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SMART VILLAGE LABS

D1.1 Measuring social inclusion and wellbeing in European rural areas: a systematic review

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Executive Summary

This deliverable introduces a comprehensive framework for understanding and measuring social exclusion and to promote social inclusion, particularly within rural areas in the context of the European Union (EU). The framework conceptualises social exclusion as a dynamic and relational process operating across multiple dimensions - economic, social, political, and cultural. Through this measurement framework, we systematically examine how individuals and communities experience limited access to essential resources, opportunities, and rights. The framework incorporates key indicators across various domains including health outcomes, educational attainment, economic participation, and quality of life metrics.

The framework is specifically adapted to address the unique challenges of rural areas, where geographic isolation, infrastructure gaps, and economic vulnerabilities create distinct patterns of exclusion. By integrating both quantitative and qualitative indicators, the framework enables thorough assessment of how rural-specific factors interact with broader exclusion mechanisms. This measurement approach aligns with and supports existing EU policy frameworks and global strategies for inclusive growth and sustainable development, providing a robust tool for policy analysis and intervention design.

A systematic review methodology was employed to analyse relevant literature, theoretical frameworks, and measurement tools. Key databases and grey literature sources were reviewed to identify indicators that reflect the complex realities of social exclusion in rural contexts. This approach facilitated the identification of dimensions such as poverty, health and well-being, education, digital connectivity, social participation, and gender equality, which collectively form the basis for understanding and addressing exclusion.

The report emphasises the significance of EU initiatives, such as the Lisbon Strategy and Europe 2020, which marked critical milestones in prioritising social exclusion within the EU's policy framework. Tools like the AROPE (At Risk of Poverty or Social Exclusion) indicator and the Laeken Indicators provide a robust mechanism for assessing and monitoring exclusion across member states. These tools highlight systemic inequalities and offer data-driven insights to inform policy and intervention strategies.

Challenges specific to rural areas, such as geographic isolation, climate vulnerability, and digital exclusion, are discussed in detail. The report underscores the need for tailored policies that address these barriers while promoting economic diversification, connectivity, and inclusivity. Key determinants of social exclusion, including age, ethnicity, education, and infrastructure, are also analysed to provide a comprehensive understanding of the factors influencing inclusion.

By presenting an integrated framework and actionable recommendations, the report contributes to the EU's broader goal of reducing poverty and social exclusion by at least 15 million people, including 5 million children, by 2030. The report concluded with 3 qualitative and 43 quantitative indicators for measuring social exclusion and inclusion in rural areas of the EU. In developing these indicators, **nine marginalisation frameworks from key European and international institutions were screened and utilised**. These include the European Commission, Eurostat, CEDEFOP, OECD, ILOSTAT, WHO, the European University Institute, ILO, UNESCO, and the European Pillar of Social Rights. By

drawing from these comprehensive sources, the report ensures that the selected indicators align with established methodologies and reflect the multifaceted nature of social exclusion and inclusion.

This deliverable, developed under the INSPIRE project as part of Horizon Europe programme, aligns with the EU's vision for a resilient, equitable, and inclusive society, ensuring no one is left behind in the process of sustainable development. Moreover, the report could enhance the United Nations' Sustainable Development Goals (SDGs), specifically contributing to SDG 1 (No Poverty), SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth), and SDG 10 (Reduced Inequalities), thus reinforcing its relevance within a broader global development context.

Keywords: Social exclusion, social inclusion, rural areas, European Union, poverty, AROPE indicator, Laeken Indicators, digital divide, sustainable development, Horizon 2020, INSPIRE project, multidimensional framework.

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List of Terms and Definitions

Abbreviation	Definition
AROPE	At Risk of Poverty or Social Exclusion
DE	Determinants Identified
EPSCO	Employment and Social Affairs Council
EU 2020	Europe 2020 Strategy
EU 2030	Europe 2030 Targets
EU-SILC	EU Statistics on Income and Living Conditions
INSPIRE	“Supporting the inclusion, wellbeing, and growth of rural areas through multi-actor Smart Villages labs for enhanced governance frameworks” (Horizon Europe project)
Laeken Indicators	Indicators to monitor poverty and social exclusion, developed by the European Council
NEETs	Not in Education, Employment, or Training (youth indicator)
NUTS	Nomenclature of Territorial Units for Statistics
OECD	Organisation for Economic Co-operation and Development
UNESCE	United Nations Economic Commission for Europe

1 Introduction: objectives of the study

Social exclusion and social inclusion are widely discussed yet complex concepts within contemporary social policy and academic discourse, often lacking a single, universally agreed-upon definition (Daly, 2022; Tuparevska et al., 2020). Broadly, social inclusion can be understood as the process and goal of enabling individuals and communities, particularly those marginalised or disadvantaged, to participate fully in society's economic, social, cultural, and political life (United Nations [UN], 2016a). This process requires dismantling barriers that prevent people from exercising their rights and realising their potential, thereby enhancing well-being, social cohesion, and equity (Santos et al., 2018; Thompson, 2021).

In contrast, *social exclusion* refers to the dynamic and multidimensional processes that systematically limit certain groups' access to essential resources, services, opportunities, and networks (Silver, 2015; Mathieson et al., 2008). Exclusionary mechanisms may arise at the structural level (such as economic inequalities, inadequate infrastructure, and discriminatory institutional practices) or at the relational level through stigma, prejudice, and social marginalisation (Daly, 2022; Khan, 2012). Because social exclusion operates through interlinked economic, political, cultural, and social domains, its manifestations extend beyond income poverty to include reduced civic engagement, restricted access to quality education, and insufficient healthcare (United Nations, 2016b).

Social inclusion is often seen as the opposite of social exclusion, but it is a complex and complicated phenomenon. Researchers highlight that individuals may experience inclusion in one aspect of society while facing exclusion in another (Jackson, 1999). For instance, some groups may be integrated linguistically yet face economic disadvantages, or the reverse may be true (Pradhan, 2006). This perspective emphasises that inclusion and exclusion are interconnected, with participation in one domain potentially coinciding with marginalisation in another. Furthermore, Jackson (1999), building on Tsing (1998), argues that marginality is not solely restrictive; it can also be a source of empowerment, as excluded groups may use their distinct identities to access resources or secure exemptions.

This dynamic interaction between inclusion and exclusion is especially crucial in rural settings, where discrepancies in several characteristics of social inclusion frequently occur. A rural region may rank high on certain indicators, such as social participation, but low on others, such as access to healthcare, education, or digital infrastructure (Shucksmith, 2004). Moreover, while strong social networks in rural places might generate a sense of belonging, they may also lack possibilities for economic advancement or access to basic services. Such multidimensionality emphasises the significance of taking a holistic approach for evaluating and addressing social inclusion in rural communities (Lombardi et al., 2020).

Although social inclusion and social exclusion are conceptually integrated, each shaping the other's scope and significance, their policy implications differ in emphasis. Policies designed to combat *social exclusion* typically focus on identifying and mitigating structural and relational barriers, such as by improving access to healthcare, housing, and employment, or by enhancing legal protections against discrimination (Nwachi, 2021). Conversely, policies promoting *social inclusion* prioritise capacity-building and empowerment strategies, seeking to create enabling environments where individuals and groups can exercise agency, participate in decision-making processes, and access opportunities for upward social mobility (European Union, 2014; Eurofound, 2022). Recognising these distinct, yet

interrelated, dimensions is particularly prominent in rural contexts, where geographic isolation, infrastructural deficits, and economic vulnerabilities heighten the risk of exclusion (Vanhercke, 2010). Hence, by examining the interplay of inclusion and exclusion, this report aims to offer a comprehensive framework for understanding, measuring, and addressing social exclusion in rural areas; ultimately contributing to the development of evidence-based interventions that foster sustainable and equitable growth.

Since 2001, the Social Protection Committee and its Indicators Sub-Groups have developed indicators for social protection (pensions, healthcare, and long-term care) and social inclusion. The list of EU social indicators is continually updated as statistics, data gathering, and policy requirements evolve. The European Union has employed (and continues to employ) these indicators to monitor and assess progress toward the EU's social objectives, as well as to implement the social dimension of the Europe 2020 strategy. The Action Plan for Implementation includes monitoring progress toward the 2030 EU poverty and social exclusion targets, aiming to reduce the number of individuals at risk of poverty or social exclusion by at least 15 million by 2030, with at least 5 million of these being children.

The primary objective of these EU social indicators is to track progress toward a set of EU goals for social protection and inclusion, jointly agreed upon by EU Member States and the European Commission. The initial objectives were set in 2001 and focused on social inclusion, leading to the adoption by EU Heads of State and Government of the first set of 18 EU social indicators in the areas of poverty and social exclusion—widely known as the Laeken indicators—named after the Belgian city where they were adopted in December 2001. In the same year, the European Council convened in Laeken to endorse a set of universally agreed-upon metrics intended to assess Member States' performance and promote social inclusion. Since 2008, social exclusion and inequality have been computed and monitored using the at-risk-of-poverty or social exclusion indicator (AROPE). These commonly agreed EU objectives on social protection and social inclusion have evolved slightly over time, and those currently underpinning EU cooperation in the social field were adopted by the EU Council of Ministers, specifically the Employment and Social Affairs Ministers in the Employment and Social Affairs Council (EPSCO).

This report is developed as part of Task 1.1 under the INSPIRE project, funded by the Horizon Europe initiative. Task 1.1 specifically focuses on redefining and reconceptualising social exclusion in rural areas — a critical component of INSPIRE's broader aim to support inclusion, well-being, and growth in these regions. Through the creation of multi-actor "Smart Village Labs", the project seeks to develop innovative governance frameworks that address the unique challenges faced by rural populations. This deliverable under Task 1.1 contributes to these goals by mapping existing global and European measurement tools, offering an integrated definition of social exclusion tailored to rural contexts, and establishing a comprehensive framework of indicators to enhance future policy and practice.

To achieve this, the task undertakes a systematic review of global and European frameworks for measuring social exclusion and inclusion. The inclusion of both academic and grey literature ensures a comprehensive perspective, as the latter often provides practical insights that complement theoretical approaches. Particular attention is directed toward identifying and analysing dimensions such as poverty, access to education and skills development, labour market participation, health and wellbeing, and social participation, among others. These dimensions reflect the structural and socio-cultural factors that contribute to exclusion in rural areas. Moreover, the task emphasises the

development of both qualitative and quantitative indicators tailored to rural settings, aiming to provide actionable tools for future research and policy interventions.

In this context, it is essential to highlight the synergies between INSPIRE and other relevant EU-funded projects that share similar objectives. These collaborations contribute to fostering knowledge exchange, leveraging best practices, and optimising resources to enhance the overall impact of social inclusion initiatives in rural areas. Synergies aim to promote collaboration and knowledge exchange while also achieving more efficient and effective use of resources. The INSPIRE project actively seeks to establish connections with key initiatives, including sister projects, projects funded under the HORIZON-CL2-2022-TRANSFORMATIONS-01-02 and HORIZON-CL2-2021-TRANSFORMATIONS-01-03 calls, other Horizon 2020 and Horizon Europe projects, as well as projects funded under other EU programmes.

Among the relevant projects that serve as a significant reference point for INSPIRE are:

MOBI-TWIN – A project addressing urban mobility challenges by fostering integrated mobility solutions and resilient infrastructure, with a strong emphasis on sustainability and reducing urban congestion.

ESSPIN – Dedicated to advancing next-generation energy systems, this project focuses on decentralised renewable energy networks and innovations in energy storage to enhance grid stability and efficiency.

EXIT – Investigates transformative digital technologies, emphasising the practical implementation of smart data systems and artificial intelligence to modernise industries and public services.

PREMIUM-EU – Supports European innovation ecosystems by facilitating partnerships between research organisations, SMEs, and policymakers, fostering a collaborative environment for groundbreaking innovations and sustainable economic development.

These synergies demonstrate INSPIRE's strong alignment with ongoing EU efforts to foster social inclusion, social innovation, and economic resilience in rural communities. These partnerships will further strengthen the impact of INSPIRE and contribute to a more coordinated approach to addressing rural social inclusion challenges across Europe.

2 Methodology

This study employs systematic review methodology. Through systematic identification and analysis of peer-reviewed research, policy documents, and grey literature, we aim of developing a comprehensive understanding of social inclusion and exclusion in rural areas of the European Union. The systematic approach was selected for its ability to minimise bias and ensure methodological transparency while capturing the full scope of available evidence. To maintain objectivity and reproducibility in this analysis, the following methodological framework was implemented.

2.1 Systematic Review Process

2.1.1 Establishing Review Criteria and Research Questions

The main research question that the study aims to address is to analyse the key indicators and determinants of social inclusion and exclusion in rural areas of the EU, by categorising them into sections in order to ensure that the indicators were explained in depth. The criteria for inclusion were based on the relevance of the data to the geographic areas and time frame of recent studies; however, older literature was also incorporated when established theories and frameworks from past studies remained applicable. The study primarily focuses on gender equality, social participation, economic security and health factors in the rural content.

2.1.2 Developing a Comprehensive Search Strategy

The literature review was conducted to identify relevant theoretical frameworks used in data collection and advanced analysis. Academic databases such as Scopus, Jstor, Ebsco, Springer link, Wiley Online Library and Google Scholar were utilised for this purpose for their extensive collection of research literature. Peer reviews, journal articles, book chapters and conference papers were prioritised for their data credibility.

To ensure a comprehensive examination, an advanced search methodology was employed and designed to systematically categorise keywords associated with social inclusion and exclusion. The selected keywords included terms such as "Social exclusion/inclusion," "Social exclusion/inclusion metrics," "Indicators of rural poverty," "European Union OR EU," "Quality of life indicators," "Rural areas OR rural communities," and "Rural areas." The "OR" operators were employed to allow for the inclusion of a broader range of studies by capturing variations and synonymous terms within the search criteria. The search was further refined through the application of specific filters, including language (English), subject area (social exclusion/inclusion), and document type (accessible publications). Additionally, a temporal filter was applied to limit the search to studies published between 2010 and 2024, ensuring the inclusion of recent data and enabling a thorough analysis of contemporary information.

In addition to the literature review, supplementary information was obtained from grey literature (including reputable news outlets, academic journals, and institutional reports) to ensure coverage of the most recent events and developments related to social exclusion and inclusion. These additional findings were then integrated with scholarly literature, thereby providing up-to-date data and insights

into emerging trends. The search results were systematically screened to identify articles relevant to the study, resulting in the inclusion of references from journals, articles, news outlets, and publications for further review.

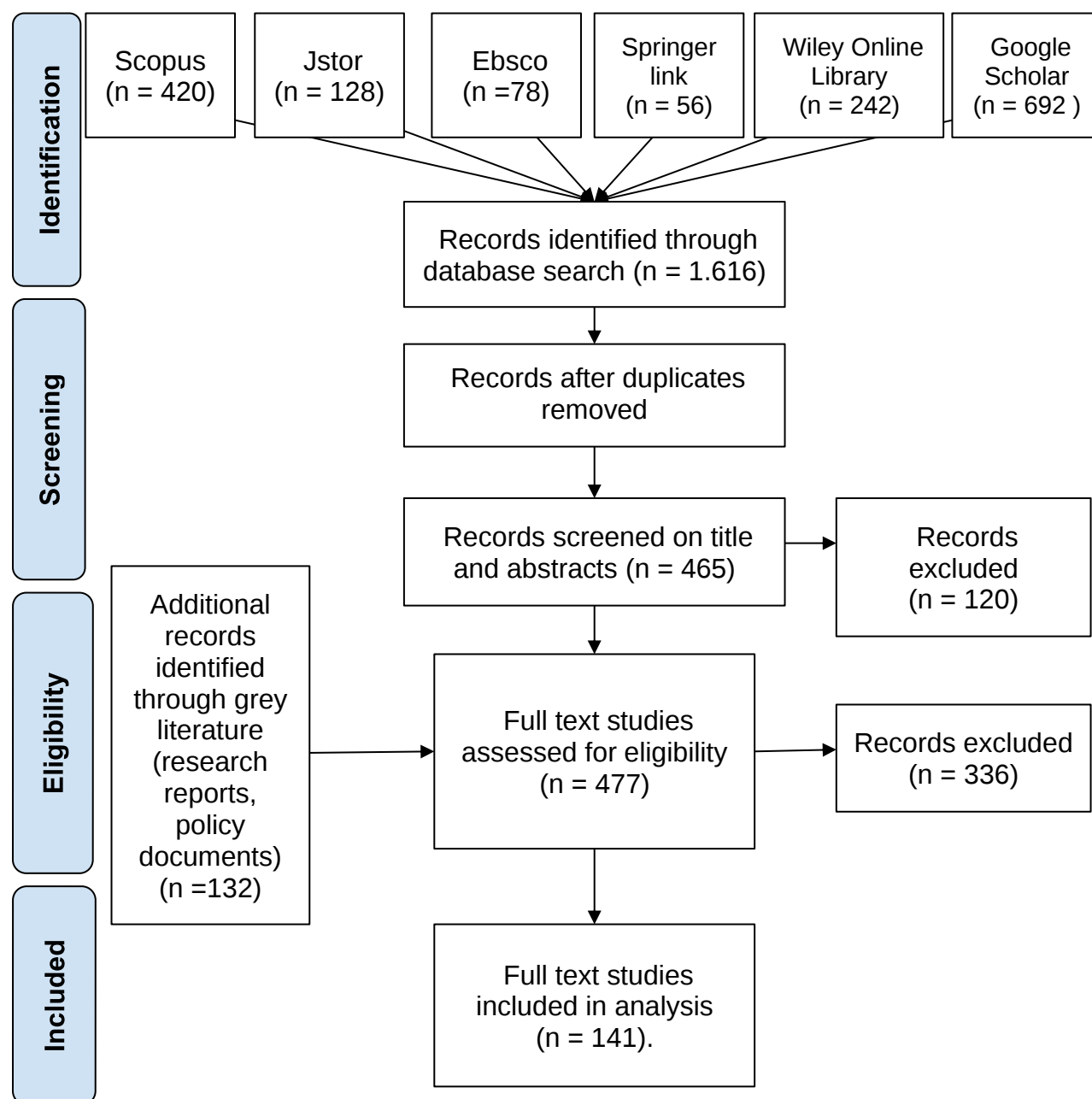


Figure 1: Criteria selection for literature review map

2.2 Indicator Selection and Categorisation

2.2.1 Identification and Validation of Core Domains

Social exclusion is a multifaceted phenomenon that often highlights systemic failures, inequalities and barriers within societies. Politically, emphasising exclusion can be perceived as confrontational, as it

requires addressing difficult questions about structural inequities, historical marginalisation, and power imbalances. In contrast, focusing on inclusion allows policymakers to frame interventions in a more positive and aspirational perspective, emphasising the opportunities especially in rural areas. Besides, social inclusion policies are often viewed as a proactive means to foster participation, strengthen social cohesion, and integrate marginalised groups. This enables its alignment with politically favourable narratives of growth and development.

Moreover, exclusion is not a straightforward opposite of inclusion, as academia has demonstrated that the two concepts are interrelated yet distinct. Addressing exclusion often requires dismantling systemic barriers and acknowledging inequalities, which can be a more contentious and resource-intensive process. For example, while inclusion efforts such as promoting digital access may create opportunities for integration, they do not automatically address the underlying reasons for digital exclusion, such as economic disparities or cultural resistance. Similarly, youth-focused inclusion initiatives may inadvertently exclude older generations who also face systemic barriers. By focusing on inclusion, the framework seeks to provide actionable and politically feasible strategies to foster equitable development while recognising that exclusion remains a complex and context dependent challenge requiring further attention. This focus reflects the need to balance pragmatic policy goals with the broader understanding of inclusion and exclusion as interconnected dimensions of social equity.

Based on the review of multiple dimensions of exclusion and inclusion, a table of appropriate domains and indicators was constructed. Given that there is no collective agreement of the relative significance of domains, we identified and listed domains that are the most encountered in the literature.

The next step employed was to identify the most dominant set of domains that are also theoretically robust. The review shows that existing domains are developed from multiple perspectives, covering overlapping issues of exclusion and inclusion. Based on the suggestion by Atkinson et al. (2000), several criteria were used to identify the selection of domains and indicators; specifically based on a theoretical framework.

Scutella et al. (2009) recognise that not all indicators of theoretically developed domains are appropriate to objective measurement. Several theoretically impressive paradigms on social and economic exclusion have been developed. Although prioritisation of domains and indicators is important (Saunders 2003), not all indicators identified in this review are equally important to the rural areas of the EU. The above three steps of 'sifting' led to a final selection of domains. Although many of these domains are interrelated, there is an emerging consensus that each of these domains should remain as a separate entity as they are difficult to aggregate. As a consequence, the reviewed indicators under each domain in the literature were categorised as 'primary' and 'secondary' indicators based on frequency or emergent consensus.

The next step was to review indicators that have not only been used in research or policy but that have also been evaluated or assessed. The assumption here is that such an evaluation would help to identify the most feasible domains and indicators to use in the rural EU context.

2.2.2 Data Extraction and Thematic Synthesis

Following the selection of relevant studies, data extraction was conducted to capture essential information from each source, including authors, publication year, research design, geographic scope, methodological approach, and key findings. To facilitate consistency, these data were recorded in a standardised extraction matrix, ensuring uniformity in both structure and level of detail. This approach allowed for systematic comparison across diverse studies, thereby avoiding potential biases resulting from inconsistent data reporting.

Once the information had been extracted, the synthesis process started with an iterative reading of the extracted materials, focusing on identifying thematic patterns linked to social exclusion and inclusion in rural settings. A two-stage coding procedure was utilised:

1. **Initial (Open) Coding:** Key concepts, indicators, and theoretical frameworks were highlighted and labelled, guided by the domains identified in Section 2.2.1. This step captured recurring ideas without imposing any predefined coding structure.
2. **Focused (Axial) Coding:** Broader themes were then refined and grouped under core categories that emerged from the literature, aligning with the primary and secondary indicators identified in previous steps. Throughout this process, any discrepancies in coding or thematic grouping were resolved through discussions among the Task 1.1 contributors.

