

# MAKING SENSE OF THE OCEAN: FROM OBSERVATION TO ACTIONABLE KNOWLEDGE



**EMODnet: The EU *in situ* marine data service**

**Marine Knowledge for the UN Ocean Decade**

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PROGRAMME OF THE  
EUROPEAN UNION



In collaboration with  
the UN OD Data  
Coordination Office



# One central map viewer

to visualise all EMODnet data

# 1 OCEAN 1 EMODnet

One single portal

# One central metadata catalogue

to enhance data search and discovery

120  
partners

+100  
use cases

Discover, visualise and  
download marine data and products  
across 7 thematics and hundreds of parameters



BATHYMETRY



HUMAN ACTIVITIES



PHYSICS



GEOLOGY



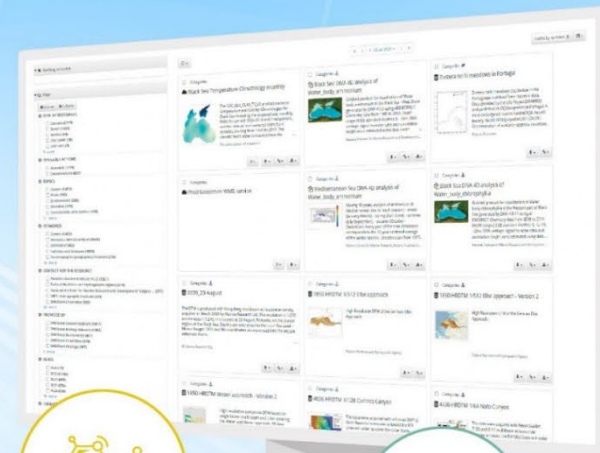
SEABED HABITATS



CHEMISTRY



BIOLOGY



## EMODNET.EC.EUROPA.EU



The European Marine Observation and Data Network (EMODnet) is financed by the European Union under Regulation (EU) 2021/1139 of the European Parliament and of the Council of 7 July 2021 establishing the European Maritime, Fisheries and Aquaculture Fund.

YOUR GATEWAY TO *IN SITU* MARINE DATA IN EUROPE AND BEYOND





EMODnet  
European Marine Observation and Data Network

**One EMODnet Portal offering data and data products for sixty-eight parameters from the marine and coastal environment and human activities at sea**

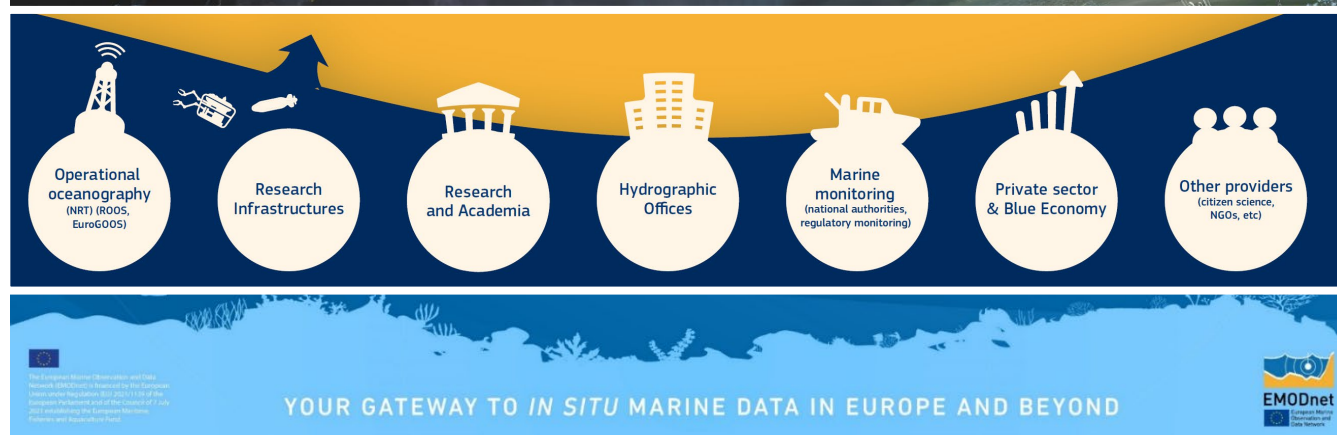
An exemplar of Open Data in the marine domain.



