GRANULAR

KNOWLEDGE TRANSFER ACCELERATOR

Vibrant Rural Areas: tools and policies for resilient and competitive economies

HIGHLIGHTS REPORT

16 May 2025

Introduction

On 16 May 2025, experts, policymakers, and researchers convened virtually for a session under the GRANULAR project, discussing how innovative tools, data, and policy frameworks can boost **economic resilience and competitiveness in Europe's rural areas**. The webinar, titled *"Vibrant Rural Areas: Tools and Policies for Resilient and Competitive Economies"* was organised by the European Association for Innovation in Local Development (AEIDL) as part of GRANULAR's Knowledge Transfer Accelerator (KTA).

As **Serafin Pazos-Vidal**, Senior expert in Rural and Territorial Development at AEIDL, highlighted in his opening remarks, there's a collective concern about the future of EU policies for rural areas, especially given recent proposals and ongoing consultations. He emphasised the critical need to **question whether current policies are truly delivering and, more fundamentally, what they are trying to achieve in terms of economic resilience**. He noted that understanding economic resilience in the rural context, which is a significant part of the European agenda, is often delayed by a lack of appropriate data, methodologies, and tools to translate the concept into practical application.

The event featured insights from key European research and policy institutions including the European Commission's Joint Research Centre (JRC), Nordregio, and the University of Vigo representing the SERIGO project.

ORGANISER: aeidl

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ONLINE

66 PARTICIPANTS
(research & education, public authorities, NGOs, civil society, EU institutions, rural communities, etc.)

PRESENTATIONS AND RECORDINGS HERE.

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UK Research and Innovation

What is economic resilience? Insights from literature

Carlos Tapia

Nordregio

Carlos Tapia from Nordregio, partner in the GRANULAR project, opened the event with a short introduction on **economic resilience, particularly in rural areas**.

In the literature, economic resilience is defined as ***"a region's capacity to withstand and recover from economic shocks, such as natural disasters, market fluctuations, demographic decline or policy changes".*** While the most generalised definition, it is far from universal and can often lead to confusion due to its vagueness.

Economic resilience is a **dynamic process** that evolves as economies adapt to new challenges and opportunities. This dynamism makes it incredibly challenging to measure and assess at any given moment. Dr Tapia pointed out that what constitutes resilience in one context (whether it's a specific geography, sector, or type of shock) may not be relevant or applicable in another. This complexity further **complicates comparisons and assessments across different regions**.

He also highlighted that the definition of economic resilience sparks debate, particularly regarding the **types of stressors**, such as whether to focus only on ***rapid shocks*** like market collapses or also include ***"slow burn"*** long-term processes, and how **single threats interact with multiple, overlapping crises.** Additionally, there is also discussion around the nature of exposed systems (whether they always seek equilibrium, or evolve in linear, cyclic, or even fuzzy ways), and the responses to shocks (questioning if resilience is solely about recovering, or if it also encompasses adapting to changes or maintaining functionality during a crisis).

Dr Tapia then highlighted that rural areas face distinct hurdles that can significantly impede their economic resilience. These include the **out-migration of young people**, especially young women who are crucial for demographic resilience, often leaving rural areas in pursuit of professional careers and creating a significant void of skilled individuals. Rural economies heavily reliant on farm and forestry products are directly exposed to **volatile and unpredictable prices** in declining commodity markets, exacerbated by global trade policies and dynamics. **Climate change** also presents a major challenge, with direct damage to agriculture, tourism, and infrastructure from events like droughts, floods, and wildfires disproportionately affecting rural areas. Furthermore, he noted, **inadequate infrastructure and connectivity** – such as limited access to public transport, insufficient broadband availability, and inadequate utilities – all compromise the economic resilience of these regions.

He concluded by stressing the need for **targeted policy responses** that bolster local innovation systems, focusing on developing local solutions and promoting local entrepreneurship. Crucially, these policies must be **inclusive**, ensuring that vulnerable populations are not left behind. Beyond fairness, this inclusiveness is vital because local communities play an **essential role in rural resilience** through their common identity, traditional knowledge, informal networks, and collective action.

