



**EMODnet**



European Marine  
Observation and  
Data Network

# **EMODnet ingestion and safe-keeping of marine data**

**CINEA/EMFAF/2021/3.4.10/02/SI2.868290**

**Start date of the project: 30/03/2022 (48 months)**

**Centralisation Phase**

**Quarterly Progress Report (12)**

**Reporting Period: 01/01/2025 – 31/03/2025**



# Contents

Contents .....	2
1. Highlights in this quarter .....	3
2. Identified issues: status and actions taken.....	13
3. Communication assets .....	14
4. Monitoring indicators.....	15

## Disclaimer

The information and views set out in this report are those of the author(s) and do not necessarily reflect the official opinion of the CINEA or of the European Commission. Neither the CINEA, nor the European Commission, guarantee the accuracy of the data included in this study. Neither the CINEA, the European Commission nor any person acting on the CINEA's or on the European Commission's behalf may be held responsible for the use which may be made of the information.

# 1. Highlights in this quarter

## Task 1: Maintain, further develop and migrate a web-portal

### Migration to Central Portal

The migration implementation plan, which includes the division between the backend and frontend components, has reached the pre-production phase. The backend, encompassing the database, cloud storage, and API, will remain on the servers of HCMR. In contrast, the frontend will be hosted on the CP servers at VLIZ, for both testing and production environments.

Two important issues which should be highlighted are:

- i. Data Submission Service shall be accessed using only the user interface at the EMODnet Portal, while the current front-end service will be switched off, as soon as the EMODnet Portal version will take over in production.
- ii. EU Login (ECAS) authentication will be the unique authentication mechanism for all three user roles involved in the submission service

### Actions:

- The Data Submission front-end has been tested in the CP development environment against both the development API and the production API.
- Several amendments were required by the Central Portal operators to achieve compatibility with the Central Portal requirements and specifications. In more detail:
  - The dialogue solution that had been developed to inform data submitters about the adoption of EU Login and facilitate existing MarineID users to couple with the EU Login account has not (yet) received approval by DIGIT. Not to lose time on this, a change to the business flow was made, whereby the dialogue (which required a one-time redirection to MarineID) was removed. Instead, existing users are advised to contact the Ingestion help-service for support concerning coupling their MarineID accounts to their EU Login details.
  - A login page was required to be in place to access the submission service, in case no prior login to the Central Portal has been performed.
  - EU style guidelines were adopted (as was formerly communicated that this would be last issue to resolve).
  - Elements accessed via CDN were made available locally within the code.
- EMODnet network partners (ambassadors), who can be assigned to incoming submissions for further processing, have been informed about the planned migration from MarineID to EU Login and have provided their public EU Login details to the system administrators.
- MEDIN integration has moved forward and is ready for production.

In parallel activities were undertaken for drafting the EMODnet Ingestion narrative for integration in the EMODnet Portal. The challenge has been to bring together all relevant information from the current EMODnet Ingestion website, together with introductions to each of the services, using a navigation structure and site map with main options and sub-options. This has been achieved and together with the CP Team (EMODnet Secretariat) the narrative has been built up in the EMODnet Portal Development area. The waiting is now for the full acceptance of the Submission service, see above, after which the narrative and submission service can go into full production. Once this happens, there will be URL-rewriting activated to lead users to the Ingestion narrative and migrated services from older URLs.

## Task 2: Implement pathways for delivering data to final repositories

The total number of received submissions increased from 1806 to 1867, while the number of processed and published data submissions increased from 1643 to 1713, and of which, the number of fully elaborated data submissions went from 740 to 760 data. The KPI excel sheet provides more details. The Viewing Service is synced every time with the Products Catalogue service at the EMODnet Portal. This implicates that all 1713 submissions at the end of Q1 2025 were also present in the EMODnet Products Catalogue. Only remaining issue is that the Products Catalogue does not publish the full contents, while the XML file is complete. This issue has been reported a few times to the CP team together with suggestions to improve the overall publishing (search and layout) of the Products Catalogue entries. At the last EMODnet TWG meeting the CP team informed the plan to deploy a new version of GeoNetWork (V4.4) by end April 2025 which should provide improved publishing and browsing of the Product Catalogue records. Moreover, all EMODnet lots are requested to contribute to testing the new set-up, once deployed, and to formulating improved facet search options.