Open data © European Parliament

[emodnet.ec.europa.eu](http://emodnet.ec.europa.eu)

EMODnet serves the *in situ* (field) ocean observation community by aggregating its diverse offer and transforming primary data into interoperable data and producing data products, harmonised at European (and wider) scales



# EMODnet partners: an established and unique expert network



More than **130 EMODnet partners**: organisations, institutes and companies from the public and private sector across **21 EU Member States** and **12 associated countries**



Countries with EMODnet partners: Albania, **Belgium**, **Bulgaria**, **Croatia**, **Cyprus**, **Denmark**, **Estonia**, Faroe Islands, Finland, **France**, Georgia, **Germany**, **Greece**, Iceland, **Ireland**, Israel, **Italy**, **Latvia**, **Lithuania**, **Malta**, Monaco, Montenegro, **Netherlands**, Norway, **Poland**, **Portugal**, **Romania**, **Slovenia**, **Spain**, **Sweden**, Turkey, Ukraine, United Kingdom.

\*BOLD = EU Member State

[emodnet.ec.europa.eu](http://emodnet.ec.europa.eu)

# EMODnet: Knowledge for the UN Ocean Decade and global society

- EMODnet is a UN OD Implementing Partner
- EMODnet democratises access to marine data and produces data products at European scale, with its marine knowledge offered through digital services
- **EMODnet's marine knowledge and network of marine data experts serves all UN Ocean Decade Objectives and Challenge areas. *For example:***
  - Challenge 7: Sustainably expand the Global Ocean Observing System
  - Challenge 8: Create a digital representation of the ocean
  - Challenge 9: Skills, knowledge, technology, and participation for all
  - Challenge 10: Restore society's relationship with the ocean



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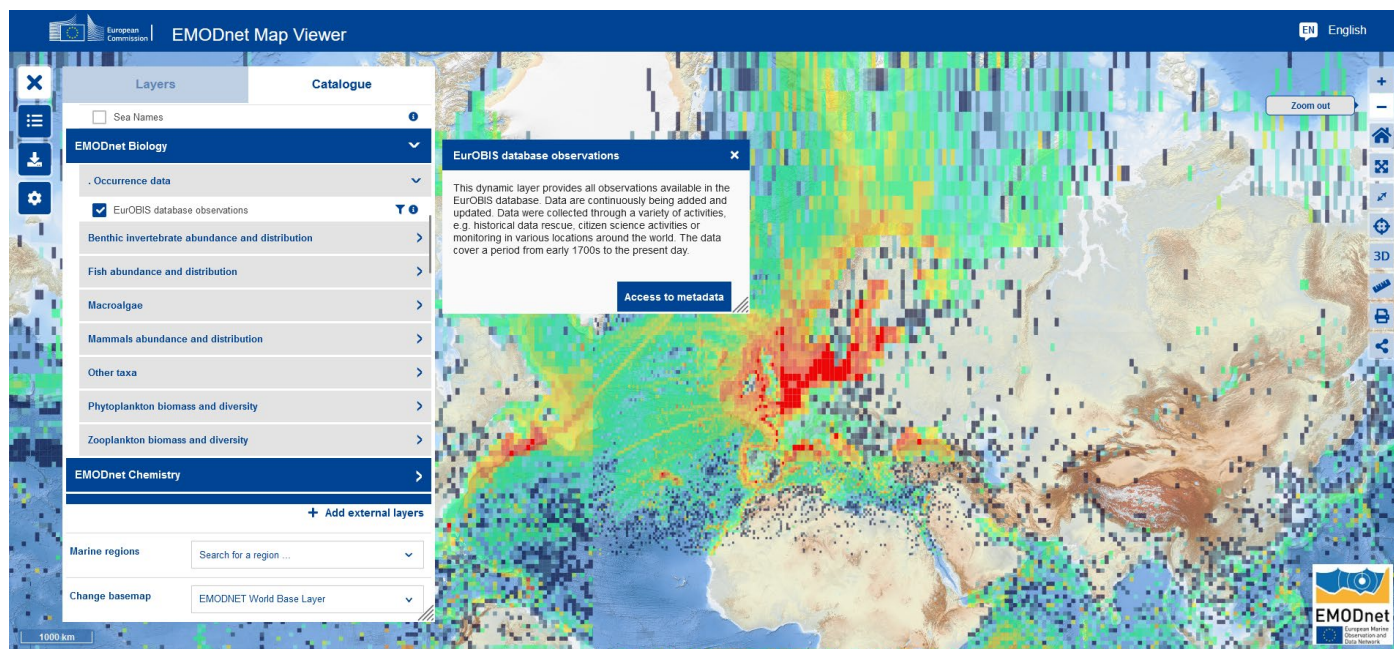
# EMODnet for Challenge 7: Sustainably expand the Global Ocean Observing System

