EMODnet

European Marine Observation and Data Network

EMODnet Thematic Lot n°3 - Physics

EASME/EMFF/2018/1.3.1.8/Lot3/SI2.810790

Start date of the project: 26/08/2019 - (24 months)

EMODnet Phase III – Quarterly Progress Report (6)

Reporting Period: 01/01/2021 – 31/03/2021

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Contents

Disclaimer

1. Highlights in this quarter

Table 1. Milestone and Deliverables

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 - Event - Kick-off meeting (Required)	WP1	30/09/19	Delivered - KOM took place 07-08/11/2019	
D3.1 - Portal - Portal on line (Required)	WP3	30/09/19	Delivered - Portal on line from day 1	
D3.2 - service - Monitoring tools (Required)	WP3	15/10/19	Delivered – Monitoring tools active from day 1	
D4.1 - Service - Help desk service (Required)	WP4	15/10/19	Delivered – HD on line from day 1	
D4.2 - Service - User feedback monitoring service (Required)	WP4	15/10/19	Delivered – user feedback monitoring and management active from day 1	
D1.2 - Document - quarterly Progress Reports (Required)	WP1	15/10/19	Delivered	
D4.3.1 - Report - Statistics from HD service and user satisfaction (Required)	WP4	15/10/19	Delivered – as section of D1.2	
D4.4.1 - Report - Progress and actions about the Involvement of RSCs (Required)	WP4	15/10/19	Delivered – as section of D1.2	
D4.5.1 - Report - Progress update on promotion activities (Required)	WP4	15/10/19	Delivered – as section of D1.2	
D1.3 - Document - quarterly Progress Reports (Required)	WP1	15/01/20	Delivered	
D4.3.2 - Report - Statistics from HD service and user satisfaction (Required)	WP4	15/01/20	Delivered – as section of D1.3	
D4.4.2 - Report - Progress and actions about the Involvement of RSCs (Required)	WP4	15/01/20	Delivered – as section of D1.3	
D4.5.2 - Report - Progress update on promotion activities (Required)	WP4	15/01/20	Delivered – as section of D1.3	
D2.3 - Document - 1st report on data products specifications, sources and methods of integration into the portal (Internal)	WP2	28/02/20	Delivered	
D3.3 - Service - EMODnet Physics catalogue v.1 (internal)	WP3	28/02/20	Delivered - update and review of the entries in EMODnet Physics GeoNetwork instance	
D1.4 - Document - quarterly Progress Reports (Required)	WP1	15/04/20	Delivered	

D4.3.3 - Report - Statistics from HD service and user satisfaction (Required)	WP4	15/04/20	Delivered – as section of D1.4	
D4.4.3 - Report - Progress and actions about the Involvement of RSCs (Required)	WP4	15/04/20	Delivered – as section of D1.4	
D4.5.3 - Report - Progress update on promotion activities (Required)	WP4	15/04/20	Delivered – as section of D1.4	
D1.5 - Document - quarterly Progress Reports (Required)	WP1	15/07/20	Delivered	
D4.3.4 - Report - Statistics from HD service and user satisfaction (Required)	WP4	15/07/20	Delivered – as section of D1.5	
D4.4.4 - Report - Progress and actions about the Involvement of RSCs (Required)	WP4	15/07/20	Delivered – as section of D1.5	
D4.5.4 - Report - Progress update on promotion activities (Required)	WP4	15/07/20	Delivered – as section of D1.5	
D1.6 - Document - Interim Report (Required)	WP1	26/08/20	Delivered	
D2.1 - Document - Documentation and guidance on data flow harmonization (including machine to machine connections specs) (Required)	WP2	26/08/20	Delivered	
D2.2 - Document - Report on data sources evaluation and methods of integration into the portal (Internal)	WP2	26/08/20	Delivered	
D2.6 - Document - Report on M2M services (internal)	WP2	26/08/20	Delivered	
D3.3 - Service - EMODnet Physics catalogue v.2 (internal)	WP3	26/08/20	Delivered - new/updated EMODnet Physics GeoNetwork instance	
D1.7 - Document - quarterly Progress Reports (Required)	WP1	15/10/20	Delivered	
D4.3.5 - Report - Statistics from HD service and user satisfaction (Required)	WP4	15/10/20	Delivered – as section of D1.7	
D4.4.5 - Report - Progress and actions about the Involvement of RSCs (Required)	WP4	15/10/20	Delivered – as section of D1.7	
D4.5.5 - Report - Progress update on promotion activities (Required)	WP4	15/10/20	Delivered – as section of D1.7	
D1.8 - Document - quarterly Progress Reports (Required)	WP1	15/01/21	Delivered	
D4.3.6 - Report - Statistics from HD service and user satisfaction (Required)	WP4	15/01/21	Delivered – as section of D1.8	

