



EMODnet Thematic Lot n°3 – Physics

EASME/EMFF/2020/3.1.11/Lot4/SI2.838612

Start date of the project: 23/08/2021 (24 months)

Centralisation Phase

Quarterly Progress Report (Q1.2023)

Reporting Period: 01/01/2023 – 31/03/2023

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1. Highlights in this quarter

Task 1: Maintain and improve a common method of access to data held in repositories

With the launch of the new central portal, now the task is focussing on improving the data flow towards this new central portal interface. The task will continue this action for the rest of the contract in order to keep cleaning data, metadata and flow.

With the CP up and running, now the flow from data source to products into the CP is the following:

1. Data “as is”. These data are ingested and organized in the EMODnet Physics backend. The EMODnet Physics backend (erddap.emodnet-physics.eu, geoserver.emodnet-physics.eu) offers these data to central portal by means of standard M2M protocols (WMS, WFS). Download is possible via the Central Geoviewer that requests data packages to EMODnet Physics. EMODnet Physics forward these requests the data to original sources.
2. Data collections. In situ data is organized per theme (temperature, salinity ...). Metadata is using harmonized and controlled vocabularies (see annex). This level also corresponds to Ingestion Level 1. These data is organized in the EMODnet Physics backend. The EMODnet Physics prod environment backend (prod-erddap.emodnet-physics.eu, prod-geoserver.emodnet-physics.eu) offers these data to central portal by means of standard M2M protocols (WMS, WFS). Download is possible via the Central Geoviewer that requests data packages to EMODnet Physics.
3. Research quality data. These datasets are fully validated by theme experts (e.g. SeaDataNet network of NODCs, PSMSL, Copernicus Marine Service Reanalysis, ICES, etc.). These data correspond to the Ingestion Level 2. These data are hosted into specialized DB. Download of these packages are possible via external links.
4. Products. Research quality data are used to make themes products – e.g. temperature, salinity climatology; sea level trend map, etc. These products may be gridded or not. These products are usually developed by EMODnet Physics partner projects/programs (e.g. Copernicus Marine, BlueCloud2026, GLODAP, ICES, etc.). These products are included into EMODnet Physics backend (prod-erddap.emodnet-physics.eu, prod-geoserver.emodnet-physics.eu) and cached into the EMODnet central erddap (erddap.emodnet.eu/erddap/index.html).

Task 2: Construct products from one or more data sources that provide users with information about the distribution and quality of parameters in time and space

During the period the effort was focused on making the available products ready and compliant to the needs of the central portal and make it ready to its official lunch. During the period the River Outflow product was largely updated (now also including sources from north and south America).

