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)

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

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

EMODnet Phase III/IV– Quarterly Progress Report (9)

Reporting Period: 01/07/2021 – 30/09/2021

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Contents

Disclaimer

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1. Highlights in this quarter

During the quarter the team finished the contract activities on contract EASME/EMFF/2018/1.3.1.8/ Lot3/SI2.810790 and started the new contract EASME/EMFF/2020/3.1.11/Lot4/SI2.838612.
The first part of the following section reports on the previous contract, the second on the new one. The other sections are common for the two contracts.

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

Table 1. Milestones 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	Delivered	
D4.3.7 - Report - Statistics from HD service and user satisfaction (Required)	WP4	15/04/21	Delivered – as section of D1.9	
D4.4.7 - Report - Progress and actions about the Involvement of RSCs (Required)	WP4	15/04/21	Delivered – as section of D1.9	
D4.5.7 - Report - Progress update on promotion activities (Required)	WP4	15/04/21	Delivered – as section of D1.9	
D1.10 - Document - quarterly Progress Reports (Required)	WP1	15/07/21	Delivered	
D4.3.8 - Report - Statistics from HD service and user satisfaction (Required)	WP4	15/07/21	Delivered – as section of D1.10	
D4.4.8 - Report - Progress and actions about the Involvement of RSCs (Required)	WP4	15/07/21	Delivered – as section of D1.10	
D4.5.8 - Report - Progress update on promotion activities (Required)	WP4	15/07/21	Delivered – as section of D1.10	
D1.11 - Document - Final Report (Required)	WP1	26/08/21	Delivered	

D2.4 - Document - 2nd report on data products specifications, sources and methods of integration into the portal (Internal)	*WP2*	*26/08/21*	Delivered	
D2.6 - Document - Update on M2M services (internal)	*WP2*	*26/08/21*	Delivered	
D3.3 - Service - EMODnet Physics catalogue v.4 (internal)	WP3	26/08/21	Delivered	

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

Table 2. 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
D1.14 Quarterly report Q3.2021	15/10/21	This report	
D1.1 Kick off Meeting	31/12/21	28/09/2021 – KOM with Central, while the internal core team meeting is planned for 1st week of November	
D1.3 EMODnet SC	31/12/21	8-10 September 2021	
D1.4 EMODnet TWG	31/12/21	8-10 September 2021	
D1.27 EMODnet Ingestion general assembly 2021	31/12/21	21-22 September 2021	
D1.31 Use cases 2021	31/12/21		
D1.35 TGs - RSCs event attendance	31/12/21		
D2.1. Data Inventory with gap analysis v.2021	31/12/21		
D2.15 Updated list of EMODnet Physics products v.2021	31/12/21		
D2.20 River Proxy V1.0	31/12/21		
D2.25 SLEV INS DB	31/12/21		
D2.35 TGs - RSCs event attendance	31/12/21		
D2.4 EMODnet Physics Event/Workshop	31/12/21		
D3.1 Report on the SOS.SWE connected stations v.2021	31/12/21		
D3.12 Phasing out of EMODnet Physics mapviewer	31/12/21		
D3.13 EMODnet Physics catalogue v.2021	31/12/21		
D3.5 Report on new API v.2021	31/12/21		
D3.8 handbook to use EMODnet Physics APIs v.2021	31/12/21		
D1.15 Quarterly report Q4.2021	15/01/22		
D1.25 EMODnet Physics note for Annual Report 2021	31/03/22		
D1.34 Contribution to central space with background information and EMODnet Physics content	31/03/22		
D2.32 WAVE INS DB+ NOWCAST v.2.0	31/03/22		
D2.33 WIND INS DB+ NOWCAST v.2.0	31/03/22		
D3.11 Phasing out of EMODnet Physics Landing page	31/03/22		
D3.16 Monitoring tools	31/03/22		
D1.16 Quarterly report Q1.2022	15/04/22		
D1.5 EMODnet SC	30/06/22		
D1.11 EMODnet plenary event	30/06/22		
D1.36 TGs - RSCs events sattendance	30/06/22		
D1.6 EMODnet TWG	30/06/22		
D2.18 SSS v.2020	30/06/22		

