

European Marine Observation and Data Network

Novellino, Gorringe, Schaap, Giorgetti



EMODnet: in situ marine data service



Chemistry

Seabed

Human activities

Bathymetry

EMODnet serves users in policy, research, industry, and society, the EU Digital Twin Ocean and global ocean data initiatives



Biology

EC marine data service developing pan-European data products* and aggregated datasets



Physics



Marine in situ data pipeline to EMODnet: National Oceanographic Data Centres, regional and European data infrastructures and services







in situ ocean observations (collected in water/air/seafloor) are the foundation of the EMODnet marine data pipeline









Operational oceanography (NRT) (ROOS, EuroGOOS)



Research Infrastructures



Research and Academia



Hydrographic Offices



monitoring (national authorities. regulatory monitoring)



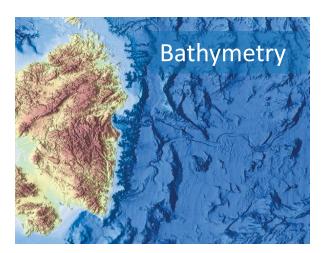
Private sector & Blue Economy

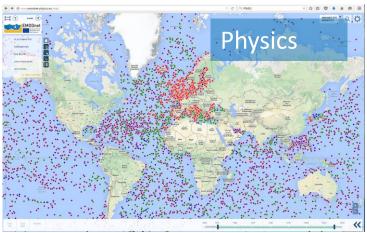


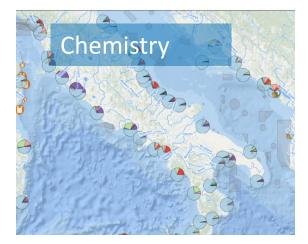


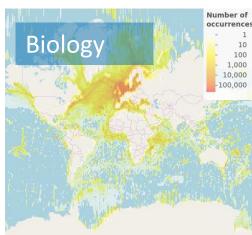


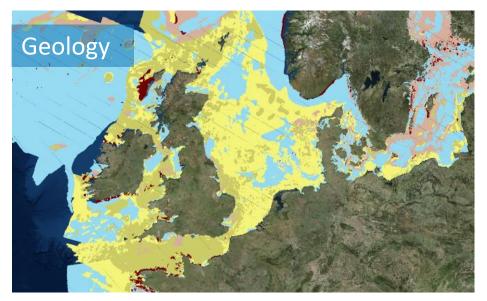
EMODnet: Unlocking and democrasting marine data, information and knowledge: Open and free for all







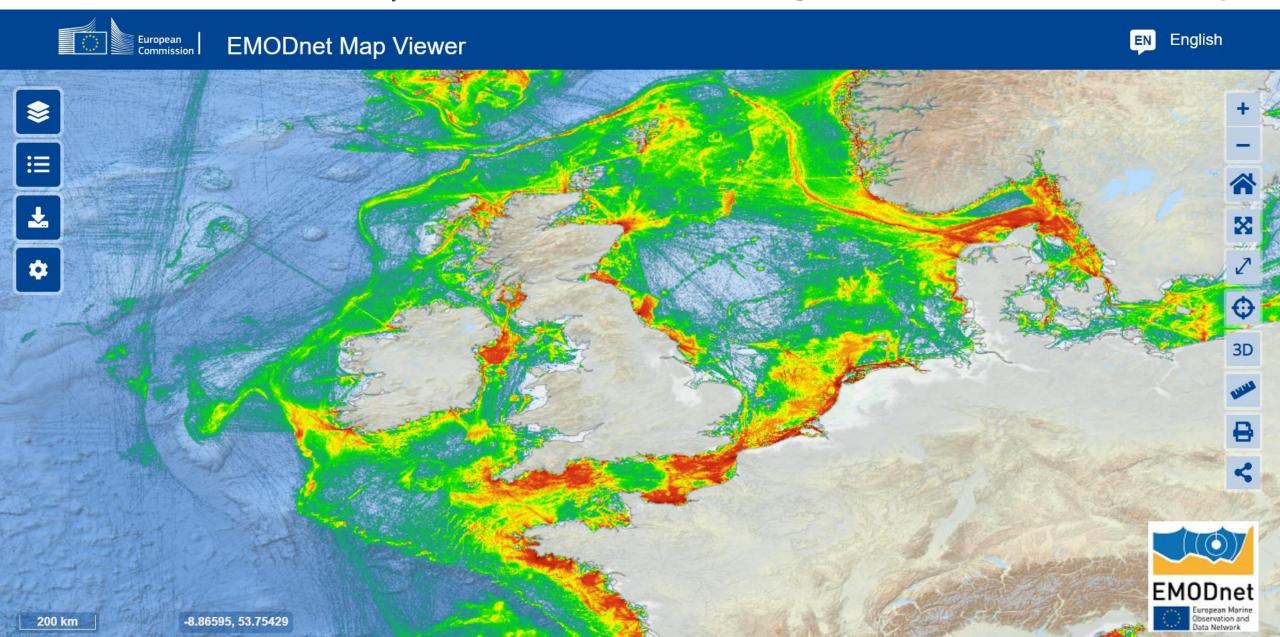








EMODnet: One map viewer – controls e.g., EMODnet Vessel density



EMODnet: Use cases



Human Activities

EMODnet wind farm and hydrocarbon extraction datasets to support the development of wind farm projects