## Task 3: Facilitate machine-to-machine transfers

During the reporting period, the team continued working on ingesting new data sources, supporting the CP to include the Ingestion activities and layers. The inclusion of the source "as is" (phase one) involves the adoption of machine-to-machine technologies, ranging from FTP file access to web APIs for real-time exchange. It also involves the adoption of services like the Data Access Broker (DAB) or ERDDAP.

The "ingestion-erddap.emodnet-physics.eu/erddap" platform provides users with an easy way to interact with the latest ingested real-time (RT) collections. With the addition of 26 new sources, the total number of datasets reached 2.539 during the reporting period.

However, not all of these datasets are immediately visible in the Central Portal under the new "Ingestion – as is" section. New data streams must first be integrated into the metadata-controlled collections, which can take some time. Once a dataset has been integrated into these controlled collections, it is made available in the Central Portal under a specific WMS layer.

To prevent delays from impacting provider engagement, the ingestion workflow was redesigned to include an additional step. Specifically, the new procedure (see Figure 1) introduces a preliminary outreach phase when the dataset is first linked or made available in ingestion-ERDDAP. This corresponds to the "Ingestion – as is – in ERDDAP" stage and, in parallel, triggers the subsequent metadata harmonization phase required to make the dataset visible in the Central Portal (Figure 2).

