



EMODnet



European Marine
Observation and
Data Network

Secretariat for EMODnet and the European Atlas of the Seas

CINEA/EMFAF/2021/3.4.10/01/SI2.863177

Start date of the project: 01/01/2024 (24 months)

Centralisation Phase (second cycle)

Consolidation periodic progress reports [D3.10]





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Document info

Title (and reference)	Consolidation periodic progress reports (D3.10)
WP title (and reference number)	Monitoring EMODnet Outputs, Performance and Progress (WP3)
Task (and reference number)	Consolidation of the quarterly progress reports from the EMODnet partners into short informative consolidated reports (Task 3.3)
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Dissemination level	Open
Submission date	M36
Deliverable due date	M36

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EMODnet Secretariat progress update – Q1-Q4 2024

Update of EMODnet progress made over the year of 2024, based on the quarterly progress updates of the EMODnet projects currently running (i.e., seven thematic lots, and Data Ingestion facility) supplemented with updates from the Secretariat.

1 EMODnet progress overview

1.1 General progress highlights

The year 2024 marks the launch of a series of [technical blogs](#), released on a quarterly basis, on EMODnet services that bring the technical developments and achievements of the EMOD-network to the forefront, championed by EMODnet's Technical Coordinator, Conor Delaney. The blog is intended for wider stakeholders who use and/or contribute to EMODnet and would like to know more about the latest state-of-the-art in EMODnet services.

In the course of 2024, ten new [use cases](#) were added to the EMODnet Portal, spanning various sectors and thematic lots. Additionally, a database of [Data Sharing Success Stories](#), compiled by EMODnet Data Ingestion, was launched on the EMODnet Portal, demonstrating how individuals and organisations have successfully submitted data to EMODnet through the EMODnet Data Ingestion service. In 2024 we were also delighted to welcome five new EMODnet [Associated Partners](#), i.e. Voice of the Ocean, Oceano Vox, Renewables Grid Initiative, savvy navy, and Van Oord.

EMODnet organised an online '**EMODnet for business**' workshop focusing on [Ports, Marinas and Boating](#)<https://emodnet.ec.europa.eu/en/emodnet-business-workshop-report-marine-data-coastal-tourism-now-available>, which provided the opportunity for cross-sectoral dialogue on data needs and requirements for the ports, marinas and boating sector. The workshop was attended by over 70 invited experts. A workshop report is available for download via the [Reports](#) section of the EMODnet Portal.

The energy and momentum created at the EMODnet Open Conference and Jamboree 2023, together with the [EMODnet Call to Action](#) on behalf of the EMODnet Partnership launched at the event, has set the stage for an **EMODnet Vision to 2035**. The EMODnet Vision 2035 will deliver concrete and realistic goals for EMODnet's digital services and service offer, to increasingly serve user needs, including directly supporting EU policy, the Blue Economy, Research and Innovation and wider stakeholders, and providing added value for the EU economic agenda and competitiveness, set in the global context. In July 2024 the EMODnet VDG launched the EMODnet Vision 2035 **public consultation**, which ran until 18 September 2024, with the objective to gather stakeholder feedback on how EMODnet could/should evolve its services over the next decade to 2035. In total, 42 stakeholders took part in the survey including EMODnet Partners, Sea-basin Checkpoint Coordinators, Associated Partners and wider stakeholders. The results from the consultation were summarized and included in an EMODnet Vision 2035 public document (publication foreseen February 2025).

1.2 Specific progress and achievements of the thematic data assembly groups and data ingestion

- Over the course of the year 2024, all data providers engaged in the **EMODnet Bathymetry** contract contributed datasets thereby increasing the number of datasets from 42,369 Common Data Infrastructure (CDI) entries to 43,092, while the number of composite Digital Terrain Model (cDTM) entries increased from 279 to 299. Towards end 2024, all Regional Coordinators finalised their Regional DTM, which were delivered to the Integrator (partner GGSGC) who in turn is finalising the

integration of the RDTMs into a consistent EMODnet DTM for the European seas and one for the Caribbean Region (publication foreseen in February 2025). In Q1 2025, publication is also foreseen of the High Resolution DTMs data layer; a data layer with coastlines from gridded water index for the Caribbean and European continent based on satellite Sentinel-2 imagery; and the finalisation of a report explaining the development of a generative deep learning approach that fills bathymetry in areas with a data gap with the aim of generating plausible bathymetry. On a global scale, good synergy is continued with the General Bathymetric Chart of the Oceans (GEBCO) and Seabed 2030 projects. The EMODnet DTM is considered as the European contribution to Seabed 2030 and as such fully integrated into the GEBCO DTM. In addition, there are ongoing discussions with Seabed 2030 about the potential role of EMODnet Bathymetry as European regional mapping center for Seabed 2030. There are concrete plans for GEBCO to adopt the EMODnet Bathymetry metadata approach using the SeaDataNet infrastructure and standards;

