The European Marine Observation and Data Network (EMODnet):
A public EU operational marine *in situ* data service

*GEO Blue-Planet online workshop, 6 June 2023*
*Ocean observation and prediction for coastal sustainability*

Kate Larkin, Head of EMODnet Secretariat
EMODnet is an operational public marine in situ data service and marine knowledge initiative of the European Commission (DG MARE)
One central map viewer
to visualise all EMODnet data

1 OCEAN
1 EMODnet
One single portal

140 partners
+100 use cases

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

EMOD.NET.EC.EUROPA.EU

YOUR GATEWAY TO IN SITU MARINE DATA IN EUROPE AND BEYOND
In situ marine data (field data) from coast to open ocean, from surface to seafloor;

- **Seven thematics** (bathymetry, biology, chemistry, geology, human activities, physics, seabed habitats);
- **Hundreds of data parameters** from diverse sources and added value data products;
- A **community** of > 120 organisations many more thematic data experts;
- **European authority and regional best practice** in the marine data domain;
- **Collaboration with Copernicus Marine Service** including provision of aggregated, standardized *in situ* marine data to validate satellite-derived data, input to models, and towards an interoperable European marine data space and EU Digital Twin Ocean.

emodnet.ec.europa.eu
EMODnet | The results of data sharing and working together
Unlocking and democratising marine data from diverse sources

Bathymetry

Physics

Chemistry

Biology

Geology

Seabed Habitats

Human Activities

Ten Years of EMODnet in Ten Minutes - watch the full movie - YouTube

emodnet.ec.europa.eu
EMODnet | One map viewer - controls

EMODnet Map Viewer

- Expand Layers
- Show Legend
- Subset & Download
- Map Settings

Zoom control
Default extent
Zoom to layers extent
Toggle Full Screen
Zoom to my location
Change to 3D
Measure distance
Print to PDF/PNG
Share map link

200 km
-8.86595, 53.75429
EMODnet: A key resource of *in situ* marine environmental and human activities data, including in the coastal region

Examples of key EMODnet data/data products relevant for Coastal sustainability:

- Bathymetry (Digital Terrain Model, EMODnet Bathymetry)
- Coastal Behaviour, Geology (age, lithology) and geomorphology (EMODnet Geology);
- Riverine inputs (EMODnet Physics)
- Pollutants & marine litter (EMODnet Chemistry)
- Blue economy operations, sitings and shipping/vessel transportation & National Maritime Spatial Plans (EMODnet Human Activities)
- Sea Level: Absolute and Relative Trends and Anomalies (EMODnet Physics);
- Biodiversity (EMODnet Biology)
- Seafloor/Benthic Habitats (EMODnet Seabed Habitats)

emodnet.ec.europa.eu
EMODnet: An operational service delivering marine data, information and knowledge for research, policy, blue economy and society

EU focus, Global context and international user-base
- Marine Knowledge 2020
- Marine Spatial Planning Directive (MSPD)
- Blue Growth & SME Strategy for sustainable & digital Europe
- Natura 2000
- Habitats and Birds Directive

emodnet.ec.europa.eu
EMODnet: A EU focal point for Marine Spatial Planning data & national plans

EMODnet provides a EU focal point for:

- Access to transboundary *in situ* marine environmental and human activities data, essential for MSP, as a tool to manage the use of our seas and oceans coherently and to ensure that human activities take place in an efficient, safe and sustainable way;
- European Member State/National Marine Spatial Plans through EMODnet Human Activities (Belgium, Denmark, Finland and Latvia already available, more to follow)
- EMODnet Human Activities works in close co-operation with Regional Sea Conventions, the EC JRC, Technical Group (TG) on Data for MSP towards a technical solution for harmonising EU MSP within EMODnet.

«EMODnet Human Activities is a focal point for EU Member State Marine Spatial plans and in the future this can be expanded to include MSP data products, for examples at the European level». Joni Kaitaranta, HELCOM
EMODnet: Ongoing contributions to coastal related initiatives

**JPI Oceans Sea Level Rise Knowledge Hub** as:
- Presenter/participant at kick-off meeting, April 2020
- Co-Chair of Task Group on Communication and Outreach, member of the Steering Committee
- Contributor to Sea Level Rise event, Venice, October 2022 and the Assessment Report

**UN Ocean Decade activity** as:
- **COAST Predict-CORE** Advisor
- **Collaborative Centre on Ocean Prediction** Advisor
- **Projects**: DITTO on digital Twins + TURTLE & many more

......
EMODnet: Strengthening Partnerships for International Interoperability and Impact

- A key partner for open data, open science, data diplomacy and digital data stewardship in Europe, and beyond;
- Interoperable data discovery and access, in collaboration with other key data services
- Further diversifying data parameters and sources (e.g. industry, citizen science)
- Extending FAIR to FAIR, CARE and TRUST

Transparency, Responsibility, User focus, Sustainability and Technology

emodnet.ec.europa.eu
Thank you for your attention!

- Discover the EMODnet Central Portal and see what EMODnet services can do for you;
- Connect with the online EMODnet community
  - @EMODnet (Twitter);
  - EMODnet monthly Newsletter;
  - Ask questions and submit feedback via the EMODnet Central Portal and via online surveys
- Contact the EMODnet Secretariat to discuss data sharing, data/data product use, queries on data/web services, and to explore partnerships secretariat@emodnet.ec.europa.eu
- Save-the-date for the EMODnet Open Conference 2023, 29-30 November 2023 in Brussels, Belgium
Your gateway to marine data in Europe