local cultural capital determines the level of any type of city smartness. Using the novel dataset of the Cultural and Creative Cities Monitor of the European Commission for 190 European cities, we apply 2SLS IV approach. We find that living culture is positively associated with input smartness (i). Instead, cultural heritage is positively associated with output smartness (ii), but negatively associated with the input smartness (i). The latter finding seems paradoxical, yet we suggest a plausible social-closure-related explanation.

Policy strategies for overcoming the resistance from China's incumbent fossil fuel industries

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Alicante-G24 Energy and Ecological Transitions, 0-D04, August 30, 2023, 2:30 PM - 4:15 PM

China has taken great strides over the last 15 years to constrain the rise of CO₂ emissions from its energy sector. Energy intensity has declined, the installed capacity for wind and solar energy has soared, and the share of fossil fuels is falling. This success has been achieved through deploying administrative policy instruments backed by generous state finance. As this approach is yielding diminishing returns, the government has launched a number of initiatives to increase the role of market forces across the energy sector: in the oil, gas and electricity industries, and through the development of carbon markets. However, the wider political and economic context is undermining these moves. Central and local government agencies regularly intervene to disrupt the operation of these markets. At the same time, most resources and assets remain in the hands of enterprises owned by the state at central or local levels, giving them too the ability to undermine these markets. In other words, existing energy policies remain well short of achieving a rapid transformation to a low carbon system of energy supply. One of the principal reasons has been political resistance from incumbent fossil fuel industries. While numerous studies have demonstrated the influence of business actors across multiple policy domains, less work has examined the behaviour of business actors in individual energy-centric industries, namely the oil, gas, coal, utility and renewable industries. Accordingly, this paper examines the role of business actors in China's energy sector and asks what should policymakers do? Drawing on new empirical data, primarily semi-structured interviews with business actors across the China's energy sector, this paper aims to identify what specific strategies policymakers can employ to help overcome the resistance from incumbent fossil fuel industries.

Integrated urban and rural development in China – a regional governance lens

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Online-G04 Urban-Rural Relationships, August 28, 2023, 11:00 AM - 1:00 PM

Urban-rural relation is one of the basic economic and social relations in China's development system. Since the reform and opening up in the early 1980s, the urban and rural dual structure which strongly favours urban development, wealth allocation for urban residents and manufacturing industry development has led to an imbalanced development between the urban and rural areas, and become the key reason behind rural hollowing, marginalized agricultural activities and other "rural disease" such as poverty and lack of public facilities both in terms of quantity and quality in China.

In order to solve this problem, the report to the 19th CPC National Congress elevated rural revitalization to a national strategy and proposed to establish a system, mechanism and policy system for integrated urban-rural development, which has been reinforced in the 20th CPC National Congress in 2022. Integrated urban and rural development has become a key new policy principle to guide a balanced development of urban and rural areas in China and the building of new urban and rural relations. Its purpose is not to turn rural areas into cities, but to promote better rural development and coordinated regional development as compared to siloed urban and rural development often at the expense of the latter in the past.

The key to achieving this goal is to facilitate the urban-rural integration that suits local development conditions and peculiarities. From the governance point of view, the biggest obstacle to integrated urban and rural development is the lack of an institutional and governance system and mechanism as well as capacity and capability that meet and actively address local development needs.

Using a regional governance lens, the research will investigate existing urban-rural linkages in selected provinces and regions such as the Beijing-Tianjian-Hebei Province area in such areas, including city size and urbanization rates, development gap between urban and rural areas, capacity of absorbing population of established towns and townships, urban planning and institutional innovation. Based on the analysis, recommendations and discussions will be made in such institutional and governance areas as innovation of urban management networks, township finance, capacity building in integrated urban and rural planning, infrastructure investment financing, public service delivery and land system reform.

Case studies of digitalisation in free trade zones and regional growth in China

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Online-G08 Cities, Regions and Digital Transformations, August 28, 2023, 2:30 PM - 4:15 PM

Digitalisation has become a necessary vehicle to drive trade and economic growth in free trade zones (FTZs) in China. Since 2013, when the first free trade zone was settled in Shanghai, China has set up 21 free trade zones in six batches to carry out opening-up and institutional innovation in a wider scope and at deeper levels. They have been leading the opening up and accelerating economic development in Chinese regions, particularly in the central and western parts. Digitalization supports the implementation of various institutional innovations in these FTZs, significantly improves efficiency and reduces costs in the economic activities in FTZs.

Digitalisation encompasses mainly three areas, including industrial digitalisation, digital industrialisation and smart regulations. Industrial digitalisation refers to the transformation and upgrading of manufacturing industry and financial industry through digitalization, such as industrial internet, digital factory, and smart finance etc. Digital industrialisation refers to providing digital technology, products, services, infrastructure and solutions for industrial digital development, as well as all kinds of economic activities completely dependent on digital technology and data elements, such as digital trade. Smart regulation includes customs clearance and trade regulation, which are embodied in digital ports and single-window digital platforms for international trade.

