COSC Blue-Cloud2026

Virtual Labs



# Marine Environmental Indicators

The Marine Environmental Indicators (MEI) VLab allows users to **monitor and assess the environmental status of marine areas** and support the decision-making process for ocean management, by performing online spatio-temporal analysis with the implemented algorithms, for selected environmental variables.

### **Partners Involved**



### **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

#### **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.

#### **UN SDGs addressed**





## 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.



