

EMODnet Secretariat response to the public [EU Consultation on Ocean Observation – sharing responsibility](#) (19 February 2021)

About EMODnet

The European Marine Observation and Data Network (EMODnet) is a long-term, marine data initiative funded by the European Maritime and Fisheries Fund, which, together with the Copernicus space programme (and more specifically the Copernicus Marine Environment Monitoring Service, CMEMS) and the Data Collection Framework for fisheries, implements the EU's Marine Knowledge 2020 strategy. Since its inception in 2009, the central philosophy of EMODnet has been to 'collect [data] once and use many times' and to connect across the marine knowledge value chain with a central aim to increase productivity in all tasks involving marine data, to promote innovation and to reduce uncertainty about the behaviour of the sea (EMODnet Vision Document, 2008)¹. This thereby reduces the risks (and costs) associated with private and public investments in the blue economy, and facilitates more effective protection of the marine environment.

Following a decade of progress and achievements², EMODnet is now a mature data initiative offering open and free access to data and data products in European seas and beyond, spanning seven broad disciplinary themes: bathymetry, geology, physics, chemistry, biology, seabed habitats and human activities related to the sea. These integrated, standardized and harmonized data and data products are made possible by a large network of over 120 organisations and many more experts supported by the EU's Integrated Maritime Policy and wider European and national efforts, who work together to observe the sea, process the data according to international standards and make that information freely available as interoperable data layers and data products.

All seven EMODnet thematics produce integrated data sets and added value data products that underpin the delivery of Marine Knowledge 2020 and provide further knowledge for evidence-based decision making for the Integrated Maritime Policy, including the Marine Strategy Framework Directive (MSFD), the Marine Spatial Planning Directive (MSPD) and increasingly to the Birds and Habitats Directives and the Water Framework Directive (WFD) e.g. through coastal and land-sea datasets and data products. In addition, EMODnet thematics data and data products continue to be used in Regional Sea Assessments e.g. the OSPAR Intermediate Assessment 2017, the UNEP-MAP Quality Status Report 2017 and in the next HELCOM holistic assessment (HOLAS) (in progress during 2021).

EMODnet also continues to develop a number of partnerships, including a close collaboration with other key European initiatives such as Copernicus Marine Service (CMEMS) that has led to cross-validation of satellite and *in situ* data sets, user-driven data products and complimentary developments to further add value to the user-experience. EMODnet is increasingly operating in a global context, with activities in terms of data coverage and international dialogue in data sharing, including the EMOD-PACE (EMODnet Partnership for China and Europe) project, the global contribution of EMODnet Biology to the international OBIS, EMODnet Bathymetry's large European contribution to the international Seabed2030 initiative and EMODnet as a European focal point for the developing IOC Ocean Information Hub, an initiative of IOC-IODE.

¹ <https://www.emodnet.eu/en/emodnet-vision-statement-marine-board-eurogoos-perspective>

² <https://www.emodnet.eu/en/ten-years-emodnet-ten-minutes>

Towards more efficient and coordinated Ocean Observing efforts in Europe

It is clear that European countries and the EU have already invested significantly in ocean observing infrastructure and technology (EOOS Call to Action, 2018³), and in data management and data infrastructures such as EMODnet and CMEMS, and the numerous data infrastructures, infrastructures and wider initiatives that contribute to the European marine knowledge pipeline. These provide the much-needed open and free access to harmonised and standardised data, data products, information and knowledge to underpin evidence-based decision-making for the sustainable management and protection of the marine environment, operations at sea and weather and climate predictions and forecasts. In addition, there is an urgent need for a coordinated and comprehensive approach to the systematic observing and monitoring of our seas and oceans, and to stream-line the collection of the crucial ocean observations and wider marine monitoring that provide such data and information to underpin the knowledge we need to revolutionise the blue economy and improve our understanding of ocean health, geohazards, and the oceans' role in climate regulation (EOOS Call to Action, 2018), and to meet the ambitious targets of the European Green Deal.

A recent pilot study by the EMODnet Secretariat, in collaboration with the European Marine Board (EMB)⁴ which assessed the levels of coordination in ocean observing and marine monitoring at national level, highlighted that in most EU countries the responsibility for the observation is split between several ministries, departments and agencies, which can lead to duplication of effort, resources and resulting in below optimal coordination. The 2018 International European Ocean Observing Conference⁵, coordinated by the EMODnet Secretariat, in collaboration with EMB and EuroGOOS, brought together diverse communities in ocean observing and marine monitoring to identify current challenges, bottlenecks and opportunities. In addition to the EOOS Call to Action which called countries to coordinate all national marine and coastal data collection efforts, the >250 participants of the Conference displayed motivation and appetite for enhancing dialogue and coordination across sectors.