The paper will conduct an in-depth study of the selected FTZs in these three areas to understand how digitalization has been driving the growth of economic activities in the FTZs and wider regions. The selected FTZs will include Hainan, Shanghai, Zhejiang in the East coast area, Henan and Anhui in the central region as well as Sichuan and Shaanxi in the west region. The research will outline the progress these FTZs have made when embracing the global digital trend and analyse its constraints and opportunities going forward. It will also identify best practices in these FTZs. Policy recommendations on how to counteract challenges and constraints and improve existing practices will be made based on the analysis.

Do Global Value Chains Deteriorate Income Inequality among Countries?

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Alicante-G09-O4 Innovation and Regional Development, 0-C01, September 1, 2023, 2:30 PM - 4:15

PM

The development of information technology enables firms to disintegrate production process and place them in countries which have comparative advantage in the fragmented process. At present, the so-called global value chains (GVCs) form a standard structure of international trade particularly in the machinery sector. In contrast to its name, however, GVCs are not necessarily 'global.' Rather, it is a regional phenomenon. Moreover, the hypothesis of the smile curve in GVCs indicates that developed economies are involved in the upstream and downstream high value-added production tasks while emerging or developing economies engage in low value-added processes. This hypothesis shows that the position or role in GVCs is quite critical for the amount of value added the country can obtain. These indicate that GVCs do not benefit the countries equally. Also, in order to gain from international trade, the following two issues are exclusively important: 1) whether or not the country participates in GVCs and 2) which task in GVCs the country undertakes. Based on these observations, this paper tests whether GVCs spread income difference among countries. Should such be the case, we quantify the magnitude of the GVC effects on the international income difference by employing a structural equation model with global data.

Regional Fiscal Spillovers: The Role of Trade Linkages

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Online-G01-O2 Regional and Urban Development, August 28, 2023, 4:45 PM - 6:30 PM

The strength of fiscal spillovers has been the subject of intense policy debate, especially in Europe, as it is crucial for assessing the desirability of fiscal policy coordination and underpins the architecture of fiscal policy under the Stability and Growth Pact. Although fiscal spillovers across countries have received increasing attention in recent years, very little is known on transnational country-to-region fiscal spillovers. To fill this gap, this paper examines how fiscal shocks in a given economy affect foreign regions through regional trade linkages, by applying the local projection method by Jordà (2005) to a panel of 132 NUTS-2 regions in 15 European countries during the period 2001-2020. To identify fiscal shocks, we follow the approach of Auerbach and Gorodnichenko (2013), and we use the forecast errors of actual government spending as reported in the October issue of the IMF World Economic Outlook for the same year. These forecast errors are further purged from any predictable component available at the time of the forecast, by regressing them on the lags of output and government spending and taking the residuals.

Data on regional GDP are taken from the Annual Regional Database of the European Commission (ARDECO), whereas data on trade are taken from a novel database developed by Thissen et al. (2019), which provides information on bilateral trade flows for EU regions in 2013, disaggregated by sectors of activity.

We find that countries-to-regions fiscal spillovers are positive, statistically significant, persistent, and non-negligible in size. The magnitude of the fiscal spillovers, however, varies over time and across regions. Fiscal spillovers tend to be larger when the recipient region experiences a recession, when monetary policy of the recipient country is at the zero-lower-bound, and when the recipient region and the source country are both part of the European Monetary Union (EMU).

A playful tool for a planful sustainability: Sustainability in urban games

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Alicante-G08-O1 Cities, Regions and Digital Transformations, 0-D02, August 30, 2023, 11:00 AM - 1:00

PM

Recently, games have stood out as an essential topic in urban studies. In this paper, we explored urban games through the sustainability context. A crucial question for existing urban games studies is their evaluation of their properties via contemplating sustainable development goals. Recent studies have evaluated urban games in subjects such as transportation, public participation, and city planning with a limited number of games. In this study, we combine these subjects under sustainable development and analyse them through 177 games.

It is interesting to consider urban games through sustainability because even though these two subjects have existed for a particular time, their relationship has yet to be explored. Therefore, via searching for existing games on both literature and online platforms, first, we listed a considerable amount of urban games and visualised their main characteristics such as location, number of players, being digital/non-digital, target group, type (3 environments), benefits and relationship with sustainable development goals.

We reached several crucial results. First, even though games in urban planning education are discussed in the literature in the early period, games are currently not widely used in urban planning education. Second, through sustainable development goals, “sustainable cities and communities” resulted in a highly focused goal. This means that, contrary to education, urban games have started to be used in practice. However, it should be noted that even though 35% of the games are aimed at decision-making in terms of the planning process, the use of games is limited to engaging multiple stakeholders.