- In 2024, the data harvests conducted by **EMODnet Biology** brought approximately 120 new datasets and updates to approximately 90 existing datasets, effectively increasing the occurrence data holding by a little over 1.9 million new occurrence records. Among the new datasets, is a first batch of eDNA derived occurrence datasets. These datasets originated from both partner and ad-hoc data submissions as well as a major data harvest carried out in celebration of the EuroBIS 20th anniversary. The harvested data is increasingly heterogeneous in temporal, spatial and taxonomic coverage, and machine-derived data is becoming more and more frequent in the harvests. Continuous efforts were made to mobilise data from the Caribbean area from OBIS and GBIF networks and datasets of interest have been identified and documented; the actual data ingestion is a slow process. Furthermore, this year, six external data products have been integrated into the EMODnet Portal. In the course of 2024, work has been ongoing to fine-tune the EMODnet Biology data infrastructure to include genetics data, improving the FAIRness and INSPIRE compliance of the metadata records, and providing users with statistical information regarding the published data and datasets they originate from. To foster the involvement of Regional Sea Conventions (RSCs), a hybrid workshop was organised on 18 April 2024, involving representatives of all RSCs as well as of the European Commission Directorate-General for Maritime Affairs and Fisheries (EC DG MARE), EC Directorate-General for Environment (DG ENV) and EMODnet Seabed Habitats. The report on the workshop is publicly available on the [EMODnet Portal](#). EMODnet Biology organised a workshop dedicated to EU research projects to provide the latter with relevant information in marine biodiversity data management according to consolidated biodiversity standard protocols;
- In 2024, **EMODnet Chemistry** undertook a dataset harvest for each of the Chemistry subthemes, namely eutrophication, contaminants, micro litter, and finally beach and seafloor litter. The datasets were delivered to the regional coordinators for aggregation and validation and some were further processed into map layers; the resulting data products i.e. regional aggregated, validated and harmonised data collections, map layers, as well as DIVA-interpolated maps for selected eutrophication parameters, were then described in the Sextant catalogue and published in the EMODnet Portal. Furthermore, during the reporting period EMODnet Chemistry initiated a workflow for the publication of eutrophication data collections via ERDDAP. EMODnet Chemistry continued to contribute to the implementation of EU legislation through participation in Technical Group on Marine Litter (TG ML), in MSFD Working Group on Data, Information and Knowledge Exchange (WG DIKE), in the Technical Group on Data (TG DATA), as well as in the MSFD Expert Group on Contaminants;
- In early 2024, two meetings took place between **EMODnet Data Ingestion**, Central Portal (CP) technical team, DG MARE and EU IT to discuss the progress of the centralization of Data Ingestion into the EMODnet Portal. During these, a migration plan was developed, and a set of clear actions was outlined. Over the course of the year significant progress was made and it was decided that: the backend of Data Ingestion encompassing the database, cloud storage, and Application Programming Interface (API), will remain on the servers of EMODnet Data Ingestion coordinator HCMR. While, the frontend will be hosted on the EMODnet Portal servers at VLIZ, for both testing and production environments. Further progress was also made in drafting the EMODnet Data Ingestion narrative to

be discussed at the migration meeting and subsequently published on the EMODnet Portal. Furthermore, in the course of 2024 the total number of received data submissions by EMODnet Data Ingestion increased from 1,548 to 1,806, the number of processed and published data submissions increased from 1,411 to 1,643 and the number of fully elaborated data submissions went from 639 to 740. Finally, the EMODnet Data Ingestion team has continued ingesting new data sources made available under their ERDDAP¹ that provides the user an easy way to interact with latest ingested real-time data collections that nowadays lists 2,513 (“as-is”) datasets;

- Mid-2024, an **EMODnet Geology**-Caribbean workshop took place in the Dominican Republic, to meet with the geological organizations of the Caribbean Sea who are collaborating in the development of various geological maps of the seabed in this region. A new product on Coastal Resilience will be published in the course of 2025. The former EMODnet Geology coordinator is a member of the Advisory Board of two Horizon Europe (HE) projects, i.e. HE TRIDENT² and HE S34I³, and acting as a link between these HE projects and EMODnet. Furthermore, several EMODnet Geology partners are participating in the HORIZON 2.5 - Climate, Energy and Mobility project Geological Service for Europe (GSEU); a data product resulting from this project on seabed suitability will be contributed to EMODnet. A first data delivery by Caspian Sea subtask leader Caspian Locus LLC to various EMODnet Geology work packages was provided mid-2024. Communication with the Caribbean Sea is ongoing to collate and evaluate additional terms to describe the seafloor geology of the Caspian Sea. The harmonization of the Quaternary in the Western Baltic Sea prototype area was initiated and is in progress;
- In January 2024 a meeting took place between **EMODnet Human Activities** and DG MARE to assess the feasibility ingesting more fisheries related data, resulting in the creation of a new dataset on fishing quotas providing information on total allowable catches per fish species for a given year that was made available on the EMODnet Portal by the end of Q2. Other new datasets published this year were: (1) Water Framework Directive (WFD) dataset for shellfish protected areas, (2) UNESCO World Heritage Convention sites dataset providing the location of coastal sites from the UNESCO World Heritage Convention list, and (3) a points dataset providing the location of nationally designated areas for which polygons data is unavailable. In addition, many datasets received an update this year, including the Lithuanian Marine Spatial Plan, resulting in the harmonization of the Marine Spatial Plans for all the Baltic Sea Member states to the EMODnet MSP data model. Finally, EMODnet Human Activities had their annual meeting on 20 June 2024 in Copenhagen at Eurofish’s and ICES’s premises during which options to improve coverage of fishery-related data were discussed;
- In 2024, **EMODnet Physics** developed and published the new [P33 controlled vocabulary](#), hosted in NVS-BODC⁴ services and dedicated for EMODnet Physics data. This vocabulary will help to better manage new data collections. Regarding *in situ* data provision, EMODnet Physics added over the course of 2024 approximately 3,180 ARGO profiles, over 1,700 Drifting buoys observations, almost 1,000 glider missions, over 1,600 Moorings datasets, 1,279 operational River Station data, and more than 1 million data from CDT/XBT/bottles. Furthermore, A new global climatology for salinity and temperature was constructed and published. Additionally, *in situ* wave stations and *in situ* sea level stations layers were published in the EMODnet Portal production system. Actions were undertaken with new data providers from New Zealand and Australia so as to include new Southern Ocean data sources. Furthermore, activities focused on integrating BioArgo data, fishing vessel data, and scuba diving (SSI) data as well as supporting projects working on adopting ERDDAP and other native

¹ <https://ingestion-erddap.emodnet-physics.eu/>

² Technology Based Impact Assessment Tool for Sustainable, Transparent, Deep Sea Mining Exploration and Exploitation, <https://deepseatrident.eu/#top>

³ Secure and Sustainable Supply of Raw Materials for EU and Industry, <https://s34i.eu/>

⁴ NERC Vocabulary Server-British Oceanographic Data Centre

machine-to-machine tools to facilitate data sharing with EMODnet. Finally, dialogue has been ongoing with 1) the "Catalogue of Underwater Sound Signatures from Shallow Seas" project to review the metadata and datasets organization for integration under the EMODnet Physics area and 2) the Ocean Best Practices System (OBPS) to facilitate connections between the data and products as well as the application of OBP for data collection.

