



MyOcean

Products and user interfaces

FIXO³

Bremen 15 April 2015

Thomas Hammarklint

Email: Thomas.Hammarklint@smhi.se

MyOcean projects



MyOcean is a series of projects granted by the European Commission within the Copernicus Program (FP7), whose objective is to define and to set up a concerted and integrated pan-European capacity for ocean monitoring and forecasting

April 2009

Six years

April 2015

- MyOcean 1: April 2009 – March 2012



- MyOcean 2: April 2012 – September 2014



- MyOcean Follow-On: October 2014 – April 2015



THE WORK WILL CONTINUE AS A NEW SERVICE IN:

- Copernicus Marine Service: May 2015 – April 2018
- Continuation 2018-2021 (new procurement)



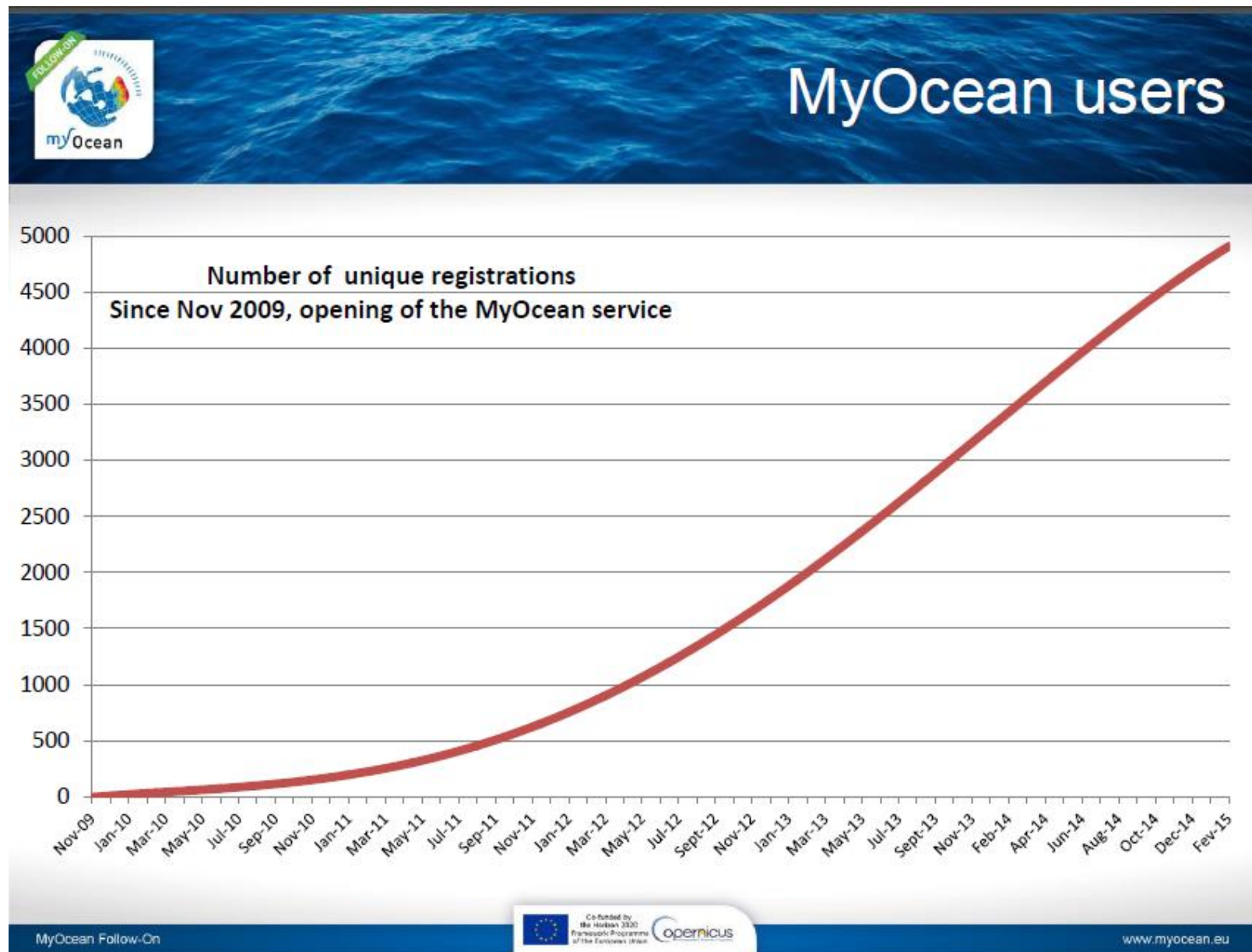


Service provided in MyOcean

2014

Dominique Obaton

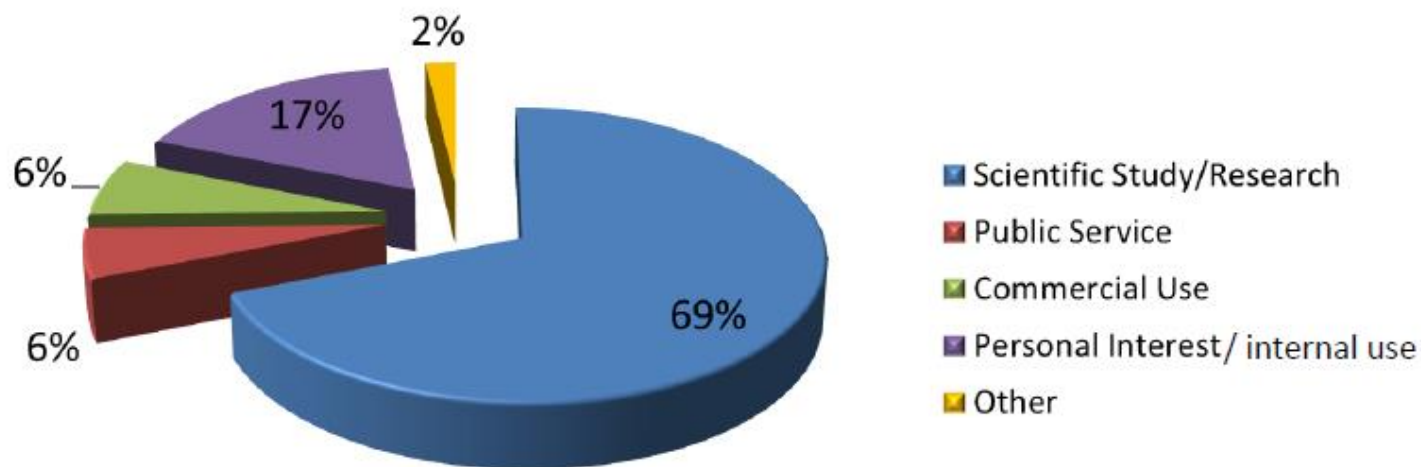
Dominique.Obaton@mercator-ocean.fr





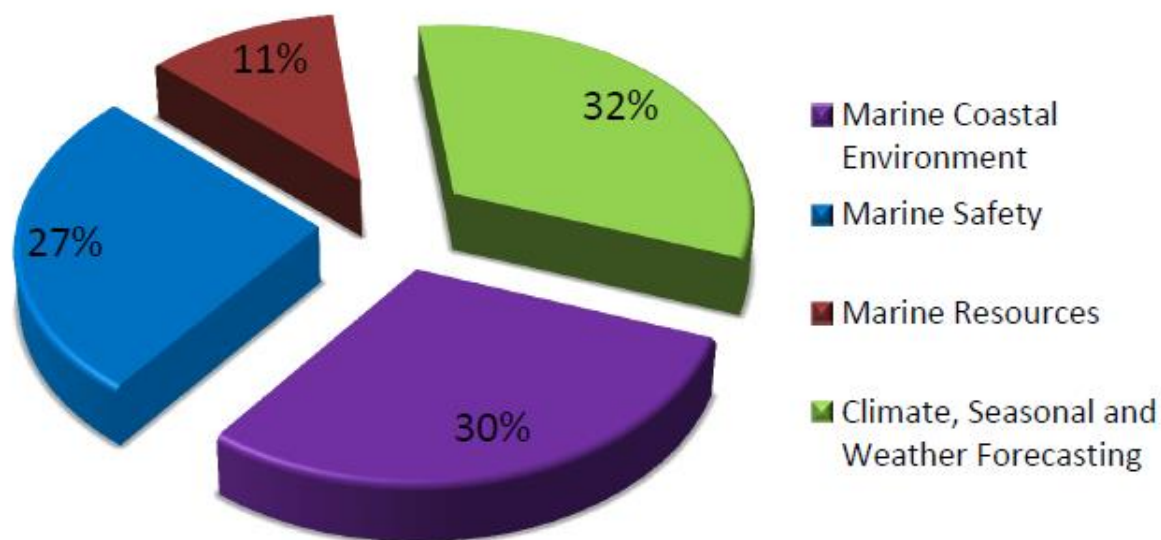
Users' type of applications

Users' applications – YEAR 2014





Users' areas of benefit



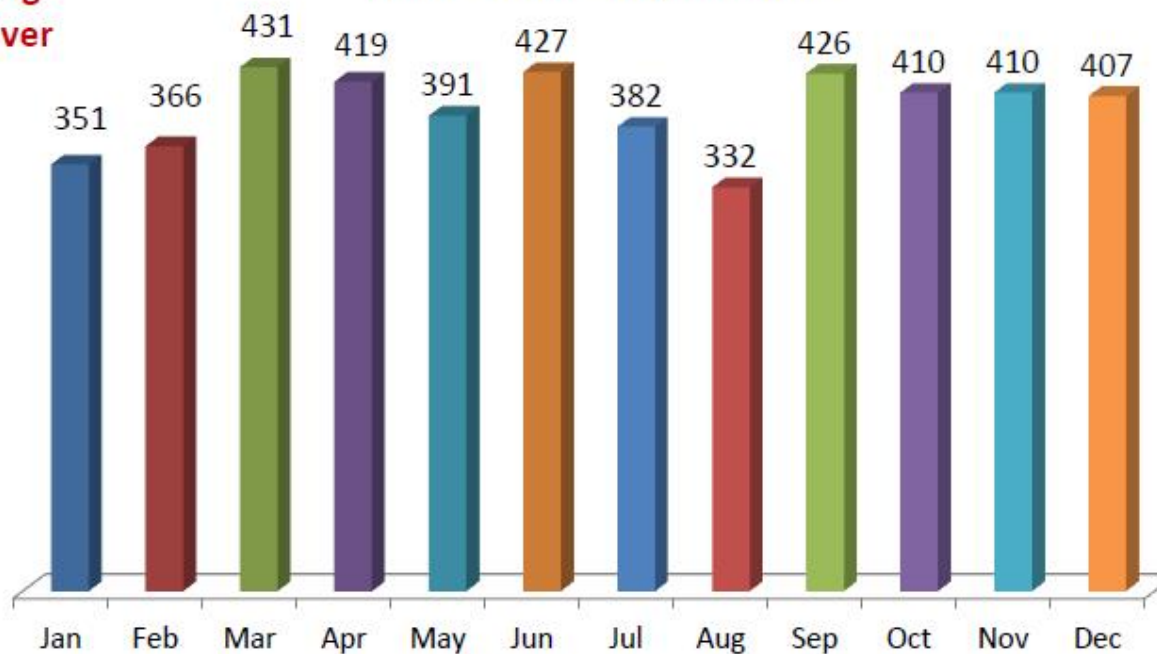
Users' applications – YEAR 2014



Users downloading products per month

1651 users
downloading
products over
the year

MyOcean - 2014
Number of users per month



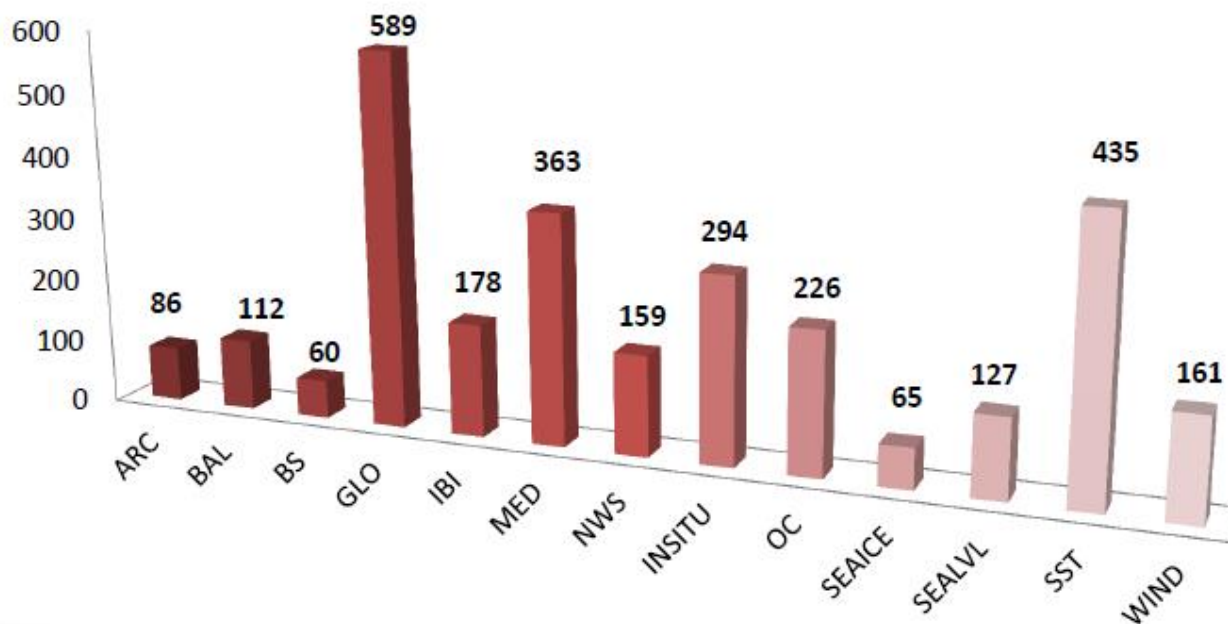
On average: **396** users downloading products per month



