

EMODnet Centralisation Update

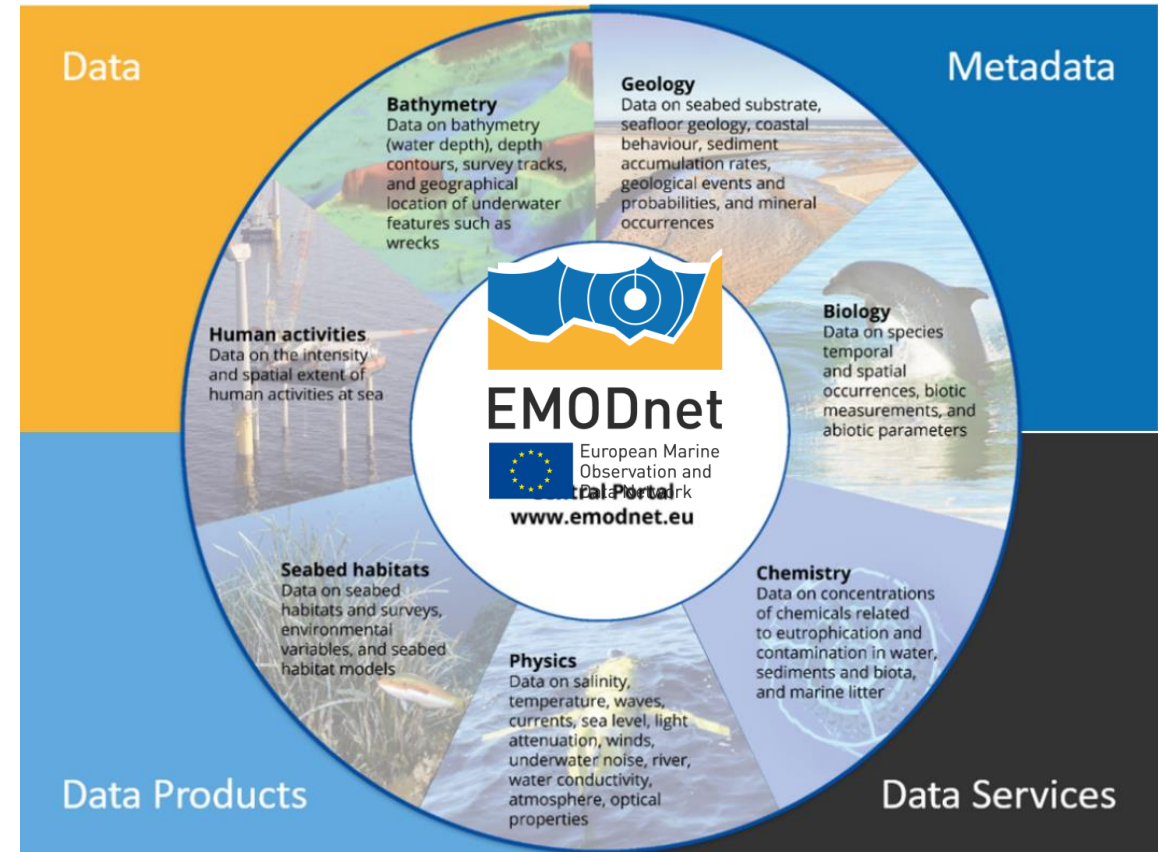
17th EMODnet Steering Committee
7-8 November 2022

Dr. Conor Delaney – EMODnet Secretariat

secretariat@emodnet.eu

EMODnet Vision: Data services and web services to discover open and free access to data and data products from a trusted source

- INSPIRE (EU) and FAIR (International) data principles
- Aggregated, harmonized multi-parameter data sets
- Searchable metadata (ISO standards)
- Data services (maps, query)
- Integrated data products
- Web services e.g. OGC, machine-machine readability e.g. WMS, WFS, WebS



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<https://github.com/EMODnet/Web-Service-Documentation>