Dynamics of Urbanization and City Structures: Optimality and Sustainability

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Online-G04 Urban-Rural Relationships, August 28, 2023, 11:00 AM - 1:00 PM

The paper addresses the dynamics of urbanization and cities, their structures, driving forces for evolution and sustainability. It addresses a variety of issues, starting from the history of urbanization in the world, difference across regions and driving forces for it. Industrialization as well as wage differential between a city and rural area often becomes a driver of urbanization. Cities grow heterogeneously and form a complex pattern of cities with different sizes, in interaction between themselves and with rural area. An equilibrium emerges at the level of a city, as a balance of attracting and repelling forces. Attracting forces are usually linked with scale economies, while repelling with congestion. Then it also emerges between cities and rural areas, as well as between the network of cities. There are also externalities and global challenges for future cities, including natural hazards, hazards driven by humans as well as consequences caused by global warming and green transition. The special features of urbanization in Russia are also addressed. It has urbanization caused by industrialization in the 20th century, but now suffers from low population density in Siberia and its rural areas, which makes an access to its high endowment of natural resources per capita difficult.

Can Tourism to Spain Recover Fully?

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Online-G36-O2 Tourism and Overtourism Issues, August 29, 2023, 11:00 AM - 1:00 PM

This article discusses the role of tourist sector for Spain, the influence of pandemic as a shock for this sector and possibility of full recovery. Spain has high economic dependence on tourism, which is partly seasonal, because it uses its geographical advantage of warm sea. Before the covid19 crisis, the volume of tourist arrivals to Spain resulted in almost 300 million nights spent, being the 1st in EU. Spanish tourism was relatively cheap, and this was one of the reasons for its advantage in number of visitors in comparison to Italy and France. During the first year with covid pandemic measures touristic flows dropped a lot (in Catalonia by above 68%), while in 2021 the recovery was incomplete. The recovery in 2022 is almost complete in nominal revenue, but given inflation is not complete. It is important to consider hysteresis: not all tourists from EU, who were forced not to travel or travel domestically in 2020-21, would return to Spain. The covid shock on lower income group (which formed substantial part of tourist flow to Spain) by inflation and rising unemployment is also important to consider. The article also contains models. The first one studies individual preferences for tourism as well as aggregate demand coming from different income groups. The second model analyses the change of destinations in favour of domestic under covid pandemic restrictions. The third model studies possible equilibria between demand and supply curves and their application to post-covid world of tourism. Suggestions for improvement of Spanish tourist sector are also given.

Regional Allocations of Government Expenditure and Production Factors

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Alicante-G02-R Regional and Urban Policy and Governance, 0-C01, August 31, 2023, 4:45 PM - 6:30

PM

The spatial distribution of resources is a research interest due to its relationship with regional disparities that can impede development when they result in giant cities that offer limited employment opportunities or poverty-stricken rural areas with high social and economic costs. These phenomena indicate a misallocation of resources between regions. Along with factors such as natural resources and transportation costs, public policy is one of the determinants of the spatial distribution of resources. This paper explores the impact of the geographical composition of government expenditure and land on the optimality of spatial equilibrium within a country using a two-region setting. It demonstrates that, in a spatial equilibrium framework, the maximisation of income does not always lead to an optimal regional allocation of production factors when individuals take regional prices as given. Analyses reveal that public policy can potentially have both a distorting and corrective impact on the regional allocations of labour and private capital. Productivity of government expenditure and the substitutability of regional outputs arise as factors that reduce the welfare loss from the misallocation of resources. In case of a change in the functional composition of government expenditure between regions, the sector with the higher productivity determines the regional allocation of production factors.

Who wants to work longer and why? Workplace practices, job conditions and longer working life

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Alicante-G35-O2 Regional and Urban Labour Markets and Entrepreneurshi, 0-E02, September 1, 2023,
9:00 AM - 10:30 AM

The aging population is a phenomenon faced by policymakers in many developed countries, particularly in the context of their efforts to prolong working life of the older population. From a macro-level perspective, longer working life relieves the pressure on pension systems, which are today expected to pay pension funds to more people for longer periods. The workers themselves may need to work longer for various reasons, such as increasing their pension savings and income during a longer expected period of retirement. Often, however, people want to work longer, stay active and involved, even when their finances allow them to retire.

The goal of the current study is to examine what job characteristics, workplace practices and personal feelings enhance job satisfaction among workers and encourage them to keep working longer. To do that, we use the Social Survey for 2016 from the Israel Central Bureau of Statistics (ICBS), a cross-sectional dataset focused on job conditions of more than 4,000 Israeli workers. Beyond the analysis of the impact of employees' job satisfaction on their will to keep working, we also tried to examine the differences in effects of job characteristics and individual attributes on job satisfaction of older and younger workers.

Our findings reveal that income satisfaction is a key factor, but it is not the only one. Job security, a sense of belongingness and a sense of discrimination in the workplace are also associated with the desire to work longer. In addition, we found that workplace practices and new working methods contribute more to older workers compared to young ones, but not necessarily lead to prolonging their working life.