The aggregated themes were subsequently examined for convergences, divergences, and gaps, offering insight into how various domains (e.g., gender equality, social participation, economic security, health) intersect in rural EU contexts. Conflicting or underrepresented themes were noted, identifying opportunities for upcoming tasks (T1.2, T1.3, and T2.1).

2.2.3 Discussion and Validation of Core Domains through Expert Workshop

The validation workshop was a critical component of the INSPIRE project, designed to ensure that the framework for measuring social exclusion and inclusion in rural areas aligns with the lived realities of diverse communities across Europe. Hosted by SEERC (The South-East European Research Centre), **the workshop was attended by 31 participants**, including researchers, policy experts, and community representatives, who brought a wealth of knowledge and practical insights to the discussion.

The workshop was structured into a series of sessions aimed at encouraging active engagement and dialogue, to gather different perspectives. It began with an introduction by the moderator, (SEERC), who outlined the objectives and agenda for the day. This was followed by a comprehensive overview of the INSPIRE project by (White Research), emphasising the importance of data-driven approaches to understanding social exclusion and the need for actionable frameworks.

The workshop methodology incorporated interactive breakout discussions, which focused on specific dimensions of social exclusion and inclusion, such as living conditions, health, economic security, and social participation. Each breakout session provided participants the opportunity to explore challenges, propose actionable indicators, and share local perspectives. These were complemented

by plenary debates, where key insights from the breakout groups were discussed and synthesised into overarching recommendations.

Moreover, the workshop invited representatives from various EU-funded initiatives and networks in order to share a common vision for fostering social inclusion and resilience in rural areas. This created a valuable opportunity to establish synergies and facilitate knowledge exchange between related projects. Among the key participants were representatives from ESIRA, SERIGO, and REVES, all of which contribute to advancing social innovation and inclusion in rural communities.

ESIRA (Empowering Social Innovation in Rural Areas) was represented through the European Rural Development Network (ERDN), a consortium member of the project. ESIRA, funded under the same Horizon Europe call as INSPIRE, focuses on enhancing socio-economic conditions in rural areas by developing local social networks and improving opportunities for marginalised groups. The workshop discussions reinforced the shared objectives of INSPIRE and ESIRA, particularly in fostering community-led initiatives for social inclusion.

SERIGO (Social Economy and Rural Innovation for Green Opportunities) was represented by Katrin Hofer and Somaye Latifi from the Federal Institute of Agricultural Economics. Their contributions highlighted SERIGO's work in leveraging social innovation to strengthen resilience and well-being in rural communities. The workshop provided an opportunity to exchange insights on how social economy actors can drive inclusive rural development, aligning closely with INSPIRE's goals.

REVES (European Network of Cities and Regions for the Social Economy) was represented by Erdmuthe Klaer, who provided valuable perspectives on the role of partnerships between local governments and social economy actors in promoting inclusive rural development. The discussions underscored how networks like REVES can support policy implementation and community-based initiatives, reinforcing synergies with INSPIRE's approach.

Additionally, the workshop brought together participants from various organisations and networks, including ESN and SEE, whose affiliations with specific projects remain unclear but contributed to enriching the discussions. The presence of these diverse stakeholders strengthened the collaborative foundation for addressing social inclusion challenges in rural Europe, reinforcing INSPIRE's role within a broader ecosystem of initiatives dedicated to fostering sustainable and inclusive rural communities.

This participatory approach ensured that the framework remained adaptable and community-cantered while addressing the unique challenges of rural areas. The workshop also provided a platform to critically examine core concepts, such as the interplay between social exclusion and inclusion, and to explore how indicators can be tailored to reflect diverse local contexts.

3 Social exclusion and inclusion in European rural areas

3.1 Conceptualisation of Social Exclusion: Definitions and theoretical background

The concept of social exclusion first gained traction in France during the 1960s, initially emphasising the plight of those who were unable to adjust to mainstream society (Aasland & Flotten, 2000). Its significance extended across Europe particularly after the 1980s economic crisis, with the European Union (EU) playing a crucial role by incorporating social exclusion into its policy and research agendas (Tuparevska, Santibáñez, & Solabarrieta, 2020). According to Sen (2000), this early French Republican conception of exclusion was interwoven with *Republican ideology* — a notion that later encountered different interpretations when adopted by other European nations. Consequently, social exclusion did not become a prominent EU concern until the Lisbon Strategy in 2000, which established it as a key component of EU social policy and endowed the concept with greater specificity (Tuparevska et al., 2020).

Despite its widespread use, social exclusion remains a contested concept with multiple definitions and varying interpretations (Daly, 2022). As Aasland and Flotten (2000) note, the term evolved to encompass a range of groups—unemployed youths, immigrants, school dropouts, and others, resulting in an increasingly elastic meaning. Scholars often centre on different aspects:

- Groups at risk of exclusion (e.g., single parents, the suicidal, addicts).
- What people are excluded from? (e.g., livelihood, housing, secure employment, education, citizenship).
- Problems associated with exclusion (e.g., unemployment, low income, poor housing).
- Processes and levels at which they operate (e.g., local, national, transnational).
- Agents and actors involved (e.g., global forces, national policies, individual behaviors) (Khan, 2012; Fernandez, 2017).

Notwithstanding these variations, a notable consensus is that social exclusion is *multidimensional*, *dynamic*, and *relational* (Mathieson et al., 2008). It encompasses social, political, cultural, and economic dimensions across different scales (Sen, 2000), evolves over time and in interaction with societal processes, and underscores social relationships as key drivers of both exclusion and inclusion.

- **Multidimensional:** Social exclusion extends beyond economic poverty alone, addressing aspects such as cultural identity, citizenship rights, and participation in public life (Francis, 2000).
- **Dynamic:** Exclusion is not static but interactive and evolving, shaped by how individuals and groups gain, lose, or maintain access to social, cultural, and economic resources (Jackson, 1999).
- **Relational:** It emphasises how social ties, power relations, and group boundaries can reinforce who is “in” and who is “out,” thereby affecting life opportunities (Silver, 1995).

3.1.1 Differences and Overlaps with Poverty

A longstanding debate pertains to whether social exclusion is synonymous with or distinct from poverty. While many regard poverty as primarily an economic concept linked to low income or material deprivation, social exclusion often foregrounds institutional, cultural, and structural barriers to full societal participation (Francis, 2000). As Sen (2000) observes, exclusion may be both constitutive, when being shut out of social interactions directly harms one's capabilities, and instrumental, contributing to further deprivations (e.g., unemployment leading to inadequate healthcare, which in turn affects employability). Yet the literature cautions that too broad a use of "exclusion" can become tautological, labelling any form of disadvantage as "exclusion" without deeper theoretical grounding (Benington and Geddes, 2013).

3.1.2 Three Paradigms of Social Exclusion

Silver's (1995) paradigmatic approach, often summarised as solidarity, specialisation, and monopoly, illustrates how different national discourses and political ideologies shape what is meant by exclusion:

- **Solidarity Paradigm (French Republican Tradition):** Derives from Durkheimian notions of moral and social bonds, focusing on how exclusion arises from a breakdown of social cohesion or solidarity.
- **Specialisation Paradigm (Anglo-Saxon):** Centres on market exchanges and individual autonomy, viewing exclusion as discrimination that restricts free movement across social and economic spheres.
- **Monopoly Paradigm:** Informed by Weber and Marx, emphasising how group monopolies of resources produce social hierarchies, thereby excluding or dominating outsiders.

These paradigms exemplify why no single, unified definition of social exclusion prevails across Europe. Instead, each EU member state applies the term in light of its own historical, cultural, and policy contexts (Tuparevska et al., 2020).

3.1.3 Toward a Shared Understanding

In Europe, common policy usage has generally encompassed issues such as homelessness, unemployment, and poverty under the umbrella of social exclusion. Nonetheless, significant variation persists across countries (Tuparevska et al., 2020). Some scholars caution that overly broad conceptions risk losing analytical clarity (Francis, 2000; Aasland & Flotten, 2000). Others stress that the lack of a single theoretical paradigm—though criticised for insufficient conceptual rigor—permits a more *flexible, multidimensional* approach (Geddes & Benington, 2001).

Ultimately, the defining features that unify most discussions of social exclusion are its multi-dimensionality, emphasis on social relations, and focus on dynamic processes of inclusion and exclusion (Sen, 2000; Mathieson et al., 2008). These characteristics enable policymakers and researchers to examine not only economic deprivation but also institutional, cultural, and political arenas—thereby moving beyond a purely income-based conception of societal disadvantage. As a result, social exclusion continues to be a core component of EU social policy, resonating with broader

global debates on capability deprivation, citizenship rights, and the inequalities that persist within and across nations.

3.1.4 Contextualising social exclusion in European Union

Social exclusion was not a primary concern in the European union, and early treaties allocated minimal provisions for addressing poverty or inequality. The belief at the time was that trade unions and governments would use economic expansion to enhance working conditions and social protections. However, by the 1970s, the Council of Ministers recognised the need to address social issues directly, launching Social Action Programmes aimed at improving employment, working conditions, and quality of life (Copeland, 2023).

Social exclusion gained greater attention with the Lisbon Strategy in 2000, which introduced the Open Method of Coordination (OMC) to promote cooperation among Member States on issues such as education, training, pensions, and social inclusion (Frazer and Marlier, 2008). This governance approach, while legally non-binding, sought to address exclusion by enhancing access to resources, employment, and services. The Lisbon Strategy marked a shift in EU priorities, linking social inclusion with broader economic objectives, though it often lacked concrete benchmarks or enforcement mechanisms (Vanhercke, 2010).

The launch of Europe 2020 brought a more explicit focus on reducing social exclusion, setting the first quantitative target to lower the number of people at risk of poverty or social exclusion by 20 million by 2020. This target reflected a growing awareness of the importance of addressing exclusion to ensure equitable economic growth and social cohesion (Le Houerou, 2013). The initiative defined exclusion using three dimensions: income poverty, severe material deprivation, and joblessness, providing a comprehensive framework for action. Despite challenges, the inclusion of social exclusion in the European governance cycle demonstrated the EU's commitment to integrating social objectives into its broader policy framework (Eurostat, 2010).

3.2 Conceptualisation of Social Inclusion

A working definition of social inclusion, building on Silver (2015), conceptualises it as a multidimensional, relational process aimed at expanding opportunities for social participation, enhancing individuals' capacities to fulfil normatively prescribed social roles, and strengthening collective ties of respect and recognition. In other words, social inclusion seeks to broaden access to the social, economic, and cultural resources necessary for meaningful engagement in society. Thompson (2021) similarly describes social inclusion as either a process that promotes interaction among diverse groups or an impersonal institutional framework that ensures equitable access to various facets of public life.

According to the European Union (2014), social inclusion involves an individual's self-realisation, societal recognition of their potential, and integration—through work, study, or other forms of participation—into the social fabric of a community. This focus is especially pertinent to youth, whose transition from family dependence to autonomy occurs amidst dynamic social and economic conditions (European Union, 2014). The United Nations (2016) likewise defines social inclusion as both process and goal, encompassing improvements in terms of participation, resources, and respect

for rights. Active efforts to alleviate barriers to participation and promote equitable inclusion are considered necessary (Nwachi, 2021), although inclusive policies do not always guarantee harmonious coexistence (United Nations, 2016a).

3.2.1 Beyond a Simple Binary of Inclusion vs. Exclusion

Despite being frequently framed as the opposite of social exclusion, social inclusion is neither singular nor uncomplicated. Scholars point out that individuals can be “included” in one social domain while “excluded” from another (Jackson, 1999). For example, certain groups may be linguistically included yet economically marginalised, or *vice versa* (Pradhan, 2006). This domain-specific perspective suggests that inclusion and exclusion are inseparable sides of the same coin; belonging to one sphere can coincide with exclusion from others. Moreover, Jackson (1999), drawing on Tsing (1998), shows that marginality can be both constraining and creatively empowering, as when excluded groups leverage their identities to negotiate resources or exemptions.

Feminist inquiries similarly highlight that exclusion can serve as a basis for resistant discourses and resource claims (Swarteveen & Neupane, 1996, cited in Jackson, 1998). For instance, women in certain irrigation systems in Nepal invoked their vulnerability to secure beneficial water-use rights, illustrating how socially “disadvantaged” statuses can become tools for negotiation. This underscores that social inclusion, while generally viewed as positive, can also be ambiguous if it amounts to being drawn into *exploitative* or *unequal* relationships (Francis, 2000). True inclusion thus hinges on the terms under which groups are integrated, not merely the fact of integration itself (Gore, 1995, cited in Jackson, 1999).

3.2.2 Contextual Nuances of Inclusion

Santos, Barros, and Huxley (2018) emphasise that contextuality is crucial to understanding social inclusion, since local culture, history, and institutions shape norms of belonging and recognition. Concepts like solidarity, cohesion, social capital, or integration gain distinct meanings in different regional or national contexts (Silver, 2015). Place-specific understandings of membership and citizenship reflect path-dependent trajectories of institutional development, influencing which social cleavages become salient (Santos et al., 2018).

Indeed, social inclusion policies at the EU level often aim to ensure that people at risk of poverty or social exclusion have the resources to participate fully in economic, cultural, and social life (Eurofound, 2022). By doing so, they seek to enable vulnerable groups to exercise agency in decisions affecting their lives (Limanté & Terėškinas, 2022). Yet, as Cameron (2006) warns, if social inclusion remains defined only in contrast to social exclusion—i.e., as simply the absence of exclusion—it can obscure important questions about what kind of “mainstream” people are being integrated into, and whose norms define that mainstream. This critique resonates with theories of assimilation and their implications for minority groups.

According to Gratton (2007) linear assimilation theory posits a generational process in which immigrant-origin groups adopt the demographic, economic, and cultural traits of native populations, eventually becoming indistinguishable from them. In family structures, distinct ethnocultural characteristics fade over time, with first-generation families displaying noticeable differences, second-generation families showing fewer, and subsequent generations fully blending into the mainstream.

However, Xie and Greenman (2011) argued that segmented assimilation theory challenges this linear perspective by suggesting that integration pathways vary significantly across groups. For some, differences in family structure and other social characteristics diminish over time, while for others, these differences persist or even deepen. Additionally, ethnicity-based models propose that the influence of ethnic identity diminishes for certain groups but remains strong for others. Generational models further complicate this view by predicting less pronounced generational differences but emphasising significant interactions between ethnicity and generation.

These theoretical perspectives highlight the tension between integration and the preservation of unique identities. While inclusion in the dominant social and cultural framework can offer economic and social opportunities, it may come at the expense of minority groups' distinct identities. Thus, the challenge lies in adopting an inclusive mainstream that respects and accommodates diversity, rather than one that requires conformity to dominant norms.

3.2.3 Process and Goal

In keeping with the United Nations (2016), social inclusion represents a political response to the dilemma of exclusion—a deliberate process of welcoming all people, fostering equality, and endorsing tolerance. However, cohesive societies may simultaneously perpetuate exclusion for particular segments (United Nations, 2016a). Consequently, empowering communities to participate meaningfully in decision-making, addressing structural inequities, and ensuring fundamental rights remain vital cornerstones of any inclusive strategy. Social inclusion must thus be evaluated not just by increasing opportunities but also by scrutinising power dynamics and the possible trade-offs people face when seeking membership in mainstream institutions (Jackson, 1999; Santos et al., 2018).

In sum, while social inclusion is commonly championed as a key objective in development and policy frameworks, recent scholarship underscores its multiplicity and the complex interplay with exclusion. Inclusivity entails more than bringing people “in”; it requires an ongoing, reflexive effort to transform the very structures that produce and sustain unequal social relations. By recognising inclusion’s nuanced, context-dependent character—where partial or conditional inclusion may fail to dismantle deeper inequalities (Pradhan, 2006)—policy interventions can better promote genuine participation, empowerment, and social justice.

3.3 Defining rural areas: international and European definitions

According to the Food and Agriculture Organisation (2018), the purpose of establishing a definition of rural is to facilitate comparisons between rural and urban areas. Additionally, it is important to note that rural areas have varying characteristics, not just within a given country but also across countries. Understanding these variations is critical because it enables tailor interventions for effective policy and understanding how the context influences outcomes of interest, such as poverty alleviation and environmental sustainability.

The OECD defines rurality using a variety of frameworks, the majority of which are based on population density in administrative units. For local-level classifications, the OECD's most prevalent strategy is to classify regions with fewer than 150 inhabitants per square kilometre as rural. This

strategy is effective for small administrative regions, but it might misrepresent larger municipalities; for example, Podgorica, Montenegro's capital, is classified as rural due to its enormous geographical area, despite its significant urban population. This approach can produce relevant statistics, but it has disadvantages when applied to regions with varying administrative boundaries (Dijkstra and Poelman, 2014).

According to Goss (2013), Eurostat's definition of rural regions is unique as it utilises a highly comprehensive "grid square" methodology, classifying areas based on population density at the 1 km² level. This technique classifies any square with at least 300 persons per km² as potentially urban, whereas continuous squares with a total population of 5,000 or more are considered urban. All other places are designated as rural. This high-resolution technique provides a more nuanced depiction of rurality, which is especially useful for countries with varying population density within administrative boundaries. Despite its precision, the Eurostat grid-square approach experiences challenges with implementation across Europe due to limited data availability. Many places lack the population density statistics required for this degree of granularity, limiting the method's immediate applicability. When completely implemented, this technique may result in more accurate rural classifications since it reduces reliance on variable administrative boundaries and instead focuses on settlement-level density (Kadar, Maculan, & Feuerriegel, 2019).

On a broader scale, the OECD's 3-way rural-urban division classifies regions into "Predominantly Rural," "Intermediate," and "Predominantly Urban" based on the percentage of rural population within NUTS2 ("Nomenclature of Territorial Units for Statistics") regions, a statistical division used across the EU. Adjustments are also made based on the presence of large urban centres; for instance, an area with a sizable urban centre (e.g., more than 200,000 inhabitants) may be reclassified to reflect its urban influence (Carolina Perpiñá Castillo et al., 2022).

Finally, OECD procedures have been modified to include alternative population density thresholds for certain rural classifications, such as utilising fewer than 100 persons per square kilometre to determine "Predominantly Rural" areas. This revised technique provides more accurate classifications for smaller regions, improving the applicability of rural development programs across various terrain. However, these disparities must be carefully considered to ensure that policies are implemented consistently throughout regions. The OECD classification in a 2006 version used Europe-wide and identified three classes of regions as predominantly urban < 15% population in rural communities, significantly rural, 15 – 45% population in rural communities, predominantly rural > 50% population in rural communities (Nordregio, 2017).

Moreover, individual countries set their own standard based on their population and geographical location. The table below illustrates the different characteristics of rural and urban classification.

Table 1: Different characteristics of rural and urban classification from different countries

Country	Characteristics
Denmark	Areas that are not urban, i.e. occupied by municipalities with less than 200 inhabitants.
Finland	Three types of rural areas are distinguished based on their prospects for development: urban-adjacent rural areas, rural heartland areas and peripheral areas.
France	The French National Institute for Statistics and Economics defines predominantly rural areas as the total area occupied by small urban municipalities (communes) and by rural municipalities (those with less than 2 000 inhabitants), which do not belong to predominantly urban areas. For a typology of French rural areas, see TAD/CA/APM/WP/RD(2008)2.
Germany	Regions with a population density of (below) 100 inhabitants per square kilometre with an urban centre of 100 000 and more; and regions with a population density of below 150 inhabitants per square kilometre without an urban centre of 100 000 or more.
Greece	Rural areas are defined as the territories of communities with less than 2 000 inhabitants.
Hungary	Narrow definition: Less than 120 inhabitants per square kilometre or under 10 000 residential population at settlement level. Broader definition: Predominantly rural at NUTS 4 level if 50% of the residential population lives in a settlement with a population density of under 120 inhabitants per square kilometre and significantly rural if 15 to 50% live in a settlement with a population density of under 120 inhabitants per square kilometre.
Ireland	Rural areas are defined as towns under 1 500 people or open country districts (Census definition).
Italy	Areas with a population density lower than 100 inhabitants per square kilometre.
Spain	There are three types of areas in Spain. Those occupied by municipalities with less than 2 000 inhabitants, those occupied by municipalities having between 2 000 and 10 000 inhabitants and those occupied by municipalities with more than 10 000 inhabitants. Rural areas are defined as those municipalities with less than 10 000 inhabitants.
Slovak Rep.	Areas of municipalities with less than 100 inhabitants per square kilometre and less than 5 000 permanent residents.
Sweden	The traditional definition is based on the dichotomy rural-urban, where urban is any agglomeration of more than 200 people. Recently a more elaborate system of categories was proposed by the national Rural Area Development Agency which distinguishes different degrees of rurality based on traveling time. These are urban centres with more than 3 000, countryside close to urban centres, countryside and rural areas.
Switzerland	All the areas outside isolated towns and agglomerations are considered rural. Agglomerations of 20 000 or more inhabitants and isolated towns of 10 000 or more are considered urban. To delimit agglomerations, the number of jobs (at least 2 000) and the commuting pattern (of the economically active population 85% or more work in the agglomeration). Commuting patterns, population growth rates, built-up areas, population/job density and employment in the primary sector are used to decide if municipalities are part of an agglomeration or not.
Turkey	Areas occupied by municipalities with less than 2 000 residents.

Romania

In accordance with Law No. 351 of July 6, 2001, regarding the approval of the National Territorial Planning Plan – Section IV: The Network of Localities, the rural is defined as follows:

Commune – The basic administrative-territorial unit comprising the rural population united by a community of interests and traditions, consisting of one or more villages, depending on economic, socio-cultural, geographical, and demographic conditions. The villages where the commune's public authorities are headquartered are designated as administrative centres.