- Early 2024 **EMODnet Seabed Habitats** published a series of guidance materials (webinars and tutorials) dedicated to the Seabed Habitats data submission process while during the rest of the year, work on data collection has been progressing as planned. Additional datasets from third parties have been identified and partners are working on accessing them. Some have already been acquired and published, including e.g. Posidonia and other habitat data from Cyprus. In 2024, a number of bulk uploads took place of datasets including Essential Fish Habitat (EFH) maps & models and seabed habitat maps, spanning various European marine regions. Furthermore, work is ongoing for the handing over of the EUSeaMap development from Ifremer to GEUS. Partner CCMAR developed an Essential Fish Habitats (EFH) composite product which is currently being reviewed by Work Package leads. Regarding dataset uploads and updates, 67 Essential Fish Habitat maps, 101 new datasets, 59 individual habitat maps were uploaded to EMODnet Seabed Habitats, 11 point datasets were uploaded to EMODnet Biology, and 4 map layers were added to the EMODnet Portal. Furthermore, a list of all the new data and products that have been published via EMODnet Seabed Habitats in year 1 of their contract was made available on the EMODnet Portal in the Reports section.

2 EMODnet Portal usage

2.1 User visit statistics

Since centralisation and thus as of 25 January 2023 onwards, statistics on user visits to the EMODnet Portal are collected through Europa Analytics. Below we provide the monthly number of page views, unique page views, sessions and visitors for a selection of EMODnet Portal webpages, and the monthly number of sessions for each of the EMODnet thematic entry pages. The definitions of the abovementioned terms are as follows:

- Page view: The number of times a page was visited;
- Unique page view: The number of times a page was uniquely visited. If a visitor views a page several times during one session, it will be counted only once;
- Session: a session starts with the first event and ends 30 minutes after the last event (after the session is over);
- Visitor: the number of unique visitors; every visitor is counted once, even if they visit the website many times during the day.

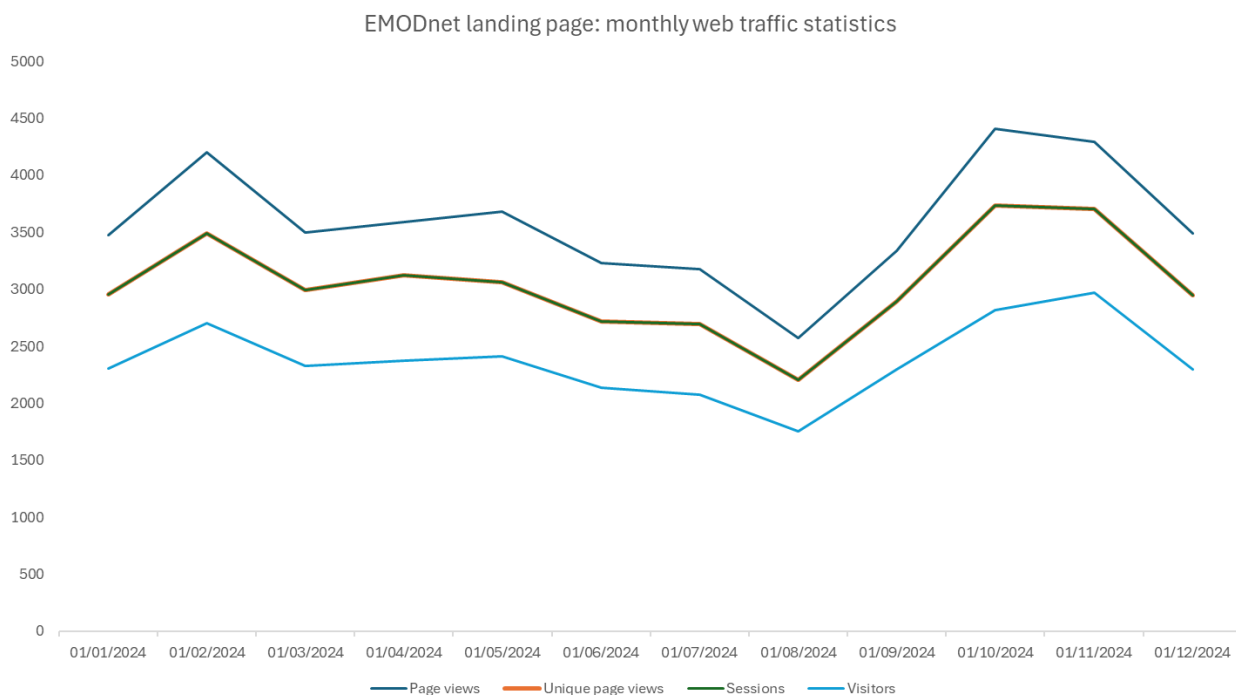


Figure 1. Monthly web traffic statistics for the EMODnet landing page (i.e. <https://emodnet.ec.europa.eu/en>). Statistics retrieved from Europa Analytics.

