



# EMODnet



European Marine  
Observation and  
Data Network

## 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 (Q2.2022)**

**Reporting Period: 01/04/2022 – 30/06/2022**



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### Disclaimer

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# 1. Highlights in this quarter

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## **Task 1. Maintain and improve a common method of access to data held in repositories**

During the reporting period, we continued working on the prod-env, updating geonetwork, erddap and geoserver according the agreed workflow. Moreover, we organized the list of the products to be used for populating the central portal under the JIRA

## **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**

The following products have been updated/published:

- ARICE – 259 datasets
- Global Ocean Data Analysis Project for Carbon (GLODAP) - Mapped Climatologies v2 2016b
- SDC\_BlackSea\_Climatology\_TS\_V2\_monthly (SDC BLS CLIM TS V2 m), 0.125 1974-2007
- SDC\_MedSea\_Climatology\_TS\_V2\_monthly\_pre\_post\_east\_mediterranean\_transient, 0.125, 1969-2
- SDC\_NorthAtlanticOcean\_Climatology\_TS\_V2\_050\_monthly (SDC NAT CLIM TS V2 050 m), 0.5, 1954-2014
- SDC\_NorthSea\_Climatology\_TS\_V1\_monthly (SDC NS CLIM TS V1 m), 0.125, 1984
- SMOS BEC global SSS product v2 L3
- SMOS BEC global SSS product v2 L4
- SOCATv2020\_ Global Ocean, Gridded In Situ reprocessed carbon observations, SOCATv2020 (quarter-degree coastal)

As well as the EP\_MAP\_RVFL\_001 with new linked sources.

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

Since November 2021 the Marine Insitu Collaboration Technical Working Group (MIC TWG), that joins together key actors from EMODnet Ingestion, Physics, Chemistry, Copernicus Marine Service In Situ TAC, EuroGOOS office and EuroGOOS Task Teams, SeaDataNet/SeaDataCloud, for working together on the further harmonization of standards, procedures and workflow for ingesting and sharing operational data. The main scopus is to be one single voice towards newcomers. In April the TWG had a second meeting in presence to finalize internal workflow and start reviewing the metadata global attributes (see appendix). Moreover, VOTO was supported to set up and run an ERDDAP instance based on the EMODnet ERDDAP docker, and there is an open dialog with EMANEDS – European Marine Networks of Environmental Data Stations – to support the group on interoperability and data flow towards EMODnet

During the period, in collaboration with ingestion we also linked more operational river data (ARPA Toscana - Italy, ARPA Friuli Venezia Giulia - Italy, VIGICRUES - France and Scottish Environment Protection Agency - Scotland) and gliders data from VOTO (Voice of the Ocean) Foundation.

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

Work in progress and well tracked by both JIRA tickets and periodic meetings (8/4/2022; 30/05/2022; 1/7/2022). As planned the PROD-GEONETWORK was configured. Physics publishes on EMODnet Physic endpoints for CP:

- <https://prod-erddap.emodnet-physics.eu/erddap/info/index.html?page=1&itemsPerPage=1000>
- <https://prod-erddap.emodnet-physics.eu/ncWMS/>
- <https://prod-geoserver.emodnet-physics.eu/geoserver/>
- <https://prod-geonetwork.emodnet-physics.eu/geonetwork/>

CP publishes on CP test viewer: <https://emodnet.development.ec.europa.eu/geoviewer-new/>

Physics and CP exchange and monitor progresses on JIRA and together agree when to move on public CP viewer.

#### **Task 5. Contributing content to dedicated spaces in Central Portal**

During the period we continued the activity on static contents that were finalized.

#### **Task 6. Ensure the involvement of regional sea conventions**

In line with the previous periods, team attended the TG NOISE activities (external attendee) and under the new contract ICES (core team partner) and CTN (subcontractor) will help ensuring the involvement of RSC.

#### **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. EuroSEA, European Marine Days, Copernicus Marine Service) on common standards and opendata.

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

The subtask “deal with user feedback” goes together with task 7. Concerning the process to monitor performances, EMODnet Physics is implementing matomo for collecting views on the landing and map page. It uses logs to extract the traffic/requests/manual downloads/interaction with services. The system was updated and, if the users is trying to download coastal data older than 60 days, the mapviewer is proposing a form to collect some user information (type of organization and filed of work). The filling of the form is on voluntary basis. Moreover, the new products and service monitoring service (graylog) is up and running.