D2.36 TGs - RSCs events sattendance	30/06/22		
D2.5 EMODnet Physics Event/Workshop	30/06/22		
D1.17 Quarterly report Q2.2022	15/07/22		
D1.22 Annual progress report	23/08/22		
D1.29 Guideline on data ingestion procedures for new real time and near real time streams v.2022	30/09/22		
D2.10 EMODnet Physics Handbook on data management	30/09/22		
D2.12 EMODnet Physics Metadata handbook and examples	30/09/22		
D2.13 Report on dissemination system interfaces update v.2022	30/09/22		
D2.16 Updated list of EMODnet Physics products v.2022	30/09/22		
D2.2 Data Inventory with gap analysis v.2021	30/09/22		
D2.21 River Proxy V2.0	30/09/22		
D2.23 INS RVFL DB v.1.0	30/09/22		
D2.26 SLEV REL TRENDS	30/09/22		
D2.27 SLEV ABS TRENDS	30/09/22		
D2.28 SLEV REL ANOM	30/09/22		
D2.29 SLEV ATL ABS TREND	30/09/22		
D2.31 UWN ROI v.1.0	30/09/22		
D2.34 ICE SIC v.2.0	30/09/22		
D2.8 Report on th maintainace and update of the EMODnet Physics smart connectors v.2022	30/09/22		
D3.14 Maintenance and update of EMODnet Physics catalogue v.2022	30/09/22		
D3.2 Report on the SOS.SWE connected stations v.2022	30/09/22		
D3.6 new APIs v.2022	30/09/22		
D3.9 handbook to use EMODnet Physics APIs v.2022	30/09/22		
D1.18 Quarterly report Q3.2022	15/10/22		
D1.12 EMODnet plenary event	31/12/22		
D1.2 Annual assembly	31/12/22		
D1.28 EMODnet Ingestion general assembly 2022	31/12/22		
D1.32 Use cases 2022	31/12/22		
D1.37 TGs - RSCs events attendance	31/12/22		
D1.7 EMODnet SC	31/12/22		
D1.8 EMODnet TWG	31/12/22		
D2.37 TGs - RSCs events attendance	31/12/22		
D2.6 EMODnet Physics Event/Workshop	31/12/22		
D1.19 Quarterly report Q4.2022	15/01/23		
D1.26 EMODnet Physics note for Annual Report 2022	31/03/23		
D1.20 Quarterly report Q1.2023	15/04/23		

D1.10 EMODnet TWG	30/06/23		
D1.13 EMODnet plenary event	30/06/23		
D1.38 TGs - RSCs events attendance	30/06/23		
D1.9 EMODnet SC	30/06/23		
D2.19 SSS v.2021	30/06/23		
D2.24 TSM v.2021	30/06/23		
D2.30 RFVL v.1	30/06/23		
D2.38 TGs - RSCs events attendance	30/06/23		
D2.7 EMODnet Physics Event/Workshop	30/06/23		
D1.21 Quarterly report Q2.2023	15/07/23		
D1.23 Final progress report	23/08/23		
D1.24 Handover note	23/08/23		
D1.30 Guideline on data ingestion procedures for new real time and near real time streams v.2023	30/09/23		
D1.33 Use cases 2023	30/09/23		
D2.11 Support to develop common strategy and guideline for adoption cloud technologies	30/09/23		
D2.14 Report on dissemination system interfaces update v.2023	30/09/23		
D2.17 Updated list of EMODnet Physics products v.2023	30/09/23		
D2.22 River Proxy V3.0	30/09/23		
D2.3 Data Inventory with gap analysis v.2021	30/09/23		
D2.9 Report on th maintainace and update of the EMODnet Physics smart connectors v.2023	30/09/23		
D3.10 handbook to use EMODnet Physics APIs v.2023	30/09/23		
D3.15 Maintenance and update of EMODnet Physics catalogue v.2023	30/09/23		
D3.3 Report on the SOS.SWE connected stations v.2023	30/09/23		
D3.4 Handbook on procedure to set up SOS.SWE interoperability	30/09/23		
D3.7 new APIs v.2023	30/09/23		

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

Task 1(n). Maintain and improve a common method of access to data held in repositories

During the reporting period, we continued working on the system backend and cleaning and updating datasets and data packages in the system.

