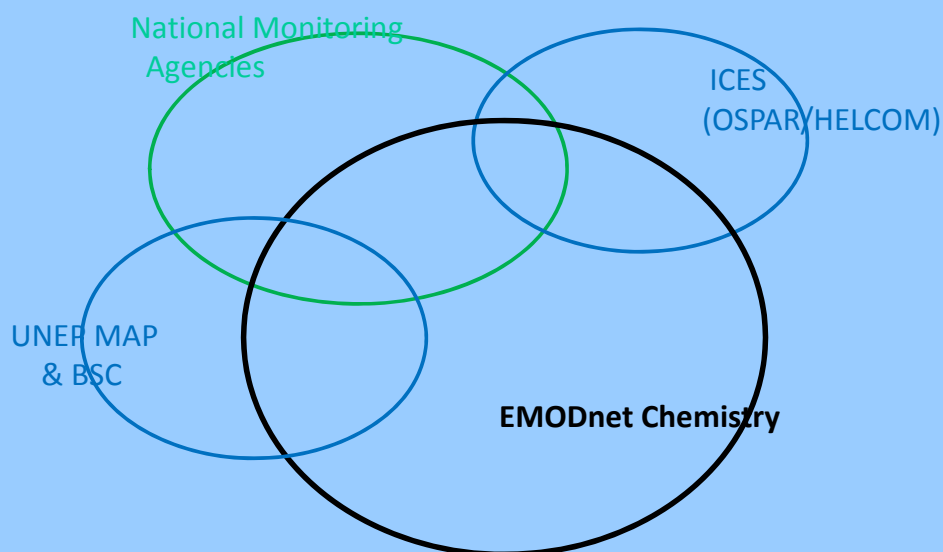EMODnet
European Marine
Observation and
Data Network

Updates from Chemistry lot
(MARE/2012/10)

Alessandra Giorgetti – OGS – Italy

4th EMODnet Steering Committee Meeting, Ispra (VA, Italy), 1-2 July 2015

OGS

NODC

EMODnet
European Marine
Observation and
Data Network

Status of chemical data within and outside EMD

National Monitoring Agencies

ICES (OSPAR/HELCOM)

UNEP MAP & BSC

EMODnet Chemistry

Communication is started with **RSCs** and **national level** to include missing information within EMD, following the distributed network

Data policy in SeaDataNet/EMODnet Chemistry

Per Data Access Restriction	Datasets
SeaDataNet licence	295.292
Unrestricted	256.538
by negotiation	90.552
no access	11.460
Academic	944
Licence	543
Moratorium	456
TOT	655.785

84 % of the data are "unrestricted"

15.8 % of the data are "restricted"

Metadata and data products are freely available

Data follows data policy settled by originators

With SDN/EMD Authorisation/Autentication/Access service **the user can be aware, negotiate** and agree the access to restricted data; **the originator can** standardize its information for **long-term safeguarding while keeping the ownership**
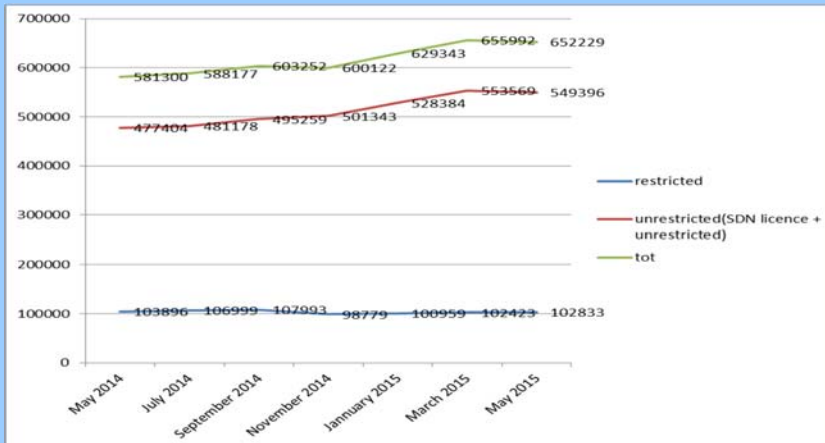
The number of restricted data is not eliminated but slowly decreasing as a consequence of the trust relationship built between data originators and NODCs

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Quality assessment for data and products

