17/11/2025

RENOVERTY Framework Policy Paper

Co-funded by the European Union under project ID 101077272. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

Project Acronym	RENOVERTY
Project Name	Home Renovation Roadmaps to Address Energy Poverty in Vulnerable Rural Districts
Project Coordinator	IEECP
Project Duration	3 years
Website	https://ieecp.org/projects/renoverty/

Deliverable No.	7.2
Dissemination Level	Public
Work Package	WP7
Lead beneficiary	IEECP
Author(s)	Mara Oprea, Diana Süsser, Konstantina Karalaiou,
Reviewed by	Samuele Livraghi, Nives Della Valle, Kristina Eisfeld
Date	31/10/2025
File Name	RENOVERTY Framework Policy Paper

Legal Notice

The sole responsibility for the content of this publication lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither CINEA nor the European Commission is responsible for any use that may be made of the information contained therein.

Published in 2025 by RENOVERTY.

©RENOVERTY, 2025. Reproduction is authorised provided the source is acknowledged.

About RENOVERTY

RENOVERTY will foster energy efficiency building upgrades in the Central and Eastern Europe (CEE), South-eastern Europe (SEE) countries, as well as Southern European countries (SE), by setting the methodological and practical framework to build renovation roadmaps of vulnerable rural districts in a financially viable and socially just manner.

Specifically, the project aims to deliver tools and resources to support local and regional actors to build and execute operational single or multi-household roadmaps for rural areas. A scalable model will also be created to ensure the wide geographical replicability and implementation of the roadmaps by different actors at the EU level. Strategically, the project will contribute to minimising logistical, financial, administrative, and legal burdens caused by a complex and multi-stakeholder home renovation process. Additionally, RENOVERTY will ensure that building retrofits consider the social dimension by incorporating security, comfort, and improved accessibility in the roadmaps to further improve the quality of life of vulnerable populations.

Over the project's three years, seven pilots located in Sveta Nedelja (Croatia), Tartu (Estonia), Bükk-Mak & Somló-Marcalmente-Bakonyalja Leader (Hungary), Zasavje (Slovenia), Parma (Italy), Coimbra (Portugal), and Osona (Spain) will implement the roadmaps, while wider integration of rural and peri-urban development is foreseen in the long run.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This document illustrates a solid framework for policymaking towards effective, just and inclusive renovations in the EU rural areas, following the invaluable insights collected from the experimentation with the RENOVERTY pilots.

This guideline is structured according to a grounded rationale, which aims to combine governance thinking with organically and bottom-up generated knowledge. The framework first sets a solid basis, with the enumeration of the main EU policies focusing on addressing Energy Poverty in an EU context, as well as, with summarising the vast challenges and barriers faced by the pilot countries when it comes to planning and implementation of renovation processes. Next, the main principles for effective, meaningful and inclusive policy-making are illustrated, as inspired and influenced by the RENOVERTY experience. The report continues with **a proposal of a high-level structure for an effective policy framework based on RENOVERTY's learnings**. Then, the framework is grounded and justified, with the formulation of a guide to overcome the numerous challenges that accompany rural renovations. This guide describes the manners that the Rural Energy Efficiency Roadmaps (REERs) developed within RENOVERTY can support current planning frameworks for combating rural energy poverty, and thus informing policy-making at an EU level. The tangible outcomes from experimentation with the RENOVERTY pilots are laboriously demonstrated, showcasing actions for overcoming regulatory, financial, community, behavioural and technical issues at a local level. Within this spectrum, the guide presents insights on strategising, exploring collaborative models, monitoring and risk mitigation processes, to overcome the numerous challenges across each pilot context. Throughout the various framework's sections, testimonies provided by relevant stakeholders engaged in the project directly or indirectly, are demonstrated, reinforcing the lessons learned and the values promoted through the respective actions within RENOVERTY.

The compilation of the presented material, formulated based on RENOVERTY's experience, aims to deliver grounded knowledge, while informing and inspiring long-term EU policy-making towards the effective support of vulnerable citizens within rural communities, particularly in carrying out renovations that are necessary for upgrading their living conditions and reducing their susceptibility to their energy poverty.

1 Introduction

The building sector accounts for 34% of EU energy-related CO_2 emissions, with three-quarters of pre-2000 buildings performing poorly in energy efficiency[1][2] This inefficiency contributes directly to energy poverty, defined as the inability to afford essential household energy services, affecting health, inclusion, and well-being.[3] In 2024, 9.2% of EU citizens were unable to keep their homes adequately warm, and 7% faced utility bill arrears.[4][5] While energy poverty is widely recognised, it remains insufficiently addressed particularly in rural areas, especially across Central, Eastern, and Southern Europe, where outdated housing and limited access to support intensify the problem. Promoting energy-efficient renovations for vulnerable rural households is therefore a crucial step toward a just energy transition.

1.1 Objective of the policy framework

This framework guides the **design of inclusive and effective rural renovation policies**. It:

- Outlines **objectives, guiding principles, core components, and implementation pathways** for sustainable and socially fair renovation in rural areas;
- Offers **guidance** on overcoming barriers and leveraging opportunities;
- Presents **examples** from innovative projects across Europe.

The framework primarily addresses national and regional policymakers, while also serving EU decision-makers seeking practical insights on tackling rural energy poverty.

1.2 Drivers of rural energy poverty in the EU – Lessons learned

To define the complexity of energy poverty manifestations, the RENOVERTY project identified several rural energy poverty drivers[6], in alignment with the main causes and multiple dimensions of Energy Poverty, as stipulated by the EC[7]. The major ones pertain to socio-economic aspects such as demographic structures, population decline and aging, reduced business activity and long-term unemployment rates. These drivers are also further exacerbated by the rising urbanisation tendencies recorded across the EU countries[8]. Thus, the “degree of urbanisation”

[1] https://www.eea.europa.eu/en/analysis/indicators/greenhouse-gas-emissions-from-energy
[2]https://energy.ec.europa.eu/topics/energy-efficiency/energy-performance-buildings/energy-performance-buildings-directive_en
[3] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202401275
[4] https://energy-poverty.ec.europa.eu/epah-indicators
[5] https://ieecp.org/wp-content/uploads/2024/04/RENOVERTY-Factsheet-1.pdf
[6] https://ieecp.org/wp-content/uploads/2024/04/RENOVERTY-Factsheet-1.pdf; https://ieecp.org/wp-content/uploads/2024/04/RENOVERTY-Factsheet-2.pdf
[7] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202302407
[8] https://www.mdpi.com/1996-1073/15/15/5463

becomes a non-negotiable complementary parameter and spectrum of analysis[9] across the EU-established indicators for energy poverty detection[10].

Rural energy poverty is reinforced by structural decline, aging populations, low investment, and shrinking economic activity, combined with information and access gaps that limit awareness of renovation benefits.[11] Limited connectivity, harsh climates, habits, and traditional practices can further entrench inefficient energy use. Moreover, rural residents often face "double vulnerability", [12] where low income coincides with physical or social disadvantage.

The limited choices of energy carriers or alternative energy resources, due to unavailable energy infrastructure or lack of market interest, lead to phenomena of monopoly and lock-in situations for the rural residents.[13]

A RENOVERTY survey of 130 European experts and stakeholders confirmed these findings. Respondents rated poor transport access, underinvestment in rural areas, demographic decline, and poor housing quality as the most significant drivers of energy poverty across Europe. Policy measures are key to addressing these different drivers of energy poverty in the EU.

1.3 EU Policies addressing Energy Poverty

The EU has progressively made **energy poverty** a policy priority. The **Social Climate Fund Regulation** and the **revised Energy Efficiency Directive (EED)** now provide a shared EU definition, strengthening the legislative basis for action. Efforts began with the ***Clean Energy for All Europeans*** package and the first EU Recommendation on Energy Poverty, later reinforced through the **Renovation Wave**, **Fit-for-55**, and the **Social Climate Fund Regulation (2023)**. The **European Green Deal (2020)** recognised energy poverty as a central social and environmental challenge, calling for a *"renovation wave"* to improve energy efficiency, lower household bills, and ensure affordable, healthy housing for all. The **Renovation Wave strategy (2020)** set an EU goal to renovate **35 million buildings by 2030**, focusing on:

a) Worst-performing buildings and vulnerable households;
b) Public buildings such as schools and hospitals;
c) Decarbonising heating and cooling.

Under the **Fit-for-55 package**[14]., the EU strengthened the social dimension of climate action through the creation of the **Social Climate Fund (SCF)**, which provides financial support to citizens most affected by energy and mobility poverty as the **ETS2** extends to buildings and transport. The **Social Climate Fund Regulation (2023)** requires each Member State to develop a **Social Climate Plan** including measures for energy efficiency, building renovation, and low-

[9] https://publications.jrc.ec.europa.eu/repository/handle/JRC142243
[10] https://www.sciencedirect.com/science/article/pii/S0301421522005651?via%3Dihub
[11] https://ieecp.org/wp-content/uploads/2024/04/RENOVERTY-Factsheet-1.pdf
[12] https://www.cell.com/joule/fulltext/S2542-4351(20)30560-2
[13] https://ieecp.org/wp-content/uploads/2024/04/RENOVERTY-Factsheet-1.pdf
[14] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0550

emission mobility.[15] It also highlights the specific vulnerabilities of **rural and remote areas**, integrating equity into climate policy design. The **recast Energy Efficiency Directive (2023)**[16] enshrines the **energy efficiency first** principle and mandates that Member States prioritise vulnerable households in their renovation and energy-saving measures, ensuring that such interventions reduce rather than exacerbate living costs. The **EU Recommendation on Energy Poverty (2023)** [17] encourages structural investments in energy efficiency, renewables, and district-level renovation programmes, recognising their role in improving health, inclusion, and environmental outcomes. Finally, the **revised Energy Performance of Buildings Directive (EPBD, 2024)**[18] complements these measures by charting the path to a **decarbonised building stock by 2050**, calling for targeted financial mechanisms for **low-income, rural, and multi-family households** to make the renovation wave accessible to all.

1.4 Challenges Relating to Energy Poverty in Rural and Peri-Urban Settings

Despite significant policy progress in building decarbonisation and energy poverty alleviation, the **RENOVERTY project** identified persistent barriers that hinder implementation in rural and peri-urban contexts.[19] Key challenges include:

- **Financial barriers** – limited access to upfront investment, low household income, lack of credit, and debt aversion;
- **Community, social and behavioural barriers** – low awareness, limited knowledge about renovation options, and poor access to trusted expertise;
- **Technical barriers** – shortage of local contractors and trained specialists;
- **Regulatory barriers** – inconsistent or urban-centric rules that overlook rural realities;
- **Geographic barriers** – long distances from services and infrastructure, particularly peripheral location and limited public transport connections.

These intertwined barriers highlight that addressing **rural energy poverty** demands a **holistic approach**, combining financial instruments, local capacity-building, and context-specific policy design. Table 1 provides an overview these diverse challenges and barriers.

[15] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R0955
[16] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023L1791
[17] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202302407
[18] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202401275
[19] https://ieecp.org/wp-content/uploads/2024/03/RENOVERTY-Deliverable-2.1_final_reviewed-layout-1.pdf

Table 1: Challenges related to tackling energy poverty in rural areas. Sources: RENOVERTY Rural Energy Efficiency Roadmap (REERs[20])

Challenges	Subcategories of challenges	Evident in countries
Regulatory, Legal, Administrative	Building permit absence / Long process for obtaining permit	HR, SI, ES, PT
	Long, complicated application processes for obtaining subsidies	HR, HU, IT, SI, ES, PT
	Inconsistent subsidy schemes / Limited funding and scope	HU, PT, ES
	Lack of targeted measures on renovations	HU, PT
	Heritage protection programmes are hindering the renovations	IT, HU
Community, Social and Behavioural	Lack of awareness and information about renovation opportunities, subsidies, or incentives	HR, HU, SI, PT
	Trust issues towards contractors, building inspectors and technical consultants.	EE, HU, SI, ES
	Decision-making issues among diverse residents' groups hindering renovation processes	HU, IT
	Lack of available local support, services and assistance, or questionable effectiveness	HR, SI
	Aging population and an inability to access financial support schemes	PT
	Limited eligibility criteria for subsidies aimed at energy-poor households	SI
Financial	Lack of initial financial means or unforeseen overruns deters residents from embarking on renovation activities	HR, EE, HU, IT, PT, ES
	Higher renovation costs in rural areas	HR, EE
	Lack of locally available funds, budget, and subsidy schemes available in rural areas	HR, SI, PT
	Long payback periods of investments	IT
	Bureaucratic procedures and requirements hurdle for loans by banks	EE
	Lack of financial compensation for covering alternative accommodation expenses during renovation processes	ES
Technical	Limited available contractors, shortage of specialised and qualified workforce, and technical issues for planning and implementing phased renovations projects	HR, EE, HU, IT, ES, SI
	Lack of essential infrastructure for renovations to take place, and high dependency on traditional energy sources	HR, PT
	Extensive number of old and unmaintained residencies	HR
	Lack of alternative accommodation during renovation process	HU, SI

[20] https://ieecp.org/2025/02/28/new-rural-renovation-roadmaps-in-7-eu-countries-guide-homeowners-towards-sustainable-futures/

2 Principles for a sustainable and inclusive policy design for rural renovations

This section summarises guiding principles for national and local authorities developing rural renovation policies. The recommendations draw on RENOVERTY's experience and good-practice frameworks, including the European Commission´s Better regulation guidelines [21], OECD guidelines on driving policy coherence [22], and the World Green Building Council [23]. These principles have been considered during the creation of RENOVERTY's Policy Framework, outlined in Chapter 3.

Table 2. Principles for sustainable and inclusive policy design.

Decarbonisation and Resilience	Renovation efforts should prioritise worst-performing buildings to reduce emissions and enhance community resilience to climate impacts such as heatwaves and storms. ***How to apply****:* Focus on upgrading the most energy-inefficient homes first, combine efficiency with adaptation measures (e.g. insulation, shading, storm-proofing), and align with EED obligations for vulnerable consumers.
Sustainability and Circularity	Policies should encourage resource efficiency and eco-friendly materials to minimise environmental impact. ***How to apply:*** Incentivise renewable systems (e.g. photovoltaics, thermal solar, high efficiency heat pumps), incorporate recycled or locally sourced materials, and create tax or rebate schemes that reward low-carbon renovations.
Equity and Accessibility	Ensure equal access to renovation support for low-income, marginalised, and geographically isolated households. ***How to apply:*** Provide targeted grants or low-interest loans for vulnerable households; simplify application procedures; and deliver clear, inclusive communication adapted to local languages and digital access levels.
Community Engagement and Participation	Policies work best when communities co-create them. Local voices should shape priorities and design. ***How to apply:*** Involve local leaders and organisations early; use participatory workshops; and provide plain-language information so residents understand their options and rights.
Local Economic Development & Job Creation	Renovations should stimulate rural economies through employment creation and local supply chains. ***How to apply:*** Offer training for local workers in green construction; promote local construction materials; and create partnerships with trade schools, SMEs, and regional energy experts.
Affordability and Financial Support	Access to finance remains the greatest barrier in rural renovation. Policies must ensure that funding mechanisms match household realities. ***How to apply:*** Expand zero- or low-interest loan schemes, income-based grants, and flexible repayment plans. Support One-Stop Shops that offer administrative help and act as financial intermediaries.
Monitoring and Evaluation	Tracking results ensures accountability and learning. ***How to apply:*** Define indicators and methods during policy design; collect real-world data on beneficiaries and impacts; and adjust and refine programmes as needed to improve effectiveness.

[21] https://commission.europa.eu/document/download/d0bbd77f-bee5-4ee5-b5c4-6110c7605476_en?filename=swd2021_305_en.pdf
[22] https://www.oecd.org/en/publications/driving-policy-coherence-for-sustainable-development_a6cb4aa1-en.html
[23] https://worldgbc.org/wp-content/uploads/2023/04/WorldGBC-Global-Policy-Principles_FINAL.pdf

3 Policy Framework for Addressing Rural Energy Poverty through Energy-Efficient Renovations

3.1 Introduction to the RENOVERTY Policy Framework

Following the previous chapter on sustainable and inclusive policy design, this policy framework chapter establishes the **strategic foundation** for tackling rural energy poverty in Europe through energy-efficient renovation. It translates the principles of fairness, inclusiveness, and territorial cohesion into an actionable vision for policy development, bridging EU ambitions with local realities. While EU initiatives such as the European Green Deal, the recast EED, and the SCF have advanced social and environmental objectives, rural territories still face fragmented support, ageing building stock, and limited technical and financial capacity. The RENOVERTY experience shows that progress depends on integrated governance, accessible finance, and community engagement, supported by trusted local intermediaries. This framework therefore sets the strategic architecture for coherent, multi-level action. Rather than prescribing measures, it defines guiding principles and enabling components to steer future policy design, positioning rural renovation as a driver of climate neutrality, social inclusion, and territorial resilience. Building on this foundation, the following section articulates a vision for equitable and inclusive rural renovation and defines the strategic objectives that can guide coherent policy action across governance levels. Together, these objectives translate the framework's overarching intent into clear orientations for implementation at both EU and pilot scales.

3.2 Vision and Objectives

The overarching vision of this framework is a Europe where all citizens, regardless of geography or income, can live in safe, efficient, and climate-resilient homes that support wellbeing, social inclusion, and environmental sustainability. From this vision, **4 strategic objectives for the RENOVERTY policy framework** are derived:

1. **Ensure equity in the energy transition**, by making energy-efficient renovation accessible to low-income and marginalised rural populations.
2. **Strengthen territorial cohesion**, through integrated policy design that aligns rural development, climate, and social policies.
3. **Empower local ecosystems**, enabling municipalities, Local Action Groups (LAGs), civil society, and SMEs to become active drivers of renovation.
4. **Foster systemic policy coherence**, ensuring that EU and national frameworks mutually reinforce each other through shared principles and aligned financing.

These objectives lay the foundation for an inclusive European rural renovation framework, translating the high-level ambitions of the Green Deal into practice at the local scale.

3.3 Guiding Principles for Rural Renovation Policy Design

To achieve these objectives, the RENOVERTY policy framework rests upon **7 guiding principles**, which collectively form a reference architecture for policy development. Each principle below combines the "why", which defines the values, rationale, and approach that should underpin all rural renovation policies, with the "how", describing how policies should be designed. These are informed by RENOVERTY's field experience and relevant EU policy instruments.

1. **Territorial equity and inclusion -** Policies must reflect the diversity of rural realities. Rural energy poverty arises from distinct geographical, economic, and demographic factors, requiring context-specific responses. National and EU frameworks should ensure that funding criteria, subsidy design, and eligibility conditions explicitly address rural isolation, higher renovation costs, and limited service availability. This can be done by incorporating the "degree of urbanisation" as a cross-cutting parameter in energy poverty indicators, ensuring dedicated funding quotas for rural areas within national renovation plans and Social Climate Plans, and designing proportionate administrative requirements that reflect local capacity.

2. **Integrated governance and multi-level coordination -** Effective policy implementation depends on clear alignment between EU, national, regional, and local authorities. Fragmented competences often hinder renovation efforts, therefore, a coherent governance model should combine vertical coordination across governance levels with horizontal collaboration between sectors such as housing, energy, social services, and rural development. This can be done by establishing national coordination mechanisms for rural renovation that integrate ministries of energy, housing, agriculture, and social affairs, creating permanent liaison platforms linking municipalities, energy agencies, and civil society, or aligning local renovation planning with National Energy and Climate Plans (NECPs) and Social Climate Plans (SCPs).