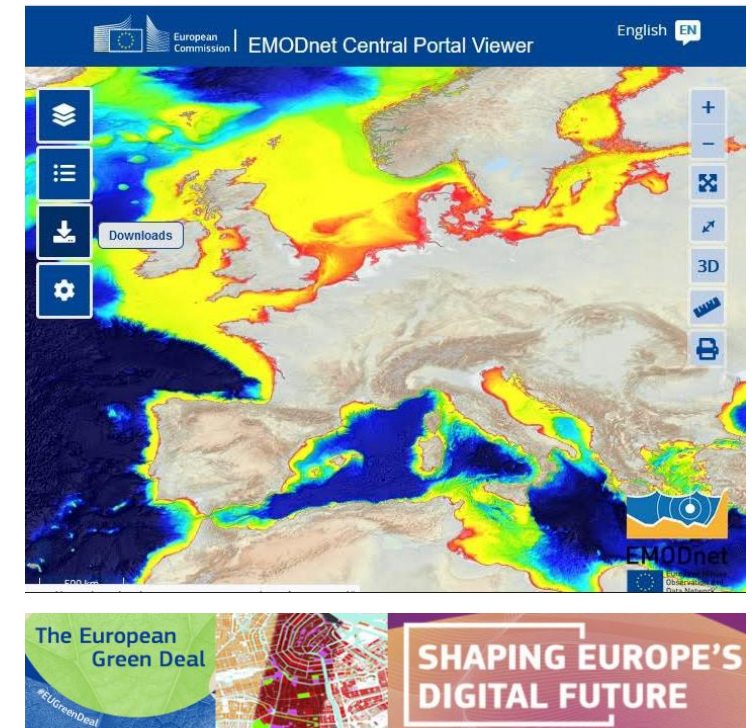
EMODnet Centralisation: Continued evolution for a fit-for-purpose user-driven service

EMODnet new phase (by end 2022) will complete the consolidation stage to deliver a fully centralized service with:

- A simplified single-entry point to all data/data products;
- A data cache approach more suited to today's data driven world towards next phase ocean data and information management;
- An enhanced data discovery service using a central metadata catalogue and machine-machine search engine;
- A central map viewer;
- Interoperability across the digital (marine data) commons.