Quality assessment for EMD Chem is considered as a **key element** both in the **data collection** as well as in the **data products** generation
- Data are validated by the **originators**
- Data are validated by the **Data Centers**
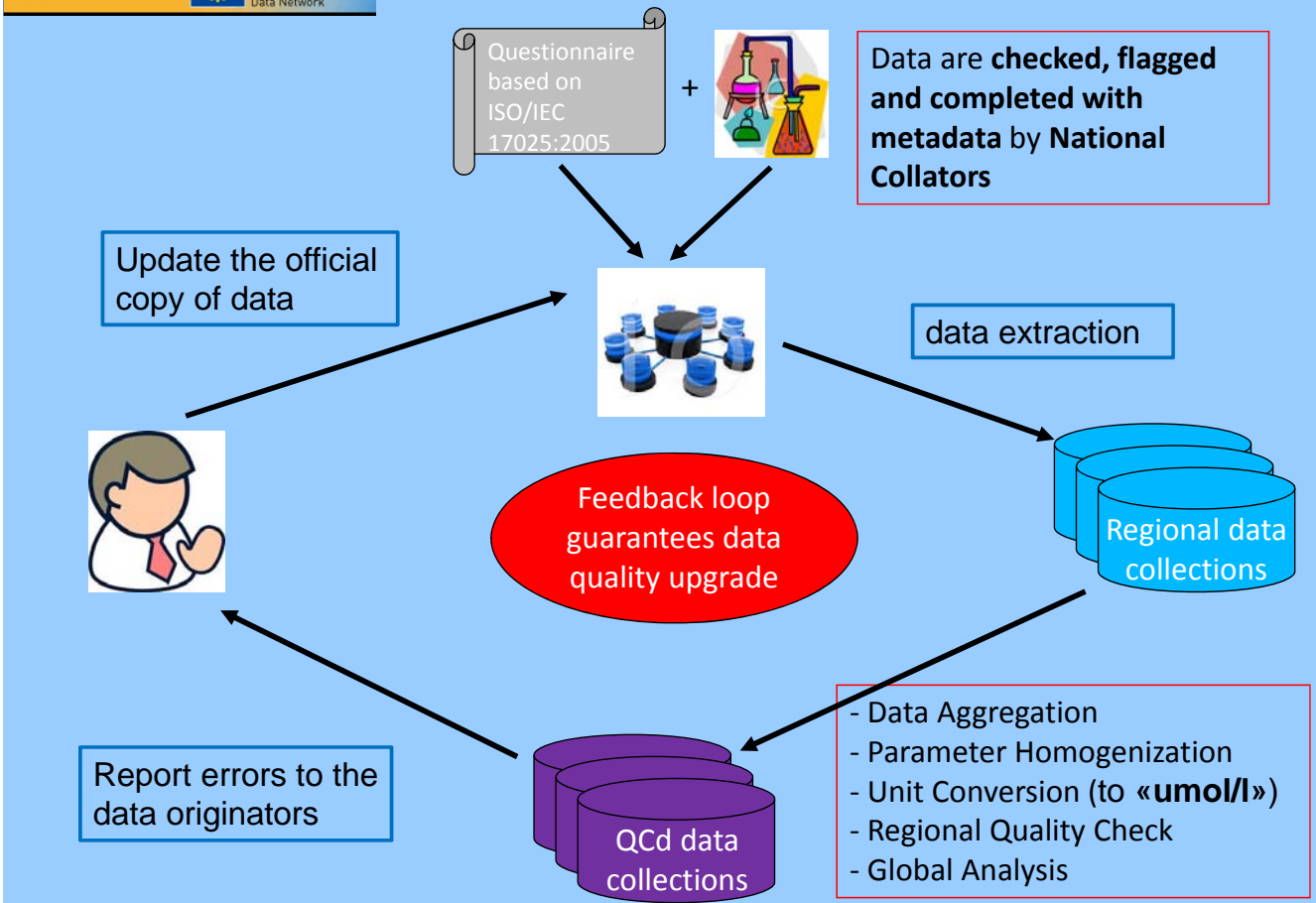- Data are validated globally, **at regional level**

→ Regional QC buffers of data

DIVA (Data-Interpolating Variational Analysis) horizontal maps generated on top of regional QC data buffers
- Maps (PO4, NO3, SiO4) are validated by local experts
- Maps (PO4, NO3, SiO4) are validated by EMD community

→ EMD Chem products are reviewed during Expert WS

Quality assessment for data and products

Questionnaire based on ISO/IEC 17025:2005

+

Data are **checked, flagged and completed with metadata** by **National Collators**

Update the official copy of data

data extraction

Feedback loop guarantees data quality upgrade

Regional data collections

Report errors to the data originators

- Data Aggregation
- Parameter Homogenization
- Unit Conversion (to **«umol/l»**)
- Regional Quality Check
- Global Analysis

QCd data collections

Key progress updates: plan 3rd year

Data collection focused on:
• Contaminants in all matrices by M27 = September 2015
• Chlorophyll-a, Oxygen, Organic Matter, pH, Alkalinity by M27 = September 2015

Data harvesting is underway and will close definitely on M28 = October 2015.