3. **Social fairness and affordability –** Renovation policies must ensure that vulnerable households can take on renovations without incurring debt or displacement. Public schemes should therefore combine grants, low-interest loans, and social tariffs with non-financial support such as technical assistance and outreach. Additionally, support programs should offer resources on how to deal with displacement from the home when deep renovations take place. Furthermore, affordability should be viewed not only as the access to finance, but also as long-term cost stability and protection from energy price shocks. This can be done by integrating social safeguards in funding schemes, promoting zero-cost or pay-as-you-save mechanisms, and strengthen consumer protection to ensure that renovation does not lead to renovictions or higher housing costs.

4. **Community empowerment and participation –** Rural renovation succeeds when communities have ownership over the process as participation builds trust, ensures uptake, and generates local value. Policies should therefore foster collective approaches such as Renewable Energy Communities (RECs), citizen cooperatives, guided renovation programs, and local One-Stop-Shops (OSS), enabling residents to co-design and

implement solutions adapted to their needs and resources. This can be done by funding participatory workshops, embedding community engagement requirements in grant criteria, or support training for local stakeholders and trusted energy advisors from within communities (i.e. local libraries, religious centres, etc).

5. **Economic and environmental sustainability –** Renovation should contribute to circularity, job creation, and local value chains. By promoting the use of local materials, the opportunity to increase skilled labour, and increased access to sustainable technologies, renovation can drive rural economic revitalisation while reducing emissions. Programmes must therefore link renovation policy with the EU's industrial, bioeconomy, and circular economy strategies. This can be done by including local SMEs, LAGs, and training institutions in renovation programmes, incentivising eco-design and low-carbon materials, and encouraging regional clusters for sustainable construction.
6. **Data, monitoring, and learning –** Evidence-based policymaking requires systematic data collection and evaluation. Current data on rural building stock, energy use, and socio-economic conditions are often incomplete or inconsistent. Establishing transparent monitoring systems ensures accountability and continuous improvement. This can be done by harmonising energy poverty indicators, integrating rural renovation data into national statistics and the Rural Observatory, and developing common EU metrics for renovation depth, affordability, and social outcomes.
7. **Policy coherence and long-term continuity –** Sustainable renovation policies demand stability beyond funding cycles. The integration of multiple policy domains, such as energy, housing, social inclusion, and regional development, requires consistent objectives and long-term coordination. As such, rural renovation should be mainstreamed within the EU's broader cohesion and territorial development agenda. This can be done by aligning renovation targets with Common Agricultural Policy (CAP) measures, Cohesion Policy programmes, and Smart Villages initiatives, ensuring continuity and predictability between successive programming periods, and fostering synergies between LIFE, Horizon Europe, and national instruments.

3.4 Core Components of the Policy Framework

Building upon these principles, the framework proposes **4 interconnected components** that structure policymaking and implementation. These core components translate the above-mentioned guiding principles into structural building blocks of a policy framework. They outline the main pillars or mechanisms through which rural renovation policy should operate such as governance, finance, capacity building. Where the previously mentioned principles define the "why and how", the components describe "what needs to be in place institutionally and strategically" for the principles to be implemented. These are detailed in the subsections below.

3.4.1 Strategic Planning and Governance

According to RENOVERTY's learnings, a coherent framework should begin with integrated planning at all governance levels to ensure that all future activities are developed and implemented holistically and effectively:

- **EU level:** The European Commission can embed rural renovation within the Long-Term Vision for Rural Areas, linking energy poverty alleviation with climate neutrality and social resilience. Coordination between DG ENER, REGIO, AGRI, and EMPL is essential to ensure that renovation is recognised as a driver of rural prosperity.
- **National level:** Member States should add rural renovation strategies within their NECPs, SCPs, and Long-Term Renovation Strategies, supported by dedicated coordination units. Cross-ministerial committees can align financial, regulatory, and social measures.
- **Regional and local levels:** Local authorities, LAGs, and regional energy agencies should lead implementation through operational plans tailored to local building typologies and socio-economic profiles. One-Stop Shops can act as coordination hubs linking households to technical, legal, and financial support.

This multi-level structure enables coherence, accountability, and adaptability across territories.

3.4.2 Financing and Investment Ecosystems

Overcoming the financial gap is central to rural renovation. Policies must mobilise and combine diverse funding sources while ensuring simplicity and fairness:

- **Public funding alignment:** The SCF, Cohesion Policy, CAP's rural development instruments, and even LEADER funding can jointly support renovation through targeted measures for energy-poor households or mixed-use buildings (buildings used for the purposes of business and housing such as bed & breakfasts, elderly homes, etc).
- **Innovative financing:** Blended finance, 0% interest microcredits, on-bill repayment, and revolving funds can help to address upfront cost barriers, yet the use of 100% subsidies is still most effective to encourage the renovation of vulnerable rural households. If not available, Renewable Energy Communities and cooperative models can help to generate local revenue streams for renovation.
- **Institutional support:** National development banks, the European Investment Bank, and the European Bank for Reconstruction and Development can provide guarantees and low-cost loans for aggregators, municipalities, and SMEs active in rural renovation.
- **Administrative facilitation:** One-Stop Shops and local intermediaries can help households connect to and navigate financial schemes, prepare applications, and aggregate small projects into bankable portfolios.

By combining these instruments, policymakers can create investment ecosystems that transform rural renovation from isolated interventions into sustainable economic opportunities.

3.4.3 Capacity Building and Knowledge Infrastructure

Renovation success depends not only on funding but also on human and institutional capacity. Rural areas often lack sufficient or sufficiently trained professionals, reliable contractors, and administrative support. Policies should therefore prioritise:

- **Training and re-skilling programmes** for local workers, fostering green jobs and strengthening the construction sector.
- **Knowledge exchange platforms** linking local authorities, universities, and regional agencies for mutual learning and innovation.
- **Community-based advisory networks** that combine technical expertise with social support, ensuring that vulnerable households receive guidance adapted to their circumstances.

These measures not only build technical competence but also embed renovation within the social fabric of rural communities.

3.4.4 Policy Integration and Innovation

Finally, greater integration of renovation policy within complementary domains is needed:

- **Social policy:** Renovation should be linked with health, inclusion, and ageing strategies, recognising that energy poverty intersects with broader social vulnerabilities.
- **Rural development policy:** Coordination between policies, initiatives, and mechanisms such as the CAP Strategic Plans and Smart Villages initiatives should take place, to ensure that building renovations help rural areas diversify their economies.
- **Climate and environmental policy:** Align renovation measures with adaptation goals such as heat resilience and water efficiency.
- **Digital and innovation policy:** Support pilot testing of citizen science initiatives and open data repositories for rural renovation.

Such integration ensures that renovation becomes a central pillar of Europe's just transition, simultaneously addressing social, economic, and environmental dimensions.

3.5 Implementation Pathways

A policy framework becomes effective when translated into **implementation pathways** that guide operationalisation. Drawing on RENOVERTY's pilot experiences, 3 complementary implementation pathways can guide the operationalisation of the policy framework's objectives, guiding principles, and core components to support the design of future measures:

1. **Governance Pathway: From fragmentation to coordination -** The pilots revealed that rural renovation is often slowed due to dispersed competences and inconsistent rules. To address this, a governance pathway may be used to prioritise the clarity of roles, structured coordination, and participatory planning. In practice, this can be achieved by national governments designating lead ministries for rural renovation, supported by regional coordination bodies and municipal action plans. Additionally, mechanisms such

as inter-ministerial task forces or permanent rural renovation observatories can help to institutionalise cooperation.

2. **Financing Pathway: From scattered funds to coherent ecosystems -** Rural renovation requires predictable, flexible, and accessible funding. Therefore, at the national level, integrating SCF resources with Cohesion Funds, national budgets, and private capital can create comprehensive and stable financing sources that can be earmarked for vulnerable rural regions and citizens. In this case, stable, multi-year funding mechanisms should be made to prevent programme discontinuity and strengthen trust among rural citizens. At the regional or local level, bundling small projects through intermediaries such as OSS, LAGs or regional energy agencies can improve resource efficiency and attract investment.
3. **Social and Technical Pathway: From isolated projects to empowered communities -** The uptake of energy-efficient renovation can greatly depend on factors relating to community engagement and technical reliability. The RENOVERTY pilots demonstrated that interest in renovation most often successfully stems from the initial contact of citizens with trusted intermediaries within the community such as OSS, NGOs, and local associations, which combine social proximity with professional expertise. Policies should thus institutionalise local support networks, link them to national frameworks, and ensure that households receive continuous assistance before, during, and after renovation.

Together, these pathways offer a strategic bridge between policy goals and on-the-ground implementation, connecting the conceptual principles outlined in this framework with the operational measures described in the following chapter. Chapter 4 therefore builds upon this framework by presenting various examples of practical implementation strategies which translate this guidance into concrete measures at both the EU and pilot levels.

4 Guide to Overcome Barriers and Benefit from Opportunities related to the Implementation of Energy Efficient Renovations

4.1 Guidelines at the EU level

4.1.1 Integrating Rural Energy Efficiency Roadmaps into EU policymaking

The Rural Energy Efficiency Roadmaps (REERs) provide practical, data-driven guidance for improving the effectiveness of energy renovation strategies in rural and peri-urban areas. Designed in collaboration with LAGs, municipalities, and community stakeholders, the REERs address common legal, financial, and administrative barriers to home renovation and promote context-specific solutions.

The main target groups of the REERs are homeowners, local and regional authorities, and intermediary organisations such as energy agencies and civil society actors that support households through the renovation process. The REERs can offer an invaluable input for informing EU-level policies, as they provide a contextualised approach to rural energy renovations, with realistic input surrounding the practical steps that can support and empower rural vulnerable households in performing successful renovations, and, eventually, contribute to their efforts for transforming their living conditions and combating energy poverty. At the same time, by outlining the series of instruments and practices available in the rural (technical and financial) settings, the REERs can highlight the regulatory gaps of the broader EU efficiency-oriented policy frameworks and directives. Most importantly, the REERs center the role of the local communities, and their need for paths adapted to their context, and thus, stressing the value of "policy translation" into feasible actions within each region across the EU.

Testimony from Director at the Association for the Conservation of Energy, UK (Comment extracted from the blog Energy in Demand [24])

"This has been a genuinely groundbreaking and very necessary project, the recommendations from which have very sensibly been translated into seven national languages. But I suspect that there are many other, including non-Southern, European countries that could benefit from having just such practical guidance available in the vernacular languages. […]".

Table 3 below summarises the key actions towards EU policy makers that were undertaken in the context of RENOVERTY.

[24] Spotlight on EU funded project to provide home renovation roadmaps to address energy poverty in vulnerable rural districts – Energy in Demand – Sustainable Energy – Rod Janssen

Table 3. Integration of the REERs in EU policies, schemes and plans.

EU Policy, Scheme, Regulation, Plan, or Initiative	Responsible Authority / Body	How can REERs be integrated/relevant to policy?
EU CAP Network	Directorate-General for Agriculture and Rural Development	Add to networking activities relating to the design and implementation of the CAP's strategic plans.
European Smart Villages Observatory	Preparatory Action on Smart Rural Areas in the 21st Century (E40 Europe)	Help generate exchange on Smart Villages implementation among stakeholders with the same / similar responsibilities across Member States.
Rural Pact	European Rural Community Alliance	Contribute to the objectives of the Long-Term Vision for Rural Areas and share with the members of the Rural Pact Community, which includes decision-makers as well as local stakeholders.
WOODCIRCLES (Integrated, Circular, and Digitally Supported Sustainable Solutions for Waste Minimization and Carbon Capture in Buildings and the Construction Sector)	Circular Cities and Regions Initiative	Focus on rural bioenergy.
Smart Villages Taskforces	Preparatory Action on Smart Rural Areas in the 21st Century (E40 Europe)	Aid goal of improving 'policy implementation'. As networking body, they act as a disseminator of the RENOVERTY findings.
ERCA	EU-level NGO	ERCA supports the rural communities of Europe, through national and regional rural movements, to develop connections, share experience and mutual learning and take collective action to strengthen their position. As a networking body, they act as a disseminator of the RENOVERTY findings.
PREPARE network (Partnerships for Rural Europe)	EU-level NGO	NGO bringing rural actors together and focusing on knowledge exchange workshops. Have a lot of contacts on the ground in local communities (beyond LAGs). As a networking body, they act as a disseminator of the RENOVERTY finding.
LDnet	EU-level NGO	EU-wide NGO. As a networking body, they act as a disseminator of the RENOVERTY finding.
Own Initiative Opinion: "State of the Energy Union: getting prepared for a smooth implementation of energy transition in line with Fit for 55 targets"	Committee of the Regions (COR), rapporteur ENVE Commission, Rapporteur Joško KLISOVIĆ	It was suggested that the work undertaken in the REERs and findings of the RENOVERTY projects be included in the opinion.
Own Initiative Opinion "Action Plan for Affordable Energy"	CoR, rapporteur ENVE Commission, Rapporteur Hanna Zdanowska	It was suggested that the work undertaken in the REERs and findings of the RENOVERTY projects be included in the opinion.

4.1.2 Support schemes to tackle barriers at EU level

At the European level, there are different support schemes and related, diverse funding mechanisms that can be utilised to overcome the multiple barriers of energy efficient renovations. Table **4** provides an overview of the funding schemes and their ability to address the diverse challenges for energy efficient renovations.

Table 4: Overview of funding schemes and how they address the challenges

Barriers / Policy instruments	Regulatory and Legal	Community, Social and Behavioral	Financial	Technical
Recovery and Resilience Facility (RRF)[25]	The RRF supports streamlined regulatory processes for facilitating renovations across the EU Member States	The RRF finances projects that create job opportunities, promote education, and improve healthcare.	The measure provides financial support to overcome the barrier of the upfront investment, for more accessible energy-efficient upgrades.	The RRF funds training programs to upskill and reskill workers and expand the labour force.
European Structural and Investment Funds (ESIF)[26]	ESIF wants to reduce bureaucratic hurdles and simplify processes for rural communities to access funding and complete renovations.	ESIF invests in programs for improving education, healthcare, and social services, providing rural populations with access to quality living conditions.	ESIF finances large-scale programs for renovations and energy upgrades of rural households.	ESIF finances projects that aim at improving transport networks, digital connectivity, and essential services in rural areas, and thus, reducing isolation.
European Investment Bank (EIB)[27]	EIB's goal is to simplify the procedures and enabling financing schemes mechanisms for rural communities	The EIB promotes a holistic and human rights-based approach to the conservation and protection of biodiversity and	EIB has a record in microfinancing, providing small funding amounts to low-income individuals and SEs,	The EIB supports projects that provide rural communities with equal access to essential infrastructure.

[25] https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility_en
[26] https://ec.europa.eu/commission/presscorner/detail/en/ip_23_389
[27] https://www.eib.org/en/index

		ecosystems of rural, vulnerable, and indigenous communities	with a focus on women, rural, and poor communities	
European Bank for Reconstruction and Development (EBRD)[28]	The EBRD collaborates with governments and private sector partners for the implementation of projects in rural areas, including technical assistance and advisory services.	EBRD supports the economic development of SMEs in rural areas as a means for promoting job creation	The EBRD promotes policy advice, supporting reforms for boosting private sector investments in rural areas.	It supports the essential infrastructure development in rural areas, including transportation and digital infrastructure, water and sanitation systems.
European Social Fund for Climate Action (SCF) [29]	The Fund can facilitate the introduction of standardized renovation programs that reduce the bureaucratic procedures for rural residents	The SCF aims to reduce energy-poverty for vulnerable households, green transport, and boost SMEs towards energy efficient practices for holistic societal transitions. Vulnerable rural communities are within its scope of application. The fund can also allow the establishment of OSS, and inform rural area local on energy transitions	MSs can utilize the Fund to provide temporary income support, financial incentives, or grants to help vulnerable households, including rural, afford renovations and other energy-saving measures.	The fund can be utilised by local municipalities to train rural workers. The establishment of OSS via the SCF can further facilitate the planning and implementation of energy label upgrades and renovations.
Interreg: European territorial cooperation[30] **programmes**	Interreg provides a framework for cooperation across borders between national, regional, and local actors from different MS, aiming to help communities living in border areas.	These programmes allow for a better streamlining of aid to remote rural areas that might suffer from societal turbulence, due to historical events, or experience depopulation phenomena	Interreg can promote OSS with the role of financial mediator; OSS can also support banks in assessing whether housing renovations meet energy-efficiency and other	Interreg funds have already been utilised in projects of villages digitisation, where rural communities guided the local digital priorities, assessing local needs and

[28] https://www.ebrd.com/home.html
[29] https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/social-climate-fund_en
[30] https://ec.europa.eu/regional_policy/policy/cooperation/european-territorial_en

			sustainable investment criteria and expand financing options.	building digital strategies from the ground up.
European Local Energy Assistance (ELENA)[31]	ELENA, by providing technical and expert-oriented assistance to project developers, can allow for overcoming legal barriers within renovation processes.	Applicable indirectly; By enabling local authorities and partners to develop ambitious renovation projects, ELENA can stimulate local employment, foster community participation in renovation initiatives, and improve living conditions for vulnerable groups.	It is a tool that offers substantial technical assistance, covering up to 90% of project development costs. By enabling local authorities & partners to develop ambitious renovation projects, ELENA can stimulate local employment, foster community participation in renovation initiatives, and improve living conditions for vulnerable groups. It's designed specifically for projects aimed at enhancing energy efficiency in both residential and non-residential buildings. To encourage project aggregation, ELENA has a minimum investment level of €30M.	This grant can support various aspects, including technical studies, energy audits, business planning, financial and legal advice, tendering processes, project bundling, and project management.

[31] https://www.eib.org/en/products/advisory-services/elena/index

4.2 Guide across Pilot Areas

This section showcases the diverse approaches and measures tested across RENOVERTY's pilot areas to overcome the multiple barriers faced by rural communities in renovation processes. It provides a concise overview of methods addressing legal, social, financial, and technical challenges, followed by a country-by-country analysis of the strategies used, collaborative models developed, risk mitigation, and monitoring practices. The insights generated through these real-life pilots offer practical lessons for scaling up rural renovation and informing future EU policies to reduce energy poverty.

Table 5: Summary of measures to overcome barriers of energy poverty in rural areas

Measures	Croatia	Estonia	Hungary	Italy	Portugal	Slovenia	Spain
Regulatory and legal	Participation in the working group for the development of the SCP.	Policy input to Estonian Energy action plan 2035 about community energy. Feedback for grant provider from side of apartment association and community to keep subsidy share differences based on location and socio-economic aspects.	Policy recommendations for the National Social Climate Action Plan. Proposals for the revision of the Hungarian Climate Law[32].	Statutory clauses within RECs earmark a share of revenues to a Renovation Solidarity Fund, ensuring transparency and regulatory compliance. Policy recommendations through a policy brief to encourage guidelines from local councils on renovation and tackling energy poverty, with possible updates to SECAP/SEAP.	Policy inputs to the National Strategy to Combat Energy Poverty.	Improving OSS roll-out in Slovenia.	Activation of support and promotion of mechanisms for energy renovation at various governance level. Promotion of renovation schemes with public investment in return of social rent.

