

### **KNOWLEDGE TRANSFER ACCELERATOR**

# Data for rural areas: towards smarter rural policies

HIGHLIGHTS REPORT

5 December 2024

### Introduction

Rural areas encompass a significant portion of Europe's territory and population. However, they often face challenges like population aging, economic disparities, and dissatisfaction with policy-making. Data is essential in order to address the unique challenges and opportunities present in rural areas across Europe, and for informing effective policy-making and promoting sustainable development in these regions

On 5 December 2024, over 75 actors convened to **GRANULAR webinar** to discuss the critical role of data in understanding and supporting rural communities. Organised by the European Association for Innovation in Local Development (AEIDL) as part of GRANULAR Knowledge Transfer Accelerator, the webinar highlighted the need for granular data that accurately reflects the diversity of rural areas, as well as the importance of collaboration and knowledge sharing for evidence-based policymaking.

Serafin Pazos-Vidal, Senior expert in Territorial Development at AEIDL, opened the webinar by highlighting the project's focus on developing methodologies for rural proofing, and emphasised the need for data to be relevant and applicable to the specific needs of rural communities. The EU is financing projects like RUSTIK and GRANULAR (led by Dr. Tristan Berchoux from CIHEAM Montpellier) because reliable, granular data at the local level is essential for addressing policy challenges effectively. Without good data at very local level, many issues are overlooked and fail to be properly addressed. The presentations in this highlights report provided a clear overview of why this particularly true for rural areas.







5 DECEMBER 2024



ONLINE



**76 PARTICIPANTS** (research, public authorities, advisors, business, producers, NGOs, civil society, EU institutions, etc.)



PRESENTATIONS AND RECORDINGS HERE.

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# Setting the scene on rural data & needs

# **Exploring rural data needs across Europe**





### Simone Sasso & Davide Auteri







#### **Mapping Rural Innovation and Entrepreneurship**

Simone Sasso from the European Commission's Joint Research Centre (JRC) presented an analysis of the distribution of startups across European territories. He emphasised the crucial role of innovation and entrepreneurship in addressing demographic and economic challenges in rural areas.

The findings reveal a complex picture of rural startup activity:

- The share of rural startups varies significantly across countries, with smaller countries like Luxembourg and Denmark having a higher proportion of rural startups compared to larger countries like Germany and Italy.
- Certain rural areas exhibit higher entrepreneurial dynamism than anticipated, given their population size. This highlights the presence of unique factors driving innovation and startup activity in specific rural communities.
- The sectoral distribution of rural startups differs from urban areas. While agri-food remains a dominant sector in rural regions, some high-tech sectors, such as transport, energy, and robotics, have a surprisingly high presence in rural areas compared to sectors like media, marketing, and fintech, which are more concentrated in urban centres.
- Mr Sasso mentioned the ongoing research the JRC is conducting to develop "rural-proofed" indicators that accurately capture the realities of rural innovation and entrepreneurship. Their work aims to provide policymakers and practitioners with the data and tools necessary to support the growth of vibrant and sustainable rural economies.

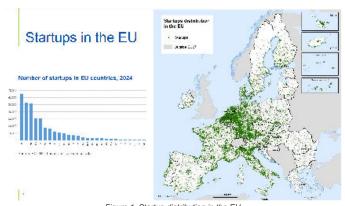


Figure 1. Startup distribution in the EU Source: JRC

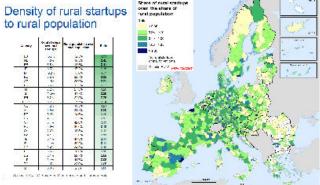


Figure 2.Density of rural startups to rural population Source: JRC

#### The Rural Observatory: illuminating rural realities through data

**David Auteri** presented the <u>Rural Observatory</u>, a JRC tool to disseminates indicators and data on rural areas. The Observatory provides access to a wide range of indicators, both official statistics from Eurostat and experimental indicators developed by the JRC, enabling users to explore and analyse various aspects of rural life.