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

Task 2(n). 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:

- **Salinity:**
  - EP_MAP_PSAL_002 (https://products.emodnet-physics.eu/EP_MAP_PSAL_002/): Near real-time salinity of the water column from multi-platform observations. This product presents the latest 7 and 60 days of measurements from moving platforms.
  - EP_MAP_PSAL_003 (https://products.emodnet-physics.eu/EP_MAP_PSAL_003/): Salinity profiles collected by animal-borne instrumentation.
  - EP_MAP_PSAL_005 (https://products.emodnet-physics.eu/EP_MAP_PSAL_005/): Salinity monthly climatology for North Atlantic Ocean, Baltic Sea, Arctic Sea, Mediterranean Sea and Black Sea, covering the period from 1900 to 2014.
  - EP_MAP_PSAN_001 (https://products.emodnet-physics.eu/EP_MAP_PSAN_001/): Salinity anomalies calculated over baseline averages of 10 years. This product provides the difference of a yearly average salinity from the average of the baseline period.
  - EP_MAP_PSAN_002 (https://products.emodnet-physics.eu/EP_MAP_PSAN_002/): Salinity anomalies calculated over baseline averages of 20 years. This product provides the difference of a yearly average salinity from the average of the baseline period.
  - EP_MAP_PSAN_003 (https://products.emodnet-physics.eu/EP_MAP_PSAN_003/): Salinity anomalies calculated over baseline averages of 30 years. This product provides the difference of a yearly average salinity from the average of the baseline period.
  - EP_MAP_NADR_002 (https://products.emodnet-physics.eu/EP_MAP_NADR_002/): High-resolution salinity climatological fields for the Northern Adriatic Sea.
- **Temperature:**
  - EP_MAP_TEMP_002 (https://products.emodnet-physics.eu/EP_MAP_TEMP_002/): Near real-time temperature of the water column from multi-platform observations. This product presents the latest 7 and 60 days of measurements from moving platforms.
  - EP_MAP_TEMP_003 (https://products.emodnet-physics.eu/EP_MAP_TEMP_003/): Temperature profiles collected by animal-borne instrumentation.
  - EP_MAP_TEMP_004 (https://products.emodnet-physics.eu/EP_MAP_TEMP_004/): Temperature monthly climatology for North Atlantic Ocean, Baltic Sea, Arctic Sea, Mediterranean Sea and Black Sea, covering the period from 1900 to 2014.
  - EP_MAP_TEAN_001 (https://products.emodnet-physics.eu/EP_MAP_TEAN_001/): Temperature anomalies calculated over baseline averages of 10 years.
  - EP_MAP_TEAN_002 (https://products.emodnet-physics.eu/EP_MAP_TEAN_002/):

Temperature anomalies calculated over baseline averages of 20 years.

- EP_MAP_TEAN_003 (https://products.emodnet-physics.eu/EP_MAP_TEAN_003/): Temperature anomalies calculated over baseline averages of 30 years.
- EP_MAP_NADR_001 (https://products.emodnet-physics.eu/EP_MAP_NADR_001/): High-resolution temperature climatological fields for the Northern Adriatic Sea.

