Kick-off meeting – Athens – 19, 20 October, 2011

SeaDataNet

PAN-EUROPEAN INFRASTRUCTURE FOR OCEAN & MARINE DATA MANAGEMENT

WP4 - Metadata directory services overview

Sissy Iona (HCMR)

Outline

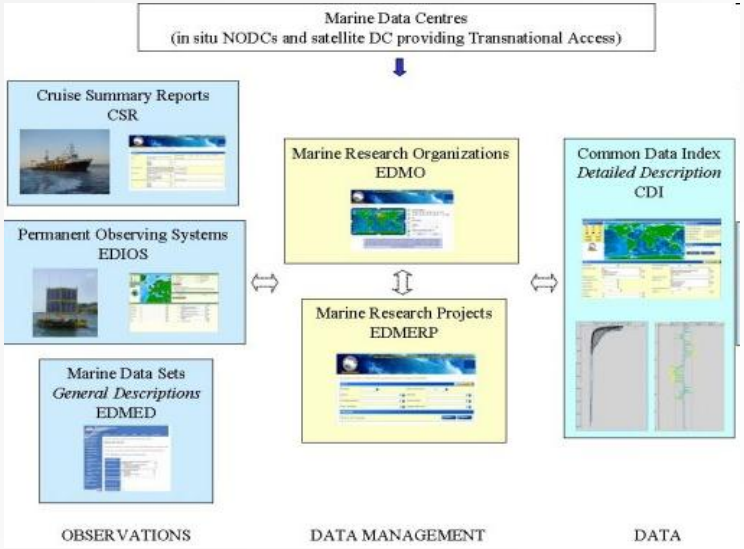
- Background information
- Current Status
- System upgrade towards an operational infrastructure
- Expected new entries

Metadata Services Objectives

- One of the SDN Online Services to facilitate the marine data searching, location and retrieval.
- The objectives are to:
  - Maintain and expand the national metadata-bases
  - Standardize the information using common vocabularies and references (as Web Services)
  - Interconnect the national inventories in a common Pan-European directory

Metadata Services Structure

- It is composed of several thematic inventories of different levels:
  - **High Level Directories** – EDMED, CSR, EDIOS (for describing observational datasets collected by ships, by laboratories, by continuous observing systems)
  - **Common References** - EDMERP, EDMO and Common Vocabularies (available as **Web Services**) that interconnect the directories
  - The **Common Data Index** (CDI) that gives access to the data distributed by the data platforms