Rural locality (village): A locality where:

1. Most of the workforce is concentrated in agriculture, forestry, or fishing, providing a specific and viable way of life for its inhabitants, and which, through modernisation policies, will maintain its rural character in the future.
2. Most of the workforce is employed in sectors other than agriculture, forestry, or fishing, but which currently offers insufficient facilities required for its declaration as a town, and which, through equipping and modernisation policies, may evolve towards an urban-type locality.

Note: All these approaches will be considered in alignment with the availability of data and the overall objectives of the project.

3.4 Measuring Social Exclusion and Inclusion

3.4.1 Difficulty in measuring the multidimensionality of social exclusion

As previously noted, social exclusion is a broad concept for which there is no exact or widely accepted definition. As the methodology changes based on the definition used, this makes it challenging to quantify the number of people who face social exclusion, or the degree to which people are at risk of social exclusion. While many countries measure different aspects of social exclusion, very few surveys or statistical methods are specifically designed for this (United Nations Economic Commission for Europe, 2021). Furthermore, Macleod (2017) proposed that a key challenge to understanding social exclusion is how it is operationalised. Social exclusion itself is not directly measurable, at least not at present, but its existence is inferred by the occurrence of other phenomena that act as indicators.

Most numerical measures of social exclusion rely significantly on methodologies that assess material and social deprivation before interpreting an individual's level of social exclusion. The focus on social exclusion can help identify populations that are not poor but are excluded in other ways, or to people who are experiencing various forms of exclusion. It can also highlight the deprivations and disadvantages that restrict participation, rather than the consequences of these constraints, which may lead to insights into relevant remedies (Rogge and Self, 2018).

Measuring social exclusion aims to improve justice and fairness while also enabling individuals and groups to broaden their potential. This objective allows everyone to contribute to the economy and fully engage in society (OECD, 2023). Furthermore, Whelan, Devlin, and McGuinness (2023) argue that social inclusion can enable to comprehend difficult social policy concerns such as intergenerational transmission of poverty, the conditions of left-behind communities, and the most vulnerable and disadvantaged members of society. The measurements' intended objective is to

reduce inequalities between individuals and groups, as well as challenges to growth and prosperity and radicalism caused by social and economic inequities.

3.4.2 Thresholds for Defining Social Exclusion or Inclusion

Establishing thresholds to delineate who is socially excluded versus included remains a contentious endeavour in academic and policy debates. One fundamental challenge lies in determining how poor or disadvantaged someone must be to fall below a threshold, a problem compounded by the multidimensionality of social exclusion (Labonté, 2011). Discrimination and other structural barriers further complicate such categorisations, as any single cut-off point can overlook the fluid and intersecting ways that individuals experience exclusion.

Researchers often resort to arbitrary cut-off points or scoring mechanisms due to the absence of a universal standard for “acceptable” levels of inclusion. For instance, Levitas et al. (2007) proposed a scoring system for older adults in the UK that specified a “cut-off threshold” across seven dimensions—ranging from social relationships and cultural activities to financial products (like bank accounts) and material goods (like central heating). While the approach provided a structured means to measure different aspects of exclusion, the authors acknowledged that threshold selection was inherently subjective. No single, absolute level of deprivation could be deemed universally valid for labeling someone “excluded,” highlighting the difficulty of reducing complex social processes to binary markers.

One novel method for calibrating a poverty threshold comes from Yedith Betzabé Guillén-Fernández (2023), who blended social consensus about perceived necessities with actual affordability. This approach required a dedicated survey in which participants identified “adult essentials” they deemed necessary, then indicated whether they could afford them. Items that a majority classified as essential yet could not afford formed a core set of deprivation indicators. The poverty threshold was placed at the midpoint between “lack of needs” and “insufficient income,” reflecting both collective perceptions of necessity and practical affordability (European Commission, 2011). By grounding thresholds in public sentiment, rather than researcher assumptions, this strategy may better capture relative poverty across diverse contexts. Beyond these discrete methodologies, the United Nations Economic Commission for Europe (UNESCE) distinguishes three overarching frameworks for defining social exclusion:

1. **Single Threshold Approach:**

This perspective designates social exclusion as a condition beyond a specified level of deprivation or risk. Individuals are considered excluded—or “at risk”—once they surpass a particular threshold (e.g., income poverty or insufficient access to basic services). While this method supplies a clear, measurable standard, it risks oversimplifying the relative nature of exclusion.

2. **Multiple Threshold Approach:**

Here, social exclusion is seen as a continuum, capturing multiple degrees of inclusivity or deprivation. People may be partially excluded in some domains, like education or healthcare, yet not in others. This model thus accommodates complex, layered realities—particularly relevant in rural areas, where access to resources often varies widely between communities or even within households.

3. No Threshold Approach:

Under this model, no explicit cut-off is used to define exclusion. Instead, attention centres on broader concepts such as well-being, social cohesion, and quality of life. Researchers measure indicators—like employment status or social networks—without strictly designating who is excluded versus included. By focusing on dynamic trajectories of exclusion over time, it accommodates the idea that individuals can move in and out of vulnerable states, thus avoiding rigid classifications.

Each framework carries advantages and limitations. Single thresholds offer simplicity but may miss nuances in how deprivation accumulates. Multiple thresholds provide depth but can be cumbersome and require extensive data. The no-threshold approach encourages holistic understanding but lacks clarity for policymaking when trying to define who most urgently needs intervention. As the literature shows, effective or universally accepted thresholds remain elusive. Nonetheless, ongoing research from scoring systems to community-based definitions, highlights the importance of contextualised and participatory approaches. By incorporating both quantitative measures of deprivation and qualitative insights into local realities, policymakers and scholars can move closer to capturing the fluid, multifaceted nature of social exclusion and inclusion.

3.4.3 Commonly Agreed Indicators (AROE/LAEKEN)

Measuring social exclusion or inclusion typically focuses on certain categories or aspects of life that are linked to theories of social exclusion and policy goals. Specific indicators are employed within every domain to assess its aspects (O'Donnell, O'Donovan, & Elmusharaf, 2018). To better evaluate social exclusion and inclusion, the European Union created two main sets of indicators: AROPE (At Risk of Poverty or Social Exclusion) and the Laeken Indicators. AROPE is a composite measure that includes three dimensions: economic poverty, severe material deprivation, and low labour intensity to provide a comprehensive view of social exclusion. The Laeken Indicators, proposed at the European Council in 2001, are a comprehensive framework for monitoring poverty and social exclusion, encompassing both primary and secondary indicators such as health, education, and housing. These technologies enable systematic comparison and analysis among EU Member States, facilitating evidence-based policies to enhance social cohesion (Giambona, 2013).

In 2001, the European Council gathered in Laeken and adopted a set of universally agreed-upon indicators to monitor Member States' performance and promote social inclusion. Since 2008, social exclusion and inequality have been computed and monitored using the at-risk of poverty or social exclusion indicator (AROE). Even though it is classified as an indicator, it is also an index because it is composed of compound or composite indicators (Rossi et al., 2020).

The AROPE indicator identifies individuals at risk of poverty or social exclusion by focusing on three key dimensions:

- **Income Poverty ("At Risk of Poverty after Social Transfers"):** This includes people whose disposable income is less than 60% of the national median income, adjusted for household size.
- **Severe Material Deprivation:** This measures whether people are unable to afford at least four of the following essential items: (Paying rent or utility bills, keeping their home adequately warm, facing unexpected expenses, eating meat, fish, or a protein equivalent every other day, taking a one-week holiday away from home, owning a car, washing machine, colour TV, or telephone).

- **Very Low Work Intensity:** This refers to individuals aged 0-59 living in households where working-age adults worked less than 20% of their total work potential in the previous year.

These three criteria collectively provide a multidimensional perspective on poverty and social exclusion, making AROPE a robust tool for policy analysis and monitoring progress across EU Member States (Eurostat, 2024).

Furthermore, the indicator was changed in 2021 to reflect the new EU 2030 targets released by the European Commission. The severe material deprivation component has been adjusted by adding six items (having an internet connection, replacing worn-out clothes with new ones, having two pairs of properly fitting shoes, spending a small amount of money each week on himself/herself, engaging in regular leisure activities, and meeting with friends/family for a drink/meal at least once a month). According to this revised definition, an individual is severely materially and socially impoverished if they cannot afford at least seven of the thirteen goods. Furthermore, the (quasi)-jobless household statistic refers to people aged 0 to 64 living in households where the adults worked less than 20% (Eurostat, 2025).

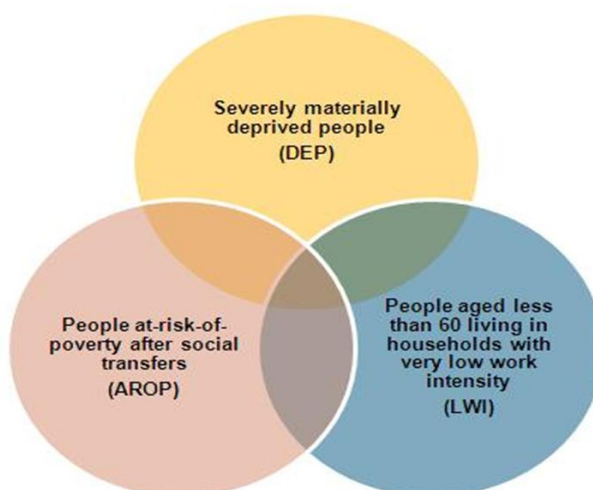


Figure 2: Persons at-risk-of-poverty or social exclusion by European Commission (2020)

The AROPE (At Risk of Poverty or Social Exclusion) indicator is based on the Laeken indicators, which the European Council endorsed in 2001. The tool is crucial for tracking social inclusion and inequality across EU Member States (Díaz Dapena et al., 2021). It represents a composite metric that includes three dimensions: economic poverty, material deprivation, and low work intensity. Since its inception in 2008, AROPE has been crucial to assessing social concerns in the EU (European Commission, 2012). They are divided into primary (or “lead”) and secondary (or “supporting/contextual”) indicators. While the original set has undergone revisions, its basic structure continues to guide how EU Member States track progress and compare outcomes in this field.

The primary or “lead” Laeken indicators focus on the most essential measures of poverty and social exclusion. They form a concise core intended to capture basic dimensions of income distribution, employment exclusion, and educational attainment (Graf, 2011). Among these are the At-Risk-of-Poverty Rate (after social transfers), which identifies people with an equivalised disposable income below 60% of the national median; the Persistent At-Risk-of-Poverty Rate, which measures the share of individuals who remain in poverty over an extended period (Sebastian, 2009); and the Relative

Median At-Risk-of-Poverty Gap, which shows how deeply those deemed poor fall below the poverty threshold. Other primary indicators include inequality measures, such as the S80/S20 quintile share ratio and the Gini coefficient, the Long-Term Unemployment Rate, and the proportion of people living in jobless households. Early School Leavers, referring to the share of 18–24-year-olds who have attained only lower-secondary education and are no longer in education or training, are also part of this group. Some versions of the primary list add basic health metrics, reflecting concerns about how illness or unmet medical needs may foster exclusion.

In contrast, the secondary or “supporting” indicators provide additional detail and context to help interpret the primary measures (Atkinson et al., 2006; Eurostat, 2019). These include the Dispersion Around the At-Risk-of-Poverty Threshold, which helps distinguish just how close to (or distant from) the threshold households are; the In-Work Poverty Rate, highlighting how some employed individuals remain below the poverty line; and At-Risk-of-Poverty Rates anchored at a fixed moment in time, a device that clarifies whether living standards are improving or deteriorating relative to a baseline. Other supporting indicators cover educational attainment for adults, very long-term unemployment, and region-specific disparities in poverty and employment. Some secondary indicators address health-related or housing-based dimensions of social exclusion, thereby offering deeper insight into the interplay between material resources, public services, and personal well-being. Table 2 presents the primary and secondary Laeken Indicators.

Primary Indicators	Secondary Indicators
1. At-risk-of-poverty rate after social transfers	10. Self-defined health status by income level
2. Inequality of income distribution (S80/S20 ratio)	11. Dispersion around the risk-of-poverty threshold
	12. At-risk-of-poverty rate anchored at a moment
4. Relative median at-risk-of-poverty gap	13. At-risk-of-poverty rate before social transfers
6. Long-term unemployment rate	15. Persistent risk-of-poverty rate (50% median)
7. Persons living in jobless households	16. Long-term unemployment shares
8. Early school leavers not in education or training	17. Very long-term unemployment rate
9. Life expectancy at birth	18. Persons with low educational attainment

In practice, the Laeken indicators serve several purposes. They allow Member States to benchmark their performance against EU averages and observe trends over time, and they enable more targeted analyses of particular population groups and regions. By distinguishing between a concise set of primary indicators and a broader group of secondary indicators, the framework provides both headline measures to track social progress and contextual data to reveal the causes and consequences of exclusion. The EU continually refines these indicators to ensure they remain relevant to emerging social challenges, such as the rise of digital exclusion or vulnerabilities associated with climate change. As a result, the Laeken indicators continue to offer a harmonised and evolving approach for understanding poverty and social exclusion, reflecting a clear set of priorities and facilitating coordinated policy action throughout the European Union.

3.5 A Four-Dimensional Framework for Social Inclusion and Exclusion

Building on the insights from the preceding literature review, this section presents four interlinked dimensions that scholars commonly highlight when examining social exclusion and inclusion: Economic Security & Employment (encompassing the Risk of Poverty or Social Exclusion), Health & Well-being, Living Conditions, and Social Participation & Engagement (Piwowar & Dzikuc, 2020; Kalinowski, 2021). These dimensions provide both policymakers and researchers with a coherent framework to identify systemic inequalities and implement targeted interventions (Mee et al., 2024). Table 3 offers a concise summary of the main categories.

Table 3: Dimensions identified for measuring social exclusion

Category	Explanation
Economic Security & Employment (incl. Risk of Poverty or Social Exclusion)	Assesses income stability, labour market participation, and overall exclusion from societal participation, focusing on unemployment, precarious work, and income poverty (Chiara & Duell, 2019; Piwowar & Dzikuc, 2020). Key indicators include AROPE, the at-risk-of-poverty rate, long-term unemployment (Celbiş, 2022; Marksoo and Tammaru, 2011), and quasi-joblessness (Marksoo & Tammaru, 2011 (European Commission, 2024).
Health & Well-being	Reflects population health outcomes and access to healthcare, including life expectancy (Martín Cervantes et al., 2020), self-reported health (Dahlberg & McKee, 2018), and unmet health needs (Ebeling et al., 2022). Highlights how unequal healthcare provision drives exclusion.
Living Conditions	This domain covers material living conditions, including housing quality (Dewilde, 2017) and living standards (Li, Westlund and Liu, 2019). It focuses on aspects like overcrowding, housing affordability, and access to essential services.
Social Participation and Engagement	Measures of how individuals engage with their communities and society (ESPON, 2015), including participation in voluntary activities (Crowley and Walsh, 2021), voting (Hooghe and Marien, 2013), and civic engagement. These indicators assess the level of social cohesion and the extent of people's involvement in democratic processes (Uslaner and Brown, 2005).

3.5.1 Economic Security and Employment (Including Risk of Poverty or Social Exclusion)

Economic security is widely recognised as a cornerstone of social inclusion, as individuals with stable income and secure employment can more fully participate in community life and maintain financial independence (Marksoo & Tammaru, 2011). By contrast, unemployment—particularly long-term unemployment (over 12 months)—has repeatedly been identified as a major determinant of poverty, social isolation, and downward mobility. According to Eurostat's Labour Force Survey (LFS), structural inequities persist across youth (15–24 years), women, and those with lower educational attainment, highlighting how entrenched barriers exacerbate exclusion in both urban and rural settings (Eurostat, 2011, 2022).

Alongside unemployment rates, the quality of work is equally pivotal for economic security. Studies show that unstable employment, such as temporary contracts, part-time positions, and zero-hour arrangements, often lacks benefits and long-term prospects, creating income volatility and limiting social protection (Celbiş, 2022; Van Hoof et al., 2018). These forms of non-standard employment have proliferated in recent decades, disproportionately affecting young people and women, and perpetuating broader inequalities in the labour market (Eurofound, 2024). Periodic economic crises—including the 2008 financial downturn and the COVID-19 pandemic—have disproportionately harmed low-income groups, reinforcing the need for robust social protection systems and active labour market policies to mitigate the impacts of job losses (Kalantaryan et al., 2021).

Economic insecurity caused by unstable employment also intersects with the growth of the informal or shadow economy. The shadow economy, alternatively referred to as the "hidden," "grey," or "informal" economy, comprises economic activities that occur outside formal regulatory frameworks. While there is ongoing debate about how to define and measure the shadow economy, it is clear that its expansion has significant implications for livelihoods and economic participation across the European Union (European Parliament, 2022). In rural areas, the informal economy plays a critical role in sustaining livelihoods, as many economic activities are tied to agricultural production, natural resource extraction and informal trading. These activities are often rooted in customary land and resource governance norms practiced by local communities, yet they are frequently viewed as "illegal" and face pressures to formalise (Weng, 2015).

The COVID-19 pandemic further exacerbated the role of the shadow economy in times of economic crisis. During the "great lockdown recession," the average size of the shadow economy in the EU increased to 17.9% of the official GDP in 2020, marking a 1.69%-point rise from the previous year and the highest level in the past two decades. This surge highlights how economic crises drive individuals toward shadow economic activities as a means of compensating for income loss, particularly in regions and sectors where formal employment opportunities are scarce (European Parliament, 2022).

The proliferation of non-standard employment and the expansion of the shadow economy both reflect and exacerbate structural inequalities in the labour market. Vulnerable groups, particularly young people, women and rural populations, are disproportionately affected. Limited access to stable and formal employment reduces their economic security and social inclusion. A key aspect of this issue is the percentage of employees in a formal main job where a part of the paid hours and earnings is not declared for taxation or mandatory job-related social security contributions, as well as the percentage of independent workers and dependent contractors in a formal main job where part of their income is not declared for taxation. Addressing these challenges requires not only strengthening formal labour markets through active labour market policies and social protection systems but also acknowledging the informal economy's role in supporting livelihoods (ILO, 2020). Policies aimed at promoting social inclusion must therefore balance efforts to formalise shadow economic activities with the need to respect local practices and support vulnerable populations' access to resources and opportunities. The European Union has implemented initiatives such as the EU Platform Tackling Undeclared Work, which facilitates cooperation between EU Member States to address illegal employment and undeclared work (European Labour Authority, 2024). However, academic research on effectively measuring the extent and impact of this phenomenon remains limited, highlighting a critical gap in understanding and addressing the issue comprehensively.

A further dimension of economic security involves the Risk of Poverty or Social Exclusion (ROPE), emphasising the intersections of income poverty, material deprivation, and limited job opportunities (Chiara & Duell, 2019). In 2023, an estimated 94.6 million people in the EU—approximately 21% of the population—were at risk of poverty or social exclusion (Eurostat, 2024). This figure captures the reach of multifaceted disadvantages via widely recognised indicators such as the At-Risk-Of-Poverty or social Exclusion rate (AROE) and the Laeken Index. AROPE itself merges three core components: the share of individuals below 60% of the national median equivalised income, those who are severely materially and socially deprived, and those residing in quasi-jobless households where adults work 20% or less of their potential (Bernard, 2018; Kalinowski, 2020). Each sub-indicator reflects different but interlinked processes of exclusion—low income, inability to afford essential goods or services, and lack of workforce participation.

The at-risk-of-poverty rate is particularly insightful for illustrating income inequalities across Member States, considering both absolute and relative dimensions of poverty (Kalinowski, 2020). Meanwhile, the population in quasi-jobless households highlights systemic barriers such as insufficient childcare, limited healthcare access, or inadequate transportation—factors that often disproportionately affect rural communities (Chiara & Duell, 2019). Severe material and social deprivation extend the analysis further, examining the inability to afford critical goods like nutritious meals, adequate heating, or unexpected expenses (Bernard, 2018). For children (aged 0–17), the AROPE metric underscores compounded risks — poverty, deprivation, and low work intensity—aligning with the EU’s 2030 objective of reducing child poverty as part of the European Pillar of Social Rights (European Commission, 2024; Eurostat, 2024).

Taken as a whole, these economic security and poverty/exclusion indicators underscore the multidimensional nature of social disadvantage, connecting labour market vulnerabilities to broader outcomes in housing, health, and social participation. They also underscore how gender disparities, youth unemployment, and underemployment (working fewer hours or at lower skill levels than desired) contribute to ongoing inequalities. By offering quantifiable measures of who is most at risk, these indicators guide policymakers in designing targeted interventions, whether through income support, skills training, or investment in social services to foster more inclusive and resilient communities across Europe (Meloni et al., 2024).

3.5.2 Health and wellbeing

Health disparities and unequal access to healthcare are increasingly recognised as fundamental drivers of socioeconomic inequality and social exclusion (Dahlberg & McKee, 2018). Despite ongoing efforts by Eurostat to harmonise data on health-related outcomes, a lack of standardised measures. For instance, comparable mortality rates by socioeconomic status, remains a critical gap in the knowledge base (Ebeling et al., 2022). Nevertheless, researchers and policymakers draw on multiple indicators to capture different facets of health and well-being, examining their intersection with broader social factors such as income, education, and geography.

In the absence of EU-level data on premature mortality by income or education, self-reported health serves as a pragmatic starting point (Lenzi & Perucca, 2016). However, this measure requires cautious interpretation, as older populations, common in the bottom income quintile, may naturally report poorer health, confounding the role of income differentials (Li et al., 2019). Age-standardisation

is thus advocated to mitigate these demographic biases and better isolate the effects of poverty and exclusion on health outcomes (Lenzi & Perucca, 2016).

Because life expectancy alone can obscure chronic illness and disability, various EU bodies (e.g., the Social Protection Committee) have called for indicators like quality-adjusted life expectancy, premature death by socioeconomic position, and access to healthcare (Moreno-Llamas et al., 2023). Differences in healthy life years by socioeconomic position underscore how low income can magnify health challenges, limiting individuals' capacity to fully engage in work, education, or community life. From a social inclusion perspective, measuring impairment consistently across countries remains a methodological hurdle, yet it is critical to capturing the experiences of those who face chronic disease or disability (Lenzi & Perucca, 2016).

