

Final meeting
Brest 16-17th September 2015



PAN-EUROPEAN INFRASTRUCTURE
FOR OCEAN & MARINE DATA
MANAGEMENT

How SDN has changed INSTM data management methods Marine Environment Laboratory (LMM) case

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PLAN

I. INSTM

II. Objective

III. INSTM Workflow & Catalogues

IV. How SDN has changed INSTM DM method ?

V. Conclusion

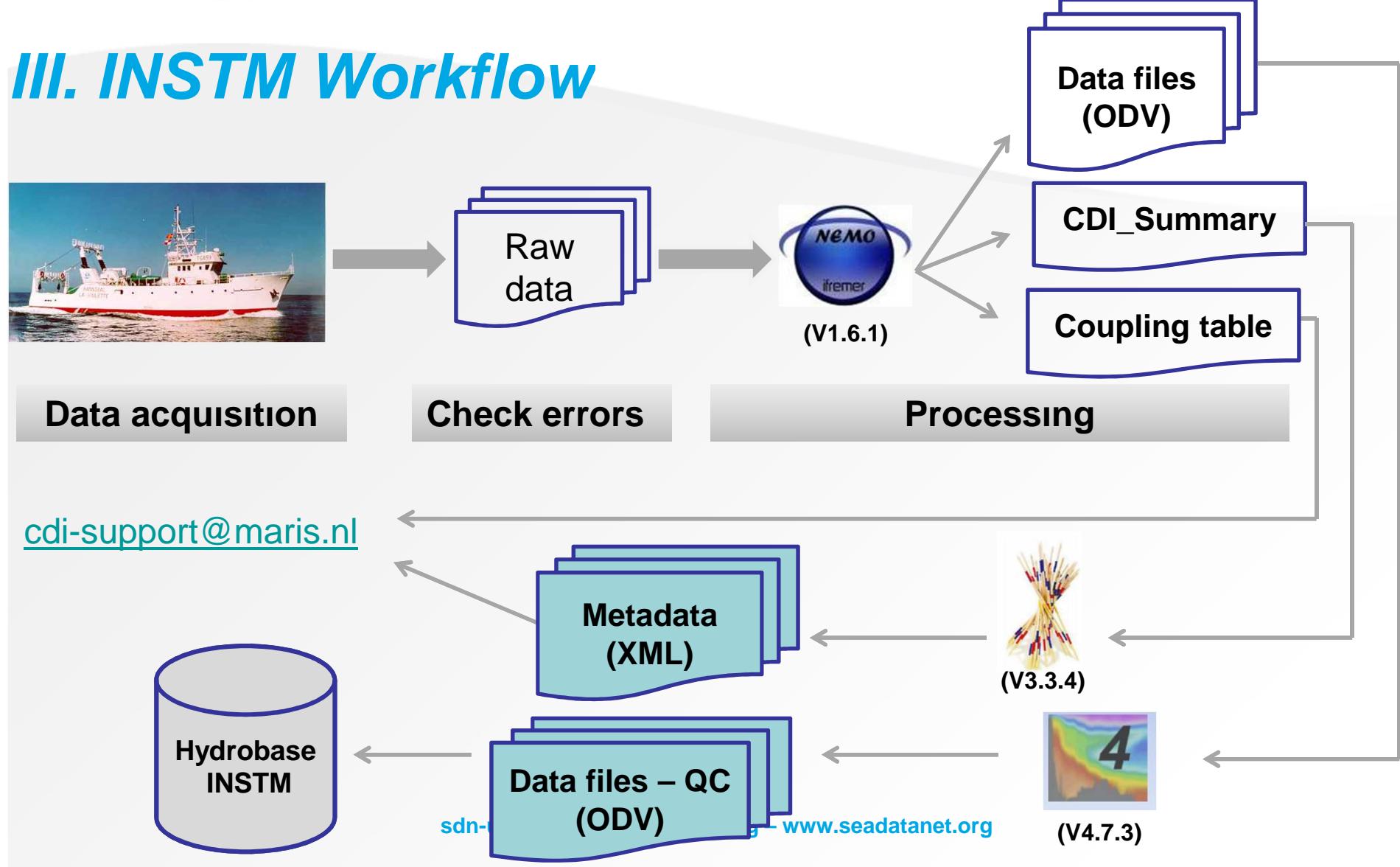
I. Institut National des Sciences et Technologies de la Mer - INSTM