Current Status

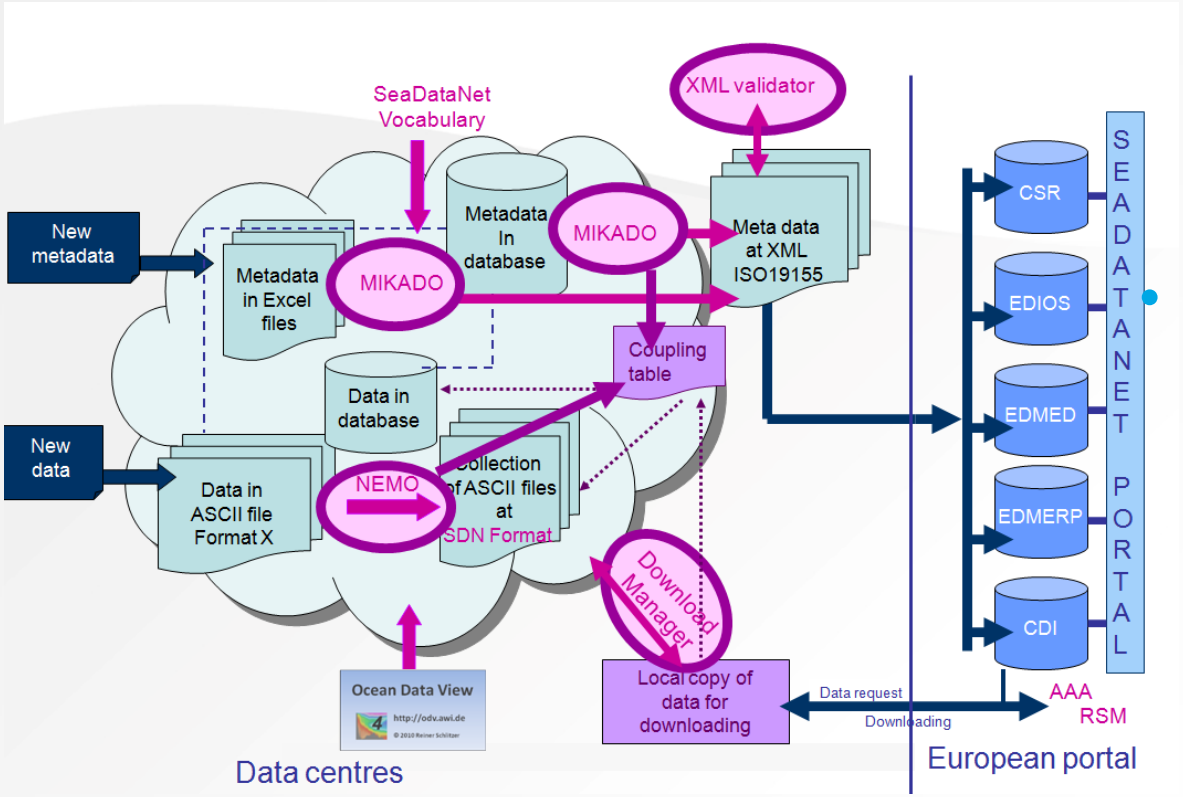
Catalogue	Total number of entries
EDMO	2094
CSR (upgrade old CSRs to V1)	32 113
EDMED	3 813
EDMERP	2 338
EDIOS (content update-EUROGOOS)	-
CDI : Data	1 053 706
Number of data centres connected	65

Metadata Format

- The directories are fully harmonized in use of syntax, semantics and tools
- The ISO 19115 content model is the basis for the XML formats and exchange schemas (XSD) in current SeaDataNet project.
- For each directory it has been defined:
  - Description of the format and XML tags
  - XML Schema
  - XML examples files

Maintenance

- Upgraded and harmonized central interfaces (with web interfaces for humans, with SOAP Web Services for machines)



- Maintenance workflow

Governance

By the SDN national nodes using on-line (like **CMS** forms) and off-line tools (**MIKADO**) that produce XML ISO 19115 compliant exchanges

Directory + pan-European coordinator	Format info	Online CMS	XML exchange from national to pan-European level	XML validation service (Managed by RNODC and BODC http://www.seadatanet.org/validator/)
EDMED (coordinator BODC)	Check EDMED format	No	Mikado	Online
EDMERP (coordinator MARIS)	Check EDMERP format	Online	Mikado	Online
CSR (coordinator BSH)	Check CSR format	Online	Mikado	Online
EDIOS (coordinator BODC)	Check EDIOS format	No	Mikado	Under development
EDMO (coordinator MARIS		Online	No	Not applicable
CDI (coordinator MARIS)	Check CDI format	No	Mikado	Online

CSR V1 Query and Retrieval

http://seadata.bsh.de/csr/retrieve/V1_index.html

SeaDataNet Cruise Summary Reports (CSR) - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://seadata.bsh.de/csr/retrieve/V1_index.html

Most Visited file:///C:/Documents%...

SeaDataNet Cruise Sum... | SeaDataNet Cruise Summar...

Pan-European infrastructure for Ocean & Marine Data Management

SeaDataNet

SeaDataNet Cruise Summary Report Inventory (CSR)

XML Download | V0 | New Query | Results | Found 398 | Show 395 | Previous | Next

Details of BIO Hesperides Cruise ZEE 2008 (BSH Ref-No.: 20083075)