32 https://www.europarl.europa.eu/RegData/etudes/BRIE/2025/769532/EPRS_BRI(2025)769532_EN.pdf#:~:text=The%20Hungarian%20climate%20law%20(Act%20XLIV%202020,2030%20emissions%20reduction%20target%20to%2050%20%25

Community, social and behavioural	Organising events with households to present the REERs and subsidy schemes.	Awareness raising, trainings, advice and consultations on renovation and community energy for households and municipalities.	Awareness raising campaign.	Collaboration with Sportello Energia Web and municipal websites to publish articles focused on energy renovation and energy poverty.	Awareness raising campaign with on-site advice sessions and workshops.	Increase of collaboration between local actors.	Peer-to-peer renovation lab.
Financial	Inclusion of households experiencing energy poverty in energy communities.	Supported of updating renovation grant with difference of subsidies based on socio-economic situation of region. In REERS was proposed different financing methods for renovation (full vs step by step).	Contractors in the EEOS scheme[33].	Lightweight third-sector partnership: a simple protocol with a microcredit institution creates a dedicated renovation microcredit line, with the lender handling paperwork and due diligence.	Policy recommendations. Establishing a REC in VNO.	Inclusion of REER-based measures in the National Social Climate Plan (that will direct allocation of funds from the SCF).	Promotion of aggregate purchases of energy resources and services.
Technical	Promotion and installation of PV systems.	Testing of OSS model in real life. Energy audits of buildings. Technical (and administrative) assistance for apartment association for the whole renovation process starting with developing of Initial task for technical design for renovation of apartment building in collaboration with stakeholders.	Energy audit light with technical assistance.	Community tool-lending bank with hands-on RENOLABS: stocked and labelled DIY kits, 60–90-minute labs on quick wins (reflective panels, sealing, plug-in meters).	Household energy audits with personalised plans and EPCs. Technical assistance on renovation measures identified. Implementation of itinerary OSS.	Promotion and implementation of energy renovation measures.	Accompanied self-renovation actions through the itinerant energy renovation office.

[33] https://mehi.hu/energiahatekonysagi-kotelezettsegi-rendszer-ekr/

Croatia

The Croatian pilot in Sveta Nedelja and Žumberak addressed energy poverty in single-family homes through technical support, renewable energy uptake (mainly solar PV), and community engagement. Policy advocacy ensured rural challenges were represented in the national SCP process.

Measures combined technical, financial, legal, and community approaches to connect the REERs with national funding managed by FZOEU and the forthcoming SCP. Twenty households were prepared for subsidy applications, and fifteen homes received energy certificates, creating a pipeline of ready-to-renovate buildings. Awareness events and LAG involvement-built citizen trust and capacity.

The establishment of the SAVA Energy Community, engaging over 30 LAGs, translated individual renovation needs into collective action, laying the groundwork for scaling up rural renovation and renewable energy measures.

Estonia

The Estonian pilot in Kääpa and Kaagvere focused on renovating 1970s apartment buildings with poor indoor climates and low market value, typical of many rural settlements. Actions targeted technical, financial, regulatory, and community barriers by linking the REERs with national funding managed by the Estonian Business and Innovation Agency (EIS).

TREA developed building-level roadmaps tailored to residents' needs, tested an integrated One-Stop Shop model, and provided technical assistance throughout the renovation journey. Five light audits and building-specific REERs were produced. Feedback from apartment associations informed the Estonian Energy Action Plan 2035 and subsidy rules to reflect socio-economic disparities. Training programmes and consultations strengthened stakeholder capacity and awareness, laying the foundation for smarter, community-driven rural renovation.

Hungary

The Hungarian pilot, implemented by Reflex Environmental Association in the Somló-Marcalmente-Bakonyalja and Bükk LAGs, combined regulatory, community, financial, and technical actions to address rural energy poverty. Policy recommendations were submitted for the National Social Climate Action Plan and the new Climate Law, ensuring rural challenges were represented in national frameworks.

Locally, REFLEX promoted the Energy Efficiency Obligation Scheme (EEOS), which provides free attic insulation for rural households, and supported applications for the Rural Home Renovation Programme 2025–2026. Thirty-one "light energy audit" assessments identified feasible renovation options, combining technical guidance with advice on available grants.

The pilot demonstrated how linking community awareness, advisory support, and national policy advocacy can make energy efficiency more accessible to vulnerable rural households while delivering measurable energy savings.

Italy

The Italian pilot took place in the Province of Parma. Regulatory and legal barriers surrounding permits, irregular connections, and fragmented competences were addressed through participatory governance and the creation of RECs. Each REC allocates part of its income to a *Renovation Solidarity Fund*, ensuring equitable and transparent redistribution to vulnerable households. Additionally, policy recommendations were made to encourage guidelines from local councils on renovation and tackling energy poverty, with possible updates to SECAPs/SEAPs. Continuous outreach via *Sportello Energia Web* and local events replaced sporadic campaigns, offering practical advice on incentives and renovation options. Neutral facilitation and feedback loops strengthened trust and collective decision-making, especially in condominiums. Collaboration with the microcredit institution *RICREDITI* established a renovation credit line for small, high-impact works, with simplified applications and financial literacy support. When initial public funding fell through, alternative partnerships ensured continuity and laid the groundwork for blended financing models. Finally, a community tool-lending bank and *RENOLABS* at Emporio Solidale Borgotaro demonstrated quick, low-cost efficiency upgrades (window sealing, reflective panels, energy meters). Scalable operations and standardised workflows ensured replicability and quality assurance. Together, these strands formed a coherent delivery chain linking legal clarity, community engagement, inclusive finance, and hands-on technical support, offering a pragmatic model for rural renovation and energy poverty alleviation in Italy.

Portugal

The Portuguese pilot in the Coimbra district addressed energy poverty in rural areas where ageing single-family homes, low incomes, and weak thermal performance combine to reduce comfort and raise energy costs. In Vila Nova de Oliveirinha (Tábua) and Arzila (Coimbra), 20 on-site audits confirmed poor insulation, envelope leakage, and reliance on wood or bottled gas.

Targeted actions were implemented through regulatory, social, financial, and technical measures. Local and regional stakeholders, including municipalities, parish councils, social services, and housing associations, were engaged in discussions to adapt policy inputs for the National Strategy to Combat Energy Poverty, linking the REERs with local development and housing plans. On-site activities included awareness campaigns, household visits, and walk-through energy audits. Energy Performance Certificates (EPCs) were delivered during community events, combined with practical renovation advice and informal gatherings to foster peer exchange. Financially, groundwork was laid for establishing a REC in VNO, managed by a local housing improvement association following the cooperative model of Coopérnico, promoting joint purchases of materials and services. Technically, over 20 households received tailored renovation roadmaps and assistance, supported by the establishment of an information desk

and the promotion of an itinerant One-Stop-Shop model in collaboration with ADENE and the National Energy Poverty Observatory, ensuring long-term access to renovation support across dispersed rural communities.

Testimony from Fernando Marques da Silva, CEO of a construction company specialising in renovations

"This is a subject that has interested me for a long time. I think my curiosity was sparked back when we were studying in Coimbra and I went on Erasmus to Hull. While in Coimbra I used to freeze inside my flat, in Hull I could walk around in a T-shirt at home and at the university. Since then, every renovation project I've done as a contractor has had one main priority: thermal comfort. I truly believe that a warm, cozy home is far better than a grand, freezing palace.

Participating in the RENOVERTY co-creation session to design the roadmaps was an eye-opening experience. It gave me the chance to share my practical perspective and see how collective thinking can truly shape solutions that make homes, and lives, more comfortable and sustainable."

Slovenia

The Slovenian pilot in the Zasavje region, a former coal-mining area, addressed energy poverty through four coordinated actions. Firstly, six technical community events were organised with Centres for Social Work to promote Eco Fund's ZER and ZER 2024 renovation schemes, combining information sessions with energy training and follow-up calls to households/ Secondly, Focus contributed to the national SCP, advocating REER-based measures such as a broader energy poverty definition, stronger Eco Fund support, and inclusion of rental housing and energy communities The, as a regulatory measure, ;inks were established with *renovAID* pilot OSSs in Ljubljana, Kranj and Velenje to ensure better reach of vulnerable households, while a stakeholder consultation in Zasavje fostered coordination between national contact points Finally, collaboration platforms brought together social workers, humanitarian organisations, municipal staff and healthcare professionals to raise awareness and strengthen local cooperation on energy poverty within the community.

Spain

The Spanish pilot has been implemented in the rural area of Osona. The measures combine technical, financial, legal/policy, and community-based approaches, aiming to strengthen the alignment with the REER. National funding schemes and local stakeholders have been included to ensure long-term sustainability.

Those actions include scalable and progressive measures, such as the itinerant OSS office, which is already coordinating with three municipalities to offer in-person support in their areas starting in October. It is expected to reach at least nine people interested in starting a renovation process, and some interested citizens are already approaching the office.

Contributions to the upcoming SCP and the National Energy Poverty Strategy are expected to activate large-scale renovations at vulnerable households. In addition, the promotion of social

renting already has five candidates for energy retrofitting and conversion into social housing units.

Regarding the aggregated purchases, the municipality has identified 35 farmhouses that have expressed their interest in renovation. At least five of them are expected to begin a renovation process using the business model in the short term. The peer-to-peer lab will also facilitate the sharing process of those farmhouses that have already applied deep renovation measures.

Testimony from a resident of Prats del Lluçanès

A resident of Prats del Lluçanès addressed to the itinerary office searching for an assessment on the subsidies applied for deep renovation in buildings. She shares that the attention from the itinerary office has been personal and focused on her needs following her search for subsidies for the deep renovation in buildings.

4.2.1 Overcoming regulatory and legal barriers

4.2.1.1 Addressing regulatory barriers

Across pilots, overcoming regulatory and legal barriers required policy guidance for authorities, simplified administrative procedures, standardised renovation processes, coordination among stakeholders, and support mechanisms such as OSS.

Croatia

In Croatia, REGEA tackled these barriers by contributing to the national SCP working group, presenting REER-based evidence and proposals for targeted subsidies to address rural energy poverty. Key challenges included limited stakeholder influence, delays in SCP adoption, and the lack of mechanisms for integrating local actors. Although a legal definition of energy poverty was introduced in 2025, rural needs remain insufficiently recognised, as national schemes still apply uniform criteria that overlook isolation, service gaps, and higher renovation costs.

REGEA maintained continuous dialogue with FZOEU, ministries, and local stakeholders through meetings and consultations, supported by cooperation with LAGs and NGOs to strengthen rural representation in policy discussions. Dissemination through the LEADER network and public events ensured visibility of REER findings.

While the SCP is still pending, the proposed measures could direct Social Climate Fund resources toward rural households. Progress will be monitored through the share of SCF funds allocated to rural areas, households supported, and renovation depth achieved.

Estonia

In Estonia, regulations have been improved to reduce inequality and overcome obstacles in the area of energy poverty. Different support rates have been added by region and better access to loans has been ensured. In addition, the provision of support information has been brought as close as possible to the consumer, with each county having an advisor whose task is to share information about the grant and how to apply for it.

TREA has regularly (we are in constant dialogue) provided feedback to the grantor about the situation and the capabilities of apartment building residents in more energy-efficient regions and has advocated for the support to be more accessible (less administration) and larger, and we are also working with the Eesmäegi to make partial or phased renovation possibl

Hungary

In rural Hungary, renovation programmes face complex regulatory barriers, including fragmented coordination, burdensome application procedures, and unclear rules for certain property types. These challenges often discourage households from undertaking energy-efficiency renovations. Vulnerable households, in particular, struggle with the administrative and technical demands of grant schemes such as the Home Renovation Programme. Simplifying application processes and expanding advisory support through OSSs like RenoPont could improve accessibility and participation. Professional assistance should help households decide whether to manage renovation works independently or through general contractors, ensuring flexibility based on their capacities.

Many rural families occupy buildings not formally recognised as residential, such as barns or farmhouses, and are therefore excluded from renovation funding. Local municipalities can address this by facilitating reclassification and integrating these dwellings into housing policy frameworks.

RENOVERTY findings were incorporated into recommendations for Hungary's forthcoming Social Climate Action Plan and revised Climate Law, highlighting the need for streamlined administrative procedures, standardised contracts, and targeted advisory support to overcome regulatory barriers in rural areas.

Italy

Enabling uniform and simplified procedures for funding applications is essential to make rural energy renovation feasible and equitable. Excessive bureaucracy, especially for protected or irregularly built properties, discourages participation and delays renovation projects. A streamlined framework with One-Stop Shops for permit management and clear digital pathways for regularising buildings would remove major obstacles and enhance access to subsidies. Addressing irregular electricity connections also requires coordinated regulatory and financial action between energy providers, municipalities, and consumer associations, supported by targeted awareness campaigns.

Overcoming administrative complexity depends on effective multi-level governance. Municipalities and local agencies can promote citizen engagement and facilitate permits, while regional governments harmonise rules and ensure that funding reaches vulnerable households. At the national level, ministries and energy agencies should adopt consistent frameworks that consider rural specificities and reduce procedural delays.

Sustainable progress requires equitable access to resources, streamlined administration, and coordination across all governance levels. Local actors possess the closest understanding of community needs, yet often lack the means or authority to act at scale. Clearer coordination mechanisms, aligned responsibilities, and adequate funding are therefore essential to translate policy ambitions into timely, tangible renovation outcomes.

Portugal

In Portugal, RENOVERTY combined national policy input with practical local actions to make renovation procedures more accessible for rural households. Evidence from the Coimbra pilot informed recommendations to the National Long-Term Strategy to Combat Energy Poverty, advocating proportionate documentation requirements, municipal verification options, and clear front-door responsibilities for local authorities. These proposals were presented through exchanges with the Strategy's coordination and the National Observatory for Energy Poverty (ONPE), which later featured RENOVERTY in its public project portfolio. The national policy brief further highlighted the need for simplified procedures, itinerant OSS, and stronger links between social and energy policies. A good governance requires stronger coordination between national (Central government), regional (Regional Coordination Commissions), and local levels of government (Municipalities and Parish councils), supported by adequate staffing, funding, and data infrastructure. Empowering municipalities, particularly small municipalities, is crucial to ensure that rural and interior regions are not left behind. A coordinated effort led by the national government, in collaboration with municipalities, regional energy agencies, and industry associations, could deliver a large-scale refurbishment and decarbonisation programme targeted at low-income households. Simplifying bureaucratic procedures, ensuring equitable access to funding, and establishing one-stop advisory services would help rebuild public trust and accelerate implementation. Ultimately, strengthening multi-level governance and institutional capacity is key to ensuring that the energy transition in Portugal becomes a driver of social inclusion, regional cohesion, and lasting prosperity.

Locally, RENOVERTY worked with the REVERTER project to integrate digital and physical OSS support in the Coimbra region and assisted the Municipality of Tábua in establishing a physical energy desk and designing an itinerant OSS service to reach remote villages. These efforts were reinforced through participation in ADENE's co-creation of OSS models, informing the Environmental Fund line that finances municipal OSS operations, and by supporting Tábua's application to the national Energy Desk network, helping institutionalise accessible, front-line renovation support for rural communities.

Slovenia

Although Slovenia has long-standing programmes to address energy poverty, most notably the Eco Fund's stable funding line, several legal and regulatory barriers continue to hinder rural renovation. These include narrow eligibility criteria, complex and lengthy application procedures, the cost of building legalisation, and the absence of a clear framework for renovating private rental apartments.

A major focus of RENOVERTY was to improve the implementation of new provisions under the revised Energy Efficiency and Buildings Directives, particularly the introduction of OSS. While OSS can provide valuable information and assistance to vulnerable households, their success depends on integration into local communities and coordination with existing support schemes.

Slovenia already hosts a variety of parallel contact points, such as the Eco Fund's ENSVET network, RES information centres, and new services for tenants and owners, often operating without synergy. RENOVERTY therefore facilitated dialogue among these actors through consultation platforms, promoting collaboration and information exchange. The aim is to build a coherent, community-embedded OSS framework that unites energy, social, and climate services under one accessible support system for households in or at risk of energy poverty.

Spain

The main legal barrier to address is the complexity and slowness of administrative procedures for grants and subsidies, which pose significant challenges for citizens. The required documentation often varies depending on the type of grant, adding further difficulty. Moreover, information does not reach rural areas as effectively as urban ones, making it essential to consider all barriers that hinder retrofitting projects, not only legal, but also financial, technical, and social.

In Spain, this barrier is being mitigated through the implementation of OSSs, which have already proven their effectiveness in other regions and sectors. In addition, national policy alignment, such as the inclusion of REER measures within the SCP, and the active participation of municipalities in promoting renovation actions are key to ensuring both sustainability and scalability.

4.2.1.2 Exploring collaborative models

As it was highlighted, the effectiveness of collaborative models for the sound implementation of renovation policies and measures lies in the coordination across the different governance levels, accompanied by the integration of local knowledge on contextual specificities and role clarity. In any case, the complementary support by mechanisms such as OSS and community-based actors is considered essential across all pilot contexts.

Croatia

In Croatia, overcoming regulatory barriers relied on close collaboration among REGEA, the Ministry of Environmental Protection and Green Transition, and FZOEU during the preparation of the SCP. REGEA provided REER-based data and proposals for simplified procedures and targeted 100% subsidies for households experiencing energy poverty in rural areas. Local authorities and LAGs, particularly Sava and Vallis Colapis, helped convey rural priorities, identify administrative obstacles, and maintain citizen dialogue through the LEADER network. This multi-level cooperation ensured that insights from local communities informed national SCP discussions and the future allocation of Social Climate Fund resources, contributing to a more inclusive and accessible framework for rural renovation.

Estonia

TREA leads a national community energy roundtable, which meets a few times a year and discusses renovation, community issues and the development of solutions and proposals for policymaking. The roundtable is attended by important the ministry, the union of municipalities, renewable energy associations, the union of apartment associations, and others. Additionally, in Estonia, it is mandatory to hire a technical consultant when receiving a renovation grant. TREA therefore also offers this service and is in constant contact with consultants, shares experience and organizes training for consultants. With RENOVERTY, TREA also tested and designed an OSS as service, which is inherently a form of collaboration,

Hungary

The effective implementation of renovation policies in rural Hungary depends on coordinated action among households, municipalities, civil society, and national institutions. Households make key decisions on how to organise renovation works and often need guidance to manage technical and administrative tasks. Establishing rural advisory services and expanding One-Stop Shops such as RenoPont can provide free or subsidised professional support to help vulnerable households navigate available options.

Municipalities play a central role in facilitating permits, guiding residents through regularisation processes, and supporting the reclassification of informal dwellings so that households can qualify for renovation schemes.

Civil society organisations such as Reflex contribute by advocating policy simplification, identifying energy-poor households, and assisting with grant applications. Financial institutions can further reduce barriers by using clearer, simplified contracts and accessible information, while construction companies must ensure that renovation works meet legal and technical standards. At the national level, ministries are responsible for harmonising regulations, simplifying application procedures, and maintaining consistent funding to enable rural households' equitable access to energy-efficiency measures.

Italy

In Italy, regulatory barriers to rural renovation largely stem from complex building permit procedures such as the *SCIA*, *CILA*, and standard building authorisations, which are mandatory for works on historic or protected buildings. While these ensure compliance with planning and conservation rules, they often slow down or discourage renovations due to their perceived opacity and administrative burden.

Local authorities are key actors in managing these procedures, issuing permits, verifying compliance, and coordinating with other entities such as health or heritage agencies. Their role is to ensure clarity, reliability, and transparent timelines for citizens and professionals.

Regional and national institutions also play crucial roles: regions can simplify or adapt building laws within their legislative competences, while national authorities define the overarching

framework and provide targeted guidelines that account for rural realities, including higher renovation costs and limited administrative capacity.

Ultimately, removing legal and regulatory barriers requires a coordinated, multi-level approach that empowers municipalities with the flexibility to tailor national rules to local conditions, ensuring that renovation policies become both feasible and equitable in rural Italy.

Portugal

In Portugal, collaboration among stakeholders was initiated early to address regulatory and legal barriers to rural renovation. LAGs ADIBER and CoimbraMaisFuturo identified local facilitators and established trusted entry points for engagement, while parish councils and local associations extended outreach. Municipal social services helped identify vulnerable households and facilitated participation in assessments and follow-up support, ensuring that the most exposed residents were reached first.