Unmet healthcare needs represent another key metric, illuminating the financial, geographical, and systemic barriers preventing equal access to medical services (Martín Cervantes et al., 2020). This measure is especially pertinent in rural areas, where clinics and specialty care may be sparse and transportation inadequate challenges that disproportionately affect low-income and older adults.

Beyond physical health, mental health has emerged as a crucial determinant of social inclusion. Poor mental health can limit one's ability to participate in education, employment, and civic life—an issue amplified in underserved or rural communities lacking mental health infrastructure (Lenzi & Perucca, 2016; Eurostat, 2024). Indicators measuring the prevalence of mental health issues are thus central to understanding how stress, isolation, or poverty compound disadvantages.

Likewise, self-reported limitations in daily activities highlight the tangible constraints imposed by physical or mental conditions on work, independent living, and socialising (Moreno-Llamas et al., 2023). These constraints often reveal cumulative vulnerabilities when intersecting with age, gender, and income disparities. Finally, overall life satisfaction—although inherently subjective—broadens the evaluative scope by integrating personal perceptions of health, income, and service accessibility (Eurostat, 2024). Such perceptions provide an important counterbalance to more objective health measures, offering insight into whether individuals feel supported, stable, and included in their communities.

In combination, these health and well-being indicators—self-reported health status, healthy life years, mental health prevalence, activity limitations, and life satisfaction—form a comprehensive framework for analysing how health intersects with social exclusion. They pinpoint systemic gaps in healthcare provision and quality of life that disproportionately affect vulnerable groups, including those in rural regions where services are less accessible (Martín Cervantes et al., 2020; Ebeling et al., 2022). Addressing these indicators through targeted interventions, expanded healthcare infrastructure, and governance reforms is crucial for fostering inclusive growth, reducing inequality, and ensuring that no one is left behind in the pursuit of social cohesion.

3.5.3 Living Conditions

Living conditions, particularly housing stability and quality, are fundamental to social inclusion. Adequate housing goes beyond providing shelter; it underpins people's ability to maintain employment, pursue education, and actively participate in community life (Mihaela Simona Ștefănescu et al., 2023). By contrast, housing deprivation including (overcrowding, homelessness,

and substandard housing) is closely bound up with material poverty, frequently compounding other aspects of exclusion (European Commission, 2018).

Indicators from the EU Statistics on Income and Living Conditions (EU-SILC) reveal that housing costs (rent, mortgage payments, utilities) can consume a disproportionate share of disposable income for individuals at risk of poverty (Eurostat, 2024). Specifically, the housing cost overburden rate measures the percentage of households spending more than 40% of their disposable income on housing, highlighting significant affordability challenges among low-income and rural populations. This metric thus illuminates how rising housing expenses limit disposable income for essentials such as healthcare, education, and transport are all key metrics to social inclusion (Dewilde, 2017).

Beyond cost, housing deprivation sheds light on physical deficiencies and inadequate infrastructure, such as leaking roofs, damp walls, and the lack of basic indoor facilities (bath/shower or flushing toilet). These conditions, often more prevalent in rural areas, reinforce cycles of exclusion by undermining health and well-being, increasing energy costs, and creating barriers to stable employment (European Commission, 2018). Meanwhile, the incidence of elderly poverty by housing tenure status offers additional insight into age-related vulnerabilities. Older tenants, especially those without subsidies, face a heightened risk of housing instability and isolation, underscoring the interplay between economic marginalisation and physical living conditions (Eurostat, 2024).

The share of housing costs in disposable household income emphasises how financial burdens weigh heaviest on low-income and at-risk households (Dewilde, 2017). When rent or mortgage payments exceed manageable thresholds, families may have to reduce spending on food, health, or childcare, compounding their economic and social exclusion. Additionally, the percentage of people in jobless households highlights a further layer of vulnerability: children and adults (18–59) in households lacking any employed member frequently struggle to meet basic housing expenses, limiting their mobility and opportunities for labour market reintegration.

Collectively, these housing indicators illuminate how material constraints and substandard living conditions can exacerbate inequalities, especially in rural and marginalised areas. Addressing housing overburden, physical deprivation, and elderly vulnerability calls for coordinated policy measures—ranging from affordable housing initiatives and energy efficiency upgrades to targeted social transfers and labour market activation strategies. By recognising housing as a key determinant of social inclusion, policymakers can foster environments where households are not only adequately housed but also empowered to participate in the economic, social, and cultural life of their communities.

3.5.4 Social Participation and Engagement

Social participation and civic engagement are widely considered cornerstones of inclusive societies, fostering community development, social cohesion, and the shared norms and values that underpin democratic life (Hooghe & Marien, 2013). Nevertheless, research consistently reveals significant disparities in participation across socioeconomic, age, disability, and geographic groups (Crowley & Walsh, 2021). Such inequalities indicate that only certain segments of the population—often those with greater resources—can partake fully in cultural, civic, and recreational activities, reinforcing structural inequalities that exclude marginalised communities.

Studies from the European Social Survey (ESS) demonstrate that individuals in lower income quintiles volunteer or attend cultural events less frequently than wealthier groups. This discrepancy reflects the impact of barriers such as transportation costs, limited mobility among older adults, or inaccessible facilities for persons with disabilities (Levitas et al., 2007). In response, EU policies have prioritised investments in accessible infrastructure and inclusive public spaces, aiming to mitigate social isolation and expand opportunities for community engagement (Hooghe & Marien, 2013).

Indicators of social participation offer insights into the reach and depth of engagement within a society. For instance, measuring the material or social deprivation rate among persons with moderate or severe disabilities highlights how limited financial resources, such as the inability to afford heat or a holiday restrict involvement in community life (European Commission, 2018; Eurostat, 2023). When this measure focuses on those lacking at least four out of nine essential items, it pinpoints specific, more severe barriers to social participation. Other indicators focus on support networks, including whether people have someone to rely on for help or personal discussions (Charron et al., 2024), as well as the frequency of social contact with family and friends (OECD, 2024; Eurostat, 2022). Both are key in maintaining mental and emotional well-being, thereby bolstering social inclusion.

Electoral participation, exemplified by voter turnout in national or local elections, remains a widely recognised measure of political engagement (Hooghe & Marien, 2013). Healthy voter turnout suggests a population that feels informed and motivated to influence governance structures. Where turnout is low, especially among certain demographics, the root causes can often be traced to deeper alienation or disenfranchisement. Volunteering, particularly formal volunteering within organised groups, reinforces social participation by fostering community cooperation, trust, and collaboration. Higher rates of volunteering can signal robust social capital and a sense of collective responsibility (Eurostat, 2024). Together, these indicators and taking into consideration political advocacy including, participation in political demonstrations, advocacy for civil rights, can provide a better understanding for the political and social engagement. Together, these indicators, along with political advocacy, such as participation in demonstrations, civil rights advocacy, and lobbying, provide a deeper understanding of political and social engagement. Effective advocacy strategies involve assessing the political environment, identifying key stakeholders, and leveraging alliances to influence policy making. Measuring advocacy impact requires tracking petition signatures, supporter actions like contacting lawmakers, legislative outcomes, and digital engagement metrics, including social media interactions and email response rates. By integrating voter participation and advocacy efforts, societies can work toward greater social inclusion, ensuring that marginalised voices are heard in political decision-making and systemic barriers to engagement are dismantled.

A society's levels of social trust and tolerance further influence the potential for meaningful engagement. Trust, whether in people or institutions, strengthens cooperative relationships and social cohesion, while tolerance reflects an openness to diversity that allows individuals of varying backgrounds to coexist and collaborate (Crowley & Walsh, 2021). High trust and tolerance typically correspond with lower interpersonal conflict and wider civic involvement, whereas low trust and intolerance can deter marginalised groups from participating in public life.

An additional consideration, particularly in rural contexts, is the balance between “bonding” and “bridging” social capital. Bonding social capital reflects trust and solidarity within a close-knit community, which can be invaluable for local support networks. However, an excess of bonding social capital sometimes leads to insularity and suspicion toward outsiders, ultimately restricting broader

integration. By contrast, bridging social capital encompasses trust in extra-community members and institutions, encouraging external collaborations and cross-community partnerships. In rural areas, very high bonding social capital may foster a strong internal community identity but can also limit the inclusion of newcomers and weaken ties to the broader national society. This tension underscores the importance of policies that not only strengthen local networks but also facilitate connection to external resources, ensuring that rural communities are neither isolated nor left behind (Richmond and Casali, 2022).

Taken together, these indicators afford a multilayered perspective on how inclusive or exclusive a society is. Persistent disparities underscore the importance of targeted policy efforts to remove structural obstacles, improve accessibility, and cultivate environments where everyone, regardless of income or ability, can engage meaningfully in social and democratic life.

3.6 Determinants of Social Exclusion/Inclusion

Social exclusion is influenced by an array of risk factors operating across multiple domains. Drawing on logistic regression analyses, Macleod et al. (2017) highlight how these determinants relate to specific forms of exclusion. For example, social relationships are often disrupted among individuals living alone, without partners, children, or siblings, or those experiencing unemployment. Cultural exclusion frequently correlates with poor health or depression, while civic activities are hindered by a lack of private transport, depression, or unemployment. Further, limited access to basic services typically affects older adults, those in poor health, people living alone, or individuals who cannot access transport (Motillon-Toudic et al., 2022). Neighbourhood exclusion tends to coincide with poor health or residence in deprived areas, whereas financial exclusion disproportionately impacts people with low incomes, members of non-white ethnic groups, or renters (Swope & Hernández, 2019). Material goods deprivation often affects those who are older, lack vehicle access, do not own their homes, or live alone.

Key cross-cutting risk factors, including depression, poor health, living alone, membership of a non-white ethnic group, renting accommodation, lack of access to private transport, low income, and being female, underscore how exclusion emerges at the intersection of multiple disadvantages.

Rural contexts present additional challenges that intensify exclusion. Evans et al. (2022) underscore geographical isolation as a crucial factor, with significant distances between homes and essential services reducing access to healthcare, education, and employment. Such isolation intensifies feelings of marginalisation and creates substantial barriers to social and economic participation. Limited infrastructure in rural areas further compounds these issues: inadequate transportation networks and poor digital connectivity limit interactions with the wider world, perpetuating cycles of marginalisation. Chen et al. (2023) additionally note pronounced economic disparities, as limited job opportunities, lower incomes, and reliance on vulnerable sectors (e.g., agriculture) impose structural disadvantages on rural populations.

Furthermore, cultural and social barriers exacerbate exclusion for marginalised groups—particularly minority communities, migrants, and people with disabilities (Garrick, Johnson & Arendt, 2024). As Santos (2018) emphasises, deep-rooted norms often inhibit full participation in community and civic life, further isolating already-vulnerable individuals. Addressing these constraints requires targeted

policies that enhance connectivity, foster economic diversification, and promote inclusive cultural practices. Appendix B demonstrated the determinants of social exclusion.

These determinants interact, often compounding each other's effects. For instance, an older individual (DE1) with low digital skills (DE5.2) living in a remote area (DE6.2) may face heightened exclusion from healthcare, social engagement, and job opportunities. Similarly, membership in a minority group (DE2 or DE8) combined with disability (DE9) can amplify disadvantage through intersecting barriers, including language issues, discrimination, or lack of specialised services.

In addition to housing stability, digital connectivity has emerged as a critical factor in social inclusion. Indicators such as internet usage rates, digital skills proficiency, and communication via social media (DE5.1, DE5.2, DE5.3) measure individuals' ability to access e-services, job searches, online education, and social networks (Eurostat, 2024; OECD, 2023). However, rural regions often lag in broadband coverage and affordability, magnifying the digital divide (Van Dijk, 2020). People's socioeconomic position and educational attainment shape their capacity to leverage the benefits of digital technology, while persistent connectivity gaps hamper efforts to mitigate exclusion (Dijkstra, Poelman & Rodríguez-Pose, 2019). Bridging this divide is essential to ensuring equal access to education, healthcare, and employment, particularly for vulnerable groups.

Gender inequality (DE7) remains a critical barrier to social inclusion. According to the European Institute for Gender Equality (EIGE), women frequently occupy part-time or lower-wage positions, reflected in **persistent pay gaps** (DE7.2), while bearing disproportionate unpaid caregiving burdens that reduce their workforce participation (Hobson et al., 2011). Policies such as the EU Work-Life Balance Directive seek to reduce these imbalances through parental leave and flexible work arrangements. Gender-based violence, which affects one in three women in the EU (Pettersson et al., 2024), further restricts victims' engagement in economic and community life. Gender mainstreaming in policy design is therefore vital for enabling equitable opportunities and tackling hidden barriers to inclusion (Thuesen, 2016).

The **gender pay gap** and the **gender employment gap** (DE7.3) reveal entrenched economic disparities that reflect deeper social and cultural norms (Eurostat, 2023). Monitoring these metrics allows policymakers to craft targeted measures—such as pay-transparency laws or career-development programmes—promoting equal labour market participation. Comprehensive data on violence, labour conditions, and caregiving responsibilities remain equally important for immigration and often intersect with multiple risk factors for social exclusion.

Migrants, especially those arriving from non-EU or lower-income countries—frequently encounter structural barriers that impede their integration into the host society. These barriers include language difficulties, cultural differences, and discriminatory practices that adversely affect access to stable employment, quality housing, and public services (Macleod et al., 2017; Swope & Hernández, 2019). As a result, many immigrants experience persistent economic and social disadvantages, making them more vulnerable to exclusion from the broader society.

In rural areas, the challenges associated with social exclusion are compounded by geographical and infrastructural constraints. Vast distances from urban centres limit access to essential services such as healthcare, education, and job opportunities, while inadequate transportation networks and poor digital connectivity further isolate immigrant communities (Evans et al., 2022; Taylor & Susilawati,

2012). These conditions not only heighten economic vulnerability but also restrict opportunities for cultural exchange and civic participation, thereby reinforcing the cycle of exclusion.

Despite these challenges, policy interventions can play a significant role in mitigating social exclusion among immigrants. Initiatives such as language training, reforms in credential recognition, and targeted employment support programmes have been shown to improve integration outcomes (Huddleston, Niessen, & Tjaden, 2013). Additionally, bridging the digital divide through improved broadband infrastructure and enhanced digital literacy programmes is essential for enabling immigrants to access online education, healthcare, and employment services—an especially critical need in rural regions where digital access is limited (Van Dijk, 2020; Ruiz-Martínez & Esparcia, 2020).

Ultimately, addressing social exclusion among immigrants requires a holistic approach that acknowledges the interplay between economic, cultural, and infrastructural factors. By implementing comprehensive and inclusive policies, host societies can not only improve integration outcomes for immigrants but also strengthen overall social cohesion and resilience. In doing so, governments and community stakeholders can foster environments where immigrants contribute fully to, and benefit from, economic growth and social development (Garrick, Johnson, & Arendt, 2024; Santos, 2018).

People with disabilities, whether physical, intellectual, or mental, face a range of physical, technological, and social barriers that often hinder their full participation in education, employment, and public life. These barriers include inaccessible environments, inadequate support systems, and persistent discriminatory attitudes that collectively contribute to heightened levels of social exclusion. In rural or under-resourced areas, these challenges are often exacerbated by limited access to assistive technologies, inadequate public transportation, and fewer specialised services, which in turn restrict opportunities for engagement and economic independence (Garrick, Johnson & Arendt, 2024; Macleod et al., 2017).

Effective policies must address these intersectional challenges by promoting universal design in public infrastructure, improving access to tailored support services, and implementing robust anti-discrimination measures. Such initiatives not only improve the quality of life for individuals with disabilities but also strengthen community resilience and overall social cohesion. In doing so, targeted interventions help ensure that people with disabilities are empowered to participate fully in society, thereby reducing systemic exclusion and promoting a more inclusive environment for all.

4 Introducing an integrated framework for measuring social exclusion and inclusion in rural areas

4.1 Contextualisation and motivation

Social inclusion is an important component of long-term rural development. Rural communities can achieve more equitable and sustainable development by ensuring equal access to resources, opportunities, and decision-making processes (Kalinowski and Rosa, 2021). This is consistent with broader European Union goals, such as those contained in the Common Agricultural Policy (CAP) and Rural Development Programmes. Those programs seek to foster inclusive rural economies. Inclusion is essential for reducing poverty and inequality, especially among disadvantaged groups such as low-income families, women, and ethnic minorities. Programs that offer education, skill training, and microfinance can help these groups participate more fully in economic and social life (Chatzinikolaou and Bournaris, 2012).

Furthermore, fostering social inclusion in rural areas might contribute to greater equity in policy making and governance. Rural communities frequently lack representation in decision-making processes, resulting in policies failing to meet their specific requirements (Silver, 2015). Rural residents, particularly those from marginalised groups, benefit from having their voices recognised and their problems addressed. This is especially important when planning programs that consider the different characteristics of rural areas, ranging from remote mountainous regions to semi-rural areas near urban centres (Whelan, Devlin, & McGuinness, 2023). In fact, promoting social inclusion in rural areas is essential for building community cohesion and resilience. Inclusive practices foster trust, cooperation, and a sense of belonging among residents, enabling communities to work together to address shared challenges. This cohesion is particularly important in the face of issues like climate change and economic uncertainty, where collective action can make a significant difference. Moreover, social inclusion strengthens social capital, enhancing the mutual support networks that are often vital in rural settings (Van Hoof et al., 2018).

Assuming that shrinking populations and the outmigration of younger people intensify the social challenges in rural regions, many rural areas are struggling with reduced employment opportunities and fewer health, education, and social services, leading to increased dependency on nearby urban centres. For more insights, EPSON's Policy Brief on "Shrinking Rural Regions in Europe" delves into these issues and provides case studies and policy recommendations to address these challenges (EPSON, 2015).

Additionally, the European Commission emphasises the importance of addressing social inclusion to support vulnerable populations in rural settings. Limited infrastructure and public service provision, combined with an aging population, often make it difficult to maintain social cohesion and access opportunities for a decent quality of life. More information on their strategies is available on their social inclusion page. It's vital for every rural community member to participate actively in societal engagements. However, achieving this in rural settings is complex due to dispersed populations and limited services (Thompson, 2021). Tailored approaches are necessary to address the unique needs

of rural populations. Investing in essential services like healthcare and education is crucial. Additionally, fostering community engagement and collaboration can integrate marginalised groups, amplifying their voices. By championing social inclusion, societies can unlock the full potential of rural communities (Santos, Barros and Huxley, 2018).

Therefore, developing a multidimensional and comprehensive framework to measure social exclusion is essential to better understand its effects. Such a framework provides a systematic way to identify and address the multidimensional aspects of exclusion, ranging from economic and educational disparities to housing and digital connectivity gaps. It allows policymakers to track progress over time, evaluate the effectiveness of interventions, and ensure that resources are targeted where they are most needed. Moreover, a well-designed framework can highlight the interconnected nature of challenges in rural areas, supporting comprehensive and context-sensitive solutions. By establishing clear indicators and benchmarks, this framework can empower rural communities to advocate for their needs, guide equitable policy development, and promote inclusive and sustainable rural development across the EU.

4.2 Mapping the Dimensions of Social Inclusion and Exclusion

Social exclusion and inclusion are complex, multidimensional phenomena that influence individuals' access to resources, opportunities, and participation within society. A robust analytical framework for examining these issues should include four primary domains: Economic Security and Employment, Health and Well-being, Living Conditions, and Social Participation and Engagement. Each domain should have to be operationalised through a series of specific indicators and considering that they are further influenced by cross-cutting axes of exclusion, which should serve as structural determinants. This section explores the interconnections among these domains, the role of determinants, and their implications for policy and intervention, drawing on relevant academic literature.

Building on these four primary domains that were identified from the literature, Figure 3 presents the identified indicators and axes of social exclusion and inclusion, which collectively provide a comprehensive framework for European rural areas. The axes, determinants, and their interdependences are discussed in the next sections.

Social Inclusion/Exclusion Indicators					
(D1) Economic Security & Employment	(D2) Health and Well-being	(D3) Living Conditions	(D4) Social Participation and Engagement		
(I1) At risk of poverty or social exclusion (AROPE) 1.1 At-risk-of-poverty rate 1.2 Population living in (quasi-)jobless households 1.3 Severe material and social deprivation rate 1.4 Risk of poverty or social exclusion for children and people with disabilities (I2) Income distribution 2.1 S80/S20 quintile share ratio 2.2 Gini Coefficient 2.3 Government expenditure on social protection (I3) Employment 3.1 Employment/Unemployment Rates 3.2 Participation in the labour market (activity rate) 3.3 In-work at-risk-of-poverty rate	(I4) Self-Reported Health Status (LEAKEN) 4.1 Healthy life expectancy (based on self-perceived health) 4.2 Percentage reporting mental health issues 4.3 Overall life satisfaction 4.4 Self-reported limitations in daily activities (I5) Life Expectancy at Birth (I6) Healthy life years rate (I7) Self-reported unmet need for medical care by sex (I8) Total expenditure on main types of activities/functions of care	(I9) Housing Costs 9.1 Share of housing costs in total disposable household income 9.2 Housing cost overburden rate 9.3 Incidence of risk of elderly poverty by housing tenure status 9.4 Growth rate in real gross household disposable income (I10) Housing Conditions 10.1 People living in under-occupied dwellings (by degree of urbanisation) 10.2 Overcrowding rate (by degree of urbanisation) 10.3 Housing deprivation by item 10.4 People living in jobless households	(I11) Voter turnout (elections) (I12) Electoral participation (I13) Formal volunteering (I14) Acquisition of citizenship (I15) Social trust (I16) Tolerance (I17) Having someone for help or to discuss personal matters (I18) Social contact with family and friends (I19) Material and social deprivation rate for persons with disabilities		
Axes of Social Exclusion					
(DE1) Age DE1.1 Median Age DE1.2 Age Dependency Ratio	(DE2) Ethnic Composition and Immigration DE2.1 Foreign Population Over 15 Years Old	(DE3) Criminality and Safety DE3.1 Police-Recorded Offences	(DE4) Education DE4.1 Primary and Secondary Education DE4.2 Early Leavers from Education and Training DE4.3 Young People Not in Employment, Education or Training	(DE5) Digital access DE5.1 Internet Usage Rate DE5.2 Digital Skills Proficiency DE5.3 Communication via social media	(DE6) Geographic and Climate Vulnerability DE6.1 Transport Infrastructure DE6.2 Remoteness DE6.3 Vulnerability to Climate Change and Natural Disasters
(DE7) Gender DE7.1 Composite index on gender equality DE7.2 Gender Pay Gap DE7.3 Gender Employment Gap		(DE8) Migration DE8.1 International migration, citizenship DE8.2 Managed migration DE8.3 Migrant integration		(DE9) Disabilities DE9.1 People with physical, intellectual, or mental disabilities	

Figure 3: Identified indicators and axes of social inclusion and exclusion

4.2.1 Economic Security and Employment

Economic security is a foundational element of social inclusion, as financial stability enables individuals to meet basic needs and pursue opportunities for advancement. Indicators such as the at-risk-of-poverty rate, income distribution (e.g., Gini coefficient), and employment participation highlight disparities in financial stability and labour market access. Research shows that economic exclusion not only limits access to material resources but also undermines social cohesion and participation (OECD, 2019). For example, individuals experiencing in-work poverty are often unable to engage in civic activities or invest in their future, perpetuating cycles of exclusion.

