



# EnerCmed

## Testing energy-community & climate-resilient integrated paradigm for carbon neutrality and energy poverty shielding in MED city-port hinterlands

**EnerCmed proposes an innovative paradigm aimed at promoting energy-positive and climate-resilient hinterlands, centred on the concept of Renewable Energy Communities (RECs).** This initiative attempts to transform marginalised neighbourhoods in port hinterlands, often populated by individuals susceptible to energy poverty. The project will test this paradigm by activating six RECs in the hinterlands of five Mediterranean cities-Genoa, Valencia, Patras, Pula, and Novigrad. These RECs will involve 345 households or users exposed to energy poverty, generating 278 MWh per year from renewable sources, reducing 160 tons of CO<sub>2</sub> per year and cutting energy bills by 15-20%. Each REC will be complemented by an investment in nature-based solutions (NBS) in their respective neighbourhoods, which will function as natural heat sinks to balance residential cooling energy use and mitigate the urban heat island phenomenon. The project integrates three key principles: engaging communities, addressing urban heat islands, and protecting against energy poverty. The Knowledge Facility Instrument (KFI) supports transnational cooperation by providing expertise and methodologies to pilot partners. EnerCmed responds to INTERREG MED's goal of facilitating energy transition and resilience strategies in cities by improving citizen involvement and promoting sustainable living areas. Through a multi-city replication program, EnerCmed aims to enable other Mediterranean cities to adopt similar solutions, thereby setting a precedent for creating resilient, low-carbon urban environments.



**Challenge the Project is addressing:** The primary challenge that EnerCmed addresses is the intertwined issues of energy poverty and climate vulnerability in marginalised neighbourhoods of Mediterranean port hinterlands. These areas often suffer from inadequate infrastructure, limited access to affordable and clean energy, and heightened exposure to climate-related risks such as extreme heat due to the Urban Heat Island phenomenon. The residents of these neighbourhoods, typically low-income families, face high energy bills and lack the means to invest in energy-efficient solutions, perpetuating a cycle of energy poverty and social exclusion. By focusing on Renewable Energy Communities (REC), EnerCmed aims to provide a sustainable and inclusive solution that not only supplies affordable and clean energy but also involves the community in the energy transition process. This approach seeks to empower residents, reduce energy costs, and mitigate carbon emissions, thus addressing both economic and environmental dimensions of energy poverty. Additionally, the project tackles the challenge of climate resilience by implementing Nature-Based Solutions (NBS) in conjunction with RECs. These solutions are designed to alleviate the Urban Heat Island effect and improve the overall livability of these neighbourhoods.

**Main deliverables:**

- ToR for REC development
- Portfolio of small-scale nature-based solutions
- Scientific and technical publications
- Guidelines and methodology on how to evaluate coupled REC and NBS in port hinterland & cities
- Orientation paper tackling structural nodes to LAR delineates goals to scale REC, plan activity, and allocate resources for policy reform
- Exploitation Establishing a network of cities to explore energy-positive, climate- Period 5 Actions resilient planning
- Compendium of best practices Creating a compendium of 10 successful climate-resilient Period 5 planning practices for knowledge sharing
- ATLAS of coupled REC/NBS perspectives in MED area and 4 national handbooks

## EnerCmed



### Pilot activities:

- Genoa: 1 REC (50 kWp) and 30 fragile households
- Novigrad: 1 REC (50 kWp) and 70 fragile households
- Patras: 2 RECs (50 kWp) and 180 fragile households
- Pula: 1 REC (40 kWp) and 30 fragile households
- Valencia: 1 REC (50 kWp) and 35 fragile households



### Partners:

- **University of Genoa - UNIGE, Department of Mechanical Engineering – DIME, Italy**
- Sistema Iniziative Locali S.p.A. – SINLOC, Italy
- University of Cyprus, Department of Civil and Environmental Engineering/ Engineering School, Cyprus
- Valencia Climate and Energy Foundation, Spain
- Istrian Regional Energy Agency Ltd. – IRENA, Croatia
- Municipality of Patras, Directorate of Environment, Energy & Green Spaces / Dpt. Environment & Energy, Greece
- Municipality of Genoa, Energy policy sector department, Italy
- Etra Research and Development – ETRA, Spain
- United Nations Office for Project Services, Center For Mediterranean Integration – CMI, France
- Larnaka Municipality, Cyprus



### Territories:

Urban - marginalized  
neighbourhoods in port hinterlands

