SEVEN MEDITERRANEAN REGIONS TO USE NATURE BASED SOLUTIONS TO CLIMATE PROOF CRITICAL INFRASTRUCTURE

Nature Meets Innovation for Climate Resilient Infrastructures

Athens, 06 November 2024 – In the wake of flash floods in Spain, Italy and central France in the last few weeks, communities, local governments and businesses are in dire need of resilient critical infrastructure. Nature-based solutions (NBS) offer innovative solutions to adapt to a changing climate while ensuring security and stability of our water, energy, telecom, transport and social infrastructure in the Mediterranean region.

The newly launched Med-IREN (Mediterranean critical Infrastructure Resilience Engineering with Nature based solutions) project aims to integrate these nature-based solutions to protect local communities and businesses from those climate extreme events in five regions across the Mediterranean, with the solutions and interventions replicated in four more regions across the EU.

Coastal erosion could be prevented by building an unpleasant 3.5-meter-high seawall in Tuscany, Italy. However, the Med-IREN project will offer another solution that will be applied in the Italian region. Inspired by nature, the coastal area will be reconstructed with a gravel beach that absorbs waves from the sea and enables locals to enjoy the sunset on the Ligurian Sea.

“Nature has an abundant force that can put our survival at risk. But it also has tremendous potential, if we know how to work with it. With over 1.6 million people having been affected by floods across Europe last year, floods pose a prime risk. To address this hazard, we will use nature walls at riverbanks to absorb water and prevent flooding. We will also use different endemic plants to filter water and reuse it for irrigation in order to deal with droughts.”, said **Thanasis Sfetsos, Research Director at NCSR Demokritos.**

The key elements of the Med-IREN project include:

Funded by the European Union

Funded by the European Union. 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 CINEA can be held responsible for them.

- Five lighthouse regions in the Mediterranean (Granollers, Spain; Provence – Alps–Côte d'Azur, France; Ischia, Italy; Tuscany, Italy; Egaleo, Greece), representing current climate challenges, aligned with regional adaptation policies.
- Replication of solutions in four additional regions (Larnaka, Cyprus; Sitia, Greece; Burgas, Bulgaria; Helsinki, Finland), covering the Mediterranean, Black Sea, and Boreal regions.
- Address key enabling conditions: **participatory governance**, **citizen engagement**, and **innovative financing mechanisms**.
- Development of a high-end **digital decision-making support toolset** that integrates data, cutting-edge models, and advanced visualization capabilities.

*** ENDS ***

Background

On 15 and 16 October 2024, 31 partners from 12 different European countries came together in Athens, Greece for the Med-IREN project Kick-Off Meeting. The consortium partners discussed about the climate hazards at the different pilot sites and the relevant nature-inspired and engineering solutions to be developed and demonstrated in the Mediterranean region and beyond.

Keywords

Climate change
Climate adaptation
Climate resilience
Critical Infrastructures
Nature-based solutions
Disaster Risk Reduction

About Med-IREN

The Med-IREN project, which is coordinated by the National Centre for Scientific Research "Demokritos", aims to implement transformative adaptation of Mediterranean resilient critical infrastructures by integrating nature-based solutions (NBS) into grey infrastructure. The project will demonstrate the role of key enabling conditions in scaling up and replicating these mechanisms within the Mediterranean region and beyond, while also developing a high-end digital twin for decision-making

Nature Meets Innovation for Climate Resilience

Funded by the European Union

Funded by the European Union. 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 CINEA can be held responsible for them.

support. Med-IREN will be showcased in five “lighthouse” regions across the Mediterranean region, with solutions and interventions replicated in four regions across the EU, covering the Mediterranean, Black Sea and Boreal regions. These “green-grey” innovative interventions will take a holistic approach, providing benefits for local communities and critical sectors in climate “hot-spot” areas.

The four-year Med-IREN project began in October 2024 and has received a total grant of €10,353,273.25 from the European Commission under the Horizon Europe research and innovation programme. Med-IREN stands for “Mediterranean Critical Infrastructure Resilience Engineering with Nature-Based Solutions” and operates under agreement n° 101157707 HORIZON-MISS-2023-CLIMA-01.

Media contacts

Thanasis Sfetsos

Project Coordinator, NCSRD
ts@ipta.demokritos.gr

Anna Nazario
Press Officer, REVOLVE
press@revolve.media
+32 496 84 37 14

Funded by the European Union

Funded by the European Union. 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 CINEA can be held responsible for them.