

Data for the UN Ocean Decade – A European focus

Q&A

Contents

EMODnet	2
1. Does EMODNET have data coverage for Africa? If yes, which categories are available?.....	2
2. What do you think about organisations like HubOcean? Do you believe that the best way to distribute and access ocean data is through free means?	2
3. Does EMODnet fund any data acquisition itself or does it aggregate data sets from other entities?	2
4. Do you provide any environment for data analysis for free?.....	2
5. Are Emodnet data available in Wekeo?	3
6. To what extent is the UK involved in EMODnet?	3
ECOP	3
7. What are the possibilities currently open in Europe?.....	3
8. What is being done to bring the UN Ocean Decade to the attention of the global/UK public and to make its purpose, objectives and opportunities clear to the young?	3
9. Could you make some examples of funding opportunities?	4
10. Any recommendations for geoscientists who are not early career professionals but would like to have an opportunity in oceanography?	4
11. Which are in Europe the centres to study and become an expert in the blue economy?	5
Copernicus Marine Service / Mercator Ocean International	5
12. What is the EU DTO and how is it possible to access its simulations?	5
13. Is there any particular reason why tides are not present in Physics reanalysis product?.....	5

EMODnet

1. Does EMODNET have data coverage for Africa? If yes, which categories are available?

EMODnet offers a number of parameters at global level e.g., ocean physics temperature, salinity, currents and marine biodiversity (in collaboration with OBIS) from microbes to phytoplankton and marine mammals. Since the data curation and integration of in situ data is very resource-heavy in terms of expert skills and time, EMODnet does not provide a fully global in situ ocean data offer but works in partnerships with other regional services to connect EMODnet to global catalogues. EMODnet remains open to dialogue with all regions worldwide.

2. What do you think about organisations like HubOcean? Do you believe that the best way to distribute and access ocean data is through free means?

The European Commission marine data services e.g., EMODnet and Copernicus Marine Service are built on a model of public service which is fully open and free to use with data “as open as possible, as restricted as necessary”.

For example, EMODnet data products are all fully open CC BY 4.0 licence as funded by the EU, whilst some original data are restricted access as this is requested by the data originator/provider. HubOcean has a different funding model (not EU service) and it has therefore a different number of business model options for data sharing and data access.

3. Does EMODnet fund any data acquisition itself or does it aggregate data sets from other entities?

In Europe, nations are responsible for ocean observation and data collection in situ (in water/field survey data). EMODnet aggregates data from diverse stakeholders (all data providers are welcome and EMODnet has a dedicated Data Ingestion service). Many publicly funded data have data flows in place via national data centres and European data infrastructure networks (SeaDataNet, hydrographic offices, geological surveys etc).

EMODnet is also in dialogue with the EC and EEA regarding regulatory monitoring data that nations collect in Europe for European Directives (Marine Strategy Framework Directive, etc). European Ocean Observing networks e.g., EuroGOOS & Research Infrastructures/networks are also data providers. Other emerging sectors which are increasingly sharing in situ ocean data with EMODnet are the private sector, non-governmental organisations, and citizen science.

4. Do you provide any environment for data analysis for free?

WEkEO, the Copernicus Data and Information Access Service (and soon Copernicus Marine Service) offers access to data and certain computing capabilities, such as a JupyterHub, free of charge. EMODnet is a fully open and free public service, available at emodnet.ec.europa.eu.

5. Are Emodnet data available in Wekeo?

No, as Wekeo is only focused on Copernicus services.

Wekeo is a Copernicus platform. EMODnet data are available on the EMODnet Portal, via remote web service connection using APIs and ERDDAP and through a common EMODnet - CMEMS data lake for the European Digital Twin Ocean (DTO).

However, Wekeo and EU DTO are connected since EMODnet products are published under an Open Data license, therefore people are free to copy them in Wekeo if they wish.

6. To what extent is the UK involved in EMODnet?

The UK ocean observation, marine data capability, and expertise is well embedded in EMODnet. Firstly, EMODnet coverage includes all European regional seas, including the North Sea and the North-East Atlantic; so any data collected in UK waters are assembled. The same applies to other non-EU countries e.g., Norway. Secondly, EMODnet works closely with the British Oceanographic Data Centre (BODC), also as a member of SeaDataNet. This is a crucial partnership for implementing ocean data standards and best practices, and for the pipeline of (publicly funded) data from national research and academia into EMODnet. Thirdly, EMODnet works directly with marine data thematic experts, e.g. Geological Surveys (UK BGS) and Nature, Biodiversity, Seabed Habitat experts (e.g., JNCC, UK). EMODnet also works with all contracting parties of the European Regional Sea Conventions for OSPAR (NE Atlantic, including UK), HELCOM (Baltic Sea), UNEP-MAP (Mediterranean Sea) and Black Sea Commission.

