

Status EMODnet Central Portal



Trajectory & Timeline

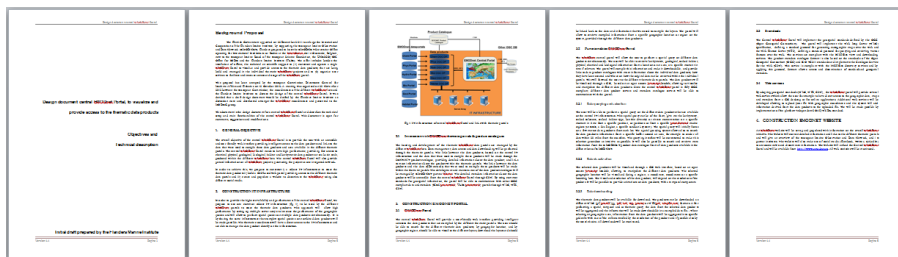
23 November 2012	First meeting organised between the European Commission, the coordinators of the different EMODnet lots and the Flanders Marine Institute to discuss the design of the central EMODnet Portal
07 March 2013	Proposal presented and discussed at MODEG meeting
31 May 2013	Feedback from all coordinators received
5 July 2013	First draft of the Website presented to MODEG & DIKE



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Design document central EMODnet portal

This document is the **design document for a central EMODnet portal** and describes the technical setup and main functionalities of the central EMODnet Portal. This document is **open for comments, suggestions and modifications**.



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General Objective

The overall objective of the central EMODnet Portal is to **provide the user with an accessible and user friendly web interface providing access to the data products and links to the data that were used to compile these data products and are available in the different thematic portals**.

The central EMODnet Portal needs to have **high performance, providing fast access** to chemical, physical, geological, biological, habitat and bathymetric data products at sea basin scale, produced within the different EMODnet lots. The central EMODnet Portal will also **provide general information on all EMODnet projects, promoting the project as one integrated network**.

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General Objective

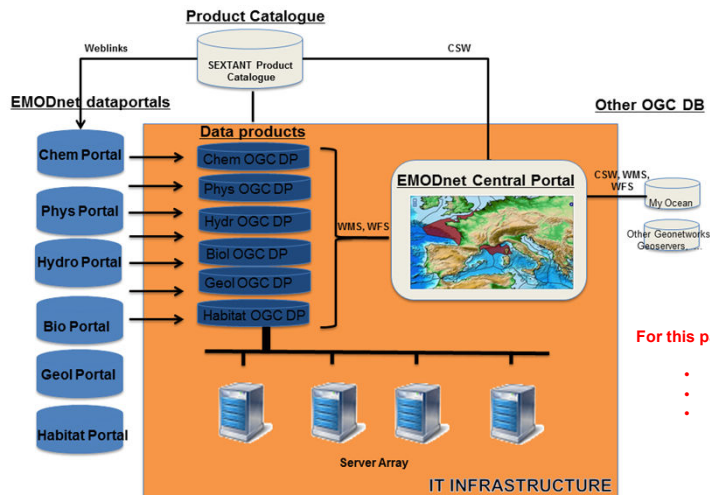
In order to achieve this, we propose to:

- i) create and populate a website to disseminate the EMODnet, using also different social media.
- ii) build a GIS-based web portal providing access to the different thematic data products and
- iii) host a robust IT infrastructure to store the thematic data products

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Construction IT infrastructure EMODnet central portal



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Standards and webservice

The Central EMODnet Portal will implement the geospatial standards defined by the OGC (Open Geospatial Consortium). The portal will implement the Web Map Services (**WMS**) specification, **Web Feature Services (WFS)**, **Web Coverage Services (WCS)**.

The services are compliant with the **INSPIRE** view and downloading services. The product metadata catalogue Sextant is also implementing the Catalogue Service for the Web (CSW) and ISO TC211 standards. This service is compliant with the INSPIRE discovery services.