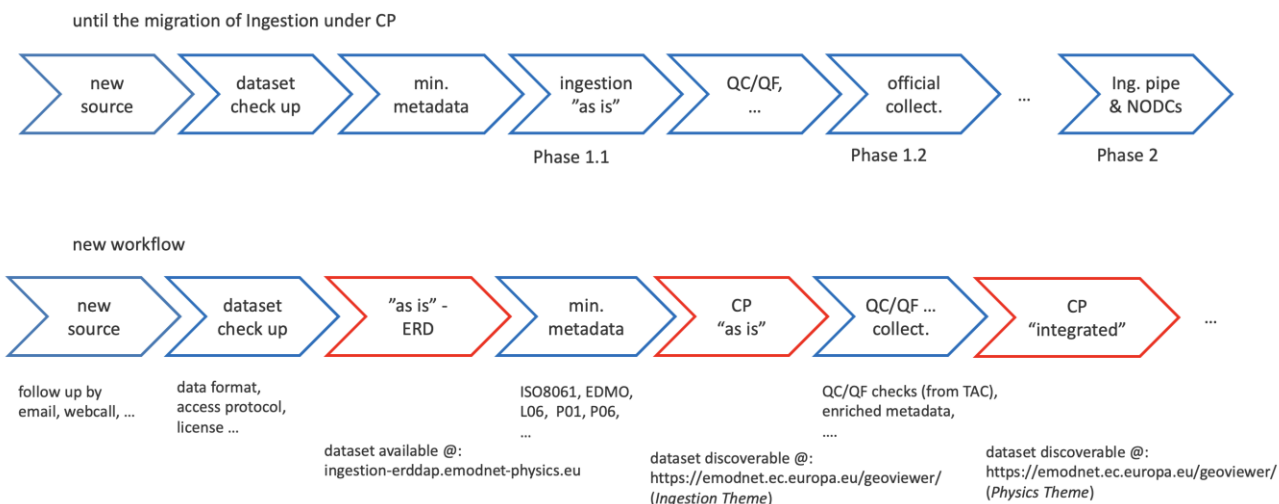


Figure 1. ingestion workflow

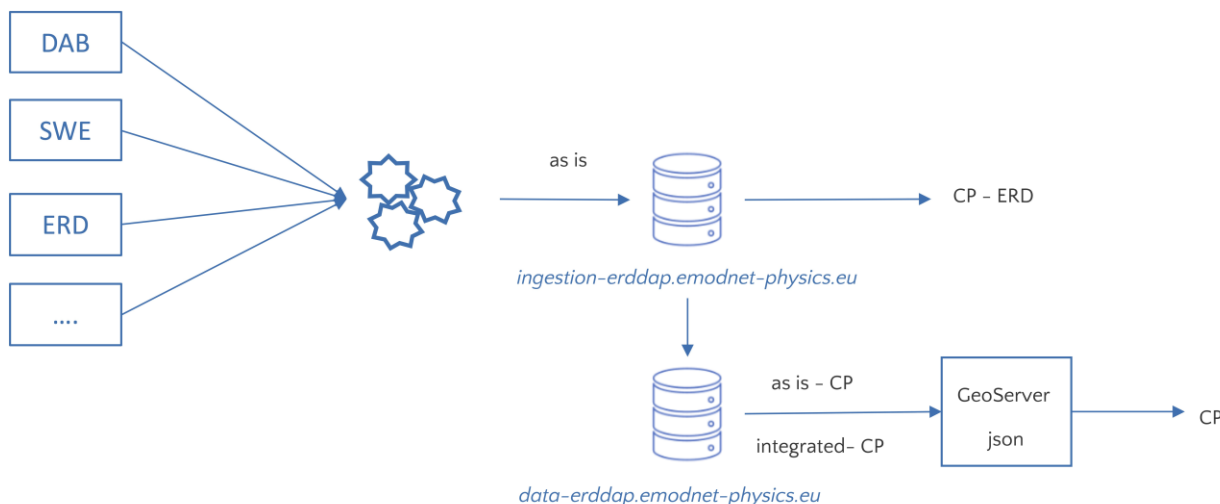


Figure 2. from Ingestion to CP workflow

Connected sources keeps providing new data on operational base and during the reporting period 2713 new data sets were made available from the connected platforms. The table 1, not including CTDs/XBTs, gives an overview.

platform_type_longname	Newly integrated	As is	As is from INSTAC
Fishing Vessels	680	680	
Sea Mammals	28		28
Argo/Profiler	281		
ADCP	19		19
Thermosalinographers	227		227
Mooring	56	7	

Drifting Buoys	1187	63	1124
Argo BGC	72		
Gliders	138	18	6
Bottle Data			
River Station	10		
Tide Gauge	15	6	
Ferrybox/Ship			
Voluntary Observing Ships			