For this period the main source for feedback has been the help desk system (see task.7)

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

Web portal maintainance will be provided untill the new central system is published.

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	Date due	Status (Delivered/Delayed)	If Delayed: reason for delay and expected delivery date
D1.1 Kick off Meeting	30/11/2021	8 November 2021	
D1.2 Annual assembly	30/11/2022		
D1.3 EMODnet SC	30/11/2021	8-10 September 2021	

D1.4 EMODnet TWG	30/11/2021	8-10 September 2021	
D1.5 EMODnet SC	31/05/2022	27-28 April 2022	
D1.6 EMODnet TWG	31/05/2022	26 April 2022	
D1.7 EMODnet SC	31/08/2022		Planned 18/7
D1.8 EMODnet TWG	31/08/2022		Planned 18/7
D1.9 EMODnet SC	30/11/2022		
D1.10 EMODnet TWG	30/11/2022		
D1.11 EMODnet plenary event	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	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	31/12/2022		
D1.14 EMODnet plenary event	30/06/2023		
D1.15 Quarterly report Q3.2021	15/10/2021	Delivered 15/10/2021	
D1.16 Quarterly report Q4.2021	15/01/2022	Delivered 15/01/2022	
D1.17 Quarterly report Q1.2022	15/04/2022	Delivered 15/04/2022	
D1.18 Quarterly report Q2.2022	15/07/2022	Delivered 15/07/2022	This Report
D1.19 Quarterly report Q3.2022	15/10/2022		
D1.20 Quarterly report Q4.2022	15/01/2023		

D1.21 Quarterly report Q1.2023	15/04/2023		
D1.22 Quarterly report Q2.2023	15/07/2023		
D1.23 Annual progress report	23/08/2022		
D1.24 Final progress report	23/08/2023		
D1.25 Handover note	23/08/2023		
D1.26 EMODnet Physics note for Annual Report 2021	31/01/2022	Delivered (January 2022)	
D1.27 EMODnet Physics note for Annual Report 2022	31/01/2023		
D1.28 EMODnet Ingestion general assembly 2021	30/11/2021	21-22 September 2021	
D1.29 EMODnet Ingestion general assembly 2022	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	31/08/2022		
D1.31 Guideline on data ingestion procedures for new real time and near real time streams v.2023	23/08/2023		
D1.32 Use cases 2021	31/12/2021	CMCC delivered (Dec 2021) OGS delivered (Feb 2022)	
D1.33 Use cases 2022	31/12/2022	CSCS delivered (Feb 2022) OceanGlider delivered (Feb2022)	
D1.34 Use cases 2023	23/08/2023		
D1.35 Contribution to central space with background information and EMODnet Physics content	28/02/2022	In progress – tracked with JIRA	
D1.36 TGs - RSCs event attendance	31/12/2021	TG NOISE WS “towards EU thresholds for underwater noise”, 13-14 Sept 2021	

D1.37 TGs - RSCs events attendance	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 <sup>1</sup>
D1.38 TGs - RSCs events attendance	31/12/2022	21th TG-NOISE – 24/05/2022	This event was attended by partners ICES and CTN.
D1.39 TGs - RSCs events attendance	30/06/2023		
D2.1. Data Inventory with gap analysis v.2021	31/12/2021	V.2021 attached to Q1.2022	EMODnet Physics_Inventory_v.2021.03
D2.2 Data Inventory with gap analysis v.2022	31/08/2022		
D2.3 Data Inventory with gap analysis v.2023	23/08/2023		
D2.4 EMODnet Physics Event/Workshop	31/12/2021	Delivered – (15/1/2022) - updates are described in the quarterly report Q4.2021 – Section 4	
D2.5 EMODnet Physics Event/Workshop	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	31/12/2022		Planned during the MetroSEA conference Milazzo – October 2022
D2.7 EMODnet Physics Event/Workshop	30/04/2023		
D2.8 Report on the maintainance and update of the EMODnet Physics smart connectors v.2022	31/08/2022		
D2.9 Report on th maintainance and update of the EMODnet Physics smart connectors v.2023	23/08/2023		

