



EMODnet



European Marine
Observation and
Data Network

Your gateway to marine data in Europe



EMODnet: your gateway to marine data in Europe

Protecting our coasts: how to anticipate and monitor coastal risks?

The contribution of coastal data

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EMODnet Secretariat



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Marine data: why is it important?

- Ⓜ Rapid access to reliable and accurate marine environment data is vital in
- addressing threats to marine environment
 - developing policies and legislation protect vulnerable coastal & ocean areas
 - understanding trends and forecasting future changes
 - supporting sustainable economic development ('blue growth')

Global Ocean Observing System





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Marine data in Europe: what is the challenge?

The process of marine data



Fragmented



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The role of EMODnet (European Marine Observation and Data Network) ...

... is to unlock hidden and fragmented marine data resources





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The beginning of EMODnet

- ↳ Launched by DG-MARE in 2009 (Directorate-General for Maritime Affairs and Fisheries)
- ↳ Supported by EU's Integrated Maritime Policy

↳ **OBJECTIVES**

- **Reduce** uncertainty in knowledge of the oceans and the seas
- **Increase** competition and innovation
- **Reduce** costs



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The core principles of EMODnet

- ① **Collect data once, use it many times**
- ② Develop data standards across and within disciplines
- ③ Process and validate data at different European levels
- ④ Extract maximum value from efforts of Member States
- ⑤ Build on existing efforts from data communities
- ⑥ Develop a user-driven decision-making process
- ⑦ Provide statements on data ownership, accuracy and precision
- ⑧ Recognise marine data are a public good

→ www.emodnet.eu ←



EMODnet



EMODnet consists of 5 strands

 Network of >150 organisations



7 thematic portals

Central Portal

6 Sea-basin Checkpoints

Data Ingestion Portal

Secretariat



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The development of EMODnet in different phases

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Phase I – Limited sea basins											

- Phase 1 — 59 institutions, budget €6.45 million
- Prototype of Thematic data portals
- Limited selection of parameters and sea-basins
- Low-resolution data products



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The development of EMODnet in different phases

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Phase I – Limited sea basins											
			Phase II – Low resolution all basins								

- Phase 1 — 59 institutions, budget €6.45 million
Prototype of Thematic data portals
Limited selection of parameters and sea-basins
Low-resolution data products
- Phase 2 — 120 institutions, budget €16.3 million
More parameters, and coverage of all European sea-basins
Medium-resolution data products
Establishment Central Portal & Sea-basin Checkpoints
Launch Secretariat



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The development of EMODnet in different phases

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Phase I – Limited sea basins											
				Phase II – Low resolution all basins							
								Phase III – Multi-resolution			

- Phase 1 — 59 institutions, budget €6.45 million
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- Phase 3** — >150 institutions, budget €20 million
Multi-resolution digital map of entire European seabed by 2020



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EMODnet created portals, giving access to a range of data archives across 7 disciplines



BATHYMETRY



GEOLOGY



SEABED HABITATS



PHYSICS



CHEMISTRY



BIOLOGY



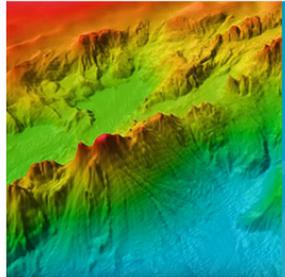
HUMAN ACTIVITIES



Seven thematic groups/portals



Thierry Schmitt



BATHYMETRY

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

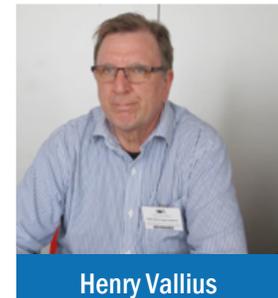
[USE CASES](#) [INFO](#) [ACCESS](#)



GEOLOGY

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

[USE CASES](#) [INFO](#) [ACCESS](#)



Henry Vallius



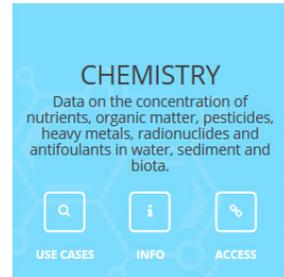
Helen Lillis



SEABED HABITATS

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

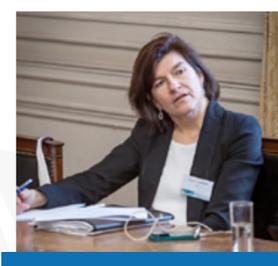
[USE CASES](#) [INFO](#) [ACCESS](#)



CHEMISTRY

Data on the concentration of nutrients, organic matter, pesticides, heavy metals, radionuclides and antifoulants in water, sediment and biota.