Co-creation workshops in both pilot areas served as joint working platforms where citizens, associations, municipal staff, and technical teams collectively identified administrative barriers and designed practical solutions. These locally validated procedures were then linked to Coimbra's operational OSS to ensure consistency and prevent duplication, while shared templates and workflows helped neighbouring municipalities build capacity. At national level, collaboration fed field evidence into ADENE's OSS model development and related funding lines, ensuring that municipal information desks benefit from clear operational standards and stable financial backing.

Slovenia

The roll-out of OSSs in Slovenia is led by the Ministry for Environment, Climate and Energy (MOPE) together with the Eco Fund, which coordinates the existing ENSVET network of energy consulting offices. During a stakeholder consultation held in September 2025, participants highlighted the need for MOPE to coordinate synergies among the many existing or planned OSS-type mechanisms operating under the NECP.

Key actors include municipalities hosting ENSVET offices, regional development agencies managing mobility centres, Borzen as the operator of RES info points, and the Ministry for Solidarity-Based Future, responsible for housing policy and a forthcoming support service for rental housing. These institutions can jointly shape how their existing information and assistance channels are integrated within a unified OSS framework for households.

The *RenovAID* project, together with the municipalities of Ljubljana, Velenje, and Kranj, and the Innovation-Research Institute of the University of Ljubljana, will provide practical experience for the first OSS pilots, helping define models for broader national replication.

Spain

For the activation of support and promotion mechanisms for energy renovation at difference governance level, the stakeholders approached were MITECO (Ministry for Ecological Transition and Demographic Challenge). The engagement explored the possibility of including RENOVERTY actions in the upcoming SCP and to analyse access routes for municipalities. Discussions were also held with the Barcelona Provincial Council on how their resources could be allocated to support energy renovation, with a particular emphasis on tackling energy poverty in the region. and the Barcelona Provincial Council to discuss how their resources could be allocated to support energy renovation, with a particular focus on addressing energy poverty in the region.

For the promotion of renovation through public investment in exchange for social rent, the municipality of Alpens was included as a pilot to launch this model.

4.2.1.3 Implementation strategies

Pilot activities highlighted that effective implementation of renovation policies depends on multi-level coordination, empowered local networks, and active stakeholder participation. Core tools included community-based approaches, OSS, and RECs, which enable the practical delivery of renovation schemes in rural contexts.

Croatia

Implementation combined top-down and bottom-up approaches. At the national level, REGEA participated in the SCP working group and public consultations, using REER evidence to advocate for simpler procedures and 100% subsidies for households experiencing energy poverty. Regular meetings with ministries and FZOEU refined these proposals. At the local level, municipalities and LAGs, particularly through the LEADER network, mobilised citizens, shared feedback, and identified administrative obstacles. This created a continuous feedback loop between rural communities and national policymakers. Policy briefs, targeted events, and simplified communication tools ensured that forthcoming regulatory changes were understood and anticipated at local level.

Estonia

The implementation focused on participation in the public discussion of the Energy Sector Development Plan 2030, sending proposals for policy development through round tables. Also, constant contact with the grantor. At the local level, TREA is responsible for updating the energy chapter of the Tartu County Development Strategy

Hungary

REFLEX contributed policy recommendations to the National Social Climate Action Plan and the new Climate Law revision process. Following a Constitutional Court ruling that annulled the 2030 emission target, the organisation collaborated with over ten NGOs to prepare detailed legislative proposals. A conference in September brought together legal experts, NGOs, and public officials, including a Constitutional Court judge and the Deputy Commissioner for Fundamental Rights, to

shape amendments that reflect social and climate priorities. The proposals are now being refined in thematic working groups for submission to the government.

Testimony from Kinga Horváth – Executive Officer, Climate Alliance Hungary

"The Constitutional Court's decision requiring Parliament to rewrite the Climate Law provides a unique opportunity - not only for civil organisations, but also for local communities and municipalities - to express their opinions and take part in the process. Based on both international and national best practices, we are collecting proposals that could form the foundation of a truly effective Climate Law. This process also involves several aspects related to energy poverty, such as building energy efficiency, community energy, and - more broadly - climate justice and tackling energy poverty."

Italy

A possible measure to overcome those barriers could be the use of RECs as a mechanism for financing energy renovations that could be implemented with and through clear governance and a ring-fenced financial flow. A Statute clause allocates a fixed share of net REC income to a Renovation Solidarity Fund, managed by a mixed Renovation Committee that applies a published scoring rubric (need, impact, cost-efficiency) to select projects. Delivery will follow a standardized workflow, namely, audit, scope, installation, quality assurance, and simple M&V (billing comparison), with vetted installers and equity-based eligibility criteria.

A set of tools will support execution including legal and committee templates; a dedicated sub-ledger in the existing ERP for monthly sweeps and quarterly statements; shared forms for applications and consent; an open-source dashboard (e.g., Metabase or Superset) for KPIs; and framework contracts and checklists for audits and QA.

Regarding the timing for the implementation of this measure, it is not possible to determine it specifically. In our case, approximately three months passed between the initial contacts to propose this measure and when the first vote was due to take place. However, the "C.E.R. Parma 2030" Foundation encountered some internal problems that could not be mitigated or resolved, and the vote was further postponed, bringing the timing to more than six months.

Portugal

At national level, ISR-UC submitted recommendations to the National Long-Term Strategy to Combat Energy Poverty, supported by exchanges with the Strategy's coordination team and the National Observatory for Energy Poverty (ONPE). Project results were presented during national forums such as *"Fórum Participativo Temático – Combater a Pobreza Energética"* and summarised in a policy brief proposing targeted renovation measures. Locally, ISR worked with partner LAGs to organise workshops and community consultations in rural areas. This ensured a two-way exchange: household-level barriers informed national advocacy, while policy outcomes were communicated back to residents through practical guidance. Drawing on EPCs and DREEM modelling, the team also supported a funding request to the Environmental Fund for a rural renovation programme.

Slovenia

Implementation focused on consolidating stakeholder dialogue and building networks for the national OSS roll-out. RENOVERTY findings were presented at *RenovAID* consortium meetings and through targeted consultations that gathered ministries, municipalities, and regional agencies. The September consultation emphasised the need for a coordinated OSS strategy led by the Ministry for Environment, Climate and Energy (MOPE). Follow-up actions include presenting the consultation results to MOPE and proposing the establishment of a dedicated working group to harmonise OSS development from the citizen's perspective.

Spain

Policy recommendations were successfully adopted at both national and local levels. Implementation of the itinerant OSS model, explained under technical measures, ensured accessibility for rural communities without major administrative constraints.

4.2.1.4 Risk and mitigation measures

Across all RENOVERTY pilots, the main risks to overcoming regulatory and legal barriers included delays in national programme implementation, fragmented governance, policy misalignment, and administrative exclusion of certain housing types due to permit or ownership issues. Pilot experiences showed that mitigating these risks requires multi-level cooperation, clear legal frameworks, and early stakeholder engagement to strengthen communication between citizens and authorities.

Croatia

The most critical risk was the repeated delay of the national call for 100% renovation subsidies for households in energy poverty. Originally expected in early 2025, the postponement discouraged citizens, reduced application preparedness, and weakened trust in public schemes. Similarly, delays in finalising the SCP left SCF resources unallocated, widening the gap between policy ambition and local action.

To mitigate these challenges, REGEA built coalitions with LAGs, municipalities, and NGOs to maintain visibility of rural energy poverty at national level. Through continuous dialogue with ministries and FZOEU, public events, and information campaigns, the team kept citizens informed and prepared for future calls, ensuring readiness once funding is released.

Estonia

The most important risks were the instability of the renovation support (there is no information when the next round of applications will be) and the loss of different proportions of the renovation support grant. Risk mitigation in Estonia has been resolved through continuous feedback to the grantor and public discussion of the application conditions.

Hungary

Major risks included bureaucratic complexity, unpredictable funding schemes, and legal barriers linked to unregistered or non-residential buildings. These factors discouraged households from

applying for renovation support. Mitigation focused on simplifying administrative requirements, offering personalised advisory services through One-Stop Shops such as RenoPont, and clarifying legal pathways for property regularisation at municipal level.

Another risk was that new regulations might set unrealistic targets without sufficient stakeholder consultation. To prevent this, the project emphasised early involvement of municipalities, contractors, and civil society in policy design, ensuring that future frameworks reflect real implementation capacities and rural contexts.

Italy

Key risks associated with RECs as a financing tool included regulatory uncertainty, technical complexity, insufficient community participation, and internal disputes over income allocation. These challenges could threaten both financial stability and social acceptance.

Mitigation relied on legal clarity, transparent governance, and active participation. Each REC statute should clearly define income allocation rules and compliance obligations. Transparent communication materials and open dashboards help citizens understand how funds are distributed and reinvested. Standardised technical and legal templates support accountability, while inclusive decision-making, prioritising vulnerable households, strengthens trust and legitimacy. When well-managed, RECs can transform these risks into opportunities for community cohesion and equitable renovation funding.

Portugal

The main risks involved limited engagement from central government in budget planning and delayed funding for local access points and renovation programmes. Misaligned policy timelines between national and municipal levels further hindered progress.

Mitigation focused on continuous, structured communication with national authorities through briefs, pipeline updates, and targeted policy dialogues. ISR and partners held public seminars and capacity-building events to advocate prioritising energy poverty, particularly in rural areas. To offset financial uncertainty, municipalities adopted low-cost measures such as using existing staff and premises for local energy desks and developing joint OSS initiatives with neighbouring municipalities (e.g. Pampilhosa da Serra). These actions preserved momentum and maximised impact despite funding delays.

Slovenia

The main risk identified was the absence of clear institutional leadership for coordinating the roll-out of OSS. Without the Ministry for Environment, Climate and Energy (MOPE) assuming this role, multiple overlapping OSS-type services may continue to emerge, creating confusion among households and inefficiencies across programmes. To mitigate this, RENOVERTY promoted continued dialogue among stakeholders and encouraged MOPE to lead future coordination. Establishing a dedicated inter-ministerial working group could ensure harmonisation among OSS initiatives and clearer communication channels for citizens.

Spain

Key risks stemmed from the delay in finalising the national SCP, which prevented the operationalisation of the Fund's resources. This left vulnerable rural households without timely financial support. Structural risks also persisted, as national frameworks tended to prioritise households with greater administrative and financial capacity.

At the local level, the inability to update Local Development Strategies during the current EU programming period limited LAGs' capacity to integrate REER findings into new funding proposals. To mitigate these constraints, Ecoserveos maintained dialogue with managing authorities and prepared evidence to support future strategic revisions once regulatory restrictions are lifted.

4.2.1.5 Monitoring and Evaluation

The RENOVERTY pilots showed that effective monitoring requires both quantitative indicators, such as energy savings, participation rates, and renovation outcomes, and qualitative feedback on stakeholder engagement and inclusion of vulnerable households. Monitoring frameworks must capture whether regulatory and legal barriers are genuinely being reduced for rural citizens.

Croatia

Monitoring of measures addressing regulatory barriers focuses on both policy outcomes and their local impact. At national level, progress will be measured by whether RENOVERTY recommendations are reflected in the final SCP and subsequent SCF allocations, particularly those targeting rural and peri-urban households. At implementation level, indicators include the number of rural citizens benefiting from the 100% renovation subsidy, completion rates, and satisfaction with the application process. Continuous cooperation with LAGs and municipalities will provide direct feedback on accessibility and clarity of procedures. REGEA will maintain data collection and communication with national authorities to ensure that household experience continues to inform future programme design.

Estonia

The ideal outcome indicator for policy-level monitoring is that proposals have been taken into account. In the last renovation grant application round (September-October 2025), the documents of the call successfully differentiated support (different share of support by location).

Hungary

The effectiveness of this measure can only be verified once the Social Climate Action Plan and the new Climate Act have been published. There is currently no public information on the exact date of publication of Hungary's Social Climate Action Plan. According to the Constitutional Court of Hungary, Parliament must adopt the new comprehensive Climate Act by 30 June 2026.

Italy

Evaluation of the Italian pilot will rely on simple, transparent methods combining quantitative and qualitative indicators. Quantitative monitoring will track REC participation, number of

members, installed capacity, and energy produced, as well as funds channelled to the *Renovation Solidarity Fund* and the number of households supported. Utility bills and arrears data will indicate savings achieved.

Qualitative monitoring will assess perceptions of fairness, transparency, and trust through short surveys and feedback meetings. Core procedural indicators include the adoption of the REC Statute clause, operation of the renovation committee, and maintenance of open financial ledgers. Even if implementation timing varies, these instruments ensure replicability and data continuity for future phases.

Portugal

At the policy level, monitoring will focus on whether the recommendations submitted through the RENOVERTY process are reflected in future legal documents and funding programs. The success of measures such as the help desk and OSS will be monitored through the number of households who receive advice from these services. In addition, as rural energy poverty comes into policy dialogue, more rural municipalities are motivated to lobby for energy equality in the transition to decarbonization.

Slovenia

Monitoring will focus on whether the national roll-out of OSS, foreseen in the Energy Efficiency and Buildings Directives, integrates existing support services and introduces outreach-based assistance for vulnerable households. Initial evaluation will track the Ministry of Environment, Climate and Energy's willingness to continue stakeholder consultations following the September 2025 meeting and to establish a structured coordination mechanism. Long-term success will be measured by the actual operation of integrated OSS offices providing clear, locally embedded support for households in or at risk of energy poverty.

Spain

There have not been constraints when it comes to the legal and policy actions implemented in the scope of RENOVERTY project. However, there is a risk that future legal or policy scenarios may not be favourable to renovation, or will not deploy the adequate financial mechanisms to facilitate deep renovations for buildings in rural areas.

4.2.2 Overcoming community, social, and behavioural barriers

4.2.2.1 Addressing community, social, and behavioural barriers

Across RENOVERTY pilots, overcoming social and behavioural barriers required trusted local networks that translate renovation goals into practical community action. Local engagement, participatory decision-making, and tailored communication, rooted in local knowledge, proved essential for motivating rural households to undertake energy upgrades.

Croatia

Community-level barriers in rural Croatia stemmed from low awareness, weak trust in national institutions, and the absence of local support structures for citizens experiencing energy poverty.

These were particularly evident in Žumberak, where administrative capacity was low and renovation was rarely discussed publicly.

RENOVERTY addressed these gaps through LAGs, already trusted by local communities. A key achievement was the establishment of the *Energy Community SAVA* in 2025, created by LAG Sava with REGEA's support. This initiative provided a participatory platform for citizens to share renewable energy benefits and prepare for future renovation financing. Awareness sessions and training with LAG partners strengthened understanding of energy poverty and its connection to community-level renovation opportunities.

The Croatian experience demonstrated that when citizens are approached through familiar local structures, participation increases and awareness deepens, paving the way for fair and inclusive renovation processes.

Testimony from the City of Sveta Nedelja

"The cooperation proved to be very useful for strengthening local capacities in the fields of energy renovation, planning, and community engagement. The City of Sveta Nedelja has also demonstrated leadership in the national energy transition by joining as one of the founding members the ***Energy Community SAVA,*** *the first renewable energy community established in Croatia, thereby contributing to promoting citizen participation, community ownership, & socially responsible models of local energy production.*

Building on this experience, the City will continue to address energy poverty through locally targeted measures and to apply the knowledge and recommendations gathered through RENOVERTY, particularly those outlined in the REERs, which provide practical approaches for supporting vulnerable citizens and improving energy performance of residential buildings."

Testimony from Maja Čičko, LAG Sava Manager

"One of the biggest obstacles to implementing energy communities in Croatia is the complex legal and administrative procedures. For this reason, LAG Sava is taking on the role of intermediary, providing support in preparing documentation and connecting all relevant stakeholders. In the LAG's strategy, around EUR 100,000 has already been allocated for installing solar PV systems in each local municipality within our territory. These power plants would then be interconnected through an energy community that enables energy sharing. The community would not serve only individual member households. Any surplus energy produced could be redistributed to nearby buildings, facilities or public institutions, and potentially used to support public calls aimed at citizens experiencing energy-poor, for instance, to finance energy renovation of their homes. Collaboration through the RENOVERTY project played an important role in preparation, within which ten energy performance certificates were financed for energy-poor citizens in the City of Sveta Nedelja."

Estonia

During meetings with stakeholders and households, community, social and behavioural barriers to renovation emerged, especially in rural areas of Estonia, and were identified as low trust in contractors, building inspectors and technical consultants. But, also a lack of information and administrative challenges, which in turn are caused by the hectic collaboration in the renovation process.

With implementing of the project, some activities were tested and piloted by TREA that should help to overcome these mentioned obstacles. OSS model and in person meetings build a trust. Trainings for different stakeholders and especially households, information and consultation distributed close as much as possible to the locations, made the understanding and attitude towards the need for renovation, the possibility and the availability of support more understandable.

Hungary

In Hungary, limited public awareness and the absence of trusted local intermediaries were the main social barriers to renovation. Many rural residents lacked reliable information on available funding and technical options. To address these challenges, Reflex supported awareness-raising campaigns led by the two pilot LAGs and local NGOs, complemented by targeted social media outreach. These actions informed households about the benefits of energy efficiency and funding options such as the Rural Home Renovation Programme 2025–2026.

Personalised, on-site consultations, so-called *"energy audit light"* visits, proved particularly effective. They allowed households to receive practical, tailored advice in their homes, reducing hesitation and mistrust. Community events and peer exchanges further encouraged mutual learning and collective problem-solving. Cooperation among municipalities, civil society, and local experts extended the project's reach and ensured that renovation messages reflected the realities of rural households, turning awareness into concrete action.

Testimony from József Kiss of the Pitypalatty nonprofit Ltd., Bükk LAG

"Reducing energy poverty in Hungary cannot be achieved without comprehensive awareness-raising, especially in rural areas where a large proportion of the population has low income and lives in energy-inefficient buildings. This conclusion has been supported by several studies and by the Just Transition Plans. Promoting conscious energy use, harnessing local renewable energy sources, improving the energy performance of residential buildings, and strengthening community cooperation are key factors in addressing this challenge. The RENOVERTY project, and in particular the REERs play an important role in supporting these objectives. Beyond its impact on households, the project is also significant for the Bükk LAG, as it successfully connects local residents, municipalities, and professional partners at the local level - fostering the spread of a sustainable and energy-conscious lifestyle. Such awareness-raising efforts not only help reduce household costs but also contribute to lowering environmental impacts and creating more sustainable rural communities. For people living in less developed regions affected by energy poverty, it is especially important that local communities

recognise their role in the energy transition and take an active part in the process. The RENOVERTY project and its initiatives serve as an inspiring example of how knowledge sharing, local best practices, and partnerships can generate real, long-term impact in this field across the region."

Italy

In Italy, community and behavioural barriers were especially visible in multi-family buildings, where collective decision-making is required. Disagreements among co-owners and a general lack of trust often delayed or blocked renovation projects. RENOVERTY underlined the importance of mediation and transparent communication to overcome these challenges. Condominium administrators and independent facilitators can help guide negotiations and build consensus, ensuring all residents feel included.

Another key barrier is the erosion of trust between citizens and institutions. Projects such as *COOLTORISE*, implemented in Parma with ACER, showed that sustained, empathetic engagement can restore confidence. Through home visits, workshops, and the training of "Agents against Summer Energy Poverty," families received personalised guidance on improving comfort and lowering costs during heatwaves.

Finally, information gaps remain substantial. Campaigns like *Italia in Classe A* and the municipal OSS *Sportello Energia & Condomini* help raise awareness, but continuous outreach, free training, and simple energy audits are needed to turn information into participation. Building a culture of renovation requires stability, transparent communication, and consistent institutional support.

Portugal

In Portugal, community barriers stemmed from low awareness of energy-efficiency benefits and a lack of local guidance for households facing energy poverty. Engagement was anchored in familiar and trusted settings, LAGs, parish councils, and community associations, to strengthen credibility and reach.