GENERAL INFORMATION	
Platform/Ship	BIO Hesperides
Cruise begin	29.08.2008
Cruise end	13.09.2008
Port of Departure	Cartagena, Spain
Port of Return	A Coru?a, Spain
Chief Scientist(s)	Manuel CATALAN - Royal Institute and Observatory of Navy
Responsible Laboratory	Royal Institute and Observatory of Navy
LOCATION	
General Ocean Areas	North Atlantic Ocean
Marsden Squares(S, N, E, W)	
Bounding Box(es)	
Specific Geographic Areas	Northwest Iberia Margin Biscay Abyssal Plain and continental shelf at the northwestern corner of Iberia (478;1 marsden square)
Link to Track Charts	» Track chart
PROJECT	
Project Title	
Coordinating Body	
OBJECTIVES	
Description	The overall objective of the cruise was to perform a systematic geophysical survey. The principal aim is to obtain complete bathym sea-floor coverage. There are other geophysical data obtained during the cruise, whose acquisition is compatible with the navigati requirements of the multibeam survey, such as gravity, geomagnetic and ultra-high resolution seismic data (TOPAS system).This pr result of a cooperation between the Instituto Hidrografico de la Marina (IHM, Hydrographic Institution of the Spanish Navy) and the Observatorio de la Armada (ROA, Royal Observatory of the Spanish Navy), under the control of the Secretar??a General T??cnica Ministerio de Defensa (SEGENTE, General Technical Secretary of the Spanish Defense Department), whith the collaboration of se institutions and universities.The cruise started on August 29th at Cartagena and finished at La Coru??a on September 13th. It was order to cover two bathymetric charts (G17 and G18) to the NW of Galicia, but the bad weather led to complete only bathymetric ch partially G18.
ADDITIONAL INFORMATION	
Parameters measured	
Instruments used	
Linkage / Report / Station list	
PRINCIPAL INVESTIGATORS	
A	C.F. Daniel GONZALEZ - Hydrographic Institute of the Navy
B	Dr. Jose Martin DAVILA - Royal Institute and Observatory of Navy
C	Dr. Andres CARBO - Universidad Complutense de Madrid, Departamento de Zoologia y Antropologia fisica (UCM)
D	Jose Ramon DE ANDRES - Instituto Geologico y Minero de Espana, Servicio de Geologia Marina (IGME)

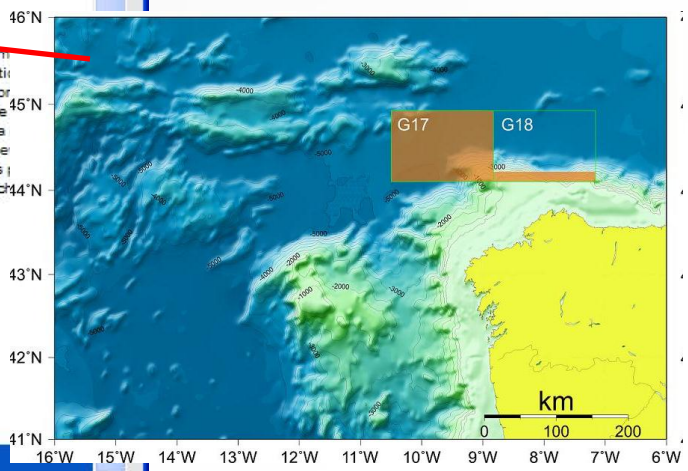
Summary of measurements and samples taken