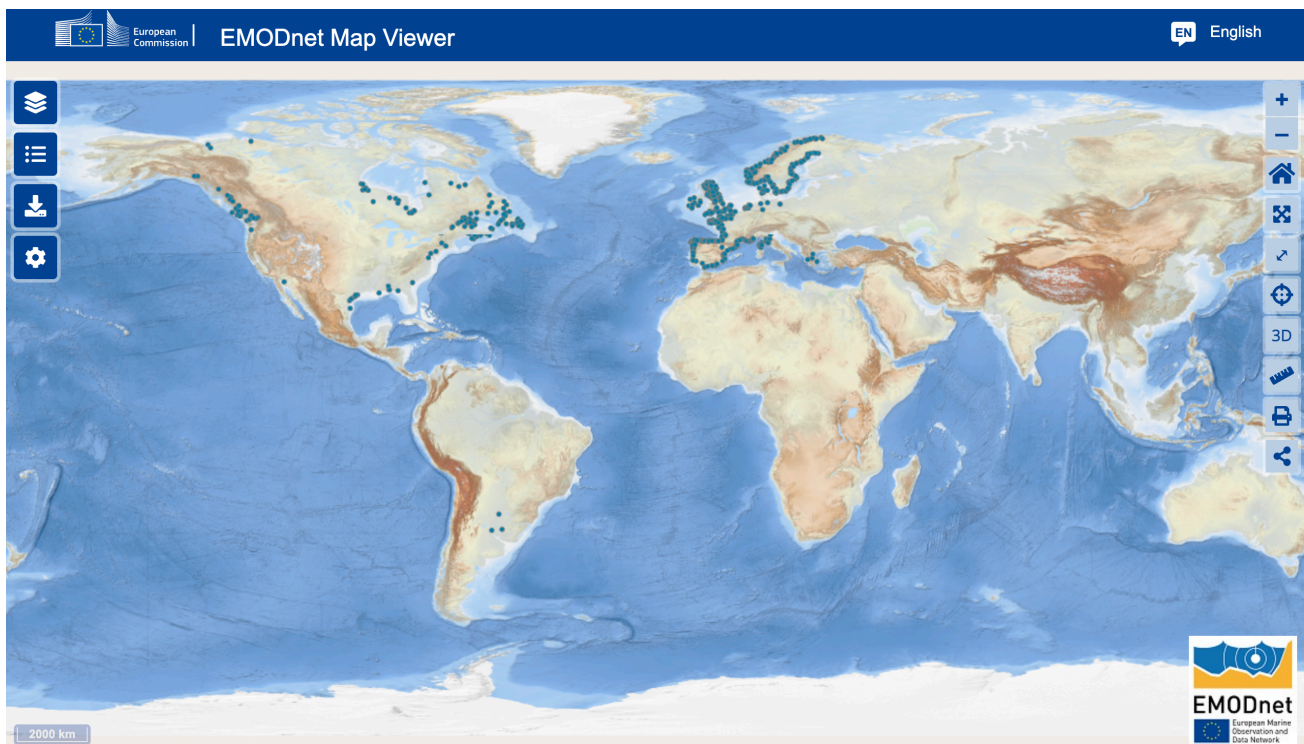


Figure 1. River outflow in situ data.

The launch of the new Central Portal has started changing the way the users were interacting with products. As one specific goal of task 2 is “maintain users’ requirements for new products and develop a common decision-making process for new product development so that new products are fit for purpose and used by a critical mass of beneficiaries”, the team is now collecting feedback and new specification in order to update the CP with new products that, within this new dynamic interface, would answer users needs.

One example is to introduce platform networks products. European Ferrybox operators would like to have a central product to find and discover FB only. This means EMODnet Physics to develop a FB dataset, FB geoservices and geofeatures to be consumed by CP in a way that the FB products (routes and collected data from routes) are discoverable from the CP. The same applies to other communities. The EMODnet Physics team started planning these developments (that will fall into next contracting period).

Task 3. Develop procedures for machine-to-machine connections to data and data products

During the reporting period, the focus was to finalize, bug fix, upgrade the services serving the CP for the official release of 23/1/2023 and its fine tuning after the launch.

Task 4. Contribute data, data products and content to a central portal that allows users to find, view and download data and data products

As anticipated the main focus for the period was to support the launch of the new CP and it’s fine tuning. From now on the focus will be on adding extending and completing the available resources and features.

Task 5. Contributing content to dedicated spaces in Central Portal

Static contents on EMODnet Physics consolidated and published: <https://emodnet.ec.europa.eu/en/physics>

In line with the plans, during coming months, the contents will be updated and offer (external) links to custom web products page with advanced features (that was agreed to put on hold) e.g.