Launch events and co-creation workshops combined awareness-raising with participatory design of solutions. These gatherings informed residents about financial opportunities and the value of energy-saving measures, while building social trust and cooperation. Household energy audits served as one-on-one coaching sessions, explaining low-cost improvements and the meaning of EPCs in practical terms.

By returning results personally and linking technical findings to comfort and cost outcomes, RENOVERTY reduced anxiety about the renovation process and empowered citizens to take informed decisions. The approach showed that direct, personal engagement, rather than generic campaigns, creates lasting behavioural change in rural areas.

Slovenia

Community barriers in Slovenia include fragmented collaboration among local institutions, municipalities, social services, humanitarian organisations, and healthcare providers, as well as weak coordination between these actors and national institutions such as the Eco Fund. This fragmentation limits awareness and access to renovation subsidies for vulnerable households.

RENOVERTY sought to bridge these gaps by convening local stakeholders through collaborative platform events organised with LAG Zasavje. Consultations in April and September 2025 brought together local authorities, social workers, NGOs, and healthcare professionals to exchange knowledge and strengthen cooperation with national actors.

The events laid the groundwork for a more consistent information flow between local intermediaries and the Eco Fund, helping ensure that frontline workers can identify households in need and direct them toward renovation support. Sustained dialogue and joint strategy-building were identified as key to improving outreach and service delivery for energy-poor households.

Spain

In Spain, the success of renovation efforts increasingly depends on strong community participation once legal and financial barriers are addressed. The RENOVERTY pilot established a *"laboratory"* for peer learning, where citizens who had completed renovations shared their experiences with others planning similar projects. This space for exchange built confidence, clarified administrative steps, and encouraged replication of successful practices across rural areas.

Local administrations, energy communities, and property managers acted as enablers, while targeted communication helped counter mistrust among vulnerable households. By empowering citizens through shared knowledge and mutual support, the Spanish pilot demonstrated how experiential learning can bridge the gap between information and action, promoting durable community engagement in the renovation process.

4.2.2.2 Exploring collaborative models

The pilots confirmed that effective collaborative models for overcoming community and behavioural barriers rely on trusted intermediaries, such as LAGs, social workers, and mediators, supported by stable, transparent, and well-coordinated governance frameworks. These models must integrate technical and social support, empower local ecosystems, and promote innovative bottom-up initiatives such as RECs and Citizen Energy Communities (CECs).

Croatia

The Croatian pilot showed that community barriers are best addressed through coordinated action between national institutions, regional agencies, and trusted local actors. REGEA, LAGs, and local authorities worked together to mobilise citizens and strengthen the social dimension of renovation.

LAGs proved pivotal intermediaries, connecting rural households with national programmes. LAG Sava led the creation of the *Energy Community Sava*, bringing together five municipalities to collectively promote renewable energy and prepare for future renovation measures. REGEA provided technical guidance and ensured alignment with national legislation, while municipalities offered political and logistical support.

Two additional LAGs joined later as replication partners through RENOVERTY's national workshops and call for interest, expanding the model to new territories. This collaboration created a network of rural actors capable of linking renovation, renewables, and community action, demonstrating how partnerships between regional agencies and LAGs can foster ownership and readiness for future projects.

Testimonies of LAG Izvor and LAG Mura Drava (replicators of the RENOVERTY outcomes)

"The knowledge, training, and materials shared by REGEA and other project partners have been highly beneficial in strengthening local capacities and supporting our efforts to promote sustainable energy solutions among citizens and local stakeholders. Building on this experience, LAG Mura Drava is currently working on establishing of energy community, inspired by the example of the Energy Community SAVA - the first renewable energy community established in Croatia with the support of the RENOVERTY project."

Estonia

Co-creation and LAG meetings, especially regarding the co-creation of REERs are a good example of collaboration. Stakeholder meetings, where municipalities, national institutions, local development organizations, energy agencies and businesses participated build trust and show interest regarding collaboration. The co-creation of renovation plans was a much-needed step towards achieving renovations. Finally, trainings and consultations through TREA's collaboration platform increased capacity building and encouraged vulnerable groups towards renovation.

Hungary

In Hungary, collaborative approaches revolved around cooperation among households, civil society, municipalities, and technical experts. Reflex Environmental Association acted as a central facilitator, implementing the *energy audit light* methodology to deliver accessible on-site guidance for rural households.

Civil society organisations played a key role in building trust and ensuring households understood how to apply for funding and implement renovations. Municipalities complemented this by coordinating events, information sessions, and stakeholder workshops, maintaining direct communication with residents. Contractors contributed technical capacity when renovation decisions were made, while national institutions provided policy direction and funding frameworks. This multi-actor model highlights how bottom-up engagement, anchored in local knowledge and NGO participation, can make renovation schemes more inclusive. The

approach demonstrated that effective collaboration between advisory services, civil society, and public authorities bridges the gap between policy design and citizens' everyday realities.

Italy

In Italy, overcoming community and social barriers requires a broad and well-coordinated stakeholder network, grounded in trust, transparency, and collective decision-making. Local authorities and territorial agencies act as facilitators, organising participatory meetings and awareness campaigns where households can voice concerns and co-design solutions. Professional associations, architects, engineers, and builders, support this process by providing technical expertise and helping residents understand renovation steps and benefits.

Community mediators such as condominium administrators, NGOs, and social workers bridge divides between co-owners and between vulnerable households and institutions, promoting impartial dialogue and consensus. Local financial institutions can further strengthen confidence by offering tailored advice and transparent financing options.

Regional governments play a complementary role by harmonising regulations, promoting exchange of best practices, and funding community engagement programmes. National authorities and research institutions ensure long-term policy stability and provide standardised training and communication tools. Together, these actors form a multi-level framework in which shared information, mediation, and civic participation are essential to advancing energy renovations in socially diverse contexts.

Portugal

Collaboration among local partners was central to the Portuguese pilot. RENOVERTY worked closely with Local Action Groups (ADIBER and CoimbraMaisFuturo), parish councils, municipal authorities, and social services to identify vulnerable households and facilitate participation. These actors served as trusted intermediaries between residents and institutions, helping build confidence in renovation programmes. Local associations and NGOs further supported outreach, while parish councils provided logistical assistance and community venues for meetings and awareness events. The partnerships ensured that engagement took place in familiar environments and used accessible language.

The pilot also explored RECs as a model for collective energy and renovation action. RECs can enable municipalities, citizens, and small businesses to jointly produce and manage renewable energy, pool resources for renovation, and coordinate advisory services. By integrating social, technical, and financial collaboration, Portugal's model demonstrates how multi-actor cooperation can transform awareness into sustained community participation.

Testimony from Miguel Ventura, ADIBER

"We sincerely thank you for sharing the information about the RENOVERTY project, in particular, the REERs and the policy brief, an outstanding summary of the project and an excellent working tool for

the entire partnership. We will formally submit these documents to the Municipality of Tábua and schedule a meeting with the Mayor to define how some of the proposed measures can be effectively integrated into municipal regulations, strengthening our commitment to promoting energy efficiency and improving building comfort. Furthermore, we are determined to ensure that this topic is incorporated into our Local Development Strategy, as we consider it a key element to reinforce the Strategy's objectives and to ensure concrete, lasting impacts in our territory."

Slovenia

Building on the considerations outlined so far, it becomes clear that overcoming community and social barriers to energy renovation requires the active involvement of a broad and well-coordinated network of stakeholders. Community and social barriers are rooted in patterns of communication, trust, and collective decision-making. Their resolution therefore depends on fostering close, transparent interaction among residents and between citizens and institutions, supported by impartial actors capable of mediating conflicts and ensuring inclusiveness. At the local level, the engagement of stakeholders operating in direct contact with communities is of paramount importance. Municipalities and territorial agencies should act as facilitators of dialogue, organizing public meetings, information campaigns, and participatory workshops that enable households to express concerns and co-design solutions. Trade and professional associations, such as architects and engineers, can contribute technical clarity, helping residents navigate complex renovation processes and build a shared understanding of expected outcomes. Universities and research centres can further enrich this dialogue by integrating socio-cultural and historical perspectives, which often play a decisive role in communities' willingness to accept change.

Equally crucial are community mediators, including condominium administrators, local NGOs, social workers, and trusted community leaders, who can bridge divides between co-owners and between vulnerable households and institutions. By providing impartial guidance, these actors help create the trust and collective responsibility needed to secure consensus in multi-family buildings and neighbourhood projects. Local financial institutions may also play a supporting role by offering tailored advice and fostering trust in renovation schemes, particularly among economically vulnerable groups.

The contribution that can be made by local and national actors should not be underestimated either. They can indeed play a crucial role in creating the right conditions for an effective, active local action. Regional authorities should foster coherence among municipalities by promoting the exchange of best practices, funding awareness-raising initiatives, one-stop shops, and community engagement programmes, and by supporting the training of mediators and facilitators. Coordination with mayors and city councils helps ensure clear regulatory frameworks and open communication channels. National institutions and research bodies can reinforce these efforts by guaranteeing stable and transparent regulations, providing long-term policy commitments, and developing standardized communication tools and training modules for local actors. Collaboration with energy companies, environmental organizations and

consumer associations further ensures that accurate information circulates widely and that community concerns are represented in higher-level decision-making.

Spain

For the sessions of the peer-to-peer lab, the first pilot of this measure is done in the municipality of Sant Pere de Torelló, which includes 35 detached farmhouses and OECoop (Osona Energy Cooperative who supports all Energy Communities in the region) who is also developing a business model for renovation to be used for all Energy Communities in the region.

Testimony from Pau Pañella Vilamó of the Local Agency of Energy in Osona (ALEO)

Regarding community dissemination for energy retrofitting (Action 16 of the Spanish REER): "This measure recognizes the great potential of energy communities as local speakers to reach segments of the population often disconnected from institutional campaigns. Energy communities can generate adapted information materials and carry out workshops, conferences and training activities nearby, from a perspective of trust and community. In Osona, this action fits perfectly with the reality of several energy communities that are already active and have the capacity for territorial organization."

4.2.2.3 Implementation strategies

Across all RENOVERTY pilots, effective strategies for overcoming community, social, and behavioural barriers centred on three pillars: (1) capacity-building and training for local actors, (2) consistent community engagement and awareness-raising, and (3) the mobilisation of existing local structures such as LAGs, municipalities, and associations to act as trusted intermediaries.

Croatia

Implementation focused on equipping LAGs and local authorities with the tools to mobilise citizens and sustain participation. Capacity-building workshops trained staff to guide households through renovation options and subsidy applications, while awareness campaigns combined information on available programmes with advice on joining collective initiatives like energy communities.

REGEA provided technical mentoring to strengthen LAG organisational skills, and small community events enabled direct dialogue with vulnerable households. The phased strategy aimed for quick results through awareness within the first year, expansion of community models within three years, and replication in other territories over the longer term.

Estonia

The strategy to mitigate risks focused on building trust via open communication and providing adequate information about renovation. This included on-site training and consultations, identifying the need for renovation and selecting measures, and putting together the entire plan for renovation of buildings. These actions are part of the piloted OSS service model.

TREA also provides information gathered from meetings with citisens to the national online construction and renovation guide, which is under development but is already partly available.

Hungary

Hungary's approach combined community engagement, technical support, and communication campaigns. RENOVERTY and its partners used rural fairs and local events to discuss energy poverty, present the REER framework, and promote the Replication Call.

Direct household engagement through *energy audit light* visits provided personalised advice and helped residents identify feasible efficiency improvements. A nationwide social-media campaign encouraged use of the Rural Home Renovation Programme 2025–2026, while local workshops and NGO outreach reinforced trust and informed households about practical renovation steps. This multi-channel approach ensured that information reached even the most remote communities and translated awareness into concrete actions.

Italy

AISFOR will run a bi-weekly editorial stream on Sportello Energia Web that translates energy-poverty and energy renovation topics into practical pieces with specific insights related to topics such as fiscal deductions and heat pumps, cross-posted on municipalities' website that are part of the Sportello Energia Web and relaunched via social media. Execution relies on low-cost tools already at hand such as a shared drive with article templates, and scheduling. The timeline, anchored to the late-March 2025 start and first publication in early April until the first half of October. In this case, the measure has no cost.

Portugal

Portugal prioritised proximity and trust by anchoring activities in familiar institutions, LAGs, community associations, and Parish Councils. These hosted launch events that introduced renovation opportunities and built early buy-in. Awareness sessions explained the benefits of energy-efficient renovation and available financial schemes in clear, everyday language, while household audits served as individual coaching moments, linking technical findings to comfort and savings outcomes.

Implementation also advanced the groundwork for RECs. In Tábua, a REC working group was established, the management entity identified, and discussions launched with the cooperative *Coopérnico*. Though complex and long-term in nature, these actions laid the foundations for community-led energy and renovation initiatives in rural Portugal.

Slovenia

Initial activities focused on connecting diverse local actors and strengthening collaboration in promoting renovation support for vulnerable households. Platform events organised with the Regional Development Agency and LAG Zasavje brought together municipalities, social services, healthcare professionals, and NGOs to exchange information and identify joint opportunities for outreach.

The most successful event, held in September 2025, centred on the future role of OSS and attracted broad participation. Future implementation foresees regular regional meetings, each addressing specific themes related to energy-poverty alleviation. The next challenge lies in designating a permanent local coordinator to continue convening these stakeholders and maintain momentum in collaboration.

Spain

Implementation of the peer-to-peer renovation lab in Sant Pere de Torelló established a participatory model for knowledge exchange. Periodic sessions combined active listening, co-creation, and open dialogue between households that had already renovated and those beginning the process.

The municipality, supported by *Osona Energy Cooperative (OECoop)*, coordinated logistics and facilitated discussions on practical measures, financing, and administrative procedures. The first meeting in October 2025 gathered 35 farmhouse households to share real experiences and inspire replication across neighbouring municipalities. This living-lab model fostered confidence, peer learning, and collective motivation for future renovation efforts.

4.2.2.4 Risk and mitigation measures

Across the RENOVERTY pilots, the main risks to overcoming community, social, and behavioural barriers were linked to weak stakeholder coordination, limited local capacity, and citizens' mistrust in institutions or new initiatives. Successful mitigation depended on strong collaboration structures, consistent communication through diverse channels, and locally trusted intermediaries that could sustain engagement throughout the renovation process.

Croatia

Key risks in rural Croatia included the limited organisational capacity of LAGs, citizens' reluctance to engage in community initiatives, and the evolving regulatory framework for energy communities. Many LAGs lacked the staff or resources to take on renovation-related tasks, while vulnerable households were hesitant to participate due to past experiences with unreliable subsidy schemes. To mitigate these challenges, REGEA provided targeted mentoring and technical assistance to strengthen LAG capacity, co-organised outreach with local authorities to enhance trust, and maintained continuous dialogue with ministries and the FZOEU to anticipate and explain regulatory updates. This support helped reduce uncertainty and sustain motivation among both local actors and households.

Estonia

In Estonia, the main risk was untrusting of market players in renovation market Also, access to adequate information, which builds untrust. Therefore, TREA decided to focus on providing an on-site training and consultation, organizing co-creation meetings to secure the households expectations included with expert opinion and measures to renovation plan.

Hungary

The main community risk in Hungary was low awareness among rural households, compounded by the long-standing perception that state-controlled utility prices remove the need for energy efficiency improvements. Many vulnerable households also struggled to navigate available financial schemes. To address these issues, RENOVERTY partners launched targeted communication campaigns and participated in local and national events to raise awareness about the Rural Home Renovation Programme 2025–2026. Messaging focused on demonstrating that efficiency upgrades yield further financial savings and energy security. LAGs organised information forums and stakeholder workshops, while NGOs provided clear, practical guidance. These combined actions increased participation and trust in renovation measures among rural residents.

Italy

In Italy, the main risks related to low audience engagement and the short-lived impact of awareness initiatives. Despite the reach of *Sportello Energia Web*, a communication platform on energy poverty and renovation, maintaining sustained public interest and participation remained a challenge. Mitigation focused on adopting a multi-channel approach, combining online and offline communication. Alongside municipal websites and newsletters, partners recommended social media campaigns, in-person events, and interactive workshops. Messaging was tailored to specific audiences, farmers, tenants, and small municipalities, and designed to illustrate tangible benefits such as comfort, savings, and community value. Over time, consistent, relatable communication helps transform awareness into action and reinforces collaboration between municipalities and citizens.

Portugal

The main risk faced was the lack of engagement by local stakeholders and regional power, as well as resistance to participate from vulnerable households, which was addressed by using local mediation by trusted organisations or their representatives.

Social risks, such as mistrust, fatigue with bureaucracy, digital exclusion, and life-load constraints, were mitigated by using trusted conveners, plain Portuguese, and face-to-face conversations that held useful advice.

Slovenia

Low responsiveness from local stakeholders was the main implementation risk in Slovenia. Energy poverty is not an official priority for many local actors beyond municipalities and Eco Fund advisors, and staff in social or healthcare services are often overburdened with daily tasks. Consequently, participation in events was initially weak, especially among humanitarian organisations and health professionals. To mitigate these challenges, RENOVERTY invested in persistent, personalised outreach. Invitations were followed up with phone calls explaining the importance of participation, and trusted partners such as the Regional Development Agency and LAG Zasavje promoted events through their own networks. Over time, attendance improved,

with the third regional event attracting representatives from the Red Cross and local healthcare institutions. The experience showed that direct, repeated engagement and peer endorsement are crucial to mobilising overextended local stakeholders.

Spain

In general, although barriers with the families might be still encountered for the general context, the actions and measures have no relevant risks for their correct implementation.

4.2.2.5 Monitoring and Evaluation

The knowledge gained via the pilot activities, underlined that, in general, the monitoring processes of the measures' effectiveness for addressing community, society and behavioral barriers must entail extensive capturing of the employed participatory processes, the content of engagement and the meaningful outcomes stemming from them, while aim at assessing the sustainability of these procedures, beyond the end of the project.

Croatia

Monitoring of community-related measures in Croatia will focus on both participation levels and the durability of new collaboration structures. Key short-term indicators include the number of citizens reached through awareness events, applications supported for renovation subsidies, and the establishment of the Energy Community SAVA as a functioning model. The continued engagement of LAG Sava and replication of this approach in other territories will serve as evidence of sustained community mobilisation.

Longer-term evaluation will rely on public reports, follow-up with local actors, and participation in broader national or EU initiatives. To ensure continuity after RENOVERTY, LAGs and local authorities will be linked to the *Citizen-Led Renovation (CLR) Phase 3* initiative, coordinated by REGEA, which provides a framework for ongoing exchange and capacity-building.

During the project, monitoring mechanisms included regular feedback from LAGs, testimonies from participating households, and REGEA's advocacy at national level. Beyond project completion, the CLR network will enable continued learning and replication, ensuring that the inclusive community models developed under RENOVERTY evolve into lasting practices for tackling energy poverty in rural Croatia.

Estonia

The monitoring and evaluation process includes keeping track of the level and number of participants in the capacity building events, the developed REERs, and of regular feedback from participating households and apartment associations. As a result, one application for a grant was submitted by a building involved in the pilot and seven more applications for renovation grants were submitted from the area.

Hungary

The effectiveness of this measure can be evaluated through the following indicators: the engagement metrics for the social media posts, the number of households who applied for the energy audit light.

Italy

Effectiveness will be gauged with simple metrics aligned to the lean setup: every 2 weeks from late March 2025 (first article in early April) through the first half of October, we will track the publication cadence, the number of municipalities that cross-post each piece on their *Sportello Energia Web* pages, and basic engagement signals from relaunches on social media (click-throughs, reads, and - where available - average time on page); we will also count practical follow-ups prompted by articles (inbound questions via the contact page, and requests for information or audits), with a simple tag noting rural municipalities to verify reach among farmers and residents.