Many EMODnet thematics offer coverage beyond Europe e.g., EMODnet Biology partners with OBIS via it's European node EurOBIS to offer global layers of marine biodiversity.



The European contribution to OBIS is significant: around **20 million of these records are provided by EMODnet Biology (OBIS European node EurOBIS)**

Global stakeholders **use EMODnet and OBIS marine biodiversity data for International Biodiversity Assessments**, e.g., for the identification of Ecologically or Biologically Significant marine Areas (or EBSAs).



# EMODnet for Challenge 7: Sustainably expand the Global Ocean Observing System

Many EMODnet thematics also offer unique data products for EU overseas countries and territories e.g., in the Caribbean Sea



Map Viewer shows the Caribbean Sea: EMODnet Human Activities World Database of Protected Areas (WDPA) and EMODnet Seabed Habitats EU SeaMap  
Credit: EUSeaMap produced by EMODnet Seabed Habitats partnership. World Database of Protected Areas UNEP-WCMC and IUCN, [www.protectedplanet.net](http://www.protectedplanet.net)

# European Digital Twin of the Ocean

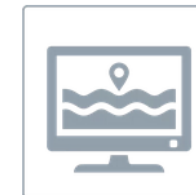
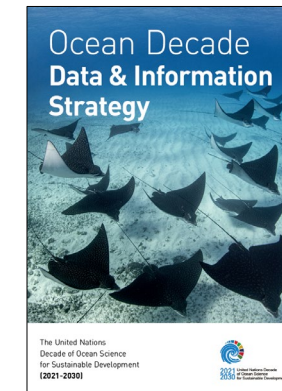
A leap in ocean knowledge and sustainable action

- EMODnet is the in situ data component of the EU DTO
- EMODnet and Copernicus Marine Data in one place (common data lake), on the cloud;
- High volume of marine and coastal data for conducting modelling, ocean prediction future scenarios.



## EMODnet for Challenge 8: Create a digital representation of the ocean

- EMODnet is in direct partnership with the UN Ocean Decade Coordination offices for Ocean Observing, Ocean Data Sharing and Ocean Prediction
- EMODnet is globally visible through the public EMODnet Portal, the European Digital Twin Ocean and global data/metadata initiatives e.g., GEOSS and the UN Ocean Decade ocean data 2030 initiative ODIS of IODE IOC/UNESCO
- EMODnet actively contributes to the global repository on Ocean (Data) Best Practices and EMODnet partners were invited experts to co-develop the UN Ocean Decade Data and Information Strategy
- The European Digital Twin Ocean is an EU contribution to the global Digital Twins of the Ocean



### Challenge 8

**Create a digital representation of the ocean**

Through multi-stakeholder collaboration, develop a comprehensive digital



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## EMODnet for Challenge 9: Skills, knowledge, technology, and participation for all And Challenge 10: Restore society's relationship with the ocean

- EMODnet actively organizes capacity building and training, also in collaboration with global initiatives including the Ocean Teacher Global Academy of IODE IOC/UNESCO
- EMODnet works with all data collection efforts to fill gaps in marine knowledge – from science to national administration, and from the private sector to non-governmental organisations and society e.g., citizen science
- EMODnet undertakes ocean literacy and education working with the European Atlas of the Seas (see later talk)



*Examples of EMODnet's partnerships with citizen science and participatory science*



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# THANK YOU!



## EMODnet



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Stay up-to-date with  
the latest news



## EMODnet



European Marine  
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## Open Conference 2025

**25-26 November 2025**  
**Brussels, Belgium**

**SAVE THE DATE**