- ❑ INSTM is a public Research Institute created in 1925
- ❑ NODC (1992) hosts databases: HydroBase, REPHY, RECNO
- ❑ 4 laboratories: fishery, biotechnology, aquaculture and marine environment (LMM)
- ❑ Marine Environment laboratory collaboration:
 - SeaDataNet 1 (2007 – 2011)
 - SeaDataNet 2 (2011 – 2015)
- ❑ The LMM is involved in WP :
 - WP2.1: participation to plenaries meetings
 - WP3.2, 3.3: participation to trainings
 - WP4.3: installation of tools for metadata
 - WP5.2: installation of tools for data

II. Objective

1. Update our marine data management method (since MEDAR project)
2. Acquire new methods and protocols in coherence with international standards.
3. Provide an interoperable database with standardized quality
4. Disseminate this method within regional and national scales.
5. Increase our visibility through this Pan-european network to strengthen our future international collaborations.

III. INSTM Workflow



INSTM catalogues

Catalogue	Total number	Harvesting
EDMED	1	
EDMERP	33	
EDMO	1	
EDIOS programmes	0	
EDIOS Series	0	
CSR	96	OK
CDI	969	OK



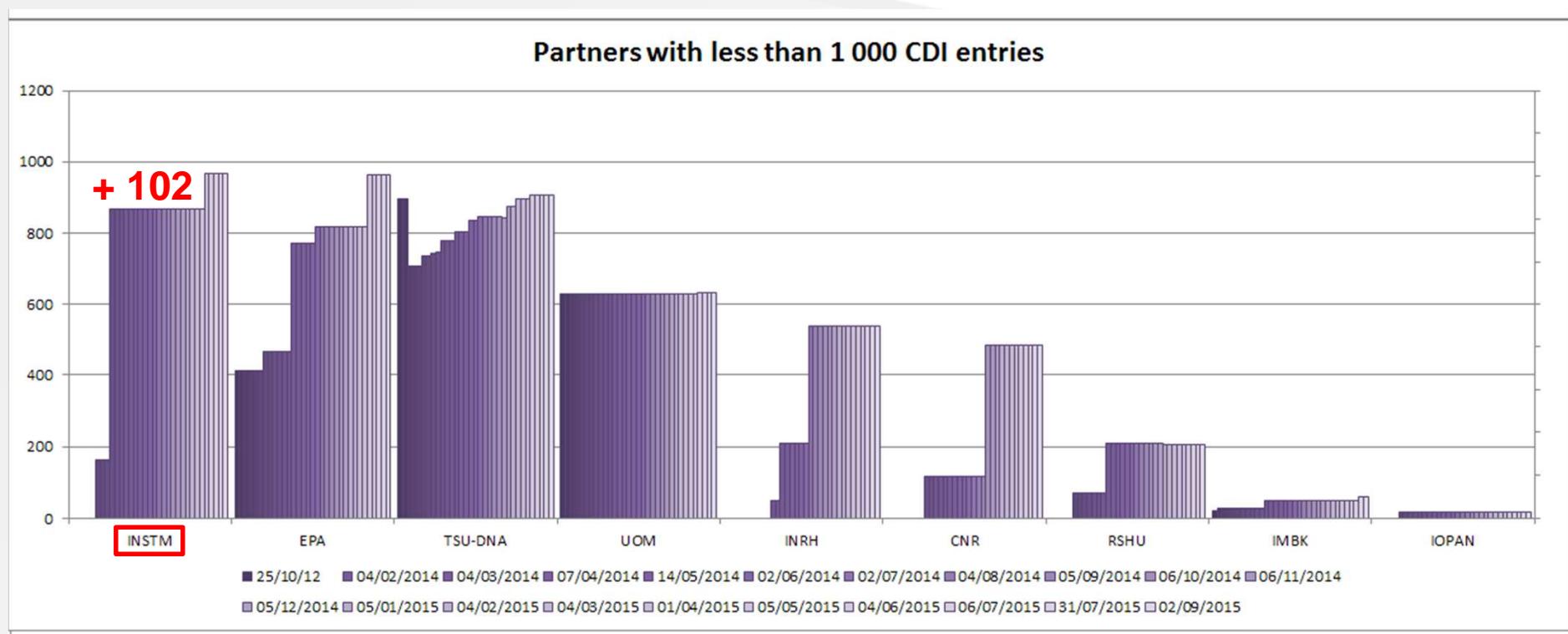
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Reference : 201508_cdi_followup_graph.png
Date : 02/09/2015

