

A EUROPEAN INFRASTRUCTURE FOR OCEAN & MARINE DATA MANAGEMENT

Project overview

SeaDataNet II (2011-2015) is a EU project funded by FP7 (Seventh Framework Programme for Research) as a continuation of SeaDataNet project (2006-2011), funded by FP6. SeaDataNet II has developed an efficiently distributed Marine Data Management Infrastructure for large and diverse sets of European data, deriving from in situ and remote observations of seas and oceans. Forty-four institutions, active in data collection, are involved as project partners and 10 institutions as associate partners, for a total number of 35 countries. They constitute a Pan-European network providing on-line data of standardised quality from European seas and Black Sea.

What kind of data can be found?

Multidisciplinary data are available in the following fields: physical oceanography, chemistry, geology, geophysics and biology in common data formats using standardised vocabularies.

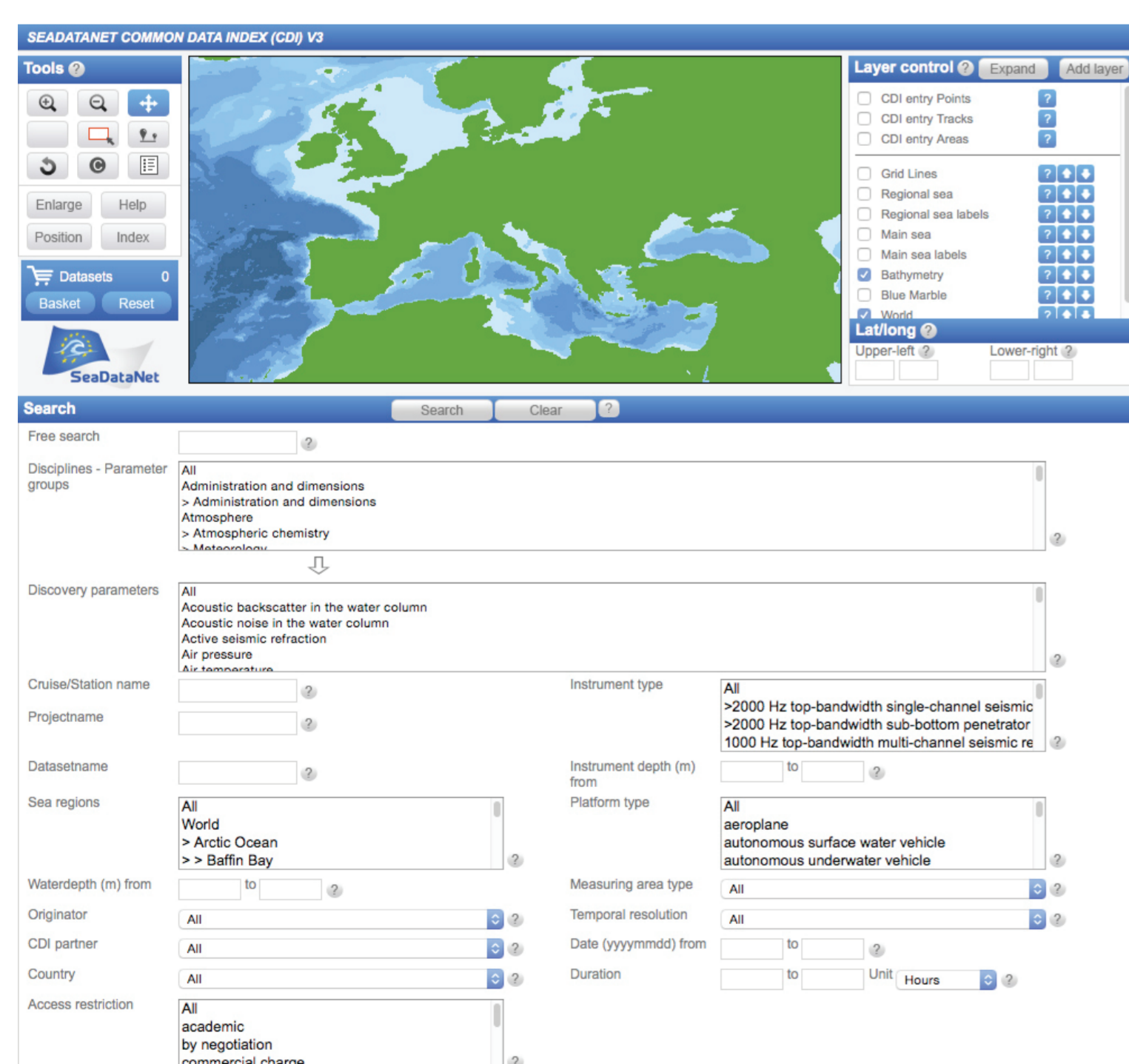
Serving the society

Scientific communities benefit from data sharing and metadata services. Decision makers can use aggregated data for marine environmental management. Marine industries and companies involved in the analysis, design and construction of offshore platforms and structures can take full advantage of data access and products.

SERVICES AND DATA PRODUCTS

Data services

The central portal offers different services including discovering, visualisation, access and data downloading.



Data discovery interface

Data discovery

An enormous amount of data is available: more than 1.7 million datasets. The data discovery is freely available and allows to access metadata without registration. To download the data, registration is required in order to accept the SeaDataNet license.

How to download data:

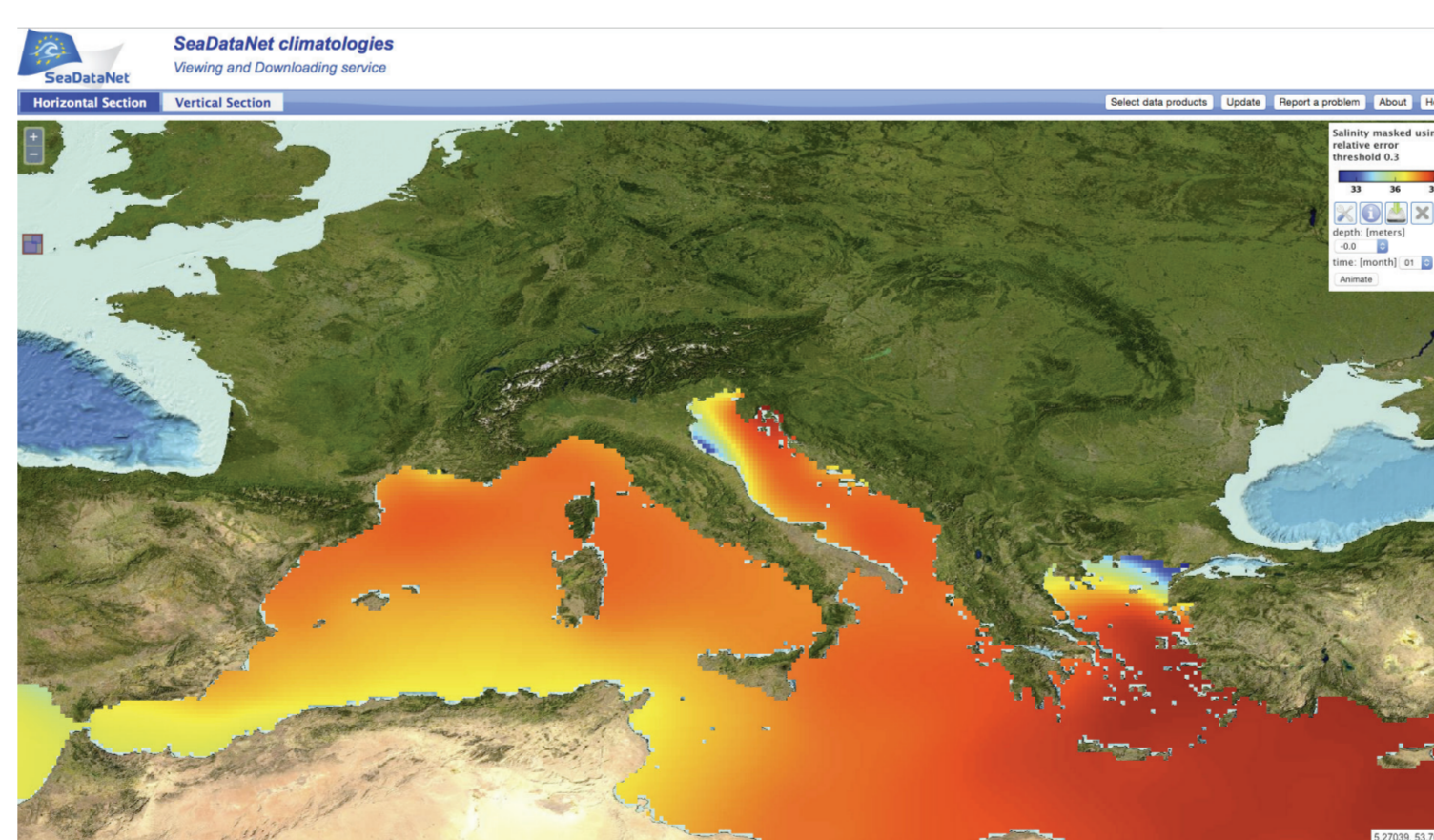
- Data discovery
- Data selection
- Add to the shopping basket
- User registration