Web services will be developed allowing to upload your file with geographic coordinates and the system will add information derived from the data products to the uploaded file. Through development of SOAP/REST Services.

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Feedback received

- ✓ Strong central portal, which attracts more endusers to EMODnet and EMODnet portals (different social media...)
- ✓ Should give clear overview of available products
- ✓ Identify **common use cases**, as a roadmap for developing portal, usefull for endusers, that highlight the added value of common analysis
- ✓ Include information on vocabularies & data policy
- ✓ User Friendly & Coastal Data

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Construction EMODnet Central Portal

EMODnet website: currently under development

- The website will contain detailed information and links to the different thematic portals and will give an overview of the European Marine Observation and Data Network, and its partner institutes.
- The website will also make use of social media (Facebook, Twitter, LinkedIn) to announce news and disseminate information.
- The website will embed the Central EMODnet Portal and will be available from <http://www.emodnet.eu>. All web statistics will be monitored

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EMODnet Central Portal
European Marine Observation and Data Network

[Data Portals](#)
[Data Products](#)
[Web Services](#)
[Partners](#)
[About](#)
[Help](#)

"Marine Knowledge 2020" identified "thematic assembly groups" as key elements of a future operational European Marine Observation and Data Network. Each thematic assembly group is a consortium of organisations that assemble fragmented marine data and make them available through a single portal. Altogether 53 different organisations took part (see Partners).
Each type of data requires a separate approach so six different portals have been set up:

<p>Hydrography</p> <p>Data on bathymetry (water depth), coastlines, and geographical location of underwater features: wrecks.</p> <p>Read more</p>	<p>Geology</p> <p>Data on seabed substrate, sea-floor geology, coastal behaviour, geological events and probabilities, and minerals.</p> <p>Read more</p>	<p>Seabed Habitats</p> <p>Data on modelled seabed habitats based on seabed substrate, energy, biological zone, and salinity.</p> <p>Read more</p>
<p>Chemistry</p> <p>Data on the concentrations of chemicals (pesticides, heavy metals, antifoulants) in water, sediments and biota.</p> <p>Read more</p>	<p>Biology</p> <p>Data on temporal and spatial distribution of species abundance and biomass from several taxa.</p> <p>Read more</p>	<p>Physical Parameters</p> <p>Data on salinity, temperature, waves, currents, sea-level, light attenuation, and FerryBoxes.</p> <p>Read more</p>

EMODnet Contact at info@emodnet.eu

EMODnet Central Portal
European Marine Observation and Data Network

[Data Portals](#) | [Data Products](#) | [Web Services](#) | [Partners](#) | [Secretariat](#) | [About](#) | [Sea Basin Checkpoints](#) | [Help](#)

[Hydrography](#) | [Geology](#) | [Seabed Habitats](#) | [Chemistry](#) | [Biology](#) | [Physical Parameters](#) | [Human Activities](#)

EMODnet (European Marine Observation and Data Network (EMODnet)) is a consortium of organisations within Europe that assemble and metadata from diverse sources in a uniform way. The main purpose of EMODnet is to unlock data resources and to make these available to individuals and organisations (public and private), and sustainable coastal and offshore activities through improved access to quality-assured, standardised and EMODnet is an initiative from the European Commission Directorate-General for Maritime Affairs and its Marine Knowledge 2020 strategy.

Portals in operation that provide access to marine data from the following themes: hydrography, geology, seabed habitats, biology, and physical parameters. One further portal covering human activities is currently under construction.

Hydrography

Data on bathymetry (water depth), coastlines, and geographical location of underwater features: wrecks.

[Read more](#)

Geology

Data on seabed substrate, sea-floor geology, coastal behaviour, geological events and probabilities, and minerals.

[Read more](#)

Seabed Habitats

Data on modelled seabed habitats based on seabed substrate, energy, biological zone, and salinity.

[Read more](#)

Chemistry

Data on the concentrations of chemicals (pesticides, heavy metals, antifoulants) in water, sediments and biota.

