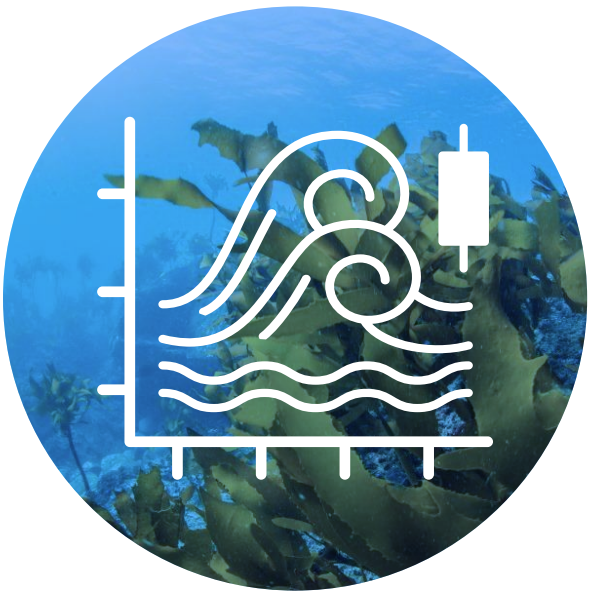
eosc | Blue-Cloud2026

Virtual Labs



Marine Environmental Indicators

The VLab aims to develop a web application that allows users to monitor and assess the environmental status of marine areas, by performing online spatio-temporal analysis with the implemented algorithms, for selected environmental variables.

Partners Involved

cmcc Centro Euro-Mediterraneo sui Cambiamenti Climatici

Royal Netherlands Meteorological Institute Ministry of Infrastructure and Water Management

ISTITUTO NAZIONALE DI GEOFISICA E VULCANOLOGIA

OGS

Data Sources

Copernicus Marine Service, Copernicus Climate SeaDataNet, World Ocean Database, EMODnet.

Main Target Users

Oceanographic and Environmental researchers, Governmental Environmental Agencies (like the italian ARPA), Marine Protected Areas managers, Municipalities, Port Authorities

UN SDGs addressed

13 CLIMATE ACTION

14 LIFE BELOW WATER

Services Introduction

Started in the pilot phase of Blue-Cloud (2020-2022), Marine Environmental Indicators (MEI) VLab (Virtual Lab) **allows users to monitor and assess the environmental status of marine areas and support the decision-making process for the ocean management.** Multiple data sources are exploited in a unique data analysis service, which will allow the online computation of indicators. Functionalities developed in the pilot Blue-Cloud are going to be improved, including **new data sources** (physics, biogeochemistry, biology, chemical data) and **new algorithms**. The tool will calculate online metocean information and indicators on the environmental quality of the Mediterranean Sea and Global Ocean, using input from BDIs, also improving uncertainty evaluation.

Francesco Palermo
CMCC Foundation

We want to improve the user experience so the generation of the current marine environmental indicators and the new ones will be easier.

Learn More Here!