Application of hybrid Gibbs processes to firm location forecasting

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Alicante-G40 Spatial Econometrics, 1-B02, August 31, 2023, 2:30 PM - 4:15 PM

Importance of geo-location is obvious for businesses, since it is a key for success (Bhat, Paleti, and Singh 2014, p.462). Forecast of location for a new business plant is difficult, since a lot of things have to be taken into account. As a base of such forecast, one should estimate a model explaining firm locations. Already existing models use aggregated data, which do not seem to be appropriate for such problem, since they do not reflect spatial nature and distribution of data, do not account for spatial factors (such as localization patterns (Pablo-Martí, Muñoz-Yebra, and Santos 2014), issue of economic clusters and agglomeration economies (Buenstorf and Guenther 2007; Lasch, Robert, and Le Roy 2013; Walz and Wellisch 1996; Delgado, Porter, and Stern 2010; Jo and Lee 2014; Basile, Castellani, and Zanfei 2008; J.-M. Arauzo-Carod and Manjón-Antolín 2012; Rosenthal and Strange 2003; Jofre-Monseny, Marín-López, and Viladecans-Marsal 2014)) or existence of spatial dependence and heterogeneity.

Aim of this paper is a development of method, which allows to predict location of a new point and takes into account individual characteristics of point, its neighbours and spatial covariates. Paper can be considered as a contribution to development of spatial micro-econometrics.

Preliminary results show that consideration of spatial factors (such as distance to center or line pattern of roads) and interactions (captured with hybrid Gibbs process) allows to produce a model which passes goodness-of-fit tests and can be used in prediction of new locations.

How should I recover? Natural disasters, politics, and business demography

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Alicante-G19-O1 Cooperation and Local / Regional Development, 1-B01, September 1, 2023, 11:00 AM

- 1:00 PM

In the aftermath of a natural disaster, the level of government response greatly influences the process of socio-economic revitalization. Synergies between central and local governments can play a crucial role to foster the reconstruction of the area hit by the event. Focusing on the political dimension of disaster responsiveness, we contribute to the literature by investigating the role of local administrative structures in sustaining the local economic fabric. Using data on the business demography of Italian municipalities from 2005 onwards, we leverage a counterfactual framework to study the role of local administrations' response capability to Central Italy earthquakes. We argue that local bureaucratic efficiency is a key factor to stimulate municipalities' economic recovery, as public administration constitutes a key actor affecting local economic trajectories.

Students living on- and off-campus: On the dichotomy of 'non-studentifiers' versus 'studentifiers' ?

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Alicante-S09-S2 University impacts on the local and regional economy, 1-C13, August 30, 2023, 2:30 PM - 4:15 PM

Never before have so many people been enrolled in universities as in the 21st century. Consequently, numerous university cities worldwide face the challenge of accommodating sizeable populations of students. As a result, these cities experience change associated with expanding student housing and the so-called studentification. However, the vast majority of the research in the field focuses solely on the studentifiers, so the students living in private, off-campus accommodation, neglecting the understanding of the students living in public, on-campus accommodation. Therefore, the extent to which these two groups of students differ and thus are segregated in urban space remains largely unexplored. This gap is a point of departure for our research, in which we aim to investigate whether these two groups of students differ in terms of socioeconomic characteristics, lifestyles, and residential preferences and satisfaction. In doing so, we look at Lodz, one of Poland's prominent university cities by student population. We employ original data derived from the surveys conducted among the students and the semi-structured key informant interviews. We first identify the scale and geographies of student on- and off-campus demand for housing in Lodz. Next, we compare the motivations behind the students' residential choices and satisfaction and their socioeconomic characteristics and lifestyles. By paying parallel attention to the students living on- and off-campus, we find that both student groups are almost equally satisfied with their residential situation. However, some noticeable differences exist between their socioeconomic characteristics, lifestyles, and residential preferences. In short, our findings raise the issue of segregation in the urban space of these two student groups. They also suggest a more nuanced understanding of the student body at the time of higher education massification and neoliberalisation and the post-COVID reality.

Heritage as a territorial capital of a post-industrial city. A case study of creative industries in Lodz, Poland

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Alicante-G37 Cultural Heritage and Regional Development, 0-E01, August 30, 2023, 4:45 PM - 6:30 PM

Recent years have brought the concept of territorial capital into regional studies. However, despite the growing attention paid to this issue and noticeable progress in its theoretical framing, the concept of territorial capital is, in fact, tricky to operationalise and remains empirically understudied. At the same time, there is a scholarly interest in understanding how former industrial cities – often ‘left behind’ – can successfully restructure themselves towards the rules of the new economy. In this context, scholars have for years emphasised the vital role of their endogenous potentials, placing the tangible and intangible post-industrial heritage among them and seeing such a heritage as a source of local identity and growth. It is thus crucial to understand whether post-industrial heritage plays a role in such cities as a ‘natural’ source of economic benefits among local entrepreneurs and, thus, whether it becomes a territorially embedded capital. Following this rationale, our paper presents the results of a case study of creative industries in Lodz – an archetypical Polish post-industrial city. Our focus is paid on the entrepreneurs from the local incubator of creative industries. We used surveys and focus group interviews among these entrepreneurs as research tools. Next, we supplemented this evidence with in-depth interviews with the local facilitators of creative industries. We conclude that, from the creative industries perspective, the territorial capital in Lodz consists of a combination of post-industrial built heritage, traditions and atmosphere related to the arts, and local governance supporting creativity. In addition, our conclusions include the methodological proposals towards operationalising territorial capital.