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

D2.10 EMODnet Physics Handbook on data management	31/08/2022		
D2.11 Support to develop common strategy and guideline for adoption cloud technologies	23/08/2023		
D2.12 EMODnet Physics Metadata handbook and examples	31/08/2022		
D2.13 Report on dissemination system interfaces update v.2022	31/08/2022		
D2.14 Report on dissemination system interfaces update v.2023	23/08/2023		
D2.15 Updated list of EMODnet Physics products v.2021	31/12/2021	Delivered 15/1/2022	
D2.16 Updated list of EMODnet Physics products v.2022	31/08/2022		
D2.17 Updated list of EMODnet Physics products v.2023	23/08/2023		
D2.18 SSS v.2020	28/02/2022	Released <sup>2</sup>	
D2.19 SSS v.2021	28/02/2023		
D2.20 River Proxy V1.0	31/12/2021	Released <sup>3</sup>	
D2.21 River Proxy V2.0	31/08/2022		
D2.22 River Proxy V3.0	23/08/2023		
D2.23 INS RVFL DB v.1.0	31/08/2022		
D2.24 TSM v.2021	28/02/2023		
D2.25 SLEV INS DB	31/12/2021	Delivered	
D2.26 SLEV REL TRENDS	31/08/2022		
D2.27 SLEV ABS TRENDS	31/08/2022		

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

<sup>3</sup> [https://products.emodnet-physics.eu/EP\\_MAP\\_RVFL\\_001/](https://products.emodnet-physics.eu/EP_MAP_RVFL_001/)  
[https://prod-erddap.emodnet-physics.eu/erddap/tabledap/ERD\\_EP\\_RVFL\\_NRT.html](https://prod-erddap.emodnet-physics.eu/erddap/tabledap/ERD_EP_RVFL_NRT.html)



D2.28 SLEV REL ANOM	31/08/2022		
D2.29 SLEV ATL ABS TREND	31/08/2022		
D2.30 RFVL v.1	28/02/2023		
D2.31 UWN ROI v.1.0	31/08/2022		
D2.32 WAVE INS DB+ NOWCAST v.2.0	28/02/2022	Delayed	The product is not covering the whole Europe yet (hence it is not ready yet) – At the moment we are receiving data for Med Sea (UniGE – DICCA), Iberian Atlantic (CoLAB Atlantic) and Irish Atlantic (Marine Institute). The product is still on development.
D2.33 WIND INS DB+ NOWCAST v.2.0	28/02/2022	Delayed	Will be published this quarter. V2.0 will have grid resolution of 10Km (UniGE – DICCA)
D2.34 ICE SIC v.2.0	31/08/2022		
D2.35 TGs - RSCs event attendance	31/12/2021	19 <sup>th</sup> TG NOISE: 26 October 2021	
D2.36 TGs - RSCs events attendance	30/06/2022	20 <sup>th</sup> TG NOISE: 22 march 2022	
D2.37 TGs - RSCs events attendance	31/12/2022	21 <sup>st</sup> TG NOISE: 24 May 2022	
D2.38 TGs - RSCs events attendance	30/06/2023		
D3.1 Report on the SOS.SWE connected stations v.2021	30/11/2021	Delivered 15/01/2022	Annex to Q4.2021
D3.2 Report on the SOS.SWE connected stations v.2022	31/08/2022		
D3.3 Report on the SOS.SWE connected stations v.2023	23/08/2023		
D3.4 Handbook on procedure to set up SOS.SWE interoperability	23/08/2023		
D3.5 Report on new API v.2021	30/11/2021	Delivered 15/01/2022	Annex to Q4.2021
D3.6 new APIs v.2022	31/08/2022		

D3.7 new APIs v.2023	23/08/2023		
D3.8 handbook to use EMODnet Physics APIs v.2021	30/11/2021	Delivered 15/1/2022	Annex to Q4.2021
D3.9 handbook to use EMODnet Physics APIs v.2022	31/08/2022		
D3.10 handbook to use EMODnet Physics APIs v.2023	23/08/2023		
D3.11 Phasing out of EMODnet Physics Landing page	28/02/2022		
D3.12 Phasing out of EMODnet Physics mapviewer	30/11/2021	In progress – status is reported in the quarterly report – Section 1	
D3.13 EMODnet Physics catalogue v.2021	30/11/2021	Delivered 15/1/2022	Annex to Q4.2021
D3.14 Maintenance and update of EMODnet Physics catalogue v.2022	31/08/2022		
D3.15 Maintenance and update of EMODnet Physics catalogue v.2023	23/08/2023		
D3.16 Monitoring tools	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.	