Users per product family

MyOcean - 2014

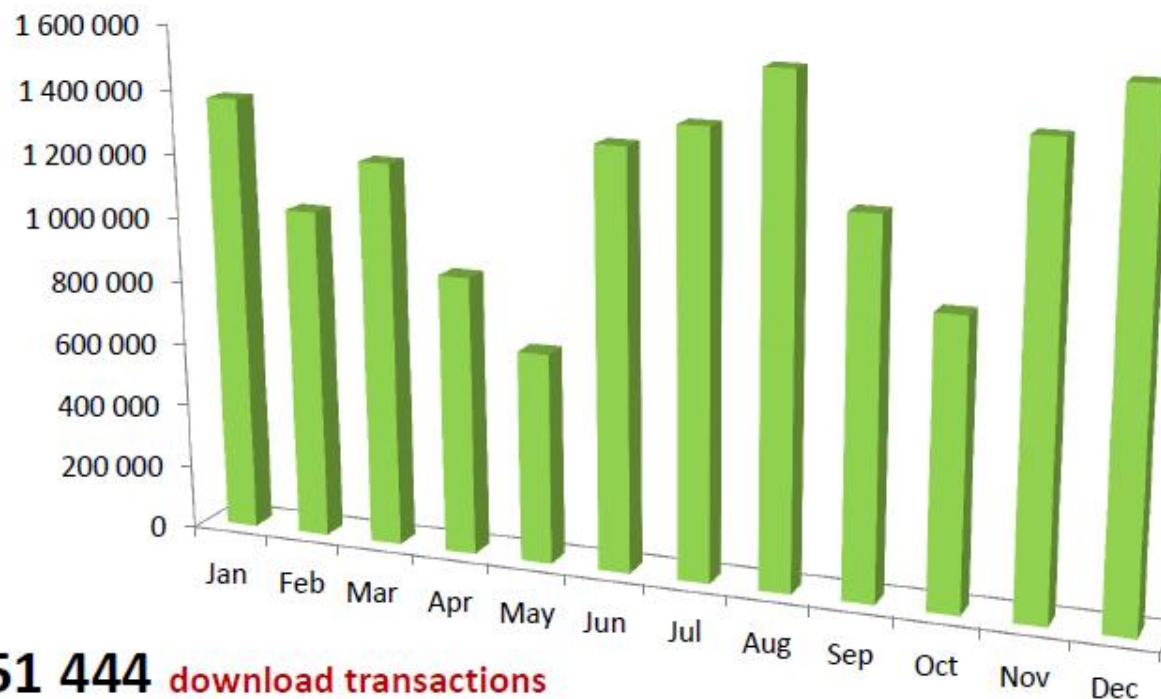
Number of users per product family (proposed in the catalogue)





2014 download transactions

MyOcean 2014
Number of download transactions per month



2014: **14 451 444** download transactions

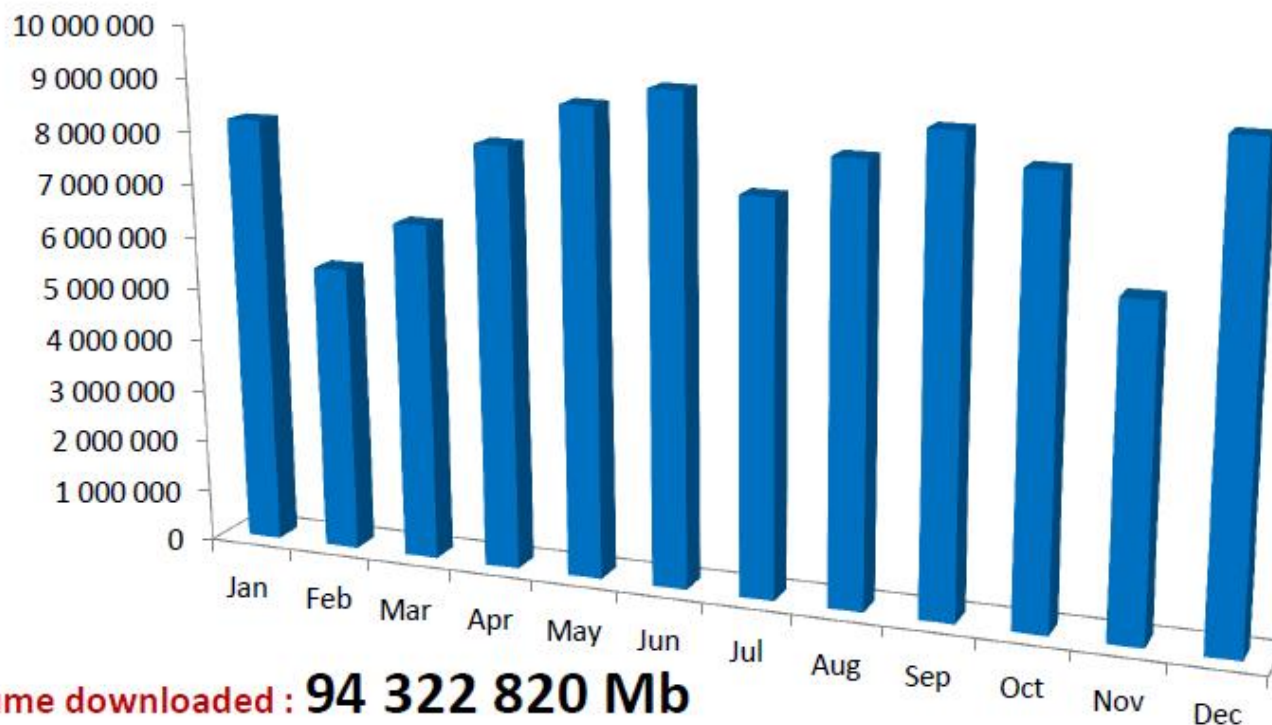
versus 4 790 700 in 2013

+ 200%



2014 volume downloaded

MyOcean - 2014
Volume downloaded by users (Mb)



2014 volume downloaded : **94 322 820 Mb**

versus 53 015 659 in 2013

+ 78%



MyOcean service

**Where we are,
5 years after
opening of service ?**



MyOcean service

1 integrated service
1 unique catalogue of product
Online download from catalogue

5000 subscribers

1650 users downloading products in 2014
on average **127** users downloading products **per day**
And **376 regular** users downloading **77% of volume**

Network of European producers

7 regions: global and 6 European seas
Modelling & observation products
Physical, ice, biogeochemical variables
Forecast, NRT, long time series

