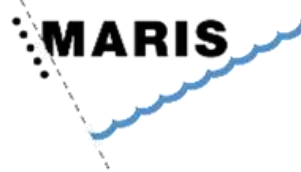


27-29 May 2024 



imdis

International conference on Marine Data and Information Systems





EMODnet

European Marine
Observation and
Data Network

Data Ingestion



EMODnet Data Ingestion

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The Challenge in marine data sharing and exchange

Streamlining the ingestion process from data sources towards marine data infrastructures and EMODnet

- **Reliable** and **easily accessible marine data** are key to supporting good scientific research, modelling, environmental management, economic activities, and EU ocean policies, initiatives and agendas
- Substantial amount of marine data is made **discoverable, accessible, and reusable** by:
 - **Existing EU marine data management infrastructures** (SeaDataNet, EurOBIS, EGD, ICES, Copernicus Marine InSitu TAC, and others), connected to EMODnet
 - Two EU Commission marine data services: **EMODnet** and **CMEMS**
- However, still, a lot of valuable marine data **does not end in these infrastructures and data flows** (delayed mode and NRT), **preventing its distribution and limiting its use**

Ocean Observation



In Europe, we spent circa 1.4 Billion Euro a year in marine data acquisition (1.0 BE in-situ; 0.4 BE remote sensing)

Published in Frontiers in Marine Science 2020 (source: Glynn Gorick and the NeXOS project)
Future Vision for Autonomous Ocean Observations

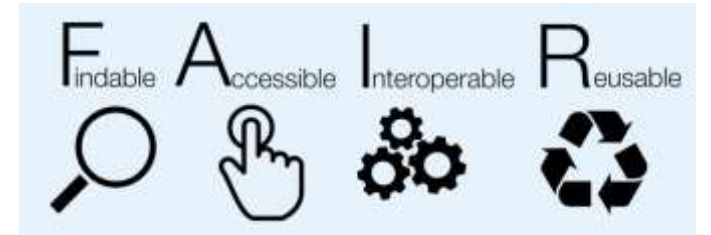
EMODnet Data Ingestion

A key pillar of the European Marine Observation and Data Network for sharing data



Overarching goal:

- To **facilitate** the **data flow** and the **ingestion process** from data holders to leading European marine data management infrastructures that are feeding EMODnet, for making their **data open and FAIR**



Approach:

- **Identifying new data holders** in the data collection landscape (from public and private sectors):
 - who are not connected to their national focal points that are contributing data to the EU data infrastructures and EMODnet, or,
 - are often unaware of how to connect
- **Motivating**, and **supporting data holders** to **share their data** with EMODnet by teaming up with EU data management infrastructures, that feed EMODnet
- **Training data holders** in the **use of standards & best practices** for easier and faster integration of their data
- **Cooperating** with EU Programmes, Projects, Initiatives, Networks
- **Promotion activities** for raising awareness about EMODnet Ingestion offer (such as webinars for specific target groups such as the offshore renewable energy & marine aquaculture sector, citizen science groups, EU RTD projects, workshops, publications, etc.)



EMODnet Ingestion ambassadors

Promotion and interaction with new data providers from multiple sectors



Network of 50 National Data Centres, specialized marine centres, and all EMODnet thematic coordinators ensuring provision of trustable data and products