D4.4.6 - Report - Progress and actions about the Involvement of RSCs (Required)	WP4	15/01/21	Delivered – as section of D1.8	
D4.5.6 - Report - Progress update on promotion activities (Required)	WP4	15/01/21	Delivered – as section of D1.8	
D2.5 - Document - 3rd report on data products specifications, sources and methods of integration into the portal (Internal)	WP2	28/02/21	Delivered	
D3.3 - Service - EMODnet Physics catalogue v.3 (internal)	WP3	28/02/21	Delivered	
D1.9 - Document - quarterly Progress Reports (Required)	WP1	15/04/21	This document	
D4.3.7 - Report - Statistics from HD service and user satisfaction (Required)	WP4	15/04/21	– as section of D1.9	
D4.4.7 - Report - Progress and actions about the Involvement of RSCs (Required)	WP4	15/04/21	– as section of D1.9	
D4.5.7 - Report - Progress update on promotion activities (Required)	WP4	15/04/21	– as section of D1.9	
D1.10 - Document - quarterly Progress Reports (Required)	*WP1*	*15/07/21*		
D4.3.8 - Report - Statistics from HD service and user satisfaction (Required)	*WP4*	*15/07/21*	*– as section of D1.10*	
D4.4.8 - Report - Progress and actions about the Involvement of RSCs (Required)	*WP4*	*15/07/21*	*– as section of D1.10*	
D4.5.8 - Report - Progress update on promotion activities (Required)	*WP4*	*15/07/21*	*– as section of D1.10*	
D1.11 - Document - Final Report (Required)	*WP1*	*26/08/21*		
D2.4 - Document - 2nd report on data products specifications, sources and methods of integration into the portal (Internal)	*WP2*	*26/08/21*		
D2.6 - Document - Update on M2M services (internal)	*WP2*	*26/08/21*		
D3.3 - Service - EMODnet Physics catalogue v.4 (internal)	*WP3*	*26/08/21*		

Task 1. Develop a common method of access to data held in repositories

During the period continued working on the system backend, more specifically we are now updating the management of the data collections that are available in EMODnet Physics when it links a new source. The goal is to have specific entries in the EMODnet Physics system, e.g. one is the original source, one is the specific EMODnet Physics data collection package, on is the EMODnet Physics re-processed data collection package. This has yet to be fully implemented. As an example if we consider sea level and the UHSLC as a source, we have:

1. UHSLC (data collection from the source)

https://erddap.emodnet-physics.eu/erddap/tabledap/UHSLC_global_daily_fast.html

2. EMODnet Physics Sea Level Data Collection (data collection integrating all the sources)

https://erddap.emodnet-physics.eu/erddap/tabledap/EP_ERD_INT_SLEV_AL_TS_NRT.html

3. EMODnet Physics Sea Level Products (e.g. min, max, mean) - (processed data product)

https://erddap.emodnet-physics.eu/erddap/tabledap/EP_ERD_INT_SLEV_AL_TS_MINMAXMEAN.html

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

The following products are now available on the system and ready to be promoted by Secretariat:

- Under Water Noise:
  - EP_MAP_EINR_001 – Registry of Impulsive Noise Events - The product presents information about the impulsive noise events. These data are collected at national level and contribute to the Sea Regional Convention events registry. OSPAR (North East Atlantic), HELCOM(Baltic Sea) are organized by ICES and made availbel to EMODnet Physics. Barcelona Convention (Mediterranean) registry is under discussion together with the Agreement on the Conservation of Cetaceans of the Black Sea, MediterraneanSea and contiguous Atlantic area (ACCOBAMS) which currently are providing EMODnet Physics with a demonstrator of their registry.
  - EP_MAP_EINR_002 - The product presents impulsive noise events in Pulse Block Day unit. A PBDU is the number of days in a calendar year in which impulsive sound activity occurred within the cell-grid. The product applies a common grid (10' latitude x 20' longitude) to harmonize the Regional Conventions events DBs. These data are collected at national level and contribute to the Sea Regional Convention events registry.
  - EP_MAP_EINR_003 - This product presents the Value Codes of the impulsive noise events within the cell-grid. The product applies a common grid (10' latitude x 20' longitude) to harmonize the Regional Conventions events DBs.
- Temperature in the Water Column:
  - EMODnet Physics - TEMP_001 - The page presents the monthly gridded analysis fields of temperature in the water column from the reprocessed (ISAS software) in-situ data collections (1900 - 201x). Based on the Coriolis Ocean database for ReAnalysis (CORA) v.5.2

The EMODnet Physics ERDDAP was updated with 82 new products: Each product is a multivalue timeseries (min – max – mean) with monthly granularity (monthly values).

https://erddap.emodnet-physics.eu/erddap/search/index.html?page=1&itemsPerPage=1000&searchFor=MINMAXMEAN

This product is operationally (monthly) updated.