## 2. Identified issues: status and actions taken

The following tables report pending actions from the previous report and newly-identified priority issues. Now all the tickets are assigned to the EMODnet Physics Helpdesk that is a distribution system to forward and manage the tickets as soon as possible.

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
Physics - Web Services MetadataUrl and DataUrl fields	In progress	Service check and update – continuous dialogue with secretariat/central portal tech team.		
INSPIRE quality Service requirements	In progress	The ticket is used to check and report on INSPIRE quality. the ticket was updated with the stats for Q1 of 2022.		
The WMS service exceeds the 10-seconds response time required by INSPIRE	In progress	The CP is monitoring the prod env. This ticket is now obsolete and closed.		
LegendGraphics for HFR WMS	In progress	Mapproxy does not support the legend graphics as requested. A custom development is needed. It is not planned yet.	asap	
Physics Grafana spotted tracking some pages	In progress	Moved to TRUST-IT		
Review the new CP mapviewer	In progress	CP have to take over and follow up on provided comment		6/4/2022
Create "NEW" Physics page on CP (dev)	In Review	Physics team is reviewing the page	asap	20/05/2022
Control feature for time constraint on the platform layers	To Do	CP and Physics team are working on this feature, importantly this should be checked on the new data that Physics is going to publish on the prod-system	asap	17/06/2022
Physics - EMODnet Catalogue Tags	In Progress			

Layer EP_HFR_CFM_EUROPE not working in Physics WMS	In Review		asap	
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Table 3. Priority issues identified by Physics group

B. Issues / challenges identified by the thematic assembly group itself					
	Priority issue / challenge	Status (Pending/R esolved)	Action(s) taken / remaining actions planned	Date due	Date resolved

### 3. User feedback

Table 4. User feedback

Overview of user feedback and/or requests received in this quarter							
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Means of contact	Response time	Status of user query: resolved/pending	Measures taken to resolve the query	Status: if not (yet) resolved/pending, explain reason why and expected timeline
1/4/2022	Student	Support to download data	HD	1 days	Solved	Meeting to train	
4/4/2022	RPS	Metadata Access	HD	1 days	Solved	Feedback by email	
5/4/2022	RPS	Support to download data	HD	0 days	Solved	Feedback by email	
19/4/2022	University of Hull	Support to download data	HD	0 days	Solved	Feedback by email	
20/04/2022	Deltares	Technical problem on HR radar	HD	0 days	pending	Feedback by email	Individuated issue, fixing in progress
27/4/2022	VLIZ	Support to download data	HD	0 days	Solved	Feedback by email	
5/05/2022	CCMAR	Support to download data	HD	0 days	Solved	Feedback by email/ created API for data download	
10/5/2022	Helmholtz-Zentrum Hereon	Support for time series download	HD	0 days	Solved	Feedback by email	
13/5/2022	CENTEC	Support for platforms information	HD	3 days	Solved	Feedback by email	

<b>20/5/2022</b>	University of Manchester	Support to download data	HD	0 days	Solved	Feedback by email	
<b>1/6/2022</b>	University of South Florida	Support to download data	HD	1 day	solved	Feedback by email	
<b>23/6/2022</b>	COWI	Support to data visualization and download	HD	3 days	Solved	Feedback by email	