The EMODnet Human Activities portal has become a vital tool for C2Wind, a Danish company working in th ewind industry. Wind farm and hydrocarbon extraction datasets are the most commonly explored datasets, identifying locations of already existing structures. Additional datasets on occasion are surveyed to provide the full extent of human activities. This crucial information is used in the preliminary phases of projects, determining areas of interest for the development of wind farm projects.



Gerben de Boer, Van Oord, EC MKEG member

Biology Chemistry Human Activities Physics Seabed Habitats

15 Jun 2021

Continue reading

EMODnet partners with Copernicus Marine for a joint data catalogue supporting evaluation of Good Environmental Status for the Marine Strategy Framework Directive.

A joint Copernicus Marine and EMODnet data catalogue for the Marine Strategy Framework Directive (MSFD) has been developed. It gathers all relevant marine data products from Copernicus Marine Service and EMODnet for all the MSFD descriptors (except Descriptor 4) in the Baltic Sea.



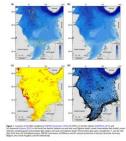
0.01 P3 D3 D4 D4 D4 D3 D4 D4 D4 D40 D41

Seabed Habitats

10 Nov 2020

EMODnet Seabed Habitats contributes to the debate on the decommissioning of offshore infrastructure

This study was published by a group of authors, including representatives from a range of universities and research organisations. The lead author is the University Technology Sydney's fish ecology lab, which aims to provide novel research to inform on the sustainability of the oceans and their fish populations. They actively engage in public debate on a wide range of issues affecting the marine environment, and also act as a hub for student research training. Their studie



<u>Bathymetry</u>

OSPAR intermediate assessments: evaluation the ecological status of the marine environment in the NE atlantic

Users identified the main areas where disturbance from bottomcontact fishing was predicted to cause the most significant impact to benthic marine habitats. This work fed directly into the OSPAR Intermediate Assessment (2017) with future implications towards the Marine Strategy Framework Directive assessments.

Changes in coastal sea level caused by the combined effect of surface winds and air pressure have the potential to cause widespread coastal flooding, damage to infrastructure and loss of life.

Improving storm surge modelling in the North Sea

Biology Seabed Habitats

31 Jan 2022

Holistic, standards-based access and interoperability for marine biodiversity data

Collaboration between EMODnet Biology, EMODnet Seabed Habitats and OBIS (Ocean Biodiversity Information System) has facilitated richer dataset publication and ensured the greatest volume of high-quality species and habitat data are available for reporting, assessments and informed decision making.



emodnet.ec.europa.eu



EMODnet Data Ingestion

A key pillar of the European Marine Observation and Data Network for sharing data



Overarching goal:

• To **facilitate** the data flow and the ingestion process from data providers to leading European marine data management infrastructures that are feeding EMODnet, for making their data open and FAIR

Approach:

- Identifying new data holders in the data collection landscape (from public and private sectors):
 - who are not connected to their national focal points that are contributing data to the EU data infrastructures and EMODnet, or,
 - are often unaware of how to connect
- Motivating, and supporting data holders to become partners in the EU data management infrastructures for data exchanges and share their data EMODnet
- Training data holders in the use of standards & best practices for easier and faster integration of their data
- Cooperating with EU Programmes, Projects, Initiatives, Networks
- Promotion activities (webinars, workshops) for raising awareness about EMODnet Ingestion offer

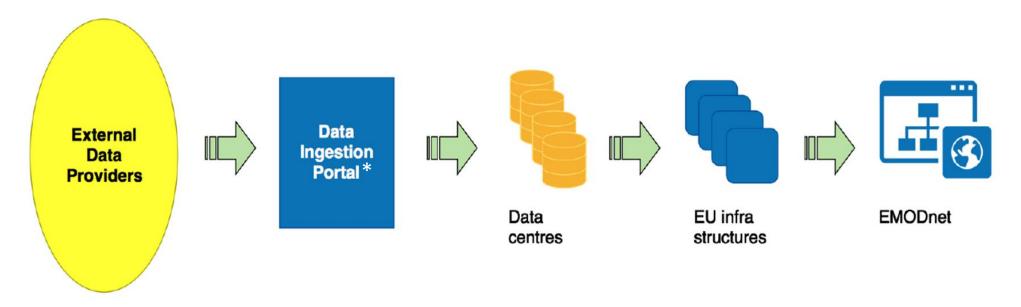


Data Ingestion process



A free and open public service for long-term stewardship, free distribution and publishing via EMODnet

