



# Key updates and forward look EMODnet Ingestion

18th EMODnet Steering Committee 23 May 2023

Dick Schaap (MARIS)
Sissy Iona (HCMR)

<u>dick@maris.nl</u> sissy@hnodc.hcmr.gr

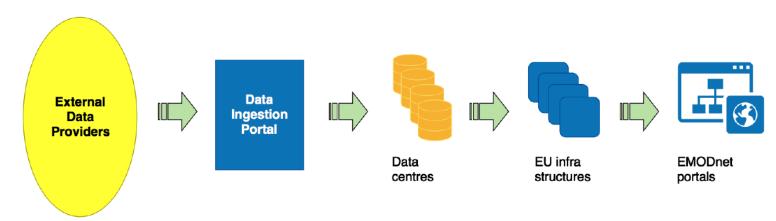
### EMODnet Ingestion: project workplan

- EMODnet Ingestion 3 contract started on 30/03/2022
- Plenary progress meeting 12-13 April 2023 Larnaca Cyprus
- Annual Interim Report submitted M13 showing good progress in all activities, except centralisation

Work Package No.	Work Package title	Covering tasks
WP0	Project Management	Task 6 – EMODnet tuning Task 10 – service continuity (transfer strategy part)
WP1	Construct and operate central Data Ingestion portal with services	Task 1 - web-portal  Task 5 - tracking service  Task 7 - summary service  Task 10 - service continuity (technical configuration part)
WP2	Implement and operate pathways	Task 2 – pathways Task 4 – help service
WP3	Facilitate machine-to-machine transfers	Task 3 – machine-to-machine
WP4	Marketing and outreach	Task 8 – outreach Task 9 – coastal and offshore license data

### Project Objectives and approach

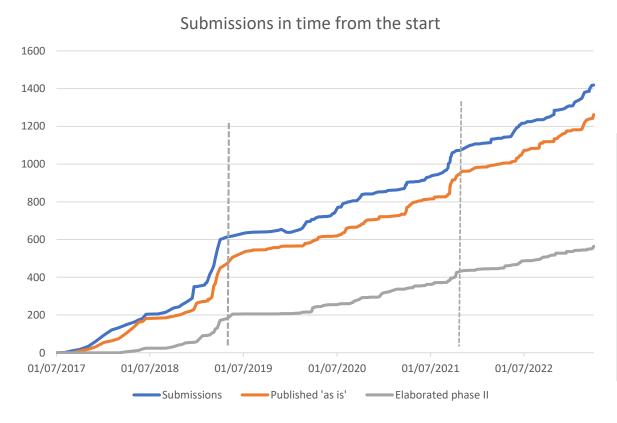
- To identify, encourage and support data holders (from public and private sectors) to share their data with EMODnet by teaming up with EU data management infrastructures.
- To operate the EMODnet Ingestion portal/platform to facilitate data holders submitting marine data sets for publishing, further processing and safekeeping by expert data centres, and subsequent distribution through EMODnet thematic portals as open data.
- Use is made of standards, best practices, and existing marine data management infrastructures, data centres and pathways\* towards the EMODnet data portals



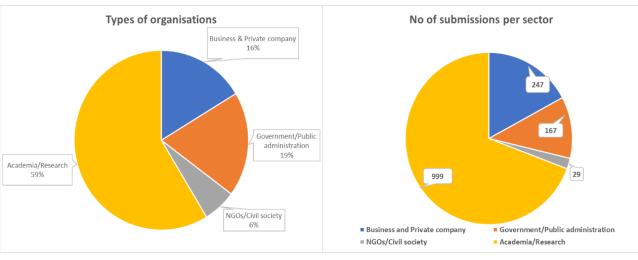
Workflow from submission to elaborating and processing for publishing in EMODnet

\* Data Centres, SeaDataNet, EurOBIS, EGDI, ICES, CMEMS-INSTAC, and others

### Progress on data submissions



- Phase I: publishing 'as is'.
- Phase II: elaborated and integrated in European and EMODnet thematic portals



- > 1300 submissions in total, Phase I-II
  - Circa 600 Phase II
  - Circa 200 organisations

### Machine-to-Machine exchanges



Q SEARCH DATA	DOWNLOAD SOFTWARE	LOOK-UP VOCABULARIES
ACCESS PRODUCTS	ACCESS METADATA CATALOGUES	DUBLISH YOUR MARINE DATA
SENSOR WEB VIEWER DEMO	DISCOVER INTERNATIONAL DATA	VIRTUAL RESEARCH ENVIRONMENT

THE CROWN ESTATE





Coupling with SeaDataNet SEANOE data citing service: EMODnet Ingestion encourages researchers and data originators to submit their data to SEANOE and to get a DOI that helps to increase their citation indices and obtain wider recognition. So far more than 250 entries exchanged, with 53% are in Phase I and 16% in Phase II.

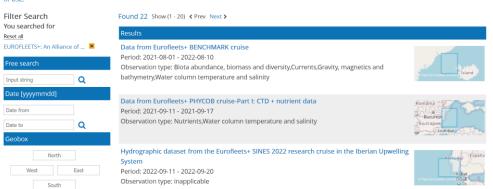
Coupling with The Crown Estate (TCE) Marine Data Exchange underway: TCE collects all marine environmental data from the offshore wind industry in UK and leases sites for renewable energy, cables, pipelines and marine aggregates within the EEZ. TCE holds the MDE database with more than 250 Tb of marine industry data. A selection of the MDE metadata records, namely those concerning marine data sets, are harvested and made available via the MEDIN Discovery portal. An initial conceptual mapping between MDE and Ingestion metadata standards was successful and a JSON export file with selected MEDIN metadata fields was produced making use of JSON elements as already in use by Ingestion. During import to the Ingestion service, some issues raised that are currently being reviewed by the corresponding teams from NOC-BODC, MARIS and HCMR.