Moreover the development of a high-resolution product on Temperature and Salinity climalogical fields on norther Adriatic was completed.

https://progetti.ingv.it/index.php/it/contratto-ett-ingv#datasets

https://erddap.emodnet-physics.eu/erddap/search/index.html?page=1&itemsPerPage=1000&searchFor=orth+Adriatic+Temperature+and+Salinity+Climatology+V1

In coming weeks it is going to be made available on a dedicated web-product interface also.

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

As part of the M2M connection task and in collaboration with Data Ingestion the following datasets were added/linked and are available under the EMODnet Physics and EMODnet Physics ERDDAP catalogue:

Rivers:

- SMHI (Sweden), Direccion General de Infraestructuras del Agua, Junta de Andalucia (Spain), CoLAB + Atlantic (Portugal), Confederacion Hidrografica del Segura (Spain)

https://erddap.emodnet-physics.eu/erddap/tabledap/EP_ERD_INT_RVFL_AL_TS_NRT.html

Sea Level:

- JRC Tsunami Alert Device network – the inclusion of TAD stations (64 stations) has been completed

https://erddap.emodnet-physics.eu/erddap/tabledap/TAD_Tsunami_Alert_Device.html

- NMDIS monthly sea level means – under the EMOD-PACE umbrella it was possible to link a NMDIS sea level dataset:

https://erddap.emodnet-physics.eu/erddap/tabledap/EMODPACE_NMDIS_L2A_SLEV_TG_TS.html

EMSO – direct real time link interoperability with EMSO stations was also updated and completed

https://erddap.emodnet-physics.eu/erddap/search/index.html?page=1&itemsPerPage=1000&searchFor=EMSO

A new dataset from Swiss Polar Institute was linked

https://erddap.emodnet-physics.eu/erddap/tabledap/SPI_10_5281_zenodo_4541563.html

On-going actions: Arctic Data – as a follow up of the Arctic Data Workshop it was possible to set up links and interactions with some new data providers, one is the ARICE project (https://www.arice.eu/) and in coming months there will be more interaction to identify both operational and delayed mode datasets to be ingested.

Task 4. Maintain and further develop a thematic web portal allowing users to find, visualise and download data and promote the data and data products of the portal

We continued the development - update of the thematic web portal and the new mapviewer is now available @ map.emodnet-physics.eu.

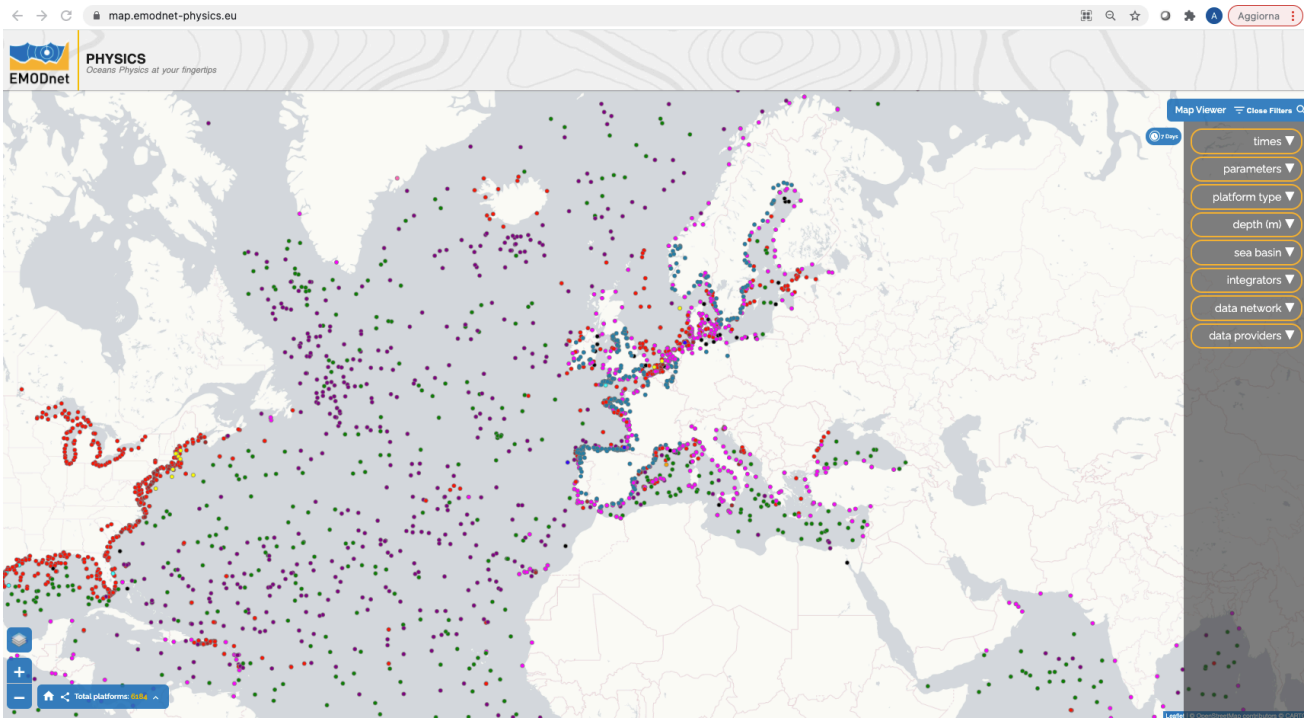

Figure 1. new EMODnet Physics map viewer.