Perspectives from the EMODnet Secretariat on the EU Consultation Ocean Observation - Sharing Responsibility

As explained in EMODnet's earlier response⁶ to the related inception impact assessment (November 2020), the EMODnet Secretariat welcomes the proposal by the EU to develop mechanisms to optimise, enhance and lead to more coherence in the coordination of ocean observation and marine monitoring at national, and trans-national levels. It is clear that some action in this area would be beneficial and that the baseline of no action would not deliver the required level of incentive for action that is proposed. Further mechanisms to incentivise Member States and nations to coordinate the collection, sharing and management of ocean observations – across all sectors that collect ocean data including the public and private sectors – would further streamline the marine knowledge pipeline and value chain which, ultimately, would enable the saving of costs and the faster and more operational delivery of data and information by trusted entities and initiatives such as EMODnet to users, for the benefit of wider society.

The EMODnet Secretariat also welcomes the opportunity to contribute to this EU consultation together with other key stakeholders and the wider community, to assess the effectiveness,

³ <https://www.emodnet.eu/conference/eoos2018/call-action.html>

⁴ Footnote 16 in the EU Ocean observation inception impact assessment

⁵ <https://www.emodnet.eu/conference/eoos2018/index.html>

⁶ <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12539-Ocean-observation-sharing-responsibility/F1263204>

efficiency and fitness-for-use of ocean observation by the EU and its Member States to-date, and how it can be improved, e.g., through mechanism(s) such as a future Directive, various levels of legal regulation and potentially funding to support observations of common benefit.

EMODnet in support of mapping ocean observations and identifying data gaps and requirements

As a distributed data infrastructure, EMODnet makes available marine observations and data from various sources across Europe and beyond, collected by different institutes, infrastructures and monitoring efforts. While EMODnet certainly does not contain all existing marine data, it does provide insight into a wide range of data that is openly available across seven different thematic areas, hundreds of marine environmental parameters, and a multitude of information for human activities at sea and in coastal areas. Using the metadata associated with the data made available via EMODnet portals, it is possible to have some idea of the provenance of the data, who collected it and why which can contribute to mapping ocean observation and marine monitoring activities in Europe. In addition, the EMODnet Sea-basin checkpoints⁷ (2013-2018) have assessed data availability and adequacy to solve a range of societally relevant questions, including in the assessment not only EMODnet data but also from other pan-European services such as CMEMS or regional and local providers. This is a very relevant resource to assist in identification of gaps and bottlenecks to open marine data sharing in Europe. In addition, EMODnet is a partnership⁸ with 144 active partners from 35 countries, many of whom are directly involved in collecting and/or managing marine data. This results in a vast collective knowledge of the European capability and landscape in ocean observing and monitoring, with individual partners themselves having a fairly good insight in what is being collected by whom and where, at the country and regional level.

A future EU mechanism on ocean observation coordination could also consider how to best promote and incentivise national data collectors and producers to share data not only at national level, but also with European data initiatives such as EMODnet, to ensure the long-term discovery of the data together with the opportunities for global impact and uptake through the integrated, standardised and harmonised data sets and data products, with rich metadata descriptions, that are offered by the EMODnet public data service, including discovery through web services that support machine-machine communication, and that are connected to global initiatives including the IODE-IOC Ocean Info Hub, an activity of the UN Ocean Decade.

Such increased incentives for nations to both coordinate ocean observing, and also to increase the sharing of national data at EU level from all sectors, public and private, would further improve the EU knowledge base and the coverage and resolution of integrated data and data products offered by EU public data services e.g. EMODnet and CMEMS. This would benefit all users and is timely considering the ongoing centralisation of EMODnet, to offer all thematic data and data products to the EMODnet Central Portal. It would also allow real gaps in coverage to be identified and used to inform future planning of national ocean observing and marine monitoring programmes.

The EMODnet Secretariat stands ready to facilitate, assist and provide the EC with the necessary support to take this very positive initiative forward.

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⁷ <https://www.emodnet.eu/en/checkpoints>

⁸ <https://emodnet.eu/en/partners-list>