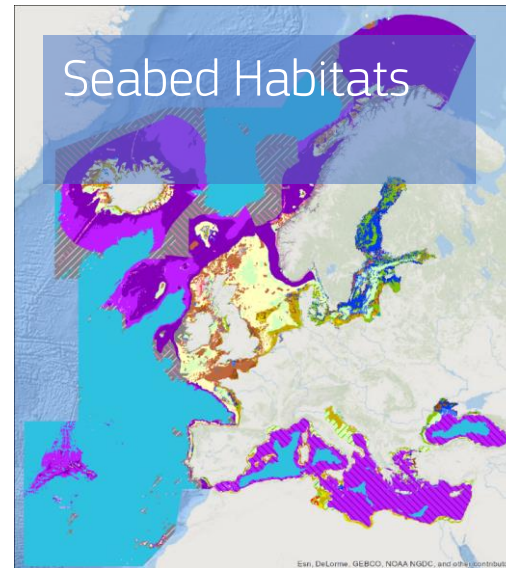
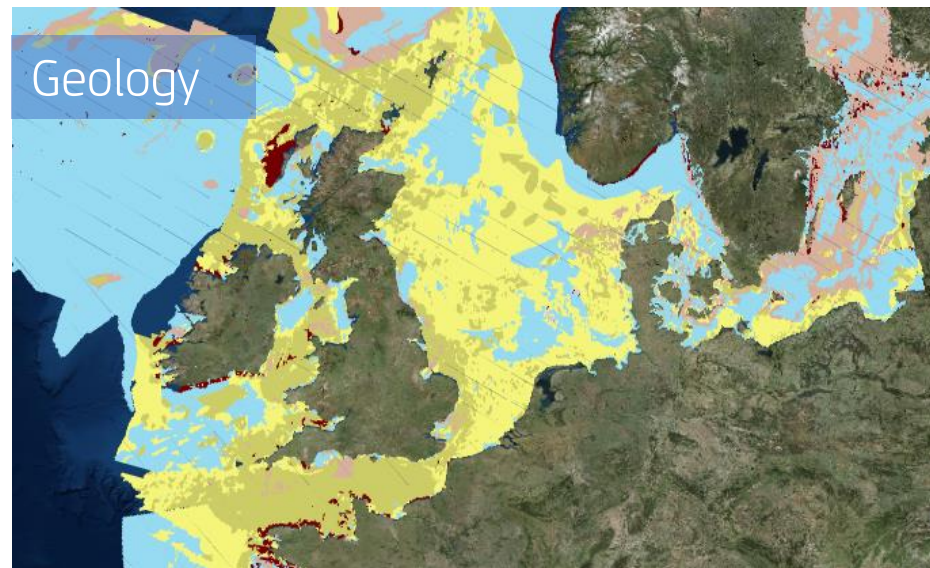
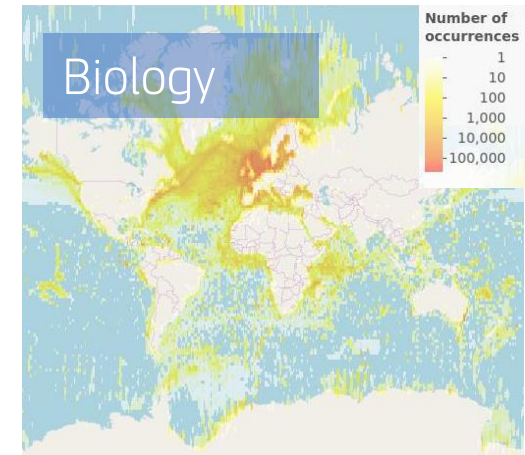