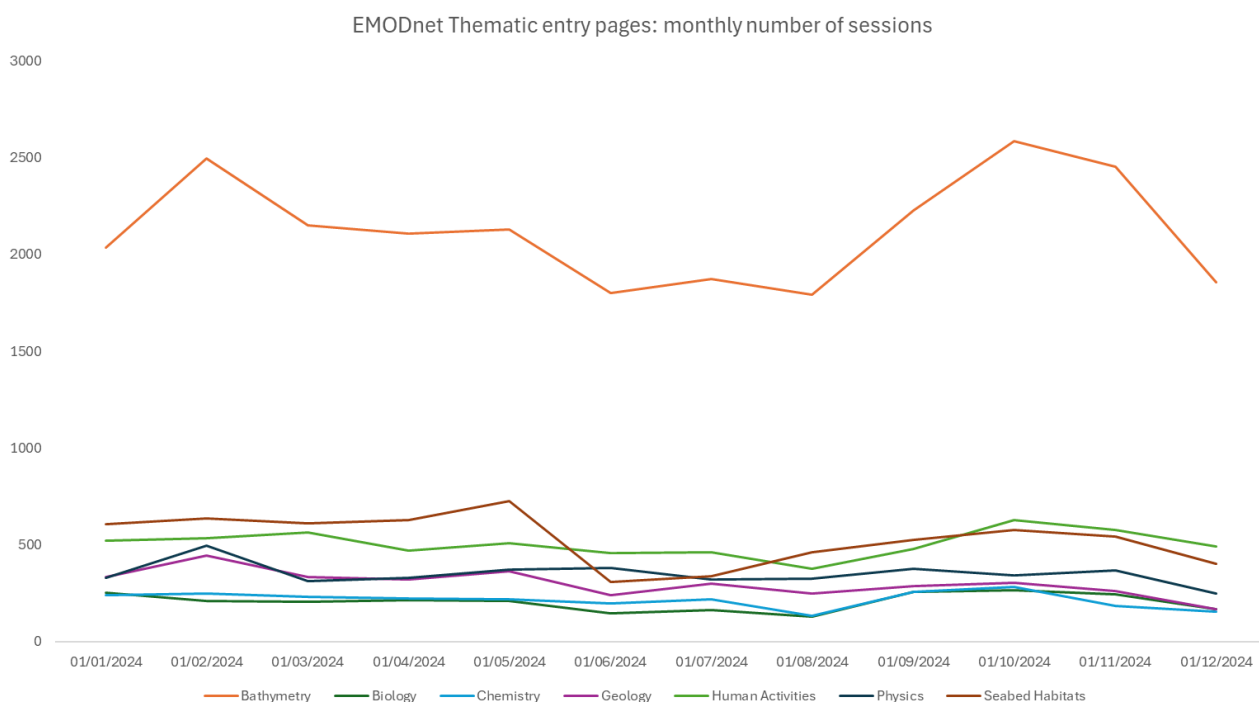


Figure 2. Monthly number of sessions for the EMODnet thematic entry pages (e.g. <https://emodnet.ec.europa.eu/en/bathymetry>). Statistics retrieved from Europa Analytics.

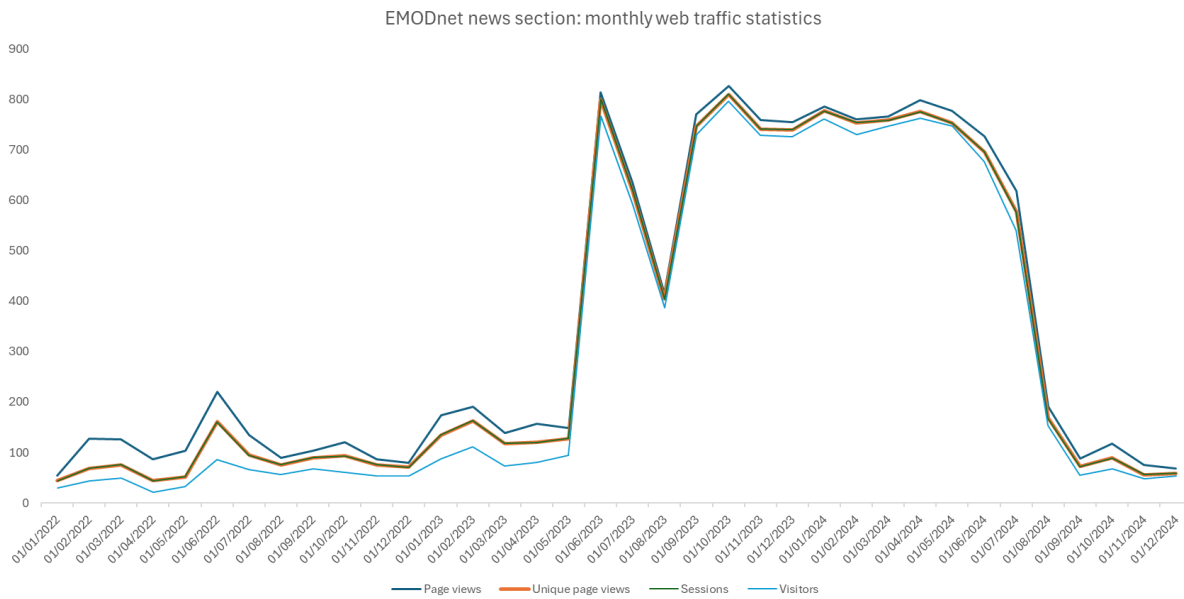


Figure 3. Monthly web traffic statistics for the EMODnet landing page (i.e. <https://emodnet.ec.europa.eu/en/news>). Year 2022 and 2023 were included to provide more background information regarding the trends. Statistics retrieved from Europa Analytics.