4.2.2 Health and Well-being

Health is both a driver and an outcome of social inclusion. Indicators in this domain include self-reported health status, life expectancy, healthy life years, and unmet medical needs. Poor health disproportionately affects marginalised groups, creating barriers to education, employment, and social participation (Marmot et al., 2008). The relationship between health and socio-economic status is well-documented, with evidence pointing to the role of structural inequalities in shaping health outcomes (Wilkinson & Pickett, 2010). Addressing health disparities requires not only improving healthcare access but also tackling broader social determinants, such as housing and education.

4.2.3 Living Conditions

Housing conditions are critical dimensions of social inclusion, as they directly impact stability, security, and well-being. Indicators such as housing costs, overcrowding, and housing deprivation capture the extent to which individuals have access to adequate living environments. Research highlights the cumulative disadvantages faced by low-income households in securing affordable, quality housing, particularly in urban areas (Hulchanski, 2010; Tunstall et al., 2013). Housing exclusion is also linked to spatial segregation and limited access to services, exacerbating inequalities across other domains.

4.2.4 Social Participation and Engagement

Civic engagement and social networks are essential for fostering a sense of belonging and mutual trust within communities. Indicators such as voter turnout, formal volunteering, social trust, and the presence of support networks measure the extent of social inclusion in this domain. The literature underscores the importance of social capital in promoting inclusion and reducing vulnerability (Putnam, 2000; Granovetter, 1985). However, access to social networks is often mediated by economic resources, education, and digital connectivity, highlighting the interdependencies between domains.

4.3 Axes of Social Exclusion (Determinants)

The axes of exclusion represent structural determinants that influence outcomes across all domains. These include demographic, social, and environmental factors that exacerbate inequalities:

- **Age:** The age dependency ratio and median age reflect demographic pressures on social systems, with older populations facing higher risks of economic and social exclusion (Harper, 2014).

- **Ethnic Composition:** Integration challenges for foreign-born populations often result in disparities in employment, housing, and social participation (Castles et al., 2014). Language barriers, discrimination, and precarious legal status further compound these issues.
- **Education:** Educational attainment and early school leaving are critical determinants of economic and social mobility (Heckman, 2006). Youth not in education, employment, or training (NEETs) are particularly vulnerable to long-term exclusion.
- **Digital Access:** Digital connectivity is increasingly recognised as a fundamental determinant of inclusion, with disparities in internet access and digital skills creating new forms of exclusion (van Dijk, 2005; Helsper, 2008).
- **Geographic and Climate Vulnerability:** Rural and remote areas often face infrastructure deficits and limited access to services, which are further exacerbated by climate risks (Adger et al., 2003). These vulnerabilities highlight the spatial dimensions of exclusion.
- **Gender:** Gender-based inequalities, such as wage gaps and employment disparities, are pervasive determinants of exclusion, particularly for women in low-income and informal sectors (Sen, 1999; Kabeer, 2005).
- **Immigration:** Both internal and international migration pose challenges for integration, with migrants often experiencing exclusion from housing, employment, and social networks (Faist, 2000).
- **Disabilities:** Individuals with physical, intellectual, or mental disabilities face significant barriers across all domains, requiring targeted interventions to ensure inclusion (WHO, 2011).

4.4 Interdependencies Between Domains and Determinants

Social exclusion and inclusion are inherently multidimensional phenomena, shaped by the interplay of economic, social, and structural factors. Understanding the interdependencies between the domains of inclusion and the structural determinants that underlie them is essential for addressing the root causes of exclusion. These interdependencies create cycles of disadvantage, where exclusion in one domain often spills over into others, reinforcing systemic inequities and limiting opportunities for individuals and communities.

4.4.1 Economic Security and Its Ripple Effects

Economic security is a cornerstone of social inclusion, providing individuals with the financial stability necessary to meet basic needs, access opportunities, and participate in society. Indicators such as income distribution, poverty rates, and employment participation highlight disparities in financial well-being. Economic insecurity directly affects other domains. For instance, individuals in poverty often face poor health outcomes due to limited access to healthcare, nutritious food, and mental health services. Marmot et al. (2008) emphasise the role of economic inequality as a determinant of health disparities, highlighting how structural inequalities perpetuate cycles of disadvantage.

Similarly, economic insecurity is closely tied to housing instability. High housing costs relative to income exacerbate poverty and limit access to adequate housing, leading to overcrowding and substandard living conditions (Hulchanski, 2010). These living conditions, in turn, negatively impact health outcomes, with damp and poorly ventilated housing contributing to respiratory illnesses and

mental health challenges. Furthermore, economic insecurity limits social participation. Research shows that financial hardship reduces individuals' ability to engage in civic activities, such as voting or volunteering, which are essential for fostering social cohesion and trust (Putnam, 2000).

4.4.2 Health as a Driver and Outcome of Inclusion

Health and well-being are both drivers and outcomes of social inclusion. Poor health can limit individuals' ability to access education, secure employment, or participate in social activities, thereby perpetuating exclusion. Indicators such as life expectancy, self-reported health status, and unmet medical needs reveal stark inequalities in health outcomes, often correlated with socio-economic status. Wilkinson and Pickett (2010) highlight the social gradient in health, where individuals in lower socio-economic groups experience worse health outcomes due to cumulative disadvantages.

The interplay between health and other domains is particularly pronounced in the context of living conditions. Substandard housing and exposure to environmental risks exacerbate health inequalities, particularly among vulnerable groups such as children and the elderly (Adger et al., 2003). Additionally, health disparities intersect with economic security, as individuals with chronic illnesses or disabilities are more likely to experience reduced earning potential and exclusion from the labour market (WHO, 2011). The bidirectional relationship between health and exclusion underscores the need for integrated policies that address both healthcare access and the broader social determinants of health.

4.4.3 The Centrality of Living Conditions

Living conditions, particularly access to adequate and affordable housing, play a pivotal role in social inclusion. Indicators such as housing costs, overcrowding, and housing deprivation reveal significant disparities in access to stable and secure living environments. Housing instability not only contributes to economic insecurity but also undermines health and social participation. For example, frequent displacement disrupts employment and educational opportunities while severing social networks and community ties (Tunstall et al., 2013).

The relationship between housing and social participation is particularly salient. Stable housing provides a foundation for individuals to build and maintain social networks, which are critical for fostering trust and community engagement. Conversely, homelessness or housing instability isolates individuals, reducing their access to supportive structures and opportunities for civic participation. Hulchanski (2010) argues that housing policy must be integrated with broader social policies to address the interconnected nature of exclusion.

4.4.4 Social Participation as a Mediator

Social participation and engagement are both outcomes and mediators of inclusion. Indicators such as voter turnout, social trust, and access to support networks capture the extent to which individuals are integrated into their communities. Social participation is strongly influenced by economic security, health, and living conditions. For example, financial hardship and poor health can isolate individuals, reducing their ability to engage in civic and social activities (Granovetter, 1985). At the same time, strong social networks can act as a buffer against exclusion, providing access to resources, opportunities, and emotional support (Putnam, 2000).

Social participation also influences other domains. Communities with high levels of civic engagement and trust are better able to advocate for improved living conditions and access to services. This dynamic highlights the importance of fostering social capital as a means of promoting inclusion and addressing systemic inequalities.

4.4.5 Structural Determinants as Amplifiers

The structural determinants of exclusion (referred to as the axes of exclusion) amplify vulnerabilities and reinforce interdependencies between domains. These determinants include age, gender, migration status, digital access, and geographic and climate vulnerabilities, among others. For example, older adults face heightened risks of exclusion due to declining health, fixed incomes, and social isolation, while younger individuals not in education, employment, or training (NEETs) are particularly vulnerable to long-term exclusion (Harper, 2014).

Gender-based inequalities further illustrate how structural factors shape exclusion. Women are disproportionately affected by economic insecurity due to wage gaps, caregiving responsibilities, and higher rates of employment in informal sectors. These disparities intersect with other domains, such as health and housing, to create compounding disadvantages (Sen, 1999; Kabeer, 2005). Similarly, migrants often face barriers to employment, housing, and social participation, exacerbated by discrimination and precarious legal status (Castles et al., 2014).

Digital access is an increasingly critical determinant of inclusion, as it shapes individuals' ability to access education, employment, and social networks. The digital divide disproportionately affects rural populations, older adults, and low-income households, further entrenching exclusion (van Dijk, 2005). Geographic and climate vulnerabilities, such as remoteness and exposure to natural disasters, add another layer of complexity, particularly in rural and marginalised communities (Adger et al., 2003).

The interplay between domains and determinants creates cumulative disadvantage, where exclusion in one area reinforces vulnerabilities in others. For example, a woman with limited digital skills living in a rural area may face barriers to employment, education, and social participation, resulting in a compounding cycle of exclusion. This phenomenon underscores the need for integrated and multi-dimensional policy responses.

Effective interventions must address the interdependencies between domains and determinants. Cross-sectoral coordination is essential, such as aligning housing policies with health and employment initiatives. Targeted support for vulnerable groups, such as migrants, individuals with disabilities, and those living in remote areas, can help mitigate structural disadvantages. Additionally, long-term investments in education, digital inclusion, and gender equity are critical for breaking cycles of exclusion and promoting systemic change (Room, 1999; Atkinson & Davoudi, 2000).

By recognising and addressing these interdependencies, policymakers can design more comprehensive strategies to promote social inclusion and reduce systemic inequalities. This approach aligns with calls in the academic literature for holistic frameworks that address the root causes of exclusion and foster resilient, inclusive societies.

5 Measuring Social Inclusion and Exclusion in Rural Areas: Key Indicators and Debates

Rural areas present distinctive socio-economic and infrastructural characteristics that affect the ways in which social inclusion or exclusion is experienced and measured (Cloke & Goodwin, 1992; Milbourne, 2011). In contrast to metropolitan areas, where services and employment possibilities are more concentrated, rural regions frequently face a scarcity of public services, greater distances to vital facilities, restricted employment diversity, and inconsistent digital access. (Stockdale, 2004; Shucksmith, 2012). These factors underscore the need for more refined indicators that capture rural-specific forms of social exclusion/inclusion. This section examines selected indicators and discusses their relevance, as well as the scholarly debates that arise when applying them in rural contexts.

5.1 Geographic Isolation and Access to Basic Services

Geographic isolation is one of the most enduring characteristics of rural areas, and it is the impact of social marginalisation. The spatial dispersion of rural communities frequently delays access to healthcare, education, transportation, and employment opportunities (Coombs et al., 2022). According to Hudson and Doogan (2019) geographic isolation can have a result on systemic restrictions that significantly impact excluded communities.

To measure these challenges, the AROPE (At Risk of Poverty or Social Exclusion) framework offers specific indicators such as the "risk of poverty rate," "quasi-jobless households," and "severe material and social deprivation rates." These indicators are suitable as they highlight both economic and access-based barriers that contribute to social exclusion.

- Risk of poverty rate (AROPE): Captures the percentage of individuals with incomes below 60% of the median, emphasising financial barriers to accessing essential services.
- Quasi-jobless households (AROPE): Measures households where adults work less than 20% of their potential, linking employment deficits to exclusion.
- Severe material and social deprivation rate (AROPE): Identifies populations unable to afford basic needs, such as healthcare or transport.
- Self-reported health status (Leaken): Highlights accessibility issues for rural residents.
- Life expectancy at birth (Laeken): Reflects overall health outcomes and disparities in rural areas.

Rural healthcare facilities are frequently understaffed and positioned far away from communities, making it difficult for people with limited mobility, financial restraints, or chronic health concerns to get necessary medical care (Simanjuntak and Silalahi, 2023). A lack of specialists and emergency care facilities frequently exacerbates health inequities, with rural communities having weaker overall medical conditions than those in urban areas (None Maganty et al., 2023). This challenge can be exacerbated by poor transportation infrastructure, which restricts the flow of goods and services. Individuals who do not own cars for themselves, a phenomenon prevalent in low-income households, can affect the acquisition of basic services (Kaiser and Barstow, 2022).

The EU's "Rural Development Programme" (2014-2020) aimed to improve healthcare access and transportation infrastructure in rural areas, leading to a 25% increase in access to medical services in participating regions (European Commission, 2020a). Similarly, The Strategic Governance Plan for Rural Depopulation in RESOE launched in 2019, aims to address rural depopulation by fostering multi-level governance, promoting digitalisation and entrepreneurship, and improving essential service delivery in the regions of Asturias, Cantabria, Castilla y León, and Galicia. So far, the plan has enhanced rural connectivity through targeted broadband investments and strengthened regional cooperation to share best practices and implement coordinated strategies effectively (OECD, 2020).

5.2 Climate Change effect on Social Exclusion

Climate change is a growing concern that complicates geographical isolation in rural places. Extreme weather disasters, such as floods and droughts, are becoming increasingly common, disrupting transportation networks, damaging infrastructure, and limiting access to key services. Rural communities, which are often less prepared to recover from such disturbances, face increased risks of long-term marginalisation (European Environment Agency, 2024). Climate change exacerbates the geographical isolation of rural areas. Indicators like "infrastructure resilience" and "housing deprivation by item" (Laeken) are essential for assessing vulnerabilities to climate-related events.

- Determinant of transport infrastructure (D6.1, Appendix B): Evaluates the work and service access. Remoteness limits interactions with wider communities.
- Healthy life years rate (Laeken): Measures the expected years of healthy living, highlighting long-term impacts of environmental stressors.
- Housing deprivation by item (Laeken): Assesses the adequacy of rural housing in withstanding climate-related challenges.

Climate-resilient infrastructure development and disaster preparedness planning are crucial for reducing these risks and keeping rural communities linked and assisted during times of crisis (IPCC, 2022).

For instance, the EU's "Resilient Rural Infrastructure" program has invested €1 billion since 2019 to fortify rural transport systems against climate impacts, reducing flood-related disruptions by 40% (Brogan, 2025). Meanwhile, Sweden's strategy for regional development cooperation with Africa 2022–2026 introduced early warning systems and emergency shelters, improving disaster response times by 50% in rural areas. The objective of Sweden's international development cooperation is to create opportunities for better living conditions for people living in poverty and under oppression. Development cooperation is to be based on the principles of aid and development effectiveness, the 2030 Agenda, the Addis Ababa Action Agenda and the Paris Agreement. The strategy applies during the period 2022–2026 and provides SEK 4 625 million for activities implemented by the Swedish International Development Cooperation Agency (Sida) and SEK 45 million for activities implemented by the Folke Bernadotte Academy (FBA) (Ministry for Foreign Affairs, Sweden, 2022).

Efforts to reduce the burden of geographical isolation must therefore be holistic, addressing the interconnected challenges of infrastructure, education, health, cultural access, and economic disparities. By investing in rural connectivity, enhancing local service delivery, and fostering community-led initiatives, policymakers can create environments where rural populations are not only included but empowered to thrive.

5.3 Poor access to education in rural areas

Schools in rural areas are frequently placed far from students' homes, resulting in long drives that can discourage attendance in social settings (Klein, Sosu and Dare, 2020). Indicators from the framework, such as "children at risk of poverty or social exclusion" and "child-specific severe material deprivation rates," effectively measure how economic and spatial barriers impact educational access.

- Children at risk of poverty or social exclusion (AROPE): Reflects economic and social barriers affecting access to quality education.
- Severe material and social deprivation rate for children (AROPE): Captures the inability of households to meet children's basic needs, such as transportation for school.
- Early school leavers rate (Laeken): Measures the percentage of students leaving education prematurely, often due to access challenges.
- Persons with low educational attainment (Laeken): Highlights long-term effects of inadequate educational resources in rural areas.

In addition to the distance, these institutions usually lack the resources and personnel required to provide quality education, such as specialised teachers and extracurricular activities. As a result, rural students frequently lack good educational performance, which limits their future career and social mobility chances (Van Maarseveen, 2020). Moreover, participation in activities is significantly associated with community and school characteristics. Schools where pupils come from families with lower socioeconomic level tend to participate in less school and non-school activities. This may be attributed, in part, to the difficulty of a school/community located in places with lower socioeconomic level to offer the diversity of activities of a more affluent school/community than others located in places with a higher socioeconomic standard, (Stanley et al., 2007).

High dropout rates are especially alarming because they generate long-term issues for both individuals and society by limiting the availability of a trained workforce (Bradley, 2020). Addressing these difficulties would necessitate targeted investments in rural education infrastructure, increased school transportation subsidies and the introduction of digital learning systems that enable students to receive high-quality education remotely.

To address educational challenges in rural areas, the European Union has implemented the Digital Education Action Plan (2021-2027), which aims to foster a high-performing digital education ecosystem and enhance digital skills across the EU. It supports the development of digital infrastructure, promotes the use of digital tools in education, and encourages the creation of high-quality digital learning content. The plan is a key enabler to realising the vision of achieving a European Education Area by 2027 (European Commission, 2023). Another initiative includes the Learning from the Extremes (LfE) Project, that supports rural schools in ten European countries by providing funding to install digital technology infrastructure, offering technical support, and delivering pedagogical guidance. The goal is to help these schools' overcome barriers to digital education and innovate on multiple levels. The project involves more than 100 rural schools from 10 European countries, including Greece, Portugal, Cyprus, Croatia, Ireland, Finland, Bulgaria, Romania, Italy, and Spain (Learning from the Extremes, 2024).

5.4 Economic exclusion and Vulnerable Groups

5.4.1 Challenges of Economic Marginalisation

Economic exclusion in rural areas can be triggered by a lack of job possibilities and a strong reliance on agriculture and other primary industries. These sectors, while critical to rural economies, are extremely vulnerable to external shocks such as climate change, market fluctuations, and globalisation (OECD, 2024). Furthermore, the volatility of global commodities markets frequently results in unpredictability in revenue for rural producers, who are frequently subject to fluctuating demand and pricing. The challenges of economic marginalisation are further compounded by limited access to financial institutions and services (Touch et al., 2024). Many rural populations lack access to banks, insurance, and credit, all of which are necessary for economic stability and progress. Without these necessities, rural households frequently struggle to invest in their personal life (BÄGE, 2023). To better measure and understand the challenges of financial exclusion in rural areas, additional Laeken and AROPE Indicators can provide further insights into the multifaceted nature of these issues:

- Severe material and social deprivation rate (AROPE): Captures the proportion of individuals unable to access basic financial services or invest in their economic stability.
- Income distribution (S80/S20 Quintile Share Ratio) (Laeken): Highlights income inequality, showing the disparities in access to financial resources.
- At-risk of poverty or social exclusion rate for people with disabilities (AROPE): Reflects financial barriers faced by vulnerable groups in rural areas.
- Activity rate for working-age population (15-64) (Laeken): Measures the economic participation of rural populations, indicating their engagement with financial services.
- Long-term unemployment rate (Laeken): Highlights sustained economic exclusion that impacts financial inclusion opportunities.
- Growth rate in real gross household disposable income (Laeken): Tracks improvements or declines in economic stability and purchasing power in rural households.

Expanding financial inclusion in rural areas through mobile banking platforms, cooperative credit schemes, and customised financial literacy initiatives can help solve these issues. For example, mobile banking solutions like those implemented in Poland in 2021 have proven beneficial in reaching distant communities, allowing people to save, borrow, and invest more easily and securely. Cooperative methods, in which communities combine their resources to provide loans and insurance, have also shown the potential to overcome financial barriers (International Trade Administration, 2019).

Additionally, the EU's InvestEU program (launched in 2021) includes provisions for enhancing financial access in underserved rural areas, focusing on supporting small businesses and local economies. This program has allocated €372 billion to improve financial access in underserved rural areas, with an early assessment showing a 25% increase in small business loans in targeted regions (InvestEU, 2021). Moreover, the Social Finance Foundation (SFF) (2007) in Ireland has been instrumental in supporting community projects. As of September 2022, SFF's loan book exceeded €50 million in outstanding balances for the first time. By March 2023, SFF had lent €200 million to 2,000 organisations across Ireland. Additionally, in 2023, SFF announced a lending of €25.5 million

to 253 community organisations across all 26 counties in Ireland. Term and bridging loans of up to €600,000 are now available through SFF's lending partners, Clann Credo and Community Finance Ireland (Social Finance Foundation, 2023).

These initiatives could have utilised Indicators such as "severe material and social deprivation rate" and "income distribution (S80/S20 Quintile Share Ratio)" to measure the economic inequalities that arise from insufficient resources.

