

EMODnet 19th Steering Committee Welcome and Updates

1 December 2023

EMODnet Secretariat
secretariat@emodnet.eu

Meeting agenda (1/3)

09:00 EMODnet Closed Session* convenes

**SC only*

1. 09:00-09:20 **Welcome and Opening remarks** (Chair, EMODnet Secretariat and DG MARE) – 20'
 - Practical arrangements (EMODnet Secretariat)
 - Introduction to the meeting agenda, agenda adoption and outline of key expected outcomes (Chair, EMODnet Secretariat)
 - EMODnet in the marine data landscape communication (DG MARE, ALL)
 - Update from DG DEFIS

2. 09:20-09:30 **Operational updates** (EMODnet Secretariat, ALL) – 10'
 - List and status of actions from previous meeting (Spring 2023, 18th SC) (Secretariat, ALL)
 - EMODnet use cases (Secretariat, ALL)

3. 09:30-09:55 **EMODnet Open Conference and Jamboree follow-up actions** (EMODnet Secretariat, ALL) – 25'

4. 09:55-10:05 **Updates from 14th Technical Working Group (TWG)** (EMODnet Secretariat, Central Portal Team) – 10'

Meeting agenda (2/3)

5. 10:05-10:20 **EMODnet: Data provision and data ingestion** (EMODnet Secretariat, DG MARE) – 15'
 - EMODnet data providers (Secretariat, Coordinators)
 - EMODnet webinar for Mission Ocean and Horizon Europe, 28 February 2024 (Secretariat, Data Ingestion, ALL)

6. 10:20-10:35 **EMODnet Associated Partnership: Overview of dialogues in 2023, feedback on engagement** (Secretariat, ALL) – 15'

10:35-10:45 COMFORT BREAK 10'

Meeting agenda (3/3)

7. 10:45-11:30 – **Dialogue on wider partnerships** 45'

- **EU and Regional**

- Copernicus Marine Service (Secretariat, DG MARE, DG Defis, ALL)
- EU Digital Twin Ocean (Central Portal, Secretariat, ALL)
- European Ocean Observing (DG MARE, ALL)
- EMODnet for EU policy e.g., MSFD, MSP (DG MARE, DG ENV, ALL)
- Regional Sea Conventions (Secretariat, Coordinators, ALL)

- **Global**

- EMODnet for UN Ocean Decade Conference 2024 (Secretariat, ALL)
- EMODnet as a Decade Implementing Partner; EMODnet for the Ocean Decade Coordination and Implementation Group: Operational update (EMODnet Secretariat)

8. 11:30-11:40: **External events** (ALL) 10'

9. 11:40-11:45: **Next SC** (ALL) 5'

11:45 EMODnet Closed Session closes

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List of Actions from 18th SC (Spring 2023)

N°	Action	By whom?	Deadline	Status
1	Share with the SC the mapping of European projects from the Horizon programme and Mission Ocean	EMODnet Secretariat	7 July 2023	Done
2	Share with the SC the updated version of recommendations from EMODnet to IODE on how international oceanographic data exchange should be improved or evolve	EMODnet Secretariat	30 September 2023	Done
3	Organise dialogue with Regional Sea Conventions	EMODnet Secretariat	30 September 2023	Done
4	Set up a document-sharing platform for sharing documents with the SC, in advance of the EMODnet Open Conference 2023	EMODnet Secretariat	31 August 2023	Done - Google shared folder

List of Actions from 18th SC (Spring 2023)

N°	Action	By whom?	Deadline	Status
5	Update the draft programme for the Jamboree session of the third EMODnet Open Conference and Jamboree event following the discussions during the 18th SC	EMODnet Secretariat	19 June 2023	Done
6	Discuss with DG MARE on EMODnet's role in MSFD data flow, after internal EC discussion between MARE, ENV and EEA	EMODnet Secretariat	31 October 2023	Ongoing, awaiting EC feedback
7	Arrange a meeting between EMODnet Human Activities, SHOM, Secretariat and EC DG MARE to discuss EMODnet's evolving role in MSP data	EMODnet Secretariat, Human Activities, SHOM	7 July 2023	Done
8	Update and share the updated EMODnet Use Case template with Coordinators	EMODnet Secretariat	30 June 2023	Done

3. 09:30-09:55 **EMODnet Open Conference and Jamboree follow-up actions** (EMODnet Secretariat, ALL) – 25'

Powering the European Marine Data Ecosystem

For a digital and green future



OPEN CONFERENCE

29-30 November 2023
Brussels | NHow

#EMODnetConference2023

3. 09:30-09:55 **EMODnet Open Conference and Jamboree follow-up actions** (EMODnet Secretariat, ALL) – 25'

EMODnet: An EU asset powering Marine Data Services in Europe and beyond

CALL TO ACTION

The European Marine Observation and Data Network (EMODnet)¹ is an established Euro *in situ* marine data service, and a flagship initiative funded by DG MARE². Complementary to O EMODnet is one of the main Marine Knowledge Initiatives of the European Union.