Table 1. new data sets added to EMODnet Physics

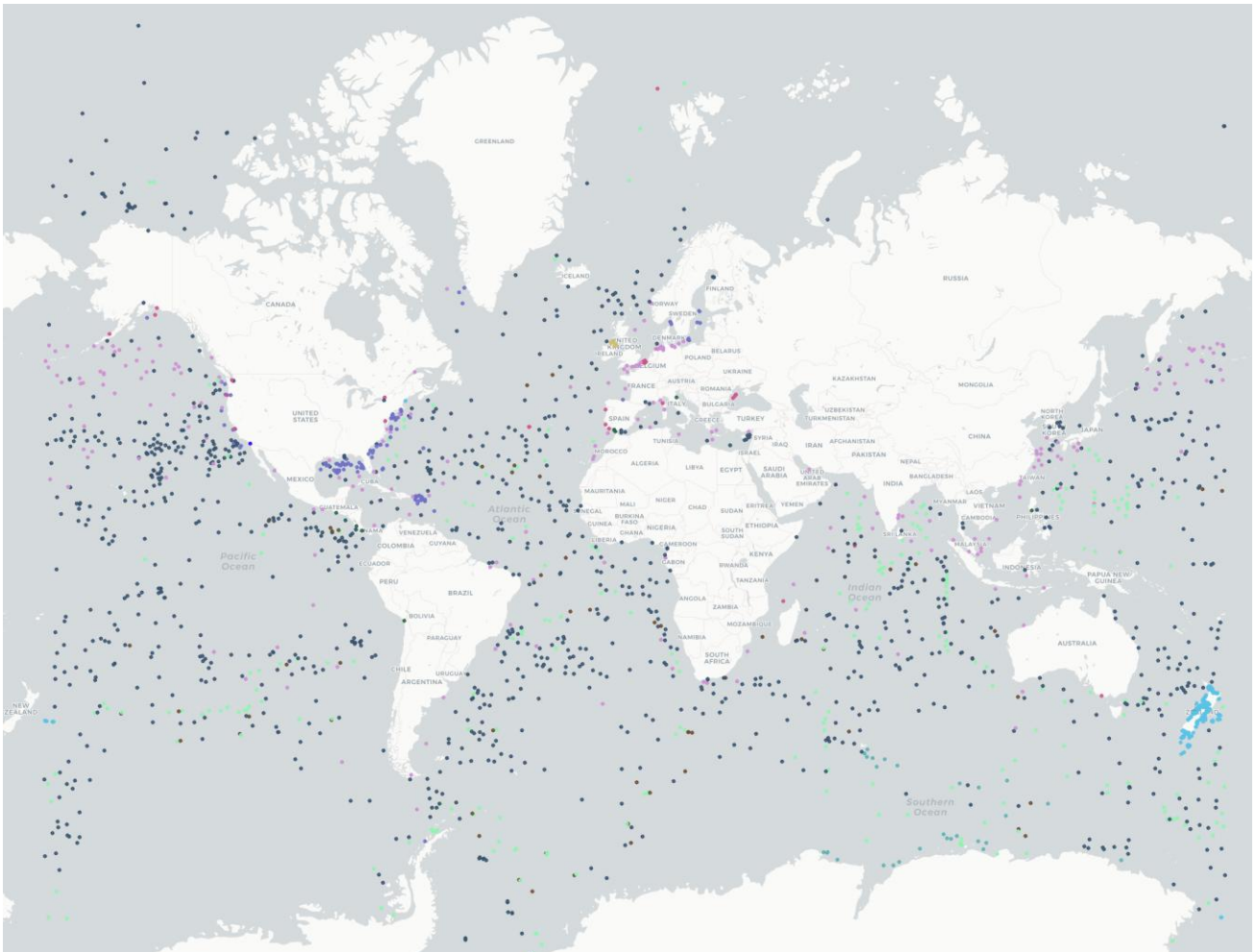


Figure 3. newly integrated platforms

Some data were directly integrated into the CMEMS INSTAC validated collections, mostly coming from Coriolis (GDAC). Notably, when CMEMS directly includes data into operational collections, it may happen that metadata are not fully updated. As described in the previous reports, data that are integrated in Physics via the CMEMS – CORIOLIS/GDAC may miss some metadata that the EMODnet Physics workflow needs for proper management. These data are considered “as is”.