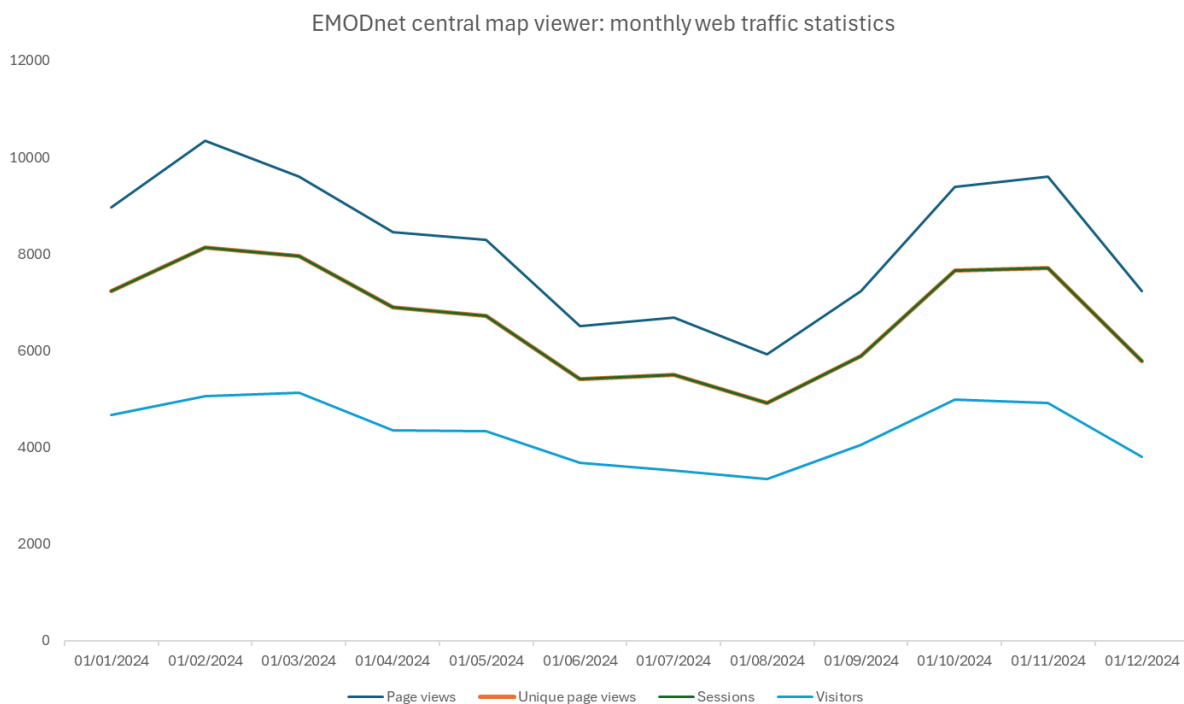


Figure 4. Monthly web traffic statistics for the EMODnet central map viewer (i.e. <https://emodnet.ec.europa.eu/geoviewer/>). Statistics retrieved from Europa Analytics.

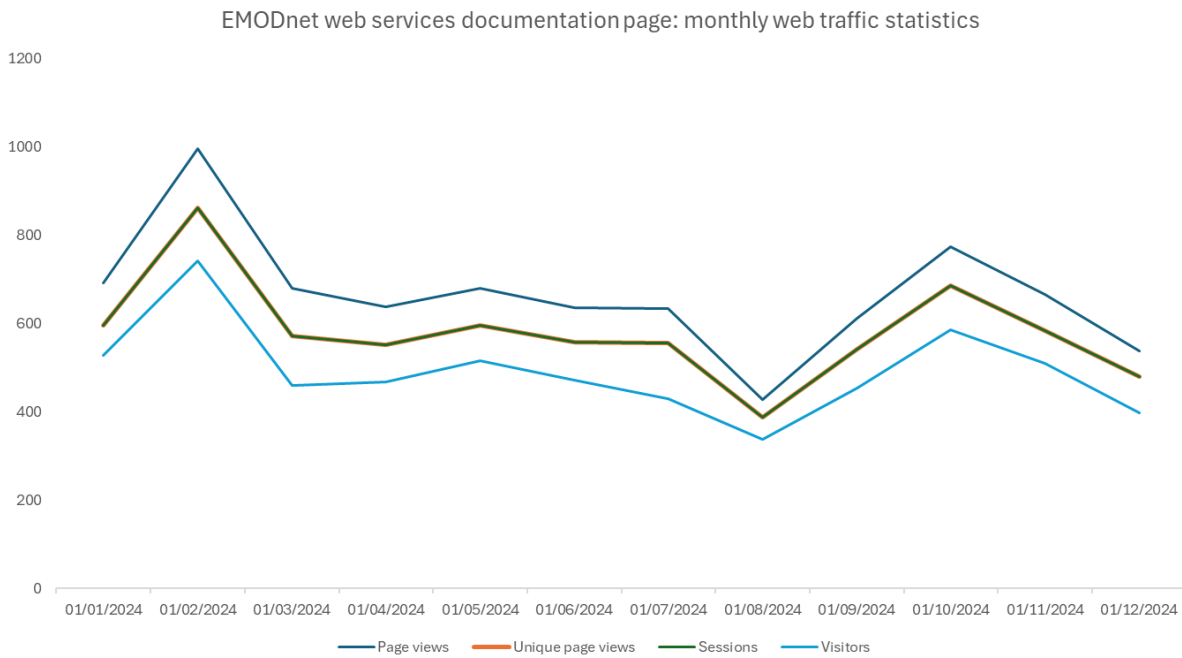


Figure 5. Monthly web traffic statistics for the EMODnet web services and documentation webpage (i.e. <https://emodnet.ec.europa.eu/en/emodnet-web-service-documentationhttps://emodnet.ec.europa.eu/geonetwork/srv/eng/catalog.search>). Statistics retrieved from Europa Analytics.

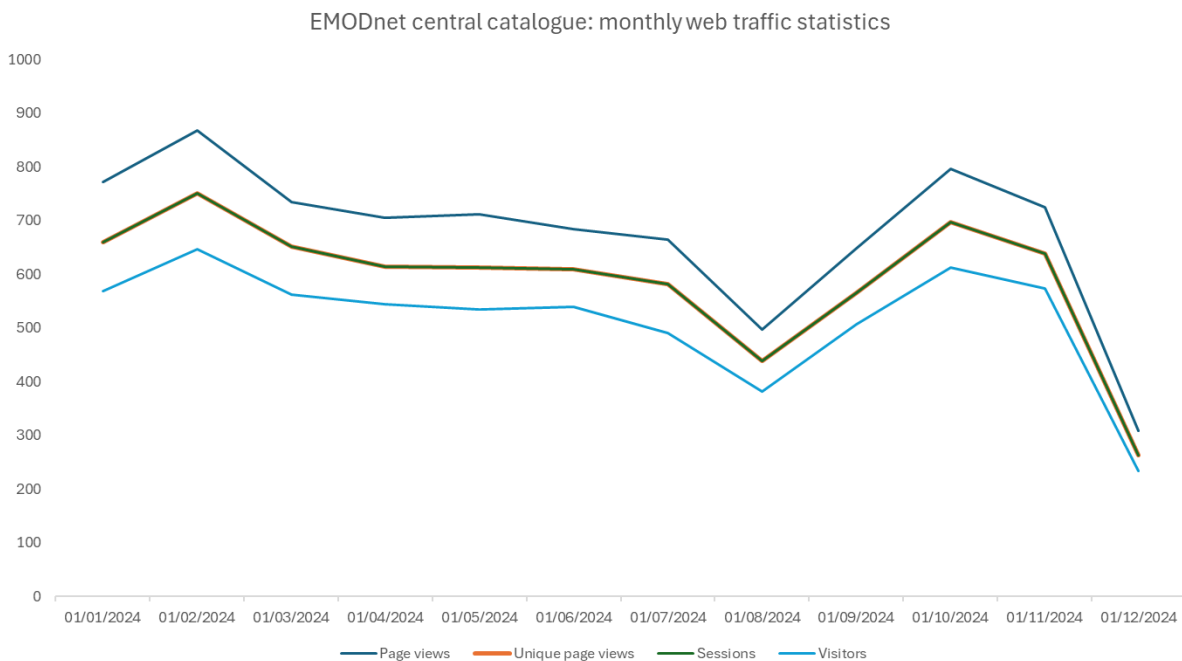


Figure 6. Monthly web traffic statistics for the EMODnet central catalogue (i.e. <https://emodnet.ec.europa.eu/geonetwork/srv/eng/catalog.search#/home>). a session starts with the first event and ends 30 minutes after the last event (after the session is over). Statistics retrieved from Europa Analytics.