The 4
numbers
continue
to
increase

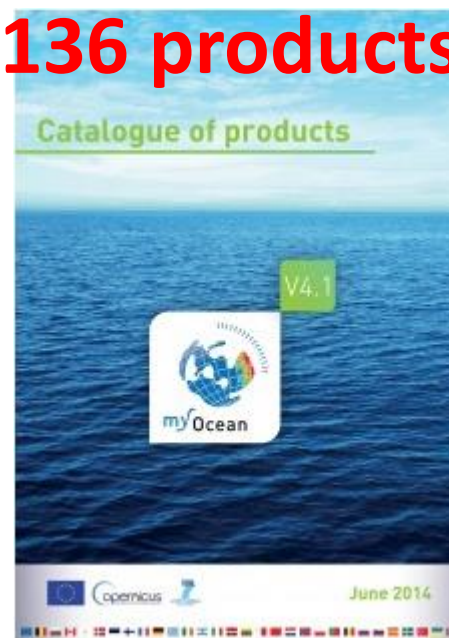
MyOcean products



- 1 Global
- 2 Arctic
- 3 Baltic
- 4 NWS
- 5 IBI
- 6 Med Sea
- 7 Black Sea



136 products



REANALYSES
10 to 45 years



REAL-TIME
Daily, hourly



FORECAST
2 to 10 days



OCEAN MONITORING AND FORECASTING

Providing PRODUCTS and SERVICES for all marine applications

INTRANET ACCESS

Search terms OK

ABOUT US | BENEFITS | NEWS | SCIENCE & LEARNING | TRAINING | SERVICES PORTFOLIO

SHORT-CUT TO SERVICES ▼

ONLINE CATALOGUE

[CATALOGUE PDF](#)[FIRST VISIT ?](#)

MY CART



AREA

- ☐ All areas
- ☐ Global Ocean (0)
- ☐ Arctic Ocean (0)
- ☒ Baltic Sea (1)
- ☐ European North-West Shelf Seas (0)
- ☐ Iberia-Biscay-Ireland Regional Seas (0)
- ☐ Mediterranean Sea (0)
- ☐ Black Sea (0)

PARAMETER

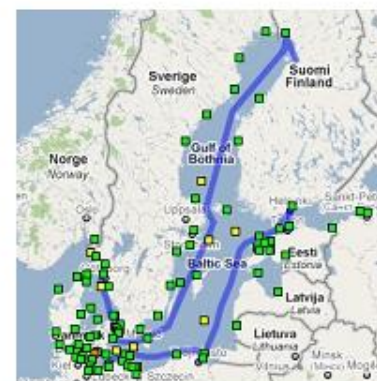
- ☒ All parameters

BALTIC SEA- IN SITU NEAR REAL TIME OBSERVATIONS

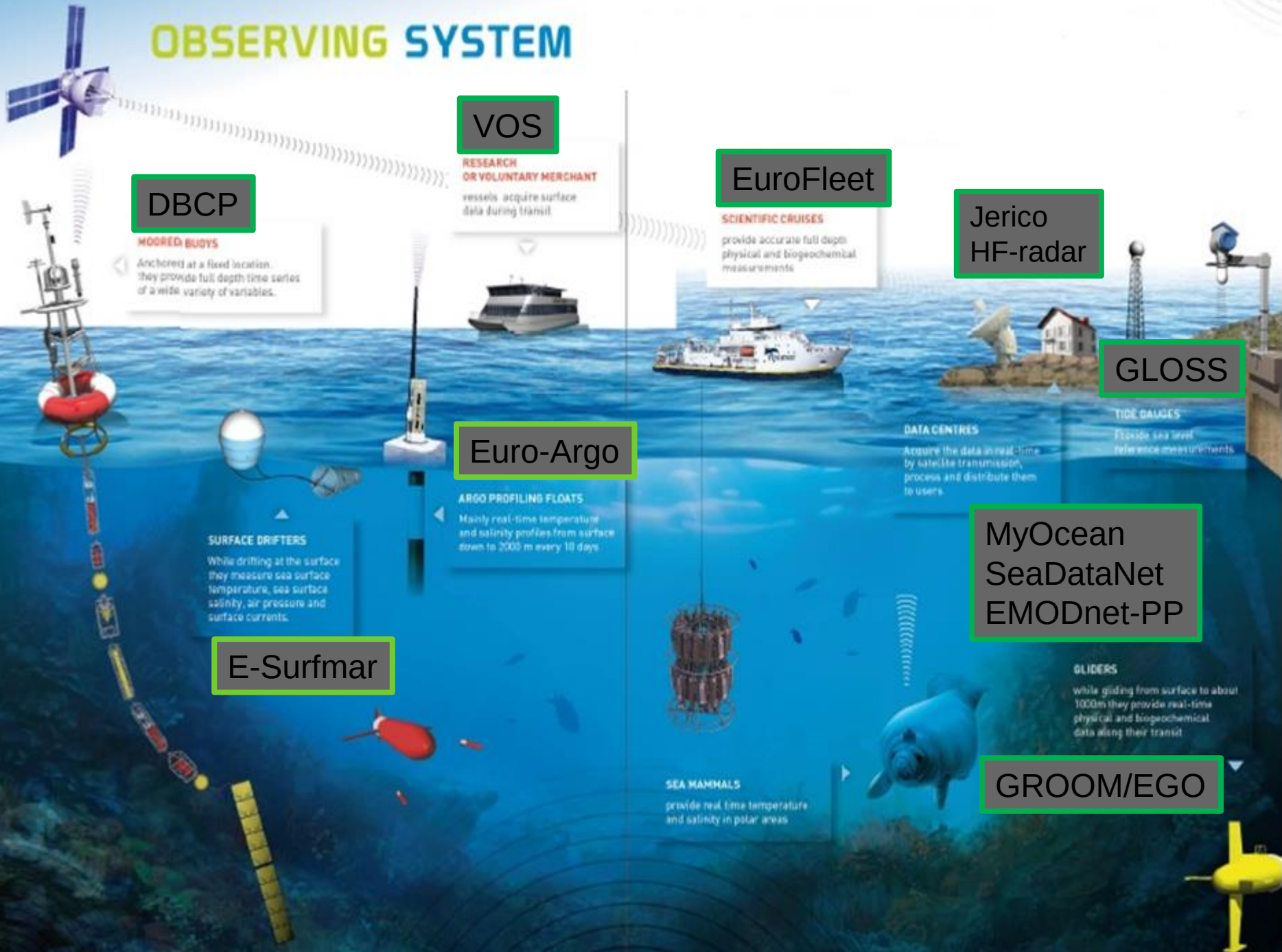
In-situ-observation, Ocean-chlorophyll, Ocean-chemistry, Sea-level, Salinity, Temperature, Currents, Near-real-time, Baltic-sea

For the Baltic Sea- The In Situ Thematic Assembly Centre (INS TAC) integrates near real-time in situ observation data. These data are collected from the BOOS members and complemented by the observation collected by the Global INS TAC in the area. The data are quality controlled using automated procedures. It is updated continuously and provides observations with 24-48 hours from acquisition in average

