

13th EMODnet Steering Committee MeetingAutumn 20209-10 November

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EMODnet Physics www.emodnet-physics.eu

The European Marine Observation and Data Network (EMODnet) is financed by the European Union under Regulation (EU) No 508/2014 of the European Parliament and of the Council of 15 May 2014 on the European Maritime and Fisheries Fund.

## Status update EMODnet Physics

- Task 1. Develop a common method of access to data held in repositories
  - Data flow from repositories to EMODnet Physics was re-designed and re-organized
  - "smart connectors" to link and map data sources available in different formats and technologies
  - Better management of source catalogues/formats update (e.g. CMEMS INSTAC annual major rel.)
  - Better management of multiple sources (and duplicates)
- Task 2. Construct products from one or more data sources that provide users with information about the distribution of parameters in time and space

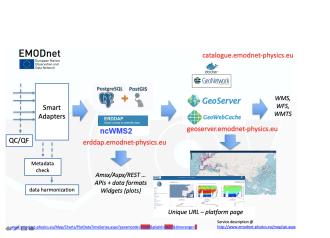
EMODnet Physics products range from collection of in situ data, reanalysis and trends from in situ data, elaboration in space and/or time of in situ data and model output for a given parameter.

- GUIs and M2M (mapviewer, ERDDAP, GeoNetwork, ...) with information about distribution of parameters in time and space
- Identified gaps (@bid): PANGAEA; ICES, WOD2013 (CMEMS INS, IFREMER CORA 5.2; SDN T&S V.2); SOOP Surf. pCO2 (SOCAT, GLODAP); JRC TAD;
- New platforms pages and products pages (+matomo)

	ARGO Floats	CTDs	Drifting Buoys	FB- Ship	gliders	sea mammals	mini loggers	moorings	radar	river stations	tide gauges
Mar2019	10479	313212	13206	406	212	2131	177	3406	152	635	3189
Jul2020	11061	779444	14623	322	226	2141	182	4065	156	680	3504



(10)



# Status update EMODnet Physics

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

M2M to EMODnet Physics (mostly in partnership with Ingestion)

- Real Time SOS SWE Demonstrator
  - Eurofleet, Interoperability with DAB
- Saildrone, Fishing Vessels, Arctic Circular Exp (zenodo+github)

#### **EMODnet Physics M2M**

- ERDDAP: FGDC Web Accessible Folder (WAF) with FGDC-STD-001-1998 and ISO 19115 WAF with ISO 19115-2/19139;
- THREDDS: OpenDAP, NetCDF Subset Service, WCS 1.0 Service, WMS 1.3.0 Service, ncISO: Dataset Metadata Services, OAI Metadata harvesting;

provider

Sensors

Types

Datasets

 GeoServer: Open Geospatial Consortium protocols including Web Map Service (WMS), Web Feature Service (WFS), Web Coverage Service (WCS) and Web Map Tile Service (WMTS)

NEXOS

12

Trj

14

**IRCEL** -

CELINE

111

Time

series

598

OBSEA

2

Time

series

17

PIM

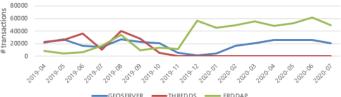
5

Time

series

15

- GeoServer INSPIRE module → new products ok, still open ticket on older layers
- GeoNetwork: WxS, OGC, ISO standards.
- web APIs, widgets (e.g. published use case)



SMHI

2825

Time

series

4591

INOGS

15

Time

Series

64

MONALIS

A prj

31

Time

Series

353

52N

server

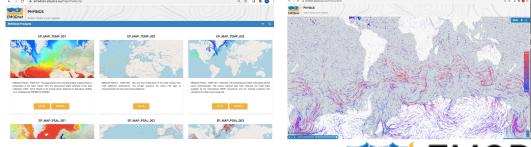
83

Time

Series

212

- Task 4. Maintain and further develop a thematic web portal allowing users to find, visualize and download data and promote the data and data products of the portal
  - New products discovery page
  - New platforms pages and products pages (+matomo)
  - Promotion in more than 70 events (25 organized)



CNR +

ARPA ER

669

Time

series

4

HZG –

FerryBox

569

Time

series

327585

# Status update EMODnet Physics

- Task 5. Ensure the involvement of regional sea conventions
  - Focus on underwater noise
    - Participation to TG NOISE + noise products
    - hub for ICES (member of EMODnet Physics) noise products (OSPAR, HELCOM)
    - AoB QUIETMED2 (Barcelona and ACCOBAMS)
    - Use of Human Activities layers for (impulsive) noise sites gap analysis (postponed)

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

- Matomo on landing page, mapviewer, products pages, platform pages, ERDDAP
- Web form to map users (Academia, Research 51%; Business 20%; Other 15%; Government 10%; no profit 4%)
- Feedback collection @ events

### • Task 7. Operate a help desk offering support to users

- Help desk form + internal ticket management system (60 tickets Mar 2019 Jul 2020) + call back
- Chat
- Bespoken/tailored services (web, widgets, reports, ...) for users-community
  - CMEMS INSTAC, OceanGliders, HFR Global community,
  - SOOS, Arctic, H2020 projects (SeaDataCloud, JERICO S3, EuroSEA, SO-CHIC, ...)