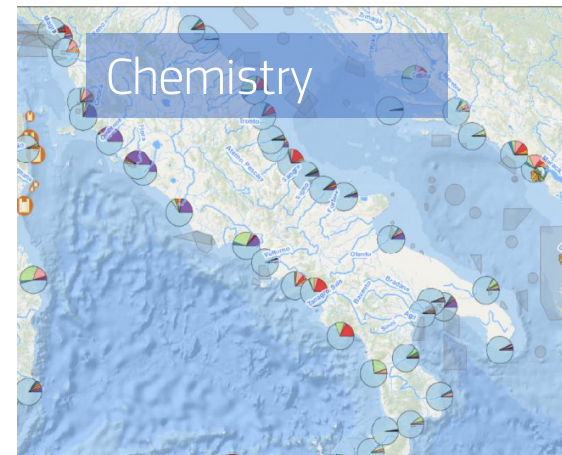
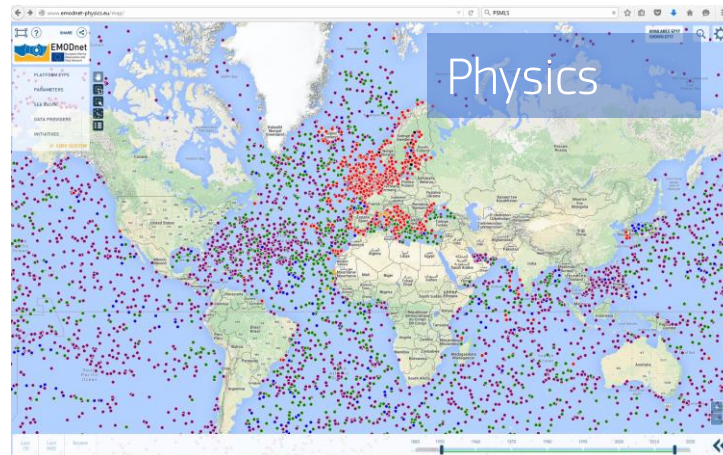
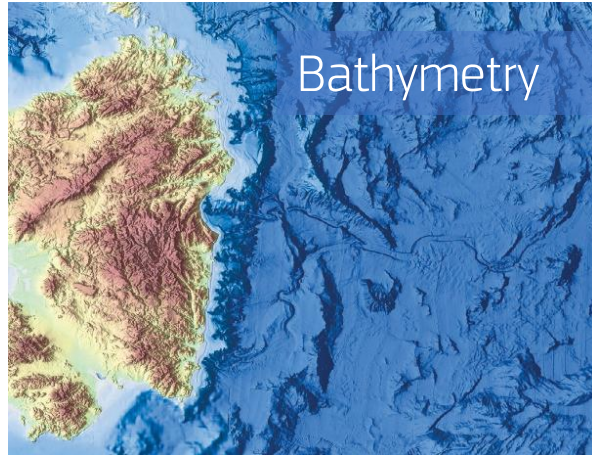