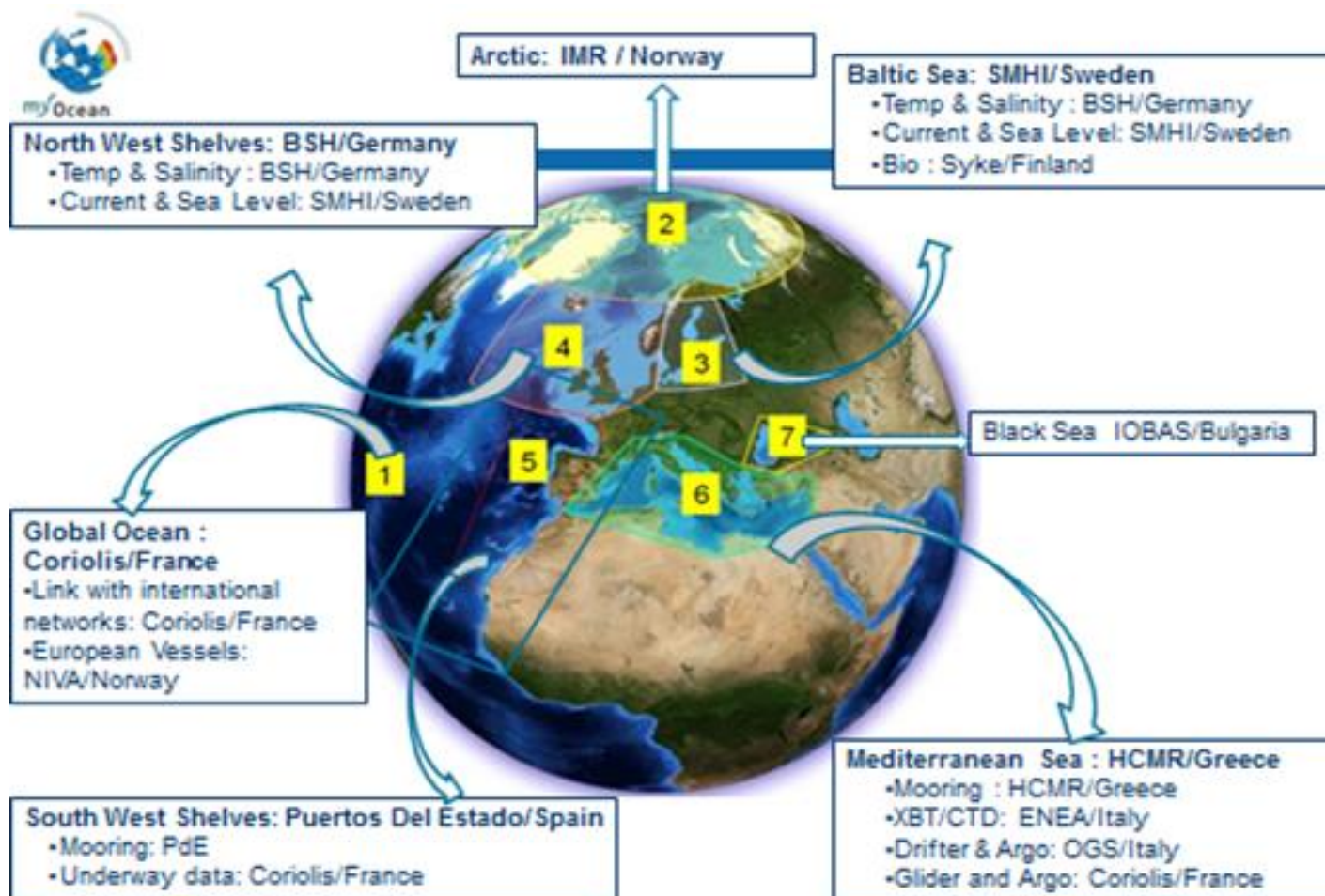
INSITU_BAL_NRT_OBSERVATIONS_013_032



OBSERVING SYSTEM



INSTAC Regional Components

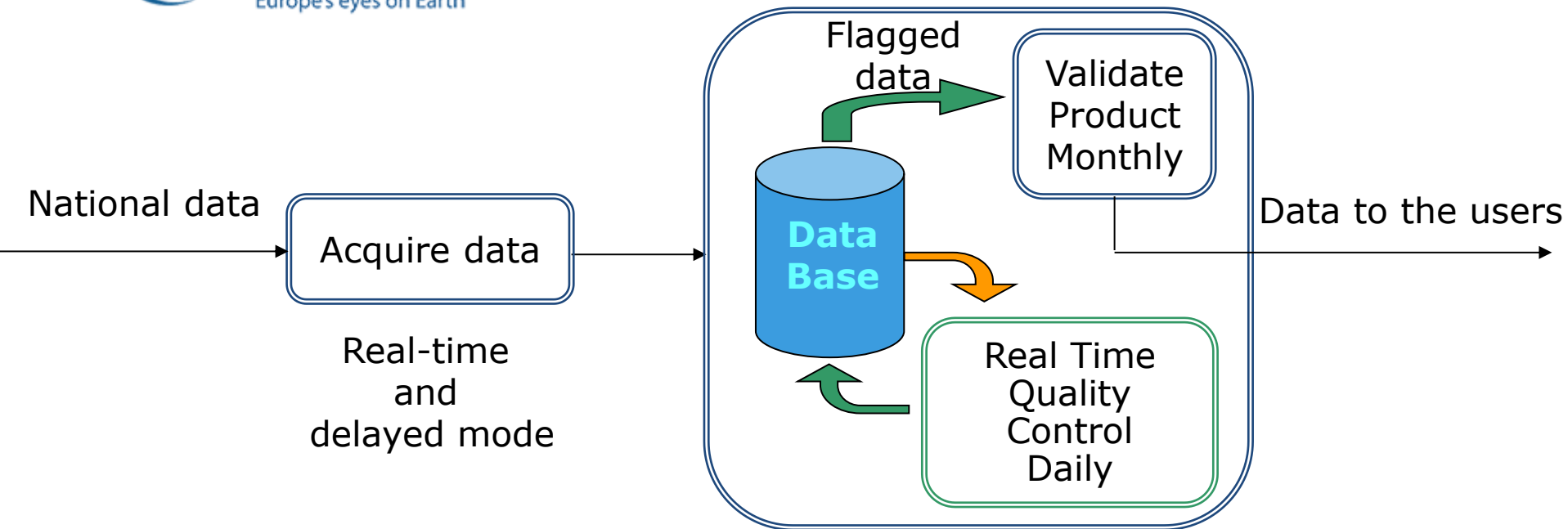


Common features in all regions

- **In each component 4 functions are implemented:**
 1. Acquisition
 2. Real Time Quality Control (RTQC)
 3. Validation
 4. Distribution
- **All regions apply the same portal structure and Quality Control procedures**
- **The Validation of the products will be different in each region because it depends**
 - of the amount of data available in the regions
 - the quality of the data available for Validation
 - the oceanographic features of the area

INSTAC Flow of data

Schematic data flow



Quality control flags

- All regions apply the same Real-Time Quality Control (RTQC) procedures and Quality Flag convention (from SeaDataNet)
- Codes marked in **red** are mandatory after the RTQC
- It is the responsibility of the final users to read and use these flags