Use is made of **standards, best practices**, and **existing marine data management infrastructures**, data centres and pathways towards the **EMODnet**



Workflow from submission to elaborating and processing for publishing in EMODnet

EMODnet Physics



EMODnet Physics:

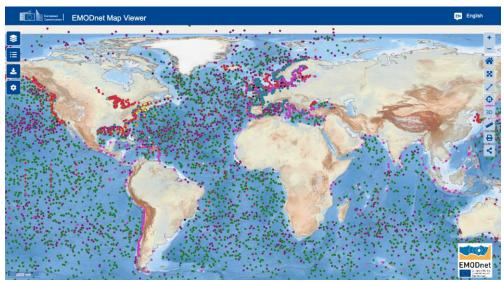
- in situ data, data collections, and products
- near real time and delayed mode data on ocean physics
- builds on marine data infrastructures and programs,
 common standards and best practices

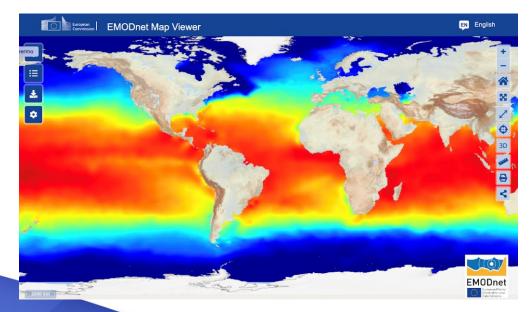
Parameters:

Temperature, Salinity, Sea Level, Currents, Waves and Winds, Optical properties of the water, Under water noise, Ice data, River, Meteorological data at sea level

Platforms:

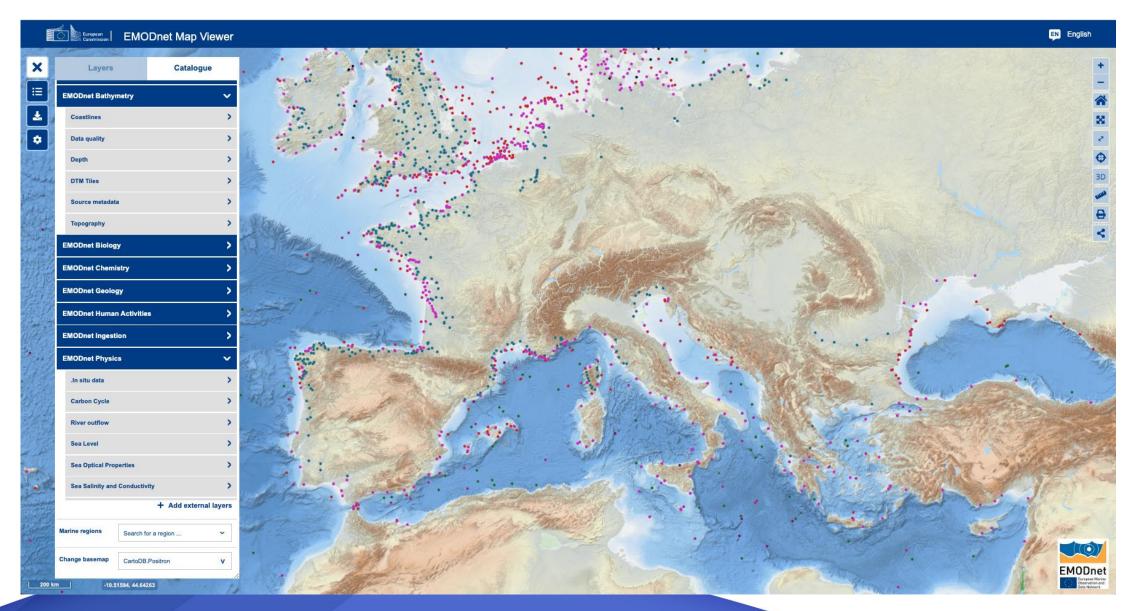
Moorings, Rivers stations, Gliders/AUVs missions, Vessels data, drifting buoys, ARGO, ...





