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Enhancing SeaDataNet, the Pan-european infrastructure for marine and ocean data

Scenario

SeaDataCloud

cause data is acquired using research vessels, observation buoys and other kinds of costly devices that require maintenance. Moreover, we also need to consider the core element constituted by teams of qualified people in different fields of technology and science engaged from the data collection to the data dissemination on the Internet. Marine data has been acquired in Europe for many years from many different institutions. This data collection is a resource for all of the researchers that could use it to improve the global knowledge of the sea, as well as give economic opportunities also for private sector. Marine data taken with different instruments, by disparate institutions, collected and stored in diverse ways need to be harmonised to be re-used and employed in different way from the original purpose for which it has been collected.

Ocean and marine data collection is a very expensive activity be-

SeaDataNet is a comprehensive Pan-European semi-distributed marine and ocean data infrastructure, supplying access to multidisciplinary data and products of standardised quality, it promotes an efficient and effective sharing of the European ocean data at a global level. It offers best practices in data management as well as tools to format and publish data. The infrastructure allows long term preservation ensuring the maximum benefit derived from investments in sea monitoring and sampling.

interoperability and Standards

Standards and interoperability solutions used in the infrastructure are widely recognised by the international community, beyond European borders. SeaDataNet collaborates with the existing global infrastructures such as: IOC-IODE – Ocean Data Portal (ODP) •GEOSS - EuroGEOSS Copernicus Marine Environmental Monitoring Services (CMEMS)

Strategic active and past collaborations have been carried out with:

•Large ocean monitoring systems (EuroGOOS, AtlantOS, Euro-AR-GO, JERICO-Next, EuroFleets) Ocean Data Interoperability Platform (ODIP) •European Open Science Cloud (EOSC) •European Marine Observation and Data Network (EMODnet)





Top priorities in the innovation of ocean data management include new advanced services delivery that benefit data centres and end-users.

- Virtual Research Environment (VRE) with advanced services such as subsetting, online ODV and DIVA
- Brokerage service for mutual exchange with international data

tools

Software

- SWE Ingestion service for Real Time data streams Upgrading and innovating existing services:
- Advancing the Data Discovery and Access service by adopting cloud computing
- Introducing 'Linked Data principle' to catalogues for semantic

What marine organisations do/have done, where and with whom

To learn more visit https://www.seadatanet.org

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