Landing page was also updated with news about Jamboree (see annex).

Task 5. Ensure the involvement of regional sea conventions

The team is keeping supporting and participating to TG NOISE activities (TG NOISE meeting 23/2/2021). The team is also interacting with the lately started QUIETSEAS project. The project is coordinated by CTN (Spain) and will take the legacy and further develop the QUITEMED2 project.

Task 6. Install a process to monitor 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. For manual downloads from the Mapviewer (www.emodnet-physics.eu/map) authentication is requested for downloading data (older than 60 days) from coastal fixed stations and data products coming from CMEMS INSTAC.

Besides the automatic system monitoring, the EMODnet Physics team is, on a daily basis, supporting its users comminities to understand and assess the fit-for-scope of the system and during the reporting period there were interactions with the ARICE project (https://www.arice.eu/) to discuss how EMODnet Physics can support further the Arctic scientists community.

We also deployed (15/3/2021) a new apache log – monitoring tool to have information about the amount of downloaded data and better and more homogeneous tracking of the M2M requests (see annex).

Task 7. Operate a help desk offering support to users

EMODnet Physics is providing an online help desk feature to deal with users. Any request gets an id to track and manage the feedback time. Table 4 lists the collected interactions.

As already reported, EMODnet Physics is now powering the ARCTIC DATA PORTAL (arctic.emodnet-physics.eu) which was officially presented in December (more than 100 international attenders) and it is intended to serve the Arctic community as the SOOSmap portal is serving the Antarctic Oceans community. The paricipation and suppot to these two community is opening new contacts to link and access to new data (e.g. ARICE project).

Moreover, EMODnet Physics took part to EuroGOOS Tide Gauge, Ferrybox and HFR task teams workshops (organized in collaboration with the EuroSEA project) which were very good opportunityies to discuss about user needs and future joint activities. Main outcomes indicated the importance of having EMODnet Physics linking and making avaialble and easily listeable data from these communities and keeping improving and adding features on dedicated platform networks pages (like e.g. https://www.emodnet-physics.eu/map/Products/EP_MAP_RVFL_001/).

2. Identified issues: status and actions taken

The following tables report pending actions from the previous report and newly-identified priority issues.

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

A. Priority issue(s) identified and communicated by EASME/ DG MARE/ SECRETARIAT					
	Priority issue	Status (Pending/Resolved)	Action(s) taken / remaining actions planned	Date due	Date resolved
EM-87	MetadataUrl and DataUrl fields	Resolved	The INSPIRE metadata fields have been filled for all EMODnet Physics Geoserver layers, to facilitate discovery and usage of OGC Web services (WMS, WFS, WCS).	As soon as possible	02/02/2021
1	INSPIRE Metadata	Resolved	Linked to EM-87, close in collaborration with the central portal tech colleagues.		03/02/2021
2	Overall web portal performances Map viewer page	Resolved	New map viewer developed and published. We are now working on the platform page to improve performances further.		31/03/2021
EM-53	Provide - European scale TEMP climatology product (based on SDN regional products)	Resolved	Organized under mapproxy. Central portal is checking/working for its central integration – it is still missing a minor update on the OCG service to expose the legend soon as possible – end of the year		30/03/2021
EM-138	Add MATOMO script to GeoNetwork	Pending			
EM-170	EMODnet Physics catalogue is broken	Resolved	restored		25/03/2021
EM-140	Monitoring of INSPIRE QSR	Resolved	fixed		26/03/2021

Table 3. Priority issues identified by Physics 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
EP2	We use the WMO as platform id. Lately some of the platforms with old 5-digit WMO codes are also delivered with the new 7-digit code. This impacts the name of the NetCDF files that are distributed and the user may find duplicates in the system	Pending	Cross check and cleaning/declaring of duplicates. More specifically we are updating the system to be able and present when data is avaialble from more EMODnet Physics sources.	We cannot set a deadline because the update of the WMO is not depending on EMODnet Physics. We can only check and correct when an issue is identified.	
EP3	Updates to the Norwegian tide gauge network	pending	In 2019 the Norwegian Hydrographic Service corrected a set of known errors in the tide gauge records. These updated refer to data back to 2007. New data have to	As soon as possible. This task also involves the support/collaboration of CMEMS INSTAC	

			be overwritten on previous ones.		
EP4	PANGAEA CTD synch	Resolved	The new data model was mapped and the bridge was re-synch		Mar 2021
EP6	Avaialbility of the WIND_001	Resolved	As a consequence of the issues @one of the products server transfer, the WIND product was not continously avaialble		Jan 2021