- **Wind**
  - EP_MAP_WIOD_001 (https://products.emodnet-physics.eu/EP_MAP_WIOD_001/): Wind observation-days per year.
- **Wave**
  - EP_MAP_WAOD_001 (https://products.emodnet-physics.eu/EP_MAP_WAOD_001/): Wave observation-days per year.
- **Sea level**
  - EP_MAP_SLOD_001 (https://products.emodnet-physics.eu/EP_MAP_SLOD_001/): Sea level observation-days per year.
- **River flow**
  - EP_MAP_RFOD_001 (https://products.emodnet-physics.eu/EP_MAP_RFOD_001/): River flow observation-days per year.
- **Current**
  - EP_MAP_CUOD_001 (https://products.emodnet-physics.eu/EP_MAP_CUOD_001/): Current observation-days per year.
- **Carbon dioxide**
  - EP_MAP_SOCAT_001 (https://products.emodnet-physics.eu/EP_MAP_SOCAT_001/): Surface ocean fugacity of carbon dioxide observations from 1957 to 2019 for the global oceans and coastal seas. This product is based on the Surface Ocean CO_2 Atlas (SOCAT) database v.2020.

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

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

As part of the M2M connection task, we continued the on-going activities to ingest and include ARICE project (https://www.arice.eu/) data and EuroFleets+ project data. Metadata and data models exchange are under a final review before proceeding with data integration.

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

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

We continued the development and update of the thematic web portal.

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

We had the first meeting with the Central portal team (28/09/2021) and we started the discussion on the portal migration process.

Task 5(n). Contributing content to dedicated spaces in Central Portal

The first task will be the mapping of the static content to be ported under the central portal, activity has already started.

Task 5. Ensure the involvement of regional sea conventions

Task 6(n). Ensure the involvement of regional sea conventions

In line with the previous periods, we are going to follow the TG NOISE activities (external attender) and under the new contract ICES (core team partner) and CTN (subcontractor) will help ensuring the involvment of RSC.

Task 6. Install a process to monitor performance and deal with user feedback

Task 8(n). 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. For manual downloads from the Mapviewer (www.emodnet-physics.eu/map) authentication is proposed for downloading data (older than 60 days) from coastal fixed stations and data products organized under CMEMS INSTAC. Moreover the new products and service monitoring service (graylog) is up and running.

Besides the help desk system (see task.7) the main interaction with users was during the Polar Data Forum when stakeholders confirmed the importance of having harmonized and simplified system to access data such as EMODnet Physics: the mapviewer provides the users with an eaasy tool to identify gaps.

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 5 lists the collected interactions.

As part of the support to users, we guided OGS to set up and deploy an ERDDAP instance, now avaialble @ https://nodc.inogs.it/erddap/info/index.html?page=1&itemsPerPage=1000

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

Nothig to report for this specific task since the start of the new contract.

2. Identified issues: status and actions taken

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

Table 3. 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
EM-14/EM-87	Physics - Web Services MetadataUrl and DataUrl fields	In progress	Service check and update – continuous dialogue with secretariat/central portal tech team.	asap	
EM - 50	Products to be offered via OGC services	In progress	Part of the Physics to central discussion		
EM-138	Add MATOMO script to GeoNetwork	Resolved			27/08/2021
EM-140	INSPIRE quality Service requirements	In progress	TWG is working on this issue.	asap	
EM-145	The WMS service exceeds the 10-seconds response time required by INSPIRE	In progress	To run the final tests and close the issue	asap	
EM-210	LegendGraphics for HFR WMS	Pending	Mapproxy does not support the legend graphics as requested. A custom development is needed	asap	
EM – 214	Banner – Online Survey 2021	Resolved	Page updated		27/05/2021
EM – 237	Update data protection notice	Resolved	Portal updated		03/06/2021
EM – 243	WMS is failing to via the website	Resolved	fixed		22/06/2021
EM – 249	Online Survey - Banner update deadline extended	Resolved	Page updated		01/07/2021

Table 4. 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 be overwritten on previous ones.	As soon as possible. This task also involves the support/collaboration of CMEMS INSTAC	
EP7	Update the platforms page with the same technology and responsiveness implement for the mapviewer		We need to complete this development to improve end user experience and usability of the data	August 2021 – there is a bit of delay, under test for deployment	