## 4. Meetings/events held/attended & planned

Table 5. Meetings/events held/attended

A. Meetings/events Organized and attended					
Date	Location	Type event (internal or external meeting, training/workshop)	Indicate if a ppt was given (yes/no + short description)	Meeting attended (A) / organised (O)	Short description and main results (# participants, agreements made, etc.)
<b>SUM</b>				<b>O</b>	<b>Total # of meetings organised = 7</b>
<b>SUM</b>				<b>A</b>	<b>Total # of meetings attended = 13</b>
05/04/2022	web	external	no	A	Best Practice in Aquaculture
08/04/2022	Sweden	external	yes	A	Swedish National Committee for Ocean Decade
07/04/2022	web	internal	yes	A	DG MARE
12-13/04/2022	Genova, Italy		yes	O	Marine Insitu Collaboration - MIC TWG - to streamline data flow between main EU marine data operators and integrators
26/04/2022	Web	internal	yes	A	EMODnet SC
28/04/2022	Web	internal	yes	A	EMODnet TWG
09-10/05/2022	Malmö, Sweden	conference	no	A	Ocean Literacy - Ocean Decade Sweden - <a href="https://malmo.se/Welcome-to-Malmo/Sustainable-Malmo/One-Ocean---One-Planet-Ocean-Literacy-Action-2022.html">https://malmo.se/Welcome-to-Malmo/Sustainable-Malmo/One-Ocean---One-Planet-Ocean-Literacy-Action-2022.html</a> .

<b>9-13/05/2022</b>	web + Cadiz, Spain	workshop	yes	A	EuroSEA workshops week + GA
<b>19/05/2022</b>	Ravenna, Italy	conference	no	A	European Marine Days - <a href="https://ec.europa.eu/maritimeaffairs/maritimeday/conference_en">https://ec.europa.eu/maritimeaffairs/maritimeday/conference_en</a> -
<b>20/05/2022</b>	Ravenna, Italy	conference	no	O	EU4Ocean @ EMD - <a href="https://european-maritime-day-2022.b2match.io/agenda?session=c2Vzc2lvbjoxtMTI1OTA%3D&amp;track_id=19933">https://european-maritime-day-2022.b2match.io/agenda?session=c2Vzc2lvbjoxtMTI1OTA%3D&amp;track_id=19933</a>
<b>24/05/2022</b>	web	external	no	A	21th TGNOISE
<b>26/05/2022</b>	web	external	no	O	EMANEDS – European Marina Networks of Environmental Data Stations – to discuss about interoperability and data flow towards EMODnet
<b>30/05/2022</b>	Genova, Italy	meeting	yes	O	meeting with CIMA foundation ( <a href="https://www.cimafoundation.org/">https://www.cimafoundation.org/</a> ) - to discuss about synergies
<b>30/05/2022</b>	web	internal	no	A	follow up on Centralization with CP team
<b>16-17/6/2022</b>	Athens, Greece	internal	yes	A	EMODnet Ingestion 3 - kick off meeting
<b>16/06/2022</b>	Genova, Italy	workshop	no	A	GESmartCity - Blue District - workshop to discuss about synergies between projects to support the municipality blue and smart projects - about 30 attenders
<b>21/06/2022</b>	web	external	no	O	EMANEDS – European Marina Networks of Environmental Data Stations – to discuss about interoperability and data flow towards EMODnet
<b>21/06/2022</b>	web	external	no	O	CCMALR - to discuss about interoperability
<b>24/06/2022</b>	web	internal	no	O	SONEL - follow up meeting on the integration of the new products and harmonization of data flow



01/07/2022	web	internal	no	A	follow up on Centralization with CP team
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Table 6. Meetings/events planned

B. Meetings/events planned in the future				
Date	Location	Type event (meeting, training (workshop), etc.)	Meeting to be attended (A) / organised (O)	Short description and main expected outcomes
03-05/10/2022	Milazzo, Italy	workshop	O	<a href="https://www.metrosea.org/special-sessions">https://www.metrosea.org/special-sessions</a>

## 5. Communication assets

Table 7. Communication products

A. Communication products				
Date	Communication material	Short description (of the material, title, ...) of the asset	Main results	Name of event at which material was disseminated (if applicable)
8/6/2022	<a href="https://www.linkedin.com/feed/update/urn:li:activity:6940241693015216128/">https://www.linkedin.com/feed/update/urn:li:activity:6940241693015216128/</a>		10 reactions	
13/6/2022	<a href="https://www.linkedin.com/feed/update/urn:li:activity:6942050665946886144/">https://www.linkedin.com/feed/update/urn:li:activity:6942050665946886144/</a>		17 reactions	
16/6/2022	<a href="https://www.linkedin.com/feed/update/urn:li:activity:6943110272244973569/">https://www.linkedin.com/feed/update/urn:li:activity:6943110272244973569/</a>		13 reactions	

