# The evaluation of new business model support in social and environmental keys using a social network analysis

#### **Extended abstract**

# 1. Objective and contribution

Society faces many pressing and wide-ranging local and global health care, such as environmental sustainability challenges, including climate change, biodiversity loss, and air and water pollution. On the other hand, it faces the fast-growing new technologies influencing the scientific research implemented in all societal faces, taking the people at the centre (Steffen et al., 2018; UN-HABITAT, 2016; Tittensor et al., 2014).

These trends are highly complex and context-dependent, with their genesis and persistence involving multiple overlapping social, economic, political, and environmental agents. They affect several social and economic change drivers operating within nested social-ecological systems and stimulating change in public institutions that must adapt to a new, more proactive role (Sterner et al., 2019; Avelino et al., 2019; Chávez-Ávila and Monzón-Campos, 2005).

Despite the trumpeted "death of distance", due to recent developments in transport technologies and communication media, geography is still important in explaining collaboration and its territorial impacts (Castells, 1996; Cairncross, 1995). Co-location facilitates and face-to-face contact eases the sharing of tacit knowledge and enhances the likelihood of serendipitous, fruitful collaborations. Furthermore, local borders play an essential role, as differences within national systems render collaboration more difficult (Catalini, 2012; Storper and Venables, 2004; Gertler, 1995).

To contribute to this debate, the authors propose conceptual development and test the relevance of some specific actors to improve the local businesses' fit. Specifically, in lands characterised by an economy produced by micro, small and medium entrepreneurs (MSMEs), where governments do not ensure welfare and natural resources safeguarding, it is relevant to collaborative work between the different agents to deliver answers for community needs.

On this wave, the model thought by the authors starts from the idea that social and environmental behaviours from social and economic territorial agents may become more effective when stimulated and coordinated by a "convenor" in charge of supporting and stimulating land development and societal value creation (Candel and Paulsson, 2023).

The authors consider the Local Action Group (LAG) as the public-private institution more suited to lead the convenor role. Therefore, LAG is a governance figure considered within the European Community-Led Local Development (CLLD) policy for regional development. The authors analyse LAG convenor role perception to evaluate its real activities and identify the most significant linkages in the local area network. To reach this objective, they adopt a methodology to evaluate, leveraging the tools of the Social Network Analysis (Wasserman and Faust, 1994) to extract the backbone of these complex network structures (Neal, 2014). To contextualise these research efforts, the work adopts a Stakeholder Management Theory perspective, considering the business in the local area as a relevant agent in economic, social, and environmental matters (Laplume et al., 2008) and, consequently, the convenor has to engage them in the CLLD process.

Accordingly, the present work aims to individuate empirical and scientific advancements in individuating:

- What is the additional support to stimulate and sustain triple-bottom entrepreneurial efforts contributing to land development.
- How entrepreneurial initiatives can be connected to land social and ecological problems.
- How businesses transform such connectedness into profit-making ventures while contributing to land socio-ecological development.

## 2. Methods and data used

In the present research, we have studied the LAG "Terra è Vita" (Earth is Life), one of the 3,134 European LAGs. It operates in Southern Italy, in a rural area of 9 villages northwest of the Salerno province, between Irno Valley and Amalfi coast.

To pursue the objectives of our research, we decided to distribute a targeted questionnaire, which can produce better results than exploiting existing databases. The latter often lack specific information regarding the firm's relationships and the partners involved (Ter Wal and Boschma, 2009).

The survey was spread with the help of the LAG Terra è Vita to reach a significant sample of GAL Terra e Vita services operating in the following sectors: agro-industry, crafts, and tourism. The data was collected with a CATI survey from 1 September 2019 to 31 October 2019 in a single wave of data-gathering.

At first, the responses were studied using the Social Network Analysis (SNA) (Wasserman and Faust, 1994; Jackson, 2010) to investigate, measure and represent social relationships between the sampled entrepreneurs.

To extract the network backbone, we have used the R-package backbone, in particular, we adopted a Fixed Degree Sequence Model algorithm on the bipartite network to create a set of random bi-partite networks that can preserve the degree sequences of our original one in creating an affiliation matrix to extract only those ties that have a significance level higher than 5%.

### 3. Results and conclusions

The results highlights that the LAG can be seen as an effective convenor and its activities are instrumental in improving local area stakeholders' performance.

The research paper contributes to the land development theory by arguing that the territorial theories and innovation and development policy based on the multi-governance approach include areas and objectives where sustainability principles could be better incorporated and where both SEs and forprofit entrepreneurs, in a triple-line engagement, could contribute to both the objectives.

The research shows the natural but scientifically neglected relations between regional studies and the for-profit business socialisation trend.

From the present work emerges the necessary role of a convenor to spur MSMEs operating in socially and economically depressed areas with low cultural and economic capabilities to sustain further risks to implement cultural values, operative processes, and knowledge exchanges to better their social, environmental, and competitive behaviours.

This scenario shows the need to grow the ecosystem studies in which numerous and heterogenous social and economic actors, stimulated by a convenor, create relationships with public institutions and social agents, to co-create and co-produce social and environmental answers to land challenges. Before the Covid-19 pandemic and the war between Ukraine and Russia, the current years highlighted the limited capabilities in welfare matters answering healthcare needs spontaneously, without geographic boundaries and heterogenous ecosystems composed of economic agents operating in different industries. This element is the base for developing new business socialised models, new stakeholder trends against shareholding approaches, and new land governance models that, in the ecosystems approach, are moving from hierarchical to heterarchical models (Mazzucato, 2022).

The results of this research project should help identify how local area development can be more effective when adopting a value co-creation bottom-up process. In this approach, the LAG is seen as an actor and gets the ideal role of the convenor (Svendsen and Laberge, 2005). This role is linked to the creation of a stable and mutually reinforcing network of relationships among a broad set of local area stakeholders-community members (connecting even those actors outside of the local area that may influence its development) and avoiding the creation of structural holes (Burt, 1992) that may drive some actors in a controlling position that should hinder the place development.

At the same time, our findings should be able to highlight the more effective practices by the structure of the LAG, and, consequently, it should help in finding a more useful way to approach the various stakeholders according to their role and their interests/needs.

Finally, our research can have interesting practical implications for the social agents as we should be able to highlight how the various actors have actively and effectively participated in these activities and how their participation has influenced the local network evolution reaching some of the 17 Sustainable Development Goals (SDGs) fostering social innovation processes.

In the literature on regional and land studies and sustainability, there are only a few studies on LAGs, their roles, and their effects on social innovation. Furthermore, the LAGs' role in Italy is less studied than in other member states within the Leader /CLLD European project and considered within the local governance scenario.

By investigating public-private collaboration for innovation as a local phenomenon, this study addresses central factors in land economic development concerning increasing sustainable competitiveness and economic growth in entrepreneurship and local development by facilitating firm knowledge growth.

This trend could be interpreted as a first step through a land-open innovation characterised by an inter-firm network convenor facilitated. This policy could initiate interactive and integrative community development to democratise societal innovation through co-creation among young people, individuals, firms, and public entities. Thus, it can increase collective benefits for the community without controlling or interfering with private sector OI activities and stimulate policymakers to "draw better" the LAG figure, reducing the "neither flesh nor fowl" condition noticed in this research (Carayannis et al., 2017).

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