Done

POGO/Ocean going RV database link

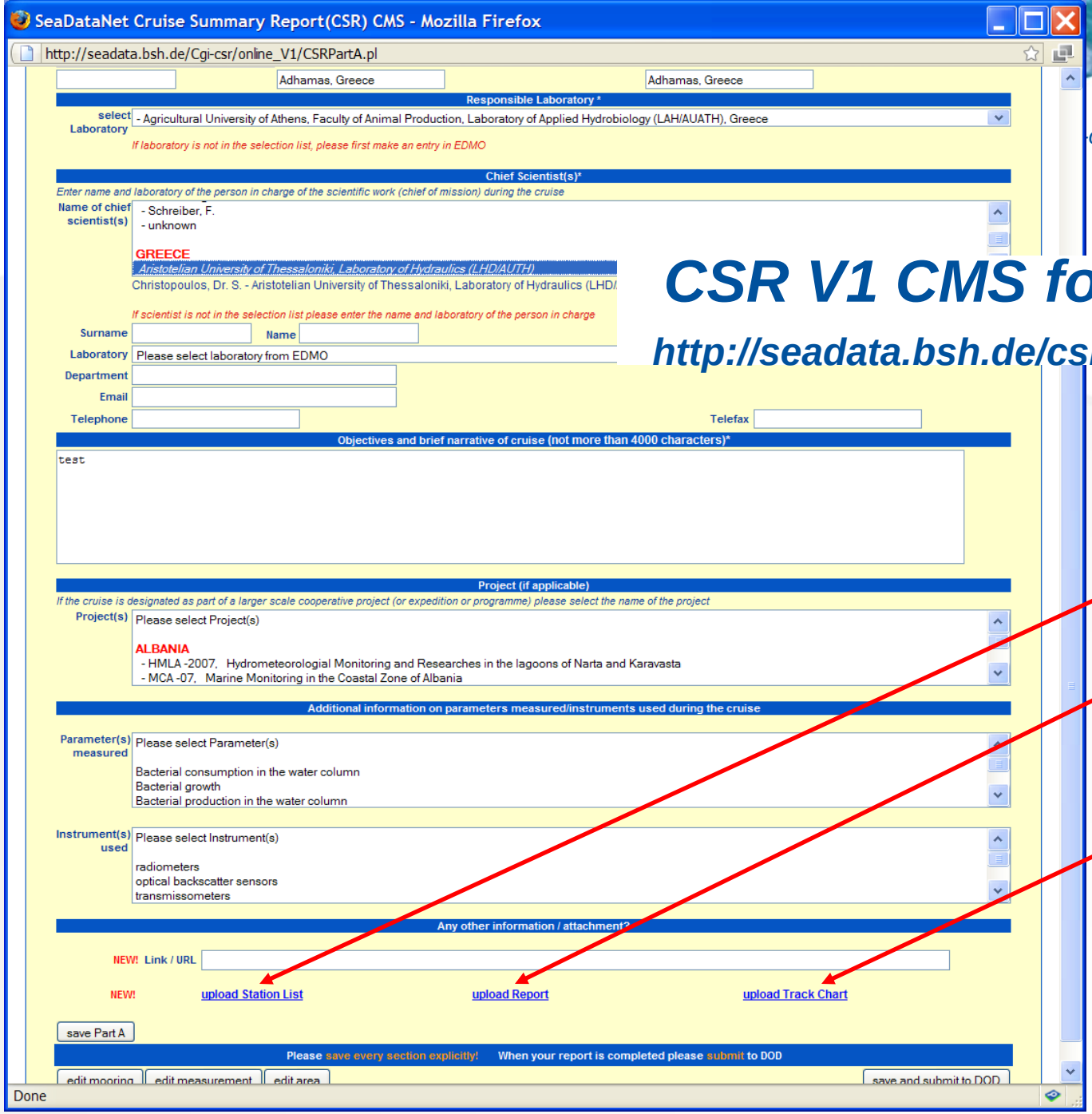
EDMO link

Track chart



CSR V1 CMS for on-line entry