- Severe material and social deprivation rate (AROPE): Captures the percentage of people who cannot afford certain basic goods and services that are considered essential for a decent standard of living
- Income distribution (S80/S20 Quintile Share Ratio) (Laeken): The indicator compares the total income of the richest 20% of the population (top quintile, S80) to the total income of the poorest 20% (bottom quintile, S20), indicating income inequality and social disparities.

5.4.2 Gender-Based Economic Exclusion

Gender-based economic exclusion is especially prevalent in rural areas. Women frequently face structural obstacles to employment, such as societal norms that value unpaid caregiving tasks while restricting their participation in the official labour market (International Labour Organisation, 2022). These dynamic forces many rural women into informal or part-time work, which often pays less, has fewer benefits and has limited social protections. Furthermore, women in rural regions frequently face major impediments to obtaining land ownership, credit, and other vital resources required for financial independence (Sorrentino, 2023). Without access to these resources, rural women are caught in cycles of dependency and economic insecurity (Food and Agriculture Organisation, 2024). Laeken Indicators such as the "gender pay gap" and "gender employment gap" are crucial for measuring disparities in employment and income between men and women in rural areas. These indicators help assess the structural barriers that perpetuate economic exclusion for women including:

- Gender pays gap (Laeken): Highlights income disparities between men and women, particularly in agriculture and informal sectors.
- Gender employment gap (Laeken): Measures the difference in employment rates between men and women, illustrating structural inequities in labour force participation.

Addressing this disparity necessitates a combination of targeted interventions, such as microfinance initiatives, skill development programs, and legislation that promote gender equality in rural labour markets. For instance, the European Union has implemented programs like the European Agricultural Fund for Rural Development (EAFRD), which supports women's entrepreneurship in rural areas by providing grants and facilitating access to credit (European Commission, 2023). Additionally, Spain's 2021 "Rural Women Employment Program" has focused on providing skill training and grants to promote female entrepreneurship in rural areas. They managed to train more than 2.000 women and led to the establishment of 300 female led businesses within the first year (Gobierno de España , 2024). Economic empowerment for women not only enhances their own well-being, but it additionally contributes to the overall economic stability and development of rural communities.

5.4.3 Youth Unemployment and Migration

Youth unemployment is another major issue, as rural communities usually lack the variety of career possibilities required to keep young people (Pohlan, 2019). This lack of economic variety pushes young migration to metropolitan areas in search of better education and work opportunities. This outmigration not only depletes rural areas of their most vibrant and competent residents, but it also increases demographic aging (White, 2012). Relevant Indicators such as the "youth unemployment rate" and "employment rate for ages 15-24" are essential for understanding the employment challenges and migration trends among rural youth. These indicators provide a clear picture of the opportunities available and the pressures driving youth migration like:

- Youth unemployment rate (Laeken): Measures the percentage of young individuals actively seeking but unable to find work, illustrating the lack of opportunities in rural areas.
- AROPE of Children (At Risk of Poverty or Social Exclusion for Children 0-17): Measures the share of children aged 0-17 who are at risk of poverty and/or severely materially and socially deprived and/or living in (quasi-)jobless households. This indicator is crucial in assessing child poverty levels, particularly in rural communities.
- AROPE of Children Severe Material and Social Deprivation Rate for Children: Represents the share of children aged 0-17 living in households lacking at least 7 out of 13 deprivation items due to affordability constraints, offering insight into the socio-economic conditions of rural families.

The youth unemployment rate is closely linked to the indicators of AROPE of Children (At Risk of Poverty or Social Exclusion for Children 0-17) and AROPE of Children Severe Material and Social Deprivation Rate for Children, as a lack of job opportunities for young people contributes to broader socio-economic challenges such as poverty, social exclusion, and material deprivation. High youth unemployment rates in rural areas directly correlate with an increased risk of poverty for young individuals and their families, reinforcing cycles of economic hardship. Moreover, the lack of employment prospects compels many young people to migrate to urban centers, further exacerbating rural depopulation and economic stagnation (Mathieu et al., 2022).

Furthermore, the loss of youth undermines intergenerational knowledge transfer, particularly in agricultural and artisanal practices that are frequently important to rural cultural and economic life. To counteract this trend, rural development strategies must prioritise vocational training, entrepreneurship, and investments in emerging sectors with high growth potential, such as renewable energy, Agri-tourism, and sustainable manufacturing (Food and Agriculture Organisation, 2014). Providing incentives for young people to remain in or return to rural areas, such as housing subsidies, business grants, or tax benefits can also play a crucial role in revitalising rural economies. For instance, Germany's "Rural Future Initiative" (2022) provides financial support to innovative rural startups and has supported 1,500 rural startups, 40% of which were launched by individuals under 30, revitalising local economies (GTAI, 2022). Meanwhile, the EU's LEADER program has funded community-led projects to support youth employment and entrepreneurship in rural regions since its inception in 1991. This initiative has funded over 200,000 local projects since 1991, many of which have created long-term employment opportunities for rural youth and economic development (Minha Terra, 2019).

5.4.4 Insufficient Economic support for Local Businesses

Another important aspect of economic exclusion in rural areas is the lack of infrastructure to support local businesses and industries. Poor transportation networks, unreliable energy supplies, and limited access to digital connectivity make it difficult for rural enterprises to compete in regional and global markets (Bouris,2023). These infrastructural deficits not only limit the profitability of existing businesses but also deter potential investment in rural economies. Small and medium-sized enterprises (SMEs), which often serve as the backbone of rural economies, are particularly affected by these challenges (Kaiser and Barstow, 2022). To measure these challenges, Laeken Indicators like "housing cost overburden rate" and "share of housing costs in disposable household income" are relevant. These indicators reflect the financial strain caused by inadequate infrastructure and its impact on economic activities.

- Housing cost overburden rate (Laeken): Measures the proportion of income spent on housing and infrastructure, indicating economic strain from insufficient investments.
- Share of housing costs in disposable household income (Laeken): Highlights the financial impact of inadequate infrastructure on rural households.

Investments in infrastructure are therefore essential for fostering economic inclusion and resilience in rural areas. Public-private partnerships can play a crucial role in funding and implementing these infrastructure projects, ensuring that they are tailored to the specific needs and priorities of rural communities (Atkins Acuity, 2020). For instance, Greece's "Digital Transformation of SMEs" initiative (2021) has supported over 5,000 businesses by improving their access to high-speed internet and digital tools, leading to a 20% increase in productivity (Bouris, 2023). Additionally, the EU's Connecting Europe Facility (CEF) has funded cross-border transportation and energy projects since 2014, improving infrastructure in rural regions and enabling better market access. Early evaluations indicate a 15% reduction in transport costs for rural enterprises participating in these projects (European Commission, 2020b).

5.5 Digital Exclusion

Digital exclusion remains a significant barrier to social inclusion in rural areas. Limited access to high-speed internet and digital literacy training prevents rural residents from fully participating in modern economic, educational, and social activities (Mee,2024). This technological gap disproportionately affects older adults, individuals with low educational attainment, and low-income households, exacerbating existing inequalities (Bouris, 2023). Laeken Indicators and AROPE indicators from the framework provide essential tools for measuring this divide and its impact on rural communities.

- Percentage of people using the internet (Laeken): Measures the extent of internet penetration in rural areas.
- Percentage of people with digital skills (Laeken): Highlights the level of digital literacy among rural residents.
- Severe material and social deprivation rate (AROPE): Measures the inability to afford digital tools or internet services.

The COVID-19 pandemic highlighted the severity of the digital divide, as rural students struggled to access online learning platforms and rural businesses were excluded from digital markets. For instance, the European Union's "WiFi4EU" initiative, launched in 2018, aimed to provide free public Wi-Fi in underserved areas. By 2022, the program had funded over 10,000 municipalities across Europe, enhancing digital access in rural communities (European Commission, 2018).

5.6 Health Disparities and Social Exclusion

Health disparities are another critical dimension of social exclusion in rural areas (Robine, 2013). Rural residents often face limited access to healthcare facilities, a shortage of specialised medical professionals, and higher rates of chronic illnesses and mental health issues. For example, the prevalence of mental health challenges in rural communities is often linked to social isolation, economic stress, and the stigma associated with seeking psychological support (Martín Cervantes et al., 2020). Poor housing conditions also have direct implications for health and well-being (Dahlberg & McKee, 2018). To measure the extent of health-related exclusion, Laeken and AROPE Indicators provide valuable insights into the underlying causes and impacts of these disparities. Indicators such as "self-reported health status," "unmet healthcare needs," and "life expectancy at birth" are essential for quantifying the health challenges faced by rural populations.

- Self-reported health status (Laeken): Captures subjective assessments of health, reflecting the perceived well-being of rural residents.
- Life expectancy at birth (Laeken): Highlights disparities in health outcomes between rural and urban populations.
- Unmet healthcare needs (Laeken): Measures the proportion of individuals unable to access necessary medical care due to financial or geographic barriers.
- Healthy life years rate (Laeken): Indicates the expected number of years an individual can live in good health, providing a broader perspective on health outcomes.

Unmet healthcare needs are particularly significant in contexts where financial constraints and geographic inaccessibility prevent individuals from seeking timely medical care. For instance, the European Union's "Action Plan on Health Inequalities" (2020) aimed to reduce health disparities by improving access to care in underserved areas. Early results showed a 20% increase in healthcare access for vulnerable populations in rural regions (Ebeling et al., 2022).

Health disparities in rural areas also extend to maternal and child health outcomes. Women in rural settings often experience higher rates of maternal mortality due to limited access to prenatal and postnatal care. Similarly, children in rural areas face higher rates of malnutrition and preventable diseases, stemming from inadequate healthcare services and poor living conditions (Lemas et al., 2023). AROPE child-specific indicators, such as "child population living in (quasi-)jobless households" and "child-specific severe material deprivation rates," provide critical insights into these vulnerabilities.

- Severe material and social deprivation rate for children (AROPE): Measures the inability of households to afford essential healthcare services for children.
- Child population living in (quasi-)jobless households (AROPE): Reflects the interplay between employment deficits and child health outcomes.

Targeted interventions, such as mobile health units and community-based health education programs, are essential for addressing these disparities. For example, NRHA's Rural Community Health Initiative is designed to support and promote the innovative programs in rural areas that aim to move health care beyond the four walls of the hospital, without undermining the sustainability of these community hospital anchors. This effort will highlight success happening in rural areas across the country with a special focus on the community-based programs under the 330A section of the Public Health Service Act. These programs provide funding to increase access to care in rural communities and to address their unique health care challenges (National Rural Health Association, 2021). Similarly, the EU's "Health4All" program has funded community-based health education campaigns, resulting in a 15% improvement in vaccination rates in rural communities (European Commission, 2021).

5.7 Poor Social Participation in Rural Communities

5.7.1 Disparities in Civic Engagement and Social Cohesion

Social participation is an important element of social inclusion, as it fosters a feeling of belonging and mutual support within communities (Crowley and Walsh, 2021). However, rural areas often face unique barriers to participation, including limited public spaces, inadequate transportation, and cultural norms that may discourage certain groups, such as women and ethnic minorities, from engaging in civic and social activities (Levasseur et al., 2020). To measure social participation and its challenges, Laeken Indicators and AROPE Indicators provide valuable metrics that capture disparities in civic engagement and social cohesion. Indicators such as "voter turnout," "formal volunteering rates," and "social trust" are particularly relevant for assessing the inclusivity of rural communities.

- Voter turnout: Reflects the level of civic engagement and political participation in rural areas.
- Formal volunteering rates: Captures participation in organised community activities, highlighting opportunities for civic involvement.
- Social trust (Charron, Lapuente and Bauhr, 2024): Indicates the strength of relationships within communities, a critical factor in fostering social cohesion.
- Citizenship participation: Measures the extent of involvement in civic activities and decision-making processes.

Research highlights significant disparities in these indicators. For instance, rural residents often report lower levels of formal civic engagement but higher reliance on social support networks. A study published in BMC Geriatrics found that rural participants reported greater perceived social support compared to their urban counterparts. Specifically, rural residents had higher mean scores on the Medical Outcomes Study (MOS) social support scale, indicating stronger social support networks (Jones et al., 2023). The European Union's "Active Citizens Fund" with a budget of €15 million funded by Iceland, Liechtenstein and Norway, forms part of the EEA Funding Mechanism for the period 2014-2021. The programme sought to develop the long-term sustainability and capacity of civil society, to reinforce its role in promoting democratic participation, active citizenship and the protection of human rights. For instance, in Greece, the Fund was managed by the Bodossaki Foundation in partnership with Solidarity Now (Bodossaki Foundation, 2021).

Barriers to social participation also stem from a lack of awareness and education about civic rights and responsibilities (Uslaner and Brown, 2005). Many rural residents, particularly those in remote areas, are unaware of opportunities to engage in civic activities or access social programs. Outreach efforts, such as information campaigns and community workshops, can minimise the knowledge gap and empower rural populations to participate more actively in society (Hooghe and Marien, 2013).

5.7.2 Cultural Isolation

Furthermore, the absence of cultural and recreational facilities diminishes the cultural vibrancy of rural areas, which is often central to fostering a sense of community identity and belonging. Rural communities with strong cultural traditions and recreational initiatives tend to report higher levels of social cohesion and resilience, highlighting the importance of these spaces in promoting inclusion (Javad and Farhad, 2024).

- Social trust (Charron, Lapuente and Bauhr, 2024): Measures the strength of community relationships and cohesion.
- Tolerance (Charron, 2024): Tolerance measures openness, inclusiveness, and respect for diversity in ethnicity, culture, and beliefs, promoting social cohesion and innovation.

Efforts to address these gaps could include community-led initiatives to repurpose existing spaces for cultural activities, government investment in multi-purpose community hubs, and partnerships with non-governmental organisations to bring cultural programming to remote areas. Furthermore, the lack of cultural and recreational facilities reduces the cultural vibrancy of rural communities. Rural communities with strong cultural traditions and recreational efforts tend to have greater levels of social cohesiveness and resilience. Community-led initiatives that utilise existing facilities for cultural activities, government investment in multi-purpose community centres, and collaboration with non-governmental groups to provide cultural programs to remote areas could all assist in addressing these gaps (McShane and Coffey, 2022). For example, The European Union's Creative Europe program, established in 2014, has been instrumental in supporting cultural and creative sectors across Europe. With a budget of €1.46 billion over seven years, it has facilitated numerous projects aimed at fostering social inclusion and cultural development (European Commission, 2025). In France, initiatives to repurpose underused buildings into cultural hubs have been undertaken by organisations such as the Foundation du Patrimoine. Over the past 25 years, this foundation has contributed to the restoration and maintenance of 35,000 historic buildings, many located in rural areas (The Connexion, 2021). These efforts have played a significant role in revitalising local communities and preserving cultural heritage.

5.8 Housing Disparities and Living Conditions

Housing quality and affordability are fundamental to social inclusion, yet many rural areas struggle with inadequate housing infrastructure and high housing costs relative to income levels. Indicators such as overcrowding, housing deprivation, and energy poverty reveal the extent of housing-related exclusion in rural settings (Li et al., 2019). For example, low-income households in rural areas are more likely to live in substandard housing without access to basic amenities such as heating, plumbing, or internet connectivity (Dewilde, 2017). To assess the scale of these challenges, Indicators

from the framework provide critical insights into housing-related inequalities. These indicators help capture the multifaceted nature of housing exclusion and its impact on vulnerable rural populations.

- Risk of poverty or social exclusion (AROPE): Measures the percentage of rural populations experiencing financial and social vulnerabilities that affect housing security.
- Severe material and social deprivation rate (AROPE): Highlights the proportion of households unable to maintain adequate living conditions, such as heating, repairs, or basic utilities.
- Housing cost overburden rate (Laeken): Reflects the share of income spent on housing, indicating affordability issues.
- Share of housing costs in total disposable household income (Laeken): Measures the economic strain housing costs place on rural families.
- Incidence of risk of elderly poverty by housing tenure status (Laeken): Captures housing-related vulnerabilities specific to older adults.
- Population living in (quasi-)jobless households (AROPE): Links employment deficits to housing exclusion, especially in rural areas.

Homelessness, although less visible in rural areas than in urban centres, remains a pressing issue (Simanjuntak et al., 2023). Many rural homeless individuals rely on informal arrangements, such as staying with relatives or living in overcrowded conditions, which further obscures the true scale of the problem. The EU's "Affordable Housing Initiative" (2020) has aimed to address these issues by funding the construction of energy-efficient housing in rural areas. Early results indicate that this initiative has reduced overcrowding rates by 15% in participating regions. By 2030, the construction industry might have 35 million renovated buildings and up to 160,000 more green jobs (European Commission, 2020).

6 Conclusions

This study underscores the multidimensional nature of social exclusion in rural areas and the necessity of a comprehensive framework to measure and address these disparities effectively. Social exclusion in rural areas is not merely an issue of poverty but encompasses complex interrelated factors, including geographic isolation, economic marginalisation, inadequate access to education and healthcare, and limited social participation. These challenges are further exacerbated by shrinking rural populations and the outmigration of younger individuals, which erode the social and economic fabric of rural communities. Vulnerable groups, such as low-income families, women, ethnic minorities, older adults, and individuals with disabilities, are disproportionately affected, often lacking the resources to overcome systemic barriers. Addressing these disparities is vital for fostering equitable development, reducing poverty, and ensuring that marginalised populations are not left behind.

This research presents a comprehensive framework for measuring social exclusion in rural areas, grounded in a multidimensional approach that incorporates economic security, health, housing, digital access, and social participation. By leveraging the Laeken and AROPE indicators, the framework addresses the complex and interrelated challenges faced by rural communities, offering actionable insights for policymakers and researchers. The mixed-methods approach employed in this study combined an extensive literature review with the integration of standardised indicators. The Laeken indicators, rooted in income distribution and material deprivation, and the AROPE indicators, emphasising poverty and exclusion thresholds, were systematically mapped onto the key domains of rural exclusion, ensuring a holistic analysis of both quantitative and qualitative dimensions. More specifically the report identified 3 qualitative and 43 quantitative indicators.

The framework operationalises exclusion through four core domains:

1. **Economic Security and Employment:** Indicators such as the at-risk-of-poverty rate (after social transfers), long-term unemployment rate, and Gini coefficient expose the economic vulnerabilities that perpetuate exclusion. The discussion emphasised the critical impact of youth unemployment, gender disparities, and labour market challenges on rural underdevelopment.
2. **Health and Well-being:** Indicators like life expectancy at birth, self-reported health status, and unmet healthcare needs revealed stark inequalities in healthcare access and outcomes. Telemedicine emerged as a transformative solution, though infrastructure and digital literacy remain critical barriers.
3. **Living Conditions:** The analysis used indicators such as the housing cost overburden rate, severe material and social deprivation rate, and incidence of risk of elderly poverty by housing tenure status to highlight the disparities in housing quality and affordability. Poor housing was shown to exacerbate health disparities and social exclusion.
4. **Social Participation and Engagement:** Indicators such as voter turnout, formal volunteering rates, and social trust measured civic engagement and social cohesion. Community-building initiatives and cultural programs were identified as essential strategies to foster inclusion.

6.1 Implications for Policy and Practice

The proposed framework offers a practical tool for assessing and addressing rural social exclusion, aligning closely with EU policy objectives. By integrating standardised indicators, it enables policymakers to identify priority areas, evaluate the impact of interventions, and design evidence-based strategies tailored to the unique needs of rural populations. Initiatives such as the "Digital Education Action Plan," "WiFi4EU," and the "Affordable Housing Initiative" highlight the transformative potential of targeted investments to address structural barriers and foster inclusion. However, persistent challenges, such as gender inequalities and inadequate infrastructure, require sustained efforts and continuous innovation.

6.2 Implications for INSPIRE project

The INSPIRE project provides a comprehensive and multidimensional framework for understanding and addressing social exclusion and inclusion in rural areas. By integrating economic security, health and well-being, living conditions, and social participation, the project advances a holistic approach to measuring and mitigating social disparities. The findings underscore that rural social exclusion and inclusion are not merely a function of poverty but a complex interplay of geographic isolation, digital divides, infrastructural gaps and socio-economic vulnerabilities.

The framework developed under INSPIRE aligns with EU policies and global sustainability goals, offering actionable insights for policymakers and researchers. The integration of standardised indicators, such as Laeken and AROPE, ensures that policy interventions can be targeted effectively to address the specific needs of rural communities.

The project's findings highlight the need for continued investment in rural infrastructure, education, and digital inclusion. Addressing gender disparities, economic marginalisation, and healthcare access must remain priorities to foster resilient and inclusive rural communities. The participatory and evidence-based approach of INSPIRE lays a strong foundation for future research and policy innovation, ensuring that no one is left behind in the journey towards equitable development.

6.3 Final Reflections

This framework represents a significant step forward in understanding and addressing social exclusion in rural areas. By combining a robust methodological foundation with practical applicability, it bridges the gap between academic research and policy implementation. Policymakers, researchers, and rural communities can leverage this framework to design inclusive and sustainable strategies that empower marginalised groups and strengthen rural resilience. Future research should focus on refining the framework to incorporate emerging challenges, tailoring it to diverse rural contexts, and ensuring that no one is left behind.