Spatial disequilibrium, provincial inequality and individual inequality in urban China

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Alicante-S03-S1 Counterfactual methods for regional policy evaluation, 1-C11, August 30, 2023, 11:00 AM - 1:00 PM

Regional inequality in China is of substantial interest. However, most of that interest is directed at comparisons of average income measures across provinces which do not reveal regional differences in individual welfare.

This paper estimates these differences. It measures the extent to which earnings depend upon the province of residence for urban Chinese workers with legal urban residence. It is based on province-specific regressions of observed labor earnings on worker characteristics. They predict earnings in every province for all workers. They identify the province in which each worker would maximize predicted labor earnings.

The difference between predicted earnings in this province and in the province of residence indicates the earnings gains that may be available through economic mobility. Between 40% and 75% of non-migrant Chinese urban workers predict relocation gains of more than 50%. Average gains are equivalent to those associated with at least seven additional years of schooling. This indicates that there is substantial inequality in opportunity across provinces.

The same analysis applied to the urban U.S. at a comparable state of development demonstrates that 92.6% of American urban workers predict relocation gains of less than 20%. In contrast to China, almost all of them were, roughly, in spatial equilibrium.

China's hukou restrictions interfere with inter-provincial labor market equilibration. Workers have increasingly ignored these restrictions. However, illegal migrants have complemented legal urban workers. Consequently, migration has probably exacerbated spatial earnings disequilibria. Equilibration may also have been impeded by barriers to mobility of final goods or to the diffusion of non-labor factors of production and of the most productive technologies.

The partial equilibrium calculations here cannot account for all that would ensue were these barriers to disappear. Nevertheless, the large estimates of income losses are of similar magnitude to general equilibrium estimates of productivity losses attributable to firm-level distortions, welfare losses attributable to internal trade restrictions, and welfare losses attributable to interference with agglomeration economies. This raises the possibility that all of these results reflect, at least in part, a common set of geographic distortions at the core of the Chinese economy.

Why incomes should never be adjusted for cross-sectional variations in prices

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Alicante-S27-S1 Applications of Advanced and Innovative Methods in Regional Science, 1-C13,
September 1, 2023, 9:00 AM - 10:30 AM

Cross-sectional comparisons of welfare are interesting in many contexts. These comparisons are usually estimated through cross-sectional comparisons of incomes. When these comparisons are between agents who reside in different physical locations, agents may differ in the prices that they face as well as in the incomes that they receive. This paper describes the proper treatment of cross-sectional price variations in welfare comparisons. When factors and final goods are mobile, or when only final goods are mobile but factor price equalization occurs, prices can differ inter-regionally only for non-traded goods. Any such differences represent capitalization of unpriced amenities. Therefore, higher observed prices are indicative of a region that is rich in amenities rather than expensive for consumption. Standard “cost-of-living” adjustments are systematically biased because they underestimate utility in these regions and overstate utility in regions that are poor in unpriced amenities. In contrast, unadjusted incomes are not biased under these mobility assumptions. If inter-regional mobility is further constrained, the relationship between inter-regional price differentials and inter-regional welfare differentials is fundamentally ambiguous. In these contexts, standard “cost-of-living” adjustments are essentially uninterpretable

Does Digital Transition Contribute to Green Transition or Over-consumption? An Empirical Study in the UK *

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Online-S29 Technology as a key to a sustainable future: new challenges, opportunities (and threats?)
in urban and peripheral territories, August 29, 2023, 11:00 AM - 1:00 PM

Issues such as energy poverty and digital divide in less developed areas lead to increases in inequality problems during the era of climate change. Digital divides exist at three levels across the UK, including accessibility to and quality of internet services, digital capacities of using ICT and revenues from ICT usage (Budnitz & Tranos 2022). Scholars discuss whether the adoption of ICT and industry 4.0 technologies ameliorates climate crisis, while governments introduce a development strategy named twin transitions. However, limited research investigates the spatiality of how digital transition (DT) affects green transition (GT) directly and indirectly in industrial and commercial sectors based on a comprehensive index system.

Filling in this gap, my research creates a conceptual framework to illustrate effects of DT on GT from various perspectives including industrial productivity, clean energy structure, green-tech innovation and so on (Chen 2022, Huang et al. 2022, Kopka & Grashof 2022, Ma & Zhu 2022, Magazzino et al. 2021, Montresor & Vezzani 2022, Peng et al. 2022, Santoalha et al. 2021, Wang et al. 2022, Wang et al. 2021, 2022, Wang et al. 2021, Wang et al. 2022). Based on this framework, I adopt OLS, ordinal logistic and multinomial regression methods to examine how digital capacities affect industrial and commercial greenhouse gas (GHG) emissions per person (PP) across 374 local authorities (LAs) in the UK during 2010-2019. Data of energy consumption and GHG emissions stem from the Office of National Statistics.