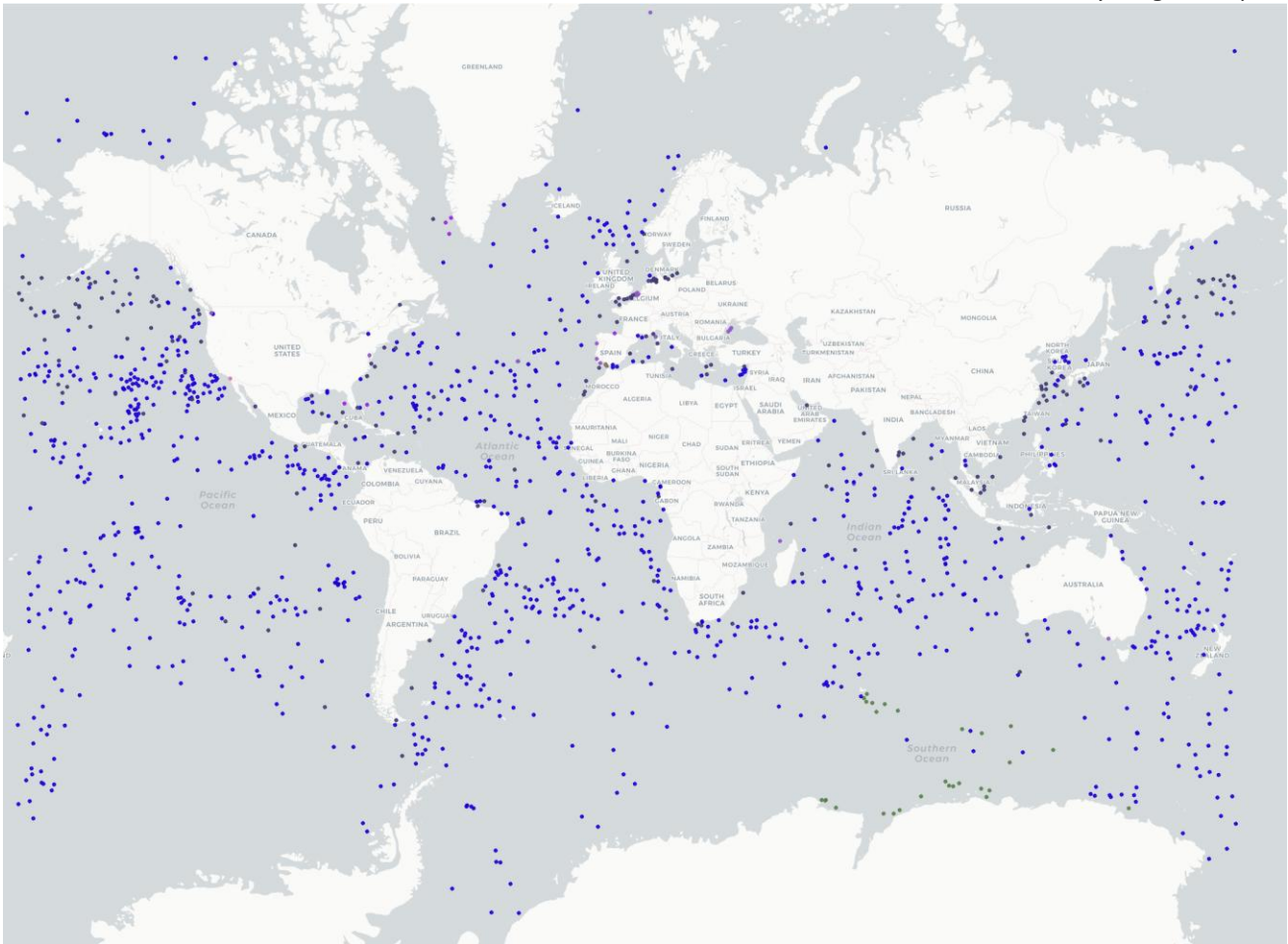


Figure 4. new data integrated in CMEMS INSTAC

#### **Task 4: Operate a help-service for users to provide their data in the most appropriate format**

Users can either email their questions or ask for a call back. All queries are saved and tracked in the Open-source Ticket Request System (OTRS) at Ifremer. In the reporting period three questions were received and answered. As part of the migration the proprietary system at Ifremer will be replaced by using the CP help forms, which are assigned to Thematics / Ingestion by the EMODnet Secretariat. Responses will then be given through JIRA tickets.

#### **Task 5: Allow providers of data to track the progress of their data from submission through to their storage in a repository**

Data providers can follow the processing of their data submissions in the Submission Service, which is done in several steps each indicated by a status field. Data providers are contacted by assigned data centres, in case there are additional questions about the ingested data sets.

#### **Task 6: Participate in discussions with EMODnet partners in order to improve the efficiency of the whole collection, assembly and dissemination process**

All coordinators of EMODnet Thematic projects are partners in EMODnet Ingestion which guarantees a mutual tuning with EMODnet Ingestion. Moreover, EMODnet Ingestion coordinators are involved in the communication of the EMODnet Steering Committee and Technical Working Group.

#### **Task 7: Maintain a summary record of data delivered**

This function is offered by the View Submissions service. Each completed submission is migrated to that service for publishing as part of a discovery and access service. Distinction is made in phase I and II which is one of the search facets. Editing activities take place aimed at replacing so-called orphan data for organizations from free text into controlled EDMO terms, orphan data for projects into controlled EDMERP terms, and orphan terms for Cruises into controlled Cruise Summary Reports (CSR) terms in order to improve the integrity and richness of the metadata.

**Task 8: Engage in outreach activities towards significant holders of marine data whose data are not yet available.**

The central document compiling all outreach activities and events of partners promoting the project is being continuously updated with input by all the partners. A full overview will be given in the interim and final reports. The current document is available here<sup>1</sup>.

During the reporting period, EMODnet Ingestion colleagues attended 10+ events and also organised 10+ events delivering many presentations and posters. These events included conferences (e.g., GeoDays, IODE/IODC-3), lectures, and meetings within the context of other programmes and projects (e.g., BlueDOT, LandSeaLot, BARACA), as well as internal EMODnet meetings, including those with DG MARE.

RBINS participated in the VLIZ Marine Science Day, a one-day conference in Bruges that brought together numerous actors from the Belgian marine science, data, and policy communities. EMODnet communication materials (e.g., flyers, stickers) were distributed to participants to raise awareness and introduce EMODnet on a one-to-one basis. RBINS also met with the EMODnet Secretariat's communication team, who was present at the event.

As the EMODnet Ingestion coordinator, MARIS invited HUB Ocean and VLIZ to a meeting focused on biodiversity data exchange with EurOBIS, exploring the potential for HUB Ocean to act as an intermediary data centre between the offshore industry and EMODnet. HCMR, the co-coordinator of EMODnet Ingestion, represented the initiative at several technical events and conferences, including the EMODnet Open Sea Lab 4 - 2025 Hackathon.

During this period, 20 communication products were developed. These included an updated promotional poster from RBINS, outlining the data ingestion workflow, now featuring updated URLs and services (see below). RBINS also designed two new promotional stickers to highlight the new Ingestion URLs. These designs maintain visual continuity with previous communication materials (e.g., YouTube videos) while introducing branding elements for the new phase of the programme. A total of 500 units of each sticker were printed and distributed to partners during the annual plenary meeting in Madrid (1–3 April 2025).