BATHYMETRY



BIOLOGY



CHEMISTRY



GEOLOGY



HUMAN ACTIVITIES



PHYSICS

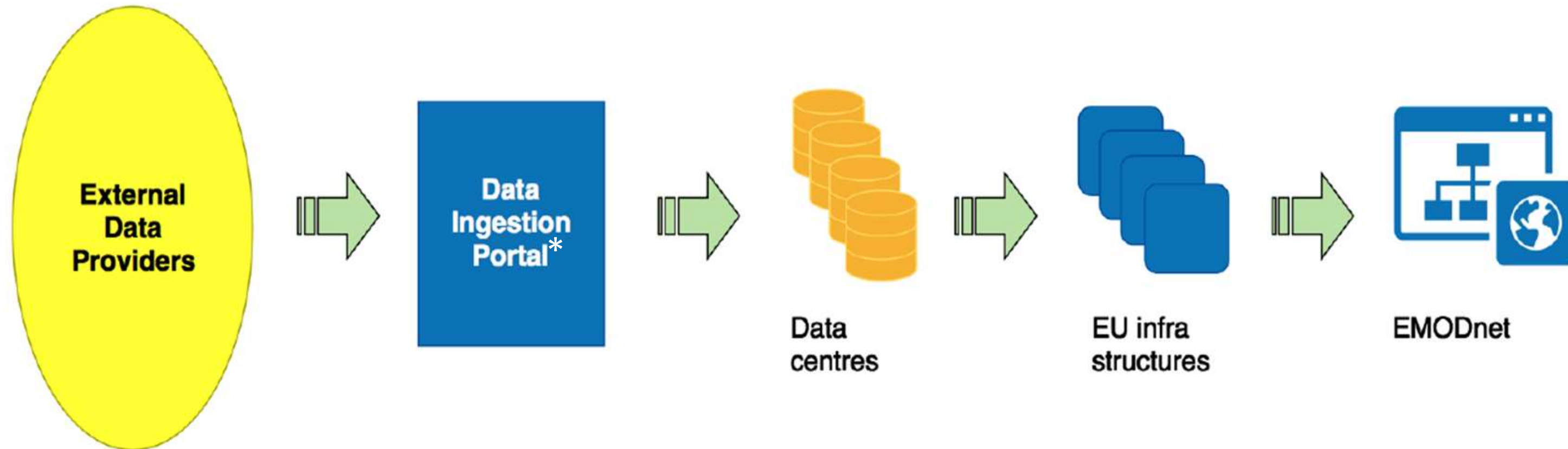


SEABED HABITATS

Data Ingestion process

A free and open public service for long-term stewardship, free distribution and publishing

Use is made of standards and best practices for making the data as **FAIR** as possible, and **existing marine data management infrastructures, data centres and pathways** towards **EMODnet**



Workflow from submission to elaborating and processing for publishing and including to EMODnet products

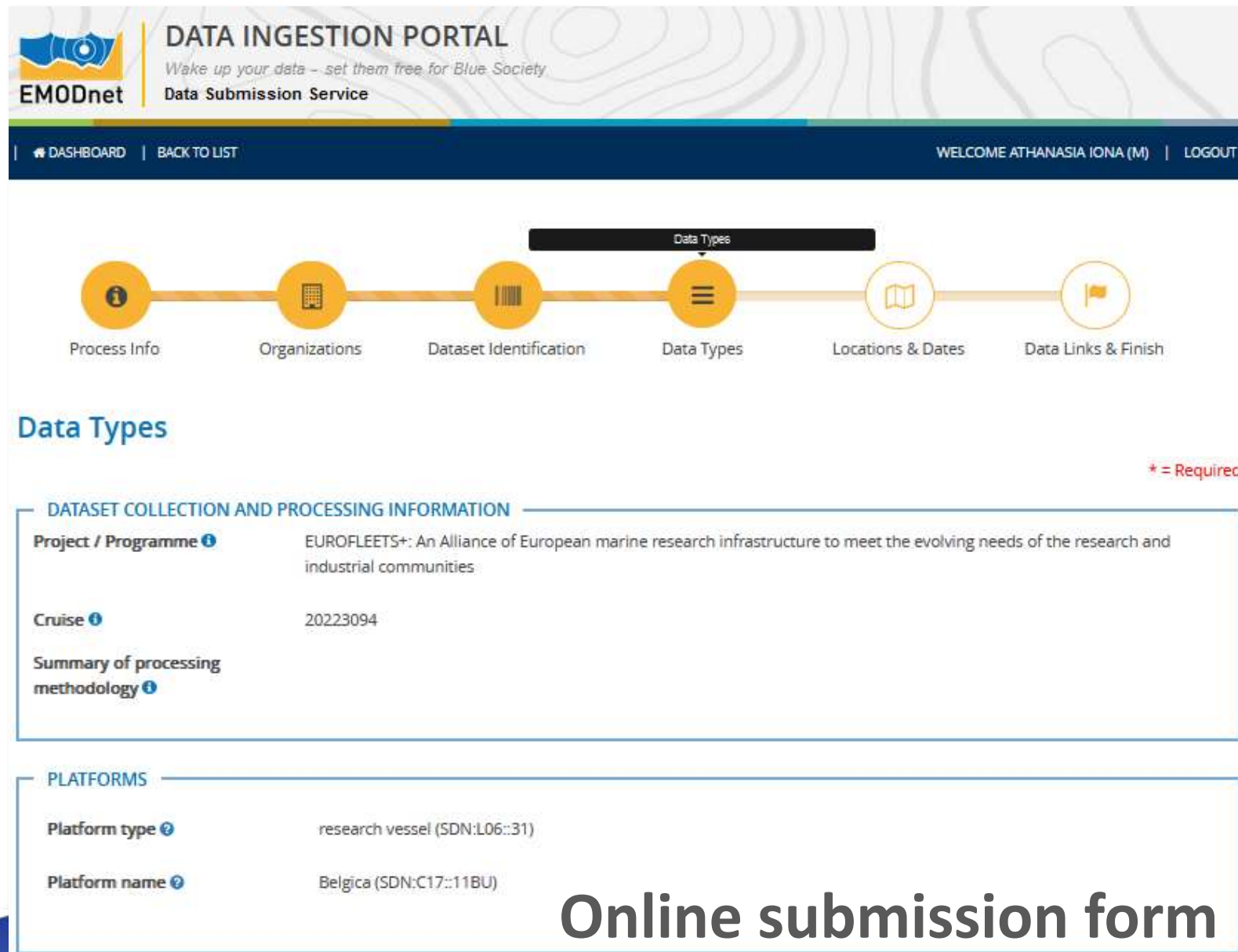
* Fully integrated into Central Portal, 2024

