

From SeaDataNet to SeaDataCloud

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Pan-European semi-distributed marine data infrastructure

SeaDataNet started in the 1990s and has been developing over the years thanks to EU funded projects



'90s	Metadata directories Medar/MedAtlas
2002-2005	Sea-Search (FP5)
2006-2011	SeaDataNet (FP6)
2011-2015	SeaDataNet II (FP7)
2016-2020	SeaDataCloud (H2020)

- 110 Data centres providing data and metadata
- More than 2.100.000 ocean data sets available
- Vocabulary governance and services
- Standard QC procedures
- Standards and interoperability solutions widely recognized by the international community beyond European borders.

SDN is present in ODIP project and collaborates with existing global infrastructures: IOC-IODE – Ocean Data Portal (ODP), GEOSS and the International Council for Science World Data System (ICSUWDS).



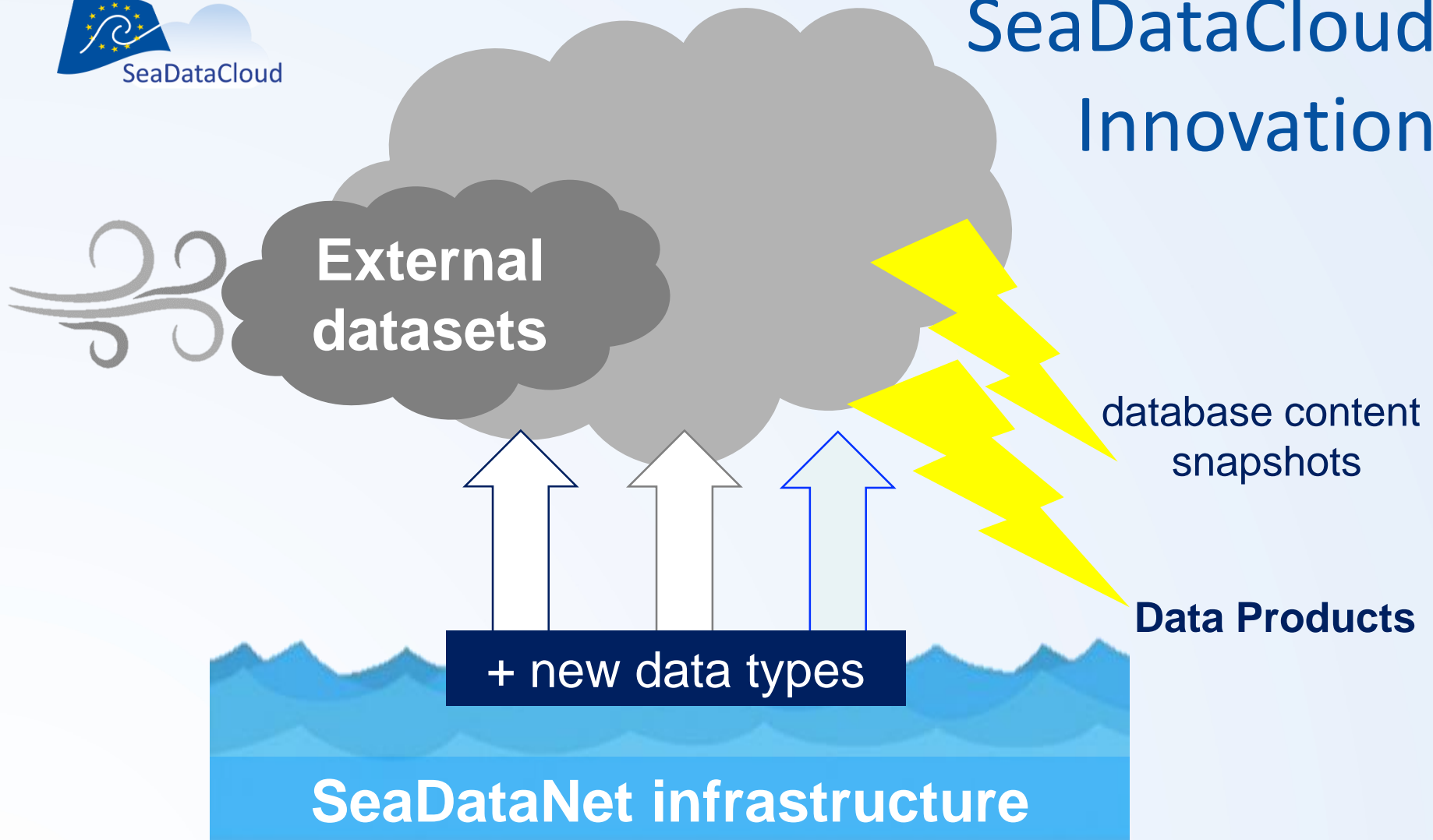
Australian Government





SeaDataNet Cooperations

- **Copernicus Marine Environmental Monitoring Services (CMEMS)** providing long-term archives and standards
- **Marine Strategy Framework Directive (MSFD)** providing infrastructure, standards and data collections for several indicators
- **Large ocean monitoring systems (EuroGOOS, AtlantOS, Euro-ARGO, JERICO-Next, EuroFleets)** providing standards and validation + long-term archiving services