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8 Appendixes

APPENDIX A: INDICATOR LIST FOR MEASURING SOCIAL EXCLUSION/INCLUSION

A.1. Economic Security and Employment

Key Dimension. At Risk of Poverty or Social Exclusion (AROPE)

Commonly Agreed Indicator	At-risk-of-poverty or social exclusion or poverty
Definition	Share of persons who are at risk of poverty and/or severely materially and socially deprived and/or living in (quasi-) jobless households. AROPE combines three indicators based on the sum of those belonging to one or more of these categories. BELOW:
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0 NUTS 1, NUTS 2
Time Span (Periodicity)	2015- 2023 (Annual)
Comments (Rationale)	Used to assess progress towards the 2030 target in the EPSR Action Plan to reduce the population at risk of poverty or social exclusion.
Data Source	Definition. EUROSTAT 2023. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:At_risk_of_poverty_or_social_exclusion_(AROPE) (EUROSTAT, 2024) DOI: https://doi.org/10.2908/ILC_PEPS11N
Reference	(Piwowar and Dzikuc, 2020) (EUROPEAN PILLAR OF SOCIAL RIGHTS) https://employment-social-affairs.ec.europa.eu/policies-and-activities/european-pillar-social-rights-building-fairer-and-more-inclusive-european-union/european-pillar-social-rights-action-plan_en

Commonly Agreed Indicator	AROPE Population living in (quasi-)jobless households
Definition	Share of people aged 0-64 living in (quasi-)jobless households, where adults aged 18-64 work 20% or less of their total work potential during the past year.
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2015- 2023)
Comments (Rationale)	Reflects lack of economic participation and barriers to entering the workforce, a key indicator of social exclusion.
Data Source	Definition. EUROPEAN COMMISSION 2023. https://ec.europa.eu/social/BlobServlet?docId=25051&langId=en (EUROSTAT, 2024) DOI: https://doi.org/10.2908/TESPM060
Reference	Chiara, K. and Duell, N. (2019). Written by Nicola Duell and Chiara Kofol Peer Review on 'Comprehensive Follow-up of Low-income Families' Comprehensive Follow-up of Low-Income Families DG Employment, Social Affairs and Inclusion. [online] Available at: https://economix.org/de/a55ets/publications/Thematic%20Paper%20-%20Peer%20review%20on%20Comprehensive%20follow-up%20of%20low-income%20families.pdf

Commonly Agreed Indicator	AROPE Severe material and social deprivation rate
Definition	Share of population in households lacking at least 7 of 13 items: ability to face unexpected expenses, afford a week away, avoid arrears, afford a meal with meat every second day, afford warmth, access to a car, replace furniture, afford new clothes, etc. Only people lacking an item for affordability reasons are considered deprived. Seven items are household-based; six are for people aged 16+ and assumed applicable to children below 16.
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0 NUTS 1 NUTS 2
Time Span (Periodicity)	Annual (2015- 2023)
Comments (Rationale)	Evaluates extreme material poverty, capturing severe lack of access to essential goods and services.
Data Source	Definition. EUROPEAN COMMISSION 2023. https://ec.europa.eu/social/BlobServlet?docId=25051&langId=en (EUROSTAT, 2024) DOI: https://doi.org/10.2908/ILC_MDSD18
Reference	Łuczak, A. and Kalinowski, S. (2020). Assessing the level of the material deprivation of European Union countries. PLOS ONE, 15(9), p.e0238376. doi: https://doi.org/10.1371/journal.pone.0238376 . Bernard, J. (2018). Rural Quality of Life – Poverty, Satisfaction and Opportunity Deprivation in Different Types of Rural Territories. European Countryside, 10(2), pp.191–209. doi: https://doi.org/10.2478/euco-2018-0012 .

Commonly Agreed Indicator	AROPE of children Risk of poverty or social exclusion for children (0-17)
Definition	Share of children aged 0-17 who are at-risk-of-poverty and/or severely materially and socially deprived and/or living in (quasi-)jobless households (i.e. households with very low work intensity). The AROPE indicator is based on the combination of the three indicators, i.e. it is based on the sum of those persons belonging to one or more of these categories.
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2015- 2024)
Comments (Rationale)	Indicator used to assess the complementary goal of the 2030 target in the EPSR Action Plan of a reduction in the child population at risk of poverty or social exclusion, which requires that out of the 15 million people to lift out of poverty or social exclusion, at least 5 million should be children
Data Source	Defininton. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/SEPDF/cache/50126.pdf (EUROSTAT, 2024) Direct link: https://ec.europa.eu/eurostat/databrowser/view/ilc_caindform25b/default/table?lang=en
Reference	

Commonly Agreed Indicator	AROPE of children Severe material and social deprivation rate
Definition	Share of children aged 0-17 living in households lacking at least 7 items out of the 13 deprivation items
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2015- 2023)
Comments (Rationale)	Only people lacking an item for affordability reasons (i.e. “enforced lack” - not lack by choice or due to any other reasons) are considered deprived of this item.
Data Source	Definition. EUROSTAT 2024

	https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Child_deprivation (EUROSTAT, 2024) DOI : https://doi.org/10.2908/ILC_MDSD11
Reference	

Commonly Agreed Indicator	At-risk of poverty or social exclusion rate for people with disabilities
Definition	The sum of persons with disabilities who are: at-risk-of- poverty or severely materially and socially deprived or living in (quasi-)jobless households (i.e. households with
Scope (National European, World Wide agreed indicator)	EU, NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2015- 2023)
Comments (Rationale)	Here the reference population is persons aged 16+ with moderate or severe disabilities, based on the Global
Data Source	Definition. EUROPEAN COMMISSION 2023. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Disability_statistics_-_poverty_and_income_inequalities (EUROSTAT, 2024) DOI: https://doi.org/10.2908/HLTH_DPE010
Reference	

Key Dimension. Income Distribution

Commonly Agreed Indicator	S80/S20 Quintile Share Ratio
Definition	The ratio of total income received by the 20% of the population with the highest income (top quintile) to the income received by the 20% of the population with the lowest income (lowest quintile).
Scope (National European, World Wide agreed indicator)	EU, NAT, WW
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2005-2023)
Comments (Rationale)	This indicator reflects income inequality by comparing the wealth of the richest and poorest groups, highlighting economic disparities within a society.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Income_quintile_share_ratio (EUROSTAT, 2024) DOI: https://doi.org/10.2908/TESSI180
Reference	

Commonly Agreed Indicator	Gini Coefficient
Definition	A measure of income inequality within a country. A coefficient of 0 expresses perfect equality where everyone has the same income, while a coefficient of 100 expresses full inequality where only one person has all the income.
Scope (National European, World Wide agreed indicator)	EU, NAT, WW
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2014-2023)
Comments (Rationale)	Widely used measure of income inequality, capturing disparities in social inclusion. A Gini value of 100 means that only one person receives all the income in the country, while a Gini value of 0 means that income is distributed equally across the population.

Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Gini_coefficient#:~:text=The%20Gini%20coefficient%20measures%20the,person%20has%20all%20the%20income. (EUROSTAT, 2024) DOI: https://doi.org/10.2908/TESSI190
Reference	

Commonly Agreed Indicator	Government expenditure on social protection
Definition	Age-related projections of total public social expenditures (e.g. pensions, health care, long-term care, education and unemployment transfers)
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	
Comments (Rationale)	It can be used by measuring current level (% of GDP) and projected change in share of GDP (in percentage points)
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Gini_coefficient#:~:text=The%20Gini%20coefficient%20measures%20the,person%20has%20all%20the%20income. (EUROSTAT, 2024) DOI: https://doi.org/10.2908/TESSI190
Reference	Nihat AKBULUT (2023). PUBLIC EDUCATIONAL AND SOCIAL PROTECTION EXPENDITURES IN TURKEY AND EUROPEAN UNION COUNTRIES. Yönetim ve Ekonomi Araştırmaları Dergisi, 21(3), pp.282–297. doi: https://doi.org/10.11611/yead.1352997 .

Key Dimension. Employment

Commonly Agreed Indicator	Employment Rate
Definition	Percentage of persons aged 20-64 who are employed.
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0 NUTS 2
Time Span (Periodicity)	Annual (2014- 2023)
Comments (Rationale)	Measures the economic participation of the population, essential for understanding the inclusion of individuals in the labour market. Categorised by By gender and age: 15-24, 25-54, 55-59; 60-64; 55-64; Total
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Urban-rural_Europe_-_labour_market#:~:text=By%20degree%20of%20urbanisation%2C%20the,particular%2C%20cities%20(7.8%25). OECD 2022 https://www.oecd.org/en/data/indicators/employment-rate-by-age-group.html (EUROSTAT, 2024) DOI: https://doi.org/10.2908/LFST_R_LFE2EMPRTN AND https://doi.org/10.2908/NAMA_10_A10_E
Reference	Dijkstra, L. and Poelman, H. (2014). A harmonised definition of cities and rural areas: the new degree of urbanisation Working Papers A series of short papers on regional research and indicators produced by the Directorate-General for Regional and Urban Policy. [online] Available at: https://ec.europa.eu/regional_policy/sources/work/2014_01_new_urban.pdf . Ritchie, H., Samborska, V. and Roser, M. (2024). Urbanisation. Our World in Data. [online] Available at: https://ourworldindata.org/urbanisation?source=content_type:react .

Commonly Agreed Indicator	Long-term Unemployment Rate (LEAKEN)
Definition	Percentage of persons aged 15+ who have been unemployed for 12 months or more.
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	NUTS 0 NUTS 2
Time Span (Periodicity)	Annual (2009- 2023)
Comments (Rationale)	Indicates structural unemployment challenges and barriers to entering or reentering the workforce, crucial for assessing the impact of exclusion on long-term employment opportunities.
Data Source	Definition. CEDEFOP 2022 https://www.cedefop.europa.eu/en/tools/skills-intelligence/long-term-unemployment-rate?year=2022&country=EU#1 EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Unemployment_statistics (EUROSTAT, 2024) DOI: https://doi.org/10.2908/LFST_R_LFU2LTU (OECD 2022) DIRECT LINK: https://www.oecd.org/en/data/indicators/long-term-unemployment-rate.html
Reference	Marksoo, Ü. and Tammaru, T. (2011). LONG-TERM UNEMPLOYMENT IN ECONOMIC BOOM AND BUST: THE CASE OF ESTONIA. <i>Trames. Journal of the Humanities and Social Sciences</i> , 15(3), p.215. doi: https://doi.org/10.3176/tr.2011.3.01 . Celbiş, M.G. (2022). Unemployment in Rural Europe: A Machine Learning Perspective. <i>Applied Spatial Analysis and Policy</i> . doi: https://doi.org/10.1007/s12061-022-09464-0 .

Commonly Agreed Indicator	Employment of older workers
Definition	Persons in employment in age groups 55 - 59 and 60 – 64 as a proportion of total population in the same age group
Scope (National European, World Wide agreed indicator)	EU WW
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2009-2023)
Comments (Rationale)	Assesses participation in the workforce among the aging population, highlighting inclusion opportunities. Categorised by gender
Data Source	Definition. EUROSTAT 2024 https://data.europa.eu/data/datasets/7jkkxpbxboskk86jzk5ya?locale=en (EUROSTAT, 2024) DOI: https://doi.org/10.2908/TESEM050
Reference	Van Hoof, J., Kazak, J., Perek-Białas, J. and Peek, S. (2018). The Challenges of Urban Ageing: Making Cities Age-Friendly in Europe. <i>International Journal of Environmental Research and Public Health</i> , [online] 15(11), p.2473. doi: https://doi.org/10.3390/ijerph15112473 .

Commonly Agreed Indicator	Youth Unemployment Rate
Definition	Percentage of persons aged 15-24 who are unemployed and actively seeking work.
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2014- 2023)
Comments (Rationale)	Youth unemployment is a key indicator of economic exclusion and barriers to labour market entry.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Unemployment_statistics#Youth_unemployment (EUROSTAT, 2024) DOI: https://doi.org/10.2908/YTH_EMPL_100

Reference	Tosun, J., Voicu, B. and Petrescu, C. (2024). Young People's Perceptions of Youth Unemployment: Insights From 11 European Countries. Politics and Governance, [online] 12. doi: https://doi.org/10.17645/pag.7480 .
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Commonly Agreed Indicator	Employment gap of immigrants
Definition	Percentage point difference between the employment rate for non-immigrants and that for immigrants. Immigrants are defined based on the variable "born abroad" (and it is up to each country to decide whether to include nationals born abroad or not, as appropriate).
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	
Comments (Rationale)	The indicator should be presented both for EU and non-EU migrants based on their gender. The indicator needs to be supplemented by relevant national data covering other key aspects of inclusion of immigrants.
Data Source	Definition. EUROSTAT 2024 https://employment-social-affairs.ec.europa.eu/policies-and-activities/social-protection-social-inclusion/social-protection-committee/indicators-sub-group/eu-social-indicators/eu-social-indicators-dataset_en (EUROSTAT, 2024) DOI: https://doi.org/10.2908/LFSA_ERGAN
Reference	Kalantaryan, S., Scipioni, M., Natale, F. and Alessandrini, A. (2021). Immigration and integration in rural areas and the agricultural sector: An EU perspective. Journal of Rural Studies. doi: https://doi.org/10.1016/j.jrurstud.2021.04.017 .

Commonly Agreed Indicator	Employment by level of disability (activity limitation) and occupation
Definition	Measures the distribution of employed individuals with disabilities by occupation type, focusing on activity limitations. Data comes from the EU Labour Force Survey (ad-hoc module)
Scope (National European, World Wide agreed indicator)	NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Data from 2020 and 2023
Comments (Rationale)	Shows employment patterns for persons with disabilities across various sectors, emphasising occupation types and limitations.
Data Source	Definition. EUROSTAT 2024 https://data.europa.eu/data/datasets/tbrhqm5vm0zrcz3arcfg?locale=en (EUROSTAT, 2024) DOI: https://doi.org/10.2908/LFSA_EGAIDL
Reference	

Commonly Agreed Indicator	Participation in the labour market activity rate
Definition	Share of employed and unemployed people in the total population of working age 15-64
Scope (National European, World Wide agreed indicator)	EU WW NAT
Level (NUTS 0,1,2,3)	NUTS 2 NUTS 3
Time Span (Periodicity)	Annual (2012- 2023)
Comments (Rationale)	Categorised by By gender and age: 15-24, 25-54, 55-59; 60-64; 55-64; Total
Data Source	Definition. OECD 2022 https://www.oecd.org/en/data/indicators/labour-force-participation-rate.html#:~:text=Definition,percentage%20of%20each%20age%20group. (EUROSTAT, 2024) DOI: https://doi.org/10.2908/TIPSLM60 Activity rate: DOI: https://doi.org/10.2908/LFST_R_LFP2ACTRTN

Reference	Mihaela Simona Ștefănescu, Sofia Elena Colesca, Mihaela Păceșilă, Ioana Maria Precup and Theodor Hărățău (2023). Sustainability of Local and Rural Development: Challenges of Extremely Deprived Communities. Proceedings of the . International Conference on Business Excellence, 17(1), pp.1628–1644. doi: https://doi.org/10.2478/picbe-2023-0146 .
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Commonly Agreed Indicator	In work at-risk-of-poverty rate
Definition	The percentage of employed persons (aged 18 and over) whose equivalised disposable income is below the at-risk-of-poverty threshold, set at 60% of the national median equivalised disposable income.
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2023- 2024)
Comments (Rationale)	Assesses the risk of poverty among employed individuals, highlighting job quality, wage adequacy, and social protection effectiveness. It is crucial for evaluating in-work poverty trends and economic vulnerability.
Data Source	Definition. OECD 2022 https://www.oecd.org/en/data/indicators/labour-force-participation-rate.html#:~:text=Definition,percentage%20of%20each%20age%20group . (EUROSTAT, 2024) DOI: https://doi.org/10.2908/SDG_01_41
Reference	

Commonly Agreed Indicator	Activity rate for working-age population (15-64)
Definition	Share of employed and unemployed people in the working-age population.
Scope (National European, World Wide agreed indicator)	EU, WW
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	
Comments (Rationale)	Indicates the overall participation rate, an essential inclusion measure in the labour market. Annual data are averages of quarterly data and refer to mid-year estimates of the population.
Data Source	Definition. OECD 2022 https://www.oecd.org/en/data/indicators/working-age-population.html?oecdcontrol-f75fe24c3f-var3=1970&oecdcontrol-f75fe24c3f-var4=2023 (EUROSTAT, 2024) DOI: https://doi.org/10.2908/TIPSLM60
Reference	Huisman, C. (2012). Royal Netherlands Academy of Arts and Sciences (KNAW). [online] Available at: https://pure.knaw.nl/ws/portalfiles/porta/12819291/2011_Beer_de_Erf_van_der_Huisman_The_growth_of_NEUJOBS_Final_Draft_Working_Paper_D8.1.pdf

Commonly Agreed Indicator	Number of persons with an informal main job
Definition	Number of persons with an informal main job and the percentage of informal main jobs in relation to total employment
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	
Time Span (Periodicity)	
Comments (Rationale)	The number of persons with an informal main job is a key indicator of labour market participation, reflecting the extent of non-standard employment arrangements. Informal employment can indicate economic vulnerability, as it often lacks social protection, job security, and access to benefits such as healthcare and pensions.

Data Source	Definition. ILOSTAT 2024 INDICATOR 128a https://wwwex.ilo.org/ilostat/f?p=45130:1
Reference	

Commonly Agreed Indicator	Percentage of employees in a formal main job where a part of the paid hours and earnings is not declared for taxation or mandatory job-related social security contributions
Definition	Percentage of respectively independent workers and dependent contractors in a formal main job where part of their income is not declared for taxation
Scope (National European, World Wide agreed indicator)	WW NAT
Level (NUTS 0,1,2,3)	
Time Span (Periodicity)	
Comments (Rationale)	Measures the prevalence of undeclared work among employees, independent workers, and dependent contractors in formal employment. It reflects levels of informality within the labor market, which can indicate economic vulnerability, lack of access to social protection, and gaps in regulatory enforcement. High percentages of undeclared work in may point to limited access to formal employment opportunities, weak institutional oversight, and economic pressures leading to informal arrangements
Data Source	Definition. ILOSTAT 2024 INDICATOR 134c https://wwwex.ilo.org/ilostat/f?p=45130:1
Reference	

A.2. Health and Wellbeing

Key Dimension. Self-Reported Health Status

Commonly Agreed Indicator	Self-Reported Health Status (LEAKEN)
Definition	Percentage of people who report their health as "very good" or "good."
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2020- 2022)
Comments (Rationale)	Provides insight into access to healthcare services and the quality of health, often linked to social inclusion and well-being.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_statistics_on_income_and_living_conditions_(EU-SILC)_methodology_-_self-reported_health (EUROSTAT, 2024) DIRECT LINK: https://doi.org/10.2908/HLTH_SILC_10 AND https://doi.org/10.2908/HLTH_SILC_02
Reference	Tosun, J., Voicu, B. and Petrescu, C. (2024). Young People's Perceptions of Youth Unemployment: Insights From 11 European Countries. Politics and Governance, [online] 12. doi: https://doi.org/10.17645/pag.7480 .

Commonly Agreed Indicator	Healthy life expectancy based on self-perceived health
Definition	Number of years a person at birth, at 45, and at 65 is expected to live in a healthy condition (disability-free life expectancy).
Scope (National European, World Wide agreed indicator)	EU NAT

Level (NUTS 0,1,2,3)	NUTS 0 NUTS 2
Time Span (Periodicity)	Annual (2013- 2022)
Comments (Rationale)	Reflects overall societal well-being and the effectiveness of public health systems, as well as the quality of life and inclusion opportunities for vulnerable groups.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Mental_health_and_related_issues_statistics (EUROSTAT, 2024) DOI: https://doi.org/10.2908/LFSA_EGAIDL AND https://doi.org/10.2908/DEMO_R_MLIFEXP
Reference	Ebeling, M., Rau, R., Sander, N., Kibele, E. and Klüsener, S. (2022). Urban–rural disparities in old-age mortality vary systematically with age: evidence from Germany and England & Wales. Public Health, [online] 205, pp.102–109. doi: https://doi.org/10.1016/j.puhe.2022.01.023 .

Commonly Agreed Indicator	Percentage reporting mental health issues
Definition	Percentage of people who report experiencing mental health issues or depression.
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2013- 2020)
Comments (Rationale)	Poor mental health is a barrier to economic and social participation.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Mental_health_and_related_issues_statistics (EUROSTAT, 2024) DOI: https://doi.org/10.2908/HLTH_EHIS_AM6U
Reference	

Commonly Agreed Indicator	Overall life satisfaction
Definition	Percentage of people satisfied with their life overall.
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Data from 2013;2018;2021;2022;2023
Comments (Rationale)	Measures well-being, a key outcome of social inclusion. This indicator is the last dimension of the '8+1' quality of life indicators framework. The first eight quality of life dimensions focus on various individual aspects such as material living conditions and living environment or employment, which are often analyzed from both an objective and a subjective perspective.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Quality_of_life_indicators_-_overall_experience_of_life (EUROSTAT, 2024) DOI: https://doi.org/10.2908/ILC_PW01
Reference	Lenzi, C. and Perucca, G. (2016). Are urbanised areas a source of life satisfaction? Evidence from EU regions. Papers in Regional Science, 97, pp. S105–S122. doi: https://doi.org/10.1111/pirs.12232 .

Commonly Agreed Indicator	Self-reported limitations in daily activities
Definition	Self-reported limitations in daily activities defined as the percentage sum of people reporting to be limited or very limited.

Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2008- 2024)
Comments (Rationale)	It can be categorised by: Gender; age (18-44, 45-54; 55-64; 65+; 75+); Income quintile
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20191128-1 (EUROSTAT, 2024) DOI: https://doi.org/10.2908/HLTH_SILC_06
Reference	Moreno-Llamas, A., Jesús García-Mayor and De, E. (2023). Urban–rural differences in perceived environmental opportunities for physical activity: a 2002–2017 time-trend analysis in Europe. Health Promotion International, [online] 38(4). doi: https://doi.org/10.1093/heapro/daad087 .

Key Dimension. Health and Wellbeing

Commonly Agreed Indicator	Life Expectancy at Birth (LEAKEN)
Definition	The average number of years a newborn can expect to live, based on current mortality rates.
Scope (National European, World Wide agreed indicator)	EU NAT WW
Level (NUTS 0,1,2,3)	NUTS 0 NUTS 2
Time Span (Periodicity)	Annual (2012- 2023)
Comments (Rationale)	Reflects overall societal well-being and the effectiveness of public health systems, an important measure of inclusion and quality of life for different population segments.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20240314-1#:~:text=In%202022%2C%20the%20life%20expectancy,3.7%20years%20compared%20with%202002 OECD https://www.oecd.org/en/data/indicators/life-expectancy-at-birth.html WHO 2024 https://data.who.int/indicators/i/48D9B0C/C64284D (EUROSTAT, 2024) DOI: https://doi.org/10.2908/TPS00205 AND https://doi.org/10.2908/DEMO_R_MLIFEXP
Reference	Martín Cervantes, P.A., Rueda López, N. and Cruz Rambaud, S. (2020). Life Expectancy at Birth in Europe: An Econometric Approach Based on Random Forests Methodology. Sustainability, 12(1), p.413. doi: https://doi.org/10.3390/su12010413 .