[USE CASES](#) [INFO](#) [ACCESS](#)



Alessandra Giorgetti



Simon Claus



BIOLOGY

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

[USE CASES](#) [INFO](#) [ACCESS](#)



PHYSICS

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

[USE CASES](#) [INFO](#) [ACCESS](#)



Antonio Novellino



HUMAN ACTIVITIES

Data on the intensity and spatial extent of human activities at sea.

[USE CASES](#) [INFO](#) [ACCESS](#)



Alessandro Pititto



The Central Portal provides a single point of access to the 7 thematic portals

www.emodnet.eu

The screenshot shows the EMODnet Central Portal website. The header includes the EMODnet logo and the text 'CENTRAL PORTAL Your gateway to marine data in Europe'. A search bar is located in the top right corner, along with links for 'CONTACT US' and 'SUBMIT DATA'. The main navigation menu is highlighted, with 'DATA SERVICES' selected. A dropdown menu is open under 'DATA SERVICES', listing various thematic areas: DATA PORTALS OVERVIEW, CATALOGUE, MAP VIEWER, QUERY TOOL, DATA & WEBSERVICES, BATHYMETRY, GEOLOGY, SEABED HABITATS, CHEMISTRY, BIOLOGY, PHYSICS, HUMAN ACTIVITIES, and COASTAL MAPPING. The background of the page features an underwater scene with coral reefs and fish.

3/15/2018

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Coastal mapping project, also part of EMODnet family



3/

WELCOME TO THE EMODNET COASTAL
MAPPING PORTAL

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Data

Metadata

Bathymetry

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

Geology

Data on seabed substrate, seafloor geology, coastal behaviour, geological events and probabilities, and minerals

Human activities

Data on the intensity and spatial extent of human activities at sea

Biology

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



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Central Portal

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Seabed habitats

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

Chemistry

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

Physics

Data on salinity, temperature, waves, currents, sea level, light attenuation and FerryBox data

Data Products

Data Services



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The concept and aim of the Sea-basin Checkpoints

Still shortcomings with marine data availability & accessibility

Sea-basin Checkpoints launched in 2013 and 2015

Stress tests → test data against specific end-user challenges

AIM | to assess the fitness for purpose of marine monitoring data



ARCTIC



ATLANTIC



BALTIC



BLACK SEA



MED SEA



NORTH SEA



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European Marine
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Sea-basin Checkpoints coordinators



Jacques Populus



Atanas Palazov



Quillon Harpham



ARCTIC



ATLANTIC



BALTIC



BLACK SEA



MED SEA



NORTH SEA



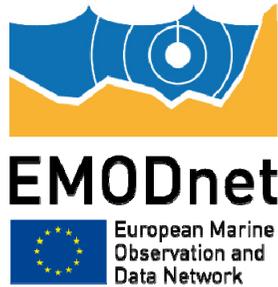
Belinda Kater



Jun She



Nadia Pinardi



Data Ingestion Portal allows contributing data in an easy way

<https://www.emodnet-ingestion.eu/>

EMODnet | DATA INGESTION PORTAL
Wake up your data - set them free for Blue Society

Search

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Home

Welcome to the EMODnet Data Ingestion portal

The European Marine Observation and Data Network (EMODnet) consists of more than 160 organisations that together work on assembling, harmonising and making marine data, products and metadata more available to public and private users. This Data Ingestion portal facilitates additional data managers to ingest their marine datasets for further processing, publishing as open data and contributing to applications for society.

[READ MORE](#)

EMODNET INGESTION

CHECK OUT THE MOVIE
3:30 MINUTES



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Organisations wish to join EMODnet?