EMODnet's key assets include:

- Trusted FAIR³ pan-European data layers from the marine environmental and human published with associated metadata, aggregated from Europe's diverse *in situ* ocean observe key actors in the marine data pipeline⁴;
- Open⁵ marine data products, metadata and services produced for all seas and beyond, many of which are unique EU assets in terms of collection e.g., the EUSeaMap broad-scale seabed habitat map, EU Digital Terrain Model bathymetry, pan-European Marine Litter Database, Vessel Density composite maps, etc

Over the last 15 years, EMODnet has evolved into a fully operational, unified and seam knowledge base, upon which thousands of diverse users depend, including:

- Marine and environmental research communities;
- EU Policy makers, in the Commission and the Member States;
- Blue Economy stakeholders, including off-shore energy, shipping, aquaculture, env Maritime Spatial Planning (MSP), and more;
- Regional stakeholders, including Regional Sea Conventions;
- The Copernicus Marine Service;
- The EU Digital Twin Ocean (DTO);
- Global stakeholders and initiatives, including the UN Ocean Decade⁶ and UN 2030 Agenda⁷ Ocean Literacy actors in Europe and beyond.

EMODnet will continue to evolve through well-identified opportunities on the way to 20

- Expanding and consolidating EMODnet's offer as the European focal point for *in situ* services for the Ocean, land-sea interface and, when possible, inland waters;
- Emphasizing EMODnet's core role for *in situ* marine knowledge, supporting the Ocean Observing System, and development of the EC Ocean Observation Initiative
- Consolidating EMODnet as an authority for interoperable *in situ* marine data driving innovation for the EU Digital Twin Ocean DTO;
- Consolidating European marine data service community resources, best practices
- Leveraging EMODnet's interoperable marine data/metadata in the global ocean

To continue delivering on the aforementioned, and expand services to address the needs of the Green and Digital Transitions, EMODnet requires community and political action to ensure sustainability and resources appropriate for a fully functioning, operational service of the European Commission. We, the EMODnet community, call on:

EMODnet partners, associated partners and collaborators:

- To collectively deliver an *EMODnet Vision to 2035*, enabling a full and expanded function of EMODnet, fit for the European and Global ocean data ecosystem;
- To fully engage with EMODnet's contributions to *EU marine data spaces and the EU Digital Twin Ocean*, in close collaboration with Copernicus Marine Service;
- To further support the EC in its *EC Ocean Observation Initiative and work towards a sustained and optimised marine data and ocean knowledge value-chain*⁸;

EU agencies and authorities:

- To take forward the conclusions of the recent EMODnet evaluation and to assess the appropriate resources for EMODnet, ensuring it can operate at full functioning levels to meet current and emerging user needs and requirements;
- To assess how EMODnet can further strengthen its service for EU Policy, through enhancing its role in the regulatory monitoring data pipeline, including for European Directives and Ocean assessments;

Regional marine data services and regional initiatives: To further optimise the marine data flow from Regional Sea Conventions, International Council for the Exploration of the Sea (ICES) and others into EMODnet, and the use of EMODnet data and data products in Regional Assessments;

EU Member States and Associated Countries: To work with EMODnet, in collaboration with European actors e.g., JPI Oceans, European Marine Board, EuroGOOS, Research Infrastructures and EOS governance structures to establish EMODnet National networks, increasing National visibility and uptake;

Europe's marine and maritime community: To share *in situ* marine data and data products with EMODnet as a long-term EC marine data service, and fully utilise EMODnet for their marine knowledge needs e.g., EU Horizon Europe and EU Mission Restore our Ocean and Waters, also establishing EMODnet as a core pillar of ocean knowledge for ocean, water and climate literacy, in collaboration with the European Atlas of the Seas⁹ and EU4Ocean for ocean, water and climate literacy, in collaboration with the European Atlas of the Seas¹⁰ and EU4Ocean for ocean, water and climate literacy;

Global and regional ocean data and information services: To continue to expand the data provision to EMODnet, including the deep ocean, to optimise the harvesting of EMODnet in global repositories and catalogues, including the Global Earth Observation System of Systems (GEOSS)¹¹, the IODE IOC/UNESCO Ocean Data and Information System (ODIS)¹², the IOC/UNESCO Ocean Biodiversity Information System (OBIS)¹³ and the GOOS/IODE Ocean Best Practices System (OBPS)¹⁴ and to foster EMODnet and other regional data service collaboration to deliver global ocean data interoperability, data sharing and stewardship for OceanData2030¹⁵ and the UN Ocean Decade.