Source: Freepik

Innovation & Competitiveness in EU Rural Areas

Michaela Bátorová

Joint Research Centre, European Commission

Michaela Bátorová from the **Joint Research Centre (JRC)**, European Commission, offered a compelling perspective on **innovation and competitiveness in EU rural areas**, framing the ongoing EU Competitiveness Compass as a significant opportunity for rural regions. She underscored that rural areas, covering 80% of EU territory and home to nearly 30% of its population, are not peripheral but instead **foundational to overall competitiveness**. These areas contribute in diverse ways, from food production and renewable energy to natural capital stewardship, the circular economy, and innovation in sectors like Agritech.

Dr Bátorová highlighted a surprising statistic: agriculture, forestry, and fishery account for only 4% of total economic value added in predominantly rural regions, while industry and construction combined represent over 30% – a share even higher than in predominantly urban areas. This suggests a significant role **for rural areas in Europe's ambition to become a manufacturing hub** once again. However, she acknowledged the serious challenges that must be overcome to boost rural productivity, including **skill shortages, poor digital and public transport connectivity, underinvestment in research and innovation infrastructure, and demographic decline**, which was highlighted the JRC's recent publication on the Outlook and demographic perspectives for EU's rural regions.

Delving into the **Competitiveness Compass**, Dr Bátorová explained its three main pillars and their relevance to rural areas.

The ***first pillar***, focusing on **closing the innovation gap**, is central to the strategy. She noted that Europe's productivity lag stems from underperformance in disruptive innovation and limited diffusion of new technologies, including in traditional sectors like agriculture and bio-based industries. Initiatives under this pillar, such as the Start-up and Scale-up strategy (currently under preparation by the EC), aim to reduce regulatory and capital access barriers, directly benefiting rural innovators in sustainable farming, biotech, bioeconomy, and rural services. In addition, the upcoming European Innovation Act seeks to enhance access to European research and technology infrastructure for innovative companies, including through regulatory sandboxes for safe idea testing. Moreover, the European Research Area Act aims to increase R&D investment to 3% of GDP, focusing support on strategic priorities like advanced materials, biotech, and robotics, while also strengthening talent circulation across Europe. Finally, the **EU** Biotech Act and Bioeconomy strategy are also addressing regulatory and market barriers that currently limit the scale and competitiveness of biotech and bioeconomy firms. Dr Bátorová views these initiatives as a shift from project-based approaches towards **structural reform and ecosystem building**, creating opportunities for local universities, clusters, and innovation hubs already active in rural regions.

The ***second and third pillars*** of the Competitiveness Compass, centred on **decarbonisation and resilience**, also hold significant implications for rural innovation. Dr Bátorová highlighted the EU's Vision for Agriculture and Food, alongside the Climate Adaptation Strategy and the European Water Resilience Strategy, as crucial initiatives. Given their role as stewards of land, water, and ecosystems, rural areas are key to implementing these plans, which are **vital for economic security and resilience in the face of climate change**.

Finally, Michaela Bátorová discussed the **enabling initiatives** focused on skills, governance, and investment, which are designed to equip stakeholders for implementing the Commission's ambitious plans. She stressed that **no strategy can succeed without people and place-based governance within a simplified, trust-based regulatory system**. The recently **published** Union of Skills initiative aims to tackle talent shortages through targeted reskilling, mobility schemes, and better alignment between education and labour market needs, which is particularly crucial for rural areas grappling with acute digital and green skills gaps. A forthcoming **Competitiveness Coordination Tool** is expected to align EU and national investments around shared strategic priorities, potentially channelling funding into **rural innovation, infrastructure, value chains, and skill systems.** The upcoming **Competitiveness Fund** also holds promise for simplifying access to finance and enabling transformative innovation projects for rural innovation.