[Read more](#)

Biology

Data on temporal and spatial distribution of species abundance and biomass from several taxa.

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Physical Parameters

Data on salinity, temperature, waves, currents, sea-level, light attenuation, and FerryBoxes.

[Read more](#)

Human Activities

UNDER CONSTRUCTION

Hydrography

Data on bathymetry (water depth), coastlines, and geographical location of underwater features: wrecks.

[Read more](#)

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Data on seabed substrate, sea-floor geology, coastal behaviour, geological events and probabilities, and minerals.

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[Read more](#)

Human Activities

UNDER CONSTRUCTION

ACCESS THE PHYSICAL PARAMETERS PORTAL

Physical Parameters

Objectives

The Physics preparatory action had the overall objectives to provide access to archived and near real-time data on physical conditions as monitored by fixed stations and Ferrybox lines in European sea basins and oceans and to determine how well the data meet the needs of users. The existing EMODnet-Physics portal makes layers of physical data and their metadata available for use and contributes towards the definition of an operational European Marine Observation and Data Network (EMODnet). It is based on a strong collaboration between EuroGOOS associates and its regional operational systems (ROOSs), MyOcean and SeaDataNet consortia.

[see specific Objectives](#)

Data Sources & Methodology

The EMODnet Physics is based upon giving access to the combined offer of physical data sets from fixed monitoring stations and Ferrybox lines as managed and made available through EuroGOOS-ROOSs, and the MyOcean and SeaDataNet consortia. The new EMODnet Physics project will continue to be based upon these 3 well established pillars in the European oceanography community and on the ICT infrastructure developed for the EMODnet Physics, and thus as soon as the project starts the portal will provide access to the data, metadata and data products already offered by the EMODnet Physics portal developed under the ur-EMODnet preparatory actions. At the same time, the data provision and service of the EMODnet Physics portal will be improved and expanded in a number of ways:

[read more](#)


Data Products and Services


A specific area (North Adriatic) is being used to develop added value data products at the higher resolution possible, in order to evaluate needs and gaps in the present operational capabilities to support the Marine Strategy Framework Directive (MSFD) requirements. This area is being used as a test and proof of concept for the provision of products in coastal areas. The practical way to collaborate with other lots will be by having joint meetings, where all lots present their progress and discuss mutual requirements and how to solve these.

[read more](#)

Improvements for phase II

Based on experience gained in the first EMODnet Physics tender, a closer connection with the data originators is needed, and more work needs to be carried out at a regional level. The six EuroGOOS ROOSs have been formed for this purpose, and therefore this work will be coordinated through the EuroGOOS Office and carried out by the ROOSs. This approach guarantees that the work will be done efficiently by those with ownership and expert knowledge of the data being provided. The EMODnet Physics project will support the existing structure and infrastructure of the EuroGOOS ROOSs devoting 50% of the total budget to ROOSs;



Leading Partner 

Parameters / Descriptors

- Water
- Sea Level
- Wave
- Atmospheric
- Light Irradiance
- Ice Cover

Other features

- Ferryboxes
- EuroGOOS regions

Volume

Phase I	€1 000 000
Phase II	€1 000 000

No. of Partners 37

Latest Reports

EMODnet Central Portal

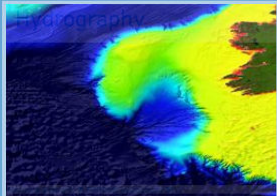
European Marine Observation and Data Network

Data Portals | Data Products | Web Services | Partners | Secretariat | About | Sea Basin Checkpoints | Help

The European Marine Observation and Data Network (EMODnet) is a consortium of organisations providing marine data, data products and metadata from diverse sources in a uniform way. The fragmented and hidden marine data resources and to make these available to individuals and organisations to facilitate investment in sustainable coastal and offshore activities through improved access to harmonised marine data. EMODnet is an initiative from the European Commission Directorate General for Fisheries (DG MARE) as part of its Marine Knowledge 2020 strategy.