Data policy

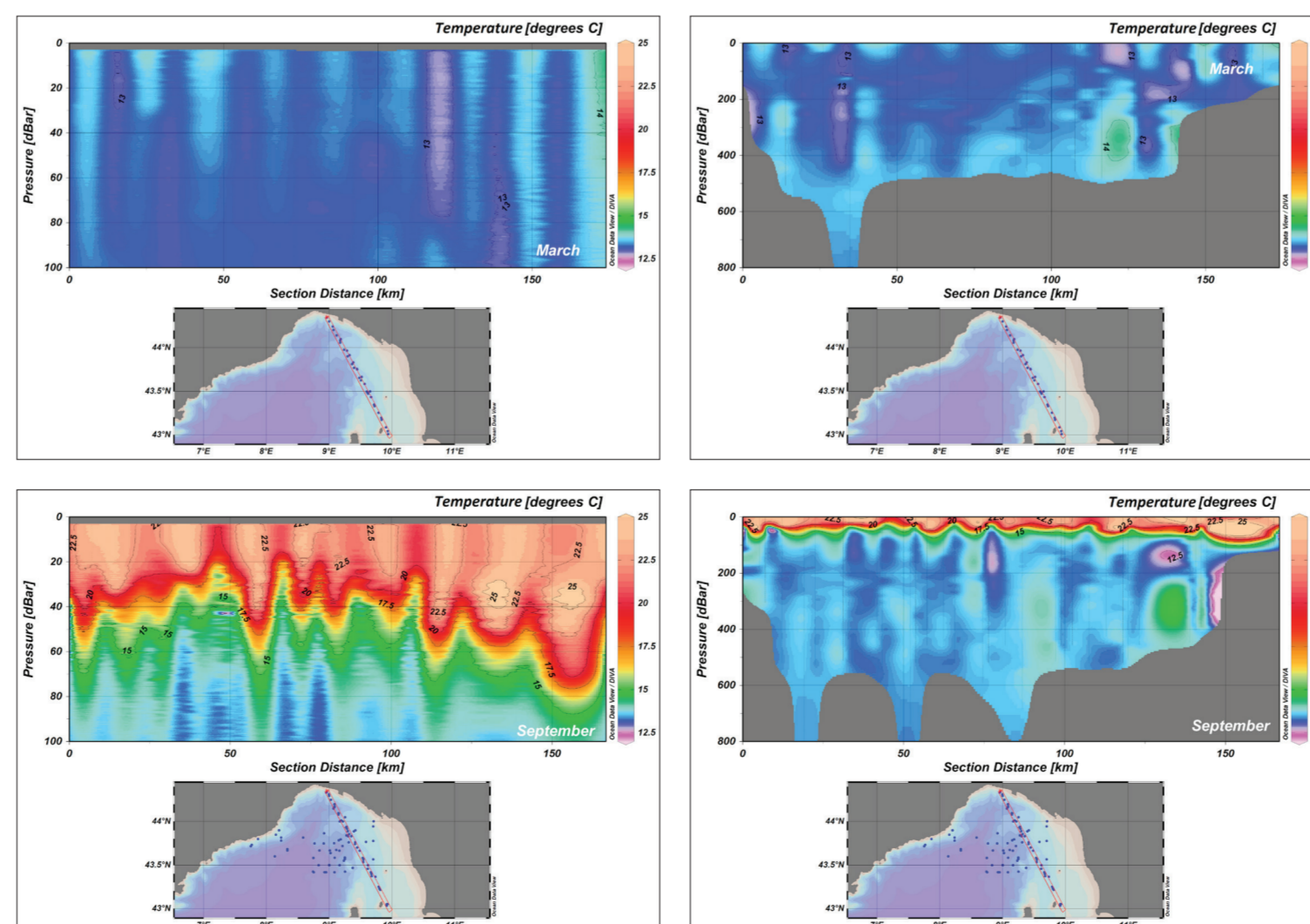
All metadata services are public domain. The major part of data (85%) is freely available. The remaining 15% data have access restrictions and the user has to make arrangements with the data provider to negotiate access for downloading.