Portugal

Monitoring is based on the attendance to the awareness raising events and active participation, which many times had to be stimulated. Short debriefs were held at the end of the meetings to verify if the attendants had captured the information provided and identify needs for future events.

Slovenia

While working to increase information and knowledge exchange and strengthen collaboration between local actors that are in touch with vulnerable households are success was measured by the attendance of the events and the variety of local stakeholders within the social protection sector, we were able to engage to attend the platform events. In the future, beyond the timeframe of the project, we could also measure long-term success by whether there would be a formalization of such collaboration in the form of a regional or municipal working group or other collaborative body focused on energy poverty alleviation.

Testimony from Martina Kerišič Dolinšek, municipality of Hrastnik

"In addressing energy poverty, a holistic approach by various actors, both at the local and national levels, is essential, of course, with the inclusion of households that are most affected by high prices for heating. The municipality of Hrastnik, as the owner of almost 290 apartments, regularly carries out energy renovations, which are carried out within the framework of financial capabilities, which represents a significant obstacle to ensuring better living conditions for our tenants. In the coming years, we plan more investments not only in the construction of apartments, but also in the replacement of building furniture and energy renovation, which greatly contributes to reducing heat losses and consequently costs. Until actual realization, information, education and actual financial assistance to those who need it most are essential. Therefore, I see a huge step forward by connecting the various stakeholders who attended the meetings within the RENOVERTY project,

because only together can we identify the one most in need of assistance and improve their living conditions."

Spain

A satisfaction survey is being given to participants so that they can evaluate the impact of the peer-to-peer renovation lab. Also, the stakeholders involved guarantee the long-term sustainability of the peer-to-peer renovation lab.

4.2.3 Overcoming financial barriers

4.2.3.1 Addressing economic barriers

The pilots confirmed that eliminating economic barriers to renovation in rural areas requires strategies that reduce upfront costs, prioritise the most vulnerable, and combine tailored financial support with local delivery. Effective schemes blend grants, microcredit, and innovative mechanisms, such as on-bill financing, energy performance contracts, or community-based funds, while embedding them in local governance and market ecosystems.

Croatia

Economic barriers remain among the most persistent obstacles to rural renovation in Croatia. High upfront costs, low creditworthiness, and unstable incomes prevent many households from accessing existing subsidies. For families in energy poverty, even partial pre-financing or small loans are unattainable, while dispersed settlements increase per-project costs.

To address these issues, future subsidy schemes should eliminate pre-financing requirements by paying contractors directly upon verified milestones. LAGs, municipalities, or energy communities could act as intermediaries, handling payments and ensuring transparency. Revolving "bridging funds" managed by LAGs or local authorities could also advance zero-interest loans while households await national reimbursements.

Community-led structures such as energy communities can further lower costs by aggregating demand, managing joint procurement, and pooling administrative support. Applying the principles of equity, sustainability, and efficiency means prioritising vulnerable households, focusing on durable low-regret measures like insulation and efficient heating, and standardising renovation packages to reduce costs in remote areas. The upcoming 100% subsidy call will be crucial, but its success depends on simple procedures and predictable funding for those most in need.

Estonia

Financial barriers are the most common and clear obstacles to renovation. When beginning a renovation, it is important to have an initial amount of funds available to start investing in energy efficiency. However, in energy-poor areas, finding such an initial amount is difficult. This situation is also amplified by the fact that banks are not willing to give loans to start renovations, and applications require a lot of paperwork and justification. In rural areas, there is also a significantly

smaller number of companies that can carry out renovation work and therefore there is less competition on the local market, which is directly related to the higher costs of construction work.

Hungary

In Hungary, overcoming financial barriers requires combining direct economic support with simplified access and awareness. Measures such as the Rural Home Renovation Programme 2025–2026 and the EEOS can provide tangible help to low-income rural households, especially by offering free or subsidised insulation and efficiency upgrades. However, bureaucracy and irregular funding cycles discourage participation. Policies should therefore guarantee predictable and continuous support rather than short-lived campaigns. Integrating technical and financial advisory services through local OSS can help households navigate applications and financing conditions.

Awareness-raising remains equally important. Local events, stakeholder workshops, and social media outreach have been used to explain long-term financial benefits, highlight the unsustainability of fixed energy tariffs, and show that even small improvements yield measurable savings. A combined approach of financial aid, capacity-building, and targeted communication can bridge both economic and informational gaps, enabling broader participation.

Italy

Addressing Italy's rural financial barriers requires a comprehensive mix of instruments guided by equity, sustainability, and efficiency. Equity calls for accessible mechanisms such as microcredit, on-bill financing, and energy performance contracts, allowing repayment through energy savings rather than upfront capital. Sustainability depends on long-term tools, low-interest green loans, reverse mortgages for elderly owners, and interest-rate guarantees lasting ten years or more, to provide security and predictability. Efficiency requires flexible loan terms and repayment options adapted to different household profiles.

Public and private actors both play key roles. National authorities must introduce targeted subsidies and guarantee schemes, while financial institutions should expand tailored green loan products supported by public guarantees. Municipalities, ESCOs, and third-sector organisations can promote complementary initiatives such as crowdfunding, shared-savings contracts, and community energy schemes.

To reduce the deterrent of long payback periods, energy performance contracts and leasing models can spread costs across monthly energy savings. Expanding state-backed guarantee funds to include efficiency upgrades would further reduce risk for low-income groups. Ultimately, financial innovation must be matched by clear governance and consistent coordination across all levels to make renovation feasible for vulnerable households.

Portugal

Portugal's approach linked practical household guidance with policy reforms that tackle cost barriers structurally. At the national level, RENOVERTY inputs to the Long-Term Strategy to Combat Energy Poverty advocated subsidy schemes that remove upfront payments for low-income households by paying contractors directly or advancing funds. Proposals also included longer application windows and simplified documentation for dispersed rural communities.

Municipalities were encouraged to streamline local procedures by offering indicative cost ranges for typical renovations and organising joint purchases of standard materials to reduce unit prices. Locally, citizens received hands-on support through municipal help desks and OSSs in Coimbra and Tábua, which provided walk-in advice and clarified financial steps. Energy audits and follow-up meetings helped households prioritise affordable, high-impact measures and plan staged renovations over time.

Preparatory work for a REC in Vila Nova de Oliveirinha is also underway, offering a structural way to reduce bills collectively and pool resources for future upgrades. Together, these measures demonstrate how policy and practical guidance can converge to make renovation both affordable and accessible.

Slovenia

In Slovenia, insufficient funds remain the key barrier for vulnerable households, though the Eco Fund provides a relatively stable mechanism through continuous public calls such as *ZER 2024*. This programme covers 100% of investment costs, up to €18,000, for recipients of state social benefits. While effective, it excludes many low-income households who fall just above eligibility thresholds or live in private rental housing.

RENOVERTY partners therefore advocated for improvements through the forthcoming Social Climate Plan, including increasing subsidy amounts, expanding eligibility criteria to reach near-poor households, and introducing dedicated measures for tenants. Another priority is financing the participation of vulnerable households in energy communities by allowing subsidies for small-scale solar PV systems, currently not covered under the Eco Fund scheme. These enhancements would make Slovenia's already-robust system more inclusive and better aligned with EU social climate goals.

Spain

In Spain, high renovation costs remain the most significant barrier, exacerbated by recent increases in material prices. Although grant programmes exist for vulnerable households, complex procedures and the need for pre-financing deter participation.

A promising approach is the promotion of collaborative purchasing schemes that allow multiple households or organisations to pool resources for joint procurement of materials and services. This aggregation model improves bargaining power, reduces costs, and ensures better quality control during installation. By linking such schemes with Energy Communities, Spain can

combine collective purchasing with shared renewable generation and equitable cost distribution. This integrated model supports financial viability and strengthens the social dimension of energy transition in rural areas.

4.2.3.2 Exploring collaborative models

The RENOVERTY experience showcased that effective financial collaboration models depend on a clear understanding of local financial needs, transparent funding channels, and coordination among institutions responsible for delivering support. Cooperation between public authorities, financial institutions, and community intermediaries proved essential to bridge the gap between policy frameworks and households, ensuring that renovation becomes financially feasible for rural and vulnerable populations.

Croatia

In Croatia, addressing financial barriers required stronger collaboration between local actors and national funding institutions. The Environmental Protection and Energy Efficiency Fund (FZOEU) remains the key provider of renovation subsidies, yet its schemes often fail to reach households that lack liquidity or credit access. RENOVERTY, through REGEA, worked with LAGs and local authorities to identify bottlenecks and design complementary mechanisms.

Partnerships with banks, credit unions, and microfinance providers were explored to create bridging loans or low-interest credit lines, ideally backed by state guarantees. During RENOVERTY's national event, representatives from ministries, FZOEU, financial institutions, and NGOs discussed practical models for affordable pre-financing. REGEA also supported LAGs in testing collaborative procurement, revolving funds, and collective contracting through energy communities to reduce administrative costs and ensure economies of scale.

These efforts laid the foundation for an integrated system where subsidies, guarantees, and local financing tools work together. The participation of the Energy Community SAVA and two additional LAGs demonstrated that local intermediaries can successfully connect national schemes with community-based delivery, making renovation accessible for households most affected by energy poverty.

Estonia

Cooperation in overcoming financing obstacles is and will certainly remain one of the biggest challenges in Estonia. So far, the grantor, the Entrepreneurship and Innovation Foundation (EIS), the Ministry of Climate, commercial banks and various stakeholders have worked together to find ways to increase financing capacity. The possibilities to mitigate this challenge include better cost management through better and more accurate planning, organizing joint procurement and newer financing solutions such as energy community activities. TREA piloted the OSS model, which provides an opportunity to manage the process more effectively. In the last round of EIS, the opportunity to apply for support jointly, the so-called district based renovation, came to the fore, which we want to use for the renovation of four houses in Kääpa village, in order to get a more favorable price through joint procurement.

Hungary

In Hungary, collaboration across governance levels and sectors was key to tackling financial barriers. Local stakeholders, municipalities, LAGs, and civil society organisations, played an essential role in helping households understand the benefits of renovation and navigate financial options. These intermediaries served as first-contact points, explaining subsidy conditions and supporting applications for the Rural Home Renovation Programme 2025–2026.

At national level, stable, transparent, and multi-year funding frameworks are needed to ensure long-term participation. Simplified support schemes and consistent regulations can reduce uncertainty, while predictable demand enables local contractors to plan ahead and maintain skilled staff. RENOVERTY partners also emphasised the importance of technical training and worker retention to sustain renovation capacity. In this model, cooperation among government institutions, civil society, and the construction sector ensures that financial incentives translate into real, high-quality renovation projects.

Italy

In Italy, collaborative financial models must operate across multiple tiers of governance. Municipalities and regional authorities are the first point of contact for citizens but often lack sufficient resources to manage renovation programmes alone. Therefore, coordination among local, regional, and national institutions, as well as with private and civil society partners, is essential.

At the local level, municipalities and territorial agencies should lead citizen engagement, streamline procedures, and work with local banks or credit unions to design inclusive financing options for low-income households. Regional authorities can facilitate coherence by establishing dedicated renovation funds, simplifying regional regulations, and fostering regular exchanges among municipalities. This intermediate tier is key for ensuring regulatory alignment and capacity-sharing. At the national level, ministries and public agencies must provide clear policy guidance, allocate stable resources, and cooperate with financial institutions, energy companies, and consumer associations to co-develop accessible financing tools. Universities and research centres can further contribute by monitoring social and economic impacts and designing models for equitable access. This structured, multi-tiered cooperation ensures that financial instruments are both socially responsive and technically viable across Italy's diverse territories.

Portugal

Uptake of financial measures relies on a collaboration chain that links municipal coordination, community reach, and market participation. Cooperation between municipal services (technical and social), parish councils, local associations and LAGs is essential to translate identified needs into actionable steps. In Vila Nova de Oliveirinha, collaboration with energy-cooperative actors laid the groundwork for a future REC, complementing household retrofits with collective generation/consumption benefits. This role-clear model ensures that community actors mobilise

demand, municipalities structure it, markets respond efficiently, and national policy evolves to remove pre-financing hurdles.

Slovenia

The Ministry of environment, climate and energy is the main stakeholder responsible for leading the process of designing the national Social climate plan with the expertise and data support of the research institute The Jozef Stefan Institute. The ministry is the stakeholder that is tasked with leading consultations and bringing relevant stakeholders into dialogue. These are primarily stakeholders that will be implementing the Social climate plan in terms of allocating funds to households (e.g. Eco fund, municipalities) as well as civil society actors working on energy and social policies and research institutions in the domain. The latter can provide expert level knowledge and recommendations on measures to be included and ways to identify and reach vulnerable households. One important actor that needs to be considered for implementing the measures included in the plan are energy communities as an active stakeholder that can not only provides insight into models of integrating vulnerable households in energy communities but can also identify and actively approach vulnerable households in their community.

Spain

The measure proposed to overcome possible financing barriers of citizens toward renovation is the promotion of aggregate purchases of energy resources and services. The first pilot of this measure is done in the municipality of Sant Pere de Torelló, which includes 35 detached farmhouses and OECoop (Osona Energy Cooperative who supports all Energy Communities in the region) is developing a business model for renovation to be used for all Energy Communities in the region.

Testimony from Pau Pañella Vilamó from the Local Agency of Energy in Osona (ALEO)

Regarding the promotion of aggregated purchases of energy resources and services (Action 18 from the Spanish REER): "This is a strategic measure to address economic and management barriers, which are very relevant in our territory. From ALEO we have shared experiences of collective initiatives already existing in the region (such as the aggregated purchase of biomass or photovoltaic installations) and we have contributed to designing a model that is flexible, replicable and easy to adapt to the capacities of each CE. This action reinforces the role of the energy community as a platform for savings and efficiency."

Regarding the search for community financial mechanisms for energy rehabilitation (Action 19 from the Spanish REER): "One of the major challenges to promote rehabilitation is financing. ALEO proposed that ECs can act as innovative instruments to provide collective financial solutions, such as bridge loans, leasing formulas or the use of mechanisms such as CAE (energy savings certificates). This approach seeks to facilitate access to rehabilitation, especially in profiles that cannot afford initial investments, while at the same time strengthening the collaborative and community model of the energy transition."

4.2.3.3 Implementation strategies

The pilots highlighted that overcoming financial barriers requires a combination of practical financial instruments and strong cooperation between authorities, market actors, and local communities. Successful implementation depends on stable, predictable funding, inclusive access for vulnerable households, and technical support embedded in existing governance structures.

Croatia

The key to reducing financial barriers is to design schemes that remove the need for upfront investment. The forthcoming 100% subsidy call of the FZOEU should be implemented so that contractors are paid directly after works are verified, rather than requiring households to pre-finance and seek reimbursement.

Complementary tools are needed locally. LAGs and municipalities can manage small revolving funds or guarantees to bridge delays in subsidy disbursement, while energy communities can aggregate demand and negotiate joint procurement to reduce costs. Banks and credit unions, supported by public guarantees, can provide affordable bridging loans. Regional energy agencies such as REGEA can supply technical templates, model contracts, and mentoring for local actors.

Short-term actions focus on preparing households through information sessions and application support. In the medium term, LAGs and energy communities can test revolving funds and collective procurement. Over the longer term, these models should be scaled up and integrated with predictable national subsidy cycles. Adequate local staffing, technical expertise, and stable funding streams are crucial to ensure continuity and trust in the system.

Estonia

The strategy to remove the obstacles to financing is either to increase subsidies or to reduce and optimize the process. In the Renoverty project TREA piloted the OSS model, which provides an opportunity to manage the process more effectively and also offer the entire chain of activities as an administrative service, which in turn is also eligible for support. We also recommend using district-based renovation, which means that several adjacent buildings can be renovated together, both in terms of administration and in terms of procurement and construction work.

Hungary

At the time measures to reduce financial barriers were introduced, the EEOS represented the most effective mechanism to stimulate energy renovations. However, regulatory changes introduced in January 2025 altered its conditions. The revised scheme increased the annual energy-saving obligations for suppliers and prioritised long-term interventions, creating temporary uncertainty among energy suppliers, contractors, and households while administrative procedures adapted.

By June 2025, the market for attic insulation rebounded thanks to improved outreach that raised awareness of EEOS opportunities and the Rural Home Renovation Programme 2025–2026. Contractors gained a clearer understanding of compliance requirements and anticipated demand, enabling them to plan and deliver works efficiently. Favourable summer weather also supported uptake.

Ongoing success depends on clear communication, predictable procedures, and consistent collaboration among contractors, municipalities, and national agencies to maintain confidence and ensure equitable access to financing.

Testimony from Béla Völfinger the mayor, Pápateszér, Somló-Marcalmente-Bakonyalja LAG

"The attic insulation initiative implemented under the EEOS, introduced through the RENOVERTY project, is a particularly important development for our municipality.

This program not only helps households achieve significant energy savings, but also reduces heating costs and improves indoor comfort levels. Poorly insulated attics can cause homes to lose up to 20–30% more heat, which burdens both family budgets and the environment. Proper insulation, however, helps to lower overall energy consumption.

The EEOS framework is especially beneficial because the investments do not require any financial contribution from households: the costs of implementation are covered by energy suppliers through their energy efficiency obligations. This provides an opportunity for families to carry out home energy retrofits that they would otherwise be unable to afford."

Italy

The measure based on collaboration with third-sector entities will be implemented through a lightweight partnership model that channels third-sector capital, grants, microcredit, and social funds, into small, high-impact home upgrades for households in energy poverty. A simple protocol with a microcredit organisation establishes a dedicated renovation credit line, with the lender handling paperwork and checks, minimising administrative burden for households.

From initial contact to agreement, the process takes about five months, with signing or rejection adding another two. Costs are minimal, limited mainly to communication materials. This low-cost, replicable model provides a practical approach for assisting vulnerable households who cannot access traditional loans, offering an example that could be scaled to other regions.

Portugal

Policy recommendations were provided to the National Long-Term Strategy to Combat Energy Poverty, complemented by bilateral exchanges with its coordinator and with the National Observatory for Energy Poverty (ONPE). These dialogues allowed RENOVERTY to present detailed findings and inform both policy design and monitoring. As a result, RENOVERTY was

acknowledged within the Observatory's portfolio and featured on its website, strengthening national visibility.

The consortium also contributed to the *Fórum Participativo Temático – Combater a Pobreza Energética*, where project results were presented and debated with stakeholders. ISR prepared a concise Policy Paper outlining evidence-based recommendations for national measures based on REER findings and round-table discussions.

At the local level, RENOVERTY findings were incorporated into the Local Development Strategies of LAGs ADIBER and CoimbraMaisFuturo and into the Municipality of Tábua's renovation planning. The establishment of a REC in the pilot area will further help lower energy bills, coordinate joint renovation initiatives, and aggregate demand for efficient materials and equipment.

Slovenia

Focus have focused on participating and contributing in the process of developing the draft Social climate plan with expertise-based recommendations in the field of energy poverty and energy communities as well as creating opportunities for developing solution to some complex systemic issues related to energy renovations: inclusion of households facing energy poverty in energy communities and developing measures aimed specifically at alleviating energy poverty within the tenant population. We thus attended the consultation organized by the Ministry of Environment, Climate and Energy on measures to be included in the national Social Climate Fund, we also collaborated with a partner NGO Umanotera and published an official proposal of measures to be included in the Social Climate Plan (all April 2025) – the proposal was also sent to the ministry (see also news article on the website of the national umbrella organization CNVOS). As part of the REER final national event (27th of January), a workshop was also organized on how to operationalize the measure to include households facing energy poverty in energy communities and developing measures for financing energy renovations of rental households. Representatives from the Ministry of environment, climate and energy were present at the event and gave presentations on the process and current state of play of the Social Climate Plan. We will continue providing expert-based input during the official public consultation on the draft Social Climate Plan that is planned to take place in autumn 2025.

