

Transition Pathways for Sustainable European Regional Development.

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Objective and contribution

This paper will describe prototypes for Transition Pathways towards inclusive, sustainable development for seven regions in five European Countries.

Sustainable regional development hinges on the idea that regions are integrated systems with a natural and social dimension. These social ecological systems highlight complex and intricate connections between human societies and ecosystems which are essential in approaches for engaging multiple stakeholders to promote regional development.

In the most recent years, sustainable regional development in Europe has been facing multi-faceted complex problems, including climate change and environmental degradation, economic disparities, and energy crisis. Complex problems and challenges require innovative approaches to regional development that result in sustainable systemic changes. Systems changes are described as transitions. The transition pathway concept describes the framework of how desirable systems changes can be achieved.

The transition pathways discussed in our paper identify the potential steps that stakeholders within the region can take to arrive at a shared future narrative, and thereby ensuring a more feasible and actionable vision. Transition pathways contribute to the transformative power of regions and communities through inspiring different stakeholders to act now to achieve the future vision. The transition pathway is not linear but requires a complex, multi-level transition that includes innovations in social, cultural, technical, and institutional aspects. We will focus on the contribution of transition pathways to social and economic innovation.

INVEST4EXCELLENCE IN REGIONAL SUSTAINABILITY is a European Union funded H2020 project, with the aim of developing sustainable societies and economies in the regions across Europe. In this project partnerships of citizens, NGOs, governmental organizations private companies and educational institutions collaborate interdisciplinary in the INVEST regional Living Labs. In the project, seven transition pathways for sustainable regional development were developed in five countries (Greece, Finland, Slovakia, Bulgaria, and the Netherlands). During the design process, we focused on transitions pathways for rural areas/regions. Each pathway was developed to match with the developmental needs of the specific regions.

Methods

Transitions towards sustainable regions can take decades. Transitions require long time horizons (20-50 years) This also implies that transition pathways should be developed to cover decades. Furthermore, it is of paramount importance that in developing transition pathways distinctions need to be made between the various steps in which the pathway takes place. From a stakeholder perspective it is important to note that stakeholders have different “frames of reference” and values. Thus, it is important to note that different timings of interactions have different outcomes. Innovations may have unforeseen effects in time and space.

Transition processes are considered as dynamic, non-linear processes that involve interactions at diverse levels. This project adopts the “multi-level perspective” approach, which distinguishes three layers: landscape, regimes, and niches; where transitions and system innovations need to take place. The landscape layer denotes the external environment and is about general developments, the regime layer is about the socio-technical system (embedded in

society and links together a wide variety of societal actors) and the niche layer is about radical innovations as well as concrete innovations developed to adapt existing systems. For transitions to take place there should fully and properly be interactions between these three layers.

A transition pathway should not be viewed as a blueprint on developing sustainable regions in Europe but rather a wicked and cyclic design process that may be applied in different regions, scenarios, or cases. In some cases, certain steps may need to be re-done or repeated as and when conditions or needs change. The process of developing a transition pathway involved six steps. For each step specific methods were employed. The first step is the identification of the appropriate region where the transition is taking place. The second step involves the description of the sustainable development ambitions of the region related to its focal topics. This description is a narrative, comprising the main challenges and envisioning future goals for the region. The next step uses the social-ecological systems approach of Ostrom, to systematically analyze and describe the current situation of the region. The fourth step focuses on designing innovations needed to realize the vision developed. This step addresses the question of which practices need to be adopted, developed and/or need to be phased out. The fifth step involves the process of developing scenarios with timelines for innovative actions to reach the developed vision. The sixth and final requires that performance indicators and critical success factors be developed with focus on community, regional and national level.

Results

The six-steps are applied to develop prototypes of transition pathways in seven European regions, each facing their context specific challenges, related to inclusive, sustainable development:

- Karelia, Finland related to sustainable energy transition, forestry, and entrepreneurship.
- Larissa, Greece, related to post-disaster recovery.
- Nitra, Slovakia, related to building sustainable regional food systems.
- Plovdiv, Bulgaria Family Business and Family Business Transfer and Succession (a virtual Living lab for Bulgaria).
- Three regions in The Netherlands related to create sustainable water- and landscape management for wet peat lands, nature inclusive dairy farming and an integrated and sustainable future for the riverine landscape.

Discussion and conclusions

The descriptions of the prototypes form an example of a systematic European approach that can be applied in different regional contexts. Based on the success factors and barriers that are identified, policy advice can be formulated to regional, national, and European authorities.

With the current complex challenges that Europe faces towards regional development, the use of transition pathways comes as a highly recommended option. This is also supported by the fact that classical, linear forms of governance have become ill-equipped to deal with the characteristics of transition issues. Furthermore, innovations for transitions touch upon various aspects of the social systems with various stakeholders. Therefore, to deal with inherent uncertainties and social controversies, you will need multi-stakeholder participation. Understanding and appreciation of the diversity of regions in Europe is paramount for the development of transition pathways for sustainable regional development.

The results show that the European regions are highly diverse, ranging from geographical characteristics, focus themes, and laws and regulations. The diversity is not only per region but also within regions. This implies that during the process of development of the future scenario,

there is need for creativity in engaging actors to dialogue rather than discuss. Social capital plays a key role in ensuring there is a clear vision of the future. Having clear and concrete goals is always important. Differences amongst stakeholders will always be there, but it is always important that stakeholders agree on the relevancy of the future goals. Through clear, relevant visions, actions and event timelines can be developed. Transitions are not events that occur in a short time but take decades. From the process of developing transition pathways, we noticed that there are major differences between governmental layers: municipal-provincial-national-European often have different views, interests, goals, and jurisdictions. A common perspective was that political administrators hesitate to make firm arrangements with entrepreneurs for 10-20 years, their time horizon is 4-5 years. The transition pathways help in translating innovations, events, and developments into activities for all actors.

In transitioning towards a sustainable European region, it is essential to note that development is a dynamic process. Sometimes in the process it needs to change over time or unforeseen challenges arise over time. This highlights that there is a need for flexibility and a regular reflective process. Transition pathways allow for mobilizing stakeholders and sticking to consequent direction in dynamic development processes and fostering inclusivity in processes seeking regional development.