- (()) EMODnet Associated Partnership Scheme
- (()) Flexible, transparent and straightforward
- (()) Allows to contribute to and benefit from EMODnet





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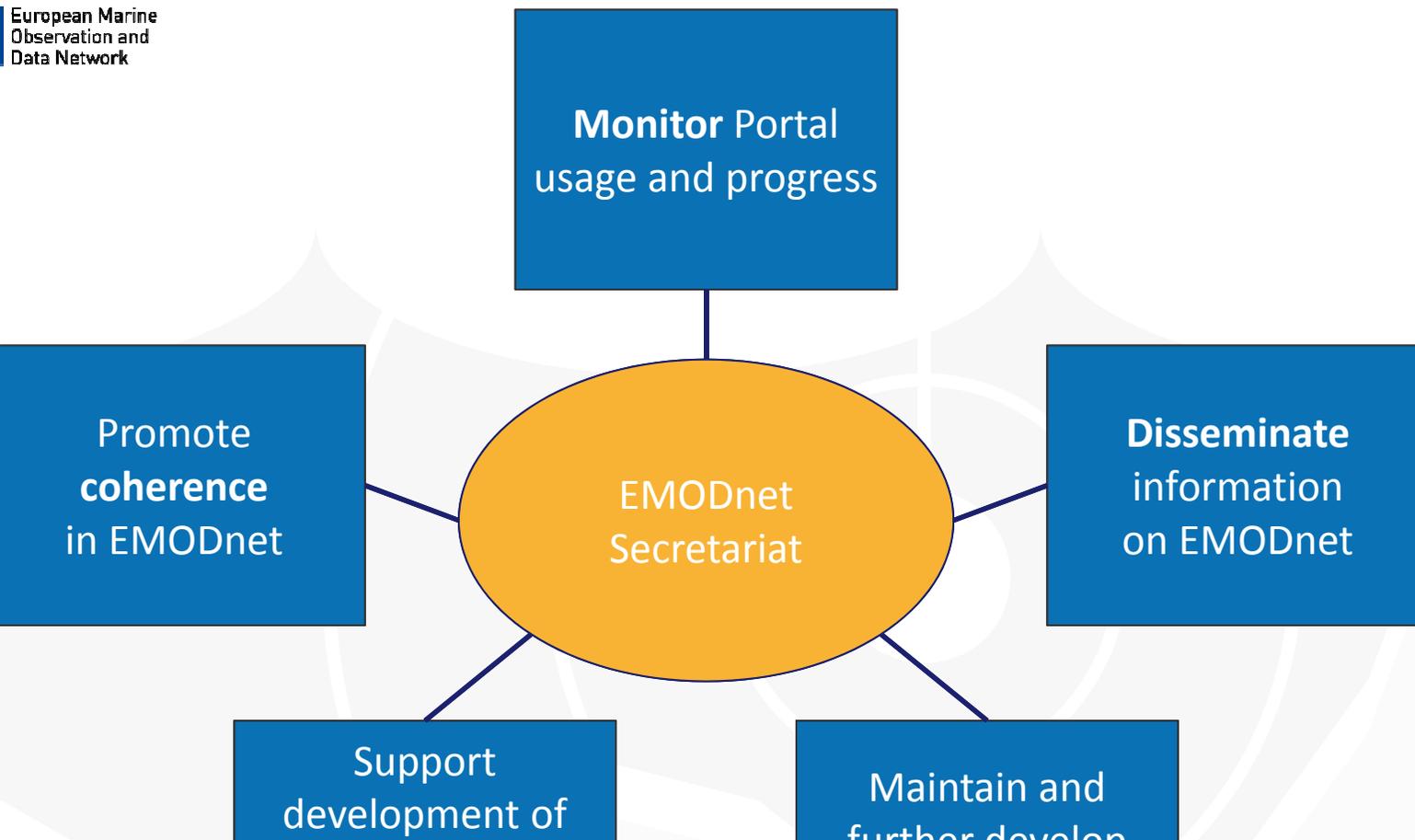


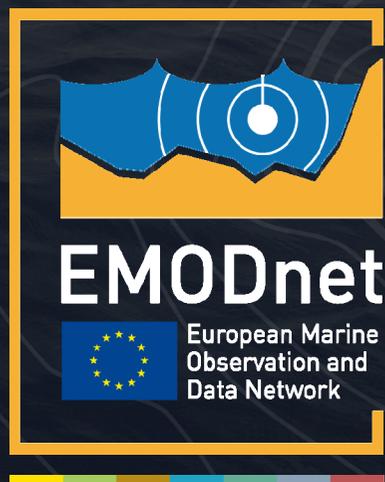
The role of the EMODnet Secretariat

 **AIM** | To develop a more coherent, effective, efficient and fit for purpose EMODnet, and to stimulate its use by industry, policy and scientific data users.



EMODnet Secretariat's main tasks





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