Spain

Starting with a sample of ten farmhouses, the study for developing a business model for aggregated renovation examined options for retrofitting rural homes in Sant Pere de Torelló. Based on these findings, *Osona Energy Cooperative (OECoop)* is creating a refurbishment business model that can be applied across regional Energy Communities, with around half of the identified farmhouses expected to participate. The typology study ranked cost-effective solutions, identifying roof insulation as the most impactful passive measure, complemented by phased window replacement to reduce initial costs. For active systems, biomass and aerothermal technologies offer significant savings and acceptable payback times, especially when combined with subsidies. Geothermal systems remain viable only under specific

conditions. This business model, combining technical analysis with innovative funding approaches, is now being implemented by OECoop to demonstrate collective renovation strategies that enhance cost efficiency and replicability across the Osona region.

4.2.3.4 Risk and mitigation measures

The pilots' experience highlighted that an effective strategy for minimising risks must combine stable, transparent, and predictable funding frameworks with local capacity building. Simplified administrative procedures, workforce development, and participatory approaches that foster trust, especially among vulnerable rural households, are essential for sustained engagement.

Croatia

Financial measures to support rural renovation in Croatia face several uncertainties. The most immediate is the postponement of the announced 100% subsidy programme for citizens experiencing energy poverty, which had not opened by September 2025. Frequent adjustments to programme rules also make households hesitant to commit to renovation.

Structural risks persist, as LAGs and municipalities often lack financial instruments or administrative systems to manage revolving funds, while banks and credit unions remain reluctant without sufficient risk-sharing guarantees. Even when subsidies exist, long waiting periods and complex procedures discourage participation. To mitigate these challenges, short-term activities focused on maintaining citizen interest and preparing local actors for future calls. REGEA and pilot LAGs organised discussions with municipalities on easing pre-financing barriers and introduced concepts of small-scale bridging mechanisms and collective procurement. Regional energy agencies can help households prepare technical documentation so projects are ready once funding opens. In the long term, state-backed guarantees, predictable multi-year funding, and clearer programme design are needed to stabilise expectations and build confidence among financial institutions and households.

Estonia

The main risks were the lack of initial funds or unforeseen overspending preventing residents from starting renovation works, bureaucratic procedures and requirements that hindered the obtaining of bank loans, and higher renovation costs in rural areas. In RENOVERTY, TREA piloted the OSS model, which provides an opportunity to manage the process more effectively and offers administrative support in the entire chain of activities in the renovation process. Furthermore, better preparation of renovation plans, like initial designs and improved quality of reconstruction designs, allows citizens to receive better offers from construction companies and thereby reduce costs.

Moreover, the financing of renovation support, with grants varying according to the socio-economic situation of the region, was targeted to the rural areas. Additionally, the REERs proposed different methods of financing renovation (full vs. step-by-step).

Hungary

Several risks could affect the successful implementation of renovation funding measures. A key challenge is the shortage of qualified craftsmen. As more students pursue higher education, the number of skilled vocational workers has declined, with many moving abroad for higher wages. These shortages become critical during funding peaks when demand surges.

Mitigation should focus on continuous, predictable funding rather than one-off campaigns, allowing better workforce planning. Stakeholder engagement through information forums, workshops, and communication materials can also sustain participation. Strengthening the involvement of municipalities, LAGs, businesses, and NGOs is crucial to ensure local continuity. Consistent funding cycles would encourage training and retention, mitigating the cyclical labour shortage that constrains renovation capacity.

Italy

Financial and community-based innovations in Italy, such as partnerships with third-sector organisations and shared tool banks, offer promise but carry risks of limited resources, administrative complexity, and low engagement.

Collaborating with non-profit entities can unlock alternative funding for households excluded from conventional credit, but insufficient capital, overlapping programmes, and trust deficits remain obstacles. Mitigation requires financial transparency, harmonised procedures, and clear accountability to ensure efficient allocation of funds. Complementary actions, such as financial-literacy workshops, can enhance repayment capacity and foster resilience among beneficiaries.

The first attempt to secure public funding for these initiatives was unsuccessful, prompting efforts to establish partnerships with microcredit institutions. While negotiations continue, the groundwork for future collaborations has already been laid.

For initiatives such as the Shared Renovation Tool Bank and RENOLABS workshops, the main risks include limited visibility, low participation, and coordination challenges. Mitigation involves offering hybrid or online training for remote areas, providing small incentives, certificates, networking opportunities, or symbolic rewards, and partnering with municipalities to maintain visibility. These measures will help citizens acquire practical renovation skills and reduce long-term energy costs.

Portugal

Primary risks in Portugal included price volatility, shortages of qualified installers, limited household liquidity, and misalignment with national call timelines. Mitigation focused on immediate, practical steps: sequencing low-cost measures first; applying the “scope + two quotes” method to reduce price dispersion and upsizing; and organising joint purchases to secure better prices and predictable delivery.

To mitigate exposure to fluctuating energy costs, the planned REC in Vila Nova de Oliveirinha offers a medium-term solution for collective savings, independent of individual pre-financing. Policy-level mitigation relied on continuous dialogue with national authorities to advocate for no-upfront subsidy mechanisms and rural-appropriate programme rules.

Slovenia

The main risk is that the entire process of finalizing the social climate plan is delayed. This has already taken place. Initially the draft plan should have been published in June; however, this has not happened and the official public consultation on the draft plan is supposed to now take place in autumn 2025. With also elections looming in 2026 there is additional risk this process gets further delayed. An additional risk is also that the Social climate plan does not include »new« measures that are more complex to model, but would represent a significant advancement of ways to alleviate energy poverty: e.g. inclusion of households facing energy poverty in energy communities and developing measures to promote energy renovations in private rental accommodation with the accompanying protection measures for tenants against rent increase.

Spain

As mentioned, the economic barrier for individuals financing a renovation project is the great challenge for energy retrofitting, and they come with many risks intrinsically. Apart from changes in the policy or legal framework which can widely affect this action, this measure is highly affected by external costs of the market. Plus, the stakeholders involved in this action can have disagreements and constraints that might affect the implementation of the action. The users can encounter the business model far from their necessities and can be found unattractive by them.

4.2.3.5 Monitoring and Evaluation

The project showed that effective monitoring and evaluation of financial-barrier measures require a mix of quantitative indicators (e.g. fund delivery speed, number of applicants, financial leverage), qualitative feedback (e.g. satisfaction, trust, perceived fairness), and coordination among key stakeholders such as LAGs, municipalities, and community actors. Successful monitoring depends on transparent data management and continuous feedback loops that help resolve emerging obstacles.

Croatia

The effectiveness of financial measures in Croatia became visible through the growing readiness of citizens and local actors to participate in renovation schemes. During RENOVERTY, over 20 households were supported in preparing applications and documentation, and 15 houses received energy certificates, creating a pipeline for the forthcoming 100% subsidy call. Awareness campaigns with LAGs and municipalities improved citizens' understanding of renovation steps and available support.

Key indicators will include the number of applications submitted under the 100% subsidy scheme, the share coming from rural areas, the speed of fund disbursement, and household drop-out rates during the process. Monitoring will combine official data from FZOEU with

feedback from LAGs and municipalities, while regional agencies like REGEA will synthesise findings to identify systemic obstacles. Evaluation will mix quantitative tracking of uptake and disbursement with qualitative insights into citizens' experience and accessibility of support.

Estonia

The best indicator is the number of apartment associations that are starting the renovation process and also the number of grant applications. Seven grant applications were submitted to TREA consultancy and several are in the process of carrying out renovations. In the last application round, four times more applications were submitted across Estonia than there was money to distribute.

Hungary

The effectiveness of our measure can be assessed by tracking the number of households in the pilot LAGs that were insulated under the EEOS framework.

Italy

Monitoring in Italy will combine quantitative and qualitative indicators to ensure transparency and accountability. Quantitatively, data will be collected on partnerships established, applications submitted and approved, time to decision, leverage from third-sector contributions, number of renovated dwellings, and average investment per project. Qualitative indicators will assess beneficiary satisfaction, clarity and fairness of procedures, trust in financial terms, and partner reflections on coordination and administrative burden.

The implementation follows a lean governance model co-run with third-sector partners. A standard protocol defines roles and eligibility criteria, a ring-fenced sub-ledger ensures transparent financial flows, and a concise scoring rubric prioritises energy-poor households. Success will be verified through quality assurance of renovation works and simple before–after bill comparisons. The finance partner manages disbursements and brief financial-literacy sessions, while a data steward maintains a minimal KPI sheet and GDPR-compliant records. This approach streamlines bureaucracy, avoids overlap, and ensures that scarce funds reach small, high-impact projects.

Portugal

At the policy level, new national funding schemes are monitored to check if the recommendations made by the project are included. Continuous communication with managing bodies is kept to ensure that recommendations are not forgotten and are relevant for each programme implemented. Progress of actions toward the creation of the municipal help desk in Tábua and the REC in Vila Nova de Oliveirinha is also monitored.

Slovenia

Evaluation of Slovenia's contribution will focus on the final content of the SCP, specifically, how many of the proposed measures to alleviate energy poverty were incorporated. This assessment

will compare the final SCP with RENOVERTY's published and submitted recommendations[34] and additional comments from the upcoming public consultation. The Ministry of Environment, Climate and Energy has already acknowledged the consultation's impact, as noted by Aja Ropret Homar, head of the SCP preparation.

Testimony from Aja Ropret Homar, Ministry of Environment, Climate and Energy

"The consultation on upgrading measures to reduce energy poverty was very welcome for us - as the head of the preparation of the Social Climate Plan in Slovenia, it gave me, at just the right time, the opportunity to present the Social Climate Fund and the planned measures, as well as to obtain feedback from relevant stakeholders in this area. There was also an interesting discussion on the rental situation and the specific challenges that we, as beneficiaries and policymakers, face in solving energy poverty among tenants - also based on this discussion, we included in the Social Climate Plan a measure of financial incentives for energy renovations of publicly owned housing (social rental housing)."

This demonstrates the project's tangible influence on national policymaking and highlights the importance of inclusive, multi-stakeholder monitoring processes.

Spain

The key outcome of the financial measure is the business model itself. Monitoring and evaluation of this outcome depends on the perspective of the user and that of the organization providing the services. The evaluation of the users' experience depends on the detection the needs once the business model is designed, their expectations, their perceptions and the discrepancies.

Regarding the organization from OECoop, it must be taken into account the financial constraint that their business model might suffer.

4.2.4 Overcoming technical barriers

4.2.4.1 Addressing technical barriers

The pilots demonstrated that overcoming technical barriers in rural renovation requires a holistic approach rather than a single solution. Key elements include upskilling local professionals, building reliable stakeholder chains for effective renovation, from awareness and consultation to execution, and promoting long-term systemic change in rural renovation ecosystems.

Croatia

A key technical measure in the Croatian pilot was the promotion and preparation for installing solar PV systems. Building on REGEA's PVMax project, households were supported with training and application guidance. PV systems offer strong potential to reduce rural energy costs, but several obstacles persist: unsuitable roofs, the need for prior renovation, limited technical knowledge among vulnerable households, and a shortage of contractors. These challenges

[34] https://www.umanotera.org/wp-content/uploads/2025/05/Focus-in-Umanotera-2025-Priporocila-za-ukrepe-Socialnega-nacrta-za-podnebje.pdf

intensified in 2025 when the FZOEU changed subsidy rules, requiring systems to be installed before applying for funding, while announcing the end of net metering in 2026. This undermined trust and weakened investment interest.

To overcome these barriers, future subsidy schemes should offer higher co-financing rates for energy-poor households (80–100%), allow combined renovation + PV measures, and include preliminary feasibility checks and simple guidance from trusted intermediaries such as LAGs. Building a regional contractor network and bundling services could address capacity shortages. Although no installations were completed within RENOVERTY, the pilot raised awareness and prepared households for future programmes. PV promotion should be tied to energy communities and alternative financing to sustain demand despite regulatory shifts.

Estonia

The challenge is to ensure the interest of design and construction companies in renovation in rural areas. The capacity and opportunity of rural areas to carry out energy-efficient renovation is lower than in larger centers, both in terms of the construction services offered and the financial capacity. Therefore, the supply of construction companies and advisory/support services is also smaller. All this together increases the cost of renovation and reduces the motivation to renovate. TREA tested the OSS model during the renovation approval process to gain clarity, primarily, about the functioning of the OSS model and to update the model as needed, establishing an initial feedback loop.

Hungary

Technical barriers significantly limit energy-efficiency renovations in rural Hungary. The main challenge is a shortage of skilled craftsmen, aggravated by a shift from vocational to higher education and labour migration to Western Europe. Demand spikes during funding cycles further strain availability. To mitigate these barriers, renovation programmes should provide continuous, predictable funding rather than short-term campaigns, enabling better workforce planning. Advocacy is also needed for sustained resource allocation and simpler application processes to reduce administrative burdens.

Another obstacle is the indirect effect of low regulated energy tariffs: with cheap utilities, households see little incentive to invest. Awareness-raising on long-term comfort, energy security, and the unsustainability of fixed prices can shift perceptions and support greater uptake.

Italy

A widespread shortage of updated technical skills among professionals can reduce renovation quality, delay adoption of new technologies, and hinder compliance with regulatory standards. Many rural households struggle to find trustworthy professionals or to appreciate long-term benefits over upfront costs, especially elderly owners reluctant to invest. To overcome these issues, continuous professional training must be prioritised to keep technicians aligned with

evolving standards. Initiatives such as the Sportello Energia & Condomini[35] offer valuable reference points, connecting citizens to qualified experts and trustworthy service providers.

At the community level, awareness campaigns through local festivals, professional magazines, and municipal newsletters can highlight the financial and comfort benefits of renovation. Information desks, both physical and online, can provide tailored advice, with weekly consultations offered by architects linked to the Sportello Energia network, particularly for condominiums where technical complexity discourages action.

The promotion of RECs is another powerful tool, allowing citizens and small enterprises to co-manage production and consumption while lowering emissions and boosting local autonomy. Partnerships with third-sector organisations can further reduce technical barriers by providing targeted funding and advice, enabling vulnerable families to access microcredit, tax incentives, or municipal grants.

Portugal

Two main technical barriers were identified in Portugal: low energy literacy among homeowners and an uneven supply of qualified contractors. These limit both planning and delivery of quality renovations in rural areas. Portugal addressed them through tailored diagnosis and simple communication. Twenty household audits in Arzila (Coimbra) and Vila Nova de Oliveirinha (Tábua) documented common deficiencies, air leakage, missing insulation, inefficient heating, ageing windows, and proposed prioritised, low-cost actions such as air-sealing, ventilation fixes, window upgrades, and roof insulation. Results were presented in person with “do-first” guidance and indicative budgets framed around comfort and bill stability rather than technical jargon.

The establishment of OSS can further mitigate these barriers by offering technical advice and connecting homeowners with certified professionals. Likewise, RECs can serve as collective structures for local energy generation and management, helping communities pool resources and jointly plan efficiency measures.

Finally, strengthening training and capacity building for professionals, through vocational schools, public employment programmes (IEFP), and trade associations, remains essential to address the limited workforce and ensure high-quality delivery.

Slovenia

Common technical barriers in Slovenia include temporary relocation needs during works, difficulty finding contractors, and regional shortages of available professionals. However, the Eco Fund’s funding programme (public calls ZER and ZER 2024) effectively addresses many of these challenges through administrative and technical support tailored to vulnerable households.

[35] https://www.sportelloenergiaparma.eu/

Coordinators assist beneficiaries with contractor selection and application preparation, supported by an informative list of approved contractors and clear invoice guidelines.

RENOVERTY focused on promoting these programmes and their built-in support mechanisms. Collaboration with local Centres for Social Work enabled outreach to eligible households, explaining both financial options and practical aspects of renovation. Six local events were organised between June 2024 and June 2025, attended by 34 individuals receiving social benefits. Sessions combined information on funding eligibility, energy-saving practices, and basic technical advice to help participants make informed decisions about renovation.

Spain

The main technical barrier in Spain is the ageing and undersized workforce in renovation-related sectors such as construction and installation. Specialised training for certain materials and systems is limited, and delays often occur when skilled workers withdraw due to extended project timelines. Coordination among different trades also remains inconsistent.

Most other technical barriers can be resolved by qualified professionals and were not prioritised in the pilot. However, the itinerant OSS serves as a cross-cutting measure to support citizens by providing tailored technical guidance and training a professional with a holistic view of renovation processes, focusing on actions that alleviate energy poverty.

To address these barriers at a larger scale, training and communication initiatives should be implemented to improve the skills of professionals across the sector, including public administrations and professional associations, as well as citizens and organized groups such as energy communities.

4.2.4.2 Exploring collaborative models

The RENOVERTY pilots showed that effective collaboration to overcome technical barriers depends on multi-level partnerships among local authorities, technical experts, funding bodies, community intermediaries, and civil society organisations. Combining this expertise across governance levels ensures that systemic technical challenges in rural contexts are addressed in a coordinated, lasting way.

Croatia

In Croatia, overcoming technical barriers relied on close cooperation between REGEA, LAGs, municipalities, and community actors. REGEA provided technical guidance, performed EPCs, and identified priority renovation measures, such as insulation, heating upgrades, and PV installation, based on assessed building conditions.

LAGs acted as trusted intermediaries between experts and citizens, collecting household data and maintaining communication between local institutions and residents. Municipalities supported outreach by mobilising local service providers to directly contact households, particularly in hard-to-reach areas like Žumberak, where personal contact remains essential.

Citizens experiencing energy poverty were active participants, joining consultations and awareness sessions to discuss barriers and co-design solutions. This cooperative model, linking technical expertise, community mobilisation, and institutional support, demonstrated how local actors can collectively prepare households for renovation in dispersed rural settings.

Estonia

In the Estonian case, the key to overcoming technological barriers was cooperation between TREA and the community, i.e. owners and apartment associations, LAGs and municipalities, also as well as businesses. Information flows between households and technical experts and financial institutions was carried out by TREA and LAGs. Co-creation meetings contributed to the final outcome for households, the REER and renovation plan and application for funding as well.

Hungary

In Hungary, collaboration around the light energy audit activities revealed how multiple stakeholders can jointly address technical barriers in rural renovation. Households were central actors, providing data on energy use, participating in assessments, and choosing suitable efficiency interventions. Their expectations included clear guidance, practical advice, and access to financing options.

Local authorities and LAGs coordinated outreach, organised awareness events, and helped promote participation in national programmes such as the free attic insulation under the Energy Efficiency Obligation Scheme (EEOS) and the *Rural Home Renovation Programme 2025–2026*. These activities built trust and kept households informed about practical renovation options.

At the national level, funding bodies and financial institutions played a critical role in ensuring predictable, accessible financing. Meanwhile, the shortage of skilled professionals, exacerbated by labour migration, highlighted the need for retention incentives and steady renovation demand. Contractors and construction firms were expected to maintain quality standards, while reliable pipelines of work and clear technical guidelines helped them plan resources effectively.

Italy

Overcoming technical barriers in Italy required coordinated engagement among municipalities, professional associations, and civil society. Ensuring a qualified and continuously updated workforce is key to achieving high-quality energy renovations.

At the local level, structures like the Sportello Energia & Condomini serve as trusted entry points where citizens can access verified experts and practical renovation advice. Maintaining continuous training for these professionals, architects, engineers, and certified installers, is essential to guarantee quality and regulatory compliance. Municipalities and third-sector organisations inform citizens about reliable channels and promote transparency in contractor selection. Professional associations, universities, and research centres support this ecosystem by providing training and ensuring high educational standards. LAGs and municipal authorities further connect citizens with qualified professionals and foster a culture of renovation quality.