Figure 1. Rural Opportunities in the Competitiveness Compass. Source: JRC

In summary, Dr Bátorová concluded that the success of this strategic framework hinges on **concrete actions and ownership at all levels**, with researchers, practitioners, rural innovators, and civil servants all playing an active role. She also emphasised the need for **co-creation of innovation with rural communities** to reflect specific local needs and capacities, ensuring that policy translates into real local change through piloting, capacity building, cross-sectoral collaboration, and multi-level, inclusive governance. She concluded her presentation by highlighting that ***"rural areas should not be seen as a problem to solve, but rather as a source of solution for Europe's most pressing challenges,"*** thus reframing the narrative around the vital role of rural areas in Europe's future.

Rural Business Resilience: measuring economic diversity

Carlos Tapia

Nordregio

Carlos Tapia of Nordregio returned to delve deeper into **Rural Business Resilience, specifically focusing on measuring economic diversity**. He began by highlighting why diversification matters for regional economic resilience, emphasising that diversifying livelihoods is generally understood to reduce dependency on single sectors, thereby building economic resilience.

By spreading economic activity across multiple sectors, economies reduce their exposure to sector-specific shocks. Beyond this, diversification strengthens an economy's adaptability during crises by enabling a variety of economic functions, creating alternative income sources, and mitigating unemployment risks. It also expands regions' access to broader trade networks, increasing multiplying effects and encouraging innovation. Furthermore, increased economic diversification often leads to broader community impacts through investments in infrastructure, education, and healthcare, promoting inclusive growth, reducing poverty, and improving quality of life in rural communities.

Dr Tapia presented the **Vaxholm Municipality in Sweden**. While mostly rural despite being considered urban, this municipality, recently saw one of its two major supermarkets close, showing the importance of **redundancy** alongside diversity. While economic diversity generally boosts regional resilience at a system level, when it comes to specific system components or services in rural areas, redundancy is equally vital. This illustrates that **while the overall system might gain diversity if a new business moves into the vacated supermarket spot, the specific service of a supermarket in that location is now less resilient due to the loss of redundancy.**

He then shifted to the measurement of **economic diversification**, explaining that common indicators at the regional level include the Herfindahl-Hirschman Index and the Shannon Diversity Index. While useful, these metrics, calculated from official statistics, always refer to administrative units rather than functional areas. To overcome this limitation, Nordregio and its partners in the GRANULAR project are experimenting with **measuring economic diversity for functional rural areas**, which are defined by connections and exchanges between rural places, accounting for how people and goods move.

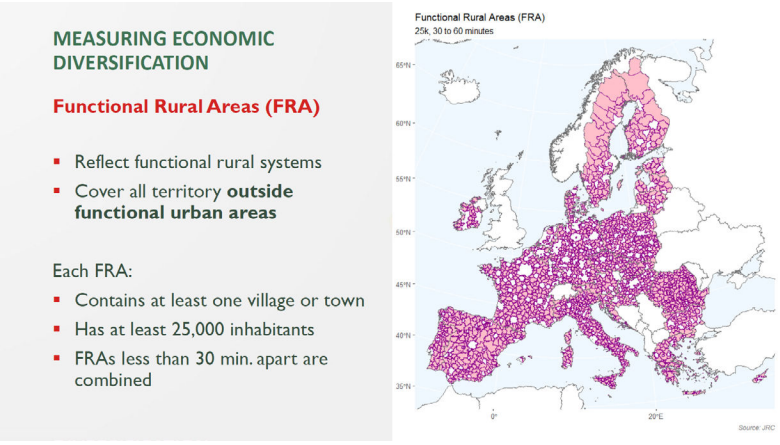

Figure 2. Measurement of economic diversification through Functional Rural Areas. Source: Nordregio

The GRANULAR project is utilising **OpenStreetMap data** to account for business diversity in these functional areas. While OpenStreetMap is a rich, collaborative open-source resource with a vast number of points of interest, it presents challenges such as uneven coverage across Europe (with more peripheral regions having less data) and the need for substantial data cleaning and attribution. To filter and classify the economically relevant data from OpenStreetMap's roughly 30 million points of interest, they are manually pre-filtering the data, and using **Large Language Models and Natural Language Processing**. They are testing both **unsupervised (semantic) and supervised approaches** to classify points into NACE industrial activity categories, ultimately filtering down to 2-3 million economically relevant points. These points are then used to calculate diversity metrics, with bias correction and modeling applied to account for coverage disparities. Preliminary validation tests, including one using Google's Gemma AI model, show promising results with less than 10% deviation at the regional level compared to official statistics, though more work is required to increase accuracy and optimise the process.