http://seadata.bsh.de/csr/online/V1_index.html

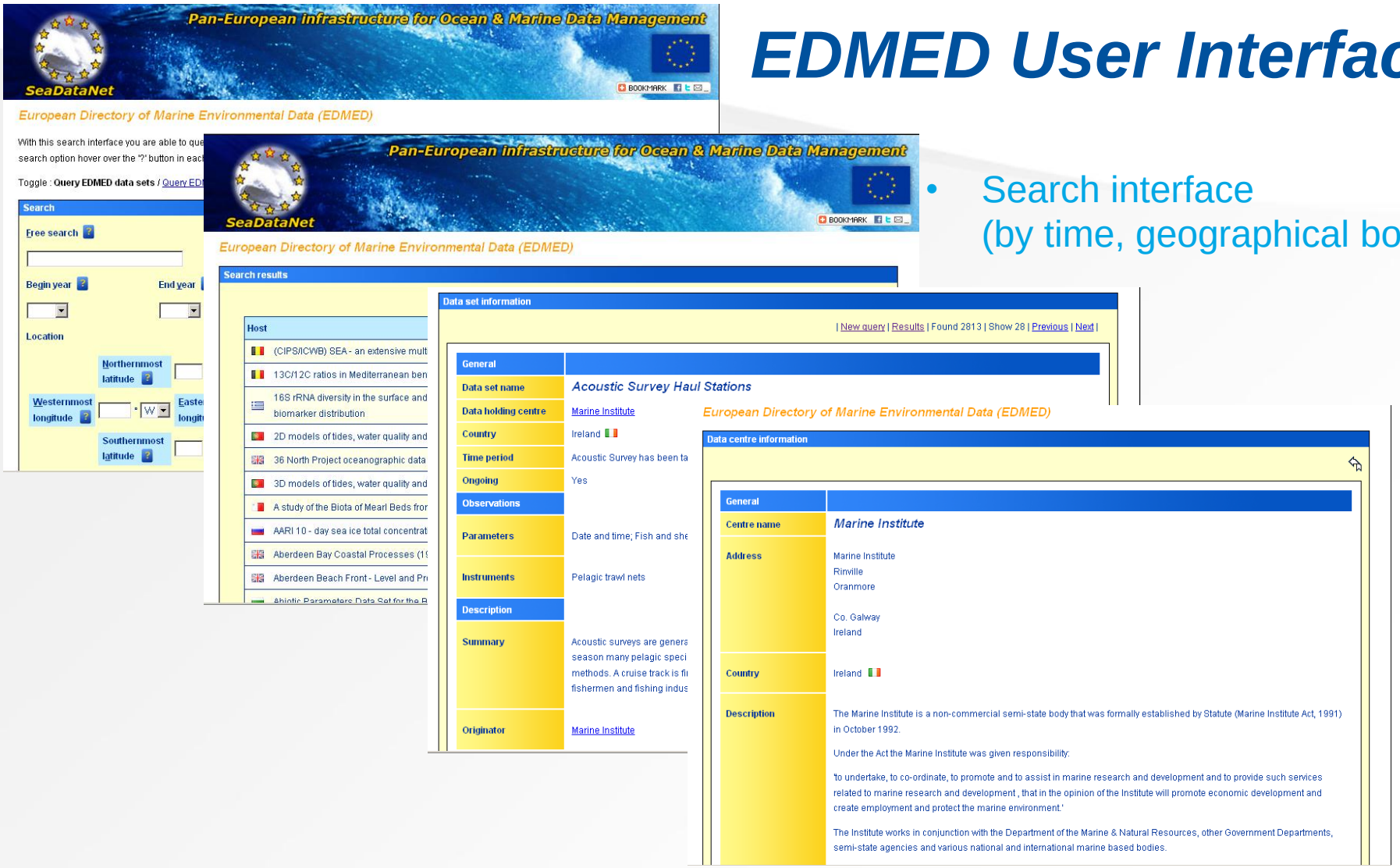


Upload station list

Upload reports