sdn-userdesk@seadatanet.org – www.seadatanet.org

IV. How SDN has changed our DM method

- INSTM and MIO are working on CHROME project for NRT data acquisition.
- INSTM experience in SDN gave its benefits by sharing with MIO the know-how on data management.



Continuous and High Resolution Observation of the MEditerranean Sea

CHROME

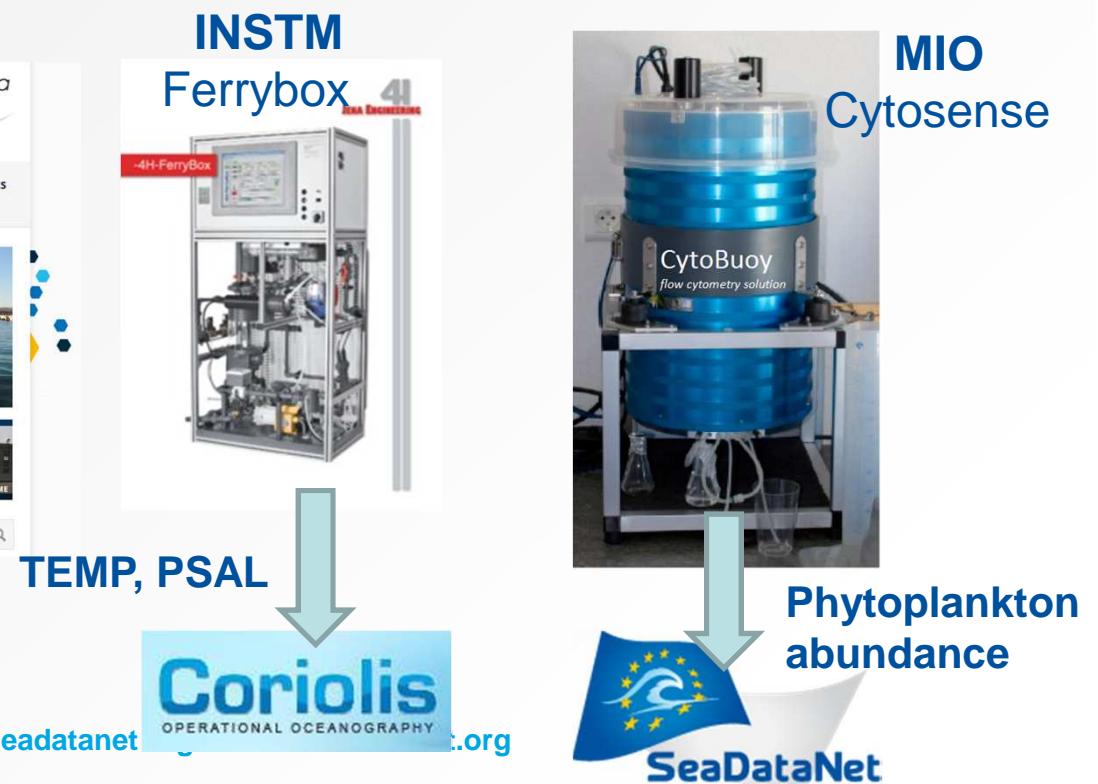
Projet CHROME | Equipements | Données et résultats | Contacts

