MED - IREN

Nature Meets Innovation for Climate Resilience

D1.1 Med-IREN blueprint document

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.

Executive summary

The Med-IREN project aspires to implement tangible, NBS driven, demonstration on to how climate proof the Mediterranean critical infrastructures, such as energy, transportation, water and social services, that will allow them to improve climate risk management and strengthen their business continuity to climate change and extreme climate events. In addition, Med-IREN will assess key enabling conditions that facilitate the implementation of the NBS in CI and include participatory governance and citizen engagement, innovative financing schemes, urban/landscape planning and capacity building will support the implementation of the proposed solutions and provide the upscaling and replication mechanism within Mediterranean regions and beyond. Med-IREN will offer a high-end digital toolset for decision support in relation to the activities of the project and beyond, integrating data from multiple sources (E.O., local monitoring networks, predictive models and social), supporting unprecedented visualization and sensemaking capabilities for understanding and quantifying the individual and collective resilience of the NBS, the CI and the local communities.

Med-IREN is a powerful showcase of the EU climate change adaptation, aligned with the twin green & digital transition and the potential contribution of NBS engineered infrastructures towards a carbon-neutral EU. It targets:

a. ***More Systemic Adaptation*** *in the Mediterranean Infrastructures through a) Multi-stakeholder Partnerships and Coordination, b) Innovative NBS solutions, c) Financing Instruments and d) Local Action.*

b. ***Faster Adaptation*** *in the Mediterranean Infrastructures including a) Innovative Climate Hazards Analytics, b) Improved Risk Assessment, c) Tools supporting the design of suitable adaptation actions and d) the evaluation of NBS effectiveness*

c. ***Smarter Adaptation*** *in the Mediterranean Infrastructures spearheaded by the Digital toolset supporting the assessing, planning, monitoring and engineering of the CI and NBS.*

Med-IREN will be implemented in three highly interconnected phases to generate the consolidated project outcomes, building on iterations which will finally lead to the actual implementation of the D/R regions and also the final version and release of the Med-IREN key expected results.

PHASE 1 – Med-IREN Prefeasibility Studies (M1-M12), will be implemented as a co-production process based on a multi-stakeholder partnership. This Deliverable (D1.1) presenting the outcome of T1.1 introduced the roadmap for the PHASE 1 linking the main thematic frameworks with the project's actions and proving the guidance for implementing the pre-feasibility study of all D/R regions in order to achieve the foreseen demonstration and replication activities of the GA. These include a) the participatory process and PPCP methodology (T1.2), b) a diagnostic assessment of the regions (T1.3) c) detailed assessment of the transformative interventions (T1.4) integrally performed with d) the D/R implementation guidelines and KPI success measures (T1.5) and e) with the digital toolset architecture, user and functional requirements (T1.6).

PHASE 2 – Med-IREN CO-CREATION and testing / integration in real conditions (M10-M42), will contribute to the integration, customization and development of the Med-IREN tools, interventions and solutions (WP2-WP3-WP4) tested and validated in the D/R regions.

PHASE 3 – Med-IREN Demonstration / Replication and Upscaling (M13-48), will deliver the complete demonstration of the interventions, assessing the functionality, usability and acceptance of the Med-IREN solutions. This will be complimented with exploitation, dissemination and communication activities.

In order to achieve the blueprint document introduced here, the partners implemented a systems thinking weighing at the D/R scale local, national and EU policies aligning interrelated environmental-infrastructure-climate challenges, that will aid in the implementation of the NBS in the D/R regions. A dedicated workshop was organised during the KoM (M1 – Egaleo Greece) where D/R conceptualised activities for the 1st year of the project based on the PPCP approach developed by ART. The findings assisted in the harmonization of pertinent and complimentary methodologies for climate proofing of CI with NBS and alignment with the EU policies.