Code	Meaning
0	No QC was performed
1	Good data
2	Probably good data
3	Bad data that are potentially correctable
4	Bad data
5	Value changed
6	Below detection limit
7	In excess of quoted value
8	Interpolated value
9	Missing value
A	Incomplete information

BOOS Data Portal



<ftp.boos.org>

**Integrate
Fixed
platforms**



**Integrate
Tide
gauges**



**Integrate
Moored
buoys**



**Integrate
Ferryboxes
Vessels**



SMHI
**Distribution of
In-situ products**

EMODnet
European Marine
Observation and
Data Network



BOOS
Users



BOOS Data Portal



<ftp.boos.org>



- 10 Fixed Platforms (FP)



- 100 Tide Gauges (TG)

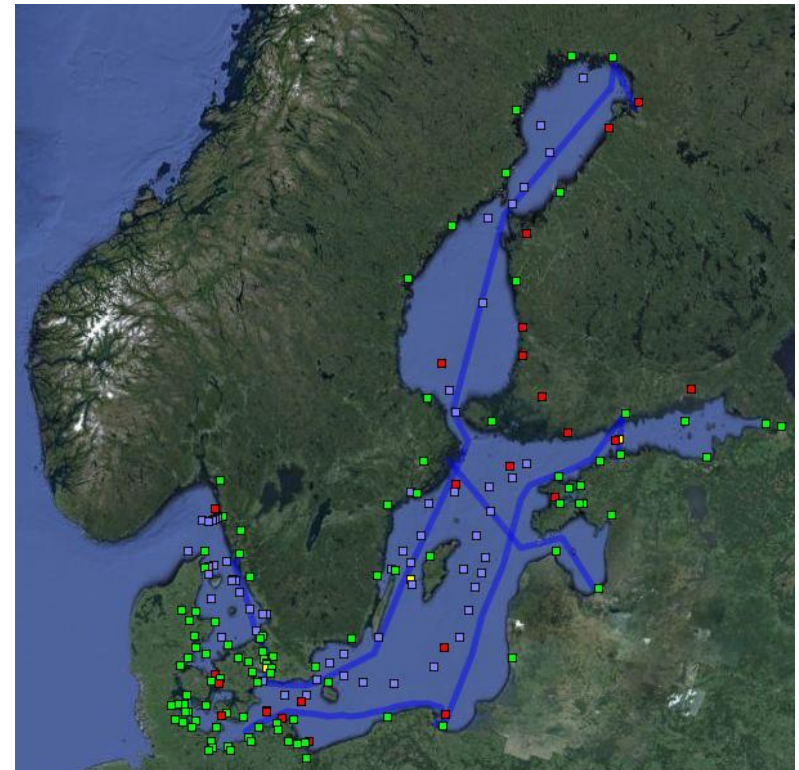


- 10 Moored Buoys (MB)



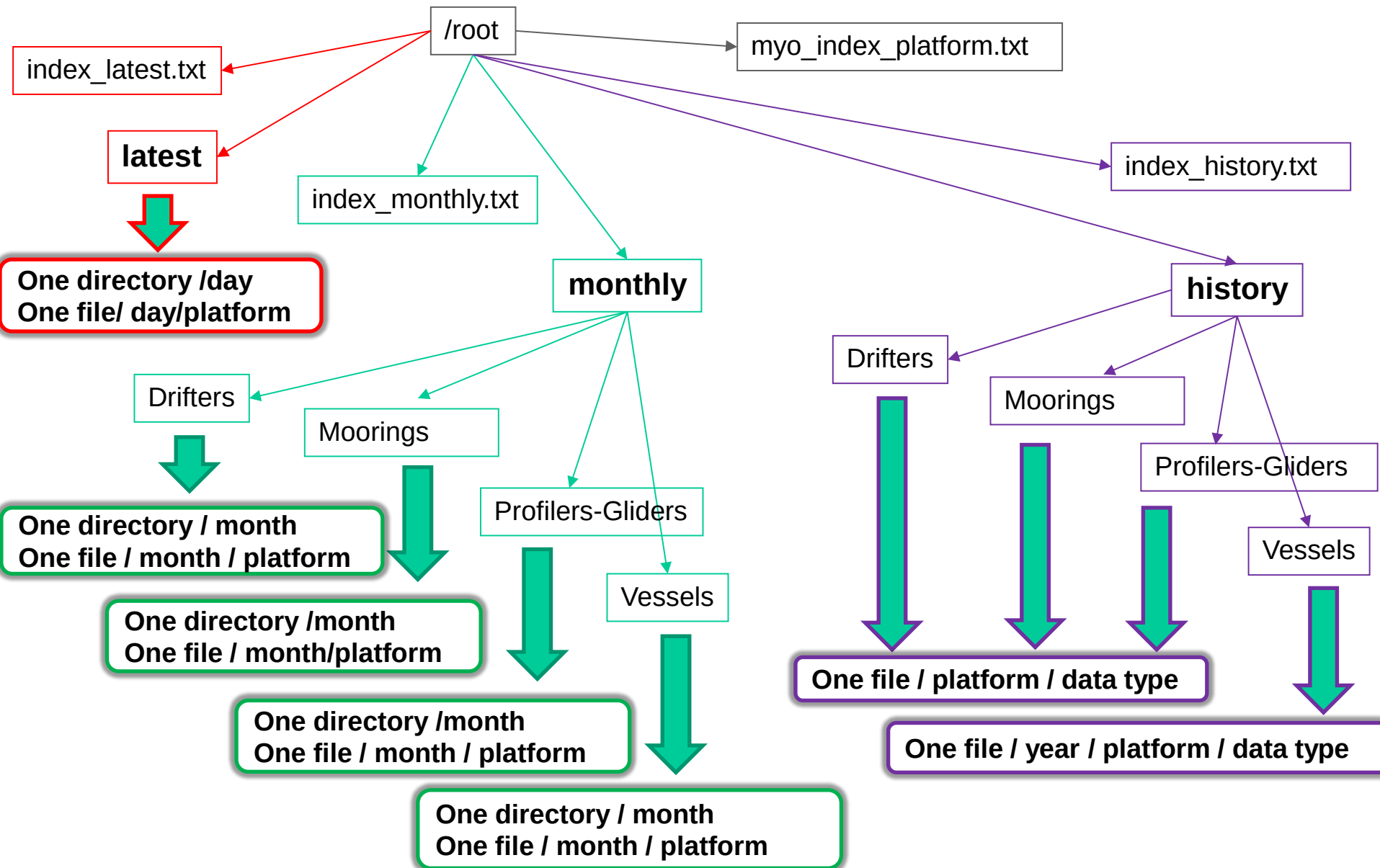
- 4 Ferry-Box-lines (FB)

- >800 Monitoring stations (CT)



[BOOS Oceanographic Stations](ftp.boos.org)