Key features and insights from the Rural Observatory include:

- Data visualisation: the Observatory utilises maps, charts, and graphs to present data in an accessible and user-friendly format, making it easy for policymakers, practitioners, and researchers to understand and utilise the information.
- Experimental indicators: the Observatory features experimental indicators based on innovative data sources.
   These indicators provide insights into critical areas such as land use, broadband speeds, renewable energy potential, and access to essential services.
- Renewable energy potential: the Observatory's analysis highlights the significant potential of rural areas for renewable energy production, emphasising their role in sustainable development and addressing climate change.
- Future projections: the JRC is developing a model to project demographic, economic, and land use changes in rural areas up to 2040. This model will provide valuable insights for policymakers and planners, enabling them to anticipate future trends and develop informed strategies.

The <u>Rural Observatory</u> serves as a vital resource for understanding the complexities of rural areas and informing evidence-based policymaking. Its user-friendly interface and rich datasets empower stakeholders to explore rural realities, identify challenges, and unlock opportunities for sustainable development.

### Benchmark of rural data, issues and results



# Ian McCallum International Institute for Applied Systems Analysis (IIASA)



**Ian McCallum** from the International Institute for Applied Systems Analysis (IIASA) and **Michael Kull** from the Natural Resources Institute Finland (LUKE), presented their work on **benchmarking rural data**.

lan McCallum presented the <u>Screening Rural Data Sources (2023)</u> report, emphasising the need for **new data to showcase the diversity of rural areas**. He highlighted the importance of using **diverse data sources**, including both traditional administrative data and newer big data sources like Earth observation data, sensor data, and social media data. He also noted the need for more timely data, as much of the data currently used is only updated annually.

He introduced the <u>Rural Diversity Compass</u>, a tool being developed within the GRANULAR project. This compass encompasses four main themes that align with the <u>European Commission's rural vision</u>: Productive, Recreational, Environmental, and Residential. Each theme leverages specific data sources and methodologies to provide a comprehensive view of rural areas. For instance, the *Productive* theme utilises national statistics, Chambers of Commerce data, and Open Street Maps to analyse labour, employment, and economic performance. Meanwhile, the *Recreational* theme draws upon platforms like TripAdvisor, Booking.com, and social media to explore cultural attractiveness and tourism trends.

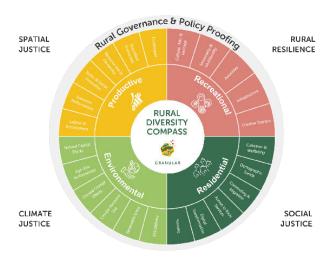


Figure 3. GRANULAR Rural Diversity Compass Source: <u>GRANULAR report</u>

# & Michael Kull Natural Resources Institute Finland (LUKE)



Additionally, **Michael Kull** discussed the findings from the report Exploring Rural Data Landscapes: A Benchmark of performance and costs in the EU and beyond (2023). This paper went beyond the initial screening of data sources to benchmark rural data systematically. This involved surveying National Statistical Offices across the EU and partner countries to assess the cost and availability of data relevant to rural development. The survey revealed significant variations between countries regarding the types of data openly available and the finest resolution available for free.

The report showcased <u>inspirational examples of data collection tools and methods</u> from various partner countries. He cited initiatives like the Scottish National Island Plan Survey, an indicator for tracking subjective well-being development in Finland, and a tool from Poland designed to revitalise municipalities. These diverse examples underscored the innovative approaches being adopted to gather and utilise data for rural development across different contexts.

Additionally, the paper included <u>data fiches</u> which offered detailed descriptions of 27 datasets relevant to the GRANULAR project. These descriptions covered data resolution, cost dimensions, and potential sources of assistance for utilising the data, effectively providing a guide for those interested in working with these datasets.

