

**Programme: Programme for Environment and Climate Action (LIFE)**

**Title of the Project: Deep REef restoration And litter removal in the Mediterranean sea -**

**Acronym: LIFE21-NAT-IT-LIFE DREAM**

**Duration: 01/09/2022 – 31/08/2027**

**Total Budget: € 5.308.472,89€**

**Web site: <https://webgate.ec.europa.eu/life/publicWebsite/project/details/101074547>**

The Marine Deep Reefs are fundamental benthic habitats recognized for acting as CO<sub>2</sub> sinks and attracting highly diverse fauna. Multiple pressures are threatening the health of these habitats and resulting in the loss of their associated ecological functions, including climate change, fishing increments, and litter. The objective of LIFE21-NAT-IT-LIFE DREAM is to implement an innovative and sustainable approach to mitigate the effects of anthropogenic impacts on these habitats. LIFE21-NAT-IT-LIFE DREAM will provide supporting information for extending Natura 2000 to deep-sea habitats so as to promote actions of protection, recovery, and preservation. Additionally, the project will operate in pilot sites by deploying artificial structures aimed at facilitating the growth of deep reef-forming species and removing marine litter.

The CNR-ISMAR is the Coordinator of the Project and, in addition to managing the project, will collect and manage the data of LIFE21-NAT-IT-LIFE DREAM in Spatial Data Infrastructure consisting in software, hardware, spatial data, metadata, web services, data storage and standards. The created Geoportal will allow to share data, results, and improve the knowledge base, permitting further exploitation outside the project.

The main objectives of the Project are:

- Improving the knowledge base on Deep Reefs and the stressors threatening this habitat
- Extending the N2000 network by integrating the previous knowledge and acquiring new data
- Facilitate and promote the passive and active restoration of the Deep Reefs
- Prevent further litter accumulation
- Foster the circular economy concepts by recycling and reuse the removed marine litter
- Increase the public awareness about ocean health and human wellbeing

The expected results are:

- The development of an innovative and sustainable approach to mitigate anthropic pressure on Deep Reefs and promote their recovery
- The production of scientific data and knowledge on Deep Reefs to sustain the flow from scientists to decision-makers and enhance the natural resources management and governance
- The extension of the Natura 2000 network to deep benthic habitats by collecting and providing information to support the designation of 2 new deep-sea sites
- Apply restoration actions (either active or passive) that will extend the surface of the target habitats and provide new substrate for reefs forming species
- Develop a prototype for the removal of marine litter and enhance the cooperation with fisheries to follow a circular economy perspective and further recycle and reuse the litter removed

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