The **EMODnet Data Ingestion Portal** is not yet centralised, hence web traffic to their portal is currently still being tracked using VLIZ Matomo.

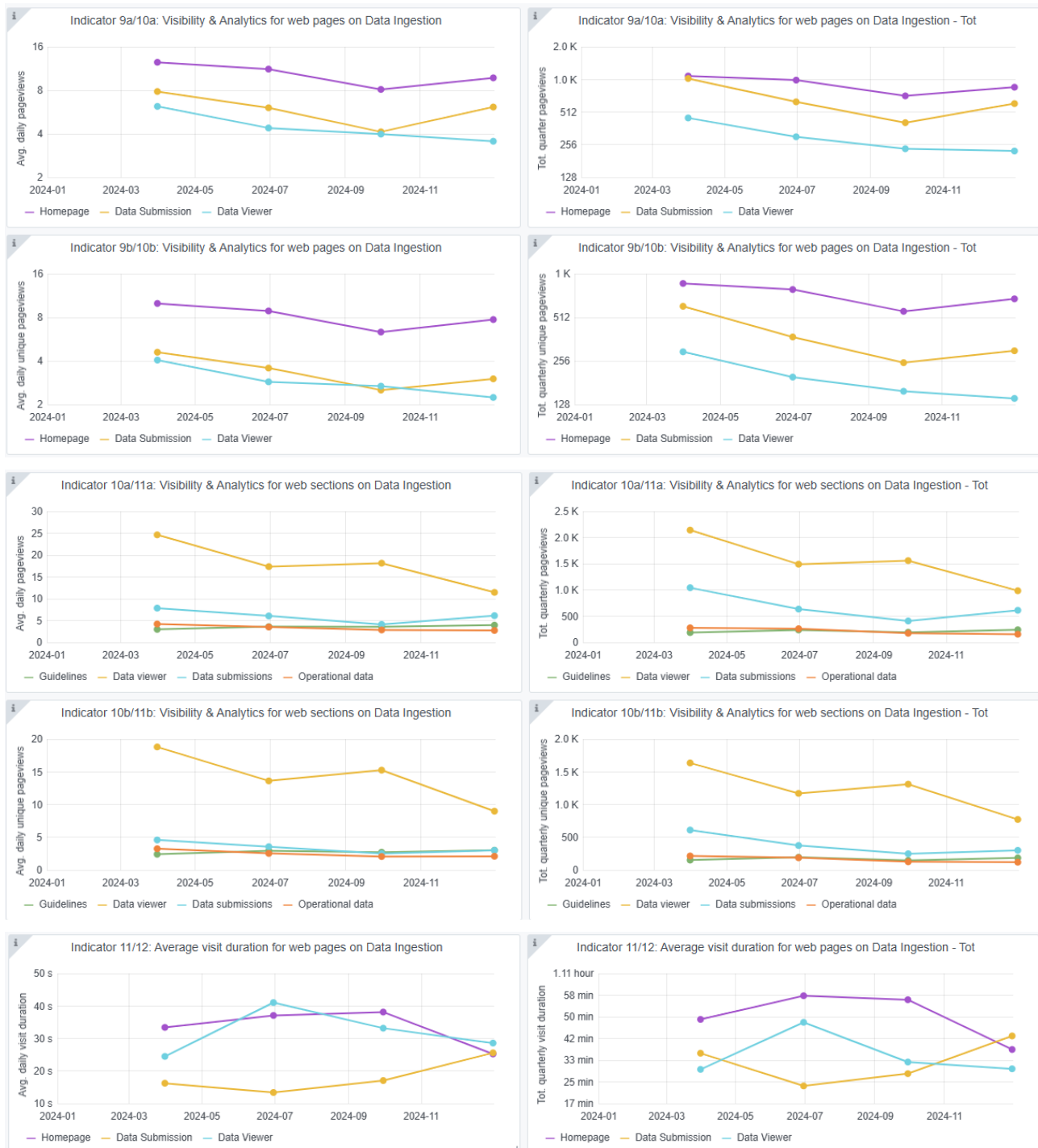


Figure 7. Web traffic statistics for the EMODnet Data Ingestion Portal landing page/homepage (i.e. <https://www.emodnet-ingestion.eu/>), data submission page (i.e. <https://www.emodnet-ingestion.eu/data-submission>), data viewer (i.e. <https://www.emodnet-ingestion.eu/submissions/>), operational data (i.e. <https://www.emodnet-ingestion.eu/operational-data>), guidelines (i.e. <https://www.emodnet-ingestion.eu/guidelines>). Statistics retrieved from Grafana Dashboard, based on VLIZ Matomo.

2.2 Statistics on data and data product availability by the EMODnet thematic lots and Data Ingestion

Table 1. Trend for 2024 in total data volume per thematic. Note that the data unit differs per thematic lot. Statistics provided by the thematic lots.

	Total data volume Q4 2023	Total data volume Q1	Total data volume Q2	Total data volume Q3	Total data volume Q4	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Theme						
Bathymetry	42,369	42,837	43,064	43,081	43,092	CDIs
Biology	34,315,586	34,408,213	34,714,835	35,160,355	35,646,354	Records
Chemistry	1,242,660	1,267,996	1,270,270	1,278,578	1,296,006	CDIs
Geology*						
Human Activities	605,724	613,250	616,998	630,996	636,734	Records
Physics	8,081,782	11,779,440	12,809,805	5,171,124	2,141,506	Platforms
Seabed Habitats	512,309	512,752	512,389	512,751	512,751	Records

*EMODnet Geology only offers data products for download.