He concluded the presentation with **key recommendations**, stressing the importance of continuous investment in new and open data sets, emphasising their potential to drive innovation and generate social and economic benefits. Acknowledging the rising demand for complex and granular data, they highlighted the role of **collaboration**, **knowledge sharing**, **and capacity building** in enhancing data accessibility and reuse.

Crucially, Mr McCallum and Kull emphasised the need for quality assessment and validation to ensure the data used for decision-making is reliable and accurate. They also underscored the importance of recognising local circumstances and engaging with data producers to ensure effective data utilisation. This final point emphasised the need to go beyond simply gathering data, highlighting the importance of collaboration and contextual understanding in translating data into meaningful insights and actions for rural development.

### **Data for policymaking**



# Louise Chasset Pays Pyrénées Méditerranée, GRANULAR Living Lab



**Louise Chasset** from Pays Pyrénées Méditerranée, shared her experiences of using data to inform policymaking in a rural area in the South of France. She showcased the **GRANULAR Living Lab's** work in developing data to address local challenges related to mobility, outdoor activities, and forest management.

She highlighted the importance of developing data culture at the local level by:

- Engaging stakeholders: involving data users and producers, including elected representatives, municipal employees, and residents, in the data collection and analysis process.
- Organising workshops and data clubs: creating opportunities for stakeholders to interact with data experts, understand data sources and methodologies, and discuss the implications of data insights for policymaking.

 Promoting data literacy: Educating residents about data and statistics through initiatives like quizzes and competitions, empowering them to understand and interpret data relevant to their communities.

Mrs Chasset's presentation emphasised the **importance of bridging the gap between data experts and decision-makers** to ensure that data insights are effectively translated into actionable policies that benefit rural communities. By fostering data culture and collaborative approaches, they aim to create a more data-driven and evidence-based approach to policymaking in the region.

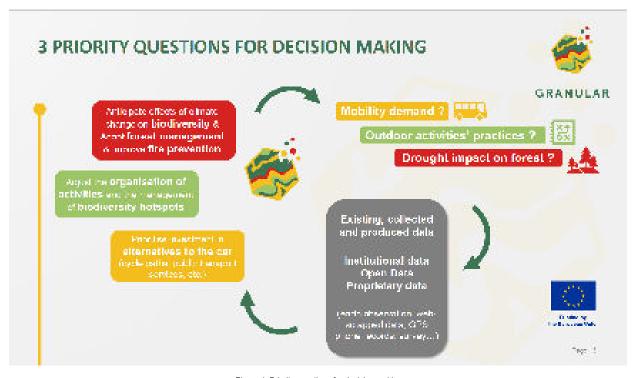


Figure 4. Priority questions for decision making Source: PPM

# Innovative methods to collect and expand rural data

# **Crowd-sourcing data for accessibility**

#### Ronan Ysebaert & Louis Laurian

#### **National Centre for Scientific Research (CNRS-RIATE)**

Destinations: Instead of relying on potentially incomplete points of interest, they use the European Commission's Towns and Cities layer, which classifies settlements based on population size. This categorisation acts as a proxy for service.

diversity, as research suggests larger settlements generally

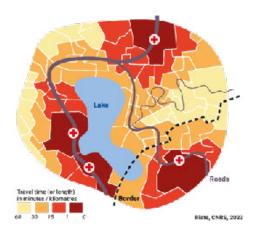
Using these inputs, they calculated a range of accessibility indicators focused on travel time and opportunity. The presentation specifically highlighted three indicators: travel time to the nearest small, medium, and large town/city. These indicators were calculated for the entire European 1km grid and aggregated at NUTS 2 and 3 levels.

offer a wider range of services.

Ronan Ysebaert and Louis Laurian from the National Center for Scientific Research (CNRS-RIATE) presented a methodology for building accessibility indicators using crowdsourced data from Open Street Map. Their methodology, based entirely on open-source solutions, aims to provide a replicable and adaptable framework for assessing accessibility to services in rural areas.