Upload track charts

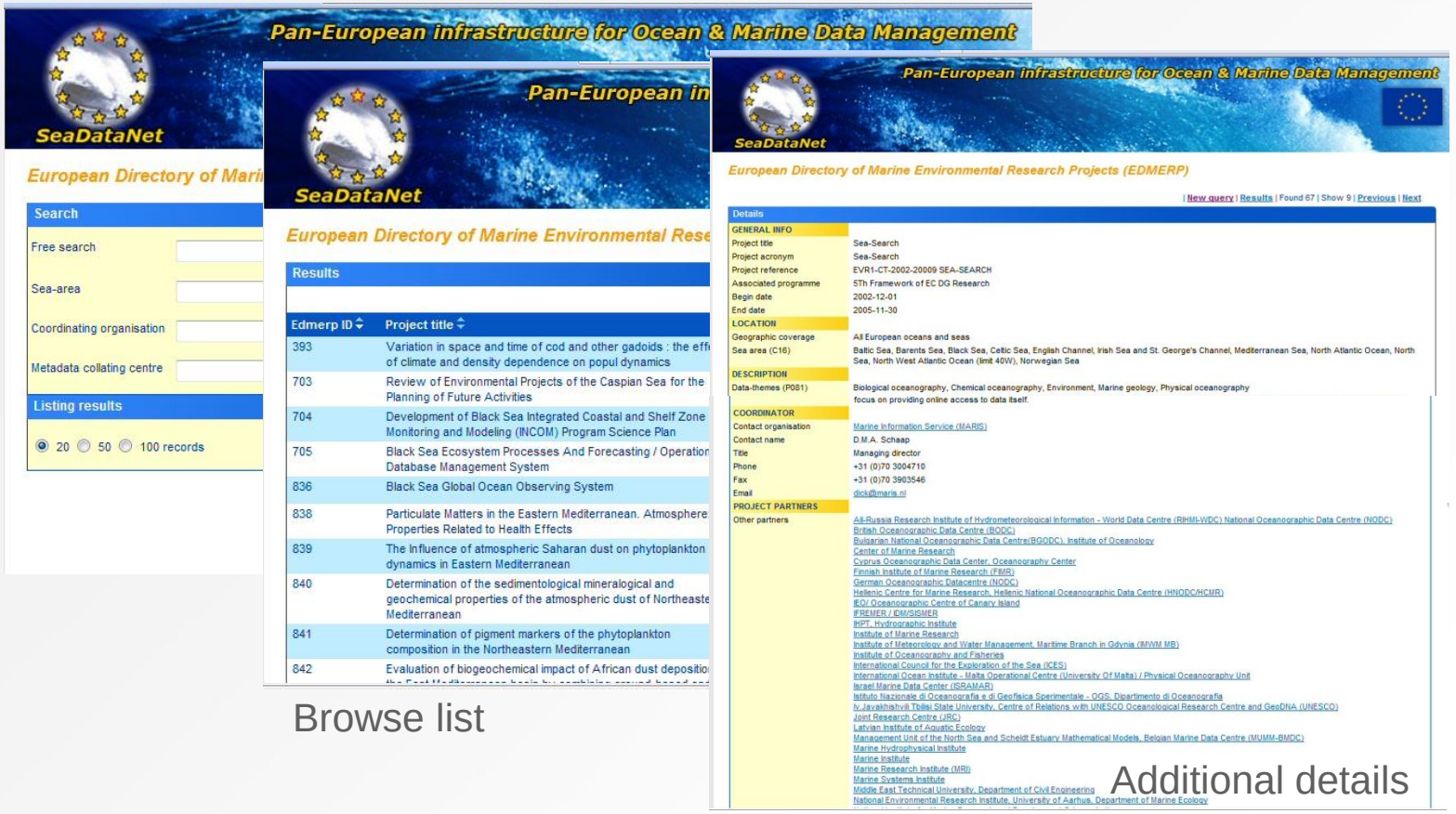
EDMED User Interface



- Search interface
  (by time, geographical box)