This Call to Action was launched at the 3rd EMODnet Open Conference, 29-30 November 2023 in Brussels, where the EMODnet community and wider marine knowledge stakeholders gathered to discuss EMODnet's critical and expanding role in "Powering the European Marine Data Ecosystem: For a digital and green future", together with its increasing global impact and evolution. Combined with further stakeholder consultation in 2024, it will be used as a basis to develop an EMODnet Vision to 2035 Document, to be delivered by the end of 2024.

¹ emodnet.ec.europa.eu
² *In situ* ocean observations (including marine monitoring and wider data collection) are sampled directly in the water floor, not from satellites. In specific data products where satellite-derived data are used, data are primarily sourced from Copernicus Programme.
³ Findable, Accessible, Interoperable and Reusable (FAIR), as published by Wilkinson et al., 2016: [nature.com/articles/sdata201618](https://www.nature.com/articles/sdata201618).
⁴ EMODnet offers marine data, data products and services across seven broad thematic, i.e. bathymetry, biology, geology, human activities, physics, seabed habitats, collectively delivering hundreds of parameters.
⁵ Public research ocean observations, operational oceanographic platforms and research infrastructures, to regulate monitoring, private sector operations, civil society e.g., Non-governmental organisations and citizen science.
⁶ National, Regional and European data infrastructures, data management centres, data networks, etc
⁷ Published under open data licenses
⁸ UN Ocean Decade of Ocean Science for Sustainable Development oceandecade.org
⁹ un.org/sustainabledevelopment/development-spenda

¹⁰ EC evaluation of EMODnet, SWD(2023)201: ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/11338-Evaluation-of-EMODnet_en
¹¹ EuroGOOS Conference statement www.eurogoos.eu/declaration
¹² GOOS/IODE Declaration www.eurogoos.eu/declaration
¹³ www.eurogoos.eu/declaration
¹⁴ www.eurogoos.eu/declaration
¹⁵ www.eurogoos.eu/declaration



Energy, Climate change, Environment

European Marine Observation and Data Network (EMODnet)

- About
- Data Services
- Solutions
- Themes
- Community Pages
- Atlas of the Seas
- EU-China
- News & Events
- FAQ Downloads

Home > News > EMODnet Call to Action launched at the 3rd Open Conference and Jamboree

EMODnet Call to Action launched at the 3rd Open Conference and Jamboree

NEWS ARTICLE | 30 November 2023



This week, over 340 EMODnet partners, associated partners and wider stakeholders gathered in Brussels, Belgium for the third EMODnet Open Conference and Jamboree to discuss EMODnet's critical and expanding role in powering the European Marine Data Ecosystem: "For a digital and green future".

The Programme stock of EMODnet's evolution to-date and showcased the EMODnet EC marine *in situ* data service, its recent unification in January 2023, and its diverse community of ocean observation and data collectors, data and service providers and users. It also recognised EMODnet and Copernicus Marine Service as complementary EU assets, and underlined EMODnet's key role in the development of the European Digital Twin of the Ocean (EU DTO), for which the two EC marine data services EMODnet and the Copernicus Marine Service work in close partnership. The impact of EMODnet in Europe and worldwide was also clear from the dialogues on EMODnet for EU Policy, Blue Economy, Society and the Global Ocean Data Ecosystem.

In the Closing Session on 30th November 2023, Kate Larkin (Head, EMODnet Secretariat) presented an EMODnet Call to Action on behalf of the EMODnet Partnership.

<https://emodnet.ec.europa.eu/en/emodnet-call-action-launched-3rd-open-conference-and-jamboree>



EMODnet: An EU asset powering Marine Data Services in Europe and beyond

CALL TO ACTION

The European Marine Observation and Data Network (EMODnet)¹ is an established European Commission *in situ*² marine data service, and a flagship initiative funded by DG MARE¹. Complementary to Copernicus Marine, EMODnet is one of the main Marine Knowledge Initiatives of the European Union.

EMODnet's key assets include:

- Trusted FAIR³ pan-European data layers from the marine environmental and human activities domains⁴, published with associated metadata, aggregated from Europe's diverse *in situ* ocean observation capability⁵ and key actors in the marine data pipeline⁶ ;
- Open⁷ marine data products, metadata and services produced for European regional seas and beyond, many of which are unique EU assets in terms of coverage and resolution e.g., the EUSeaMap broad-scale seabed habitat map, EU Digital Terrain Model for harmonised bathymetry, pan-European Marine Litter Database, Vessel Density composite maps, etc.