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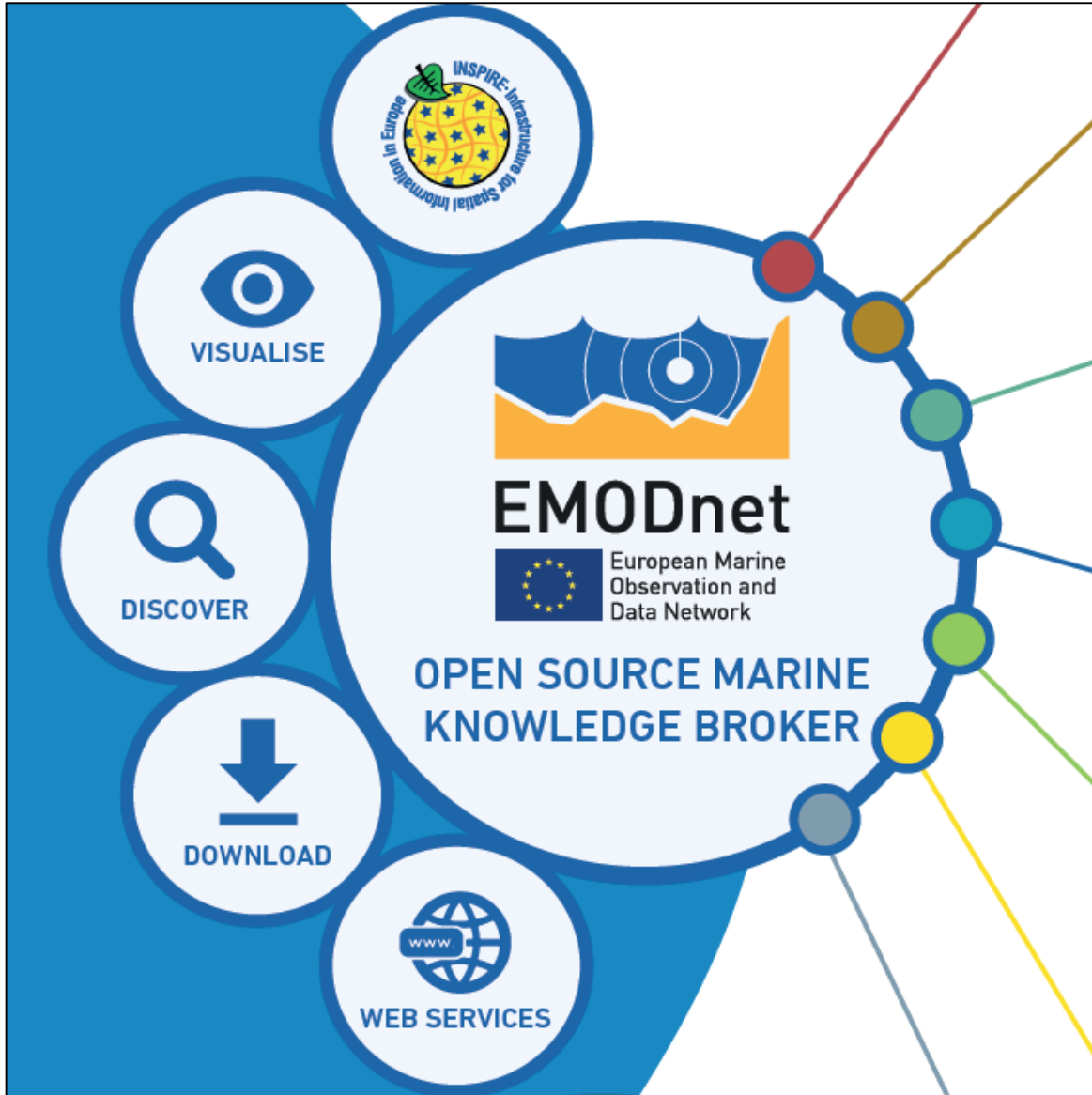