- **Ocean Data Interoperability Platform (ODIP)** exploring and demonstrating common standards and interoperability with leading data management infrastructures in USA and Australia
- **GEOSS - EuroGEOSS** feeding GEOSS portal with SeaDataNet in-situ data collections from large community of European data holders (> 100 data centres; >600 data originators)
- **European Open Science Cloud (EOSC)** shaping the pilot Blue Cloud
- **European Marine Observation and Data Network (EMODnet)** driving and serving many EMODnet thematic portals



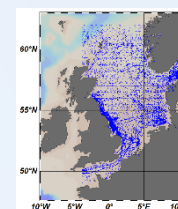
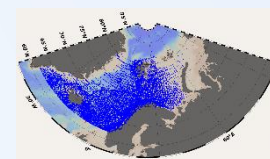
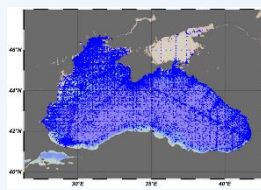
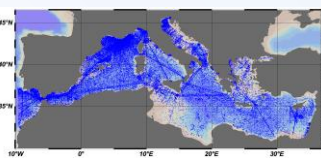
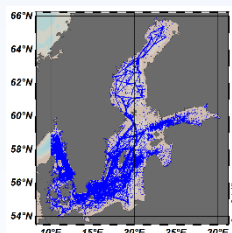
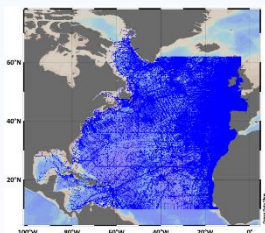
Ingestion of new data types (HF radar, glider data)

Integration of external data sets for products' generation

WP11 Data Products



SMHI



NAT

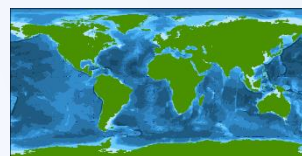
BAL

MED

BS

ARC

NS-NWS



GLO

DIVA

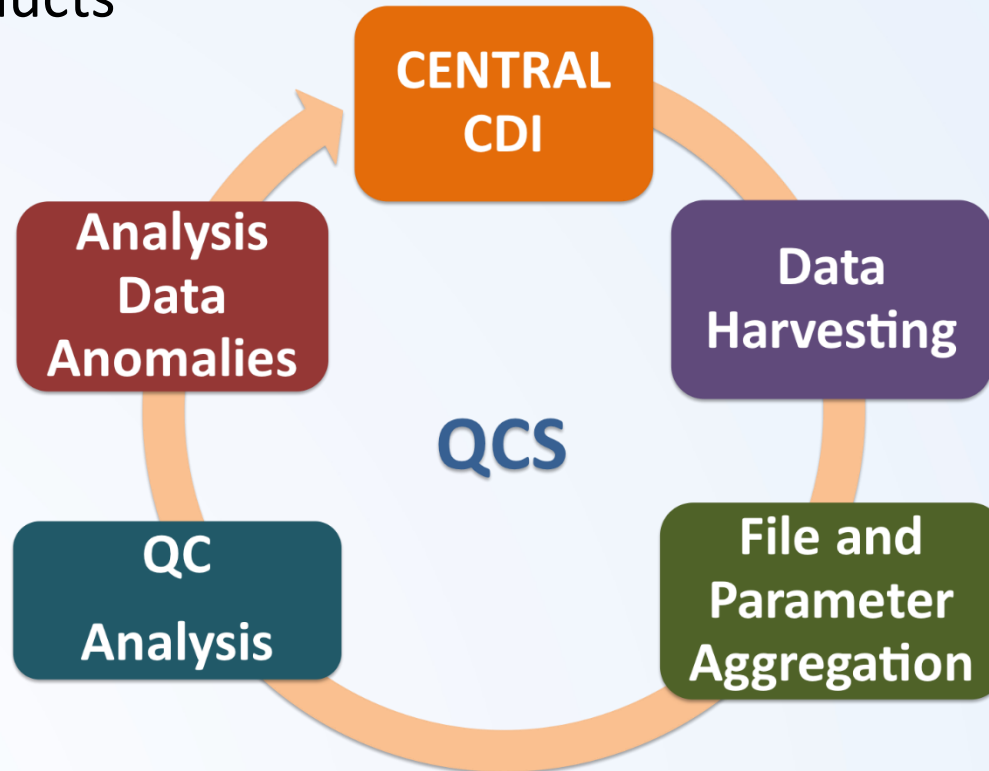


Objectives

- Improve the quality of the overall infrastructure content
- Create the best data products (aggregated dataset and climatologies) to serve many user groups (academia, op. oceanography, climate, institutional)
- Integration of external datasets
- Generate new data products
- Increase user uptake of products