Submission service

A step by step approach

Distinction between 2 phases in the life cycle of a data submission:

- **Phase I:** from data submission to publishing *'as is'*
- **Phase II:** data that fit for use by EMODnet and its stakeholders are further elaborated and integrated by the expert data centers in national, European infrastructures and EMODnet for publishing and sharing with the wider community



DATA INGESTION PORTAL
Wake up your data – set them free for Blue Society
Data Submission Service

EMODnet

DASHBOARD | BACK TO LIST | WELCOME ATHANASIA IONA (M) | LOGOUT

Process Info | Organizations | Dataset Identification | **Data Types** | Locations & Dates | Data Links & Finish

Data Types

* = Required

DATASET COLLECTION AND PROCESSING INFORMATION

Project / Programme	EUROFLEETS+: An Alliance of European marine research infrastructure to meet the evolving needs of the research and industrial communities
Cruise	20223094
Summary of processing methodology	

PLATFORMS

Platform type	research vessel (SDN:L06::31)
Platform name	Belgica (SDN:C17::11BU)

Online submission form

- 5 conceptually similar groups of **ISO/INSPIRE** compliant **metadata elements**, extended use of **vocabularies**
- The **ownership** of the data is **transparent and clear** throughout the process, giving **proper acknowledgments** and **credits** to the originating **Organizations and scientists:**
 - tagging Projects, Cruise Summary Reports, Organizations, and using DOIs ↔ ORCID iDs

Viewing service

A viewing & downloading service for publishing the datasets and making them Findable and Accessible
Integrated into EMODnet Products Catalogue



EMODnet Ingestion Viewing Service

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

Home / Submissions

View submissions

This service allows users to search and download the datasets that have been submitted via the Submission service and that have been reviewed and completed in metadata by assigned data centers. These datasets are published "as-is" and will be further inspected and elaborated, where possible, for uptake in the national and European infrastructures supporting EMODnet. Once elaborated and included, users can also find the URLs of the European data infrastructures. See also the Terms of Use.

Found 1548 Show (81 - 100) < Prev Next >

Filter Search

Free search

Input string

Date [yyyymmdd]

Date from

Date to

Geobox

North

West East

South

RESET SEND

Stage of processing

Phase 1 - Published 'as-is' (838)

Phase 2 - Elaborated (710)

Results

FIGURE-CARING 2022 EUROLLEETS+ cruise - CTD and bottle data
Period: 2022-07-23 - 2022-07-26
Observation type: Dissolved gases, Other physical oceanographic measurements, Pigments, Water column temperature and salinity

Carbon parameters in the Western tropical Atlantic
Period: 2009-03-21 - 2015-11-07
Observation type: Carbon, nitrogen and phosphorus, Water column temperature and salinity

Continuous thermosalinograph data collected during Med-SHIP cruise TAIPro2022
Period: 2022-05-17 - 2022-05-26
Observation type: Other physical oceanographic measurements

Ferrybox data collected during Med-SHIP cruise TAIPro2022
Period: 2022-05-17 - 2022-05-25
Observation type: Dissolved gases, Other physical oceanographic measurements

EMODnet Central Portal Products Catalogue

European Commission

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 > Data Services > Products Catalogue

EMODnet Product Catalogue Search English

Search ...

