SeaDataCloud

TEMPERATURE AND SALINITY CLIMATOLOGIES FOR THE EUROPEAN MARGINAL SEAS

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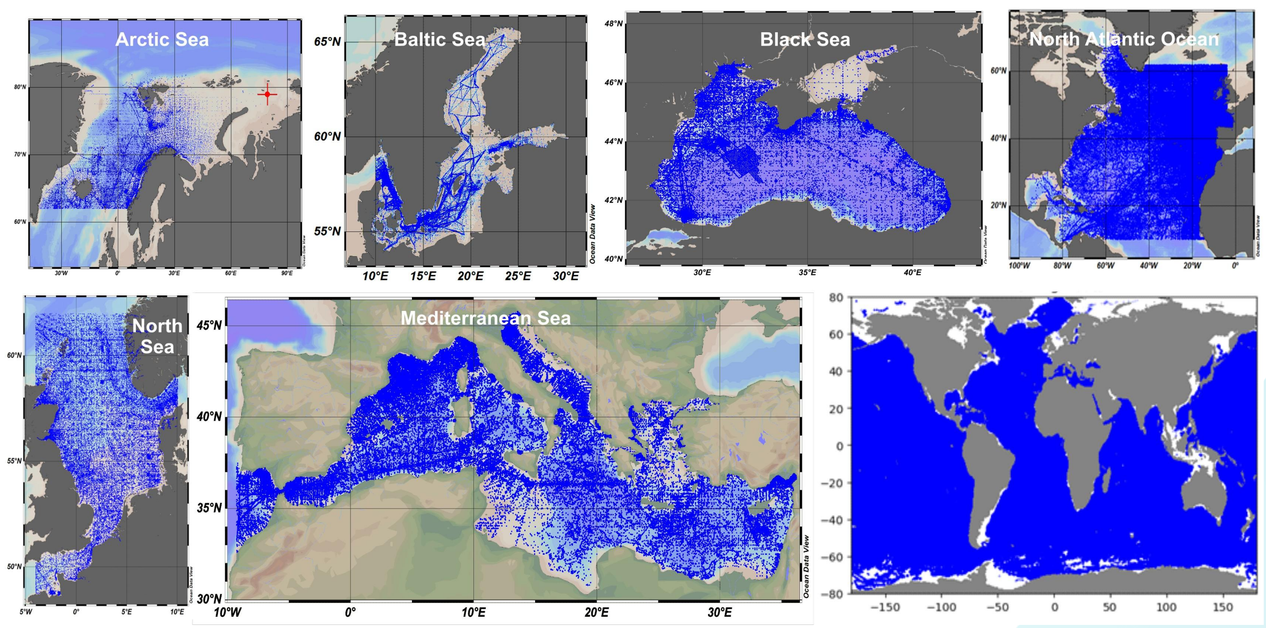
DATA SOURCES

Temperature and Salinity historical data collections covering the time period **1900-2017** were released in June 2018 for each European marginal sea (Arctic Sea, Baltic Sea, Black Sea, North Sea, North Atlantic Ocean, and Mediterranean Sea) within the framework of **SeaDataCloud** (SDC) Project.

Downloadable from:
https://www.seadatanet.org/Products/

To produce a better-quality climatology the regions have added external datasets using the World Ocean Database WOD 18, CMEMS in situ TAC reprocessed data sets and/or the CORA 5.x dataset.

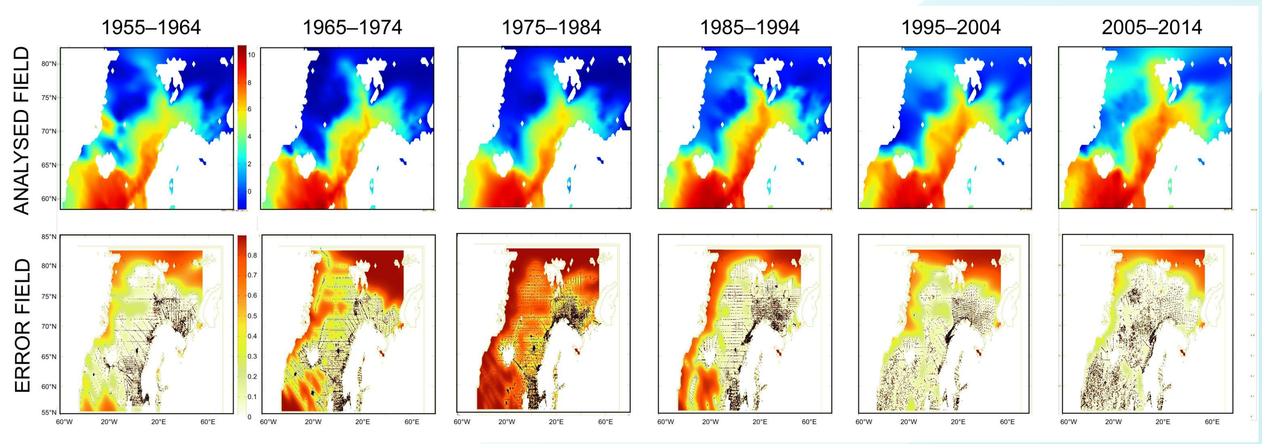


TEMPERATURE AND SALINITY CLIMATOLOGIES

Temperature and salinity climatologies have been produced using the DIVA/DIVAnd software.