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

Table 5. 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
14/07/21	Deltares	English Channel temperature data enquiry	email via Secretariat HD	12 days	Resolved	Feedback by email.	
14/07/21	PMA	Missing PANGEA CTD profiles to be uploaded on EP portal	email	21 days	Resolved	Feedback by email.	Email was blocked by antispam filters
19/07/21	Private	Sea level data enquiry	email via Secretariat HD	7 days	Resolved	Feedback by email.	
21/07/21	Private	Forgotten password	HD	0 day	Resolved	Feedback by email.	
16/09/2021	EuroGOOS	Enquiry on 'share link' functionality of the EP portal.	HD	0 days	Resolved	Feedback by email.	
28/09/2021	KU Leuven	Wind data enquiry – technical details of mooring measurements	HD	0 days	Resolved	Feedback by email.	

4. Meetings/events held/attended & planned

Table 6. 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 July 2021	On line	Meeting – CNR ISP	No	O	Follow up on linking ARICE project data
7th-10th September 2021	On line	EMODnet SC and TWG	Yes	A	EMODnet Steering Committee and Technical Working Group meetings
24th September 2021	On line	SHAREMED WS - REMTECH	no	A	REMTECH is a international workshop on coastal management – during the event the SHAREMED project hold its final workshop and EMODnet Physics was invited to attend and participate to the advisory panel discussion
21st – 22nd September 2021	Online	EMODnet Ingestion AM	yes	A	Annual meeting – EMODnet Physics and Ingestion are working together to unlock further data transfer with a special focus on operational data
22nd-24th September 2021	On line	Workshop – Polar Data Forum	No	A	https://polar-data-forum.org/ - it is a place where polar data holders get together and improve data usage.
28th September 2021	Online	EMODnet Central Portal KOM	No	A	KOM on the migration of EP to the central portal
SUM				**O**	**Total # of meetings organised = 1**
SUM				**A**	**Total # of meetings attended = 5**

Table 7. 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
5th October	On line	EMODnet Physics – River team coordination meeting	O	River products update planning
6th-7th October 2021	On line	Blue Planet Forum	A	
19th-20th October 2021	On line	NAUTILOS Annual Assembly	A	
26-28th October	On line	MONGOOS Workshop and Annual Assembly	A	
November 2021	On line	Physics core team Annual meeting	O	

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 8. 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)

Table 9. 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

Table 10. 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)

Giuseppe Manzella and Antonio Novellino edited a Elsevier book on Ocean Science. EMODnet program and the progress from many of the thematic lots are central in the proposed book chapters. The book is going to be published in October 2021.

https://www.elsevier.com/books/ocean-science-data/manzella/978-0-12-823427-3

Moreover, 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 competed the update from platforms providing currents (U, V and U+V). 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 WMS. The template was slightly modified to facilitate the computation of the %variation for the reporting period

B) Usage of data in this quarter		The new system to monitor and report the volume of downloaded data is monitoring all the EMODnet Physics delivery channels but the mapviewer which, for the download, rely on the ERDDAP. As reported in 2B the overall amount of downloaded data from ERDDAP is about 1500 GB. At the moment it is not possible to have the real amount of downloaded data per theme from the mapviewer, anyhow if we consider that the map manual download is 0,6% of the ERDDAP+map manual download (2B col F), if we assign to the map download 0,6% of the downloaded volume of data (from ERDDAP), we can estimate the total volume downloaded per themes (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.
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. As reported a number of new collection and product pages have been made available.
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. EP_MAP_WIND_001 is by far the most viewd product. 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.

3. Organisations supplying/approached to supply data and data products within this quarter		The report is covering the summer time and there was any specific supplyer approaching action.
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 71 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), 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 64% in the period, the users from business/private is stable (around 20%), then Gov (about 10%) and NGO and others the remaining part.
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.
8.1. Technical monitoring		System is stable (uptime), the average response time could be improved further
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 an steady trend. Catalogue is also quite well consumed.

10. Visibility & Analytics for web sections		After the peak recorded in the 4th quarter 2021, the analytics for the web section shows an average quarterly interaction from circa 2.5K users. Starting from this quarter we also have the monitoring of the catalogue/geonetwork page.
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