Noise\_monitoring\_asset\_mapping





# **Cross-Thematic Interactions**

- Ingestion
  - Joint promotion and events, SOS SWE demonstrator, ...
- Chemistry
  - M2M of "chemistry" domain parameters (DOX, Chl, ..)
  - Planned joint activities on rivers data/river products and aquaculture
  - Discussion on joint session @ Jamboree 2021
- Seabed Habitats
  - Arctic Ice contour, TSM, river data (use and feedback)
  - Discussion on joint session @ Jamboree 2021
- Human Activities
  - Joint participation to some events (before COVID)
  - Use of HA datasets for noise gap analysis
- Biology
  - Joint support to end-users communities (SOOS) and data flow
- PACE
  - Support for asset mapping (WP4, WP5)

GOOS <i>in situ</i> networks	Covid-19 impact			
networks	June 2020	Projected status December 2020		
Ship based meteorological measurements	Minor	Minor		
Ship based aerological measurements	Minor	Minor		
Ship based oceanographic measurements (XBT)	Major	Major		
Sea level gauges	Minor	Minor		
Drifting and polar buoys	Minor	Minor		
Moored buoys	Minor	Minor		
Interdisciplinary moorings	Medium	Medium		
Profiling floats	Minor	Minor		
Repeated hydrographic transects	Major	Medium		
OceanGliders	Medium	Minor		
HF radars	Minor	Minor		
Animal borne ocean sensors	Minor	Medium		



### **External interactions**

### EU level:

- TG NOISE, CMEMS INSTAC, GRDC, Copernicus IN SITU component (Arctic), European Polar Board, T-MEDNet
- EuroGOOS: TWG, DATAMEQ WG, Task Teams (ferrybox, HFR, gliders, tide gauge), ROOSs
- H2020 Projects: SDC, EuroSEA, JERICO S3 and DS, SO-CHIC, NAUTILOS

### **Global level:**

 SOOS, SAON, NOAA (ERDDAP), WMO WGs, IOC (Ocean Decade, GOOS, OceanOPS, IODE), AniBOS, OceanGliders, Educational Passages, ICES, OceanOBS

National: mainly where core team are (COVID)

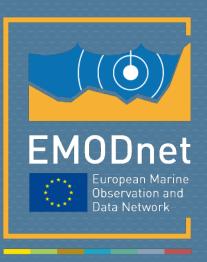


## **Future Outlook**

- Complete the backend update (split landing, map, etc on different VMs; aspx → angular to improve reactiveness/performances of the pages)
- Keep extending datasets in time and space
- Make available new products page (facilitate access to fit-for-use/community subsets)
- Asset mapping/density maps
- Fix INSPIRE issue
- Products
  - New SDN Temperature and Salinity
  - River proxy + short term forecast
  - Wave nowcast
  - Sea Level (fast/TAD; altimetry + in situ trend) -
  - D11 Noise (monitoring sites)
  - Platform network products (HFR, Glider, SeaMammals, TG)
- Users and Community support
  - CMEMS INS TAC, SOOS, Arctic
  - H2020 projects (JERICO S3)

when	where	Event
9-10/11/2020	web	EMODnet SC
4-6/11/2020	web	BOOS AM
11-12/11/2020	web	EMODnet TWG
16-19/11/2020	web	WMO Data Conference
18-19/2020	web	AniBOS meeting
20/11/2020	Web	Arctic Data Portal KO
26-27/11/2020	Web	MOONGOOS Annual Meeting
27/11/2020	Web	Arctic Data Webinar
<mark>3-7/03/2021</mark>	<mark>Oostende,</mark> Belgium	EMODnet Open Conference and 2nd Jamboree
<mark>23-25/03/2021</mark>	<mark>Gothenburg,</mark> Sweden,	Ferrybox Workshop
<mark>23-25/03/2021</mark>	<mark>Gothenburg,</mark> Sweden,	HFR Workshop
12-14/04/2021	web	IMDIS Conference
May 2021(TBC)	TBD	Fishing for Data 2 workshop
May-June 2021	Brest, France	EuroGOOS International conference





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