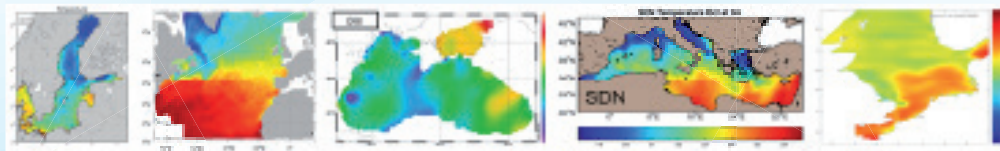


In addition, software for producing generic data products and a package for data analysis, QA–QC and presentation are downloadable for free.

## DATA PRODUCTS

SeaDataCloud provides added–value products, accessible by catalogue, such as aggregated datasets of all temperature and salinity measurements within SeaDataNet database as well as climatologies for all the European sea basins. Product information documents, describing the characteristics and procedures implemented for the generation of the data products is available.



Climatological maps

## VOCABULARY

Controlled vocabularies are used in all metadatabases and data formats organised with an international governance, user interfaces and web services. The goal is to enhance the interoperability across different countries because data is obtained by different instruments and providers.

## STAY TUNED

A new cloud–based platform, in collaboration with EUDAT, will be launched in future that will offer a virtual research environment including on line services for analysis, quality control, data sub–setting, visualisation of retrieved datasets, generation and publication of data products. SeaDataCloud is also focusing on supporting data format and protocol standardisation for real time data from sensors and platforms.

Contact: [sdn–userdesk@seadatanet.org](mailto:sdn–userdesk@seadatanet.org).

# Sea Data Cloud

Enhancing SeaDataNet,  
the Pan–european  
infrastructure for  
marine and ocean data  
giving access to  
high quality  
multidisciplinary data

[www.seadatanet.org](http://www.seadatanet.org)



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## SERVICING RESEARCH AND SOCIETY

SeaDataCloud involves a network of 56 partners across 29 countries, bordering the European seas and has the aim of innovating and improving SeaDataNet, the pan-European infrastructure for ocean and marine data, through its expansion with new data and metadata formats compliant to ISO, OGC and W3C standards, as well as new services. The infrastructure is going to provide more personalised and advanced services by adopting cloud and High Performance Computing (HPC)



The ultimate goal is to support sharing of ocean data with the broadest community possible to increase the opportunity of a better understanding of the sea by promoting data re-use and global collaborations. To reach these objectives the SeaDataNet portal offers different services: discovering, visualisation, access and data downloading as well as data products and metadata services. The infrastructure has been active since 2006, over the years it has been developing and governing de facto common standards for metadata and data formats, common vocabularies and quality flags. It delivers services to different groups: the data providers and the portal users interested in using the infrastructure services and ocean data.

## HOW TO MAKE THE MOST OF YOUR DATA

Data producers that want to share their data can benefit from long term preservation, tools for data management, global quality checks and all the other services offered. In particular, a virtual machine is available to simplify the work of the data centre that manages the delivery of the data files required by end users.

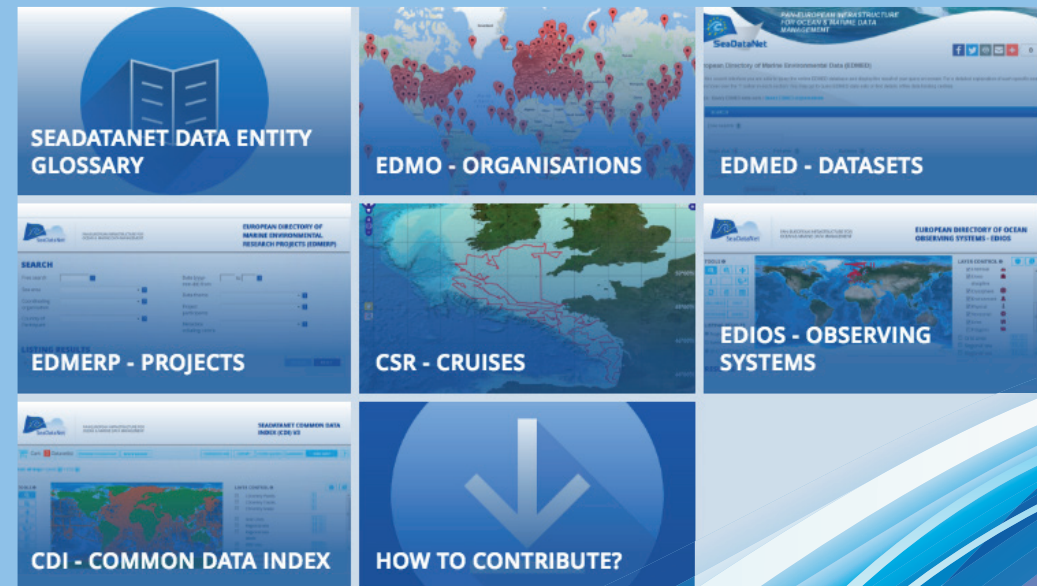
## KEY COMPONENTS OF THE SDN INFRASTRUCTURE:

### DATA SERVICES

Data from more than 110 data centres active in data collection from ocean observation is available by means of a unique point of access. The architecture is based on a semi-distributed system with the central portal that provides the indexing services based on xml files, called CDI, compliant with ISO 19115 – ISO 19139 standard. The data standard formats are ODV (Ocean Data View) and NetCDF (CF).

### METADATA SERVICES

SeaDataNet portal provides an overview of the Marine organisations in Europe and their involvement in scientific cruises, data collection and marine projects.



### SOFTWARE TOOLS

The SeaDataCloud project updates and makes software tools available allowing the data providers performing their core functions, data and metadata formatting and transformation, and publishing of data.