

SeaDataCloud Data Products for the European marginal seas and the Global Ocean

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Introduction

SeaDataCloud (SDC) data value chain ends with the generation of data products, whose quality reflects the coordination capacity in managing multidisciplinary in situ data, applying a quality assurance strategy, developing and adopting software/tools. The goal of SDC products' team is to produce the best data collections and climatologies for the EU marginal seas and the global ocean and serve diverse user communities. The regional aggregated datasets (ODV collections) contain all temperature and salinity data harvested from SDN infrastructure, which are used to produce climatologies through DIVAnd mapping tool.

Methods

SDC Quality Assurance Strategy is iterative and consists of four main phases: data harvesting, files/parameters aggregation, quality check and feedback to data providers on data anomalies. It allows to continuously improve the quality of the database content and derive the best data products.

Results

The analysis of the regional data collections showed a progressive increase of the available data and quality. A novel metadata analysis allowed to monitor the EU data sharing landscape, to detect systematic (format, flagging) errors and data/metadata omissions.

SDC climatologies were designed with a harmonized approach to integrate for the first time SDC aggregated datasets with external sources (World Ocean Database, CMEMS). A SDC global climatology has been created for the first time too.

Conclusion

SDC products are available through a dedicated catalogue accompanied by Product Information Documents (PIDoc) containing all specifications about product's generation and usability to facilitate users' uptake. Digital Object Identifiers (DOI) are assigned to products and PIDocs following the linking data approach to foster transparency of the production chain and acknowledge all actors involved from data to product generators.