

Climate Resilience in EU Communities

EU context

The Mediterranean region has long been recognised as a [climate hotspot](#), facing prolonged **heatwaves**, **severe droughts and intense wildfires**. These extreme conditions negatively impact human health, outdoor activities, ecosystems, and food production. Potential damage to critical infrastructure can disrupt water and energy supplies as well as mobility, significantly affecting human lives, local businesses, and ecosystems.

To address these hazards, the [EU Mission on Adaptation to Climate Change](#) aims to support at least 150 European regions and communities towards climate resilience by 2030. One of the most effective approaches to **build climate resilience** is by **integrating nature-based solutions** (NBS) that provide and protect valuable ecosystem services. NBS can address simultaneously biodiversity loss, healthier cities and disaster risk reduction to create stronger climate resilient communities and infrastructure.

Developing resilient critical infrastructures with NBS-based adaptation practices requires sufficient resources, citizen and private-sector engagement, along with political leadership that serves climate action. Building robust societies can be achieved by **ensuring equitable, inclusive and just adaptation pathways** that protect all, including the most vulnerable.



Facts



Investment in risk reduction activities could result in **4x future loss avoidance**.



Economic losses from coastal floods alone could exceed **EUR 1 trillion** per year.



Floods are the most common and most costly natural disasters in Europe.



Hundreds of thousands of people could die from heatwaves unless bold climate action is taken.

Resources

- [EU Mission on Adaptation to Climate Change Portal](#)
- [Global Commission on Adaptation](#)
- [European Climate Risk Assessment](#)
- [Floods Directive](#)
- [Nature-based Solutions](#)
- [IPCC | Climate Change Impacts and Risks](#)

Project Overview

About

The Med-IREN project aims to protect local critical infrastructures from climate-extreme events across the Mediterranean region. By combining nature-inspired solutions with engineering practices, the project will provide a nature-based approach to safeguard Mediterranean societies from flooding, wildfires, heatwaves, coastal erosion and other climate hazards that threaten critical sectors, such as transport, water, energy and social services.

The project will be showcased in five regions across the Mediterranean - Granollers, Spain; Provence – Alps– Côte d'Azur, France; Ischia, Italy; Tuscany, Italy; Egaleo, Greece - and the solutions and interventions will be replicated into four regions across the EU – Larnaka, Cyprus; Sitia, Greece; Burgas, Bulgaria; Helsinki, Finland. Med-IREN will also demonstrate key factors for upscaling and replicating of these innovative NBS within Mediterranean regions and beyond. The Med-IREN project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement N°101157707.

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Keywords

- Climate Change Adaptation
- Critical Infrastructure
- Climate Resilience
- Transformative Systemic Adaptation
- Disaster Risk Reduction
- Nature-Based Solutions (NBS)

Budget

€ 11.5 million



Partners

Coordinated by: National Centre for Scientific Research "Demokritos"

Belgium

- REVOLVE

Bulgaria

- Municipality of Burgas
- Burgas RST-Technology Transfer Office

Cyprus

- Cyprus Energy Agency
- Larnaka Municipality

Finland

- VTT Technical Research Centre
- Forum Virium Helsinki

France

- ARTELIA
- LAND
- VALABRE - EPFLM

Germany

- ICLEI Europe

Greece

- National Centre for Scientific Research "Demokritos"
- Municipality of Egaleo
- Municipality of Sitia

Italy

- ANSA
- CMCC
- Engineering Group (ENG)
- Ischia Reconstruction Commission
- Latitudo 40
- Municipality of Casamicciola Terme
- RINA
- Sant'Anna School of Advanced Studies
- Stress Scarl
- Tuscany Region
- University of Florence

Portugal

- University of Minho

Spain

- Consorci Besòs Tordera
- Granollers City Council
- TECNALIA

Switzerland

- Global Infrastructure Basel Foundation

United Kingdom

- Liverpool John Moores University



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