Presently, there are six sub-portals in operation that provide access to marine data from the physical parameters, chemistry, biology, and physical habitats. One further portal covering geology, is currently under construction.

- Context
- Principles
- What is EMODnet?
- Timeline
- Vocabulary
- Data policy




Data on bathymetry (water depth), coastlines, and geographical location of underwater features: wrecks.

[Read more](#)



Data on seabed substrate, sea-floor geology, coastal behaviour, geological events and probabilities, and minerals.

[Read more](#)



Data on modelled seabed habitats based on seabed substrate, energy, biological zone, and salinity.

[Read more](#)

Chemistry

Biology

Physical Parameters

Secretariat

An EMODnet Secretariat has been commissioned (tender MARE/2012/15) to provide high-level coordination and technical skills to support (i) the monitoring of EMODnet projects; (ii) the dissemination of their results; and (iii) the analysis of user feedback and statistics. The EMODnet Secretariat will also oversee the development of the EMODnet central portal as a common gateway to provide access to all seven thematic portals. The main aim is to develop a more effective, efficient and fit for purpose EMODnet.

The EMODnet Secretariat is provided by Seascope Consultants Ltd (www.seascopeconsultants.co.uk) **Jan-Bart Calewaert** (overall coordination and communication), **Liesbeth Renders** (technical support), **Phil Weaver** (project oversight) and **Vikki Gunn** (management support).

EMODnet Secretariat Contact Details:

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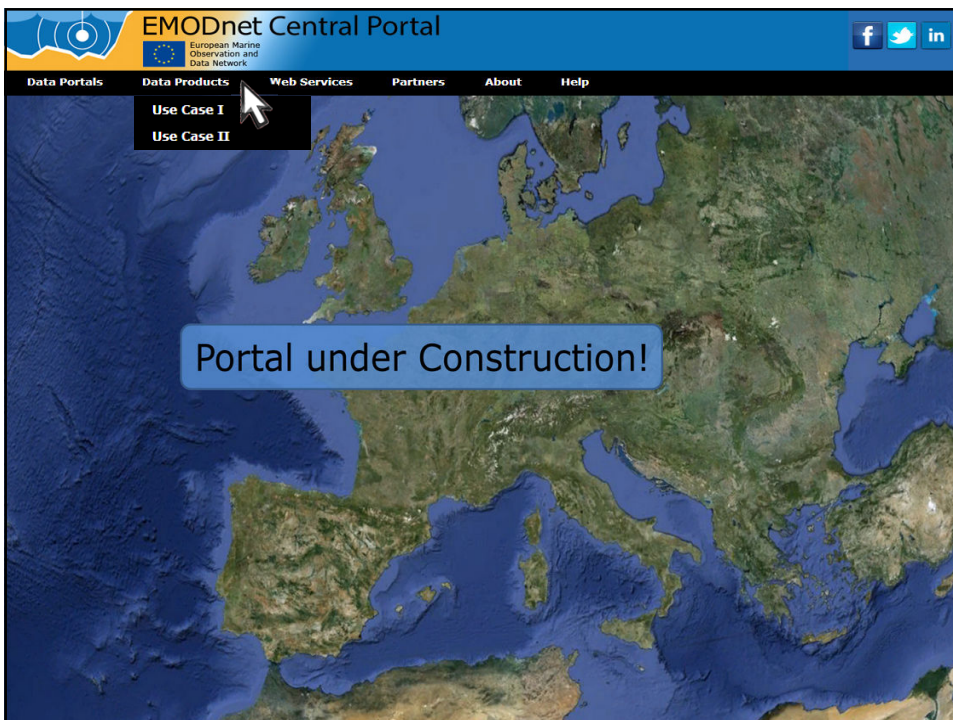
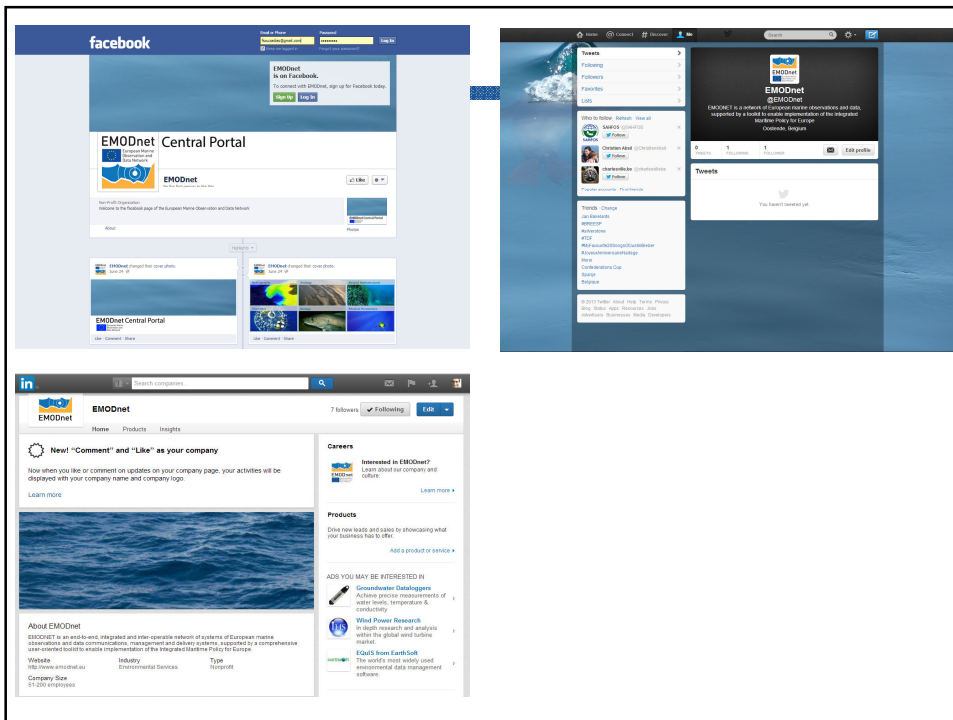
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The screenshot shows the EMODnet Central Portal homepage. The header includes the EMODnet logo and the text "EMODnet Central Portal" and "European Marine Observation and Data Network". A navigation bar contains links for "Data Portals", "Data Products", "Web Services", "Partners", "Secretariat", "About", "Sea Basin Checkpoints", and "Help". Social media icons for Facebook, Twitter, and LinkedIn are in the top right. The main content area features a grid of partner logos on the left, including Ifremer, SHOM, UG, DHI, and Dmi. To the right is a 2x2 grid of images: a colorful bathymetric map, a river delta, an underwater scene with seagrass, and a satellite view of a coastal area. A "1 of 2 next >" indicator is at the bottom of the logo grid.

This screenshot shows the "Partners from BELGIUM" section of the EMODnet Central Portal. The header and navigation bar are identical to the first screenshot. The main content area features a list of three partner cards on the left, each with a logo and a "View the EDMO record" link: VLIZ, MUMM, and Université de Liège. To the right is a map of Europe with Belgium highlighted in orange. A "1 of 2 next >" indicator is at the bottom of the partner list.





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Possible Uses Cases

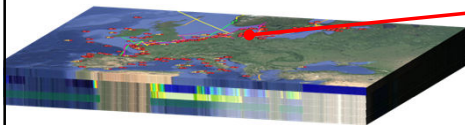
- Use Cases will be used as a roadmap for developing the Portal
- Highlight added value of bringing thematic data together
- Generate functional requirements of portal
- Possible link with seabasin checkpoints?
- Scientific – or user need driven
- Through working group with coordinators of the different lots and the Secretariat

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Use Case I: Fisheries Assessments provide information to fisheries authorities.