EMODnet: Diverse marine data and data products

Result of working together: democratizing in situ marine data, for all

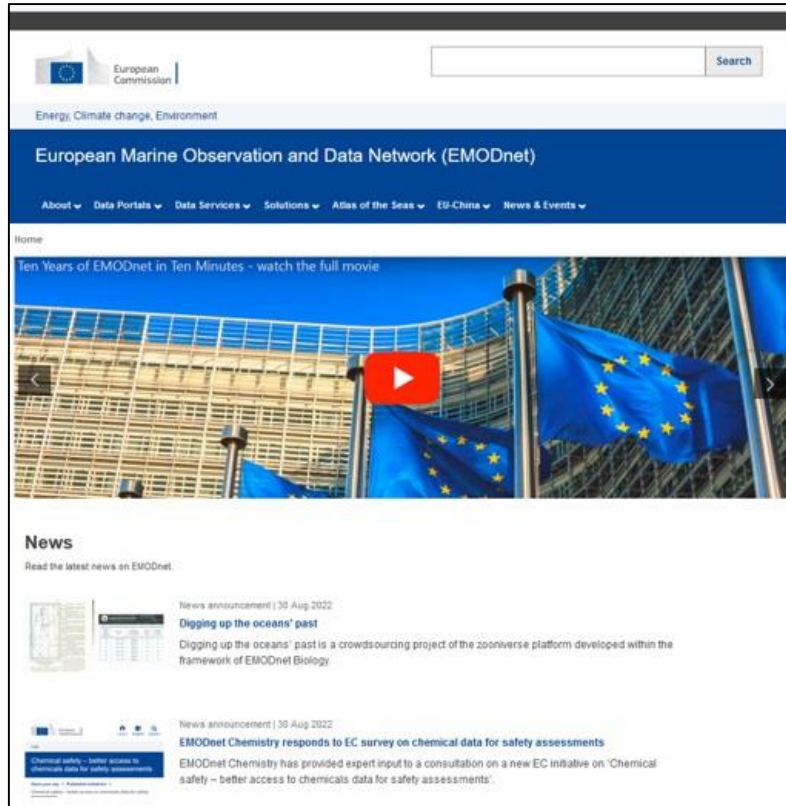


EMODnet Central Portal

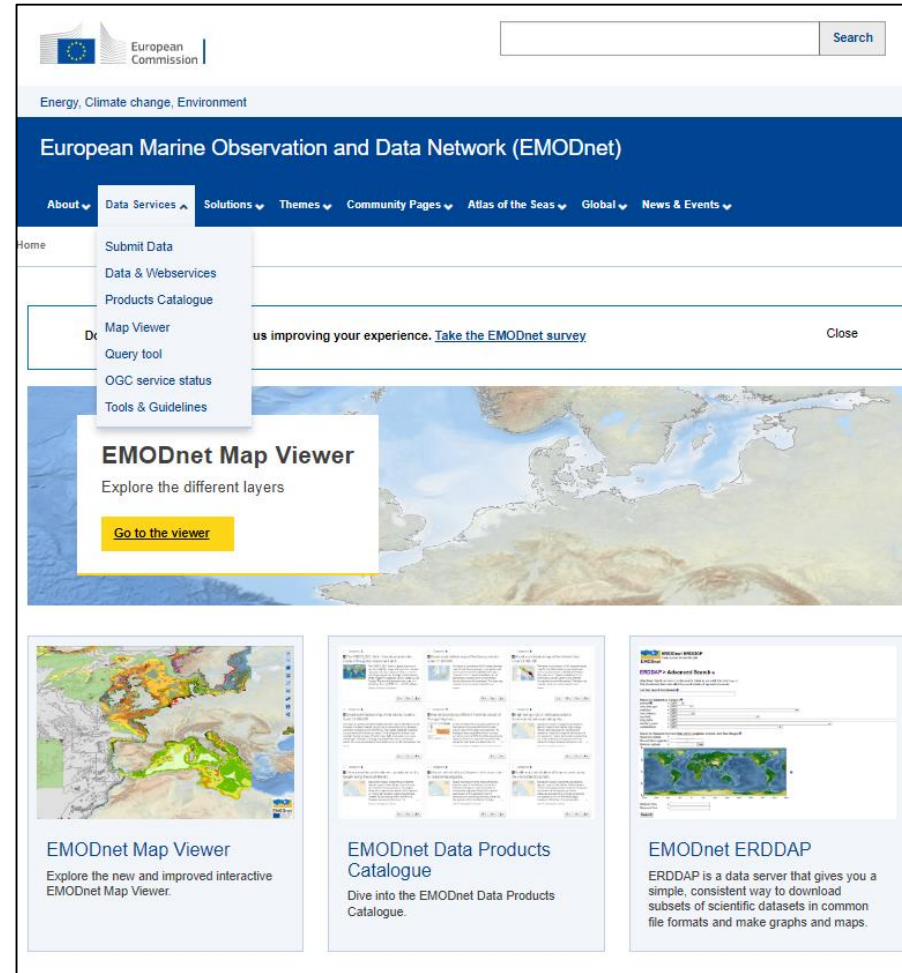


The screenshot shows the EMODnet Central Portal website. The top navigation bar includes the European Commission logo, a search box, and the text "Energy, Climate change, Environment". The main header is "European Marine Observation and Data Network (EMODnet)". Below the header is a navigation menu with options: "About", "Data Services", "Solutions", "Themes", "Community Pages", "Atlas of the Seas", "Global", and "News & Events". A dropdown menu for "Data Services" is open, showing options: "Submit Data", "Data & Webservices", "Products Catalogue", "Map Viewer", "Query tool", "OGC service status", and "Tools & Guidelines". A banner for "EMODnet Map Viewer" is displayed, with the text "Explore the different layers" and a "Go to the viewer" button. Below the banner are three featured content blocks: "EMODnet Map Viewer" (Explore the new and improved interactive EMODnet Map Viewer), "EMODnet Data Products Catalogue" (Dive into the EMODnet Data Products Catalogue), and "EMODnet ERDDAP" (ERDDAP is a data server that gives you a simple, consistent way to download subsets of scientific datasets in common file formats and make graphs and maps).

EMODnet | One new portal to replace all thematic portals.



