



RENOVERTY

Development of rural energy efficiency roadmaps

Kristina Eisfeld - Climate Alliance

Valerija Vrček Habazin, North-West Croatia Regional Energy & Climate Agency (Croatia)



RENOVERTY Specific Objectives

Promote renovations to increase the energy efficiency of **vulnerable rural areas across 7 regions** through:

- Supporting 12 Local Action Groups (LAGs) for the creation and implementation of Rural Energy Efficiency Roadmaps (REERs).
- Empowering all (non) public actors in rural areas to become involved in the process of renovating vulnerable districts/buildings.
- Delivering a scalable operating model, to support the replicability
 of REERs and guide more public actors to renovate rural
 vulnerable districts after the project ends.

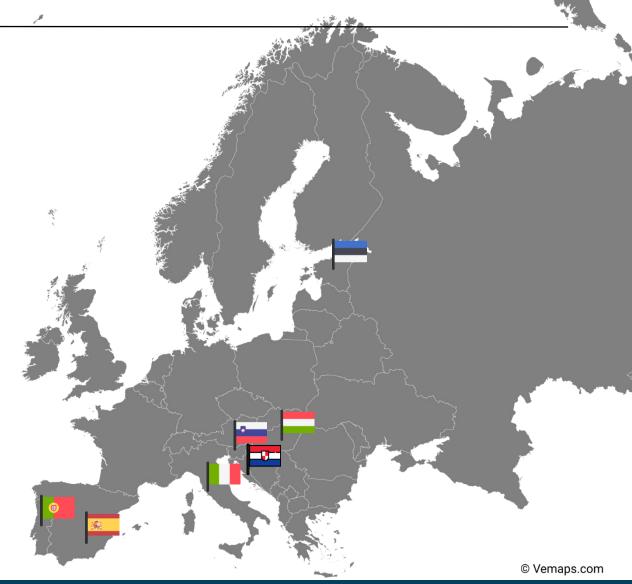




Images by freepik.com



- 1. Sveta Nedelja + Žumberak (Croatia)
- 2. Tartu (Estonia)
- 3. Bükk-Mak & Somló-Marcalmente-Bakonyalja Leader (*Hungary*)
- 4. Zasavje (Slovenia)
- 5. Parma (*Italy*)
- 6. Coimbra (Portugal)
- 7. Osona (Spain)



Characteristics of Rural Areas





demographic Specific structures elderly people, young people aged 10 to 19, **fewer** people of working age)



Educational capabilities (**limited access** to education, specifically **tertiary** education)





capabilities labour (fewer prospects, narrower variety of activities, **unemployment** rate)



infrastructure services and (transportation limitation, access to grids and resources)

Desk-Research + Expert Survey

```
word of mouth
                      social_political_challenges
lack_of_implementing_deep_renovation_EE_RES_companies
 lack_of_energy_contracts
                              illegal_power_connections
bank_does_not_consider_the_homeowner_creditworthy
 protected historical households
                                  participation making_processes
 family building
                                   administrative barriers
           representation challenges
  illegally_constructed_buildings_multi physical_remoteness distruct in actors
      distrust in actors
                                    promotion missing
      community_barriers landscape_regulations_constrain_renovation
```





Results: Barriers and Gaps





Financial barriers

- ➤ Lack of capital / High upfront cost
- Higher energy burdens / Low income
- Access loans / Debt aversion



Geographic barriers

- Geographic isolation
- ➤ Shortage of local energy efficiency workers



Awareness / Access barriers

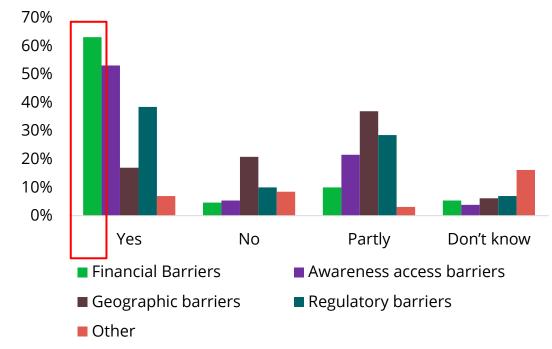
- Lack of technical information / Skepticism
- Lack of time / Priorities
- marketing channels Lack of access to (knowledge of subsidies schemes)



Regulation barriers

- Unsupportive & fragmented policy frameworks that don't reflect rural needs
- Weak regional involvement in national energy planning





Literature reports evidence of increased exposure to **energy poverty** in rural areas while the current policy landscape does not necessarily address the particularities of rural areas.



Rural Renovation Roadmap

is a tailor-made, data-driven renovation guide for households in rural areas. It combines technical audits with social support to help families and local authorities plan and finance energy-saving home upgrades.



