

SeaDataNet II -

Extension to marine biological data

Klaas Deneudt, Francisco Hernandez

SeadataNet II Kick-off Meeting, Athens 2011

Vlaams instituut voor de zee



SDN II extension to marine biological data

SeaDataNet II will undertake actions to make SeaDataNet better fit for handling marine biological data sets and establishing interoperability with **biology infrastructure developments**.

- ✓ EMODNET biology
- ✓ EUROBIS & (OBIS and GBIF)
- ✓ EUROMARINE
- ✓ WORMS (& PESI, 4D4Life, EOL)
- ✓ Virtual research infrastructure: LIFEWATCH



EMODNET Biology

- EMODNET = European Marine Observation and Data Network

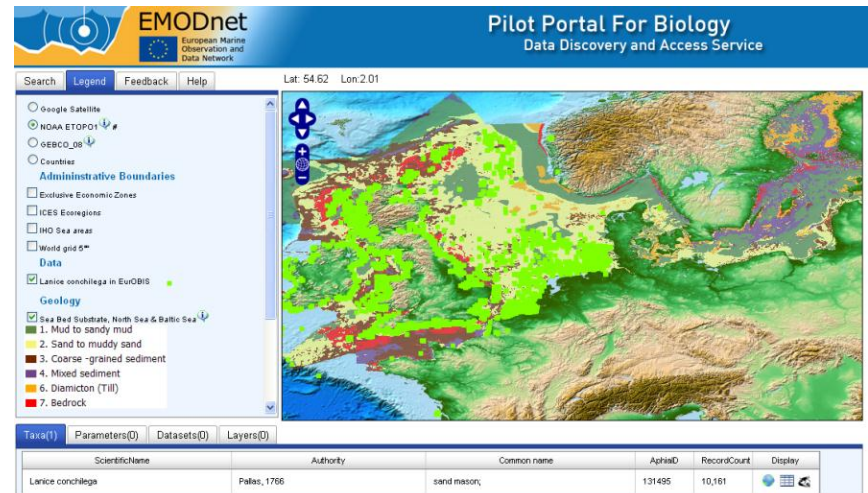
Proposed by EU Maritime Affairs to improve availability of high quality data

Thematic pilots:

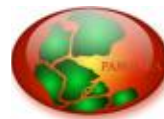
- Geology
- Hydrography
- Physics
- Chemistry
- Sea-bed habitats
- Human impacts
- Biology

- Biological Lot:

- ✓ Inventory of holdings
 - ✓ Gap analysis
 - ✓ Building data/metadata portal + integrate biological data
- Built on existing initiative EUROBIS
- ✓ Strategy plan for the future



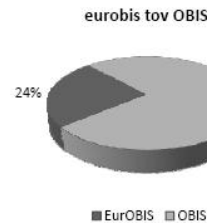
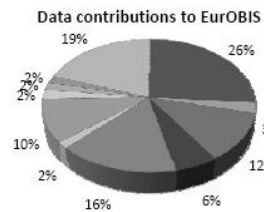
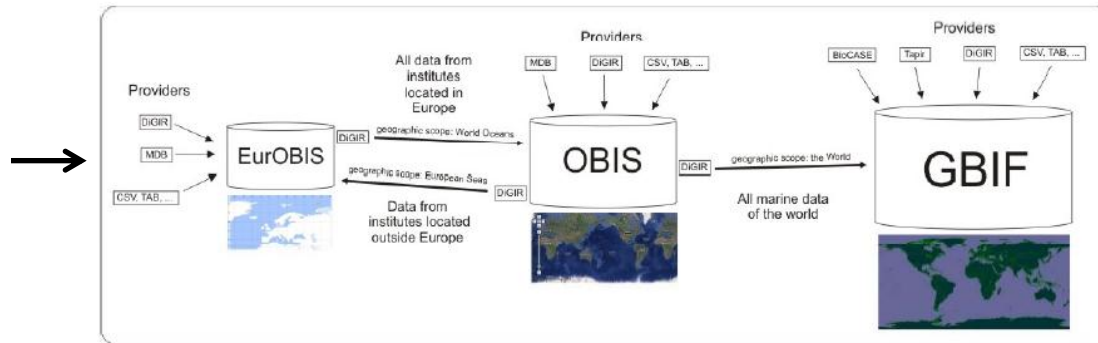
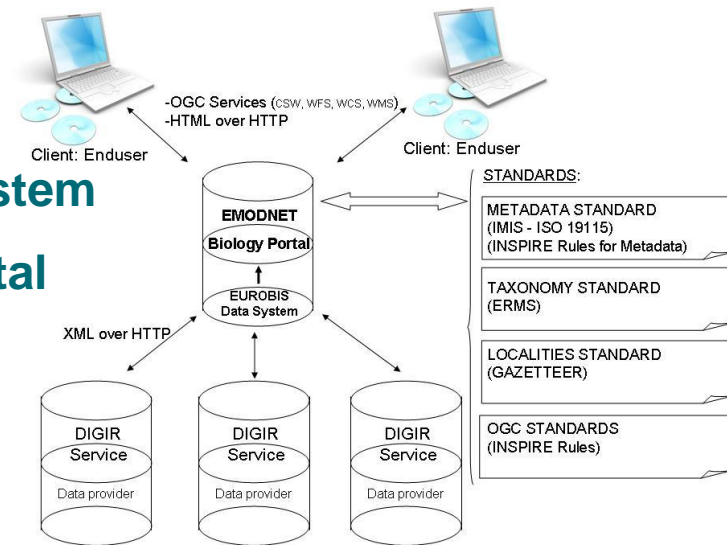
<http://bio.emodnet.eu/>



