

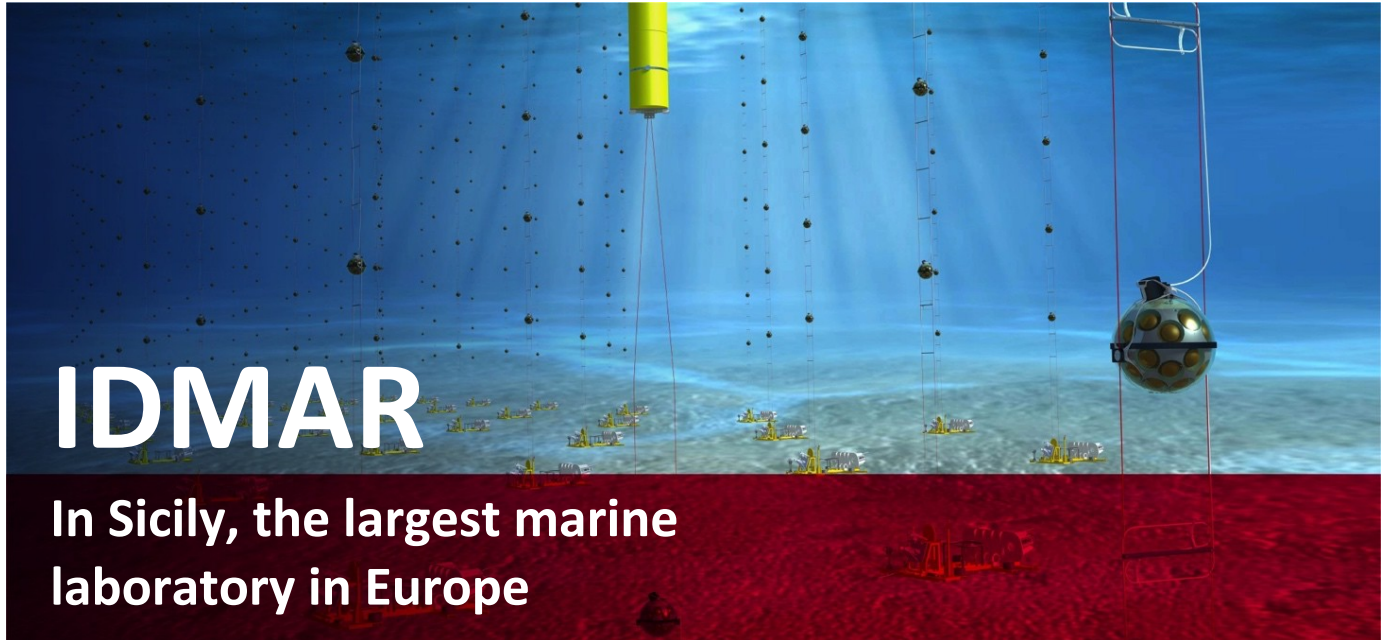
21st

European Week of Regions and Cities

Thriving Regions, Stronger Europe

9-12 ottobre
2023

Stand
10Stand23276



IDMAR

In Sicily, the largest marine laboratory in Europe

Total cost:

40 million euros



AXIS 01

Research and Innovation

OP ERDF Sicily 2014-2020
contribution:

19 million euros

Project:

IDMAR - Multidisciplinary Laboratory on the Sea

Action 1.5.1:

Support for research infrastructures

Intervention:

Completed

The **largest laboratory for marine scientific research in Europe**, with detection instruments installed at a depth of 3,500 meters, is *Idmar*. It is a research infrastructure distributed across the sea, with both land-based and underwater nodes, with its main hubs located in **Catania**, Portopalo di Capo Passero (**Siracusa**), Milazzo (**Messina**), Capo Granitola (**Trapani**), and **Palermo**. This project was funded by the **Sicilian Region** through resources from the European Regional Development Fund (ERDF) 2014-2020, and it was carried out by the **National Institute for Nuclear Physics** (INFN) in collaboration with the National Research Council (CNR) and the National Institute of Geophysics and Volcanology (INGV).

With **the largest underwater telescope in Europe**, located 96 kilometers off the coast of southeastern Sicily, IDMAR enables **real-time monitoring of the marine environment**: a groundbreaking development in the entire **Mediterranean Sea**. On June 14, 2022, the installation of highly sensitive detection structures called “KM3Net” was completed on the seabed off Capo Passero (Siracusa). Last September, **the work for the project’s closure was finalized**.

The study of neutrinos is one of the primary objectives of the project. Neutrinos are tiny particles (originating from the atmosphere, the sun, fossil sources, the Earth galactic sources or supernova explosions) that constantly traverse the universe. According to researchers, **the seabed off the coast of Sicily is the ideal location** to “intercept” them. The detector can gather information about the trajectory and origin of neutrinos, providing the opportunity to construct a kind of “**map of the universe**”.

The **enhancement** of the research infrastructure **will continue** with a funding of **67.2 million euros** as part of “Mission 4: education and research” under the Next Generation EU's Recovery and Resilience Plan (PNRR).



#EuropeLoveSicily
storie, persone, progetti