Over the last 15 years, EMODnet has evolved into a fully operational, unified and seamless data service and knowledge base, upon which thousands of diverse users depend, including:

- Marine and environmental research communities;
- EU Policy makers, in the Commission and the Member States;
- Blue Economy stakeholders, including off-shore energy, shipping, aquaculture, environmental management Maritime Spatial Planning (MSP), and more;
- Regional stakeholders, including Regional Sea Conventions;
- The Copernicus Marine Service;
- The EU Digital Twin Ocean (DTO);
- Global stakeholders and initiatives, including the UN Ocean Decade⁸ and UN 2030 Agenda⁹;
- Ocean Literacy actors in Europe and beyond.

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¹ emodnet.ec.europa.eu

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¹⁰EC evaluation of EMODnet, SWD(2023)281: ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/1538-Evaluation-of-EMODnet_en

¹¹EuroGOOS Conference statement eurogoos-conference2023.marine.ie; EuroOCEAN 2023 Vigo Declaration eurooceanconferences.eu/vigo-declaration; EuroSea Declaration eurosea.eu/download/eurosea-declaration-on-ocean-observing-and-forecasting

¹²geoportal.org

¹⁴IOE IOC/UNESCO ODIS <https://odis.ioe.org>

¹⁵obis.org

¹⁶oceanbestpractices.org

¹⁷oceandecade.org/actions/an-ocean-data-and-information-system-supporting-the-un-decade-of-ocean-science-for-sustainable-development-oceandata-2030



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European Marine Observation and Data Network (EMODnet)

- About
- Data Services
- Solutions
- Themes
- Community Pages
- Atlas of the Seas
- EU-China
- News & Events
- FAQ Downloads

Home > About > Partnership > Project Partners List > List

PARTNERSHIP CONTENTS

[Project Partners List](#)

[Project Partners Map](#)

[Data Providers](#)

[Associated Partners Organisations](#)

[Associated Partnership Scheme](#)

[Copernicus Marine Service](#)

Search Partners

EMODnet component

Country

[Refine results](#)

Project Partners List

Logo	Name	Acronym	Portal	Country	EDMO
	Centre for Documentation, Research and Experimentation on Accidental Water Pollution	CEDRE	Chemistry	FRANCE	[EDMO record]
	Istituto Nazionale di Geofisica e Vulcanologia, Sede di Bologna	INGV	Chemistry, Data Ingestion	ITALY	[EDMO record]
	Iv.Javakishvili Tbilisi State University, Centre of Relations with UNESCO Oceanological Research Centre and GeoDNA (UNESCO)	TSU-DNA	Chemistry, Data Ingestion	GEORGIA	[EDMO record]
	52°North Spatial Information Research Center	52°North	Data Ingestion	GERMANY	[EDMO record]



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European Marine Observation and Data Network (EMODnet)

- About
- Data Services
- Solutions
- Themes
- Community Pages
- Atlas of the Seas
- EU-China
- News & Events
- FAQ Downloads

Home > Data Providers List

Data Providers List

Data providers are at the one end of the marine knowledge value chain, and are the heart of EMODnet. This webpage provides an overview of the many different data providers and data aggregators from across all sectors, ranging from research institutes and universities, to private sector, public administration/government and NGO, that are currently contributing data to EMODnet thematics, directly or through Data Ingestion. This is a living page that will be updated regularly.

PAGE CONTENTS

- Bathymetry**
- Biology
- Chemistry
- Geology
- Human Activities
- Physics

Bathymetry

Name	Acronym	Country
Flemish Ministry of Mobility and Public Works, Agency for Maritime and Coastal Services, Coastal Division	MOW	Belgium
Royal Belgian Institute of Natural Sciences, Management Unit of North Sea and Scheldt Estuary Mathematical Models, Belgian Marine Data Centre	RBINS	Belgium
Bulgarian National Oceanographic Data Centre, Institute of Oceanology	IO-BAS	Bulgaria
Croatian Hydrographic Institute	HHI	Croatia
Danish Geodata Agency, Danish Hydrographic Office	GST	Denmark



SAVE THE DATE



EMODnet *for* Mission Ocean and Horizon Europe

ONLINE WEBINAR

Wednesday 28 February 2024

11:00-12:30 CET



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Dialogue with potential EMODnet Associated Partners