EurOBIS

= European Ocean Biogeographic Information System

- Main data component for EMODNET biology portal
- Existing network of distributed data systems
- Standardized data system
 - Uses OBIS Darwin Core2 scheme
 - Uses WORMS as taxonomic backbone



WORMS

= World Register of Marine Species

→ Authoritative and comprehensive list of names of marine organisms:
> 213,266 valid species names

→ Edited and controlled by **taxonomic experts**

→ <http://www.marinespecies.org>

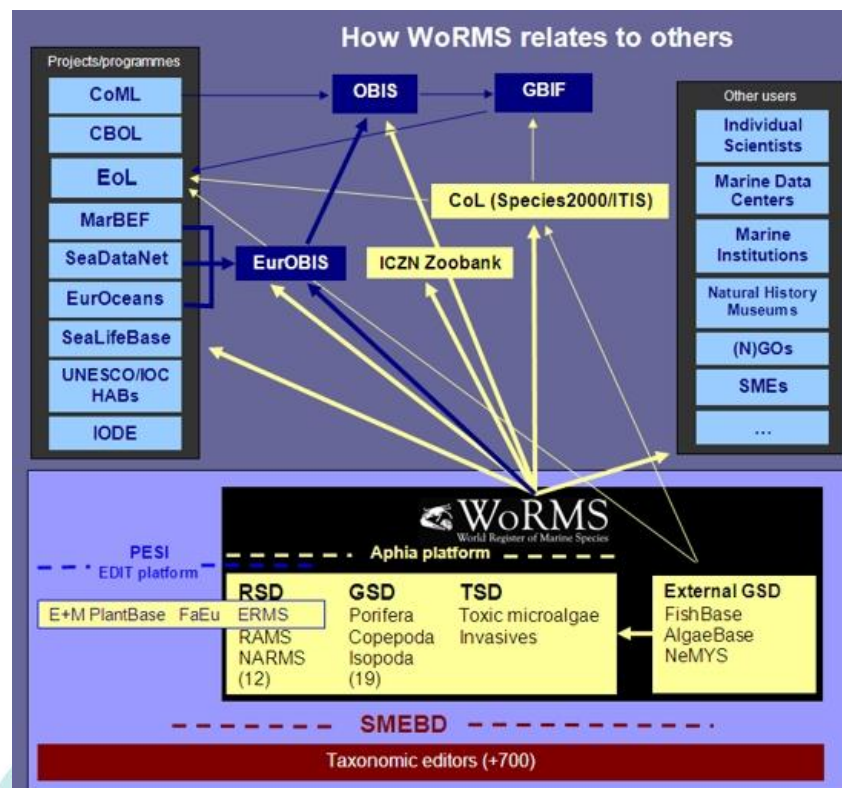
→ **PESI**: Pan European Species Infrastructure