The approach requires three key data inputs:

- Routing engine: The team uses OSRM, an open-source routing engine based on the OSM network, which considers traffic parameters like speed limits and turn penalties but not real-time traffic congestion.
- Origins: The analysis uses the standard European 1km reference grid, widely recognised for data sharing and dissemination.



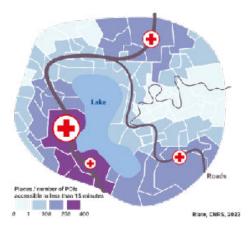


Figure 5. Accessibility indicators (left) and opportunities (right) Source: CNRS-RIATE

They showcased several graphical outputs derived from these indicators, including:

- Maps: Visualising travel time to the nearest small town across Europe, revealing that 88% of the population lives within a 15-minute drive, 77% to a medium town and 57% to the nearest city.
- Cumulative frequency plots: Demonstrating the percentage of the population within various travel time thresholds to different settlement sizes. These plots highlighted the accessibility differences across settlement types and the concentration of urban populations.
- Combined analysis: Integrating travel time indicators with grid cell characteristics like the OECD's typology of urban and rural areas to illustrate accessibility disparities between these regions.

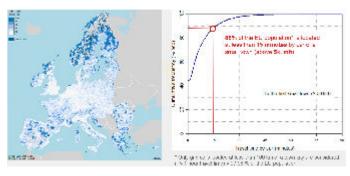


Figure 6. Travel time by car to the nearest small town across Europe Source: CNRS-RIATE

They concluded their presentation by emphasising the replicability and open-source nature of the work. The entire methodological framework (including code and documentation) is available in a <u>public repository</u>. Future work aims to refine the framework by incorporating:

- More granular origins: using the updated European population grid for a more precise representation of population distribution.
- Specific services: focusing on education services and exploring the feasibility of combining different routing profiles (e.g., car and bike) to provide a more nuanced understanding of accessibility.

Lastly a crucial issue the speakers highlighted is that ogther than the general mapping of essential services that recently unveiled OECD Rural Studies (2024), <u>Getting to Services in Towns and Villages.</u>

<u>Preparing regions for demographic changes</u>, most Member States do not have a database of available basic services such as it is the case with France's INSEE <u>Base Permanente des Equipements</u>. Something that, if anything, highlight the potential value of project outputs such as those from GRANULAR.

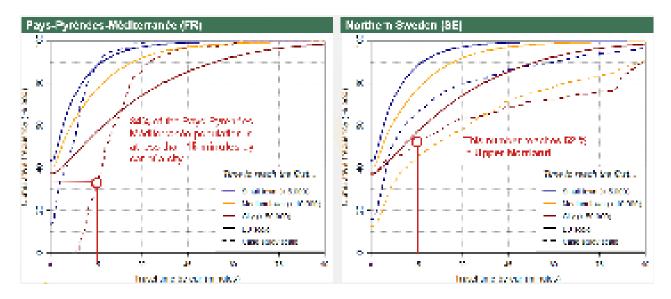


Figure 7. Travel time by car to the nearest small town, medium town and city in GRANULAR French and Swedish LLs Source: CNRS-RIATE

# **Data collection methods in GRANULAR Living Lab**



### **Breixo Martins Rodal**

**University of Vigo** 



**Breixo Martins Rodal** from the University of Vigo, and coordinator of the <u>GRANULAR Living Lab in Ourense</u> (located in northwest Spain) presented data collection methods employed in the LL, highlighting their work on understanding the needs of aging populations in the region.

Mr Rodal emphasised the need for granular data to understand the unique challenges and opportunities facing rural communities. Traditional indicators at higher geographic levels often lack the necessary detail to inform effective policymaking in these diverse territories. He highlighted the Living Lab's focus on three key themes: *longevity, wildfires, and e-government,* with a particular emphasis on **population and aging** 

**issues**. He outlined the team's approach to data collection, employing a mixed-methods strategy that combines qualitative and quantitative techniques, and occasionally incorporates narrative elements.

