

EMODnet-Copernicus Marine Service 8th Coordination meeting

Joint Marine In Situ Collaboration (MIC) Group

Antonio Novellino, Dominique Obaton 20 October 2023

MIC | background

bringing together key actors from EMODnet Ingestion, Physics, Chemistry, Copernicus Marine Service In Situ TAC, EuroGOOS office, EuroGOOS Task Teams, and SeaDataNet, for working together on the further harmonization of standards, procedures and workflows for ingesting and sharing operational data.

• EMODnet Physics

- in situ data on ocean physics
- Temperature, salinity, sea level, currents, waves and winds, optical properties of the water, under water noise, ice data, river runoff, meteorological data at sea level
- includes operational (near real time) and historical validated data
- it does not operate platforms
- builds on existing marine data infrastructures and programs and rely on collaborative framework
- includes and promotes open access (CC-BY)
- support common standards adoption (FAIR)

EMODnet Ingestion operates a framework to facilitate ingestion of new sources

• CMEMS INS TAC

- in situ data on ocean physics and biogeochemistry
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- operates operational products
- operates multi-year reanalysis products
- it does not operate platforms
- support common standards adoption (FAIR)



MIC | background

coord team	Advisors		Tech team		Tech team	
Antonio Novellino	Alessandra Giorgetti	Chemistry	Abigel Georgieva	INSTAC - BLACK SEA	Peter Thjisse	
Dominique Obaton	Dick Schaap	Ingestion - SDN	Alex Gallardo	INSTAC - IBI	Elizabeth Bradshaw	SL
Fernando Manzano	Patrick Gorringe	Physics	Begoña Pérez	INSTAC - SEA LEV	Angela Hibbert	SL
	Thierry Carval	DATAMEQ	Erik Campo	INSTAC - NWS	Julien Mader	HFR
	Virginie Vdv	EuroGOOS	Ludovic Drouineau	INSTAC - GLO	Francisco Campuzano	River
	Victor Turpin	OCEANOPS	Irene Pérez González	INSTAC - NWS	Marco Alba	
			Johanna Linders	INSTAC - BAL	Francesco Misurale	
			Leonidas Perivoliotis	INSTAC - MED		
			Maria Sotiropoulou	INSTAC - MED		
			Marta de Alfonso	INSTAC - IBI/SEA LEV		
			Susanne Tamm	INSTAC - NWS		
			Yoana Voynova	INSTAC - FB		
			Arnfinn Morvik	INSTAC - ARC		
			Asuka Yamakawa	INSTAC - ARC		









EMODnet Physics | how it works



MIC | goals

- Goals
 - avoid duplication of effort and misunderstandings
 - streamline a common ingestion procedure to provide near real-time data to the operational community and facilitate its availability in National Oceanographic Data Centers and other official repositories for long-term stewardship of these valuable data
 - EMODnet targets a broader range of variables, there is a natural overlap between EMODnet and INS TAC DB, leading to the expected faster growth of the EMODnet DB
 - work to have the two DB as close as possible
- known challenges
 - INSTAC applies a uniform and unique method to assess data quality within CMEMS
 - Physics accepts various methods and best practices for quality assessment, and relies on other official repositories that apply these QC/QF procedures.
- success stories
 - HFR, Stena Lines, Iceland, Croatia, Australia, Fishing Gears, ...



EMODnet Physics | Applicable standards

Metadata	Use known controlled vocabularies	Parameters, Units: SeaDataNet P09:P01:P02; P06 Organizations: SeaDataNet EDMO <u>https://</u> <u>edmo.seadatanet.org/results</u>		
Data Format	The netCDF CF (v1.6 or greater) format is preferred as it is commonly used by the marine community and by the data integrators for in situ data as well as for satellite and modelling ones. csv, txt, griib, HD5 are ok	Data model is important		
		 ftp, for direct download of data 		
Access protocol	standardised communication protocols	 https, for implementation of ERDDAP server that allows access to discrete data (as in situ ones) 		
Licence	When possible, to give open and free access to the data. Note that this access can be done through authorisation or authentication if needed. "As open as possible, restricted if necessary"	" <mark>Creative Commons" (CC)</mark> :6 different licence types. The most permissive <mark>: CC-BY</mark> (which the only limitation that credit must be given to creator) should be preferred.		
Principal Investigators	actors associated to the data	Persistent digital identifier or ORCID code https://orcid.org/		
Dataset	The datasets should be identified by a DOI, <mark>persistent identifier for object and ISO standard.</mark>	DOI publishers e.g. SEANOE (<u>https://www.seanoe.org/html/doi-</u> <u>complementarity -with-databases.htm</u>) for marine research data		



- new (operational) source workflow:
 - 1) how data can be shared?
 - 1) if M2M (ERDDAP, FTP...) available go to 2
 - 2) support to implement M2M (install ERDDAP docker)
 - 2) check of basic metadata
 - 1) if not ok, add/clean (to improve feedback loop)
 - 3) activate INS TAC (Trello)
 - 4) package as is
 - 1) (erddap.emodnet-physics.eu)
 - 5) package in EMODnet collection
 - 1) (data-erddap.emodnet-phyics.eu)
 - 6) check Trello (is in INSTAC?)
 - 1) if yes update 5





@EMODnet emodnet.ec.europa.eu

Your gateway to marine data in Europe

EMODnet: Temperature and Salinity





EMODnet: Sea Level