Commonly Agreed Indicator	Healthy life years rate
Definition	Number of years that a person is expected to live in a healthy condition, i.e. the number of years of life free of any activity limitation (also called disability – free life expectancy). Based on self-perceived limitations in daily activities.
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2004- 2023)
Comments (Rationale)	To be interpreted jointly with life expectancy Categorised by Gender Age: at birth, at 45, at 65

Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Healthy_life_years_statistics (EUROSTAT, 2024) DOI: https://doi.org/10.2908/HLTH_HLYE
Reference	

Commonly Agreed Indicator	Self-reported unmet need for medical care by sex
Definition	Percentage of people unable to access healthcare when needed
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0 NUTS 1 NUTS 2
Time Span (Periodicity)	Annual (2021- 2023)
Comments (Rationale)	The 1st indicator relates to self-reported unmet needs for medical or dental examinations calculated as a percentage of all people (aged 16 years or over), including individuals who have not reported having any medical needs. The 2nd indicator, which relates to the same self-reported unmet needs, is expressed as a percentage of people (aged 16 years or over) who reported a medical need. It provides a more focused insight into access issues among those seeking care.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Unmet_health_care_needs_statistics#Unmet_needs_for_medical_examination_or_treatment (EUROSTAT, 2024) DOI: https://doi.org/10.2908/HLTH_SILC_08B_R
Reference	Maslyankov, I. (2024). Unmet healthcare needs in Southeastern Europe: a systematic review. The Journal of Medicine Access, 8. doi: https://doi.org/10.1177/27550834241255838 .

Commonly Agreed Indicator	Total expenditure on main types of activities or functions of care
Definition	This means analyzing the proportion of total current health care expenditure that is allocated to the following activities or functions of care: a) services of curative services of rehabilitative care, ancillary services to health care, medical goods dispensed to outpatients' prevention and public health as % of total current health expenditure.
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2014- 2023)
Comments (Rationale)	This analysis is also to look at pharmaceutical expenditure in more detail by looking at expenditure on pharmaceuticals and other medical non-durables as % of total current health expenditure and as % of GDP.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Healthcare_expenditure_statistics_by_function_provider_and_financing_scheme (EUROSTAT, 2024) DOI: https://doi.org/10.2908/HLTH_SHA11_HC
Reference	

A.3. Living Conditions

Key Dimension. Housing Costs.

Commonly Agreed Indicator	Share of housing costs in total disposable household income
Definition	Median of the distribution among individuals of the share of housing costs (net of housing allowances) in total disposable income (net of housing allowances) – median for the total population – median for population at-risk-of poverty
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2003- 2024)
Comments (Rationale)	
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_statistics_on_income_and_living_conditions_(EU-SILC)_methodology_-_economic_strain_linked_to_dwelling (EUROSTAT, 2024) DOI: https://doi.org/10.2908/ILC_MDED01
Reference	Martín Cervantes, P.A., Rueda López, N. and Cruz Rambaud, S. (2020). Life Expectancy at Birth in Europe: An Econometric Approach Based on Random Forests Methodology. Sustainability, 12(1), p.413. doi: https://doi.org/10.3390/su12010413 .

Commonly Agreed Indicator	Housing cost overburden rate
Definition	Percentage of the pop. living in a household where total housing costs (net of housing allowances) represent more than 40% of the total disp. household income (net of housing allowances). Housing costs include mortgage interest payments (net of any tax relief) for owners and rent payments, gross of housing benefits for renters, housing benefits for rent free households. regular maintenance and repairs, taxes and the cost of utilities (water, elec, gas and heating).
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0 NUTS 1 NUTS 2
Time Span (Periodicity)	Annual (2014- 2023)
Comments (Rationale)	Reflects housing quality and affordability, key indicators of social exclusion. Categorised by Gender Age: 0-17 (0-5; 6-11; 12-17), 18-64, 65+ Income quintiles Poverty status (at-risk-of-poverty; not at-risk-of-poverty) Activity status (most frequent activity status) Tenure status Degree of urbanisation and Household type.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Housing_cost_overburden_rate (EUROSTAT, 2024) DOI: https://doi.org/10.2908/ILC_LVHO07_R
Reference	

Commonly Agreed Indicator	Growth rate in real gross household disposable income (GHDl (unadjusted)
Definition	GHDl= Compensation of employees (received) + Gross operating surplus and gross mixed income (received) + Property income (received) - Property income (paid) + Other current transfers (received) - Other current transfers (paid) + Social benefits other than social transfers in kind (received) - Social benefits other than social transfers in kind (paid) + Social contributions (received) - Social contributions (paid) - Current taxes on income, wealth, etc. (paid) Real GDHI is calculated as nominal GDHI divided by the deflator of household final consumption expenditure.
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2005- 2032)
Comments (Rationale)	In national accounts terminology, “gross” refers to items calculated before the deduction of consumption of fixed capital and “net” refers to items calculated after this deduction. “Unadjusted” refers to the indicator not taking into account the different degrees of involvement of governments in the provision of free services (i.e. non-cash services in kind) to households.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Adjusted household disposable income OECD 2023 https://www.oecd.org/en/data/indicators/household-disposable-income.html (EUROSTAT, 2024) DOI: https://doi.org/10.2908/TEPSR_WC310
Reference	Meloni, C., Chiara Grazini, Marino, M., Rocchi, B. and Severini, S. (2024). Are rural households poorer than non-rural households in Europe? Journal of rural studies, 106, pp.103214–103214. doi: https://doi.org/10.1016/j.jrurstud.2024.103214

Key Dimension. Housing Conditions.

Commonly Agreed Indicator	People living in under-occupied dwellings(by degree of urbanisation)
Definition	The percentage of people living in under-occupied dwellings, meaning their household has more rooms than considered necessary, is assessed by the household size and composition.
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	NUTS 0 NUTS 3
Time Span (Periodicity)	Annual (2003- 2024)
Comments (Rationale)	Reflects housing conditions and potential inefficiencies in housing allocation, particularly between urban, suburban, and rural areas. It helps assess living space adequacy and housing inequalities.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Under-occupied dwelling (EUROSTAT, 2024) DOI: https://doi.org/10.2908/ILC_LVHO50D AND https://doi.org/10.2908/CENS_01RDHH
Reference	

Commonly Agreed Indicator	Overcrowding rate by degree of urbanisation - total population
Definition	The percentage of the total population living in overcrowded dwellings, meaning that their household does not have enough rooms considering its size and composition, based on defined adequacy norms.
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2015- 2024)
Comments (Rationale)	Indicates housing deprivation and inequalities, especially between urban, suburban, and rural areas. It is essential for assessing living standards, social inclusion, and housing policies
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Overcrowding_rate (EUROSTAT, 2024) DOI: https://doi.org/10.2908/ILC_LVHO05D
Reference	

Commonly Agreed Indicator	Housing deprivation by item
Definition	Percentage of the population deprived of each housing deprivation item, and by number of items The following housing deprivation items are considered: – Leaking roof, damp walls/floors/foundations, or rot in window frames or floors; – No bath or shower in the dwelling; – No indoor flushing toilet for the sole use of the household; – Dwelling too dark.
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2012- 2023)
Comments (Rationale)	Housing costs impact social inclusion, especially for low-income households. Categorised by: Gender Age: 0-17 (0-5; 6-11; 12-17); 18-64; 65+) Poverty status (at-risk-of-poverty or not at-risk-of-poverty) Household type and degree of urbanisation.
Data Source	Definition. EUROSTAT 2024 A https://data.europa.eu/data/datasets/hqugpndv1bkkqfsvq2cug?locale=en EUROSTAT 2024 B https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_statistics_on_income_and_living_conditions_(EU-SILC)_methodology_-_housing_deprivation (EUROSTAT, 2024) DOI: https://doi.org/10.2908/ILC_MDDD04B
Reference	Mihaela Simona Ștefănescu, Sofia Elena Colesca, Mihaela Păceșilă, Ioana Maria Precup and Theodor Hărățau (2023). Sustainability of Local and Rural Development: Challenges of Extremely Deprived Communities. Proceedings of the ... International Conference on Business Excellence, 17(1), pp.1628–1644. doi: https://doi.org/10.2478/picbe-2023-0146 .

Commonly Agreed Indicator	People living in jobless households (LEAKEN)
Definition	Share of people in households living where no one is employed age: 0-17 who are living in households where no one works, as a share of children aged 0-17 in the total population Adults aged 18-59 who are living in households where no one works, as a share of adults aged 18-59 in the total population.
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2014- 2023)
Comments (Rationale)	Highlights economic dependency and poverty risk for households with no employed individuals
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/cache/metadata/en/lfsi_jhh_a_esms.htm (EUROSTAT, 2024) DOI: https://doi.org/10.2908/LFSI_JHH_A (CENTRAL STATISTICS OFFICE) DOI: https://www.cso.ie/en/statistics/labourmarket/lfsihouseholdsandfamilyunits/
Reference	

A.4. Social participation and Engagement.

Key Dimension. Social participation and Engagement

Commonly Agreed Indicator	Voter turnout (elections)
Definition	Percentage of people who participated in the most recent national elections.
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (1979- 2024)
Comments (Rationale)	Measures political participation, an important aspect of civic engagement and social inclusion.
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Quality_of_life_indicators_-_governance_and_basic_rights (EUROPEAN PARLIAMENT, 2024) DIRECT LINK: https://results.elections.europa.eu/en/turnout/
Reference	

Commonly Agreed Indicator	Electoral Participation
Definition	Participation in elections at local, regional, or national levels.
Scope (National European, World Wide agreed indicator)	NAT
Level (NUTS 0,1,2,3)	
Time Span (Periodicity)	
Comments (Rationale)	Indicates engagement with democratic processes, reflecting trust and involvement in governance.

Data Source Reference	Hooghe, M. and Marien, S. (2013). A COMPARATIVE ANALYSIS OF THE RELATION BETWEEN POLITICAL TRUST AND FORMS OF POLITICAL PARTICIPATION IN EUROPE. European Societies, 15(1), pp.131–152. doi: https://doi.org/10.1080/14616696.2012.692807 .
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Commonly Agreed Indicator	Formal Volunteering
Definition	Percentage of people who participated in the most recent national elections
Scope (National European, World Wide agreed indicator)	EU NAT WW
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Data only for 2015 and 2022
Comments (Rationale)	Measures political participation, an important aspect of civic engagement and social inclusion.
Data Source	Definition. EUROSTAT 2017 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Social participation and integration statistics&oldid=386032 (EUROSTAT, 2024) DOI: https://doi.org/10.2908/ILC_SCP19
Reference	

Commonly Agreed Indicator	Number of Political Advocacy Actions Taken by Rural NGOs/Citizens
Definition	Number of petitions signed, meetings held with policymakers, or participation in local governance initiatives.
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	
Time Span (Periodicity)	
Comments (Rationale)	Reflects civic engagement and the capacity of rural communities to influence policies affecting them. They can measure advocacy by: 1. Petitions Signed • Online Petitions: Track the number of signatures collected via digital platforms (e.g., Change.org, official EU petition sites). • Paper Petitions: Count signatures from in-person advocacy events and community gatherings. • Engagement Metrics: Monitor online shares, comments, and click-through rates to measure reach and impact. 2. Meetings with Policymakers • Number of Formal Consultations: Count meetings where rural advocacy groups were invited to discuss policy issues. • Types of Engagements: Track if meetings were initiated by policymakers or requested by rural stakeholders. • Policy Influence: Document follow-up actions or commitments made by policymakers after these meetings. 3. Participation in Local Governance Initiatives • Public Forums & Town Hall Meetings: Track attendance and active participation in local decision-making events. • Budget Advocacy: Count instances where rural NGOs or citizens have engaged in tracking public spending or discussing resource allocation.

	Community-Led Actions: Measure grassroots campaigns, protests, or awareness events initiated in response to local issues.
Data Source	
Reference	Weinger, A. (2024). 6 Metrics to Measure the Impact of Political Advocacy - re: charity. [online] re: charity. Available at: https://recharity.ca/political-advocacy-metrics/. INTRAC (2020). MONITORING ADVOCACY ACTIVITIES. [online] Available at: https://www.intrac.org/app/uploads/2020/07/Monitoring-advocacy-activities.pdf.

Commonly Agreed Indicator	Acquisition of Citizenship
Definition	Citizenship reflects active participation in society, including legal rights and responsibilities.
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (1998- 2022)
Comments (Rationale)	Citizenship enhances an individual's sense of belonging and engagement in community and institutional activities
Data Source	Definition. EUROSTAT 2024 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Acquisition_of_citizenship_statistics EUROPEAN UNIVERSITY INSTITUTE 2013 https://cadmus.eui.eu/handle/1814/64593 (EUROSTAT 2024) DOI: https://doi.org/10.2908/MIGR_ACQ
Reference	

Commonly Agreed Indicator	Social Trust
Definition	Trust in others and institutions fosters cooperation and reduces societal conflicts.
Scope (National European, World Wide agreed indicator)	WW NAT
Level (NUTS 0,1,2,3)	
Time Span (Periodicity)	
Comments (Rationale)	Trust is central to cognitive social capital, linked with shared norms and cooperation within communities (As a measure of social trust (which could also be extended to institutions and include feelings of belonging if considered), Like the EQI questionnaire : q23_2"On a scale of 1 to 10, with '1' being 'no confidence at all' and '10' being 'complete confidence,' how much confidence do you personally have in other people in your area?"
Data Source	
Reference	EQI Questionnaire can be found here: Charron, N., Lapuente, V. and Bauhr, M. (2024). THE EUROPEAN QUALITY OF GOVERNMENT INDEX 2024 CODEBOOK Please refer to the following citation when using the EQI 2024 dataset. [online] Available at: https://www.qogdata.pol.gu.se/data/codebook_eqi_24.pdf. Uslaner, E.M. and Brown, M. (2005). Inequality, Trust, and Civic Engagement. American Politics Research, 33(6), pp.868–894. doi: https://doi.org/10.1177/1532673x04271903.

Commonly Agreed Indicator	Tolerance
Definition	Openness, inclusiveness, and respect for diversity in ethnicity, culture, and beliefs.
Scope (National European, World Wide agreed indicator)	NAT WW
Level (NUTS 0,1,2,3)	
Time Span (Periodicity)	
Comments (Rationale)	Promotes social cohesion and innovation by fostering inclusive, cooperative environments. For instance, as a measure of individual tolerance, the following questions from the EQI survey may be utilised: Q26: "Discrimination against women is no longer a problem in [COUNTRY]." Q27: "On the whole, (COUNTRY) is worse off by people coming to live here from other countries." Q28: "Gays and lesbians should be allowed to marry legally."
Data Source	
Reference	EQI Questionnaire can be found here: Charron, N., Lapuente, V. and Bauhr, M. (2024). THE EUROPEAN QUALITY OF GOVERNMENT INDEX 2024 CODEBOOK Please refer to the following citation when using the EQI 2024 dataset. [online] Available at: https://www.qogdata.pol.gu.se/data/codebook_eqi_24.pdf . Crowley, F. and Walsh, E. (2021). Tolerance, social capital, and life satisfaction: a multilevel model from transition countries in the European Union. Review of Social Economy, pp.1–28. doi: https://doi.org/10.1080/00346764.2021.1957994 .

Commonly Agreed Indicator	Having someone for help or to discuss personal matters
Definition	Percentage of people who have someone to ask for help or discuss personal matters.
Scope (National European, World Wide agreed indicator)	EU
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Data only from 2015
Comments (Rationale)	Indicates social isolation levels and access to support, which affect mental health and social inclusion.
Data Source	Definition. EUROSTAT 2017 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Living_conditions_in_Europe_-_social_participation_and_integration&oldid=400916 OECD 2024 https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/09/measuring-social-connectedness-in-oecd-countries_02a04f4b/f758bd20-en.pdf (EUROSTAT 2024) DOI: https://doi.org/10.2908/ILC_SCP15
Reference	

Commonly Agreed Indicator	Social contact with family and friends
Definition	Frequency of contact with family and friends (weekly, monthly, daily)
Scope (National European, World Wide agreed indicator)	EU NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Data from 2015 and 2022
Comments (Rationale)	Indicates social integration, support networks, and emotional well-being.
Data Source	Definition. EUROSTAT 2017 https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Living_conditions_in_Europe_-_social_participation_and_integration&oldid=400916 (EUROSTAT 2024) DOI: https://doi.org/10.2908/ILC_SCP15
Reference	

Commonly Agreed Indicator	Material or social deprivation rate for persons with disabilities (16+)
Definition	The share of persons with disabilities who experience an enforced lack of 5 or more of the 13 deprivation items in the list of material and social deprivation items. These deprivations are the inability to: face unexpected expenses; afford one week annual holiday away from home; avoid arrears (in mortgage, rent, utility bills and/or hire purchase instalments); afford a meal with meat, chicken or fish or vegetarian equivalent every second day; afford keeping their home adequately warm; have access to a car/van for personal use; replace worn-out furniture: replace worn-out clothes with some new ones; have two pairs of properly fitting shoes; spend a small amount of money each week on him/herself ("pocket money"); have regular leisure activities; get together with friends/family for a drink/meal at least once a month; and have an internet connection.
Scope (National European, World Wide agreed indicator)	EU, NAT
Level (NUTS 0,1,2,3)	NUTS 0
Time Span (Periodicity)	Annual (2014- 2025)
Comments (Rationale)	Here the reference population is persons aged 16+ with moderate or severe disabilities, based on the Global Activity Limitation Indicator (GALI) approach (i.e. persons who report either moderate or severe health- related activity limitations).
Data Source	(EUROSTAT 2024) DOI: https://doi.org/10.2908/HLTH_DM010
Reference	Gülşah Sedefoğlu and Dudek, H. (2024). Material and social deprivation in the European Union: Country-level analysis. <i>Economics and Sociology</i> , [online] 17(1), pp.23–35. doi: https://doi.org/10.14254/2071-789X.2024/17-1/2 .

Appendix B: Potential determinants/axes of social inclusion

POTENTIAL DETERMINANTS OF SOCIAL INCLUSION/ EXCLUSION			
Category	Indicator	Explanation	Data Source/Reference
Age	DE1.1 Median Age	The median age (DE1.1) indicates population aging trends, which often correlate with higher healthcare demands and mobility limitations. The age dependency ratio (DE1.2) shows the balance between working-age individuals and dependents, affecting resource allocation.	(Augère-Granier, 2020; Eurostat, 2023)
	DE1.2 Age Dependency Ratio		
Ethnic Composition and Immigration	DE2.1 Foreign Population Over 15 Years Old	Proportion of foreign-born individuals aged 15+. High shares may signal cultural diversity and labour resources but also higher risks of exclusion due to language, legal, or cultural barriers	(United Nations, 2007; Eurostat, 2023)
Criminality and Safety	DE3.1 Police-Recorded Offences	Reflects regional safety and the nature of crime. Though often overlooked in rural research, crime and public safety significantly influence social cohesion and well-being, affecting both perception and reality of exclusion.	(Ceccato & Abraham, 2022; Eurostat, 2023)
Education	DE4.1 Primary and Secondary Education DE4.2 Early Leavers from Education and Training DE4.3 Young People Not in Employment, Education, or Training (NEET)	Low education attainment constrains employability and upward mobility. Early leavers (DE4.2) and NEET status (DE4.3) increase vulnerability to long-term exclusion, limiting prospects for stable employment and broader social engagement.	(Eurostat, 2021)
Digital Access	DE5.1 Internet Usage Rate DE5.2 Digital Skills Proficiency DE5.3 Communication via social media	Measures of internet use, digital skills, and social media engagement indicate capacity to connect with essential services, online learning, and social networks. Poor access or literacy widens exclusion, especially in remote or low-income settings.	(Van Dijk, 2020; Eurostat, 2024; OECD, 2023)

Infrastructure	DE6.1 Transport Infrastructure DE6.2 Remoteness DE6.3 Vulnerability to Climate Change & Disasters	Transport connectivity (DE6.1) is crucial for work and service access. Remoteness (DE6.2) limits interactions with wider communities. Exposure to climate risks (DE6.3) can unsettle livelihoods and infrastructure, deepening economic precarity and isolation.	(Chen et al., 2023; Hambulo Ngoma et al., 2023; European Commission, 2008)
Gender	DE7.1 Composite Index on Gender Equality DE7.2 Gender Pay Gap DE7.3 Gender Employment Gap	Gender-based disparities remain pronounced in wages, job status, and unpaid caregiving. The pay gap and employment gap indicate systemic barriers to women's inclusion, while gender-based violence further undermines their capacity to participate fully in society.	(EIGE, 2022; Hobson et al., 2011; Pettersson et al., 2024)
Immigration/ Emigration	DE8.2 Home Affairs Approach (EU Directorate-General)	Focuses on employing cross-national indicator systems for policy development and evaluation. Highlights the direct link between measured outcomes and targeted policy interventions, as advocated in EC Home Affairs' "Using EU Indicators of Immigrant Integration."	(Huddleston, Niessen & Tjaden, 2013)
Disabilities	DE9.1 People with Physical, Intellectual, or Mental Disabilities	People with disabilities encounter physical, technological, and social barriers that inhibit full participation in work, education, and civic life. These disadvantages can be exacerbated in poorly serviced or geographically remote areas (Garrick, Johnson & Arendt, 2024; Macleod et al., 2017).	(Garrick, Johnson & Arendt, 2024; Macleod et al., 2017)



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