Table 2. Trend for 2024 in total data volume in GigaBytes (GB) per thematic lot. Statistics provided by the thematic lots.

	Total data volume Q4 2023	Total data volume Q1	Total data volume Q2	Total data volume Q3	Total data volume Q4	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Theme						
Bathymetry						GB
Biology						GB
Chemistry						GB
Geology						GB
Human Activities	3.32	3.32	3.32	3.46	3.64	GB
Physics	2,176.00	2,176.00	2,176.00	4,135.54	5,183.50	GB
Seabed Habitats	0.80	0.80	0.80	0.80	0.80	GB

These thematic lots have no systems in place to calculate the data volume in GB

Table 3. Trend for 2024 in total number of data products made available per thematic, summing internal (developed by the consortium) and external (developed outside of the consortium) data products. Statistics provided by the thematic lots.

	Total number of data products Q4 2023	Total number of data products Q1	Total number of data products Q2	Total number of data products Q3	Total number of data products Q4	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Theme						
Bathymetry	594	597	605	609	614	products
Biology	41	41	44	45	48	products
Chemistry	671	656	781	576	587	products
Geology	134	134	134	134	134	products
Human Activities	2	2	2	2	2	products
Physics	27	23	29	29	30	products
Seabed Habitats	1,319	1,350	1,370	1,429	1,429	products

Table 4. Trend for 2024 in total volume in GigaBytes (GB) of the data products made available per thematic lot. Statistics provided by the thematic lots.

	Total data product volume Q4 2023	Total data product volume Q1	Total data product volume Q2	Total data product volume Q3	Total data product volume Q4	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Theme						
Bathymetry	426.50	426.50	426.50	426.50	426.50	GB
Biology	13.57	13.57	21.87	21.87	21.87	GB
Chemistry		This thematic lot has no systems in place to calculate the volume in GB				GB
Geology	5.25	5.25	5.25	5.25	5.25	GB
Human Activities	11.47	12.67	12.78	12.98	13.10	GB
Physics	579.21	579.21	579.11	578.28	578.28	GB
Seabed Habitats	14,244.10	14,260.70	14,260.68	27,887.60	27,887.60	GB

*For some thematics, the volume is not known/calculated for certain data products. Please consult the quarterly reports for more details.

Table 5. Trend for 2024 in total number of data submissions to the EMODnet Data Ingestion service and processed data submissions (Phase 1 and Phase 2). Statistics provided by EMODnet Data Ingestion.

EMODnet Data Ingestion service	Total number Q4 2023	Total number Q1	Total number Q2	Total number Q3	Total number Q4	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Total number of data submissions to Data Ingestion service	1,548	1,646	1,681	1,745	1,806	datasets
Total number of processed and published data submissions "as is" (Phase 1)	1411	1503	1548	1583	1643	datasets
Total number of fully elaborated data submission (Phase 2)	639	671	710	727	740	datasets

2.3 Usage of EMODnet thematics' and Data Ingestion services⁵

Since the second quarter of 2023 onwards, there has been a change from reporting on download metrics by the individual thematic portals to metrics being centrally reported from the new unified portal. This affects the thematics in different ways, depending on their technical back-end infrastructure. The new unified metrics are still being developed and will be fully deployed over the next few quarters. Some caution is advised with regards to the metrics at this stage.

⁵ For thematics which provided this information.

2.3.1 Number of data downloads counted by the EMODnet thematic lots and EMODnet Data Ingestion⁶

Table 6. Trend for 2024 in total number of manual data downloads per thematic lot. Note that the unit differs per thematic lot. Statistics provided by the thematic lots.

	Number of manual downloads of DATA	Number of manual downloads of DATA	Number of manual downloads of DATA	Number of manual downloads of DATA	Number of manual downloads of DATA	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Theme						
Bathymetry	468	361	1,192	45	44	CDIs
Biology	<i>This thematic has no system in place to track data downloads</i>					
Chemistry	9,252	2,792	52	1,177	31,183	CDIs
Geology**						
Human Activities	2,574	3,819	2,514	2,706	2,877	datasets
Physics*	<i>This thematic has no system in place to track data downloads</i>					
Seabed Habitats	35,236,260	67,340,408	30,146,578	34,844,746	44,291,028	number of records

*EMODnet Physics only reports on number of available platforms and overall volume of downloaded GB from ERDDAP, which is hosting the *in situ* data.

**EMODnet Geology only offers data products for download.

⁶ Disclaimer: please note that percentages given can reflect small as well as large changes in the number of data and data product downloads. In most cases however it is difficult to provide an actual explanation for the downloading behaviour of users.

Table 7. Trend for 2024 in total volume in GB of data downloaded per thematic lot. Statistics provided by the thematic lots.

	Total Volume of DATA downloaded in GB	Total Volume of DATA downloaded in GB	Total Volume of DATA downloaded in GB	Total Volume of DATA downloaded in GB	Total Volume of DATA downloaded in GB	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Theme						
Bathymetry	12.90	7.20	1.20	24.00	0.15	GB
Biology	This thematic has no system in place to track data downloads					
Chemistry	0.58	0.03	0.00	0.00	0.00	GB
Geology						
Human Activities	104.77	158.73	158.70	104.64	112.70	GB
Physics*	9.26	561.15	227.30	258.70	258.70	GB
Seabed Habitats	5.00	8,471.54	4.63	5.35	6.80	GB

*EMODnet Physics only reports on number of available platforms and overall volume of downloaded GB from ERDDAP, which is hosting the *in situ* data.

Table 8. Trend for 2024 in total number of WMS requests for data per thematic lot. Statistics provided by the thematic lots.

	Number of WMS requests for DATA	Number of WMS requests for DATA	Number of WMS requests for DATA	Number of WMS requests for DATA	Number of WMS requests for DATA	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Theme						
Bathymetry*					159,194	WMS requests
Biology	This thematic has no systems in place to capture WMS requests					
Chemistry**				35,414	52,702	WMS requests
Geology						
Human Activities	5,440,297	6,274,355	7,608,955	7,500,815	8,408,166	WMS requests
Physics	This thematic has no system in place to capture WMS requests.					WMS requests
Seabed Habitats***	1,647,968	2,386,684	1,198,675	2,606,133	1,615,732	WMS requests

*EMODnet Bathymetry implemented a system to track WMS requests in Q4 2024.