Quality Control Strategy (QCS)

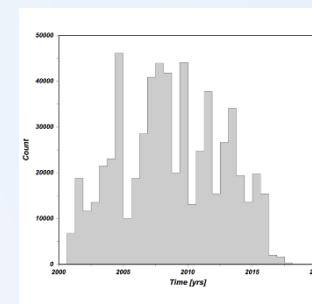
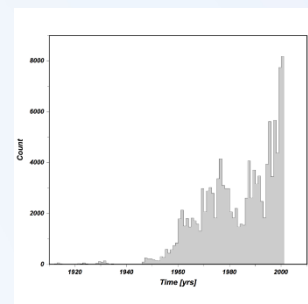
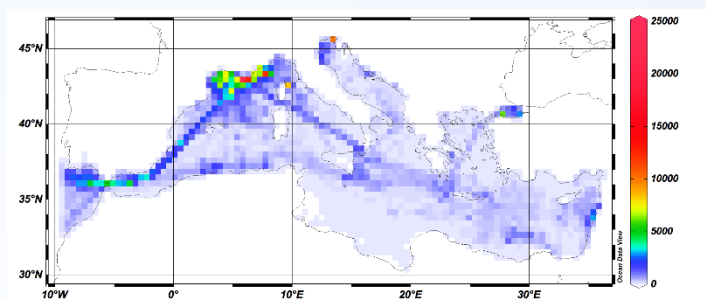
Goal: to improve the quality of the database content and create the best data products



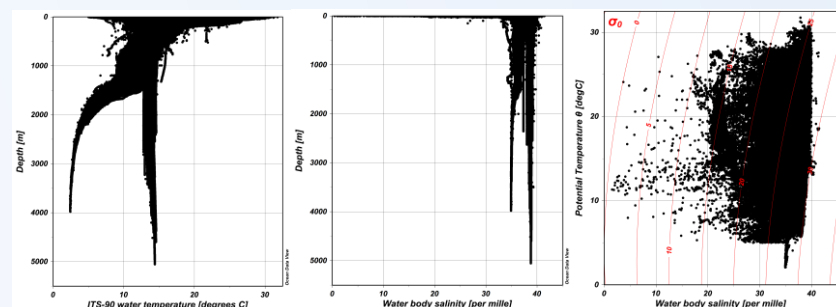
→ **Iterative approach** to facilitate the **upgrade** of the database and **versioning** of data products

Quality Control Analysis

- TS collections analysed at regional level
- common basic **QC analysis** using ODV (5.0.0)
- **Product Information Documents (PIDocs)** contain all specifications about products' characteristics (space-time coverage, resolution, format, usability) and quality (validation methodology and results)










par	# stations	%	# samples
Tot	739784		
T	737102	99,6	41223609
S	671052	90,7	28518660
TS	665388	89,9	28119926



SERVICES

ACCESS PRODUCTS

Download the SeaDataNet aggregated datasets : ODV collections of all SeaDataNet measurements of temperature and salinity by sea basins, or the SeaDataNet climatologies : regional gridded field products based on the aggregated datasets

 SEARCH DATA	 BROWSE DATA	 DOWNLOAD SOFTWARE
 LOOK-UP VOCABULARIES	 ACCESS PRODUCTS	 ACCESS METADATA CATALOGUES
 HOW TO CONTRIBUTE?		

PRODUCTS

SeaDataNet provides aggregated datasets (ODV collections of all SeaDataNet measurements of temperature and salinity by sea basins) and climatologies (regional gridded field products based on the aggregated datasets) for all the European sea basins.

[Read more](#)

Aggregated datasets



T&S collections covering the EU sea basins
V1.1 → Jan 2014
V2 → Mar 2015 (DOI)

Climatologies



gridded climatologies based on the aggregated datasets V1.1 (DOI)

Documentation



reports describing products' characteristics and quality (DOI)



Catalogue

PRODUCTS

SeaDataNet provides aggregated datasets (ODV collections of all SeaDataNet measurements of temperature and salinity by sea basins) and climatologies (regional gridded field products based on the aggregated datasets) for all the European sea basins.