- EMODnet-Xylem dialogue: 22/08/2023
- EMODnet-eBO Enterprises dialogue: 30/08/2023
- EMODnet- IBM dialogue: 19/09/2023
- EMODnet-RGI dialogue: 06/11/2023

Applied and Accepted Associated Partners

- Puertos del Estado (25/10 received, 24/11 accepted)
- eBO Enterprises (10/11 received, 24/11 accepted)
- The Marine Centre Wales (MCW), Bangor University (8/11 received, 24/11 accepted)

In the pipeline

- Renewables Grid Initiative (RGI)
- World Ocean Council

10:20-10:35 **EMODnet Associated Partnership: Overview of dialogues in 2023, feedback on engagement (Secretariat, ALL) -15'**

- Applications:

- Puertos del Estado

- Puertos del Estado is an organization with a remit for execution of port policy, coordination and efficiency control of the state-owned port system in Spain (46 ports, 28 port authorities). Puertos del Estado has a network of operational oceanography platforms (coastal buoys, deep water buoys, tide-gauges and weather stations) where the ocean and met-ocean data are already provided to EMODnet (Physics). Puertos Del Estado is also a collaborator with EMODnet, Copernicus Marine Service and EuroGOOS also via the Marine In Situ Coordination Group (MIC).



Puertos del Estado



10:20-10:35 **EMODnet Associated Partnership: Overview of dialogues in 2023, feedback on engagement (Secretariat, ALL) -15'**

- Applications:

- e-BO Enterprises

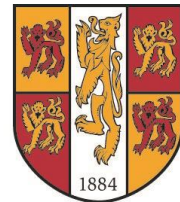
- Established in 2000 e-BO Enterprises works in the marine and maritime domain with professional activities spanning computing and other services for land, offshore and vessels. Related to ocean data include providing private LTE connectivity offshore, the Offshare application for O&M control rooms in the offshore renewable energy sector, IT services and network connectivity to vessel operators and offshore windfarms. Next to that e-BO provides the Incident Management platform used by the Belgian Coastguard component responsible for all aspects of the protection of the Belgian EEZ (MIK) as specified in the Belgian Marine Spatial Plan and the Maritime Security Act of 2023.



10:20-10:35 **EMODnet Associated Partnership: Overview of dialogues in 2023, feedback on engagement (Secretariat, ALL) -15'**

- Applications:

- Marine Centre Wales, School of Ocean Sciences, Bangor University
 - Established in 2016, current activities of the Marine Centre Wales that are related to marine and maritime and/or ocean data include developing and hosting IMARDIS (Integrated Marine Data and Information System) a cyberinfrastructure primarily designed to meet the needs of the Welsh marine renewable sectors. As well as providing access to marine data via the IMARDIS portal MCW also carries out work to apply advanced analytics and visualisation to marine big data using artificial intelligence and machine learning approaches. Existing links with EMODnet include providing access to EMODnet data through the iMARDIS portal.



PRIFYSGOL
BANGOR
UNIVERSITY

10:35-10:45 **COMFORT BREAK** - 10'

7. 10:45-11:30 – **Dialogue on wider partnerships** – 45'

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- Copernicus Marine Service (Secretariat, DG MARE, DG Defis, ALL)
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- **Global**

- EMODnet for UN Ocean Decade Conference 2024 (Secretariat, ALL)
- EMODnet as a Decade Implementing Partner; EMODnet for the Ocean Decade Coordination and Implementation Group: Operational update (EMODnet Secretariat)

EU and Regional

- **Copernicus Marine Service** (Secretariat, DG MARE, DG Defis, ALL)



European *In Situ* Marine Data Service Landscape

Marine knowledge underpins scientific research, EU environmental policy implementation, Blue economy operations, ocean management and conservation, and more. The foundation of marine knowledge is high-quality ocean observations, with observations falling into two distinct categories, those taken by satellites (remote sensing)¹ and those sampled through *in situ*² technology (direct measurements in the environment).

In situ measurements are not only key but mandatory to sustain state-of-the-art and fit for purpose ocean monitoring systems and a comprehensive knowledge base on the marine environment. Many marine environmental parameters can only be taken by *in situ* technology. Thus, *in situ* ocean observations are essential to monitor the ocean interior at depth, to calibrate and validate satellite observations, and to provide information and knowledge for diverse users, spanning from research, to policy, to the blue economy, to society. *In situ* observing systems require human work and expertise, firstly to undertake high-quality sampling, and secondly for the quality control, processing and curation of the data post-collection, before it can be transformed into valuable information for enhancing marine knowledge.