Nothing in basket

61 - 80 on 1546

Sorted by sortDate

Filter

Expand Collapse

TYPE OF RESOURCES

AVAILABLE ACTIONS

TOPICS

KEYWORDS

CONTACT FOR THE RESOURCE

PROVIDED BY

EMODnet Ingestion (1546)

YEARS

Categories

Macronutrient data collected by RRS James Clark Ross cruise 11 around the...

The dataset comprises macronutrient (nitrate, nitrite, phosphate, silicate, ammonia/ammonium) data collected on RRS James Clark Ross cruise 11 around South Georgia and the Maurice Ewing Bank in the Southern Ocean. The data were collected between 01 January and 27 February 1996 as part of an integrated ecosystem analysis. They form part of a more extensive dataset collected over 30 years, between 1980 and 2009, by the British Antarctic ...

British Oceanographic Data Centre

Macronutrient data collected by RRS James Clark Ross cruise 06 around...

The dataset comprises macronutrient (nitrate, nitrite, phosphate, silicate, ammonia/ammonium) data collected on RRS James Clark Ross cruise 06 mainly around South Georgia, South Orkneys and the Maurice Ewing Bank in the Southern Ocean. The data were collected between 01 January and 03 March 1994 as part of an integrated ecosystem analysis. They form part of a more extensive dataset collected over 30 years, between 1980 and 2009, by the ...

British Oceanographic Data Centre

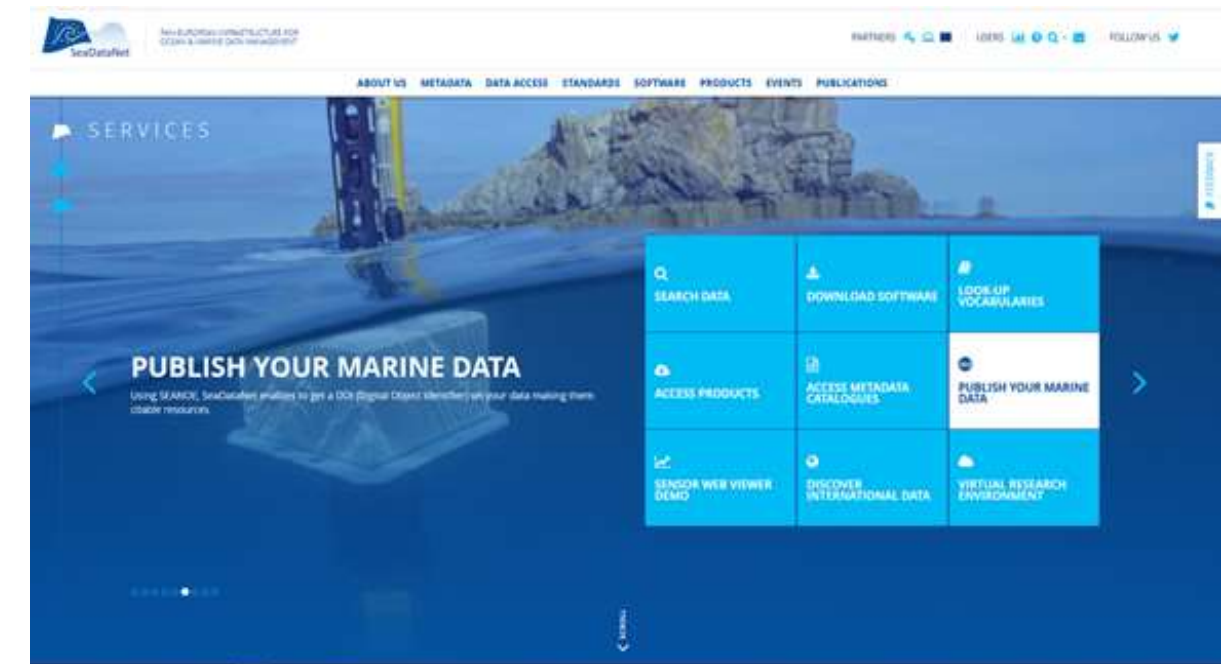
Making more data available by connecting with other data repositories

Establishing automatic (M2M) exchanges with other ingestion services at EU & National levels

- Coupling with the SeaDataNet / SEANOE Data Citing and Publishing service
- Dynamic exchange has been deployed (with > 320 entries, 245 already published)

publish and get a DOI for your data !