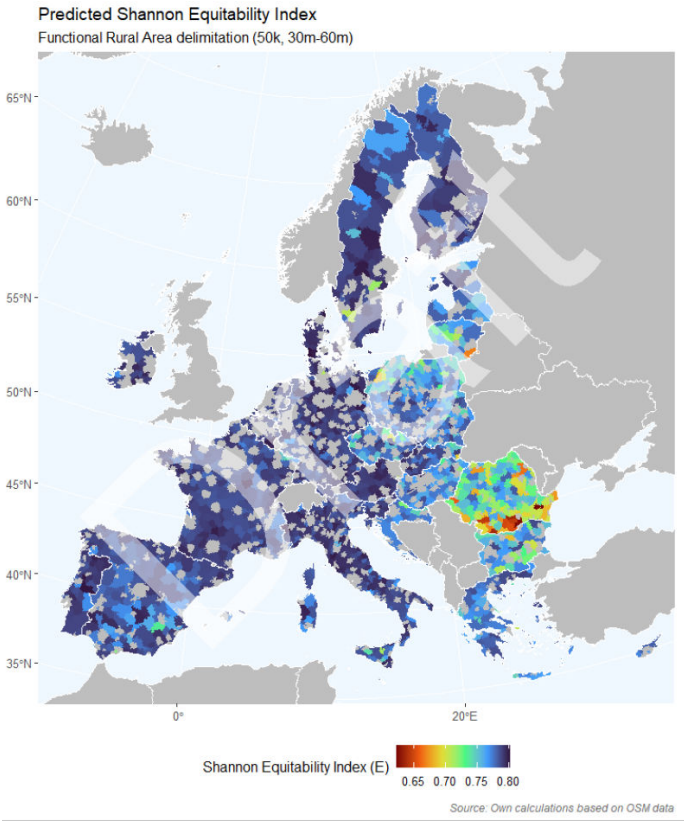

Figure 3. Predicted Shannon Equitability Index. Source: Nordregio

In summary, Dr Tapia reiterated that moving beyond traditional agricultural and forest industries is crucial for increasing the resilience of rural economies, echoing Michaela Batorova's earlier points, particularly concerning the industrial sector's importance in rural Europe. However, he stressed again that when assessing the resilience of specific components or functionalities of the system, **redundancy of services is also important**. He concluded by acknowledging that while data limitations currently hinder comprehensive analysis of economic diversification at the functional level, OpenStreetMap data, despite its challenges, offers a great resource. The ongoing work with AI models for classification holds significant promise for automating data processing, enabling a more accurate and functional understanding of rural economic diversity.

Alternative models for thriving economies

Poonam Pandey

University of Vigo & SERIGO

Poonam Pandey from the **University of Vigo**, representing the **SERIGO project**, presented on alternative models for rural economies, focusing on the crucial role of **social and solidarity economy** (SSE) in building resilience and fostering good quality of life in rural areas.

She criticised **dominant economic models**, which, she argued, promise endless growth, a linear path to development, and universal well-being through trickle-down effects. However, this model is a severe challenge to **environmental sustainability** (as shown with climate change, forest fires in rural areas, and waste accumulation causing social injustice) and **social needs** (like biodiversity challenges). This creates a bind where societies are overshooting environmental boundaries while simultaneously falling short on social foundations.

She then introduced various **alternative economic models**, some emerging in response to these sustainability challenges, while others, like ***Buen Vivir*** from indigenous Latin American communities or the concept of the ***social and solidarity economy***, have existed for a long time. She also presented newer concepts like ***Degrowth,*** *which* are also gaining prominence, with the EU itself recently producing a document on Thinking beyond growth. These models often emphasise **solidarity for a good life**, a concept that emerged in the 19th century in response to industrialisation's social and economic challenges, leading to worker cooperatives and community organisations.