Retrieve Data from specified coordinates at a given time or for a time interval

Physical Parameters (temperature, salinity)

Bathymetry

Seabed Substrate

Marine Region (Fishing zone, ICES area, Protected Area)

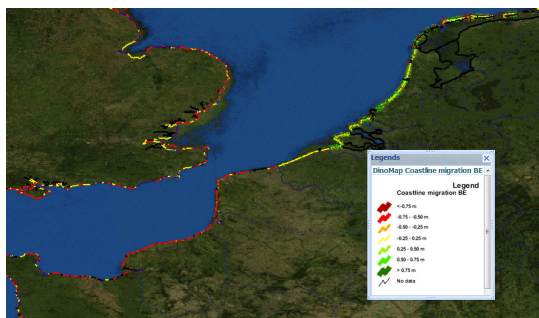
Species Abundance


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Use Case II: Coastal data

supporting the assessment of coastal status and trends

- EEA European coastline
- EMODnet Bathymetry (depth)
- EMODnet Geology
 - Coastline Migration, Sediment Accumulation rate, Seabed Substrate
- EMODnet Physics
 - Tides, Waves, wind



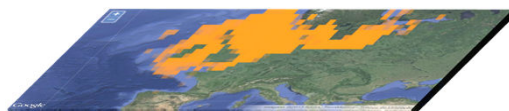
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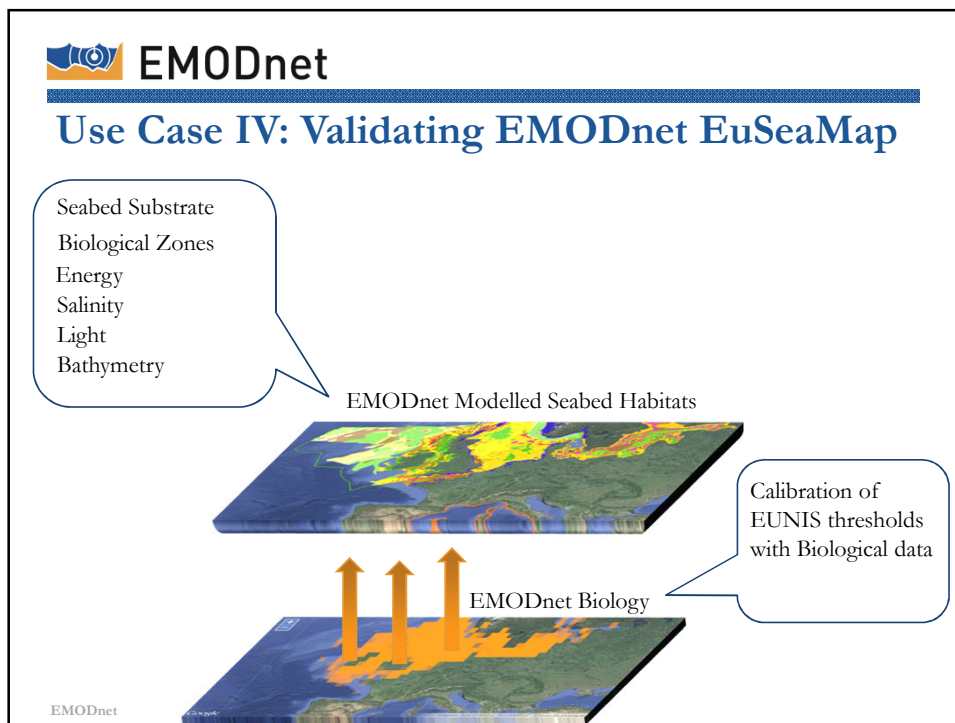
Use Case III: Use case for MSFD

Biological valuation using EMODnet

- Calculate Benthos Ecosystem Quality Index BEQI at regional sea level
 - Gridded abundance, modelled seabed habitat
- Calculate biological valuation map at regional sea level (Borja, 2010)



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Thank you, questions?

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The slide features the EMODnet logo at the top left, followed by the text 'Thank you, questions?' in a large blue font. The EMODnet logo is also present in the bottom left corner.