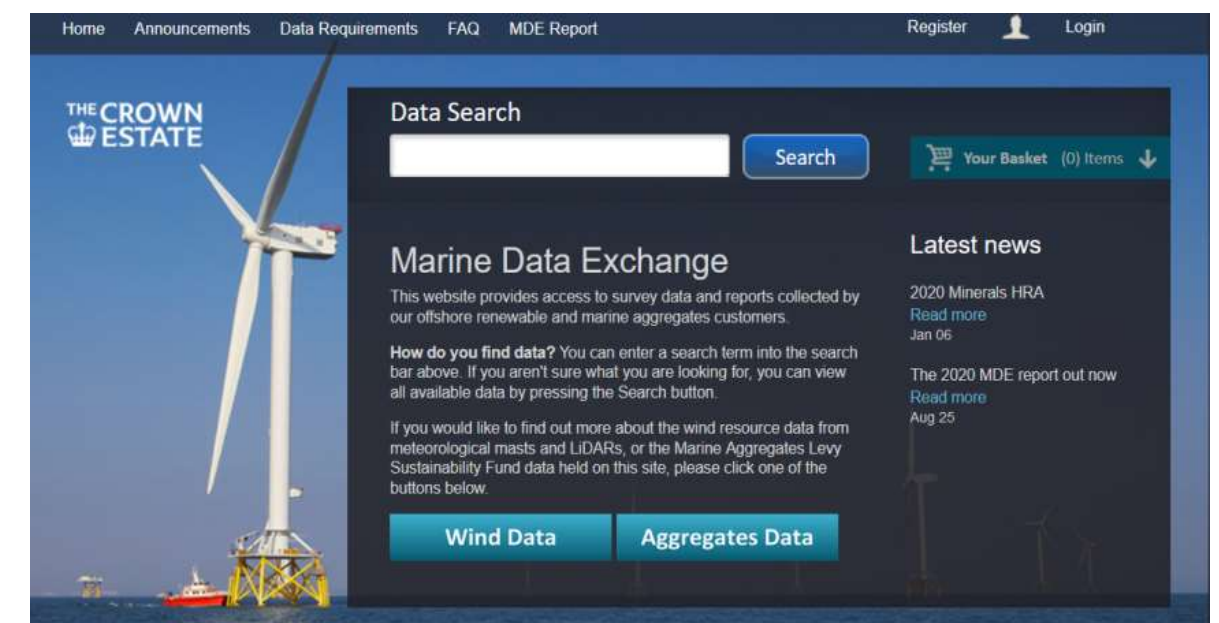
www.seadatanet.org/Software/SEANOE



- Coupling with The Crown Estate (TCE) Marine Data Exchange (MDE)

- MDE stores, manages, shares data of offshore renewable energy projects in the UK North Sea sector