3. User feedback (Contact Us form, online chat & other communication means)

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
6th January 2021	Ocean Data Portal	ERDDAP technical information request	email	2 days	Resolved	Feedback and instructions by email	
6th January 2021	Ifremer	Tech – error page in EMODnet website	email	1 day + 5 days	Resolved	Feedback by email / technical issue fixed	
22nd January 2021	Helzel Messtechnik GmbH	Platform 372980 contact request	HD	4 days	Resolved	Feedback by email	
1st February 2021	EMODnet Secretariat	Query about the status of specific CTD data ingestion	email	1 day	Resolved	Feedback by email	
8th February 2021	Le Village virtuel	Tech – API bug	HD	1 day	Resolved	Feedback by email / technical issue fixed	
9th February 2021	BODC	Questions/considerations on Argo data and metadata Tech – issue with data plotting	email	1 day	Resolved	Feedback by email / technical issue fixed	
16th February 2021	SOOS	Tech - Krillbase not loading in SOOSmap	email	1 day	Resolved	Feedback by email / technical issue fixed	
17th February 2021	CMCC	Support to data retrival	email	1 day	Resolved	Instructions by email	
4th March 2021	MER+, Uni of Bordeaux	Query about data download	HD	1 day	Resolved	Instructions by email	

9th March 2021	INOGS	Data source – anomalies in radar data from NIB/INOGS	email	1 day	Resolved	Feedback by email	
16th March 2021	HCMR	Tech - some platforms appearing on the EMODnet map do not appera on the corresponding exported list	email	1 day	Resolved	Complete dataset requested by the user sent, and issue fixed	
17th March 2021	NIB	Tech – VIDA buoy data not updating	email	1 day	Resolved	There was a problem in the data transfer with MED DAC	
23rd March 2021	HCMR	Tech – tide gauge IOC_mrms appears misplaced	email	1 day	Resolved	Coordinates fixed and user notified by email	
24th March 2021	Le Village virtuel	Tech – EP is down	email	1 day	Resolved	System restarted	

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.)
6th January 2021	online	Tech meeting - ODP/C4IR		A	Discuss interoperability between EMODnet Physics and ODP/C4IR
11th January 2021	online	NAUTILOS project – progress meeting		A	EMODnet Physics is partner in the project with role related to data interoperability and ingestion of project data
12th January 2021	online	EMOD-PACE WP3-4-5 meeting		A	To progress on EU-China interoperability on ocean observing systems
12th-14th January 2021	online	EuroGOOS Tide Gauge Task Team Workshop		A	EMODnet Physics is a key stakeholder in the TG team. The workshop discussion and activities contributed to the writing of an updated community whitepaper (EuroSea Deliverable 3.3)
25th -29th January 2021	online	EMOD-PACE annual assembly		A	EMODnet Physics is supporting several EMODPACE WPs and activities.
4th February 2021	online	SO-CHIC progress meeting		A	EMODnet Physics contributes to the project looking after data interoperability and data ingestion
9th February 2021	online	EMODnet Physics meeting		O	Annual Core team assembly
16th February 2021	online	Arctic ROOS General Assembly	Yes. Presentation about data ingestion and the EMODnet Arctic ocean data portal	A	Presentation about data ingestion and the EMODnet Arctic ocean data portal; planning of joint Arctic ROOS activities

18th February 2021	online	SO-CHIC progress meeting		A	EMODnet Physics contributes to the project looking after data interoperability and data ingestion
9th March 2021	online	AtlantOS Ocean Hour		A	Review of some of the new approaches - in Storms and Boundary Currents - that take advantage of gliders to offer new ocean observations for better serving user needs and robust information products.
12th-14th March 2021	online	Hack the Arctic		A	The event brought together science and society representatives to identify innovative solutions for key environmental challenges in the Arctic. The hackathon focused on topics such as mapping Arctic data, making scientific data available for policy-making, developing services for Arctic communities, addressing environmental changes, and fighting air pollution.
16th March 2021	online	NAUTILOS – progress meeting		A	EMODnet Physics is partner in the project with role related to data interoperability and ingestion of project data
16th March 2021	online	EMODnet - HFRNetwork		O	Internal meeting to discuss about next actions on HFR data presentation and how to approach new providers
17th -18th March 2021	online	FerryBox and High Frequency Radar virtual workshops		A/O	EuroGOOS platform networks workshops.
18th March 2021	Online	OceanMET Workshop		A	Worshop on OceanMET application and solutions. Suggested by EASME, very interesting to see how some marine-data communities are using data and which services are under development.
19th March 2021	online	SO-CHIC progress meeting		A	EMODnet Physics contributes to the project looking after data interoperability and data ingestion
24th -25th March 2021	online	Marine data to support aquaculture in the Mediterranean Sea Workshop	No	A	The event is jointly organized by EATiP, DG MARE, DG DEFIS, Copernicus Marine and