Technical Process



First Contact & Audit



Setting Renovation Expectations



Planning the Renovation



Overcoming Barriers



Mapping the Market for companies



Strategic Aspects



Housing characteristics from audits



Broader renovation objectives



Complex barriers: legal, financial, social, administrative



Stakeholder mapping + ensuring scalability & replicability across policy levels

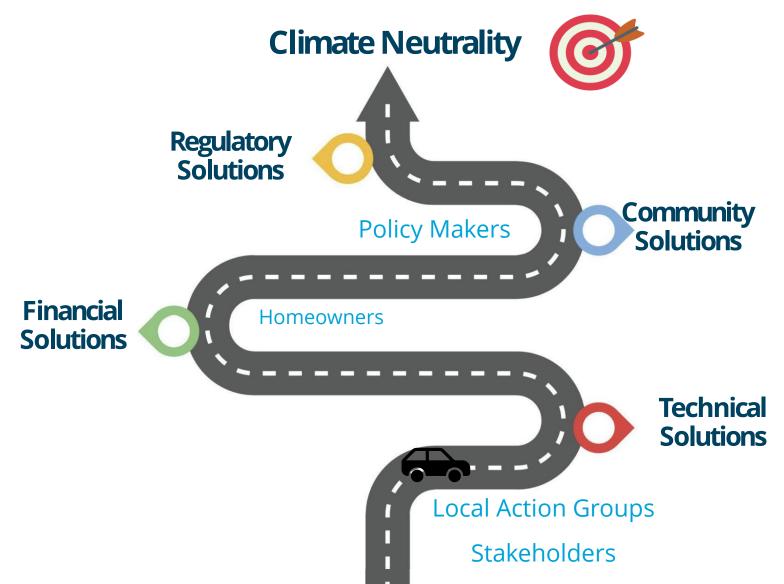
Rural Renovation Roadmap



A combination of:

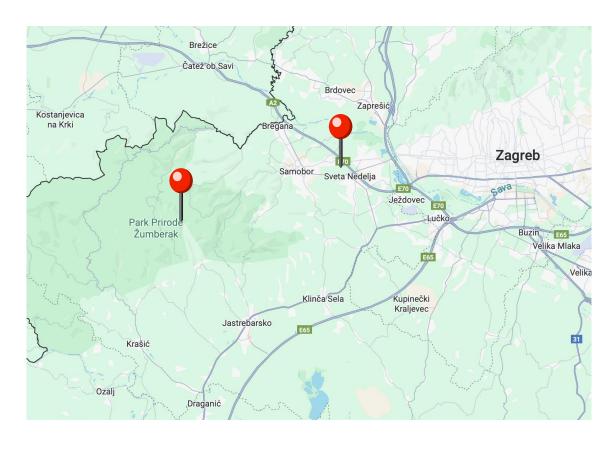
Technical data about renovation, such as measures to be implemented, costs, timelines, etc.

Non-technical aspects of renovation focused on social and cultural factors, such as cooperation between the community, process of implementing decisions, stakeholders mapping (local installers) etc.











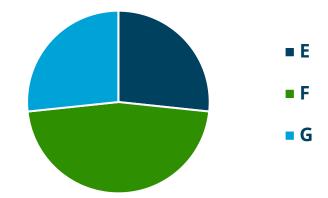


- <u>Locations</u>: <u>Sveta Nedelja</u> (peri-urban) and <u>Žumberak</u> (rural); located in central Croatia
- <u>Typical housing:</u> uninsulated family houses made out of brick (avg. construction year: 1966)
- Heating: Reliance on wood & gas for heating -> poor thermal comfort
- Many houses illegally built → not eligible for subsidies

High potential for deep renovation, strong community interest









Pilot Croatia – Key barriers

Marriers Identified

Legal status: Many buildings lack registration → ineligible for national subsidies

High upfront costs: Even cost-effective measures require support

Lack of skilled workforce in rural areas (especially Žumberak)

Administrative complexity and poor access to guidance

Limited trust in renovation programs and actors



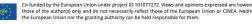
Pilot Croatia - REERs as solution

- Development of local & national REER based on EPC results
- 3 co-creation workshops with **70+ participants**
- Support from LAG Sava & LAG Vallis Colapis
- Outcomes:
 - ✓ Individual renovation scenarios
 - ✓ Demonstrated impact of co-financing
 - √ Highlighted need for tailored subsidy schemes
 - ✓ Delivered practical, household-level REERs that municipalities and LAGs can support
 - → replicable model for prioritising measures





Rural Energy Efficiency Roadmap (REER) for the energy renovation of family houses of households experiencing energy poverty in the area of Sveta Nedjelja and Žumberak, Croatia: A renovation guideline for households











Pilot Croatia - Actions

- ✓ 4 measures under implementation: technical, legal, financial, community
- ✓ Continuous cooperation with Local Action Groups (LAGs)
- Good practice LAG Sava
 - Established an **energy community** gathering 11 municipalities
 - Goal: **one solar PV per municipality** (LAG-financed)
 - Surplus energy → tackling energy poverty
- Replication already started
 - 2 additional LAGs joined the **mentorship programme** offered within the RENOVERTY

Thank you!

For more info, follow our hashtage visit our website or contact us:



#RENOVERTY



RENOVERTY



vvhabazin@regea.org k.eisfeld@climatealliance.org



Rural Energy Efficiency Roadmaps (REERs)