Results found that LAs with higher gross value added (GVA) proportions of ICT sectors have significantly positive effects on industrial GHG PP. Indirectly, the GVA proportion of ICT sectors affect positively commercial GHG PP by increasing GDP per capita significantly. What's more, urban areas conducting service activities locally with higher GDP per capita may take advantage of pollution in rural areas conducting production activities. Urban inhabitants with higher income consume local services and manufacturing products produced in and transported from rural areas, but environmental pollution is shared by every individual. Last but not least, industrial and commercial sectors in urban areas decrease GHG PP to a greater extent in general than that in rural areas in the UK during 2005-2020.

Global Transnational Renewable Energy Technology Diffusion: A Network Perspective

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Alicante-G25 Energy efficiency and its effect on urban areas, 0-E01, August 30, 2023, 2:30 PM - 4:15 PM

There is a rapidly growing number of studies on transnational renewable energy technology diffusion. Most of these studies have generally adopted a bilateral perspective, with countries considered as agents in the diffusion process. However, renewable energy technology diffusion is often the result of interactions among firms and involves strong network effects. In this paper, we explore the global renewable energy technology diffusion from a network perspective, with multinational corporations (MNCs) as network makers. In particular, we first propose a methodology to construct the global renewable energy technology diffusion networks relying on patent data related to climate change mitigation technologies (CCMTs), intra-firm relationships, and business scales of the selected MNCs. The network capital for each country is calculated, which is eventually used as input for the econometric analysis to investigate the network effects on renewable energy technology development. The network statistical analysis reveals an uneven geography of network capital, indicating global disparities in renewable energy technology development. Moreover, the econometric analysis identifies strong network effects derived from linkage volumes and structural positionalities within the renewable energy technology diffusion networks.

How can policies efficiently support urban sustainability at the local level – experience from the transition of Chinese resource-based cities?

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Alicante-S46 Innovation and Sustainability in Developing Countries, 1-D12, September 1, 2023, 9:00 AM - 10:30 AM

As different economic, social and environmental challenges continue arising globally, it is common sense that we must urgently take action to reach sustainability globally. However, we also face different and complex tasks in different world spaces. For example, while most countries in the global north face challenges from consuming and focusing on being more energy efficient and clean energy sources, most areas in the global south still struggle to make enough social and environmental resources for everyone. Unlike twenty years ago when the discussion about sustainability/sustainable development between the global north and south was whether we should focus more on "sustainable" or "development", now there is common sense about our common future.

Nevertheless, the current challenges are more about how to change towards sustainability, namely, sustainability transformation. But the focuses and tasks of the global south are still different from the global north. Most discussions in this field only discussed the global north or south. Thus, I think it is essential to talk about urban sustainability at each place with a worldwide view. This paper discusses the sustainability transition of RBCs in China from the perspective of international background and the understanding of the sustainable development of RBCs at the city and country levels. Policies about sustainability transition for RBCs are analyzed, and possible gaps are detected.

The findings in this paper tell us that sharing sustainable urban development experiences from the global north to the global south is not only about the economic transition and technological learning but also about the local social perspective and how to localize the successful experience. What's more, we should know that global north experiences also have their limit; More work should be done to understand where our cities are in the sustainability transition path and to know how to narrate the term sustainable development in the related policies.

Face-to-face contact and university-industry collaboration: Evidence from mobile signaling data in Beijing

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Alicante-S09-S1 University impacts on the local and regional economy, 1-C14, August 30, 2023, 11:00 AM - 1:00 PM

The university-industry collaboration is an essential engine of the regional innovation system and can significantly drive regional economic growth. The realization of intellectual collaboration, especially firms absorbing academic knowledge, is heavily dependent on the transmission of tacit knowledge by face-to-face contact. Though economic geographers have long emphasized the importance of face-to-face contact, its effect is rarely measured directly. This paper contributes to this end by utilizing the mobile signaling data, and tries to estimate and explain the marginal effect of face-to-face contact on the co-patenting behavior between firms and universities in Beijing. We conclude that face-to-face contact indeed increases the productivity of university-industry collaboration, specifically in the idea-formation period. In addition, we detect the ambiguity of geographical proximity in explaining university-industry collaboration patterns. For policy consideration, we contend that innovation policy should pay enough attention to reinforcing the university-industry nexus. The removal of interaction barrier between firms and universities is crucial and it can be achieved either by forming direct contact channels or leveraging the spatial spillover effect of personal interaction.

Digitization and contextual factors in Emilia-Romagna municipalities: A cluster and poset based approach *

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Alicante-S35 Institutions, digitalization and territorial transformations, 1-D12, August 30, 2023, 2:30 PM - 4:15 PM

The degree of digitization has increased in several sectors across Europe, especially since the Covid-19 pandemic crisis. To encourage this process, a lot of funds have been allocated in the Recovery and Resilience Plan. As the literature shows, implementing digitization is important for improving development and quality of life. However, digital in itself is not a determinant of development. It is necessary to consider the relationships between it and the various factors with which it must coexist, such as institutional framework, human and organizational capital. The study aims to analyze the territory of Emilia-Romagna through the indicators of digitization and development of complementary factors. A cluster analysis and a poset methodology are proposed to identify municipal areas where this link is present or needs to be strengthened. It turns out that there is a correlation between the level of digitization and the development of complementary factors. The municipalities where this relationship is strongest are in the top 10 of the ranking and are classified as urban poles, according to SNAI classification. The region is characterized by strong spatial differences between and within clusters. A policy suggestion also emerges: action is needed for municipalities that score low in only one dimension, especially if that dimension is an impact factor among those identified in the sensitivity analysis.