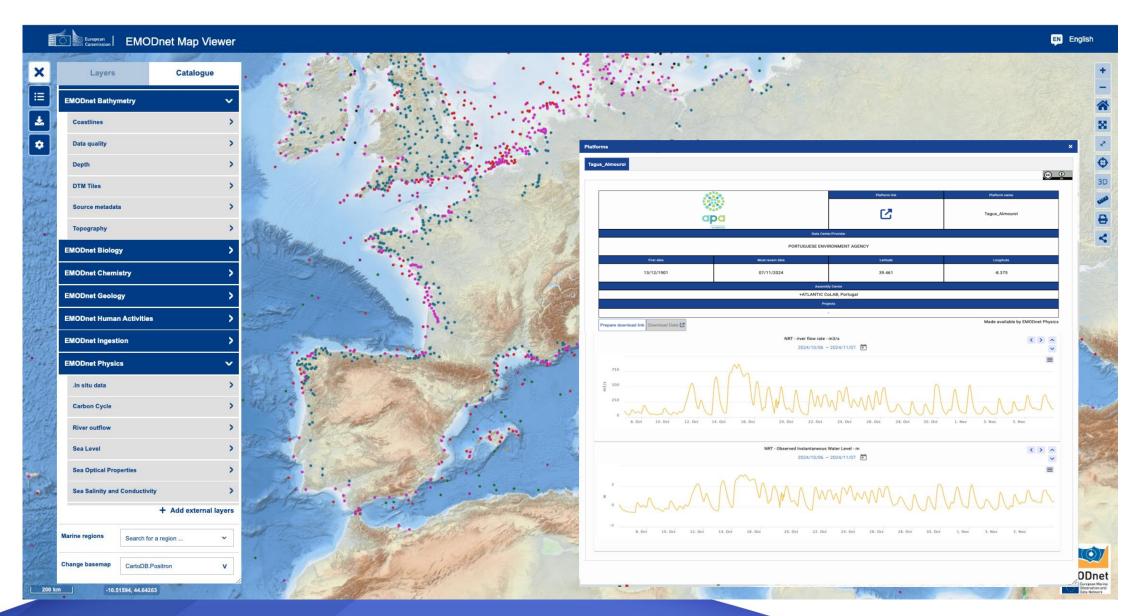
EMODnet: One map viewer for data discovery and download





EMODnet: One map viewer for data discovery and download

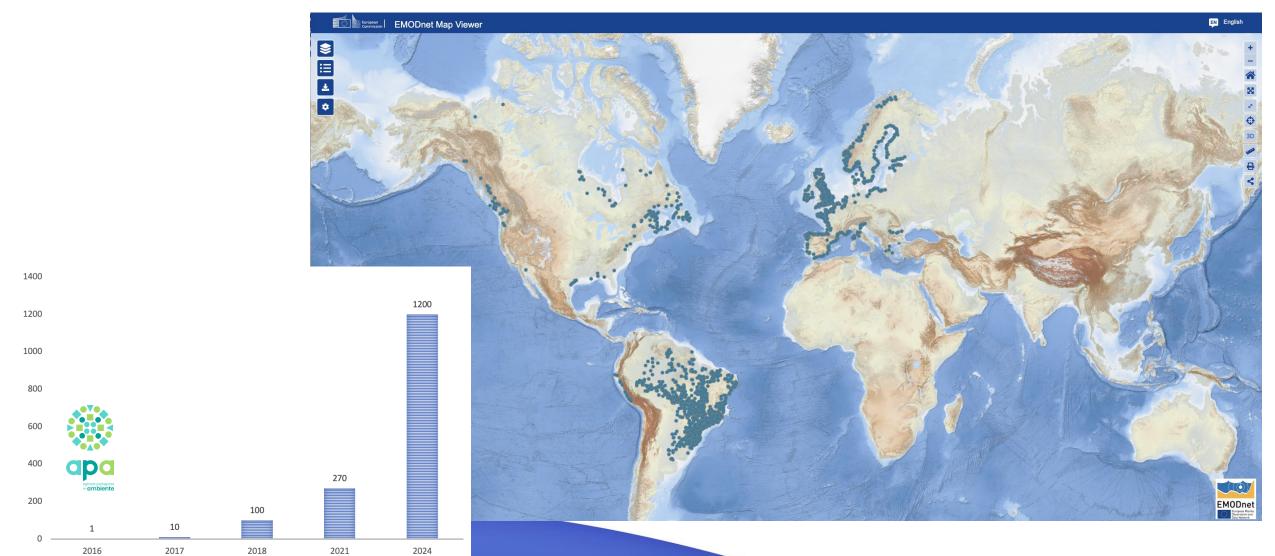




River Stations

Be our Champion again!









emodnet.ec.europa.eu

Stay up-to-date with the latest news