Acquisition du Cytosence

Installation FerryBox

Actualités

Rechercher

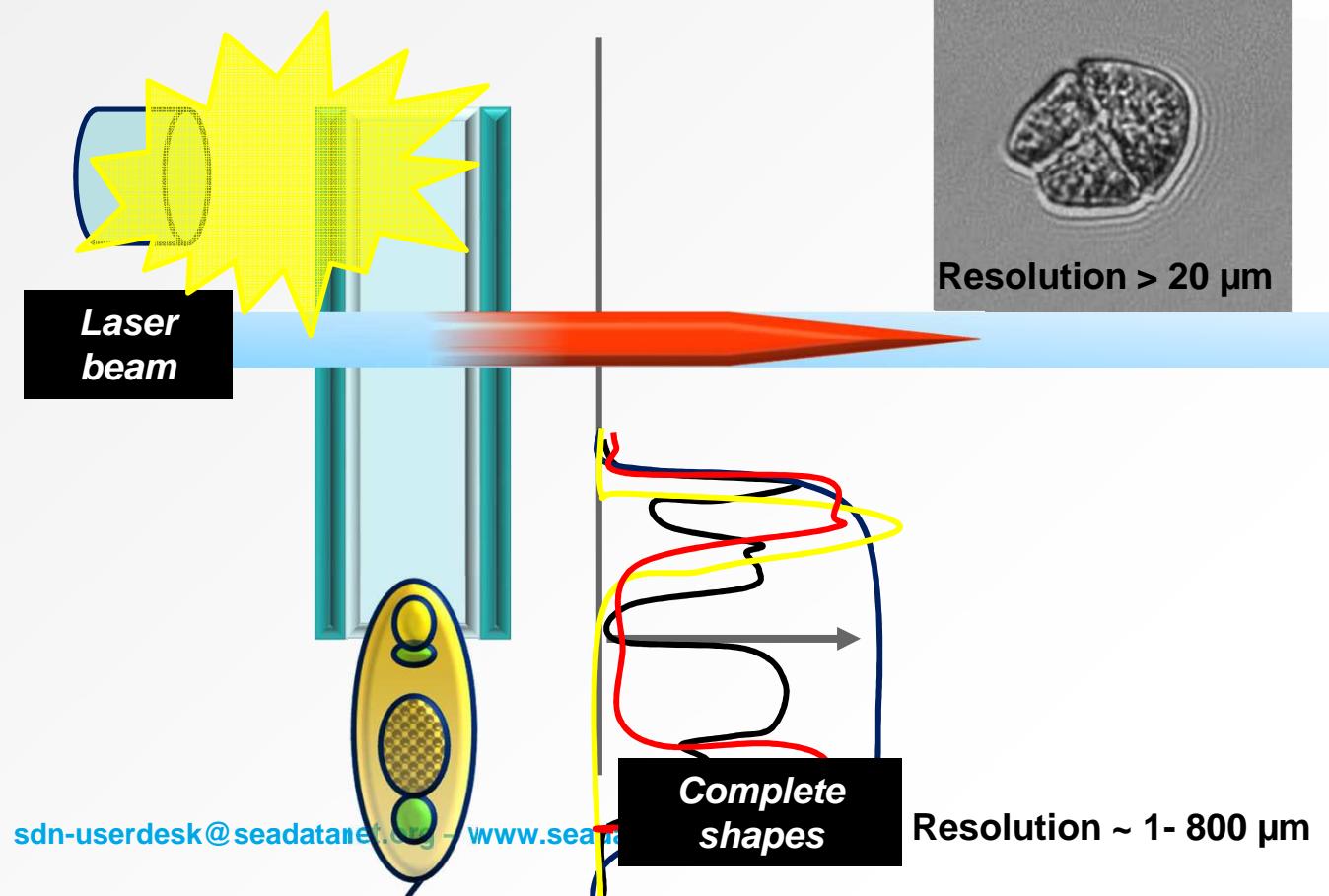




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NEW TECHNOLOGY FOR THE RESOLUTION OF PHYTOPLANKTON FUNCTIONAL DIVERSITY AT HOURLY AND REGIONAL SCALES