The EU is strongly committed to the development of a coordinated system of global *in situ* ocean observations and has mature capabilities surrounding *in situ* ocean observations and marine monitoring. The pan-European requirement for integrated and interoperable marine data, information, and knowledge has given rise to two cornerstone data services of the European Commission (EC), serving as the backbone of marine knowledge: EMODnet and the Copernicus Marine Service.

The European Marine Observation and Data Network (EMODnet) is an EC operational marine data service, and a key marine knowledge initiative of EC DG MARE, with a core mandate for *in situ* marine data services, delivered at a multi-disciplinary pan-European scale. It provides Findable, Accessible, Reusable and Interoperable (FAIR) marine data and data products across seven broad marine environmental and human activities disciplines: physics, chemistry, biology, geology, bathymetry, seabed habitats, and human activities at sea. EMODnet is implemented by a network of more than 120 organisations and hundreds of experts in *in situ* marine data who work together to create pan-European data layers with metadata, aggregated from more than 600 marine data providers, infrastructures and services, to produce standardised, harmonized, and validated data and data products, according to international standards and made openly and freely available.

The Copernicus Marine Service, led by EC DG DEFIS and implemented by Mercator Ocean International, provides the European Union with a world-leading capacity for monitoring the ocean worldwide, through satellites, targeted *in situ* observations, and numerical models. *In situ*

¹ Satellites offer a global view of the surface of the ocean for a number of key parameters, which are essential for providing global coverage in near real-time, including for ocean forecasting and prediction.

² *In situ* ocean observations are collected by sensors and samplers placed in seawater, on/in the seafloor, the coastal zone and surrounding air.

observations, which play a key role in constraining global and regional ocean analysis and forecasting systems, are collected, quality-controlled and delivered by a dedicated service-unit called the Copernicus Marine *In Situ* Thematic Assembly Centre (*In Situ* TAC). The *In Situ* TAC is based on a distributed model of production, and developed in coherence with other components of the pan European data management landscape. Today more than 350 data-providers are contributing to a targeted core set of parameters (temperature, salinity, currents, sea level, waves, chlorophyll-a, oxygen, nutrients, and carbon) delivered in near-real time and in delayed mode, and directly useable for initialization, forcing, assimilation and validation of ocean numerical models.

Following a high-level agreement between DG DEFIS and DG MARE and the signature of Memorandum of Understanding (MoU) in 2016, the two services have ensured a complementarity of their offers that are developed and evolve in close interaction and synergies. The Copernicus Marine Service and EMODnet have jointly set up a Marine *In Situ* Coordination Inter-service Working Group in 2021 bringing in experts from EMODnet, Copernicus Marine Service and the EuroGOOS operational oceanography networks. The aim of the group is to further optimise data flows, coordination, and synergies of *in situ* marine data required by both services.

The main area of collaboration for *in situ* data provision are the operational oceanographic platforms (e.g., from the Global Ocean Observing System (GOOS) and EuroGOOS) and research infrastructures. EMODnet works with Copernicus Marine Service to publish such operational oceanographic data and to integrate these data into EMODnet's wider portfolio of *in situ* marine data that are derived from diverse sources including: research-driven time-series of data (e.g., from research cruises/campaigns), the private sector, civil society (e.g., non-governmental organisations and citizen science), and increasingly data collected by public authorities (e.g., for regulatory monitoring).

Several interfaces have been set up to take advantage of synergies and to optimize and improve the two services. Illustrating this point, a subset of EMODnet Physics - a core set of highly qualified parameters - is provided by the Copernicus Marine *In Situ* Thematic Assembly Centre. This remains a specific component of EMODnet Physics, with EMODnet coordinating other *in situ* physical marine, coastal and land-sea interface data (e.g., on rivers, wind, underwater noise and other parameters). On the other side, some EMODnet thematic provide *in situ* data to the Copernicus Marine Service, e.g., EMODnet Chemistry provides *in situ* biogeochemical data required for the validation of Copernicus Marine biogeochemical models. And in turn, some EMODnet thematic utilise Copernicus Marine Service outputs to further constrain and reduce uncertainty in EMODnet integrated data products e.g., the EMODnet Seabed Habitats EUSeaMap.

Over the coming years, the Copernicus Marine Service and EMODnet will continue their collaboration to optimize data flows required by both services. They are also working together to provide the backbone data infrastructure and the core data streams into a common data lake underpinning the European Digital Twin Ocean (DTO).

The two services (EMODnet and Copernicus Marine *In Situ* TAC) are data aggregator services. They depend on upstream global, pan European and coastal *in situ* observing networks (GOOS, EuroGOOS, European Marine Research Infrastructures), amongst others, and associated data assembly and processing infrastructures (National Oceanographic Data Centres, SeaDataNet). These upstream observation infrastructures need to be consolidated and sustained at the European level as part of the EOOS (European Ocean Observing System) initiative³.