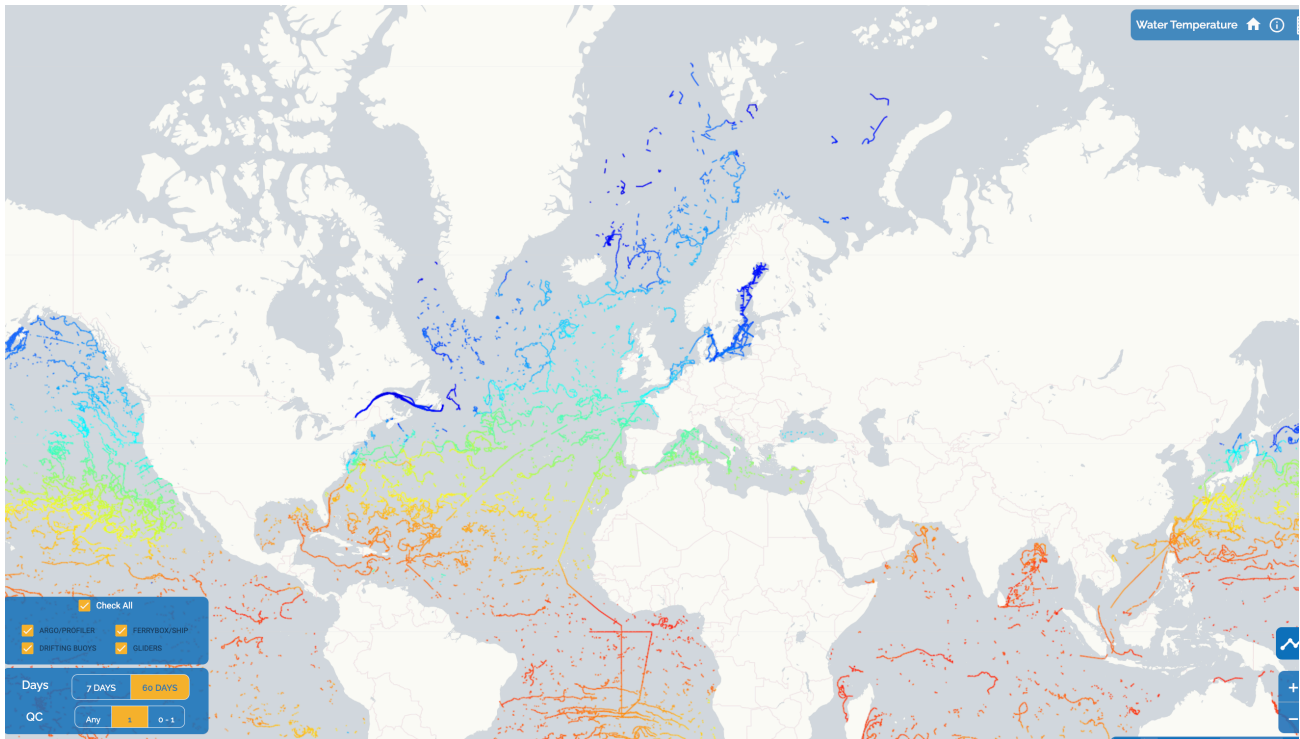


Figure 2. Example of a product page to be included in the Physics static area

Task 6. Ensure the involvement of regional sea conventions

The main outcome is from the proactively participation to 23rd meeting of the Technical Group on Underwater Noise (TG-Noise) (mainly via ICES and CTN). Importantly the MSFD is reaching the end of its second cycle (deadline for reporting by MS was end 2022). The third cycle will start in 2024, with first assessment of state, definition of GES and targets (Art. 8, 9, 10). In this framework the recent activity of the TG NOISE to identify the guidelines for setting the threshold values was quite important. In this context EMODnet (Physics), by linking regional sea conventions DBs, is the candidate European integrating end point for finding the in-situ data for the assessments (i.e. under water noise background recordings for setting the reference values). In collaboration with Ingestion the team is setting up workflows to be ready and manage these new data.

Task 7. Contribute to the implementation of EU legislation and broader initiatives for open data

The team proactively participated to a series of events and workshops (e.g. EuroGOOS Tide Gauge Task Team, TG NOISE, EuroGOOS DATAMEQ, Copernicus Marine Service INSTAC Stakeholders meeting, SOOS DMSC, etc.) on common standards and open-data. Some key events:

EuroGOOS Tide Gauge Task Team meeting to coordinate and actions and needs. More specifically the group is working on a community workshop (that will take place 4-5 May 2023, Madrid), the development of a REProcessed product (to support Copernicus Marine Service and EMODnet Physics stakeholders) that will make available long term timeseries

(hour time granularity) of qualified (by using the open SELENE QC software) sea level data, actions to have a unified inventory (controlled by the TT itself), actions to include more GNSS stations.

SOOS DMSC, during which the team discussed about the SOOS Symposium and one workshop is organized in collaboration with EMODnet Physics

soosymposium2023.au/sessions/

Home Key Dates Location Registration Program Call for Abstracts Mentoring Program Travel Support Sponsorship FAQs

Contact Us

- + The West Antarctic Shelf Seas: A Critical Region for Global Climate Change
- + Tourism in Antarctica and the Southern Ocean
- + Understanding the state and variability of Southern Ocean CO₂ sea-air fluxes and carbon cycle

Workshops

- + Creating impact for your observational data beyond research
- How to in SOOSmap

Convenors
Antonio Novellino, Patrick Gorringe, Petra ten Hoopen

Session description
Researchers and data professionals from more than 40 countries are part of the Southern Ocean Observing System (SOOS) that facilitates the collection and delivery of essential observations on dynamics of Southern Ocean systems and aims to develop an interoperable data ecosystem across a multitude of scientific disciplines.

The EMODnet Physics supported by the SO-CHIC project developed a new version of SOOSmap – a portal for well-curated and standardised datasets of key circumpolar interest. The SOOSmap, Version 2, has a number of features designed for better usability of the portal and discoverability of datasets.

In this session we will offer familiarisation with the portal, tips how to use its features, a guide how to discover data and how to share new data products with SOOSmap. It will be a recurrent session to assist the Symposium participants in using the portal and to facilitate conversation between the SOOSmap developing team and end-users.

soosymposium2023.au/sessions/#88bb0c87ae2b4a75b

Figure 3. SOOS Symposium agenda

Two days of workshops in Sweden (co-organized with SMHI and VOTO) to present on latest updates on ocean data management and EMODnet to Swedish ocean data operators (see picture in annex).

Moreover, in Cape Town, in the Genova Pavillion, Ocean Race Village, we hosted the event “low cost technologies and citizen science in ocean data collection”

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ETT
GENOVA SUPPORTER

THE OCEAN RACE
GENOVA
THE GRAND FINALE
2022-23

**ETT & OCEAN RACE
LIVE FROM CAPE TOWN
23.02.2023
H. 13.00
LOCAL TIME**

MODERATED
ANTONIO NOVELLINO (ETT)
AND
PATRICK GORRINGE (SMHI)
**THE EMODNET PHYSICS
COORDINATORS**

**Low Cost
Technologies
and Citizen
Science in Ocean
Data Collection**



Figure 4. event flyer

Concerning the dialogue with EUROPEAN MARINA NETWORK OF ENVIRONMENTAL DATA STATIONS (EMANEDS), the team keeps looking for funds for a small pilot action to proof of concept and show the implementation of the data flow. One pilot is included (if supported) under the proposal LandSeaLot (HORIZON-CL6-2023-GOVERNACE-1) evaluation results are expected after summer break.