BOOS Data Portal structure

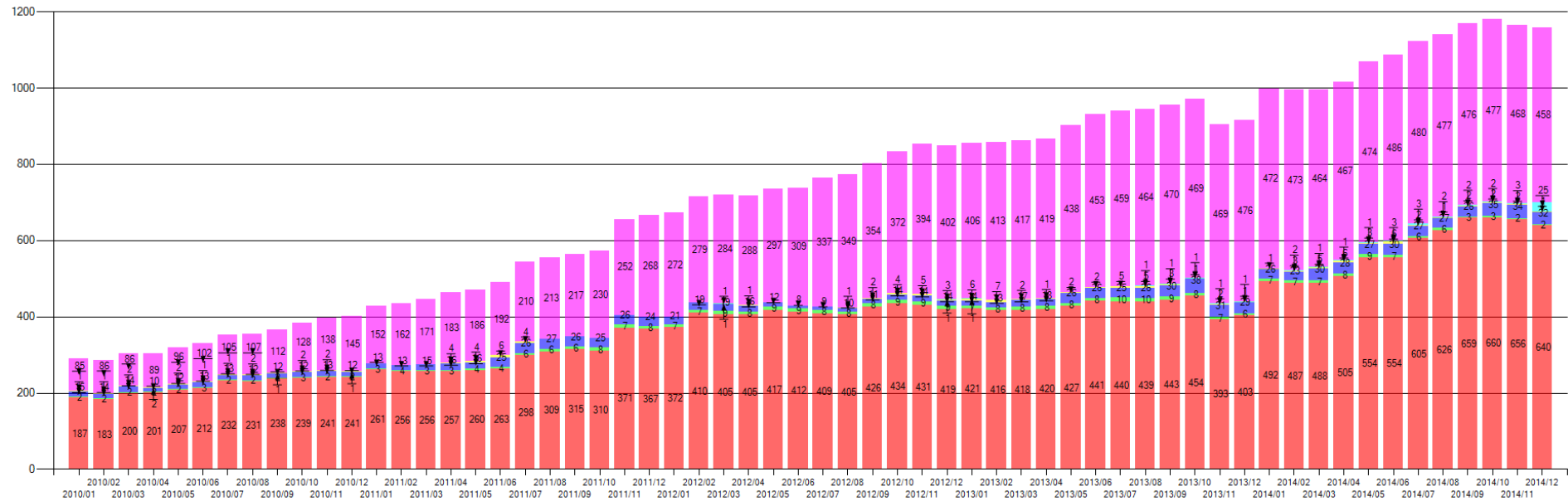


Historical data sets

Historical data available in the BOOS Data Portal April 2015

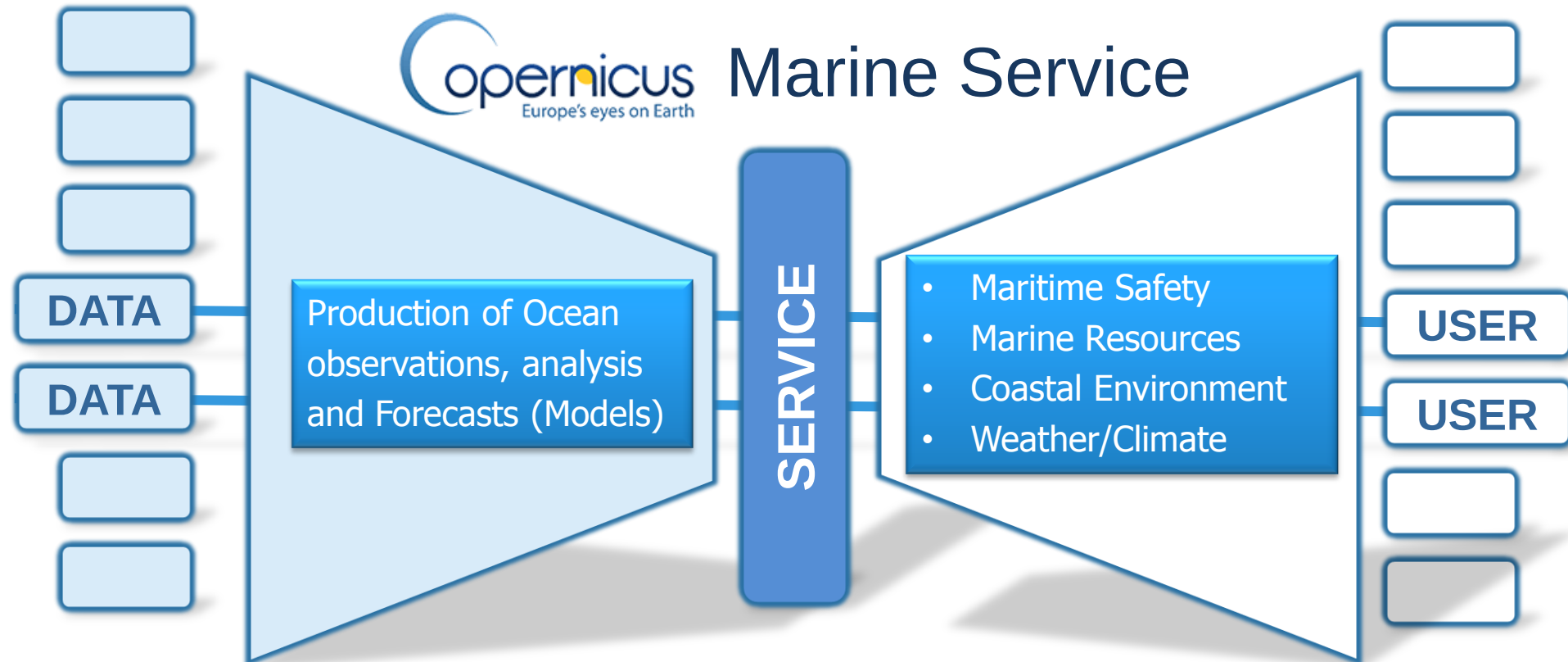
Data set	Time period	#	Provider	Comment
Swedish TS data	1990-2015 NRT	106	SMHI,SMF	QCed data from NODC
Danish TS data	1990-2010	432	DMU and other	Through SDN and Web
German TS data	1990-2013	138	BSH,IOW	Through SDN
Polish TS data			IMWM,IOPAS	"
Lithuanian TS data	2004-2009	19	EPA	"
Latvian TS data	2005-2007	60	LHEI	"
Estonian TS data	1992-2004	33	MSI	"
Russian TS data			RAS,RIHMI,RUMS	"
Finnish TS data	1990-2008 (2013)	16	SYKE,FMI	"
Swedish buoy data	2001-2014	9	SMHI	QCed data from NODC
German buoy data	1985-2014	7	BSH	"
Danish buoy data	2001-2011	3	DMI	Aggregated NRT data
Finnish buoy data	2005-2012	1	FMI	"
Swedish sea level	1990-2014	23	SMHI	QCed data from NODC
Danish sea level	1990-2014	30	DMI	"
Sea level/other countries	2005-2014	50	BSH,IMWM,EPA,LEGMA,MSI,FMI,MSI,NWAHEM	Aggregated NRT data
Swedish Ferrybox	2009-2014	3	SMHI	QCed data from NODC
Finnish Ferrybox	1992-2008	1	SYKE	" (only water samples)
Finnish Ferrybox	2009-2014	1	SYKE	Aggregated NRT data
Estonian Ferrybox	2008-2014	3	MSI	"

Number of platforms 2010-2014



Copernicus, previously known as GMES (Global Monitoring for Environment and Security), is the European Programme for the establishment of a European capacity for Earth Observation. The views expressed on this website are those of the authors and do not necessarily represent those of the European Commission.