³ See EuroSea Final Conference Declaration; EuroGOOS 2023 Vigo Declaration; EOOS 2023-2027 Strategy; EMODnet Call to Action 2023



Copernicus Marine Service



Implemented by

<https://emodnet.ec.europa.eu/en/partnership/copernicus-marine-service>

<https://emodnet.ec.europa.eu/en/emodnet-and-copernicus-marine-service-release-joint-communication-european-situ-marine-data-service>

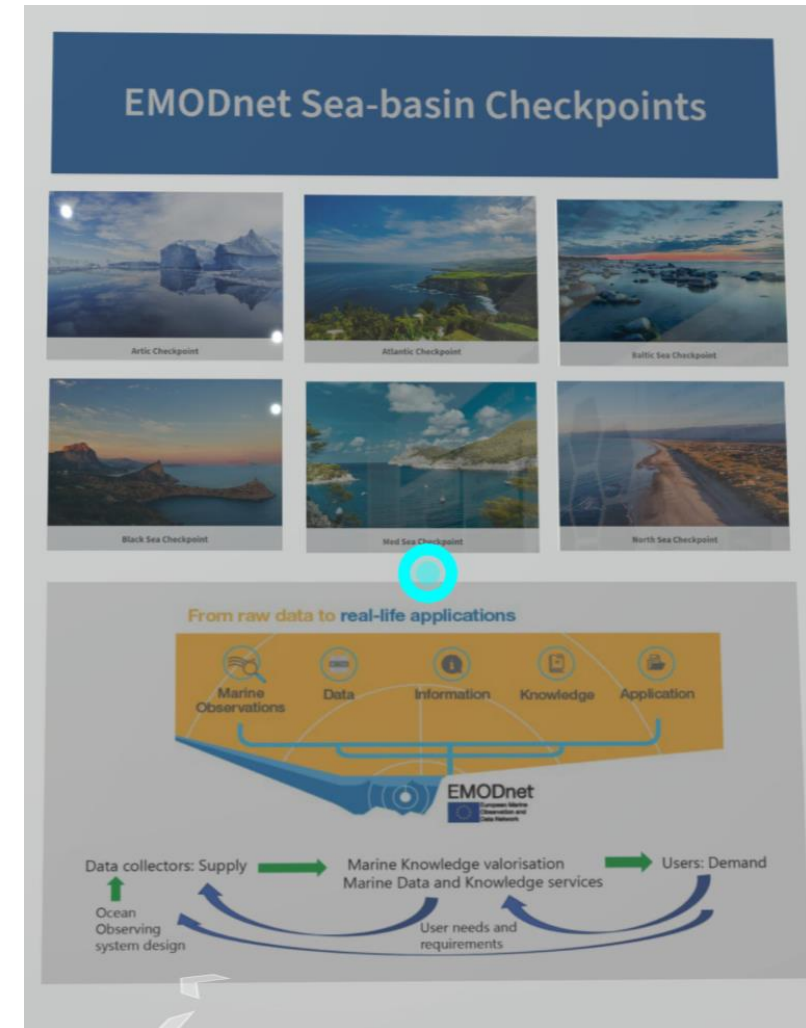
EU and Regional

- **EU Digital Twin Ocean** (Central Portal, Secretariat, ALL)



EU and Regional

- **European Ocean Observing** (DG MARE, ALL)



EU and Regional

- **EMODnet for EU policy e.g., MSFD, MSP** (DG MARE, DG ENV, ALL)

EU and Regional

- **Regional Sea Conventions** (Secretariat, Coordinators, ALL)

EMODnet Secretariat WP5

- **Task 5.1:** Assess benefits of EMODnet Sea-basin Checkpoints (also related to WP1 Task 1.8 on Sea-basin Checkpoint legacy)
- **Task 5.3:** Continue strengthen dialogue with key European OO actors to align EMODnet with E00S process
- **Task 5.2:** Support DG MARE in advancing activities related to Ocean Observation (OO) governance in the EU through targeted assessments and focused studies
 - Tele-meeting with each RSC (OSPAR, HELCOM, Black Sea Commission, UNEP-MAP) & ICES
 - Report, Deliverable 5.3
 - Aims:
 - Understand mechanisms and coordination of Ocean observation and monitoring at regional sea basin levels
 - Understand role of RSCs in regional ocean observation and data flow from Member States to RSCs, and subsequently EMODnet
 - Re-establish and strengthen dialogue with EMODnet