Task 8. Monitor quality/performance and deal with user feedback

The subtask “deal with user feedback” goes together with task 7. Since the centralization the monitoring tools and workflows have changed. This is the first reporting period after the centralization hence the team collects views on thematic page from the central system and monitors the traffic on the backend services with logs. Next reporting period will help understanding possible improvements.

Task 9. Maintain the existing thematic web portal for a maximum of six months from the start of the projects

This task is now officially closed.

Table 1. Milestones and Deliverables - EASME/EMFF/2020/3.1.11/Lot4/SI2.83861

Status of the Milestones and Deliverables listed in the workplan				
Milestone/Deliverable	WP	Date due	Status (Delivered/Delayed)	If Delayed: reason for delay and expected delivery date
D1.1 Kick off Meeting	1	30/11/2021	8 November 2021	
D1.2 Annual assembly	1	30/11/2022		Postponed to early 2023
D1.3 EMODnet SC	1	30/11/2021	8-10 September 2021	
D1.4 EMODnet TWG	1	30/11/2021	8-10 September 2021	
D1.5 EMODnet SC	1	31/05/2022	27-28 April 2022	
D1.6 EMODnet TWG	1	31/05/2022	26 April 2022	
D1.7 EMODnet SC	1	31/08/2022	18 July 2022	
D1.8 EMODnet TWG	1	31/08/2022	18 July 2022	
D1.9 EMODnet SC	1	30/11/2022	7-8 November 2022	
D1.10 EMODnet TWG	1	30/11/2022	21-22 September	
D1.11 EMODnet plenary event	1	31/12/2021	8-9 November 2021	The EMODnet Physics KOM was organized in two session, the first one was closed to core partner (D1.1) the second was a plenary with invited speech about previous and recent developments of the EMODnet Physics networks and collaborators

D1.12 EMODnet plenary event	1	30/06/2022	12-13 April 2022	INS data ingestion WS. The event is involving EMODnet (Physics, Chemistry and Ingestion), CMEMS INSTAC and EurGOOS to discuss about joint actions for facilitating nrt operational data ingestion
D1.13 EMODnet plenary event	1	31/12/2022	4 October 2022. EMODnet Physics organized a special session during the MetroSEA2022 IEEE conference 21-24 November 2022. EMODnet Physics supported the organization of both the European HFR task team assembly and the MONGOOS annual workshop and assembly.	
D1.14 EMODnet plenary event	1	30/06/2023		Working on the Ocean Data Week – Ocean Race
D1.15 Quarterly report Q3.2021	1	15/10/2021	Delivered 15/10/2021	
D1.16 Quarterly report Q4.2021	1	15/01/2022	Delivered 15/01/2022	
D1.17 Quarterly report Q1.2022	1	15/04/2022	Delivered 15/04/2022	
D1.18 Quarterly report Q2.2022	1	15/07/2022	Delivered 15/07/2022	
D1.19 Quarterly report Q3.2022	1	15/10/2022	Delivered 15/09/2022	
D1.20 Quarterly report Q4.2022	1	15/01/2023	Delivered 15/1/2023	
D1.21 Quarterly report Q1.2023	1	15/04/2023	Delivered 15/4/2023	This report
D1.22 Quarterly report Q2.2023	1	15/07/2023		
D1.23 Annual progress report	1	23/08/2022		

D1.24 Final progress report	1	23/08/2023		
D1.25 Handover note	1	23/08/2023		
D1.26 EMODnet Physics note for Annual Report 2021	1	31/01/2022	Delivered (January 2022)	
D1.27 EMODnet Physics note for Annual Report 2022	1	31/01/2023	Delivered (March 2023)	
D1.28 EMODnet Ingestion general assembly 2021	1	30/11/2021	21-22 September 2021	
D1.29 EMODnet Ingestion general assembly 2022	1	30/11/2022	16-17 April 2022	
D1.30 Guideline on data ingestion procedures for new real time and near real time streams v.2022	1	31/08/2022	Delivered (August 2022)	
D1.31 Guideline on data ingestion procedures for new real time and near real time streams v.2023	1	23/08/2023		
D1.32 Use cases 2021	1	31/12/2021	CMCC delivered (Dec 2021) OGS delivered (Feb 2022)	
D1.33 Use cases 2022	1	31/12/2022	CSCS delivered (Feb 2022) OceanGlider delivered (Feb2022)	
D1.34 Use cases 2023	1	23/08/2023		
D1.35 Contribution to central space with background information and EMODnet Physics content	1	28/02/2022	In progress – tracked with JIRA	
D1.36 TGs - RSCs event attendance	1	31/12/2021	TG NOISE WS “towards EU thresholds for underwater noise”, 13-14 Sept 2021	