Additional communication outputs included online posts and updates on the EMODnet website, newsletter, and various Facebook and LinkedIn accounts, shared by project partners such as the University of Malta and Cyprus. Online efforts also featured a series of twelve 2023 success story being posted on LinkedIn by RBINS, which built on the work of showcasing these stories on the EMODnet Portal. These posts have been regularly shared since January 2025, aligning each story with current events and news to maximise engagement. This strategy is effective, with each post generating between 700 and 1,800 views, totalling approximately 6,400 views.

---

<sup>1</sup><https://docs.google.com/document/d/1cwuwM1oZYon1vAPwqLqSguLdSkSlt4ioR9MKh7cN9Yw/edit>



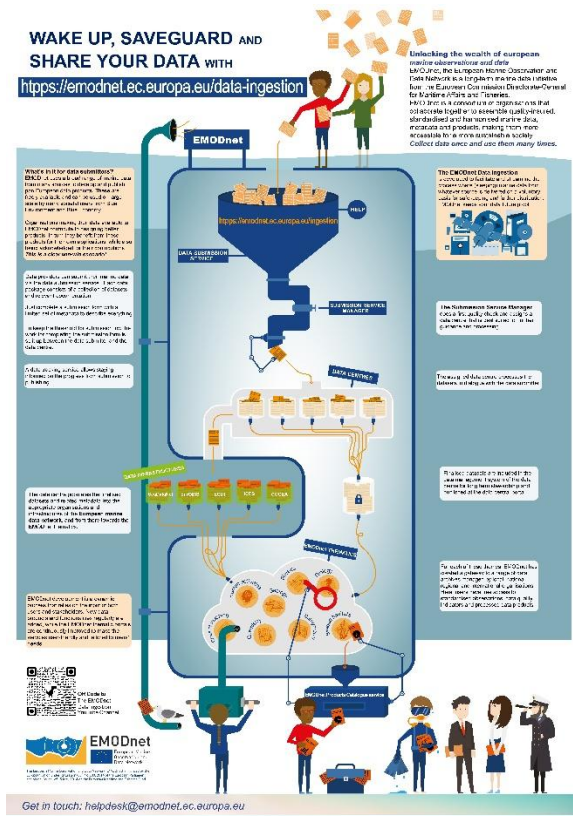
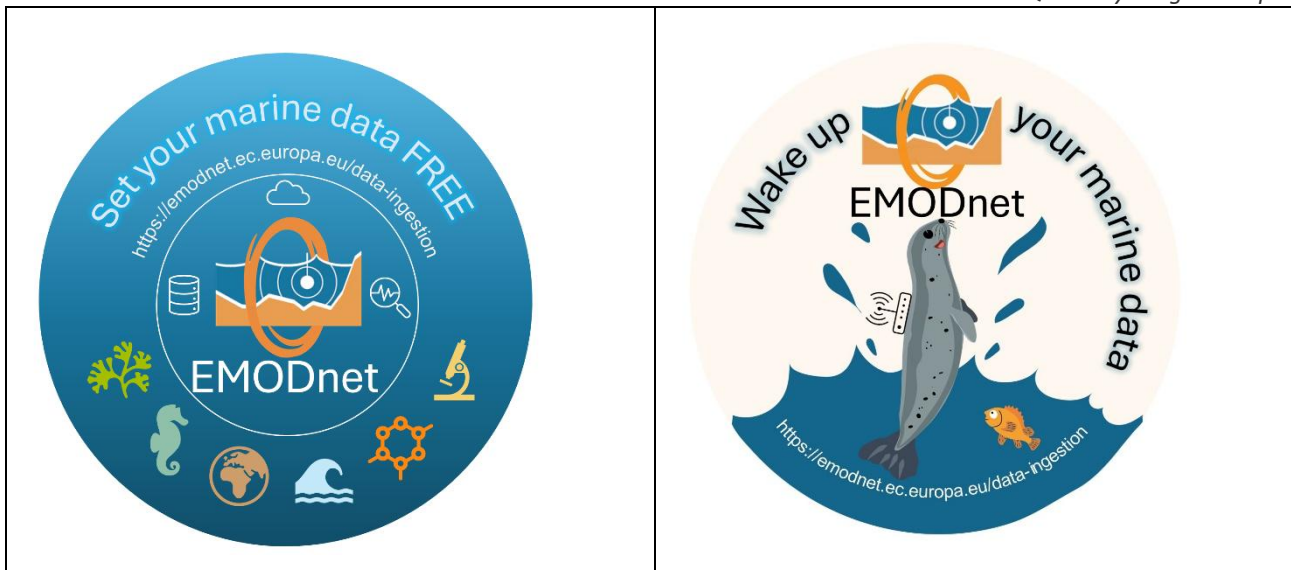