### Close cooperation with EU EuroFleets+ project

- Ensuring that research data collected during funded cruises, and the en-route data collected by the vessels are made widely available in line with FAIR and Open Research Data principles
- Publication on EVIOR portal (European Virtual Infrastructure in Ocean Research – embedded in EF+ website) and SeaDataNet and EMODnet portals.
- Cooperation with EMODnet Ingestion:
  - adopting SWE data exchange from sailing vessels to dashboard
  - PIs ingest data sets for further processing and uptake in SeaDataNet and EMODnet (already 22 published 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 Conditions of like

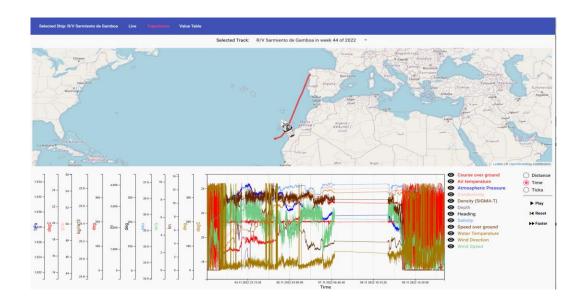




#### European Virtual Infrastructure in Ocean Research (EVIOR)

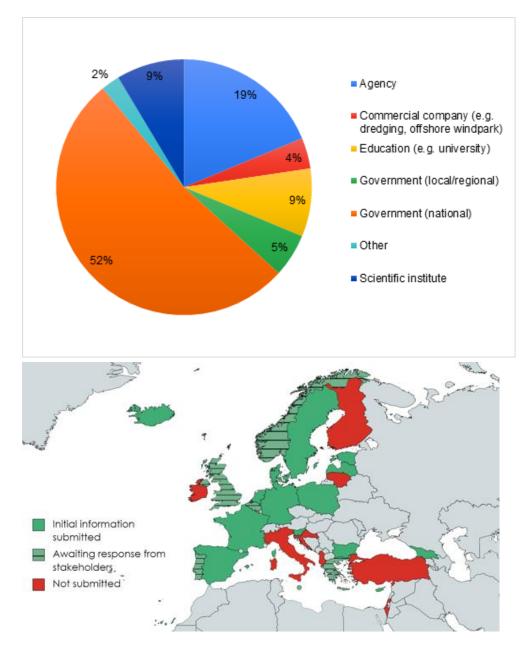


Sharing information on planned, current and completed cruises and on details of European research vessels and specialized equipment. Giving e-access to underway events information, sailing tracks and current position of European research vessels



### Engagement of coastal & offshore license data

- Extra emphasis is given to improve and document the availability of data provided for coastal and offshore licensing (for aquaculture and offshore renewable energy):
  - Identify stakeholders (license authorities per country and sector)
  - Analyse license procedures for data monitoring and reporting, and longterm data management
  - Discuss findings with stakeholders, aiming at a more harmonised and effective approach, benefitting the European marine data exchange
- February 2023: **D4.4 Inventory of identified stakeholders for licensing data** released: in total **128 stakeholders** were identified in **27 countries**. More than half (52%) of the identified stakeholders were national governments from different ministries such as the Ministry of Energy, Ministry of Renewable Energy, Ministry of Environment and Water and the Ministry of Agriculture. This is followed by agencies (19%) and education such as universities and scientific institutes (9%).
- Activities now focused on drafting D4.5 establishing a baseline assessment or inventory of data collection and licensing processes in each country. Map shows status per mid April 2023

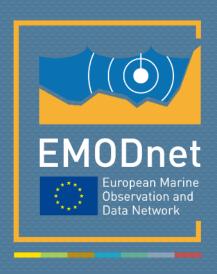


## Migration to Central Portal

- Process started in April 2023
- Adopted principles for migration:
  - Own narrative site like all thematics
  - Extra "how to contribute data" page, leading to Ingestion
  - Submission service => to move from Marine-ID to ECAS
  - View Submissions service => records to be integrated in CP Products Catalogue by harvesting
  - View NRT stations and data streams => customised map to be integrated in CP Map Viewer
- Analyses are underway, that should lead to specifications for technical deployment
- Target deadline: end March 2024

### Forward look

- To identify and interact with more external data providers which will lead to more submissions and EMODnet engagement as well as education of data providers in data management standards and procedures
- To identify, convince and support more operators of oceanography observation platforms and networks to connect & share their NRT data streams to the EU operational Oceanography data exchange
- To gather, map and document the data flow procedures in European countries related to coastal and offshore licensing, interacting with the earlier identified stakeholders,
  - To build a structured database of these practices per country and sector
  - To analyse these procedures and discuss these at a workshop with stakeholders aiming for ideas for best practices
- To analyse migration plans for EMODnet Ingestion portal and services



emodnet.ec.europa.eu

Your gateway to marine data in Europe



### © European Union 2022

Unless otherwise noted the reuse of this presentation is authorised under the <u>CC BY 4.0</u> license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.

Slide X: description of the image, source: xxx