D1.37 TGs - RSCs events attendance	1	30/06/2022	TG NOISE WS: Towards EU threshold values for underwater noise (17/02/2022) 20th TG-NOISE – 22/03/2022	TG NOISE doc library ¹
D1.38 TGs - RSCs events attendance	1	31/12/2022	21st TG-NOISE – 24/05/2022	This event was attended by partners ICES and CTN.
D1.39 TGs - RSCs events attendance	1	30/06/2023	22 nd TG-NOISE – 11/10/2022 23 rd TG-NOISE – 21/02/2023	This event was attended by partners ICES and CTN.
D2.1. Data Inventory with gap analysis v.2021	2	31/12/2021	V.2021 attached to Q1.2022	EMODnet Physics_Inventory_v.2021.03
D2.2 Data Inventory with gap analysis v.2022	2	31/08/2022	V.2022 attached to Interim Report	
D2.3 Data Inventory with gap analysis v.2023	2	23/08/2023		
D2.4 EMODnet Physics Event/Workshop	2	31/12/2021	Delivered – (15/1/2022) - updates are described in the quarterly report Q4.2021 – Section 4	
D2.5 EMODnet Physics Event/Workshop	2	30/06/2022	Delivered – (15/4/2022) - updates are described in the quarterly report Q1.2022 – Section 4	This Report
D2.6 EMODnet Physics Event/Workshop	2	31/12/2022	EMODnet team organized the special session on Data System Networking and Interoperability Technology and Methodology at the IEEE MetroSea 2022 (3-5 October 2022)	
D2.7 EMODnet Physics Event/Workshop	2	30/04/2023	Ocean Data Hours @ Ocean Race: 23/02/2023 - Capetown	Capetown – “low cost technologies for ocean monitoring and citizen science”

¹ <https://circabc.europa.eu/ui/group/326ae5ac-0419-4167-83ca-e3c210534a69/library/89b98517-6283-4d3a-abd0-3a716661b370?p=1>

			Other “Ocean Data Hours” are planned for next legs	
D2.8 Report on the maintainace and update of the EMODnet Physics smart connectors v.2022	2	31/08/2022	Delivered 23/08/2022	Annex to Interim Report I.2022
D2.9 Report on th maintainace and update of the EMODnet Physics smart connectors v.2023	2	23/08/2023		
D2.10 EMODnet Physics Handbook on data management	2	31/08/2022	Delivered 23/08/2022	Annex to Interim Report I.2022
D2.11 Support to develop common strategy and guideline for adoption cloud technologies	2	23/08/2023		
D2.12 EMODnet Physics Metadata handbook and examples	2	31/08/2022	Delivered 23/08/2022	Annex to Interim Report I.2022
D2.13 Report on dissemination system interfaces update v.2022	2	31/08/2022	Delivered 23/08/2022	Annex to Interim Report I.2022
D2.14 Report on dissemination system interfaces update v.2023	2	23/08/2023		
D2.15 Updated list of EMODnet Physics products v.2021	2	31/12/2021	Delivered 15/1/2022	
D2.16 Updated list of EMODnet Physics products v.2022	2	31/08/2022	Delivered 23/08/2022	Annex to Interim Report I.2022
D2.17 Updated list of EMODnet Physics products v.2023	2	23/08/2023		
D2.18 SSS v.2020	2	28/02/2022	Released ²	
D2.19 SSS v.2021	2	28/02/2023	Released ³	
D2.20 River Proxy V1.0	2	31/12/2021	Released ⁴	
D2.21 River Proxy V2.0	2	31/08/2022	31/12/2022	Physics and Chemistry are working on a new river

² <https://prod-erddap.emodnet-physics.eu/erddap/griddap/CISC-BEC-SSS.html>

³ https://prod-erddap.emodnet-physics.eu/erddap/info/MULTIOBS_GLO_PHY_SSS_L4_MY_015_015/index.html

⁴ https://products.emodnet-physics.eu/EP_MAP_RVFL_001/
https://prod-erddap.emodnet-physics.eu/erddap/tabledap/ERD_EP_RVFL_NRT.html

				product (limited number of rivers) that includes both outflow, temperature and salinity. Release postponed to end of the year
D2.22 River Proxy V3.0	2	23/08/2023		
D2.23 INS RVFL DB v.1.0	2	31/08/2022	Released ⁵	
D2.24 TSM v.2021	2	28/02/2023		Not ready yet. Will be published as soon as ready
D2.25 SLEV INS DB	2	31/12/2021	Released ⁶	
D2.26 SLEV REL TRENDS	2	31/08/2022	Released ⁷	
D2.27 SLEV ABS TRENDS	2	31/08/2022	Released ⁸	
D2.28 SLEV REL ANOM	2	31/08/2022	31/12/2022	SONEL, which is the provider for this product is developing a new workflow to facilitate harvesting from Physics. Only lately it was possible to start this action and should be possible to close and include the new product by end of the year
D2.29 SLEV ATL ABS TREND	2	31/08/2022	Released ⁹	
D2.30 RFVL v.1	2	28/02/2023	Released	Fully operational, with continuous updates, directly towards the CP
D2.31 UWN ROI v.1.0	2	31/08/2022	Released ¹⁰	