[Read more](#)

Aggregated datasets



SDC_V1 → Nov 2017
Release May 2018
(DOI)

Climatologies



New
climatologies
SDC_V1
Release early
2019
(DOI)

Documentation

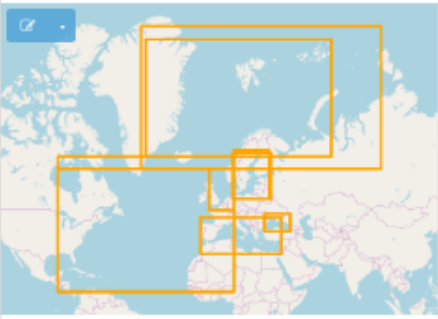


PIDoc
(DOI)



Catalogue

Search ...
CATALOG MY DOWNLOADS

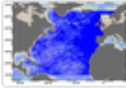


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Results 1 to 17 on 17 : 20 by page -

Sort by : Popularity -

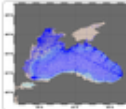
NORTH ATLANTIC OCEAN - TEMPERATURE AND SALINITY OBSERVATION COLLECTION V1.1



SeaDataNet Temperature and Salinity historical data collection, including revised quality flags after quality control with ODV. For data access please register at <http://www.marine-id.org>. The dataset format is ODV binary collections. You can read, analyse and...

Source: Seadatanet

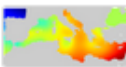
BLACK SEA - TEMPERATURE AND SALINITY OBSERVATION COLLECTION V2



The Black Sea historical dataset includes all open access temperature and salinity in situ data from the Black Sea and Sea of Azov for period 1868-2014. The data were retrieved from the SeaDataNet infrastructure in the mid of 2015. Data quality has been analysed and checked...

Source: Seadatanet

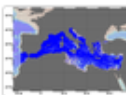
MEDITERRANEAN SEA - TEMPERATURE AND SALINITY CLIMATOLOGY V1.1



Mediterranean Sea Climatology computed from the SeaDataNet V1.1 aggregated dataset. The version used for the DIVA software is the 4.6.9. The period covers 1900-2013. For data access please register at <http://www.marine-id.org> ...

Source: Seadatanet

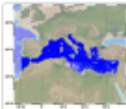
MEDITERRANEAN SEA - TEMPERATURE AND SALINITY OBSERVATION COLLECTION V1.1



SeaDataNet Temperature and Salinity historical data collection contains all open access temperature and salinity in situ data retrieved from SeaDataNet infrastructure at the end of 2013. The data span between -9.25 and 37 degrees of longitude, thus including an Atlantic ...

Source: Seadatanet

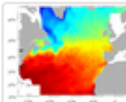
MEDITERRANEAN SEA - TEMPERATURE AND SALINITY OBSERVATION COLLECTION V2



SeaDataNet Temperature and Salinity historical data collection for the Mediterranean Sea contains all open access temperature and salinity in situ data retrieved from SeaDataNet infrastructure at the end of 2014. The data span between -9.25 and 37 ...

Source: Seadatanet


NORTH ATLANTIC OCEAN - TEMPERATURE AND SALINITY CLIMATOLOGY V1.1

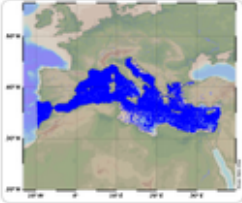


Climatology done from the SeaDataNet aggregated dataset v1.1 for the North Atlantic Ocean. The version used for the DIVA software is the 4.6.9. The period covers 1900-2013. For data access please register at <http://www.marine-id.org> ...

Source: Seadatanet




Products Catalogue

 **MEDITERRANEAN SEA - TEMPERATURE AND SALINITY OBSERVATION COLLECTION V2**



SeaDataNet Temperature and Salinity historical data collection for the Mediterranean Sea contains all open access temperature and salinity in situ data retrieved from SeaDataNet infrastructure at the end of 2014. The data span between -9.25 and 37 ...

Source: Seadatanet



Metadata record (DOI)

Download

Viewing tools **Ocean Browser**
and **Oceanotron**



Latest news

<https://imdis.seadatanet.org/>



Registration
Published on 7 february
Open!



Abstract submission
Published on 23 january
Open!



Place
Published on 25 may 2016
Auditorium of the PRBB,
Barcelona

Deadline for submission: 30th April 2018



<https://imdis.seadatanet.org/Conference-Information/Sessions>

Session 4: Data products, information and knowledge

- Quality Check procedures and data consistency assessment for historical data collections for climatic studies
- Machine learning and its application to data collection and data quality check
- Regional and global data collections and marine data aggregations
- Validation of data products and uncertainty estimation
- Distribution and publication of data products
- Data products for multiple stakeholders/end users including the Blue Economy/Blue Growth
- Data integration and evaluation of data portal solutions
- Transfer of technologies and knowledge
- Systems and products for outreach and dissemination, including Ocean Literacy