EDMERP Web Interface - Retrieval

http://seadatanet.maris2.nl/v_edmerp/search.asp

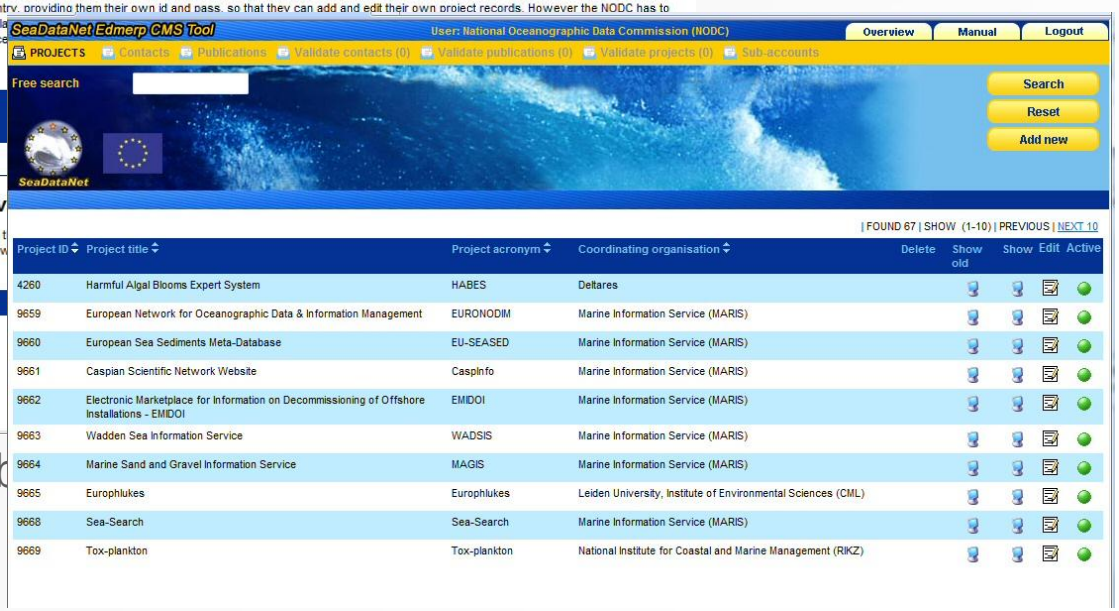


Browse list

Additional details

❖ EDMERP CMS

- http://seadatanet.maris2.nl/vu_edmerp/welcome.asp



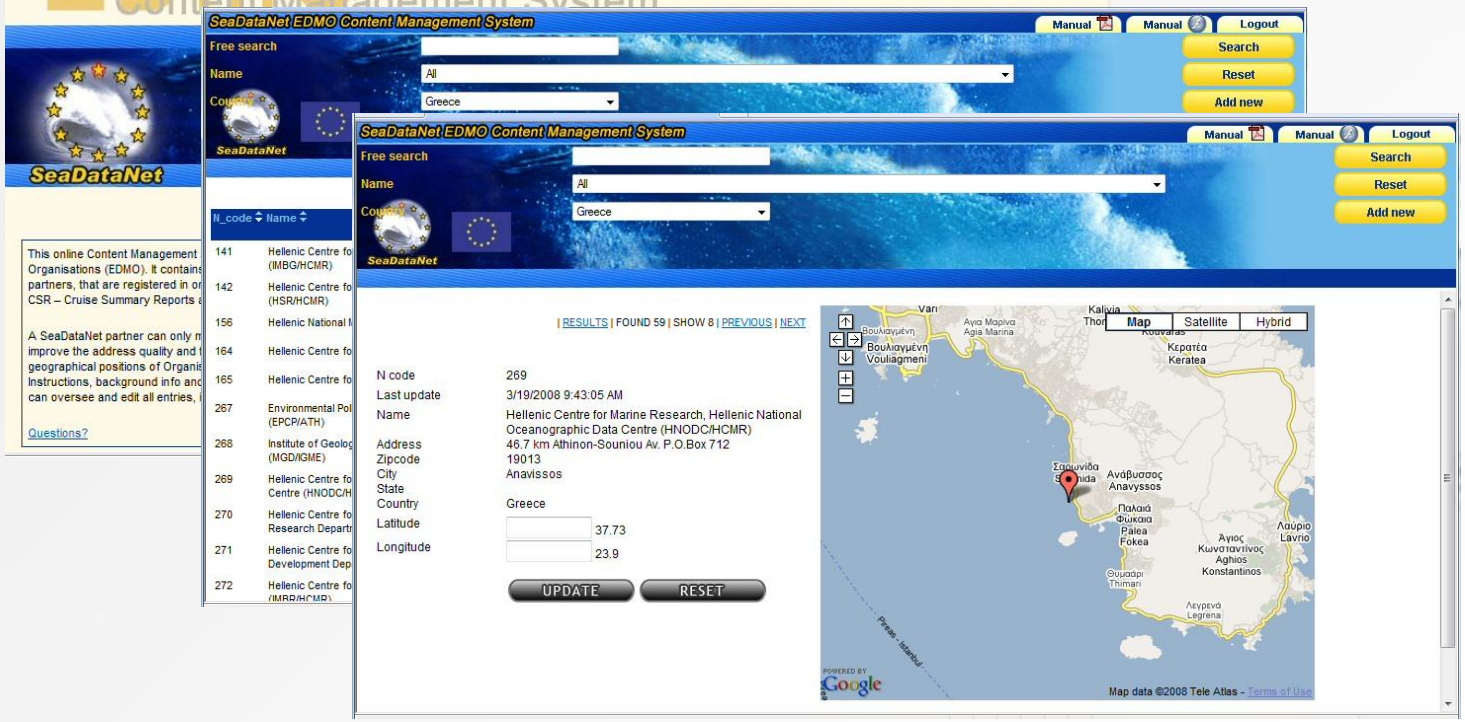
- capability of creation of sub
  while the NODC safeguards
  publishing