⁵ https://prod-erddap.emodnet-physics.eu/erddap/tabledap/ERD_EP_RVFL_NRT.html

⁶ https://prod-erddap.emodnet-physics.eu/erddap/tabledap/ERD_EP_SLEV_NRT_60m.html

⁷ http://prod-geoserver.emodnet-physics.eu/geoserver/EMODnet/wms?service=WMS&version=1.1.0&request=GetMap&layers=EMODnet%3AEP_PSMSL_SLEV_REL&bbox=-157.86700315733998%2C-36.843100736862%2C174.76900349538002%2C65.673401313468&width=768&height=330&srs=EPSG%3A4326&styles=&format=application/openlayers

⁸ https://prod-erddap.emodnet-physics.eu/erddap/griddap/EMODNET_SEA_LEVEL_TREND.graph

⁹ https://prod-erddap.emodnet-physics.eu/erddap/griddap/EMODNET_SEA_LEVEL_MONTHLY_MEAN_DESEASONALIZED.graph

¹⁰ http://prod-geoserver.emodnet-physics.eu/geoserver/EMODnet/wms?service=WMS&version=1.1.0&request=GetMap&layers=EMODnet%3AEMODnet_Physics_-_Registry_of_continuous_noise_monitoring_sites&bbox=-3.536%2C36.93%2C30.6%2C68.91&width=768&height=719&srs=EPSG%3A4326&styles=&format=application/openlayers

D2.32 WAVE INS DB+ NOWCAST v.2.0	2	28/02/2022	Delayed	The product is not covering whole Europe (hence it is not ready yet) – At the moment we are receiving data for Med Sea (UniGE – DICCA), Iberian Atlantic (CoLAB Atlantic), Irish Atlantic (Marine Institute), BlackSea (CMCC) and Baltic (DMI). The product is under final development.
D2.33 WIND INS DB+ NOWCAST v.2.0	2	28/02/2022	Released ¹¹	
D2.34 ICE SIC v.2.0	2	31/08/2022	Released ¹²	
D2.35 TGs - RSCs event attendance	2	31/12/2021	19 th TG NOISE: 26 October 2021	
D2.36 TGs - RSCs events sattendance	2	30/06/2022	20 th TG NOISE: 22 March 2022	
D2.37 TGs - RSCs events attendance	2	31/12/2022	21 st TG NOISE: 24 May 2022	
D2.38 TGs - RSCs events attendance	2	30/06/2023	22 st TG NOISE: 10 October 2022	The frequency of TG NOISE was increased to complete the deliverables for continuous noise threshold assessment.
D3.1 Report on the SOS.SWE connected stations v.2021	3	30/11/2021	Delivered 15/01/2022	Annex to Q4.2021

¹¹http://prod-geoserver.emodnet-physics.eu/geoserver/EMODnet/wms?service=WMS&version=1.1.0&request=GetMap&layers=EMODnet%3ADAT_LatestDataParametersProduct&bbox=-180.0%2C-90.0%2C180.0%2C90.0&width=768&height=384&srs=EPSG%3A4326&styles=&format=application/openlayers

¹²Arctic Seas:

http://prod-geoserver.emodnet-physics.eu/geoserver/EMODnet/wms?service=WMS&version=1.1.0&request=GetMap&layers=EMODnet%3Aice_edge_nh_annual&bbox=-4632266.5%2C-2364732.5%2C4185461.75%2C3981740.25&width=768&height=552&srs=EPSG%3A3995&styles=&format=application/openlayers

Antarctic Seas:

http://prod-geoserver.emodnet-physics.eu/geoserver/EMODnet/wms?service=WMS&version=1.1.0&request=GetMap&layers=EMODnet%3Aice_edge_sh_annual&bbox=-2624331.25%2C-2947571.75%2C3415682.5%2C3649295.25&width=703&height=768&srs=EPSG%3A3031&styles=&format=application/openlayers

D3.2 Report on the SOS.SWE connected stations v.2022	3	31/08/2022	Delivered 23/08/2022	Annex to Interim Report I.2022
D3.3 Report on the SOS.SWE connected stations v.2023	3	23/08/2023		
D3.4 Handbook on procedure to set up SOS.SWE interoperability	3	23/08/2023		
D3.5 Report on new API v.2021	3	30/11/2021	Delivered 15/01/2022	Annex to Q4.2021
D3.6 new APIs v.2022	3	31/08/2022	Delivered 23/08/2022	Annex to Interim Report I.2022
D3.7 new APIs v.2023	3	23/08/2023		
D3.8 handbook to use EMODnet Physics APIs v.2021	3	30/11/2021	Delivered 15/1/2022	Annex to Q4.2021
D3.9 handbook to use EMODnet Physics APIs v.2022	3	31/08/2022	Delivered 23/08/2022	Annex to Interim Report I.2022
D3.10 handbook to use EMODnet Physics APIs v.2023	3	23/08/2023		
D3.11 Phasing out of EMODnet Physics Landing page	3	28/02/2022	Completed the 23 rd Jan 2023	
D3.12 Phasing out of EMODnet Physics mapviewer	3	30/11/2021	Completed 23 rd Jan 2023	
D3.13 EMODnet Physics catalogue v.2021	3	30/11/2021	Delivered 15/1/2022	Annex to Q4.2021
D3.14 Maintenance and update of EMODnet Physics catalogue v.2022	3	31/08/2022	Delivered 23/08/2022	Annex to Interim Report I.2022
D3.15 Maintenance and update of EMODnet Physics catalogue v.2023	3	23/08/2023		
D3.16 Monitoring tools	3	28/02/2022	Given the centralization process the monitoring tools are going to be a combination of tools, some designed to let Physics and CP to interact and fix issues (e.g. JIRA), some to report on indicators (matomo) some to monitor M2M (the central team is	