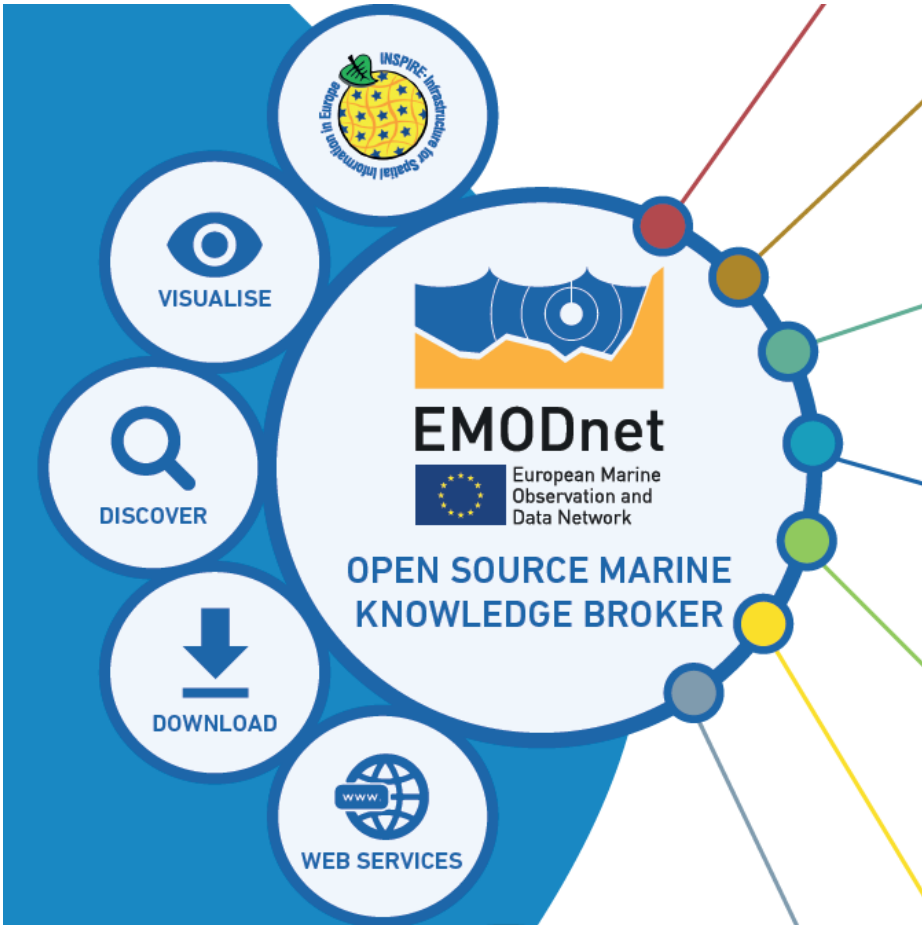
Old Website



New Website

- **One web site.** The content from other portals migrated to Central Portal.
- **One catalog** containing metadata and links to all data sets and products.
- **One map viewer** covering all themes.
- **Close** EMODnet thematic portals by end of 2022.

EMODnet: The EMODnet Central Portal



Technologies on Central Portal

- Geo/Map Viewer for displaying and downloading geospatial data
- GeoNetwork - OpenSource server of metadata
- GeoServer - OpenSource server of map layers
- ERDDAP - OpenSource server of gridded data in NetCDF format
- OGC WebServices - Standards used by geospatial webservices

Technologies on Thematic Servers (not inclusive)

- GeoNetwork - metadata harvested by CP
- GeoServer - map layers served as web services
- ERDDAP - Gridded data published in NetCDF format
- OGC WebServices - Standards used by geospatial webservices

EMODnet | One new map viewer to replace all other map viewers.

The screenshot displays the EMODnet Map Viewer interface. At the top left, the European Commission logo and the text "EMODnet Map Viewer" are visible. The top right corner shows the language "EN English". The left sidebar contains a "Layers" panel with a search bar and a list of categories: Administrative units, EMODnet Bathymetry, EMODnet Biology, EMODnet Chemistry, EMODnet Geology, EMODnet Human Activities, EMODnet Physics, EMODnet Seabed Habitats, and EU-China EMOD-PACE project. Below this is an "Add external layers" button and a "Marine regions" dropdown menu. The main map area shows a bathymetric map of the Mediterranean region with various data layers overlaid. A "Filter layers" dialog box is open in the foreground, showing a search for "Orcinus orca" and a "Date range" dropdown menu. The bottom status bar shows a scale of 500 km and coordinates: -15.69950, 40.79526. The EMODnet logo is visible in the bottom right corner of the map area.

EMODnet | One central catalogue



EMODnet | One central ERDDAP (Coming soon)

ERDDAP (test) server @ VLIZ
Easier access to scientific data

ERDDAP > List of All Datasets

177 matching datasets, listed in alphabetical order.