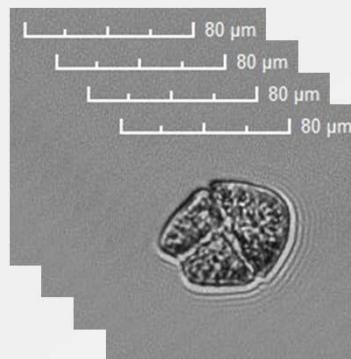




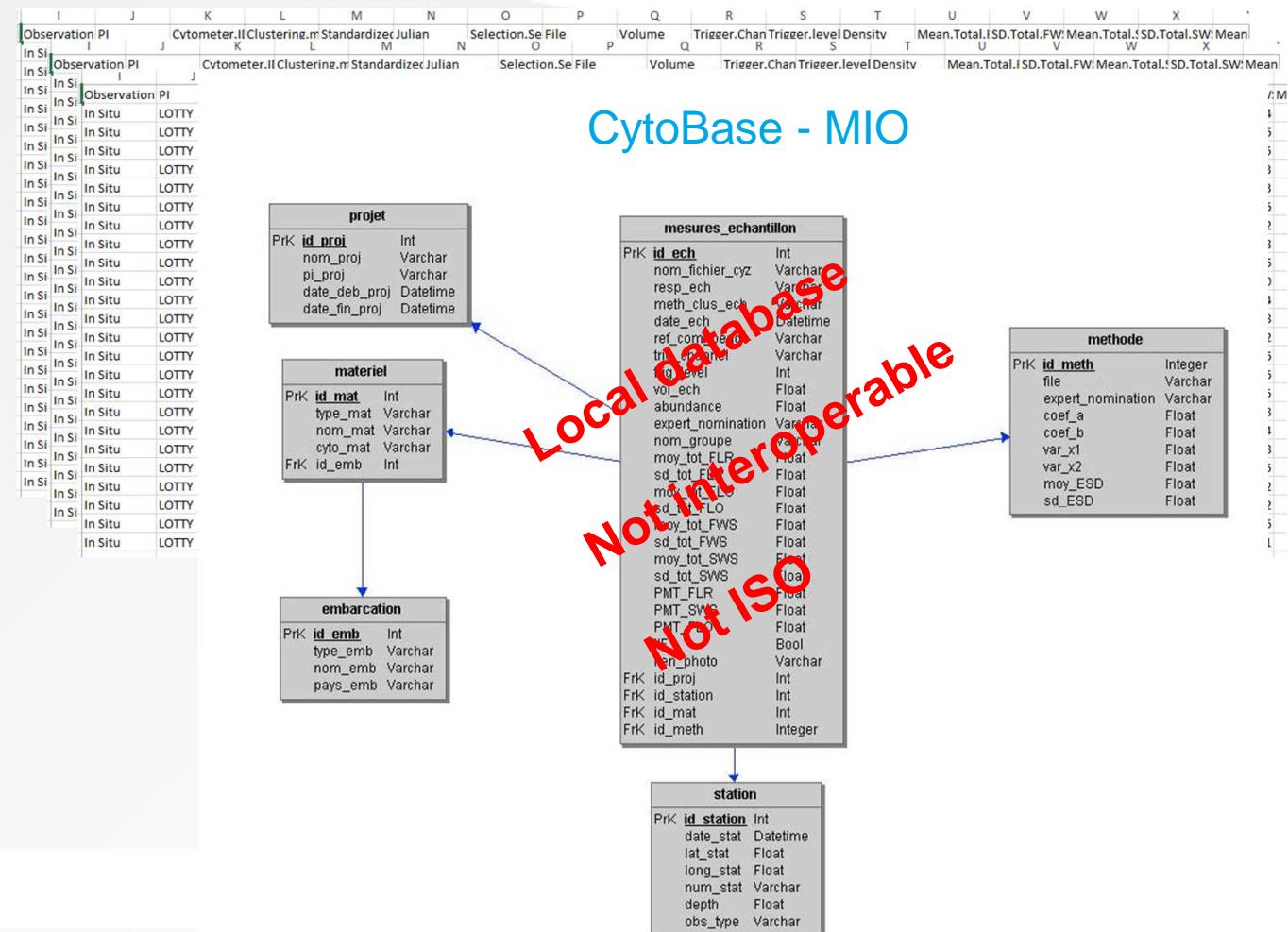
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Flow cytometry dataset



Cell pictures



- The MIO is very interested in adopting some good practices as used in SDN.
- Thanks to SDN head team who had delivered a new version of "NEMO" (July 2015) that fits better cytosense dataset (B08)

NEMO - [File C:\MCD_CYTO\Data_from_Mathilde\Test3\PF_Table (26)_sample.csv]

Model | Coupling Table | Options ?