					EMODnet with the goal to discuss and link new marine data in support to aquaculture activities
SUM				**O**	**Total # of meetings organised = 3**
SUM				**A**	**Total # of meetings attended = 14**

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
12th-14th April 2021	online	IMDIS Conference	A	Due to COVID-19 situation the organizing committee decided to postpone IMDIS 2020 conference to 2021
13th-14th April 2021	Online	NAUTILOS meeting	A	EMODnet Physics and Ingestions are stakholders of the project
19th-21st April 2021	Online	EMODnet SC + TWG	A	EMODnet SC and TWG
~~May 2021(TBC)~~	~~Genoa, Italy~~	Fishing for Data 2 workshop	O	Postponed. Date to be defined
3rd -5th May 2021	online	EuroGOOS International conference	A	The conference provides a forum for a broad range of implementers and users of operational oceanography services, including marine scientists and technologists, private companies, and policymakers. The conference reviews the present ocean monitoring and forecasting capacities and oceanographic services, and identifies new science and technology priorities. It facilitates dialogue, experience sharing and future planning with both European and international partners and stakeholders, towards a more coordinated response to global challenges and societal needs related to seas and oceans https://eurogoos.ifremer.fr/

14th -18th June 2021	~~Oostende, Belgium and~~ online	EMODnet Open Conference and Jamboree	A	Event bringing together EMODnet partners, data providers and users
16th -18th June 2021	Vigo, Spain	MARETECH Workshop	A/O	Due COVID-19 situation the has decided to postpone the IX International Workshop on MARine TECHnology

5. Communication assets

[List all the relevant communication and dissemination products and assets you have developed since the start of the project phase (provide date) (e.g. brochures, videos, press releases, newsletters, blogs) and are planning to do. At the bottom of the table, provide a total number for every type of communication product you have developed (e.g. total # of press releases, etc.) or provide a summary from the actions on Twitter from (e.g. Twitter Analytics: number of Tweets and followers of Twitter account).]

Table 7. Comminunication 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)
	video	IMDIS pitch presentation	ORAL 10 – River data management and products	IMDIS2021

Morever there are the presentations that we made for the events listed in section 4.

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	How to - Discover data in EMODnet Physics - Find M2M services - Play with widgets - Query on ERDDAP	Engage more users
	Short paper	BIG – Italian Cluster on Blue Innovation and Growth newsletter	Present EMODnet to the BIG associates

[For the reporting period, please list all publications, e.g. peer-reviewed journals, book chapters, conference papers, etc.) of which you are aware, within the reporting period, including a reference to the EMODnet data or data products which is being discussed.]

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=

6. Monitoring indicators

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

Comments on the progress indicators in the excel template		
Progress indicator	Means of collecting figures	Comment
1. Current status and coverage of total available thematic data A) Volume and coverage of available data **If you don't use the provided sea-basin figures, please indicate why you do not use them, as from when, and what do you use instead and why?**	Matomo/ other (Please state which monitoring tool was used to collate the information in each case)	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. During the period we completed the re-synch with PANGAEA (that justify the increase in T and S). For this indicator we are not using proposed figures (i.e. areas in Km^2 - line 45): are we are dealing with georeferred data and we need to use to bounding box shapes (to note data Atlantic is covering from north to south from Europe-Africa to America). For indicator 1.B the unit of download is measured in platforms (in coherence 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 TDS.
B) Usage of data in this quarter		We started tracking the amount of downloaded data (in GB), we also deployed the new monitoring tool (elastick+graylog) in March (see preliminary results in the annex). Concerning the other figures, during this quarter we recorded an increase in the manual data donwload. The use of WMS/WFS layers (GeoServer) is tracked and reported under 2B. From next report, stats from the new monitoring system will be reported only in 2B. The use of APIs is recorded a little decrease, but it is in line with the previous period.
2. Current status and coverage of total number of data products A) Volume and coverage of available data products **If you don't use the provided sea-basin figures, please indicate why you do not use them, as from when, and what do you use instead and why?**		EMODnet Physics organizes data and products together threfore the volume of data for theme is the same as 1A (but the them ice). Apart from the European Under Water Noise Register and the TSM that only covering Europe (100% of the availble information) the other products offer global coverage. EP_MAP_WAVE_001 is covering only MED for the moment. Trends are negative because we decided not to count the various data collections that are