www.marinedataexchange.co.uk/



Delayed mode data exchange

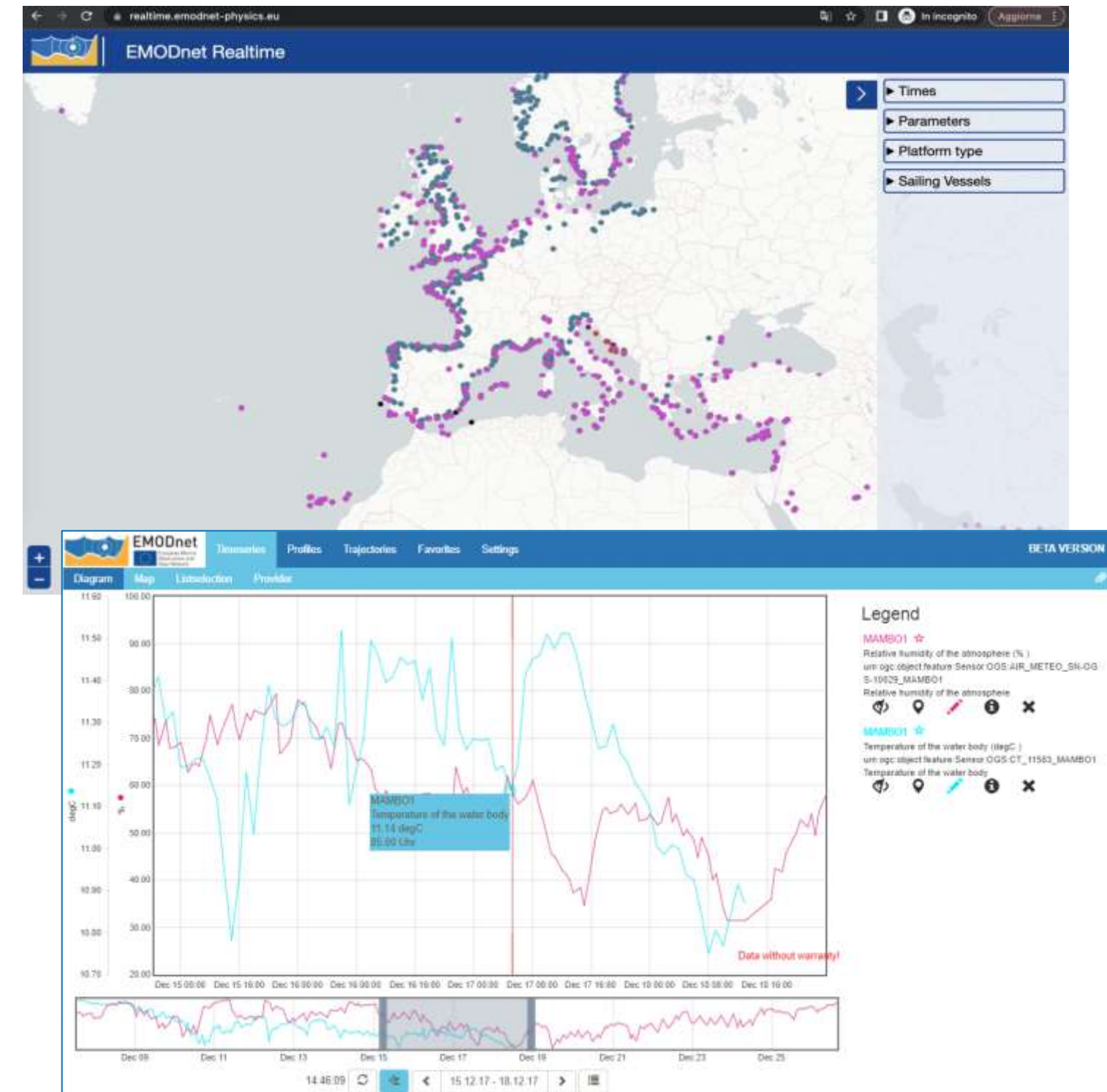
Facilitating access to Near Real Time operational data streams

Establishing direct data exchange connections with monitoring observation platforms and networks
(in synergy with EMODnet Physics)



- Identifying and supporting new operators to **connect & share** their **Near Real Time data streams** to the **EU operational Oceanography data exchange** (EuroGOOS, CMEMS, SeaDataNet for DM data)
- **M2M data transfer enabling tools and technologies adopted and developed** such as ERDDAP, Data Access Broker (DAB), Sensor Web Enablement, web APIs
- **Real-time operational data flow ingestion:**
 - **Phase I:** publishing NRT data streams *'as is'* in EMODnet Physics/EMODnet Ingestion
 - **Phase II:** further elaboration of the datasets package and integration (of subsets) in operational repositories