EDMO V1 search and retrieval

http://seadatanet.maris2.nl/edmo

EDMO CMS

welcome.asp



EDMO CMS geo-locator via Google maps

EDIOS – Current status – March 2011

- The system is technically ready
  - Only UK inputs
- Input received from:
  - France and Greece
  - Germany and Sweden have prepared their entries
- At present >10000 entries

- Overall update will be done in cooperation with EuroGOOS
- Lesley will present the current status at the end of this presentation

SeaDataNet 2 Objectives

- The overall objective of the SeaDataNet II project is to **upgrade the present SeaDataNet infrastructure** into an **operationally robust and state-of-the-art** Pan-European infrastructure for providing up-to-date and high quality access to ocean and marine metadata, data and data products by :
  - setting, adopting and promoting common data management standards
  - realizing technical and semantic interoperability with other relevant data management systems and initiatives on behalf of science, environmental management, policy making, and economy.

WP4 Action

- **Operational** upgrade of the SeaDataNet catalogues and transfer to the central directories
  - (at present done on an ad-hoc basis by mailing and uploading packages of XML entries of CDI, EDMED, EDMERP, EDIOS, CSR)

WP4 - How

- By the development and adoption of a **OGC CS-W harvesting mechanism** catalogue which:
  - Will not require human intervention to trigger and handle transfers
  - Will allow the directories to be more up-to-date

Requirements for OGC based CS-W mechanism

- In order to adopt that mechanism, three actions need to be taken:
  - upgrading of the MIKADO XML editor used at local level by all SeaDataNet partners
  - upgrading of the central Directory services (EDMED, EDIOS, EDMERP,CSR), used at central level by NERC-BODC, MARIS, and BSH-DOD
  - applying ISO19139 schema format (the technical transport format for ISO 19115 content model based entries) for XML files so as to be INSPIRE compliant

New Mikado Software

- The new MIKADO software for updating EDMED, EDMERP, EDIOS and CSR, with OGC CS-W harvesting capabilities, must be installed and configured at each data centre.

Implementation Plan for New Mikado Software

- This plan will offer:
  - Instructions for the installation and configuration guide of Mikado software with the new harvesting capabilities
  - Instructions for upgrading and testing the new Mikado software efficiently
- This will de done:
  - by distributing to all data centers a documentation of these instructions
  - by offering help to any problems encountered

Installation & Configuration of the upgraded Mikado tool

- This will be done gradually in a test mode in order to be able to control initial problems and errors. We will start with pilot group of data centres and after the successful installation of Mikado we will improve our installation guides.
- We will continue with the other data centres and after the agreement with the respective central directory manager, Mikado will be switched to operational status.

WP4 deliverables

Deliverable Title	Nb	Leader	Delivery month
User manual for updating metadata catalogues	6	HNODC	2
Implementation plan for the gradual installation of upgraded services	1	HNODC	9
Pilot group of SeaDataNet nodes operational with upgraded delivery services	4	HNODC	11
Revised set of instructions and doc for installation of upgraded services	4	HNODC	12

New entries

- Partner's new entries will be monitored by indicators defined under WP2 and will be reported to the annual metrics reports
  - *We must keep metrics high !*
- The new partners (PANGAEA-MARUM) will be bring new data in the system
- By the cooperation with related projects and initiatives (UpgradeBSS, Eurofleets, JERICO, EuroARGO, EMODNET PP)