Figure 5. new stickers and updated poster

**Task 9: Improve and document the availability of data provided for coastal and offshore licensing.**

Selection of Pilot Cases

Deltares has received confirmation from 4 pilot cases in total of their willingness to serve as pilot cases and collaborate on formulating the roadmap for harmonizing data management in offshore licensing procedures. These 4 pilot cases are:

- Malta - Department of Fisheries and Aquaculture
- Estonia - Consumer Protection and Technical Regulatory Authority
- France - Directorate-General for Maritime Affairs, Fisheries and Aquaculture

- The Netherlands – Rijkswaterstaat and Marine Information and Data Centre

The selection of 4 pilot cases fulfills the target number outlined in the work plan. In addition to this, Deltares is still in contact with stakeholders from the United Kingdom in order to verify their willingness to participate. As part of this, an online meeting took place with the Crown Estate and a follow-up meeting is planned in April 2025 with the Marine Management Organisation.

### **Pilot Case Interviews**

Interviews will be conducted with each pilot case. Deltares has currently conducted interviews with Malta and Estonia. Additionally, interviews with France and The Netherlands are planned for end of April 2025. An update on the outcomes and results of the pilot case interviews will be provided in the next quarterly report.

### **Planned Activities for the Upcoming Period**

Several activities are planned for the coming months. These are outlined below.

- **Organize Pilot Case Workshop:**

Following the completion and processing of all pilot case interviews, a dedicated joint workshop will be held with all pilot cases. This workshop is planned for September-October 2025, as per the workplan schedule.

- **Organize Project Partner workshop**

A workshop will be organised for project partners in which the draft roadmap is introduced and discussed. This will provide partners with the opportunity to provide their insights and feedback. This workshop is planned for Q4 of 2025.

- **Host Final webinar**

A concluding webinar is scheduled, during which the project results will be disseminated with a larger group of stakeholders. This will entail the presentation of the roadmap to stakeholders, who will also have the opportunity to offer feedback on usability. Moreover, discussions may focus on potential future steps. The webinar is expected to take place in February-March of 2026.

### **Task 10: Service continuity during operation and for transition**

Coordination of the consortium is undertaken by MARIS and HCMR to ensure the continuity of the EMODnet Ingestion portal and its array of services. The Q11 report has been prepared and submitted which was accepted by the EU.

During this reporting period, EMODnet Ingestion participated in the first EMODnet Coordinators meeting (31 January 2025).

Moreover, EMODnet Ingestion prepared the annual EMODnet Ingestion project meeting which took place 1 – 3 April 2025 in Madrid – Spain at the premises of IEO-CSIC. The annual meetings always provide great input for the annual reports (interim and final).

#### **Status of the Milestones and Deliverables listed in the workplan**

Milestone/Deliverable in numerical order	WP	Date due	Status (To do/ Delivered/ Delayed)	Date delivered	If Delayed: reason for delay and expected delivery date
D0.1: Quarterly concise progress reports	0.1	M4, M7, M10, M13,	D0.1-a,b,c,d Delivered	M4, M7, M10, M13	

		M16, M19, M22, M25			
D0.2: Interim report	0.1	M12	Underway		
D0.3: Final report	0.1	M24	To do		
D0.4: Transition and hand over protocol	0.1	M24	To do		
<i>D0.5i: Consortium Agreement and subcontracts</i>	0.1	M1	Subcontracts done		
<i>D0.6i: Short minutes - action lists of internal coordination meetings</i>	0.1	Regularly			
D1.1: Migrated Ingestion site maintained at Central Portal	1.1	M6 – M24	Almost done		
D1.2: Users migrated from Marine-ID to ECAS	1.2	M6	Will be arranged after site migration		
D1.3: Migrated Data Submission Service operational	1.3	M6 – M24	Almost done		
D1.4: Data tracking service operational	1.3	M1 – M24	Delivered	Operational since M0	
D1.5: Migrated View Submissions service operational	1.4	M1 – M24	Delivered	Operational since M0	
D2.1: Pathways operational	2.1	M1 – M24	Delivered	Operational since M0	
D2.2: Many submissions processed and published at phase 1 and phase 2	2.1	M12, M24	Underway		
D2.3: Help service operational	2.2	M1 – M24	Delivered	Operational since M0	
D3.1: Updated documentation, standards, tools, and procedure for NRT and RT data published	3.1	M12, M24	Underway; will be integrated in Interim Report		
D3.2: Connections with new NRT and RT	3.1	M12, M24	Underway		