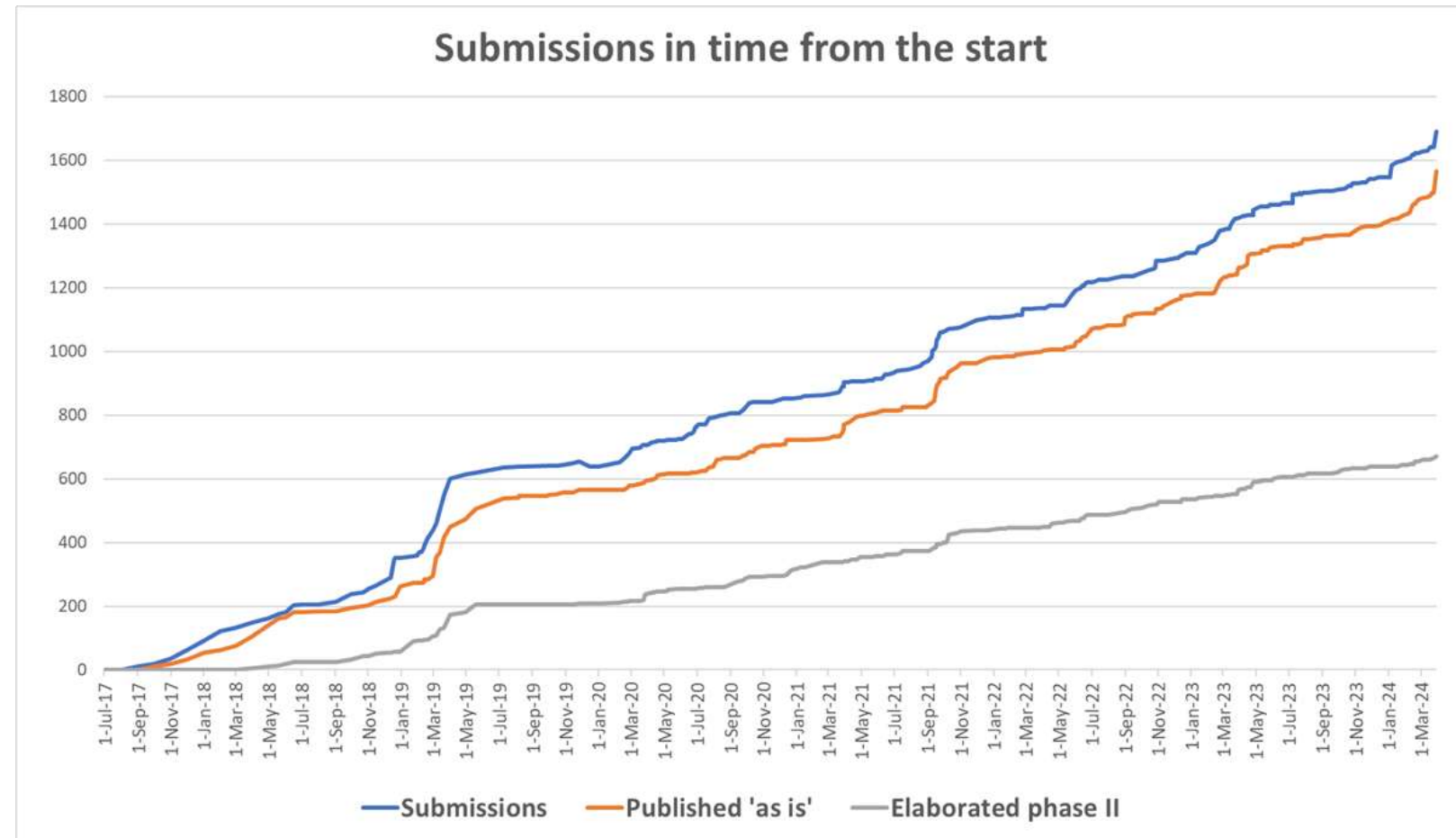
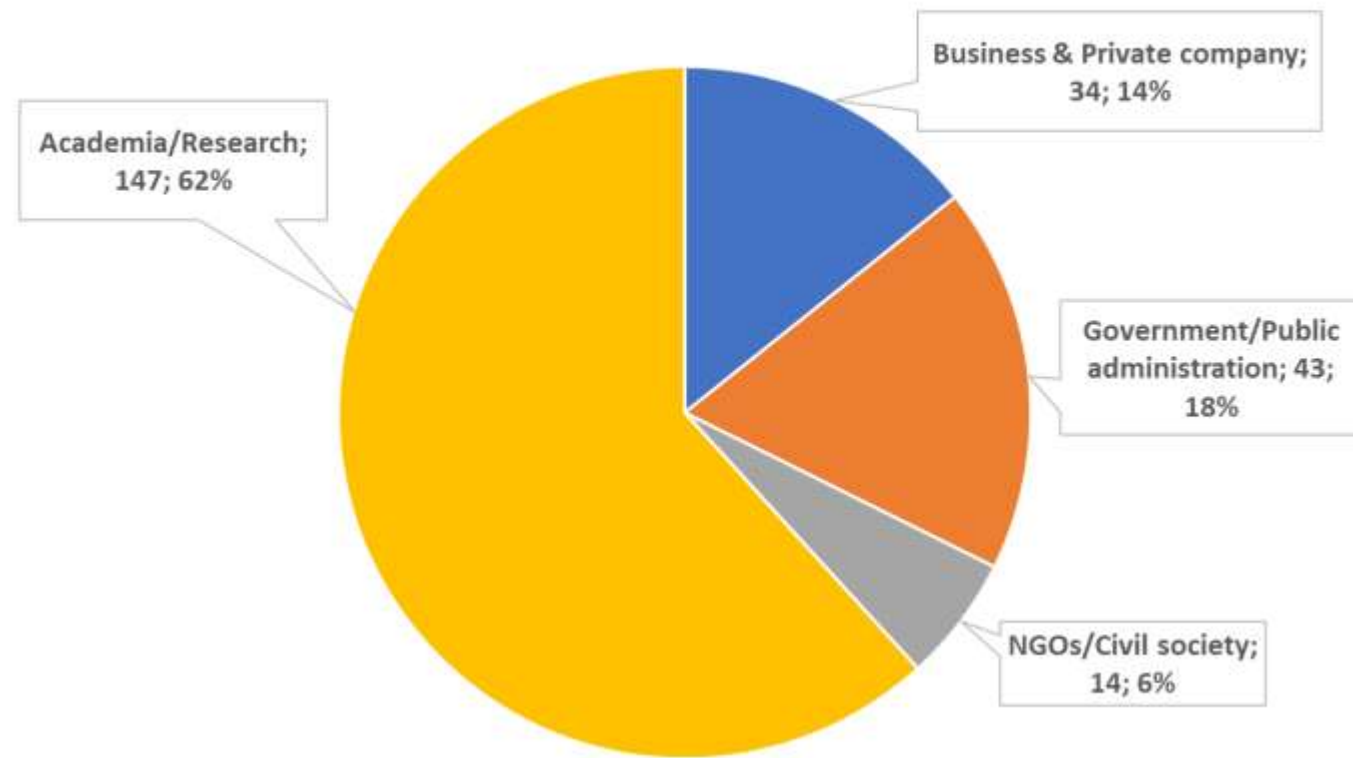
connected observing stations and operators