[File] [Cruise / Collection] [Station] Data Convert

Project : "Project Date": "PI": "Cytometer ID": "Latitude": "Longitude": "Station": "Depth": "CHROME": "2014-01-21 12:00:00": "LOTTY": "MARSEILLE": "42° 5' 1.3": "In Situ": "Automate" "CHROME": "2014-01-21 12:00:00": "LOTTY": "MARSEILLE": "42° 5' 1" "3": "In Situ" "CHROME": "2014-01-21 12:00:00": "LOTTY": "MARSEILLE": "42° 5' 1" "3": "In Situ" "CHROME": "2014-01-21 12:00:00": "LOTTY": "MARSEILLE": "42° 5' 1" "3": "In Situ" "CHROME": "2014-01-21 12:00:00": "LOTTY": "MARSEILLE": "42° 5' 1" "3": "In Situ" "CHROME": "2014-01-21 12:00:00": "LOTTY": "MARSEILLE": "42° 5' 1" "3": "In Situ" "CHROME": "2014-01-21 12:00:00": "LOTTY": "MARSEILLE": "42° 5' 1" "3": "In Situ" "CHROME": "2014-01-21 12:00:00": "LOTTY": "MARSEILLE": "42° 5' 1" "3": "In Situ" "CHROME": "2014-01-21 12:00:00": "LOTTY": "MARSEILLE": "42° 5' 1" "3": "In Situ"

Station Description

Validate step

Reset

+

Station number

Choose if station number is computed or read within the file at a given position. If you type 0 as a line, the station's number will be extracted from filename.

Automatic incremental number starting at

Fixed position

Position

Line Start End

Test

Data type

Select the data type in the list

B08 : Phytoplankton

Acquisition History

Comments

Surface sample

UT/Conversion

Time

Type in here the hour or indicate it's position within the file. Always choose the first station's hour. You can choose your own format.

Log | Info | Help

Step validated, you can proceed to next one!



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SeaDataNet

The screenshot shows the NEMO software interface. At the top, there's a menu bar with [File], [Cruise / Collection], [Station], Data, and Convert. The main window displays a table of data with columns: Project, Project.Date, PI, Cytometer.ID, Latitude, Longitude, Station, Depth, Observation.Type, Clustering.method, Sample.ID, Date, Time, and Year. Below this is a table with columns T.., * CODE, LABEL, * UNIT, CONVER..., and TEST. A modal dialog titled "Parameters selection P09" is open, showing a list of parameters with columns CODE - NAME and Unit. The list includes ABCP - ALPHA BETA CAROTENES (milligram/...), AG63 - Ag<63um IN DRY WEIGHT... (milligram/...), AGSX - Ag IN DRY WEIGHT SEDIM... (milligram/...), AL63 - Al<63um IN DRY WEIGHT ... (milligram/...), ALKW - ALKALINITY (micromole/...), ALKY - ALKALINITY (millimole/...), ALTS - HEIGHT ABOVE MEAN SEA... (meter), AMIS - SEDIMENT AMINO-ACIDS (microgra...), AMON - AMMONIUM (NH4-N) C... (millimole/...), AMOP - AMMONIUM IN SEDIMENT... (millimole/...), and AMOW - AMMONIUM (NH4-N) C... (micromole/...). Buttons for Select and Cancel are at the bottom. To the right is a "Data Description" panel with sections for Validate step, Reset, Parameters list (radio buttons for P09, P01 via P09, P01 via P02), Measured (radio buttons for below sea surface, below sea bed, above sea level), Vertical References (dropdowns for depth below sea surface, depth below sea bed, pressure, height above sea level, fall rate), and a select button.

Log Info Help

Problem :

Not enough and accurate vocabulary for flow cytometry in P01 and L05 lists

- We are working together with the NERC-BODC Datacenter to define new cytosense vocabulary.
- The aim is to set up an interoperable, homogenized and standardized hydrological (INSTM) and cytosense (MIO) dataset in coherence with the ISO and EU standards.

Conclusion

- INSTM experience on DM through SDN project has its benefits on national, regional and international scale.
- It will be the first time that high frequency flow cytometry data will be stored in an international database. The MIO team is very interested in SDN DM method and protocols that perfectly match with their requirements.
- We wish a big success for the CHROME project and the continuation of SDN ☺

Please contact, for more details on:

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Flow Cytometry data: Dr. Melilotus THYSSEN

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Thank you for your support