**EMODnet Chemistry implemented a system to track WMS requests in Q3 2024.

***EMODnet Seabed Habitats: number of WMS requests includes the requests for data and data products (i.e. they are counted in the same number).

Table 9. Trend for 2024 in total number of WFS requests for data per thematic lot. Statistics provided by the thematic lots.

	Number of WFS requests for DATA	Number of WFS requests for DATA	Number of WFS requests for DATA	Number of WFS requests for DATA	Number of WFS requests for DATA	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Theme						
Bathymetry						
Biology		These thematics have no systems in place to capture WFS requests				
Chemistry						
Geology						
Human Activities	113,902	115,569	209,462	164,948	219,685	WFS requests
Physics		This thematic has no systems in place to capture WFS requests				
Seabed Habitats	289	28	74	110	1,611	WFS requests

Table 10. Trend for 2024 in total number of manual data download transactions from the EMODnet Data Ingestion portal. Statistics provided by EMODnet Data Ingestion.

EMODnet Data Ingestion service	Number of manual downloads of DATA	Number of manual downloads of DATA	Number of manual downloads of DATA	Number of manual downloads of DATA	Number of manual downloads of DATA	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
	458	1011	1004	304	223	datasets

Table 11. Trend for 2024 in total volume in GB of data downloaded from the EMODnet Data Ingestion portal. Statistics provided by EMODnet Data Ingestion.

EMODnet Data Ingestion service	Total Volume of DATA downloaded in GB	Total Volume of DATA downloaded in GB	Total Volume of DATA downloaded in GB	Total Volume of DATA downloaded in GB	Total Volume of DATA downloaded in GB	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
	67.58	76.9	23	125	4.2 GB	

2.3.2 Number of data product downloads⁷

Table 12. Trend for 2024 in total number of manual data product downloads per thematic lot. Note that the unit differs per thematic lot. Statistics provided by the thematic lots.

	Number of manual downloads of data PRODUCTS	Number of manual downloads of data PRODUCTS	Number of manual downloads of data PRODUCTS	Number of manual downloads of data PRODUCTS	Number of manual downloads of data PRODUCTS	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Theme						
Bathymetry	29,815	12,493	7,548	11,132	13,389	data files
Biology	<i>This thematic has no system in place to track data product downloads</i>					
Chemistry*			289	1,433	979	files
Geology	1,003	1,158	798	736	816	zip file containing one or more datasets
Human Activities	1,624	2,418	2,884	2,297	3,686	datasets
Physics	2,297,662	2,289,698	4,337,769	6,968,653	4,748,320	logs
Seabed Habitats	90,872	186,981	152,574	277,288	309,726	datasets

*EMODnet Chemistry implemented a system to track downloads in Q2 2024.

⁷ Disclaimer: please note that percentages given can reflect small as well as large changes in the number of data and data product downloads. In most cases however it is difficult to provide an actual explanation for the downloading behaviour of users.

Table 13. Trend for 2024 in total volume in GB of data products downloaded per thematic lot. Statistics provided by the thematic lots.

	Total Volume of PRODUCTS downloaded in GB	Total Volume of PRODUCTS downloaded in GB	Total Volume of PRODUCTS downloaded in GB	Total Volume of PRODUCTS downloaded in GB	Total Volume of PRODUCTS downloaded in GB	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Theme						
Bathymetry	7,239.00	2,339.00	1,802.00	2,319.00	1,623.00	GB
Biology	This thematic has no system in place to track data product volume downloads					
Chemistry*					12.00	GB
Geology	596.35	659.25	452.58	392.93	461.05	GB
Human Activities	494.92	702.02	1,018.33	703.41	989.91	GB
Physics	9.58	561.35	228.50	260.00	260.00	GB
Seabed Habitats	1,764.91	3,021.00	3,279.90	4,421.17	4,268.49	GB

*EMODnet Chemistry implemented a system to volume downloads in Q4 2024.

Table 14. Trend for 2024 in total number of WMS requests for data products requests per thematic lot. Statistics provided by the thematic lots.

	Number of WMS requests for PRODUCTS	Number of WMS requests for PRODUCTS	Number of WMS requests for PRODUCTS	Number of WMS requests for PRODUCTS	Number of WMS requests for PRODUCTS	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Theme						
Bathymetry	8,111,554	9,715,795	7,976,968	6,913,764	6,011,402	WMS requests
Biology	This thematic has no system in place to track WMS requests					
Chemistry*				434	1,244	WMS requests
Geology	2,123,773	1,902,366	2,316,346	1,507,594	3,140,316	WMS requests
Human Activities	1,023,371	737,865	1,995,026	1,691,828	1,176,947	WMS requests
Physics	78,229	189,892	72,495	76,062	58,853	WMS requests
Seabed Habitats**	1,647,968	2,386,684	1,198,675	2,606,133	1,615,732	WMS requests

*EMODnet Chemistry implemented a system to track WMS requests in Q3 2024.

**EMODnet Seabed Habitats: number of WMS requests includes the requests for data and data products (i.e. they are counted in the same number).

Table 15. Trend for 2024 in total number of WFS requests for data products per thematic lot. Statistics provided by the thematic lots.

	Number of WFS requests for PRODUCTS	Number of WFS requests for PRODUCTS	Number of WFS requests for PRODUCTS	Number of WFS requests for PRODUCTS	Number of WFS requests for PRODUCTS	Unit
Date	31/12/2023	30/03/2024	30/06/2024	30/09/2024	31/12/2024	
Theme						
Bathymetry	67,735	76,575	78,164	83,432	104,305	WFS requests
Biology	<i>This thematic has no system in place to track WFS requests</i>					
Chemistry						
Geology	76,234	97,925	60,023	126,606	101,821	WFS requests
Human Activities	<i>This thematic has no system in place to track WFS requests</i>					
Physics	1,142	989	893	724	757	WFS requests
Seabed Habitats	41,012	36,349	29,927	42,118	125,615	WFS requests