		updating the tools to monitor the new EMODnet Physics Environment). Whenever needed new tools will be discussed and deployed.	
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2. Identified issues: status and actions taken

Table 2. Priority issues identified by CINEA/ DG MARE/ Secretariat

A. Priority issue(s) identified and communicated by CINEA/ DG MARE/ SECRETARIAT				
Priority issue	Status (Pending/ Resolved)	Action(s) taken/ remaining actions planned	Date due	Date resolved
Platforms Layer GetFeatureInfo HTML does not resize dynamically	In Progress	Working on fixing it		2023-02-28 11:12
Physics - EMODnet Catalogue Tags	In Progress	To finish the review		
GetLegendGraphic not supported for High Frequency Radar WMS	To Do			18/10/22 15:43
Physics River Gauge platforms in the European Atlas of the Seas	In Review	Fixed to be validated		2023-02-27 16:47
Layer EP_HFR_CFM_EUROPE not working in Physics WMS	In Progress	Working on new dataset to offer the HFR WMS		
Content Inventory Physics	Done			2023-01-26 16:23
Control feature for time constraint on the platform layers	Done			2022-06-17 11:39
Physics - EMODnet Catalogue Tags	In Progress			
Platform Pages in EMODnet Physics don't show the data that was filtered for	In Review	moved to CP level		
EMODnet Physics Catalogue Service to Harvest	In Progress	in review		
Physics to review layer legends and add units where they are missing	Done			2023-01-02 10:31
EMODnet Physics URL direct to new EMODnet portal	Done			2023-01-25 15:51
Links to platform pages from Platform Layer, not properly rendered as external links	Done			2023-02-28 16:20

Table 3. Priority issues group

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

3. Communication assets

Table 4. Communication assets

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
2023	Book chapter	Mourre et al., Mediterranean observing and forecasting systems, Editor(s): Katrin Schroeder, Jacopo Chiggiato, Oceanography of the Mediterranean Sea, Elsevier, 2023,	9780128236925	https://doi.org/10.1016/B978-0-12-823692-5.00001-7	

Table 5. Other publications

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
11/3/2023	Web article + interview	https://www.primocanale.it/sport/22865-the-ocean-race-genova-the-grand-finale-sostenibilita-storia-puntata-10.html			
31/3/2023	Web article + interview	https://www.primocanale.it/sport/23927-the-ocean-race-genova-the-grand-finale-arrivo-itajai-sostenibilita-puntata-13.html			

To facilitate the management of Physics related publication we set up a Zenodo Community – this is intended to provide EMODnet Physics stakeholder an easy tool to find out the EMODnet Physics related material. This tool will be developed during coming months.

<https://zenodo.org/communities/emodnetphysics/>

For a compressive overview of publications referring to/making use of EMODnet data and/or data products, please consult Google Scholar.

4. Monitoring indicators

Comments on the progress indicators in the indicators spreadsheet		
Progress indicator	Means of collecting figures	Comment
<p>1. Current status and coverage of total available thematic data</p> <p>A) Volume and coverage of available data</p>	<i>Number of platforms</i>	<p>EMODnet Physics input data is sparse and for this indicator we consider the "platform" as the "unit" of monitoring assessment. A platform is a logical entity that hosts data, where data maybe a single dataset (e.g. a profile in case of CTD), a timeseries (e.g. sea level station), a series of profiles (e.g. ARGO). For indicator 1.A we report on the % variation of the number of platforms for the given basin. To note that some platforms are moving from one basin to another, considering that we are reporting figures based on the latest position, the % are deply influenced by this. For this indicator we are using bounding box shapes. Most of them are already compliant to new indications - EEA shapefiles - (to note that Atlantic is covering EEA Atlantic and the South Atlantic is now included in Other Seas) - Caspian and Caribbean Seas have been not used yet and platforms in these regions are counted under Other Seas. The total volume is less than the previous quarter because most of the data are now stored in netcsf v.4.0 that provides a haigher compression factor. For indicator 1.B, since the Central Portal is now up and running, EMODnet Physics cannot capture the specific traffic on the mapviewer, hence we can only provide the overall volume of downloaded data.</p>
<p>What is your opinion on the data coverage within EMODnet for your thematic?</p>		<p>The available coastal data is still very limited and new data sources (e.g. Citizen Science projects) have to be approached. Metadata on Wind data should be improved. In situ underwater noise is still very limited. Data on Ice should include new data type (e.g. cameras). We need some focus actions to link in some other integrators (e.g. SIOS).</p>
<p>B) Usage of data in this quarter</p>	<i>Server logs</i>	<p>Since the CP is now up and running, the Physics team can only report on the overall volume of downloaded data when this is mediated by the EMODnet Physics backend</p>