**Validation** of regional data collections

DIVA maps generation with 10-year moving window over 55 years, by season at identified vertical standard layers for:
• Total Phosphorus, Nox, Total Nitrogen, NH4 by M26 = August 2015
• Chlorophyll-a, Oxygen, Organic Matter, pH, Alkalinity by M34 = April 2015
in the **5 regions** (Baltic sea, North sea, Atlantic sea, Mediterranean sea, Black sea)

The **dynamic visualization** as OGC services are available for nutrients in the 5 regions. Performances should be improved (software, cloud environment). New regional collections are expected by M34.
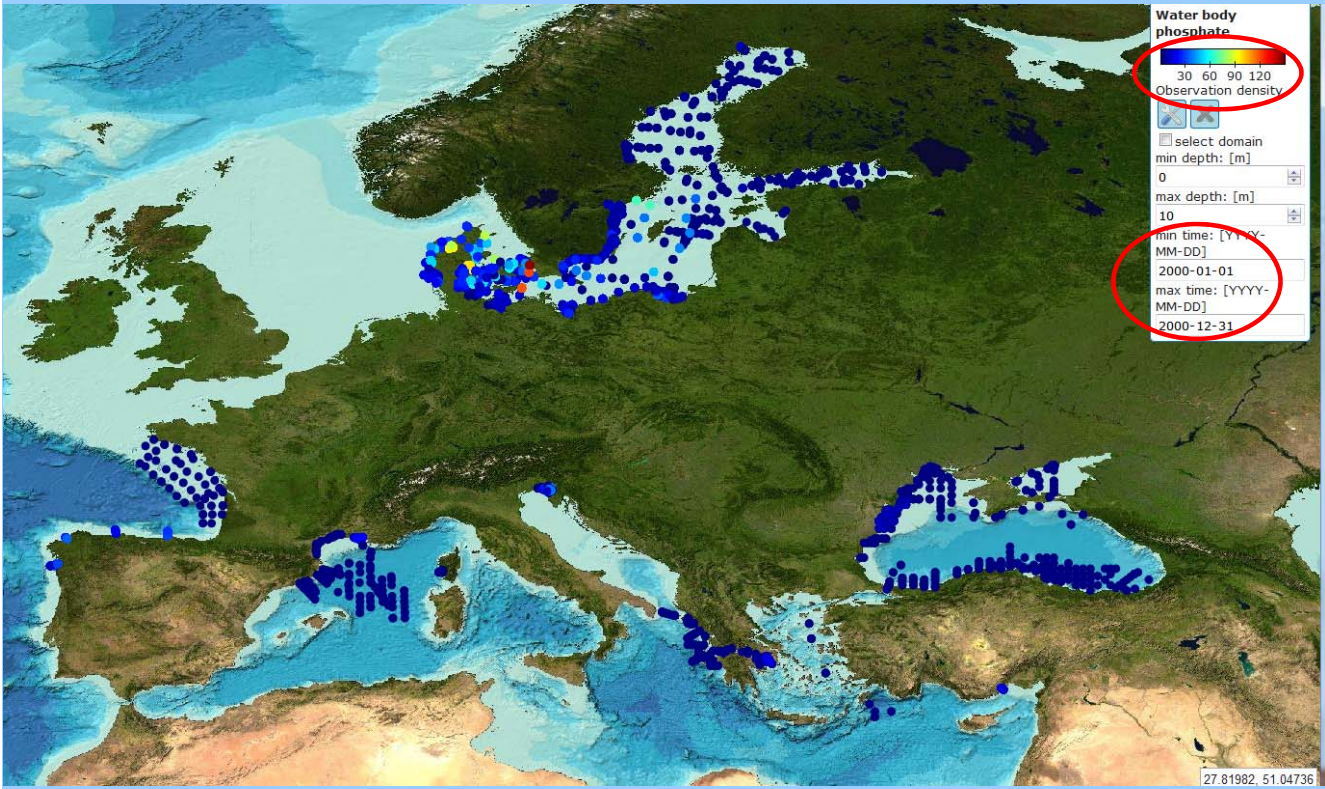