→ **4D4Life**: Distributed Dynamic Diversity Databases

→ **EOL**: Encyclopedia of Life

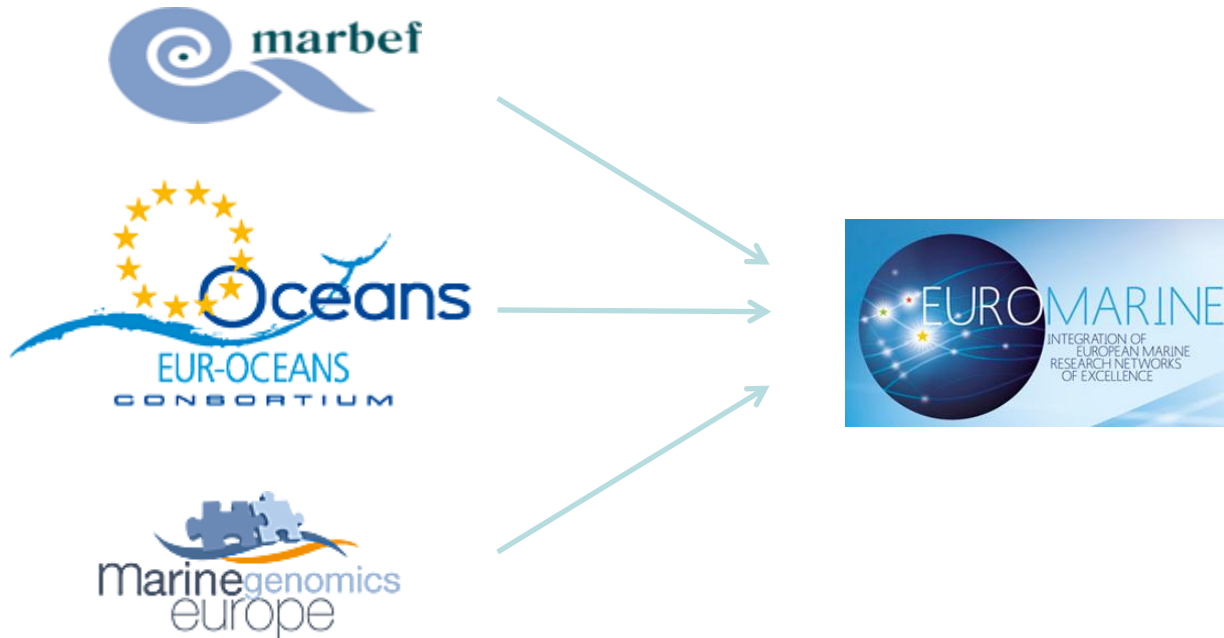
→ **Lifewatch**

→



EUROMARINE

Integrate 3 major European marine FP6 networks of excellence (EUR-OCEANS, MarBEF and Marine Genomics Europe)



LIFEWATCH



European virtual research infrastructure

e-science and technology infrastructure for biodiversity data and observatories

Processing, integration and analysis of biodiversity data for science & policy

- Preparatory phase 2008 -2011
- Construction phase 2011 – 2016
- Operation phase 2016 - ...

WORMS = taxonomic backbone



SDN II extension to marine biological data

Implications for:

- ✓ **WP8:** Specification and governance of standard metadata, data and data product formats, qc methods, common vocabularies
- ✓ **WP9:** Development and governance of software tools, services and interoperability solutions
- ✓ **WP5:** Data discovery, access and viewing services (CDI and data sets), management of the CDI directory
- ✓ **WP3:** Capacity building and Training



WP8

Specification and governance of standard metadata, data and data product formats, qc methods, common vocabularies

- WP8.3: Defining extended metadata format for CDI to support handling of marine biological data

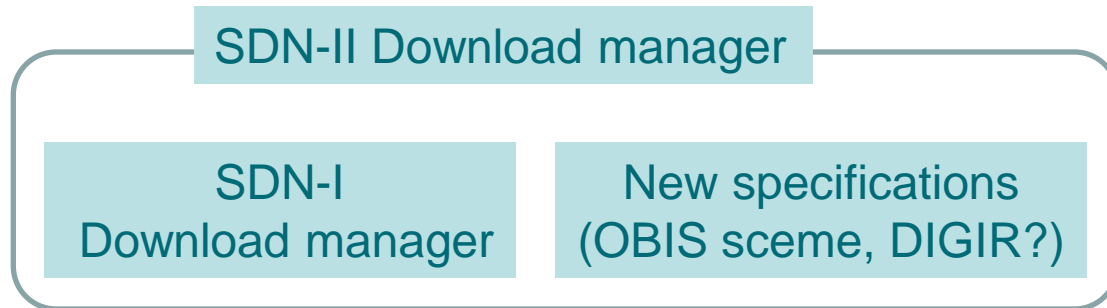
- D8.4 Analysis report with required adaptations for marine biological data (month 26 -> September 2013)
 - ✓ required adaptations of the CDI format
 - ✓ required extensions of the vocabularies
 - ✓ possible need for support of extra data formats
 - ✓ proposed exchange protocol for handling marine biological data



WP9

Development and governance of software tools, services and interoperability solutions

- WP9.2: Upgrading the existing SeaDataNet portal services and local software components for data access, including real-time access and visualisation services, and handling more data types and formats
 - D9.4) Upgraded central CDI data discovery and access service: Upgraded central CDI data discovery and access service with capabilities for handling O&M and SensorML profiles, new visualisation services and more data types [month 30]



WP5

Data discovery, access and viewing services (CDI and data sets), management of the CDI directory

- WP5.5: Installing and configuring new visualisation and data delivery services at the SeaDataNet data centres and central portal



WP3

Capacity building and Training

- WP 3.3: Training course 2 for data managers and technicians on upgraded common standards, data management procedures, installing and using upgraded system components
- The resulting standards and working methods will be documented in instruction manuals, available not only for SeaDataNet partners but also for the wider marine biological community.