monitoring stations operational					
D3.3: Upgraded Viewing service for NRT and RT stations operational	3.2	M6 – M24	Done	M4	
D4.1: Inventory of data providers and use cases engaged in EMODnet Ingestion	4.1	M12, M24	Underway; will be integrated in Interim Report		
D4.2: Updated promotion material	4.3	M12, M24	Will be integrated in Interim Report		
D4.3: Pilot cases selected for interviews about licensing data	4.2	M9	Done	M12	
D4.4: Interviews done with selected pilot case stakeholders	4.2	M16	To do		
D4.5: Pilot case Workshop hosted	4.2	M22	To do		
D4.6: Final Webinar hosted	4.2	M23	To do		
D4.7: Roadmap for harmonisation of Data Management within Offshore Licensing Procedures	4.2	M24	To do		

## 2. Identified issues: status and actions taken

[Provide an overview of issues identified by CINEA/ DG MARE/ Secretariat (Table A) in the past quarter - new as well as pending ones, the status of those issues, and actions taken to address them and/or roadmap with remaining actions planned to resolve the issues. In Table B, provide information about any issues and challenges identified by yourself.]

A.				
<b>EM-768: An epic to collect together JIRA for the DIP centralisation</b>	Pending	Folder to follow all DIP migration activities	Mid 2025	
<b>EM-305/322 Content Inventory Data Ingestion</b>	Pending	EMODnet Ingestion has drafted the site map and text for the narrative, which has been published with help of the CP team at the EMODnet Portal Development site. It will go in production soon, awaiting the acceptance of the migrated Submission service.	End April 2025	

B. Issues / challenges identified by the thematic assembly group itself				
Priority issue / challenge	Status (Pending/ Resolved)	Action(s) taken / remaining actions planned	Date due	Date resolved
<b>EM-976 Not all details of Ingestion records are displayed in the HTML pages of the Central Products Catalogue</b>	Pending	CP Team will deploy the latest version of GeoNetWork which should give improved publishing of records.	Mid 2025;	

### 3. Communication assets

[In Table A, list peer reviewed publications directly (co-)authored by consortium and project partners in the reporting period. In Table B, list all non-peer reviewed publications (co-)authored. In all cases, indicate the type of publication, provide the full reference incl. title, volume and issue etc., and whether the publication is open or closed access.]

A. (Co-)Authored peer-reviewed publications in the quarter					
Date of publication	Type of publication	Full reference	ISBN	DOI	Is it open access? Yes/No

B. Other/non-peer reviewed types of publications (co-)authored in the quarter					
Date of publication	Type of publication	Full reference	ISBN	DOI	Is it open access? Yes/No

For a comprehensive overview of publications referring to/making use of EMODnet data and/or data products, please consult [Google Scholar](#).

## 4. Monitoring indicators

*[Refer to the standardised monitoring tool, i.e. Europa Analytics, to complete the indicators excel template, and provide a short explanation in the table below on the numbers and trends for each indicator when possible/applicable. Indicate clearly if monitoring was carried out using tools other than Europa Analytics.]*

Comments on the progress indicators in the indicators spreadsheet		
Progress indicator	Means of collecting figures	Comment
1. Current status and coverage of total available thematic data A) Volume and coverage of available data	Submission Viewing service	The total number of new phase 1 + phase 2 submissions in the current quarter is 70 and of this 20 were elaborated to phase 2. The overall number of published submissions went from 1643 to 1713.
B) Usage of data in this quarter	Cloud storage of Submission Viewing service	The total number of download transactions is much higher with 1490 downloaded data files than in the previous quarter.
3. Internal and external organisations supplying/approached to supply data and data products within this quarter	Submission Viewing service	70 new data submissions were received and published from 36 organisations, mostly academic and research.
9) Visibility & analytics for web pages	Grafana	The visits to the Homepage, Submission service and Viewing Service, all three, go slightly up. The homepage is most visited.
10) Visibility & analytics for web sections	Grafana	The Viewing Service which publishes the completed submissions generates most traffic, and it is slightly increasing compared to the last quarter. Overall, there is no high traffic on the site, but is also not to be expected considering the function of EMODnet Ingestion in the EMODnet framework.
11) Average visit duration for web pages	Grafana	The average visit duration for the Homepage is about 35 seconds.

*The monitoring numbers reported as part of the progress monitoring of EMODnet performance are collected through Europa Analytics, unless reported otherwise.*