Regional agglomeration and disparities in relation to earthquake risks in Türkiye

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Online-G02 Regional and Urban Policy and Governance, August 28, 2023, 11:00 AM - 1:00 PM

This study investigates the role of regional development policies and regional disparities in relation to vulnerability of settlements under earthquake risks. Concentration of economic investments and hence population in a region is called value agglomeration (VA). VA process in Turkey has been accelerated after 1980's as an outcome of liberalization and open trade policy, and resulted an extreme uneven development in the country.

Scholars and practitioners in Turkey give emphasis to building quality, ground strength, and urban scale development strategies, however, limited number of studies deal with the problem of agglomeration of economic activities and settlements around earthquake probe zones (seismic belt). Industry, tourism, trade-commercial activities, universities, and employment have been concentrated around major metropolitan cities located on the western part of Turkey due to access to foreign market and transport corridors, whereas, those settlements are located in the riskiest seismic belts. Risk categories are classified into 5 categories (from riskiest to the less risky, 1 to 5). Level of development from most developed to the least (1 to 5). In order to conduct a risk sensitive analysis, a disaggregated statistical analysis was necessary, therefore districts (970 geographical units) based data are used. Research findings showed that the majority of most developed districts are located in the riskiest zone while least developed ones are located in less risky zones. Between 1990 and 2018, the total industrial area increased from 5,900 hectares to 22,300 hectares. 10,700 hectares (66%) of the 16,300 hectares of the industrial increase occurred in the 1st-degree seismic belt. While 57% of the total industrial areas were in the 1st-degree seismic belt in 1990, this rate increased to 64% in 2018. the ratio of industrial areas in the 1st-degree seismic belt to the total industrial areas increased by 7%. Between 2008 and 2022, Turkey's total population increased by 13.8 million people. 8.6 million (63%) of this resided in the 1st-degree seismic zone. When the period between 1986-2022 is examined, 73% of the most socially and economically developed districts and 55% of the priority regions for development are located in the 1st-degree seismic zone.

Results reveal that VA is correlated with seismic risks, and this implies a need for reversal of regional development strategies in Turkey. In order to achieve a resilient settlement pattern, government may achieve risk mitigation by adopting effective regional planning policies; government incentives, and investment promotion.

Integrated development plan in rural areas: The case of Didimotixo, capacities, difficulties and future potentials

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Online-G05 Economic development in rural places, August 28, 2023, 2:30 PM - 4:15 PM

The main question that the current paper will answer is if a small size city of the Greek region can become more attractive and sustainable through the implementation of integrated development plan that will promote the city's regeneration. The city of Didimotixo is too far from the main centers and the local authorities there face numerous challenges in order to provide the basic public goods and services to the local population, as well as to create the necessary infrastructure, within the city limits. Based on the national data regarding the absorption of European funds, the city's authorities focus mainly on basic infrastructure and, in cooperation with other relevant authorities, on highlighting the city's cultural aspects. Thus, a necessity is verified, for the city change its course and revitalize its development opportunities in the maximum degree in order to gain a better perspective for its future. Cultural tourism could be the vehicle for its development and revitalization on the assumption that the city will invest in culture in a targeted and sustainable way.

With regard to designing an integrated strategy and its funding, the E.U. provided in cohesion policy 2014-2020, two new tools to support the territorial dimension in cohesion policy. These tools named the Integrated Territorial Investment (ITI) and the Community-Led Local Development (CLLD) are available also for the Greek peri-urban or rural areas. These tools can be useful in designing and implementing community-led local development strategies to meet their specific needs and can be implemented by using resources from one Fund or by combining resources from several funds. Thus, the experience of the previous period 2007-2013, the new available tools and the designing of an integrated development plan that will promote city's cultural and historical inheritance in relation to well designed administrative reforms and investments, are factors that could affect the economic, social, environmental development of the area. One of the challenges is the engagement of the local stakeholders in designing an integrated development plan in which the city should shape its own needs and targets. This bottom up approach should be combined with a multilevel approach in order for the city to gain the necessary technical assistance for attracting relevant funds. Literature research combined with a questionnaire survey, about what the city itself believes and which is the proper development framework set, will form the basis for drawing conclusions and proposals about the selected case study.