Our Data Providers

1640 submissions from 240 Organizations from Academic, Governmental, Business, NGOs sectors, with promising collaborations for further growth

Type of organisations



=> Current activities for attracting, harmonized data management procedures and ingesting new and key data:

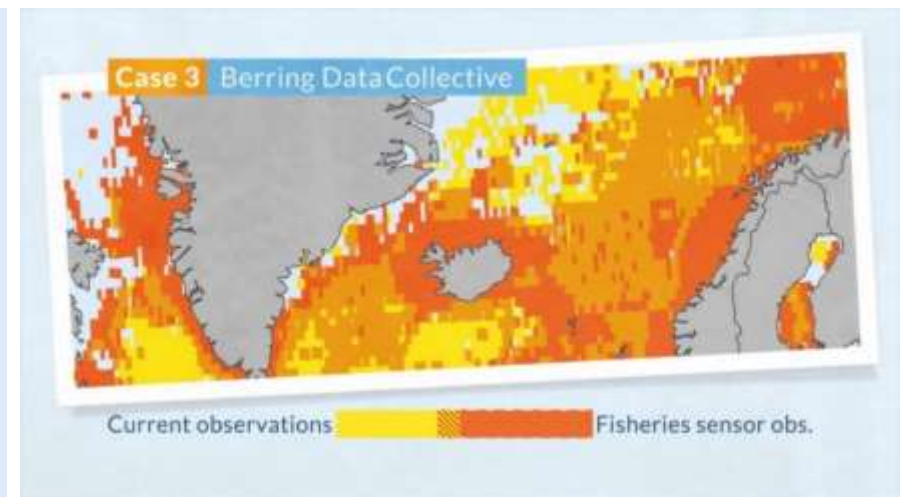
- Engaging with **Citizen Science** groups and initiatives for marine litter
- Dialogue with stakeholders for **coastal and offshore licensed data** (focusing on renewable energy, aquaculture)
- Expanding scope to **supporting EU RTD projects**, that are collecting new data, with their DMPs, data FAIRness, and sharing with EMODnet

Contribute data to EMODnet and become part of our success stories

Your Data Work it

<https://emodnet.ec.europa.eu/en/contribute-data-emodnet>

- **Marine Scotland Science data:** provision of numerous eutrophication, and contaminants data
- **Spirulina farms from JRC:** in synergy with EMODnet Human Activities
- **Berring Data Collective:** Data from sensors in fishing nets, in synergy with EMODnet Physics
- **Marine litter data:** from 4 NGO's and 5 EU monitoring & research centers
- **Monitoring data from windfarms:** in the Dutch North Sea sector
- **Eurofleets Plus H2020 Project:** interdisciplinary data sets from research cruises





EMODnet

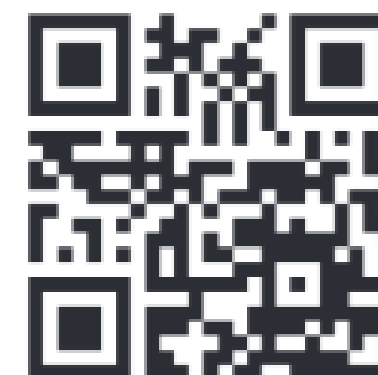


European Marine
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Join us and share your data with

emodnet.ec.europa.eu

Stay up-to-date with
the latest news



Thank you



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