Viewing service updates: Map Server
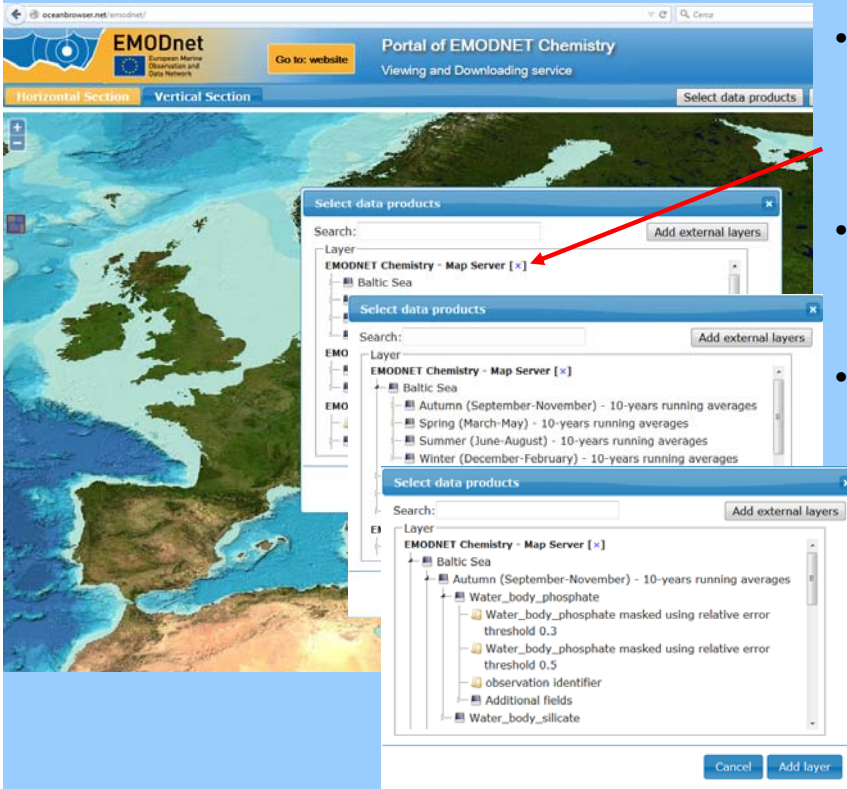
- Map Server: DIVA maps **Organized by domain, by season and by variable**
- Gridded field are masked by expected error
- Full field available in "Additional fields"
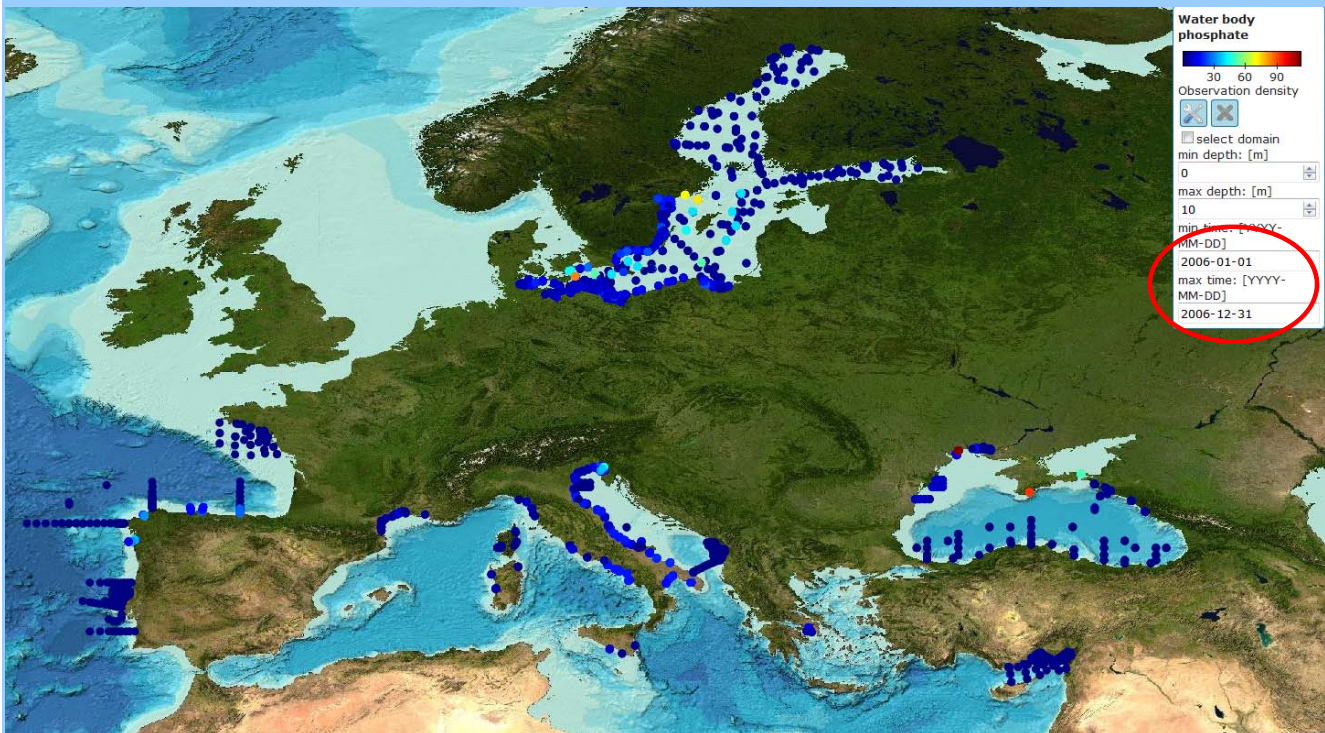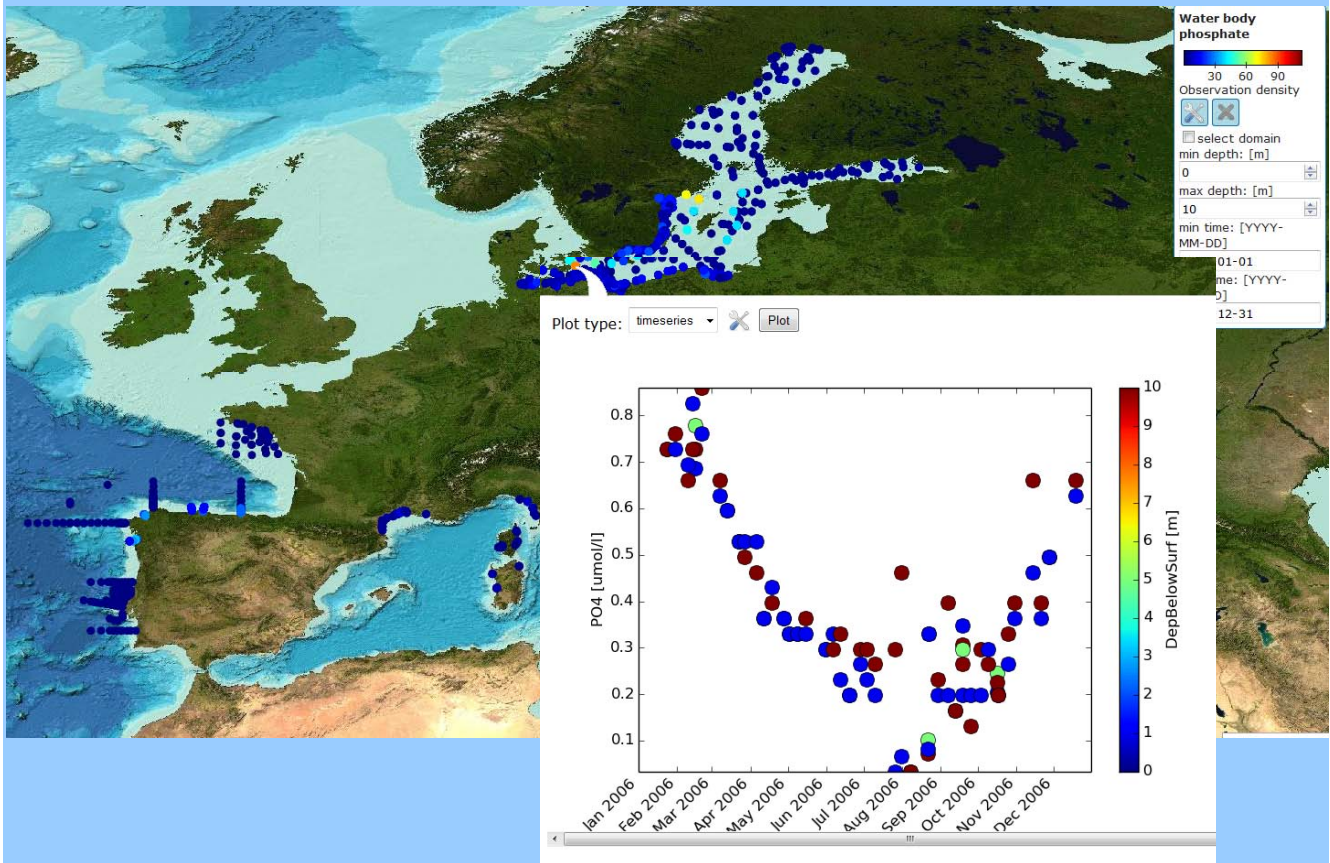