Exploring regional development policy alternatives in Central and Eastern Europe in a foundational approach

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Alicante-S65 Foreign Direct Investments, trade and local development: drivers and impact, 1-D14,
September 1, 2023, 9:00 AM - 10:30 AM

Economic development in post-transition countries is dominated by the performance of capital cities, although second-tier cities are also important drivers of development. The presence of high-quality residential environments, better connectivity, high-skilled occupations and increasing populations have a positive impact on the employment dynamism of non-capital areas. However, peripheral regions struggle with problems of adaptation and response, often leading to brain drain and economic decline. Industrial strategies highlight those tradable sectors of the economy that favor leading edge KIBS firms and advanced manufacturing, while neglecting the residentiary economy that is more sheltered from competition and provides jobs in local production and services sectors.

Our research is inspired by the growing literature of the ‘foundational economy’, i.e. mundane economic activities providing essential goods and services, and focuses on the causes of the divergence in economic performance across the NUTS3 regions in ten CEE countries. We investigate regionally aggregated firm-level financial and employment data (Orbis database), including 4-digit NACE codes of the companies with 10+ employees. Our position is that a well-functioning foundational economy is necessary for the whole local economy to work efficiently. Moreover, increasing productivity in the foundational economy should lead to more regionally balanced growth than an exclusive focus on the ‘frontier firms’ that are highly concentrated spatially as the regional productivity gap in the case of foundational activities is not significant. The foundational economy, given its spatial and social inclusivity, can deliver much benefit for non-capital regions, saving them from the circular and mutually reinforcing spiral of deterioration.

Urban co-creation and public innovation. The case of public-private collaboration in a spanish science and innovation city

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Online-G09-O2 Innovation and Regional Development, August 28, 2023, 4:45 PM - 6:30 PM

Society is undergoing unprecedented processes of accelerated and disruptive change, in which the growing and unstoppable urbanization process, the consumption of natural resources, the loss of cultural identity, new digital technologies, the demographic challenge and depopulation are generating new paradigms in many key aspects for society in general, and for cities in particular. In the words of Professor Z. Bauman (2004), we live in times of change and permanent transformation, "liquid times", which require, on the part of the Public Administrations rapid adaptations and answers to the new needs and demands of a society that requires a greater number of services, faster and of higher quality. Society is changing rapidly and the public sector also needs to adapt to the speed of these changes. To boost these innovation processes so that they are solid, lasting and with the capacity to impact the economic and social development of a population, local governments committed to innovation and local development are required. This type of entities should favor open government actions using different tools and networks to connect with society, promote innovation spaces and environments in cities, open to participation with a perspective of co-creation of innovation and knowledge. From this perspective, our research attempts to determine some factors that allow cities to advance through public innovation, turning them into poles of development and not merely being mere recipients of innovations. To this end, and based on the increased interest in public innovation, our objective is to present and analyze a successful case of public-private collaboration, through a process of knowledge creation and transfer involving the Public Administration, civil society and the private sector. This study allows us, based on innovation management and knowledge management, to highlight the relevance of innovation in Local Public Administrations, providing a model for innovation management in the field of public management in general and Local Entities in particular. Based on the experience gained, an action protocol is proposed.

Smart City- Sustainable Development of Urban Public Space

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Alicante-G18-O3 Institutions, Political and Decisional Processes, 0-D01, September 1, 2023, 11:00 AM

- 1:00 PM

The global trend of urban population growth, climate change, and the energy crisis are a serious challenge for local governments and are prompting them to take action for sustainable development. Local authorities will have to respond to the needs and preferences of society, and in particular to activities that contribute to environmental and climate protection through innovative infrastructure solutions including: using renewable energy sources. Therefore, the paper sets a research goal of: improving the quality of life of urban residents in the context of sustainable development. The paper used a survey questionnaire to identify the needs of the local community and a field search. The final result was a presentation of universal projects that meet the assumptions of sustainable urban development, developed on the example of one Polish city. The projects considered the requirements of local residents, including proposed infrastructure solutions using renewable energy sources as an integral part of concern for the future of society, the environment and the climate of each city.

Digital Future of Sustainable Agriculture in EU Member States on the example of the IACS system

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Alicante-G27-O1 Innovation and Sustainable Development, 0-C03, August 30, 2023, 4:45 PM - 6:30

PM

Motivations: The digital future of sustainable agriculture is smoothly operating and functioning ICT rural systems. Data collected in ICT allow the creation of algorithms that will enable rational decision-making in the areas of climate protection, environment and prevention of global food crises.

Objective: The objective of the research undertaken is to analyze the administrative and information system currently functioning in EU member states, which is - Integrated Administration Control System (IACS).

Methods: We apply among the methods the historical-interpretive method base on publications in digital sustainable development rural areas and the method of deduction through analysis the IACS and in-depth interviews with agricultural agency personnel in Europe.

Results: The study indicates that the IACS system has very high potential for collecting data from agricultural areas, it is not completely exploited. We indicate Farm Digital Twin module could be adapted to IACS.

Conclusions and Policy recommendations: The future of sustainable agriculture is digitization.

Implementation of the Farm Digital Twin as a next-generation digitization paradigm by continuously and in real time monitoring the physical world (farms) and updating the state of the virtual world will be a complete tool for making informed decisions on rural management in EU member states