		(some products are cached centrally hence EMODnet Physics cannot track this volume). Given that the volume of data download for each theme was based on an algorithm considering the number of viewed map pages, considering that EMODnet Physics is not hosting the mapviewer any longer, this calculation cannot be applied any longer. From now on EMODnet Physics will report on the number of available platforms (units - col C) and overall volume of downloaded Gigabytes (col D) from ERDDAP (that is hosting the in situ data).
2. Current status and coverage of total number of data products A) Volume and coverage of available data products	<i>Matomo and server logs</i>	EMODnet Physics data products may be both datacollections (e.g. PSMSL RLR) and products (e.g. gridded climatology) and the full list is reported in the Products20221231 sheet. We also added the Prod-Prod (products on the production env) this is the selected list products that are discoverable from the Central Portal mapviewer. Apart from the European Under Water Noise Register and the TSM that only covering Europe (100% of the available information) the other products offer global coverage. This makes the "Volume unit" not homogeneous therefore here we report on a limited number of products.
B) Usage of data products in this quarter	<i>Matomo and server logs</i>	The mapviewer and the products pages accessible under the "Products" section are monitored in terms of visits (by matomo). ERDDAP is monitored both in terms of visit to the erddap landing page (matomo) and in terms of transactions (downloads - by logs). THREDDS and GeoSERVER are both monitored in terms of logs. We record a quite good use of the services, ERDDAP and THREDDS are the most used interfaces
3. Internal and external organisations supplying/approached to supply data and data products within this quarter	<i>Please specify</i>	During the period we organized a series of events to unlock new data sources (with a focus on temperature and salinity from CS actions). Most of these data are not yet in the system but teams are working to ingest it. During the period the team was able to ingest different River outflow data sources.

5.1 Daily number of page views of EMODnet Thematic entry page	<i>Europa Analytics</i>	It's the first reporting period under the CP and with new monitoring tools. We record a typical working hours use of the portal, with peaks back to back to events.
5.2 Quarterly total number of visitors, page views, unique page views and percentage of returning visitors	<i>Europa Analytics</i>	It's the first reporting period under the CP and with new monitoring tools hence it is not possible to comment on trends. Anyhow Physics collects good interest, being among the top 5 viewed themes

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

5. Annex: Other documentation attached

Metadata field	Vocabulary exists	Link to vocabulary	Vocabulary governance
Platform id		https://www.ocean-ops.org/ https://vocab.ices.dk/?ref=1399 https://eurogoos.eu/download/eu-hfradar-inventory-2016/?wpdmdl=9972&refresh=642bf4a58042f1680602277 https://www.ego-network.org/dokuwiki/doku.php?id=public:glidersdeployments https://www.ferrybox.org/routes_data/routes/table_of_routes/index.php.en http://eutgn.marine.ie/geonetwork/srv/ita/catalog_search#/home	OCEANOPS/WMO ICES, EU HFR node EGO (glider) FB Tide Gauge
naming_authority	Yes	https://edmo.seadatanet.org/	SeaDataNet
Institution	Yes	https://edmo.seadatanet.org/	SeaDataNet
qc_method	*	doi	
data_mode	Yes	NRT/DM/REP	EuroGOOS DATAMEQ
variable names	Yes	http://vocab.nerc.ac.uk/collection/P02/current/ http://vocab.nerc.ac.uk/collection/P01/current/ http://vocab.nerc.ac.uk/collection/P07/current/ https://cfconventions.org/Data/cf-standard-names/79/build/cf-standard-name-table.html	BODC:NVS CF Standard Name Table v29
unit	yes	https://vocab.nerc.ac.uk/collection/P06/current/	SeaDataNet
Quality Flag Scheme	yes	http://www.oceansites.org/docs/oceansites_data_format_reference_manual.pdf https://vocab.seadatanet.org/v_bodc_vocab_v2/search.asp?lib=L20	OceanSites SeaDataNet
Time	yes	ISO8601	ISO
Datum	Yes	WGS84	ISO
Country	yes	ISO3166	ISO
Licence	Yes	https://creativecommons.org/	CC

INSPIRE	Yes	ISO 19115	ISO/INSPIRE
PI	yes	https://orcid.org/	ORCID



Figure 5. Picture from the 2 days of workshops in Sweden (Gothenborg).



Figure 6. Picture the MAR MENOR monitoring service launch day. EMODnet Physics was invited to give the overview on the EU ocean data management framework and start the dialogue for future interoperability.