Regional authorities can coordinate and replicate these networks, promoting best-practice exchange and ensuring coherence among municipalities. This multi-tiered approach, combining professional competence, transparent information, and coordination, builds trust and technical capacity across territories.

Portugal

Overcoming technical barriers in Portugal rested on close cooperation between ISR-UC, the Local Action Groups ADIBER and CoimbraMaisFuturo, parish councils, and the municipalities of Coimbra and Tábua, with support from the operating REVERTER one-stop shop in Coimbra. ISR-UC provided ongoing technical guidance and carried out household energy audits in Arzila and Vila Nova de Oliveirinha. Local associations and the Parish Council acted as trusted intermediaries, convening residents, collecting essential household information for assessments, and keeping communication flowing between technical teams and families. LAGs helped establish initial contacts and connected technical teams to public authorities. Municipal services contributed practically: hosting sessions, helping validate simple property and residency details. Using these community channels ensured that renovation opportunities reached households who are hard to contact via standard communications.

Slovenia

Implementation of renovation works under the Eco Fund public calls (ZER and ZER 2024) involved Eco Fund advisors, Centres for Social Work, contractors, and vulnerable households. Beneficiaries expected simple, well-supported renovation processes without excessive bureaucracy.

Centres for Social Work were crucial in identifying eligible households, as they manage databases of social-benefit recipients, key to eligibility. Staff sent invitations, followed up by phone, and assisted individuals in contacting Eco Fund coordinators. Humanitarian organisations, health workers, and pensioners' associations could play similar roles in future outreach.

Eco Fund leads the renovation process, setting material guidelines, performing energy audits, conducting on-site quality checks, and transferring funds to contractors. Its representatives also attended local events to explain public calls, strengthening trust between citizens and institutions. This model demonstrates how technical, financial, and social dimensions can be aligned through close cooperation between national funding bodies and local intermediaries.

Spain

The technical barriers that families might encounter are related to possibilities of financing, technical works or advice and asking for subsidies. All of this can be solved in a renovation OSS. For the creation of the itinerant OSS, several stakeholders have been involved: LAGs, responsible for the ideation and promotion of the office; the Osona County Council, which promoted and helped establish the office while seeking specific funding; the Barcelona Provincial Council, which provided funding and support for the office's creation; and finally, the municipalities themselves,

whose involvement is crucial to ensure scalability. The training of the pilot itinerant office has been led by a LAG together with a non-profit organization. However, this arrangement is only sustainable within the scope of the project. To ensure long-term sustainability, the stakeholders responsible for training professionals beyond the RENOVERTY framework should include professional schools and labour inclusion centres, thereby fostering the employment of vulnerable groups while rejuvenating a sector with high growth potential.

Public administrations and enterprises should collaborate to promote such initiatives. There are already synergies in this regard with other European projects, such as POWGEN and NS4nZEBs.

Testimony from Pau Pañella Vilamó from the Local Agency of Energy in Osona (ALEO)

Regarding the greation of services for the care and advice of the citizens (Action 17 from the Spanish REER): *"The need for support and close guidance services on renovation was detected. In this sense, it is proposed that the ECs can act as information and advice points - either through trained volunteers (with the support of ALEO and Action 2 on training), or, in the medium term, through joint professional services. This can make the service reach even small or dispersed municipalities."*

4.2.4.3 Implementation strategies

The RENOVERTY pilots demonstrated that effective implementation strategies for overcoming technical barriers in rural renovations depend on developing local technical capacity, tailoring renovation approaches to building conditions, and creating scalable service models that reach vulnerable households.

Croatia

In Croatia, technical measures translated national programmes into practical support for rural households. REGEA conducted preliminary assessments and prepared EPCs within RENOVERTY, revealing that many buildings required roof renovation before PV installation.

Working with LAGs and municipalities, several awareness events were held to link households with technical experts and ensure that information reached residents in remote settlements. Training sessions for citizens and local representatives provided practical guidance on PV systems, subsidy schemes, and renovation steps.

Standardised information materials and simplified instructions were distributed to help households prepare documentation and understand technical requirements. Although no PV systems were installed, RENOVERTY successfully created a technically prepared group of households and a stronger local support network ready for the upcoming 100% subsidy call.

Estonia

To overcome technical obstacles, it was necessary to ensure the most adequate and rational technical solution for energy-efficient renovation. It was also necessary to find a solution to ensure the interest of design and construction companies in renovation in rural areas. It was

also important to reduce the administrative burden on households and apartment associations throughout the renovation process and when applying for support. The strategy was to optimize the renovation process and offer the apartment association the most rational and sustainable solution possible to achieve the renovation goal.

Hungary

To overcome technical barriers, we conducted energy audit light assessments with technical assistance on interventions in the two pilot LAGs. These activities were complemented by information sessions at local events and a social media awareness campaign,

During the energy audit light, the households that expressed interest in our two pilot LAGs – 16 in Bükk LAG and 15 in Somló-Marcalmente-Bakonyalja LAG - were assessed to determine their current energy situation, the types of funding they could access, and the realistic energy efficiency improvements that could be implemented - either using their own resources or supplemented by available financial mechanisms.

Testimony from István Szabó – homeowner, Csót, Somló-Marcalmente-Bakonyalja LAG - about the light energy audit

"This service is truly useful - the personal meeting and consultation provide much better opportunities than the information available online, which is often difficult to understand without professional knowledge. It's a pity that the KEHOP grant program, which could offer real opportunities, is so complicated. It would be very helpful to have a service that could support homeowners throughout the entire renovation process - from preparing the application to implementation. I'm considering insulating the attic floor. It would be great if someone, for example the local municipality, could assist in making this happen."

Italy

The measure combines a community tool-lending bank with hands-on RENOLABS at Emporio Solidale Borgotaro: we will stock and label a practical set of DIY energy-saving tools and run 60–90-minute lab sessions that demonstrate quick wins such as installing heat-reflective panels, sealing windows and doors, and using plug-in energy meters, with each participant receiving a small starter kit. Operations relied on low-cost communication tools, SMS or WhatsApp reminders, short consent forms, and brochures, to ensure scalability. The set-up took about six months from initial planning to launch, at a total cost of roughly €6,000, covering kits, tools, speakers, and materials. This accessible model allows citizens to reduce minor inefficiencies independently while gaining confidence to pursue larger-scale renovations.

Portugal

To address the low energy literacy among homeowners, events were organised to help them understand the main technical aspects involved in energy renovations, and explain common energy saving measures. The results of the energy audits carried out were also presented in person, accompanied by an explanation of the results, prioritisation of measures and indicative costs and savings. Findings of the RENOVERTY project were shared with the Coimbra OSS for

integration of rural aspects into the existing guidelines and procedures. In Tábua, support is being given to the municipality for establishing an Energy Desk. This effort aims to strengthen local energy advisory services and ensure long-term sustainability for rural energy renovation initiatives. There is the possibility of implementing an itinerary OSS to explore synergies with neighbouring municipalities and better reach dispersed population characteristics of rural areas.

Slovenia

To implement renovations and undergo the entire renovation process as designed under Eco fund´s public calls aimed at alleviating energy poverty (e.g. ZER and ZER 2024) a strong collaboration between Eco fund and Centers for social work as well as other local actors that are in touch with vulnerable households is needed. To promote these renovations, particularly the support provided in identifying priority energy renovation measures (energy audit) and the process of finding contractors, community outreach programs are necessary to reach eligible households. The latter are usually not aware of this technical support options related to the funding schemes of Eco fund. Every public call should thus be started alongside a coordinated awareness raising campaign together with local stakeholders, primarily Centers for social work that can not only best identify and reach eligible households but also have as trusted relationship with vulnerable households.

Spain

The itinerant office has already been designed, and it is foreseen to be working in the next years. The official inauguration of the OSS was scheduled for 16th October 2025. After a full year, the lessons learned and any new needs of citisens will be used to further improve the service. This action will ensure the establishment of the service as a permanent regional office, strengthening its long-term sustainability and impact.

4.2.4.4 Risk and mitigation measures

The pilots highlighted that mitigating technical risks in rural renovation requires stable, diversified funding, simplified technical and administrative processes, and strong local partnerships. Trusted intermediaries such as LAGs, social services, and OSS, play a crucial role in keeping households engaged and ensuring coordination among experts and contractors.

Croatia

During RENOVERTY, the main risks for technical measures stemmed from frequent subsidy rule changes. In 2025, the FZOEU required PV systems to be installed before applications could be submitted, discouraging households experiencing energy poverty. The planned end of net metering in 2026 further reduced trust and willingness to invest.

EPCs showed that many buildings required roof renovation before PV installation, while the availability of contractors in rural areas remained limited. To mitigate these issues, REGEA and LAGs organised awareness events and training sessions to maintain household engagement and mapped local contractor capacity to prepare for collective procurement once the 100% subsidy call opens. This proactive approach helped retain citizen interest for future implementation.

Estonia

The main risks in Estonia in rural ares were limitted available contractors, the shortage of specialised and qualified workforce, and technical issues for planning and implementing phased renovations projects. To overcome these, TREA tested an OSS model and carried out building energy audits, which were the basis for planning activities and provided clear information to the owners about the situation of the house. Apartment associations also provided technical and administrative assistance throughout the renovation process, starting from the development of the technical project brief and initial task for the apartment building renovation in collaboration with stakeholders. The latter was certainly one of the most important success factors in mitigating not only technical but also all risks (legal, social, community, financial).

Hungary

Several risks may affect the implementation of solutions addressing technical barriers in rural renovation. A shortage of skilled contractors poses a significant challenge, which can be mitigated through the change of vocational training schemes, and longer-term or more stable funding schemes to stabilise demand and ensure that a reliable workforce is needed. The administrative bottlenecks represent another risk, which can be addressed by adopting continuous grant cycles, simplifying application procedures, and actively engaging decision-makers to ensure policy continuity. Additionally, low household interest in energy efficiency renovations, caused not only by the financial barriers faced by vulnerable households, but by the government-determined so-called “utility cost reduction”, may limit the effectiveness of renovation programmes. This can be mitigated by providing households with clear guidance on the long-term financial savings and comfort benefits of energy-efficiency measures, complemented by awareness campaigns and accessible financial support.

Italy

Two Italian initiatives, the Shared Renovation Tool Bank and RENOLABS, illustrate the potential and vulnerabilities of community-based technical measures.

The tool bank at *Emporio Solidale Borgotaro* provides equipment and workshops teaching basic DIY energy upgrades, but risks low participation and limited visibility. Mitigation includes hybrid or online sessions for broader access, targeted outreach with reminders, and small incentives such as certificates or networking opportunities. Partnering with schools, associations, and community leaders can increase visibility and trust. These improvements would strengthen participation and ensure the initiative becomes a practical community resource that reduces technical obstacles while empowering citizens to cut energy costs.

Portugal

The main risk was that the municipality of Tábua might not secure funding through the Environmental Fund’s Energy Desk network, delaying activation of a staffed local help desk or itinerant OSS. As a contingency, a leaner model using existing municipal staff and scheduled desk hours in parish councils was planned. RENOVERTY also built partnerships with

neighbouring municipalities, such as Pampilhosa da Serra and Penamacor, to share resources and strengthen regional advocacy.

Securing funding to implement the measures identified by the audits remains a significant obstacle. Since no relevant calls have opened since results were issued, households were provided tailored guidance on where and how to monitor upcoming programmes, which schemes are most likely to fit their profiles, and the practical steps to prepare in advance (e.g., having proof ready, obtaining multiple quotes). This approach maintains readiness despite the funding gap. Meanwhile, Tábua is exploring local budget allocations to finance low-cost measures for the most vulnerable, ensuring partial progress until external funding is available.

Slovenia

In Slovenia, the main risk in implementing Eco Fund's renovation calls (ZER and ZER 2024) was the limited engagement of vulnerable households. Despite targeted outreach with Centres for Social Work, event attendance and application rates remained low. Seasonal shortages of contractors also pose an obstacle. To mitigate this, Eco Fund sets a nine-month completion deadline after signing contracts, helping maintain project momentum once approved. Future calls should include stronger awareness campaigns and deeper collaboration with local actors, particularly Centres for Social Work and humanitarian organisations, to increase participation.

Spain

The key challenge identified in the implementation of the itinerary office was securing 100% of the funding to implement the pilot of the office. The LAG looked for public administration funding, but no budget could be allocated for 2025. In the end, the LAG decided to fully finance the OSS themselves. The LAG faced difficulties in recruiting the technician, as no architect could be found for the position. To overcome this, an agreement was reached with the architecture professional school (CATEB) to provide guidance during the hiring process.

Not all municipalities had the space and resources to host the office. The solution was to provide a main office in the Lluçanès County Council facilities, so that municipalities that do not yet have their own space to offer in-person renovation advice can refer families to the office in Lluçanès.

4.2.4.5 Monitoring and Evaluation

Effective monitoring and evaluation of technical measures combine quantitative and qualitative indicators to capture progress across renovation uptake, stakeholder participation, and systemic change. Quantitative metrics include the number of subsidy applications, EPCs issued, completed renovations, and trained households, while qualitative assessment focuses on stakeholder collaboration, citizen satisfaction, and the evolving capacity of local renovation ecosystems. Over time, success will be measured by sustained capacity building, improved coordination, and measurable reductions in rural energy poverty.

Croatia

The success of technical measures will be measured by how many of the households prepared during RENOVERTY move forward with both renovation measures and PV installation once the

100% subsidy call is launched. Indicators will include the number of EPCs issued, households that took part in training and awareness events, and their eventual uptake of national support.

Monitoring will also consider the potential of new community structures. The establishment of the Energy community SAVA, together with two LAGs acting as replicators, is expected to further increase PV uptake by pooling demand, coordinating joint procurement, and enabling households to connect within energy communities. While no formal monitoring will take place after the project, future developments can be followed through the official Register of Energy Communities managed by the Croatian Energy Regulatory Agency, which records the establishment and activity of all registered communities. Any growth in membership or replication of similar initiatives would serve as an indicator of their continued impact and potential to support vulnerable rural citizens.

Estonia

The best indicator is the number of apartment associations that are starting the renovation process and also the number of grant applications. But also, we had tested the OSS model in reality during the renovation approval process and the goal was to gain clarity, primarily, about the functioning of the OSS model and to update the model as needed. In conclusion, it can be concluded that the OSS model works, it requires flexibility according to the situation and a good network of relevant partners.

Hungary

The effectiveness of our measure can be assessed by tracking the energy efficiency interventions implemented by those households that participated in the “energy audit light” assessment.

Italy

Quantitatively, we will monitor the tool bank’s inventory in circulation and workshop throughput (i.e. sessions held, attendance). Qualitatively, we will capture participant feedback on clarity, usefulness, and confidence to DIY, short comments from trainers on common barriers, and photo evidence of completed tasks where consented. The implementation strategy is deliberately lean: partner with Emporio Solidale for venue and recruitment, and with the Municipality of Borgo Val di Taro for visibility; stock a focused toolkit and distribute starter kits; run 60–90-minute RENOLABS workshops, simple safety/consent forms, and SMS/WhatsApp reminders; posters and brochure, and municipal web posts.

Portugal

Monitoring is focused on the amount of technical measures undertaken by households covered by the energy audit procedure. In Tábua, readiness indicators for the help-desk/itinerary model (procedures approved, calendar prepared, staff briefed) were monitored so the service can start cleanly when launched.

Slovenia

The success of Slovenia’s activities under the Eco Fund’s ZER and ZER 2024 calls is measured by the number of households that applied for funding and completed renovations after

RENOVERTY's promotional events. Follow-up communication with participants provided insight into their progress, perceived challenges, and reasons for hesitating to apply. Effectiveness of Eco Fund's technical support mechanisms, such as the contractor list and coordinator assistance, can be assessed by comparing households' contractor choices and the level of guidance received.

At a broader level, Eco Fund data on applications between June 2024 and October 2025 can indicate whether RENOVERTY's outreach led to increased participation. Social workers who attended the events also serve as multipliers, better equipped to advise additional households afterward, ensuring continued local impact.

Testimony from Adisa Mujčinovič, deputy director, Center for Social Work Zasavja (unit Zagorje ob Savi)

"The Center for Social Work (Zagorje ob Savi) joined the RENOVERTY project, which aims to reduce energy poverty and improve the quality of life of people with low incomes.

As part of the cooperation, the CSD invited recipients of financial social assistance, social security allowance and extraordinary financial social assistance who are owners or co-owners of the real estate in which they live to an information meeting. At the meeting, the participants learned about the possibilities of subsidizing energy renovation through the Eco Fund, which enables financing of measures such as replacing windows, doors, thermal insulation and facades. The Center helped interested citizens with the first steps and establishing contact with the Eco Fund coordinator, so that they could start the application process for obtaining a subsidy. One of the citizens, a 66-year-old recipient of a pension, financial social assistance and social security allowance, successfully replaced the windows, roller shutters and front door in her home in October 2025 (the service provider is the company MIK Celje). They expressed great gratitude and satisfaction, as they would not have been able to finance these improvements on their own with her income. Their quality of life has improved significantly, the space is brighter and warmer, and the new windows and shutters provide her with greater safety and comfort.

We are happy that we were able to help people take a step towards warmer, safer and more dignified living. For many, this is more than just energy renovation, it means new hope and better living conditions for them. The Center would like to take this opportunity to thank all partners of the RENOVERTY project and Eco Fund for their cooperation and support, as well as the citizens for their trust and cooperation, as they have thus contributed to reducing energy poverty in the municipality of Zagorje ob Savi."

Spain

Indicators have been set to prove the OSS's office quality, regarding the its visitors and the level of satisfaction of participation. The determination of quality factors took into account the perspective of the user and also that of the organization providing the services.

5 Conclusion & Lessons Learned

This document presents a policy framework for strategising and implementing rural renovations in the EU, based on the insights and experience gained through the RENOVERTY project. These guidelines entail the cornerstone policy principles that policy-makers should foster in their planning, as well as tangible examples of proposed actions and measures that were tested out within the project, for overcoming the multiple contextual barriers accompanying the rural renovations.

The RENOVERTY experience shows that there is no single or universal solution to the challenges of energy-efficient renovation in rural contexts. Effective action against regulatory, financial, community, behavioural, and technical barriers requires a balanced mix of short-term and long-term measures, rooted in strategic planning, multi-level collaboration, and continuous monitoring. Equally important are flexibility and the capacity to adapt to changing local realities and implementation challenges.

Beyond these immediate outcomes, RENOVERTY managed to build a coherent framework of understanding on how integrated, community-driven renovation processes can generate systemic and sustainable impact. Through its multi-actor approach, connecting local authorities, citizens, and policymakers, it bridges the gap between high-level strategic ambitions and the practical realities of rural life. The project's pilots served as laboratories, revealing how tailored, locally grounded solutions, when designed with and for local communities, can lead to measurable progress in energy efficiency, comfort, and social well-being while strengthening rural resilience.

In this sense, RENOVERTY delivered a transferable model for action and governance that can inform the next generation of EU renovation policies. The knowledge and evidence it has generated offer key insights for shaping funding schemes, regulatory instruments, and participatory planning processes that recognise diversity across territories rather than imposing uniform measures.

Ultimately, RENOVERTY proves that inclusive and context-sensitive approaches are essential to ensure that rural Europe fully benefits from the green and just transition. Its outcomes provide both a roadmap and an inspiration for policymakers seeking to place rural welfare at the centre of future EU energy and social policy and to ensure that the benefits of the energy transition reach even the most remote and vulnerable communities.

RENOVERTY Project

https://ieecp.org/projects/renoverty/

Co-funded by the European Union under project ID 101077272. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.