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EMODnet Physics: tackling new challenges

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EMODnet - the European Marine Observation and Data network – is a long term marine data initiative from the European Commission Directorate-General for Maritime Affairs and Fisheries (DG MARE) involving and networking more than 150 organizations for assembling marine data, products, and metadata. The data infrastructure has been developed through a stepwise approach in 3 major phases by running 8 thematic portals, 6 regional check points and a Data Ingestion facility.

EMODnet Physics (www.emodnet-physics.eu), one of the thematic portals, is developing a combined array of services and functionalities such as facility for viewing and downloading, dashboard reporting and machine-to-machine communication services to obtain, free of charge data, meta-data and data products on the physical conditions of the ocean from a number of different distributed data sets.

The work of the EMODnet Physics partners is built on the EuroGOOS network of observing platforms and the SeaDataNet protocol for accessing archived physical data from national oceanographic data centers. The collection of physical parameters is largely an automated process that allows the dissemination of near real time information. The infrastructure for storing and distributing these data is partially shared with the Copernicus Marine Environment Monitoring Service (CMEMS).

The EMODnet Physics portal is currently providing easy access to data and products of: wave height and period; temperature and salinity of the water column; wind speed and direction; horizontal velocity of the water column; light attenuation; sea ice coverage and sea level trends. EMODnet Physics is continuously increasing the number and type of platforms in the system by unlocking and providing high quality data from a growing network.

In this presentation, we give an overview of how EMODnet Physics is organized, with a particular focus on new parameters such as river data and underwater noise and other physical parameters that are available.