- Copernicus Marine Service: May 2015 – April 2015
- Procuring entity: MERCATOR OCEAN



INSTAC Copernicus Marine Service

- Copernicus Marine Service: May 2015 – April 2015
- Provide in-situ observations from the European Seas
- The contract was won by the INSTAC group
- Designated by MERCATOR 8th April 2015
 - 16 partners
 - 1 coordinator (IFREMER)
 - 6 region leaders (SMHI, BSH, IMR, ...)
 - 9 other partners (EUROGOOS, ...)
- Budget of 5 M€ over three years

In Situ Thematic Assembly Centre for Copernicus Marine Service



Version 1.0 - March 2015

Coordinator
Region
Leaders



Other
partners



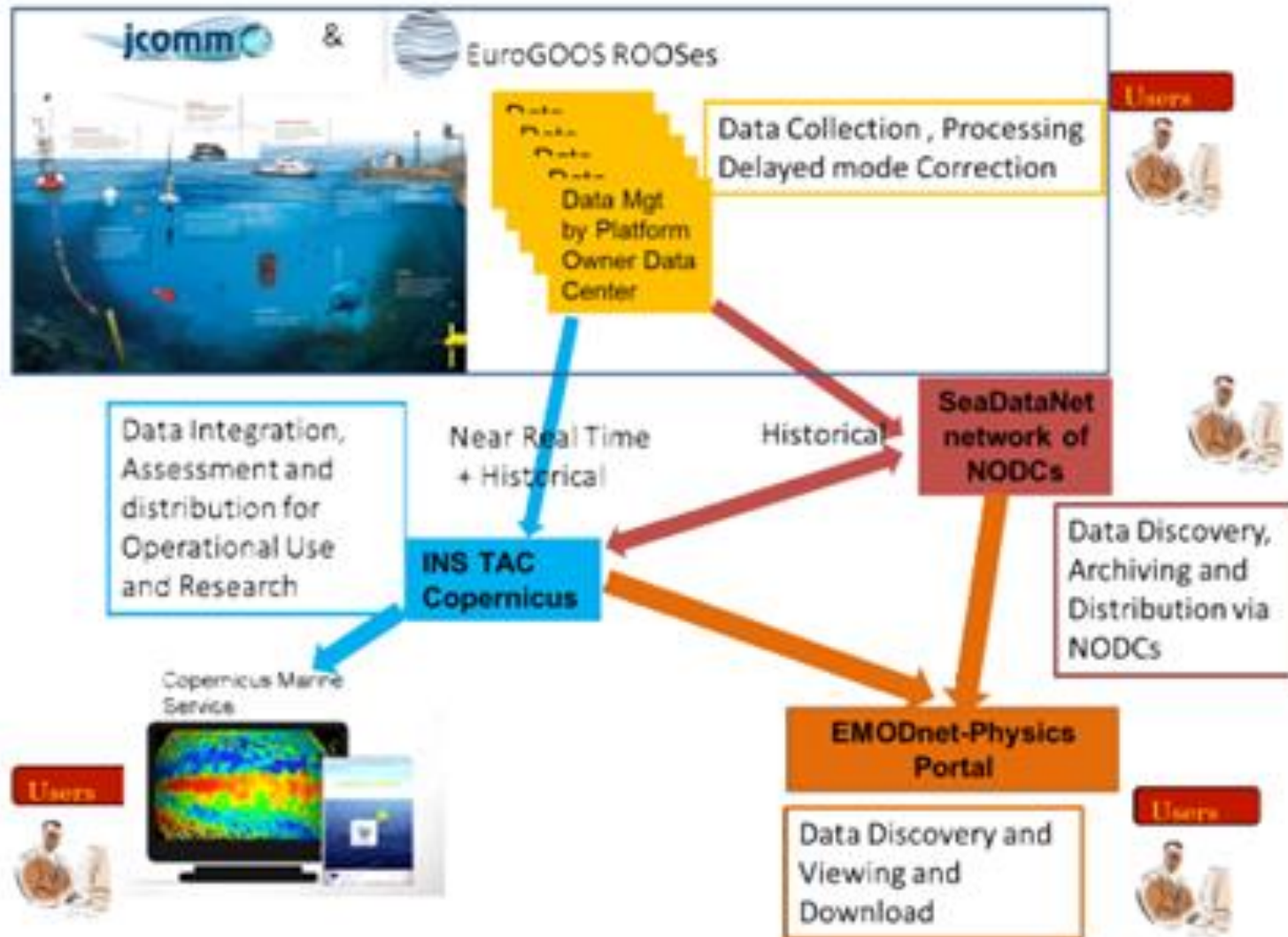


Figure 1: Connection of the In-Situ Thematic Assembly Centre with other actors of In-Situ data management in Europe.

Access to the products

- Copernicus registration

marine.copernicus.eu

- Copernicus Service Desk

servicedesk.cmems@mercator-ocean.eu



The screenshot shows the 'ONLINE CATALOGUE' interface. At the top, there's a navigation bar with 'CATALOGUE PDF', 'FIRST VISIT?', and 'MY CART' (showing 0 items). The main content area is divided into a left sidebar and a main product display. The sidebar has a 'YOUR SEARCH' section with a 'NEW SEARCH' input field. Below this, there are two sections: 'AREA' and 'PARAMETER'. The 'AREA' section lists various ocean regions with checkboxes, including 'All areas' (checked), 'Global Ocean (41)', 'Arctic Ocean (30)', 'Baltic Sea (28)', 'European North-West Shelf Seas (32)', 'Iberia-Biscay-Ireland Regional Seas (23)', 'Mediterranean Sea (30)', and 'Black Sea (25)'. The 'PARAMETER' section lists parameters with checkboxes, including 'All parameters' (checked), 'Ocean Temperature (59)', 'Ocean Salinity (40)', 'Ocean Currents (31)', and 'Sea Ice (30)'. The main product display shows a search result for 'GLOBAL OCEAN 1/12° PHYSICS ANALYSIS AND FORECAST UPDATED DAILY'. It includes a description of the product, a world map visualization showing temperature/salinity/ice fields, and buttons for 'MORE INFO' and 'ADD TO CART'. Below this, another product is listed: 'GLOBAL OCEAN BIOGEOCHEMISTRY ANALYSIS AND WEEKLY FORECAST'. The footer contains logos for the European Union and Copernicus, along with links for 'ABOUT US', 'PARTNERS & STAKEHOLDERS', 'MYOCEAN BENEFITS', and 'ANY QUESTION? Get help from the Service Desk'.

DISCOVER

VIEW

DOWNLOAD

Thanks for your attention!

Thomas.Hammarklint@smhi.se