The DIVA software tool (Data-Interpolating Variational Analysis) allows to spatially interpolate (or analyze) observations on a regular grid in an optimal way.

The analysis is performed on a finite element grid allowing for a spatial variable resolution and a good representation of the coastline.

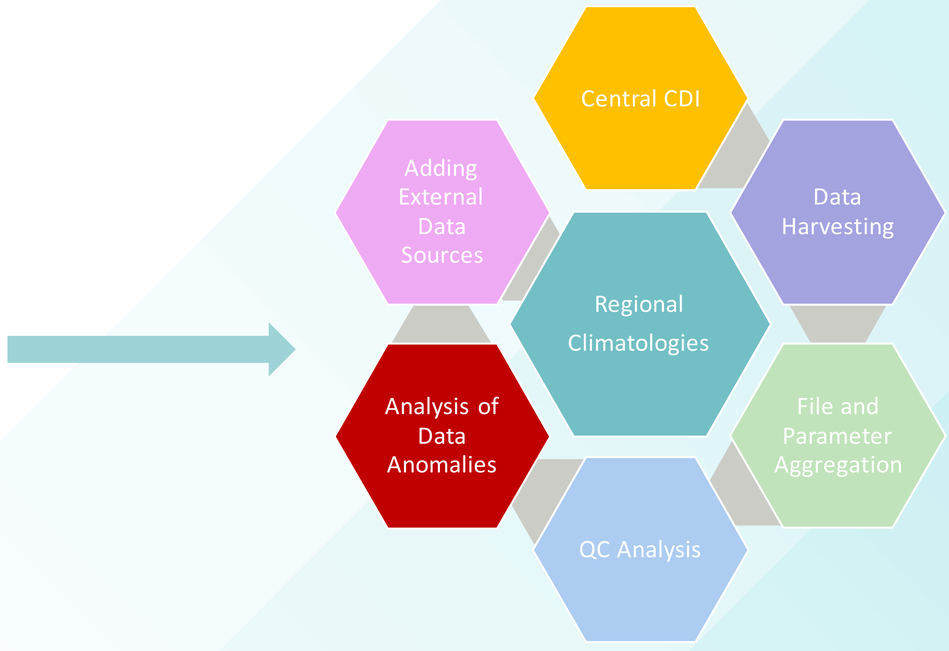


CREATING CLIMATOLOGIES

The Quality Control Strategy aims at improving the quality of the SeaDataNet infrastructure's content and creating the best data products deriving from it.

The phases are;

– data harvesting from SDC Dataset
– file and parameter aggregation using ODV (Ocean Data View)
– quality check at regional level
– analysis and correction of data
– adding external data including duplicate checking
– creating climatologies using DIVA/DIVAnd software

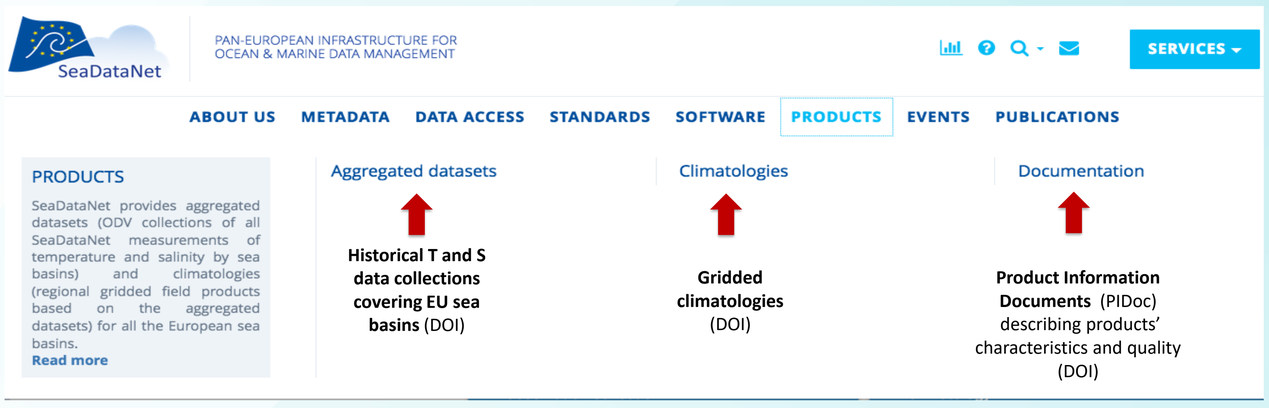


SeaDataCloud PRODUCTS

SDC products, data collections and climatologies, are available through a dedicated web catalogue (https://www.seadatanet.org/Products/).

Each product is assigned a **DOI** (Digital Object Identifier) so that users can refer to the exact version they have employed.

Product Information Document (PIDoc), containing all specifications about product's generation, quality assessment, technical details and usability to facilitate users' uptake are available.



CONSISTENCY ANALYSIS

SDC regional climatologies have been created with DIVA software tool, they cover the time period 1955-2017 at monthly and seasonal time resolution on the same vertical standard levels of World Ocean Atlas (WOA).

A consistency analysis of SDC climatologies versus WOA and CMEMS multi-year products has been performed to illustrate the differences and highlight the added value of SDC products.