EU and Regional

- **Regional Sea Conventions** (Secretariat, Coordinators, ALL)
 - Discussion on EMODnet dialogue with Regional Sea Conventions
- **Aim of study:**
 - Support EC DG MARE in coordinating ocean observation at regional sea basins, emphasizing the role of Regional Sea Conventions (RSCs) in aligning national efforts for the EC Ocean Observation Initiative.
 - Assist in evaluating data flow from Regional Sea basins to EMODnet, pinpointing bottlenecks (especially in the Mediterranean and Black Sea) and proposing optimizations.
 - Re-establish communication from the Secretariat, showcasing EMODnet services and fostering collaboration with RSCs for improved data flow.
 - Explore the involvement of RSCs in coordinating regional ocean observation, ensuring efficient data flow from Member States to EMODnet, EEA, EC, and other entities for enhanced regional-to-European data identification and optimization.
- **In Scope:**
 - Four Regional Sea Conventions, namely:
 - OSPAR: NE Atlantic
 - HELCOM: Baltic
 - UNEP-MAP (Barcelona Convention): Mediterranean
 - Black Sea Commission: Black Sea

EU and Regional

- **Regional Sea Conventions** (Secretariat, Coordinators, ALL)
- Discussion on EMODnet dialogue with Regional Sea Conventions
 - Dialogue/interviews has been completed with all 4 regional Sea conventions.
 - A report is in production to be finalised before the end of 2023

Regional Sea convention	Date	Contact
HELCOM	29 September 2023	Joni Kaitaranta
Black sea Convention	2 October 2023	Iryna Makarenko
OSPAR	19 October 2023	Dominic Pattinson, Chris Moulton
UNEP-MAP	28 November 2023	Jelena Knezevic; Christos Ioakeimidis; Yassine Ramzi SGHAIER (SPA/RAC); Arthur Pasquale [INFO-RAC]; annalisa minelli; Marko Prem (PAP/RAC)
ICES	13 November 2023	Jörn Schmidt, Neil Holdsworth, Lise Cronne, Jo Foden

- **EMODnet for UN Ocean Decade Conference 2024** (Secretariat, ALL)

EMODnet participation at the UN Ocean Conference Barcelona

- Physical booths:
 - Joint booth with CMEMS and DCC Ocean Prediction
 - Present at the DCO for ocean data sharing booth (demonstration)
- Side events:
 - Joint (on site) training on data sharing with Copernicus and ESA
 - Contribution to Blue Cloud event
 - Contribute to NAUTILUS
- Poster on EMODnet portal service submitted

EMODnet
European Marine Observation and Data Network

EMODnet is the most comprehensive in situ marine data service in Europe, offering a wealth of in water Ocean observations, data and data products, spanning the coast to the open Ocean and the surface to the deep sea. It provides easy and free access to marine data, metadata and data products and services, spanning seven broad disciplinary themes: bathymetry, geology, physics, chemistry, biology, seabed habitats and human activities. The recent thematic unification is a major upgrade, which simplifies access and enhances the EMODnet user experience.

EMODNET.EC.EUROPA.EU

One central map viewer
to visualise all EMODnet data

One central metadata catalogue
to enhance data search and discovery

**1 OCEAN
1 EMODnet**
One single portal

BATHYMETRY **BIOLOGY** **CHEMISTRY** **GEOLOGY** **HUMAN ACTIVITIES** **PHYSICS** **SEABED HABITATS**

+100 USE CASES **120 partners**

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

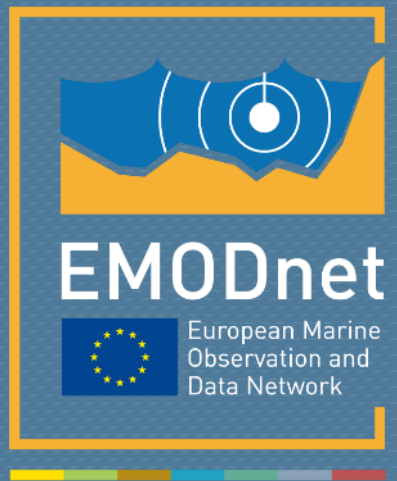
YOUR GATEWAY TO *IN SITU* MARINE DATA IN EUROPE AND BEYOND

- **EMODnet as a Decade Implementing Partner; EMODnet for the Ocean Decade Coordination and Implementation Group: Operational update** (EMODnet Secretariat and E4ODCIG)

8. 11:30-11:40: **External events** (ALL) 10'

9. 11:40-11:45: **Next SC** (ALL) 5'

11:45 EMODnet Closed Session closes



emodnet.ec.europa.eu

Your gateway to marine data in Europe