ECOP

7. What are the possibilities currently open in Europe?

The list of regional and national nodes provides information on vision, mission, priority areas and activities, and is available at <https://www.ecopdecade.org/nodes/>.

Other useful resources might be:

- the mentorships database: <https://www.ecopdecade.org/ecop-mentoring-programmes/#europe>, and
- the list of open positions for internships within the ECOP Programme (not paid): <https://www.ecopdecade.org/opportunities/ecop-programme-internships/>

8. What is being done to bring the UN Ocean Decade to the attention of the global/UK public and to make its purpose, objectives and opportunities clear to the young?

The UK has recently established a node, [ECOP UK](#) and they are hosting a series of 'ECOP Get Togethers' to present the Ocean Decade and the ECOP Programme and network with other UK ECOPs. More information can be found on their [LinkedIn](#) page. The importance of ocean literacy for the success of the Ocean Decade was recognised early on. In 2021 a document was published "Ocean literacy within the United Nations Decade of Ocean Science for Sustainable development: a framework for action" <https://unesdoc.unesco.org/ark:/48223/pf0000377708>.

An entire Challenge 10 is dedicated to changing human's relationship with the ocean. Many Actions around the globe are working on addressing this challenge. The Vision targets for this challenge has recently been formulated as part of the vision 2030 process

<https://unesdoc.unesco.org/ark:/48223/pf0000390126?posInSet=10&queryId=d61fb5dd-1226-4649-a508-7dd636d457fe>.

To help with the coordination for the implementation of Challenge 10, a decade coordination office for Ocean Literacy (Connecting People and Ocean) has been recently set up, led by IOC/UNESCO Project Office of the Regional Bureau for Science and Culture in Europe in Venice, Italy.

<https://oceandecade.org/actions/decade-coordination-office-for-connecting-people-and-ocean/>

At global level, first there is a professional Communications Team at UNESCO-IOC supporting the Decade's communication activities, campaigns & public outreach. Secondly there is a Strategic Communication Group with 25 expert communicators providing advice on communication efforts & opportunities.

Some more information here - <https://oceandecade.org/news/call-for-applications-ocean-decade-strategic-communications-group-help-shape-and-co-create-communications-for-the-ocean-decade/>

Finally, at national level, the actions and national decade committees are responsible for communication: <https://oceandecade.org/national-ocean-decade-ecosystem/>.

A UK National Decade Committee was setup in 2021 to facilitate UK engagement with the UN Ocean Decade. Contacts are Matt Frost (Chair) | Email: mafr@pml.ac.uk
Suzanne Painting (Secretariat) | Email: ndc.secretariat@cefas.gov.uk

9. Could you make some examples of funding opportunities?

Two examples of funding opportunities are:

- Future Earth Inclusivity and Diversity Participation Funding: <https://futureearth.org/initiatives/funding-initiatives/>
- Marine Institute Galway: <https://www.marine.ie/site-area/research-funding/research-funding/current-funding-opportunities>

10. Any recommendations for geoscientists who are not early career professionals but would like to have an opportunity in oceanography?

We recommend to identify a specific area in oceanography in which you are interested and think about the skills you have already developed as a geoscientist which might be relevant for the field you would like to work in. Find relevant trainings to complement and/or develop the skills you are lacking. For example, you can check these courses: <https://classroom.oceanteacher.org/course/index.php?categoryid=194>

Try to find part-time or volunteer opportunities in the oceanography area of your interest to develop some experience while keeping your main job. You can identify the institutes you would like to work for or those that do research in your area of interest - and then send an email/call them explaining what skills and experience you have. See if you can visit any meetings/conferences in person and network. People tend to value real sincere interest and passion for a topic. So someone you talk to may refer you to their colleagues, friends, connections that might be looking for someone like you.

We also recommend to look for some professional groups on fb or LinkedIn to seek their recommendations.

11. Which are in Europe the centres to study and become an expert in the blue economy?

You can find a useful list at: <https://medblueeconomyplatform.org/resources/research-centers-and-universities/>

Copernicus Marine Service / Mercator Ocean International

12. What is the EU DTO and how is it possible to access its simulations?

The EU's Digital Twin Ocean project provides the infrastructure and tools needed to harness vast amounts of data and translate it into useful information.

Users will be able to explore the data, create their own processes and services and contribute to increasing marine knowledge by sharing their tools and data. This platform should encourage the development of reproducible and scalable artificial intelligence simulations to support policy-making. More information at: https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/restore-our-ocean-and-waters/european-digital-twin-ocean-european-dto_en

EMOdnet and the Copernicus Marine Service (two EC marine data services) are collaborating at a technical level to produce a common data lake and infrastructure that will underpin the DTO, it will provide the data 'fuel' for the modelling, scenario-building, and decision-making tools for society. Read the community infrastructure project EDITO-Infra at: <https://edito-infra.eu/>

13. Is there any particular reason why tides are not present in Physics reanalysis product?

Tides are taken into account in a few products, such as climate change products.