Viewing service updates: Dynamic Plots
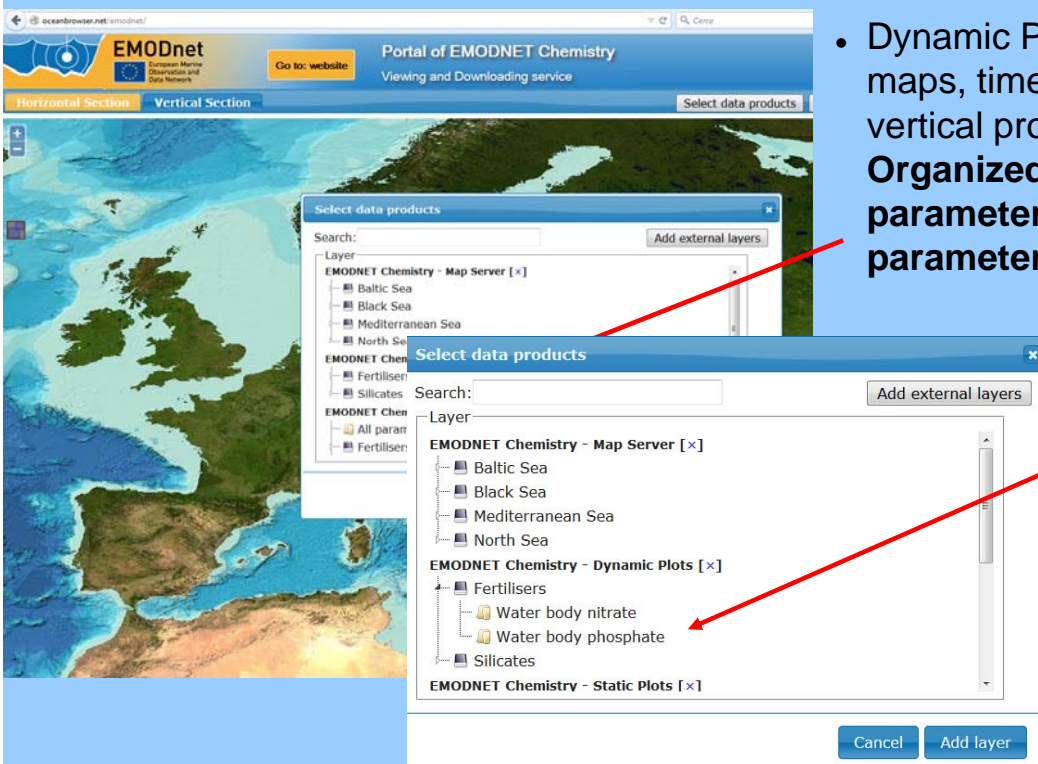
- Dynamic Plots: station maps, time series and vertical profiles **Organized by parameter group and parameter name (P35)**

The Viewing service: station maps

2000

The Viewing service: station maps

2006

The Viewing service: time series

Specific issues of concern

All **activities** (data collection, data buffers generation, data buffers aggregation and validation, DIVA maps generation, integration of the viewing services) are **concatenated** → deadlines should be respected

Inputs from Expert WS will be important and needs to be fulfilled

Requirements raised during previous MSFD-EMODnet meeting have been **faced** during the last SC and some **updates have already planned** (matrix, include QC/QA information, identify data collection purpose, RSC sub-basins, unique identification for monitoring stations)

Definition of sub-contracts for **Crimean partners**