Grid DAP Data	Sub-set	Table DAP Data	Make A Graph	W M S	Source Data Files	Title	Summary	FGDC, ISO, Metadata	Background Info	RSS	E mail
	set	data	graph			* The List of All Active Datasets in this ERDDAP *		M	background		
data			graph	M	files	Arctic Ocean, DIVA 4D 6-year analysis of Water body dissolved oxygen concentration 1965/2017 v2021		F I M	background	RSS	E mail
data			graph	M	files	Arctic Ocean, DIVA 4D 6-year analysis of Water body dissolved oxygen concentration 1965/2017 v2021		F I M	background	RSS	E mail
data			graph	M	files	Arctic Ocean, DIVA 4D 6-year analysis of Water body phosphate 1965/2017 v2021		F I M	background	RSS	E mail
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data			graph	M	files	Arctic Ocean, DIVA 4D 6-year analysis of Water body silicate 1965/2017 v2021		F I M	background	RSS	E mail
data			graph	M	files	Baltic Sea, DIVAnd 6-year seasonal analysis of Water body chlorophyll-a 1980/2018 v2021		F I M	background	RSS	E mail
data			graph	M	files	Baltic Sea, DIVAnd 6-year seasonal analysis of Water body chlorophyll-a 1980/2018 v2021		F I M	background	RSS	E mail
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data			graph	M	files	Baltic Sea, DIVAnd 6-year seasonal analysis of Water body silicate 1980/2018 v2021		F I M	background	RSS	E mail
data			graph	M	files	Baltic Sea, Gulf of Riga, DIVAnd 4D seasonal analysis of Water body chlorophyll-a 1994/2018 v2021		F I M	background	RSS	E mail
data			graph		files	Bio-Oracle DissolvedMolecularOxygen [depthMax].		F I M	background	RSS	E mail
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set	data	graph	files			Chinese_VOS_observation_data		F I M	background	RSS	E mail
set	data	graph	files			Chinese_VOS_observation_data		F I M	background	RSS	E mail
	data	graph	files			Data product numerical abundance of benthic macroinvertebrates in North Sea and Baltic Sea		F I M	background	RSS	E mail



ERDDAP (test) server @ VLIZ
Easier access to scientific data

ERDDAP > griddap > Make A Graph

Dataset Title: **Baltic Sea, DIVAnd 6-year seasonal analysis of Water body phosphate 1980/2018 v2021** [RSS](#)

Institution: Swedish Meteorological and Hydrological Institute (Dataset ID: Baltic_PO_3D-f752_45ad_2baf)
Information: [Summary](#) | [License](#) | [FGDC](#) | [ISO 19115](#) | [Metadata](#) | [Background](#) | [Data Access Form](#) | [Files](#)

Graph Type: **surface**

X Axis: **longitude**
Y Axis: **latitude**
Color: **Water_body_phosphate_deepest**

Click on the map to specify a new center point.
Zoom: [Data](#) | [Out 8x](#) | [Out 2x](#) | [Out](#) | [In](#) | [In 2x](#) | [In 8x](#)

Dimensions: **Start** **Stop**
time (UTC) specify just 1 value → 2015-10-16T00:00:00Z

latitude (degrees_north) 53.0 65.9
longitude (degrees_east) 9.4 30.9

Graph Settings
Color Bar: Continuity: Scale: N Sections:
Minimum: Maximum: Draw land mask: Y Axis Minimum: Maximum: Ascending

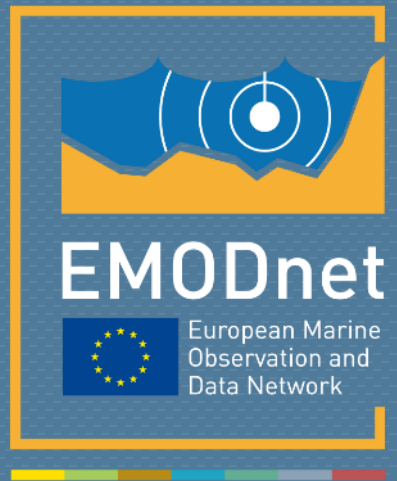
Redraw the Graph (Please be patient. It may take a while to get the data.)

Optional:
Then set the File Type: **.htmlTable** (File Type information)
and [Download the Data or an Image](#)
or view the URL: https://erddap-test.emodnet.eu/erddap/griddap/Baltic_PO_3D-f752_45ad
(Documentation / Bypass this form)

Things You Can Do With Your Graphs

Well, you can do anything you want with your graphs, of course. But some things you might not have considered are:

- Web page authors can embed a graph of the latest data in a web page using HTML tags.
- Anyone can use ERDDAPs Slide Sorter to build a personal web page that displays graphs with the latest data (or other images or HTML content), each in its own, draggable slide.



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Your gateway to marine data in Europe





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