Data products and visualisation

SeaDataNet prepares and publishes basic products as aggregated sets of observational data, model data and images. The regional centres (Mediterranean, Black Sea, North Atlantic ocean, North seas, Baltic and Arctic) develop statistical products as, for example, monthly and seasonal averaged and interpolated data derived from the datasets present in the portal. The products are available for free together with specialised browsing, visualisation and downloading services, developed in the framework of the project.



Salinity masked using relative error threshold 0.5 displayed by OceanBrowser



Examples of data analysis made by ODV software

A SINGLE SITE FOR AN OVERVIEW OF RESEARCH PROJECTS, MARINE ORGANISATIONS AND DIRECTORY OF MARINE ENVIRONMENTAL DATA IN EUROPE

Metadata services

EDMO (European Directory of Marine Organisations)

An up-to-date overview of marine data centres in Europe and the main marine research institutes.

CSR (Cruise Summary Reports)

An inventory for current and historical data collection activities made during cruises.

EDMED (European Directory of Marine Environmental Data)

Devoted to large dataset descriptions.

EDMERP (European Directory of Marine Environmental Research Projects)

A catalogue of research projects related to the marine environment.

EDIOS (European Directory of Oceanographic Observing Systems)

An inventory giving an insight into marine monitoring programmes in Europe, relevant for the Marine Strategy Framework Directive (MSFD).

CDI (Common Data Index)

The data discovery and access service enabling the users to have a complete overview of the availability and geographical distribution of marine data in SeaDataNet. The CDI follows the ISO 19139 Schema.

FUTURE PERSPECTIVE

Standards and services, developed so far, will be constantly updated with new developments in informatics and instrumentation and will fulfil users' requests. The infrastructure is focusing on continuously improving the service quality by increasing data and data type, by adding new instruments (gliders, etc) and platforms. Furthermore, technical improvements and new developments (e.g. Sensor Web Enablement, visualisation tools enhancement, etc.) are foreseen.

SeaDataNet as a model

The technologies and standards developed in the project have been adopted by the following European projects: Black Sea Scene, CASPINFO (Caspian environmental and industrial data & information service), EMODnet (The European Marine Observation and Data Network) for the thematic Bathymetry, Chemistry, Geology and Biology. Interoperability with other data portal like GEOSS (Global Earth Observation System of Systems) and IODE-ODP (International Oceanographic Data and Information Exchange-Ocean Data Portal) has also been developed.