



SeaDataCloud

Considering the overall SeaDataNet architecture

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Integration of multiple data streams

- SeaDataNet provides its users discovery and access to marine data assets. One aim of SeaDataCloud is to expand this in the following ways:
 - Further expansion of the number of data sets populated in the **CDI service (MARIS)** by an increasing number of connected data centres.
 - Integrating and operating the **Brokerage Service (CNR)** following the prototype 1+ of ODIPII (Ocean Data Interoperability Platform) for connecting other major international marine data discovery and access services such as US NCEI, Australian AODN, and others. This is done through seeking interoperability. SDN users will be offered an extra facility for discovering available data sets in those other systems and given their links and services to access associated data sets;
 - Making use of the **EMODnet Ingestion portal (MARIS + HCMR)** launched early 2017 with a Data Submission service whereby third parties can ingest data collections. Submissions are assigned to expert data centres for completing metadata and publishing the data sets 'as is'. Part of the ingested data sets will be elaborated for inclusion in national and European data infrastructures such as SeaDataNet, EurOBIS and others.



Integration of multiple data streams

Integrating the **online Sensor Web Enablement (SWE) Ingestion service (52N)** for ingesting near real time data sets from operational oceanography sensor networks:

- Closing the gap between operational oceanography and delayed mode validation and archiving. The SWE ingestion service will facilitate streamlining the data and metadata transfer from operational networks to a database buffer from which assigned SDN data centres can pick up the data timeseries for further elaboration and later population into the CDI service
- Enriching and expanding the CDI service for its users with access to historical long timeseries AND the latest NRT data timeseries from the operational sensors linking to the 52°North “Helgoland” viewer. As part of SeaDataCloud, Helgoland will be further extended in close cooperation with users. This comprises especially the support of further data types as well as usability improvements.



Integration of multiple data streams

- Education and training of operational oceanography network operators to adopt the SWE standards and services. This will focus on **European** operators. The SWE software is open source and can be adopted and configured by the operators and NODCs. The model can be used to set up dedicated pipelines by operators . Also in addition a SeaDataNet central SOS database can be configured for operators that want to share that part of the pipeline.

The **Brokerage Service (CNR)** is also being adopted by EMODnet Physics to harvest Near Real Time data sets from international operational oceanography networks for providing discovery and access to time series of these networks in the EMODnet Physics portal. This service will be promoted from the SeaDataNet portal as it also can provide extra data resources for the SeaDataNet users and its VRE platform.

NOTE: Implementing SWE will take its time. Therefore **EMODnet Physics (ETT)** is harvesting **Near Real Time data** from the EuroGOOS Roos's network and CMEMS-INSTAC. To contribute to closing the gap between operational oceanography and SeaDataNet, ETT will prepare monthly timeseries of relevant parameters and push those forward to the appropriate NODCs for further elaboration and inclusion in their data centres and consecutive population in the CDI service.

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