The LL analysed unpublished interviews conducted with **centenarians** in the region, to better understand hyperlongevity. By transcribing and ranking word frequencies, they identified key themes and concerns for this demographic. The analysis revealed the importance of land, the digital world, and the concept of time in the lives of these individuals. This approach provides valuable insights into the specific **needs and priorities of older residents** in rural areas.



Figure 8. Word frequency analysis from centenarian in Ourense Source: CNRS-RIATE

In addition, Rodal presented a case study utilising data from the "*Telecare*" system, a service that provides **remote monitoring and support for elderly individuals** living alone or with mobility issues. The Telecare system offers a rich source of geographically-linked data, allowing researchers to map the distribution of users and understand their needs. The team combined this data with emergency call records, analysing the spatial and temporal patterns of calls in relation to environmental and socioeconomic indicators. This analysis aimed to identify areas with higher emergency risks and inform targeted policy interventions.

Recognising the importance of community engagement, the LL also implemented participatory processes to gather insights directly from residents. They conducted interactive workshops involving physical mapping exercises to elicit perspectives on local challenges and priorities. While acknowledging the need for further refinement, Breixo Rodal highlighted the potential of this approach for replicating research in diverse territories and scaling the research to broader geographical areas

### Discussion with the audience

### Moderated by Serafin Pazos-Vidal

Following the presentations, the floor was open for the audience to ask their questions to the experts.

A participant raised a question regarding the consequential nature of the research presented, emphasising the need to identify **how the insights generated could tangibly improve the lives of rural residents. lan McCallum** (IIASA) responded by highlighting the potential of tourism data. He explained how understanding the factors attracting tourists to a specific region could be used to inform sustainable tourism development strategies and generate income for rural communities.

Another participant raised concerns about data quality and data protection issues encountered during the research. In response, lan McCallum acknowledged the issue of data completeness varying across regions, especially with crowdsourced data like Open Street Map. Ronan Ysebaert (RIATE-CNRS) further elaborated, by explaining that while OSM data for urban areas is generally comprehensive, rural areas (particularly in certain countries) suffer from missing information. He emphasised the need for complementary data collection to ensure accuracy and completeness, especially when analysing accessibility to services

Finally, the discussion also focused on the challenge of translating complex data and sophisticated tools into actionable policy recommendations. Louise Chasset (PPM) responded by highlighting the importance of involving policymakers from the beginning of the research process to ensure alignment between research questions and policy priorities. She emphasised the need for clear communication and data literacy initiatives to enhance policymakers' understanding and utilisation of data. Moreover, Simone Sasso (JRC) added that creating user-friendly online platforms and visualisation tools like the Rural Observatory can make granular data easily accessible and interpretable for policymakers. He also stressed the importance of maintaining ongoing communication with rural communities and policymakers to showcase the available data and its potential applications.

# **Conclusion**



### Merveille Ntabuhashe

**European Association for Innovation of Local Development (AEIDL)** 

In conclusion, this event provided valuable insights into the **growing importance of data for understanding and supporting rural communities**. Speakers emphasised the limitations of indicators and advocated **for innovative and participatory data collection approaches**, including the use of existing datasets, crowdsourcing, and qualitative methods.

The discussions also underscored the importance of **data quality assessment** and the need to **address data gaps**. Speakers advocated for a **collaborative approach**, bringing together researchers, policymakers, and rural communities to ensure data accessibility, promote data literacy,

and translate data-driven insights into tangible benefits for rural residents through **rural proofing strategies**.

As **Merveille Ntabuhashe**, GRANULAR Project Manager at AEIDL, noted in her concluding remarks, the webinar is part of the <u>GRANULAR Knowledge Transfer Accelerator</u>.