Table 8. Planned communication

B. Planned communication products			
Date	Communication material	Short description (of the material, title, ...) and/or link to the asset	Main results expected
	Video	Video on how Fisherman can use sensors and see data on EMODnet Physics	
	Video	Video on how EMODnet Physics can support Citizen Science initiatives	

**Table 9. Publications**

List of known publications using EMODnet data or data products				
Date	Type and name of journal, conference, ...	Publication title including DOI (if known)	Author(s)	Organisation(s)

A simple search in google scholar shows more than hundreds documents between papers and projects deliverables using/citing EMODnet Physics.  
[https://scholar.google.com/scholar?hl=it&as\\_sdt=0%2C5&q=EMODnet+Physics&btnG=](https://scholar.google.com/scholar?hl=it&as_sdt=0%2C5&q=EMODnet+Physics&btnG=)

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

## 6. 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>	Matomo and server logs	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. 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. For indicator 1.B the unit of download is measured in platforms (in line with indicator 1.A) while the number of downloads are measured in "requests". A request may be for a single dataset (e.g. 1 CTD) as well as a full time series (e.g. daily data for past XX years). For ice data, EMODnet Physics is integrating a satellite derived product covering the whole Arctic and Antarctic areas. This product can be only downloaded via WMS.
What is your opinion on the data coverage within EMODnet for your thematic?		Coverage is very good but there are still gaps, especially in time. Also important is to plan periodic reviews (some platforms may be out of work, new platforms may be deployed) and periodic data packages and products updates (to include e.g. data published under a project, from a new provider, etc.).
B) Usage of data in this quarter	Matomo and server logs	Indicator 1.B is reporting the amount of downloaded data from mapviewer (note that the amount in GB is an estimation based on the number of requests multiplied the

		average file size). As reported in 2B the overall amount of downloaded data from ERDDAP is about 180 GB. According indicators it seems the users use the mapviewer as entry page to check for values (charts) and use ERDDAP and GeoServer to download data (ERDDAP+map manual download - 2B col F; 1B col D). Concerning the use of the interfaces: ERDDAP is the most used. The use of WMS/WFS layers (GeoServer) is tracked and (only) reported under 2B. Users are starting using interfaces as we planned and this will facilitate the centralization of process (the overall idea is to inform users that the new mapviewer/ERDDAP/GeoServer are on/from the CP - that are linked to the EMODnet Physics ones - and they should be able to adapt easily to this - it's only a change in the url endpoint)
2. Current status and coverage of total number of data products A) Volume and coverage of available data products	Matomo and server logs	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 Products202200630 sheet. 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	Matomo and server logs	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		During the period we actively participate to EMD2022 and preliminary feedback is very good. We hope to be able and connect some of the identified datasets quite soon. these will be reported as soon as they are connected
4. Online 'Web' interfaces to access or view data		Web Services are organized per item-interface to facilitate the tracking of their use. ERDDAP, THREDDS, web APIs, Widgets, GeoServer are providing data and products

		without any authentication or restriction. Mapviewer presents an authentication/user interest collection form that is not compulsory but it is presented in order to collect indicator 5 stats. All linked datasets are unrestricted.
5. Statistics on information volunteered through download forms		During the period we collected data on 9 new users. It is important to remember that the number of users here reported is only a limited number of the EMODnet Physics users and the form is asked to be filled only to users accessing for the first time to coastal data older than 60 days, and that it is on voluntary base (the user can skip the registration). The majority of EMODnet Physics data are downloadable without any authentication. Academia represents the majority about 56% in the period, the users from business/private is stable (around 33%) as second type, then Gov (about 11%) .
6. Published use cases		Use cases are providing examples of how EMODnet Physics data can be used for both private and public downstream applications. The most viewed are the two from industry (DHI and fishing vessels) and the two on the collaboration between EMODnet and CMEMS. Last published case are now monitored too. Would be good if the CP could add the publication date on all the cases, to have the possibility to track the possible hype of the cases.
8.1. Technical monitoring		System is stable and available (uptime 100%). Response time seems not to have been updated to monitor the "prod-env" endpoint.
9. Visibility & Analytics for web pages		EMODnet Physics mapviewer is by far the most used interface with an steady trend. Catalogue is also quite well consumed. Charts are missing some data because, some endpoints were changed and the system was not able to distinct by (these) pages. CP team worked to fix it. Status quo.
10. Visibility & Analytics for web sections		It looks like that users directly go to the mapviewer bypassing the landing page at all. Combining indicator 9 and 10 stats we see that the map viewer is the most consumed