		availble @ "map.emodnet-physics.eu" because there is not yet a direct entry to the given data collection (e.g. all the ARGO data), while we are now counting only the products or collection with a given queriable url (e.g. the products on the map viewer).
B) Usage of data products in this quarter		The mapviewer and the products pages accessible under the "Products" section are monitored in terms of visits (by matomo). This makes also possible to understand the interactions of the users and the products theme: the WIND page is by far the most viewed and used page. The second most used parameter is Sea Level. This information is particularly useful to empower those interface as well as plan updates on the less visited pages (we are in phase in which we are redesigning all the products pages to have the same look and feel as well as the same user experience). 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.
3. Organisations supplying/approached to supply data and data products within this quarter		During the period we approached several river providers and it was possible to link and include many new data. The JRC TAD inclusion was completed.
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. Some of the data that are presented on the mapviewer require authentication (e.g. coastal data from European istitution - data older than 60 days). All linked datasets are unrestricted.
5. Statistics on information volunteered through download forms		During the period we collected data on 63 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 data that requires authentication (i.e. coastal data older than 60 days). The majority of EMODnet Physics data are downloadable without any authentication. Academia represents the majority about 50% in the period, about 58% overall, notably the users from business/private are keeping increasing (around 20%). Concerning the list of the users per country would be good to have the possibility to avoid to group per continents: the tracking tools resolve the ips vs country that would be the best level of information granularity to be reported.
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 one about Wave Model (DHI) is by far the most read. Latest use cases also recorded many reads. It looks like that the EMODnet use case are helping advertising of such

		application and companies, while promoting their services, are linking their users to the EMODnet cases.
8.1. Technical monitoring		The TRUST-IT technical monitoring shows some slowness in last response time (31/3/2021) this is likely due to some maintenance activity we are performing on the EMODnet Physics DB. We are keep working on the data backend infrastructure to make all the system more reactive.
8.2. Portal user-friendliness (Visual harmonization score)		There is not any major update on the landing page for the period, but the inclusion of the news about the EMODnet Jamboree call for posters. There are still 2 minor fixes to be done on the page footer.
9. Visibility & Analytics for web pages		EMODnet Physics mapviewer is by far the most used interface with a steady trend.
10. Visibility & Analytics for web sections		While the landing page number of unique visits per day is stable, we recorded a little decrease in the number of unique views per months (around 2.5K). We are keeping investing effort in expanding the number of avaialble datasets and keeping easining the access and download to these data to get back to maior peaks we recorded in the past.
11. Average visit duration for web pages		The metrics are in line with the users use of the EMODnet Physics sections: while they spend a limited time on the landing (background, news…) they interact with the mapviewer and platform pages - these are the key emodnet Physics products confirming the importance of the EMODnet Physics team in keeping developing and updating them. It is worth noting that the use of the system increased when we organized major events (e.g. in December there was the launch of the Arctic Data Portal)

The monitoring numbers reported as part of the progress monitoring of EMODnet performance are collected through Matomo. In some cases, numbers from other monitoring systems may also be reported (e.g. Awstats, Google Analytics), and if so, must be reported in the table above. Each system uses different technical approaches and therefore has its strengths and shortcomings. Therefore, results are indicative and care should be taken when interpreting absolute numbers or comparing results from different tools. It is often more sensible to consider trends over time collected by the same monitoring tool.

7. Annex: Other documentation attached

The new monitoring system is using ElastickSearch+Graylog, it is an internal tool, and it is intended to collect data to fill monitoring indicators 1 and 2