Dr Pandey **categorised the transformational visions of these alternative economic models** into three forms:

1. **Rupture transformation:** direct confrontation, radical breaks, advocating rapid change, seen in aspects of Degrowth and Buen Vivir;
2. **Interstitial transformation:** building new institutions at the margins of dominant systems, advocating gradual change, characteristic of the social and solidarity economy);
3. **And symbiotic transformation:** changing existing institutions from within, gradual change, exemplified by the "well-being economy" concept popular in policy circles.

Connecting these models to rural areas, Pandey challenged the common perception of rural spaces solely as "sites of crisis" due to depopulation, aging, job scarcity, and biodiversity loss. She contended that rural areas are also **sites of contestation**, citing examples like the disputes around deforestation, monoculture forestry, and wind farms in Galicia (Spain), where rural identity and dignity are negotiated. Crucially, she highlighted that rural areas are increasingly seen as **"sites of hope,"** fostering human and animal relationships and providing vital support systems to urban areas.

To illustrate, she presented findings from a desk-based study on existing SSE initiatives in European rural areas. This study identified **26 categories of rural challenges**, primarily falling under "crisis" (e.g., lack of infrastructure, support, and care networks) and "contestation" (e.g., exploitation by agri-food multinationals). The study also found **20 types of SSE interventions**, organised around three main lines: **rural revitalisation** (e.g., agroecology as a ruptural pathway), **cultural reinvigoration** (reforming rural heritage like songs and recipes as symbiotic transformation), and **new economic arrangements** (as interstitial forms of transformation). Other interventions focused on enabling infrastructures and care networks, demonstrating symbiotic-interstitial transformations, and ensuring inclusion and dignity in rural life as a symbiotic transformation with existing systems.

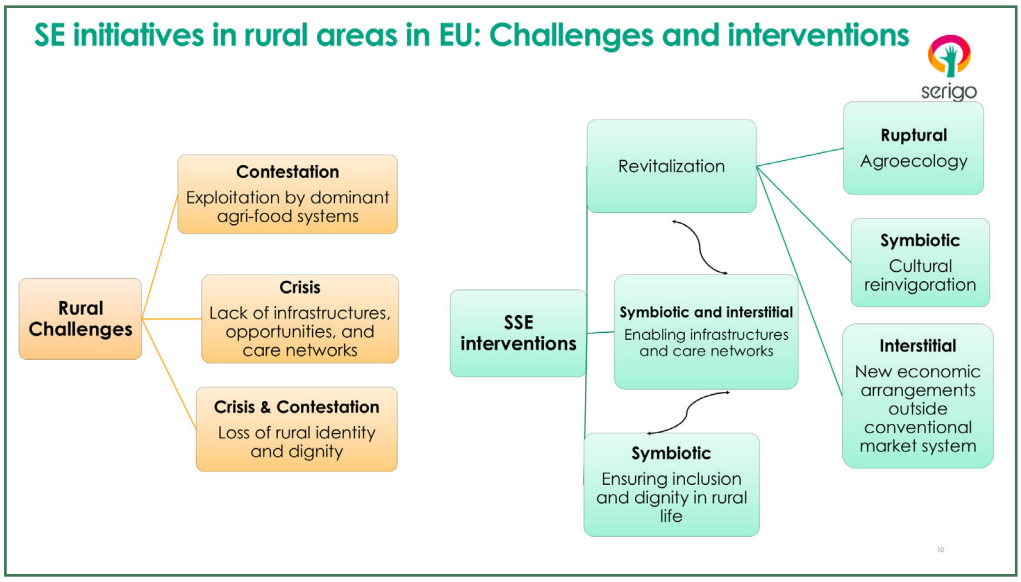

Figure 4. Challenges and interventions for SE initiatives in EU rural areas. Source: University of Vigo

"Dominant economic models are inadequate for engaging with the twin challenges of environmental sustainability and social justice, especially in rural areas." Poonam Pandley highlighted. She argued that it is beneficial to explore, support, and strengthen the many existing and functional alternative economic models already present in rural areas for a thriving economy and society. These models offer different modes of transformation (rupture, interstitial, and symbiotic) depending on specific needs. The SERIGO study revealed that rural challenges are often rooted in crisis and contestation, and that various SSE initiatives adopt diverse transformational approaches. She concluded by emphasising the critical need for further research to understand the impacts of these initiatives in addressing the twin challenges and driving positive transformation in rural societies.