		page (9), while the webportal section (portal page link to the mapviewer - 10) is very little. This confirms that mapviewer is the most used and appreciated interface.
11. Average visit duration for web pages		Same comments as for sect.9 and 10

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

## 7. Annex: Other documentation attached

*[List in Annex if you wish to provide any additional information.]*

MIC TWG workflow

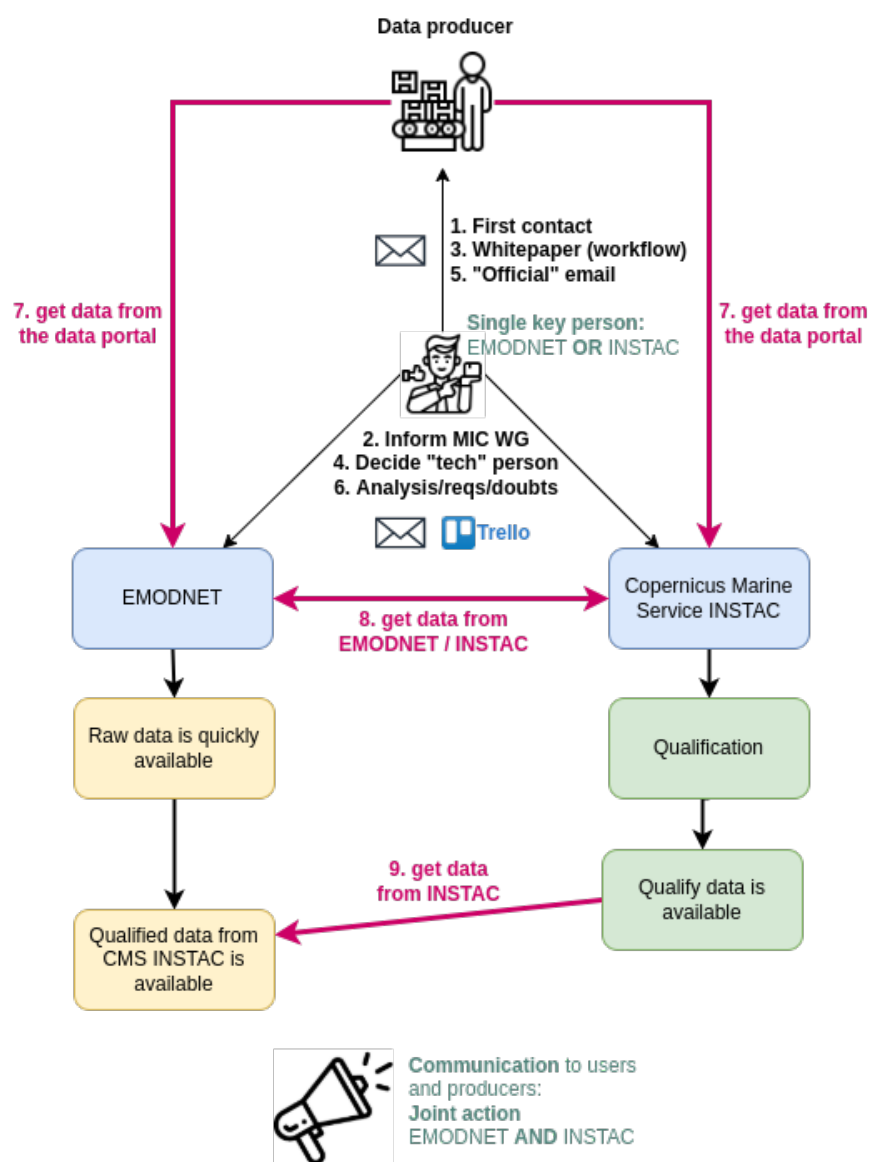


Figure 1. workflow for new data management



The group is working on recommendations for metadata global attributes:

