

Your gateway to marine data in Europe

EMODnet Physics and River Runoff data management

EASME/EMFF/2016/006 - Operation, development and maintenance of a European Marine Observation and Data Network EASME/EMFF/2016/1.3.1.2 – Lot 3/SI2.749411

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more than 25.000 connected platforms, more than 600.000 datasets



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A common infrastructure to serve many users

Near Real Time data/operational data

Federatated Repositories:

- Institutes/projects
- CMEMS INSTAC EuroGOOS ROOS (5 regional assembly centres + 1)
- GDAC/IOOS/IMOS/etc

Platforms:

 fixed mooring, ferrybox, tide gauge, drifting buoy, ARGO, ships

Time dimension:

Depending on datasets (days to years)

Metadata + Transport format:

Netcdf (CF convention), csv, ...

Historical validated data sets

Reprocessed data/Products

Repositories:

- CDI: centralized
- Datasets: NODC and SeaDataNet nodes (100 centres)

Platforms:

fixed stations (mooring, tide gauge)

Time dimension:

Depending on datasets (ranging from month to years)

Metadata + Transport format:

• CDI + ODV4/Netcdf (CF)

Repositories:

• SDN, CMEMS INSTAC, PSMSL, SONEL, GRDC, MEOP, ...

Time dimension:

- Depending on products **Geo dimension**:
- Depending on products Metadata + Transport format:
- Netcdf (CF), OGC

For parameters (and platforms) data flow not harmonized yet, **EMODnet Physics is** supporting/developing the full data management, hosting and dissemination chain (including RT): HFR, River Outflow, Water noise



- <u>major pathways for material fluxes</u> (e.g., nutrients and sediment) from land to sea, contributing to the <u>maintenance of coastal and</u> <u>marine ecosystem</u>.
- <u>boundary conditions</u> for coastal and offshore <u>circulation of oceanic</u> <u>systems</u>.

but

- Sparse data in national/regional webpages sometimes only in local language;
- Global databases that provide historic data flows but lack of near real time data;
- Water level data without flow curve for conversion into river flow;
- River runoff reaching the coastal area is unavailable or unmonitored for many rivers.



River Runoff



European Marine Observation and Data Network



- > 150 operational stations
- 350 long term timeseries (mon av)



Recommended: INSPIRE



NRT

EMODnet

European Marine Observation and Data Network

EMODnet	DATA PLOTS DATA DOWNLOAD Documentation & M2M DASHBOARD	æ
TagusAlmourol		<u>8</u> -
NIGAZ Constância	7 Days 60 Days Older data	select data format and go Download Preview
t da Fancos Citelo de Almourol	plots are a Huntime undersampled view of the dataset. to see full details open the "preview" R River / river water flow - m3/second	
Google Dati mappa Termini e condizioni d'uso	river water flow in TIME from 2018/10/01 to 2018/11/30	=
AGÊNCIA PORTUGUESA DO AMBIENTE		
PLATFORM CODE TagusAlmourol		/
PLATFORM NAME TagusAlmourol	-100 2. Oct 4. Oct 6. Oct 8. Oct 10. 12. 14. 16. 18. 20. 22. 24. 26. 28. 30. 1. Nov 3. Nov 5. Nov 7. Nov 9. Nov 11. 13. 15. 17. 19. 21. 23. 25.	27. Nov
INSTITUTION APA - Agencia Portuguesa do Ambiente - Portugal	QC any QC doc Select other depths to see more timeseries Coc oct oct oct oct oct oct oct oct oct o	Physics
ASSEMBLY CENTER MARETEC, Instituto Superior Tecnico, Universidade de Lisboa, Portugal		

TYPE

river station

PRINCIPAL INVESTIGATOR

MARETEC



GRDC

EMODnet

European Marine Observation and Data Network



What's next: extreme events





Pin 1_Rrs



Total Suspended Matter



European Marine Observation and Data Network



Total Suspended Matter Spatial resolution: 300 m x 300 m Temporal resolution 2003 - 2013





Future activities:

- Integrate more operational platforms (we want you!)
- Add gap-filled timeseries
- Re-elaborate monthly gridded temperature and salinity gridded map with river runoff data
- Correlate TSM and runoff (estimate of sediment transport)
- Update portal and services

Ocean physics at your fingertips

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www.emodnet.eu

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