# **EMODNET** Pilots



4 service contract are funded by DG-MARE for creating pilot components of the European Marine Observation and Data Network:

Lot 1. hydrographic data

Lot 2. marine geological data

Lot 3. chemical data

Lot 4. biological data

Started in June 2009 - 3 years (development, test, operation)

Collated data will feed into the European Atlas of the Seas



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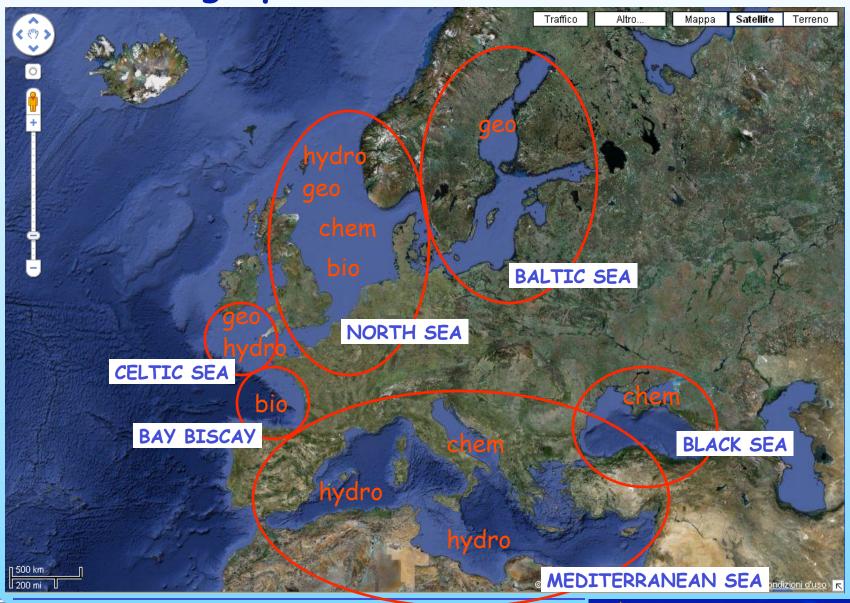
Overall objectives are to assemble fragmented and inaccessible marine data into interoperable, contiguous and publicly available data streams for complete maritime basin. Specific objectives are:

- ✓ collate existing data into interoperable formats
- ✓ develop, test, operate and maintain a portal for data access
- ✓ monitor and report on the effectiveness of the system in meeting the users needs
- ✓ analyse what further steps are needed to improve the system
- ✓ analyse the necessary requirements to keep the system as a
  sustainable infrastructure





### Geographic areas to be covered







#### Portal requirements

The portal must allow the download of data for further analysis by users and to make it available for combination with data from other portals. The portal will also allow users to understand how the data was collected. Thus the portal should allow:

- On-line instructions
- Viewing a catalogue of the data available
- Querying and downloading of data
- Viewing the position and magnitude of data as well as geographical information system layers following the INSPIRE View Service Implementation Rule
- Downloading of GIS layers (high resolution interpolated maps)
- Understanding of the precision of the data and how it has been processed.
- Users to receive feedback on queries sent by e-mail.
- Links to other relevant web-sites





## Proposed strategy

- The following SeaDataNet strategy was formulated, which is proposed as approach for the EMODNET pilots:
  - Develop a high-end dedicated portal, outfitted with a powerful spatial database, that is complemented with WMS, WFS and WCS services (OGC) to serve users and to provide layers for e.g. the other EMODNET portals, the prototype European Atlas of the Seas, and the broad-scale European Marine Habitats map;
  - Involve research institutes and monitoring authorities in providing data sets for producing Interpolated Maps with specific resolution for each geographical region, that are loaded and integrated afterwards into the portals' spatial database;
  - Include in the portal a metadata discovery service, by adopting the SeaDataNet CDI metadata standard, that inter alia gives clear information about the background data, the access restrictions and distributors; this also ensures the connection of the EMODNET portals with the SeaDataNet distributed infrastructure.







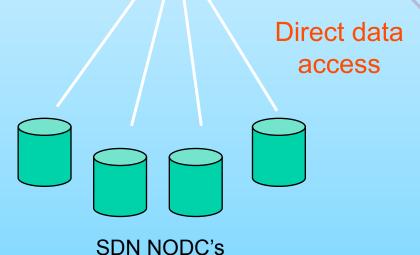
# DATA ACCESS

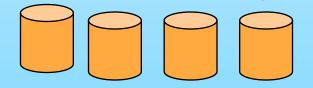
OGC viewer + downloading Data products

SDN User Interface CDI metadata

SDN Shopping Mechanism

Extra function



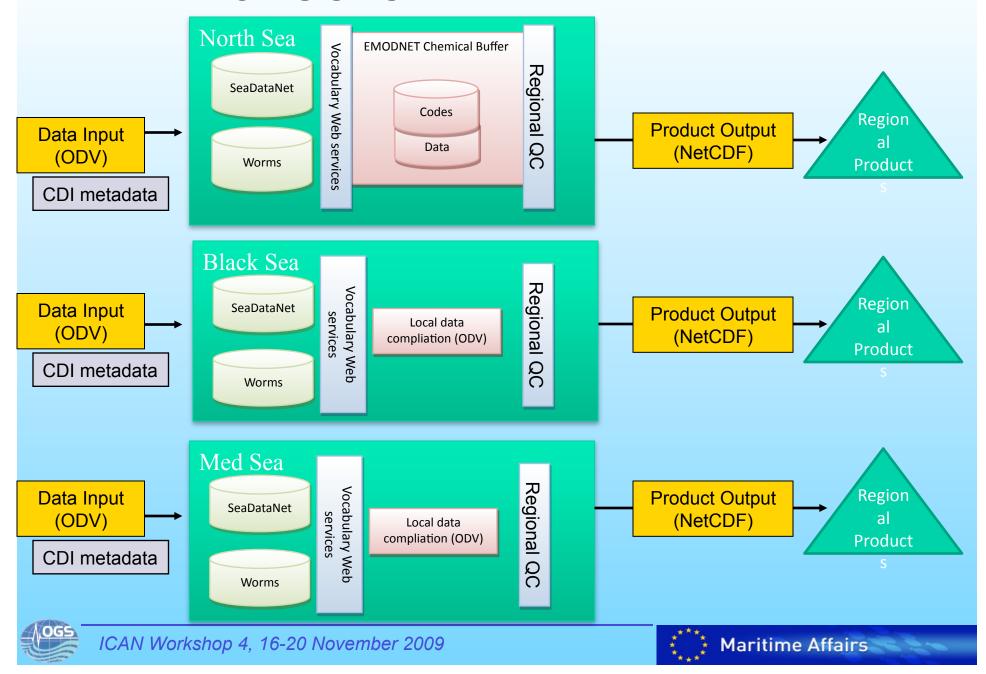


**External sources** 





#### DATA PRODUCTS



#### Interaction with SeaDataNet

EMODNET portals will include SDN V1 infrastructure:

- SDN Standards for data and metadata
- · CDI mechanism to access data sets with data policy
- SDN Security Services for users registrations, and SDN Delivery Services for data access and downloading
- DIVA software tool (Data-Interpolating Variational Analysis) to produce gridded data from row data. Error maps reflect the data quality and distribution.

SDN a key element to ensure interoperability and harmonization between the EMODNET pilots, as data and products compatibility