- Identification

descr		
<b><u>Platform identification.</u></b>	Each platform/station should be identified by a unique ID	WMO code - <a href="https://www.ocean-ops.org/">https://www.ocean-ops.org/</a> ICES – SHIPC <a href="https://vocab.ices.dk/?ref=315">https://vocab.ices.dk/?ref=315</a>
<b><u>Variable</u></b>	basic metadata to be associated with the variables are: the measuring device (instrument type) used, the precise definition of the variable, its standard name and abbreviation, the unit used and the quality flag associated.	Instrument type, refer to SDN L22 (i.e. NETZZZZ or TOOLZZZZ) <a href="https://vocab.seadatanet.org/v_bodc_vocab_v2/search.asp?lib=L22">https://vocab.seadatanet.org/v_bodc_vocab_v2/search.asp?lib=L22</a>  Definition of variable, refer to SDN P01 & subset (i.e. SDN:P01::VVVZZXX) <a href="https://vocab.seadatanet.org/bandit/browse_step.php">https://vocab.seadatanet.org/bandit/browse_step.php</a>  Standard name following the CF convention <a href="https://cfconventions.org/Data/cf-standard-names/79/build/cf-standard-name-table.html">https://cfconventions.org/Data/cf-standard-names/79/build/cf-standard-name-table.html</a>  Unit of the variable, refer to SDN P06 (i.e. ZZZZ, 4 uppercase letters) <a href="https://vocab.nerc.ac.uk/collection/P06/current/">https://vocab.nerc.ac.uk/collection/P06/current/</a>  Quality flag, refer to SDN L20 (i.e. number between 0 and 9 or letter: A, B, Q) <a href="https://vocab.seadatanet.org/v_bodc_vocab_v2/search.asp?lib=L20">https://vocab.seadatanet.org/v_bodc_vocab_v2/search.asp?lib=L20</a>
<b><u>Time</u></b>	The time associated to the data	ISO 8601 format where Date is expressed as YYYY-MM-DD time is in 24-hour mode and UTC, e.g. T13:05:15Z meaning 13 hours 5 minutes 15 seconds UTC (representing by Z)
<b><u>Geographical position</u></b>	latitude and longitude coordinates	The reference coordinate system to be used to characterise the data is the WGS84

- Citation

<b><u>Dataset.</u></b>	The datasets should be identified by a DOI, persistent identifier for object and ISO standard.	DOI publishers in Europe are ZENODO ( <a href="https://help.zenodo.org/">https://help.zenodo.org/</a> ) for any research fields (and including data, papers, software ...) and SEANOE ( <a href="https://www.seanoe.org/html/doi-complementarity-with-databases.htm">https://www.seanoe.org/html/doi-complementarity-with-databases.htm</a> ) for marine research data
<b><u>Institution identification</u></b>	The institution responsible for the marine in situ data should be displayed.	This should be done thanks to EDMO code that references marine institutions all over the world. The information and any organisation code can be found on SeaDataNet website <a href="https://edmo.seadatanet.org/results">https://edmo.seadatanet.org/results</a>
<b><u>Person.</u></b>	ctors associated to the data	persistent digital identifier or ORCID code. Refer to <a href="https://orcid.org/">https://orcid.org/</a>
<b><u>Project</u></b>	Projects and/or Programs that supported the data acquisition	EDMERP code. The code (5 digits) of a project can be found or obtained for a new project on SeaDataNet website ( <a href="https://www.seadatanet.org/Metadata/EDMERP-Projects">https://www.seadatanet.org/Metadata/EDMERP-Projects</a> )
<b><u>Licence</u></b>	When possible, to give open and free access to the data. Note that this access can be done through authorisation or authentication if needed.	The licence “Creative Commons” (CC) gathers these characteristics. It lists 6 different licence types from most to least permissive with the common point that credits must be given to the creator. The most permissive: CC-BY (which the only limitation that credit must be given to creator) should be preferred.