https://logstack.emodnet-physics.eu/dashboards

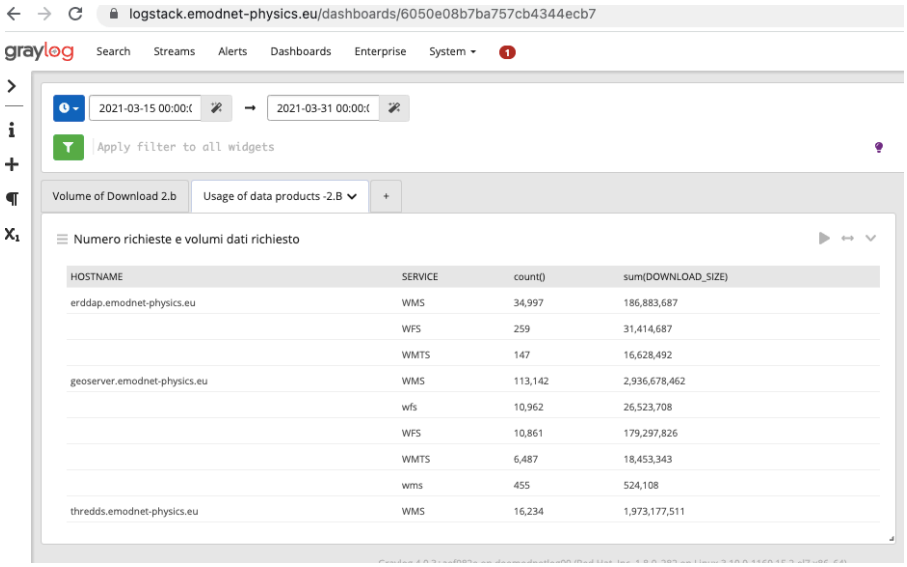

Figure 2. monitoring from 15/3/2021 to 31/3/2021

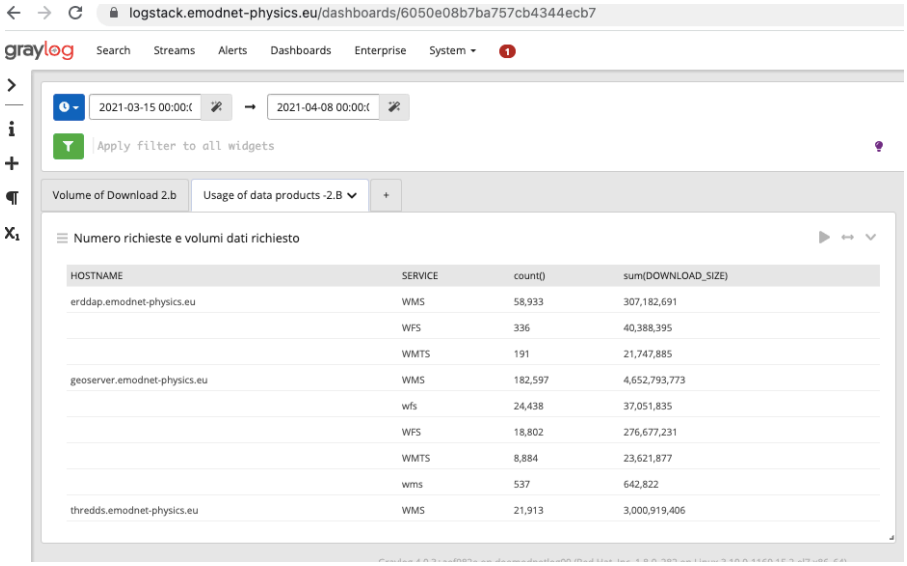

Figure 3. monitoring from 15/3/2021 to 8/4/2021

Notably in about one week the volume of data downloads from the EMODnet Physics dissemination channels is doubled, internal requests are not filtered out yet.

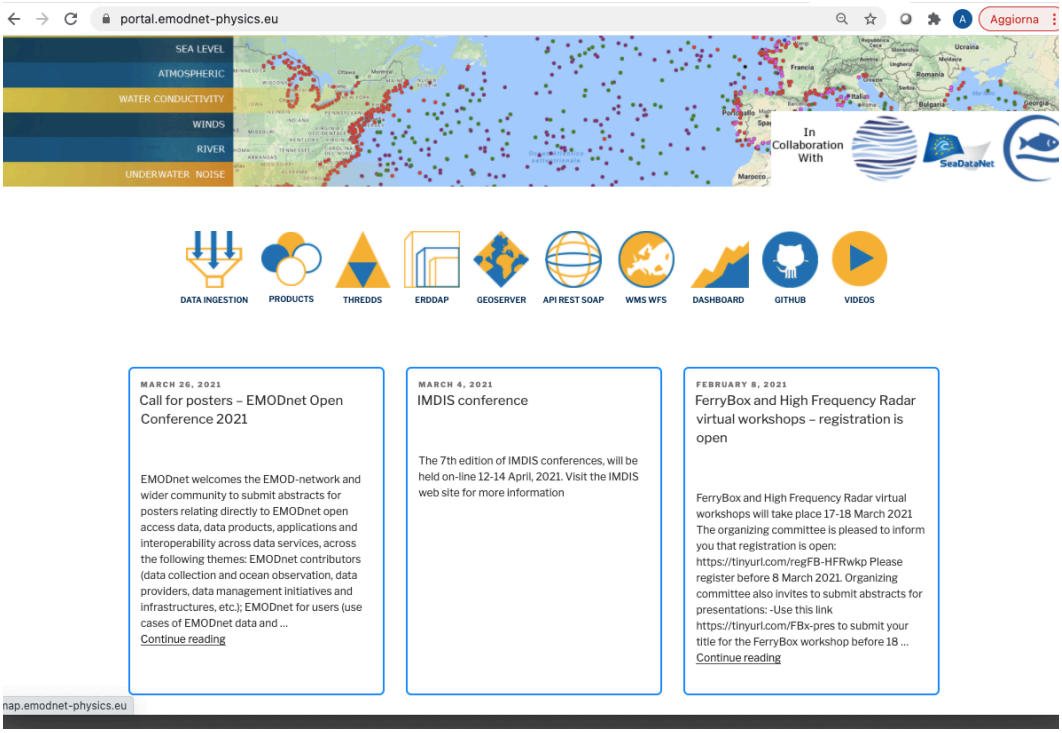

Figure 4. Landing Portal with news on Jamborre and call for posters