Panel discussion: strengthening economic resilience in EU rural areas

with Carlos Tapia, Michaela Bátorová and Poonam Pandey

Moderated by Serafin Pazos-Vidal

The concluding session of the webinar featured a panel discussion with Carlos Tapia (Nordgregio), Michaela Bátorová (Joint Research Centre, European Commission), and Poonam Pandey (University of Vigo & SERIGO Project). Moderated by Serafin Pazos-Vidal (AEIDL), the session explored how to strengthen economic resilience in rural areas. The exchange bridged local realities, strategic EU-level policy, and functional territorial approaches.

Michaela Batorova opened by noting that while rural areas are only lightly mentioned in Competitiveness Compass, several complementary initiatives, such as the Startup and Scale-up Strategy, Bioeconomy Strategy and Biotech Act, hold promise for rural innovation. She underscored the need for flexible funding instruments and capacity-building measures to ensure rural entrepreneurs can access new opportunities.

Carlos Tapia stressed the importance of shifting from purely administrative perspectives to a **functional area approach**, reflecting how rural economies operate. Drawing from experience, he argued that evaluating policy impact through a functional lens (not just by fund allocation) would provide a more accurate picture of rural development outcomes. Dr Tapia also supported the idea of introducing a form of ***'functional proofing'*** **in policymaking**, similar to gender or climate proofing, to ensure that functional rural areas are acknowledged in impact assessments. Complementary to his contribution it is also useful to note that Dr. Tapia and his NORDREGIO colleagues have just released the draft Deliverable GRANULAR_D4.2_Rural_Resilience_from_a_Gender_Perspective which aims to incorporate gender as an essential concept into our understanding of socio-demographic and socio-economic resilience in rural areas, and by extension, rural resilience.

Poonam Pandey added a complementary perspective by highlighting the **existing resilience** of rural communities through **alternative economic arrangements** such as social and solidarity economies. Drawing from SERIGO research, she suggested that resilience is not something to be imposed externally, but something already integrated in rural ways of life. She called for policies to recognise and build upon these systems, stressing the importance of focusing on **well-being,** not just economic metrics.

The public interaction included reflections on the feasibility of applying functional approaches to EU policy frameworks. Dr Tapia and Dr Bátorová acknowledged the political and administrative challenges of this shift, but agreed on the need for **greater awareness**, **data alignment**, and **multi-level governance** to enable such transformation. Participants also raised the idea of a **charter for basic services** in rural areas, which could help ensure access and redundancy in essential services, reinforcing the link between infrastructure, equity, and resilience.

Conclusion

Merveille Ntabuhashe

European Association for Innovation in Local Development (AEIDL)

In conclusion, this webinar offered different perspectives on how tools, policies, and alternative models contribute to building economic resilience in rural areas. Through case studies, data-driven experimentation, and policy analysis, speakers underscored the **importance of embracing both quantitative and qualitative approaches to better understand rural economies.** A recurring theme was the need to move beyond traditional administrative boundaries and adopt functional area perspectives that reflect real-world economic and social dynamics.

Speakers highlighted recurring challenges such as **data fragmentation, lack of investment in rural innovation systems and the difficulty of scaling up inclusive economic practices**. However, the session emphasised that resilience is not just about absorbing shocks, but also about fostering local agency, entrepreneurship and care systems. The discussion focused on social and solidarity economies, open data platforms and European policy tools as levers for enabling an **inclusive and adaptable rural future.**

As **Merveille Ntabuhashe** (AEIDL) noted in her closing remarks, this event forms part of the GRANULAR Knowledge Transfer Accelerator (KTA), a space designed to catalyse dialogue between researchers, practitioners, and policy actors. Interested actors are encouraged to remain engaged with the KTA community to co-develop actionable strategies for resilient rural areas.