



Ocean Monitoring and Forecasting in the European **MyOcean** GMES Marine Initiative

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Met Office

NERSC

Ifremer

HCMR

INGV

DMI

Mercator Ocean

MyOcean = 59 partners all around Europe
supported by the European Commission
using altimetry and other space data, and in situ data,
and models, and operational chains,
organized as a service team,
connected together in a single pan-european system,
sharing data, softwares, practices, formats and skills,
to deliver a unique « European Marine Service »
for global and regional ocean monitoring and forecasting
in the framework of GMES.

They are preparing a European Centre
They need altimetry.

59 partners
28 countries

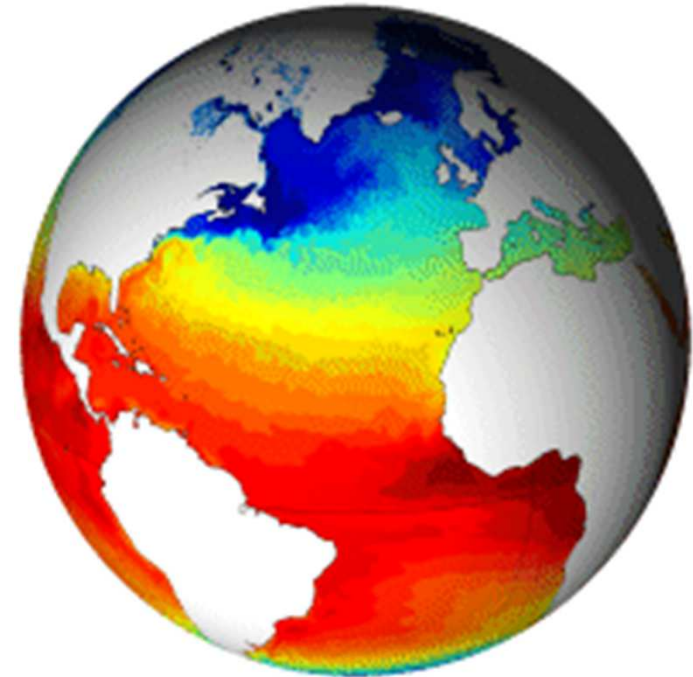




outline

MyOcean2

- 1. The project
- 2. The service
- 3. The users response





1. The project





A marine data service

www.myocean.eu

myOcean

OCEAN MONITORING AND FORECASTING
Providing PRODUCTS and SERVICES for all marine applications.

ABOUT US | **MARITIME SAFETY** | **MARINE RESOURCES** | **COASTAL & MARINE ENVIRONMENT** | **WEATHER, CLIMATE & SF**

NEWS & EVENTS
Launch Event "The Growing Use of GMES across Europe's Regions" 10th October 2012 - Brussels.

20 YEARS OF PROGRESS IN RADAR ALTIMETRY
→ 20 YEARS OF PROGRESS IN RADAR ALTIMETRY SYMPOSIUM
24-29 September 2012 | Venice, Italy
Welcome to MyOcean stand
Palazzo del Casinò
First floor
Stand#9

USER CORNER
ASK THE SERVICE DESK
NEWS FLASH
ACCESS THE CATALOGUE
GO
PRODUCT IMPROVEMENTS
TECHNICAL FAQ
USER NEWSLETTER
FIRST VISIT?
DISCOVER MYOCEAN PRODUCTS & SERVICES
REGISTER NOW!

EDUCATION
Come and discover how MyOcean monitors and forecasts oceans.
Observation
Modelling
Ocean parameters

PRESS/EDITION CORNER
all corners

SCIENTIFIC PUBLICATIONS
all corners

UPDATE ON SATELLITE DATA SUPPLY TO MyOcean2
Space-based observation systems and data are essential for GMES in general and for MyOcean services in particular. What about the recent Envisat end of mission? What impacts on MyOcean services and products for users?
Learn more

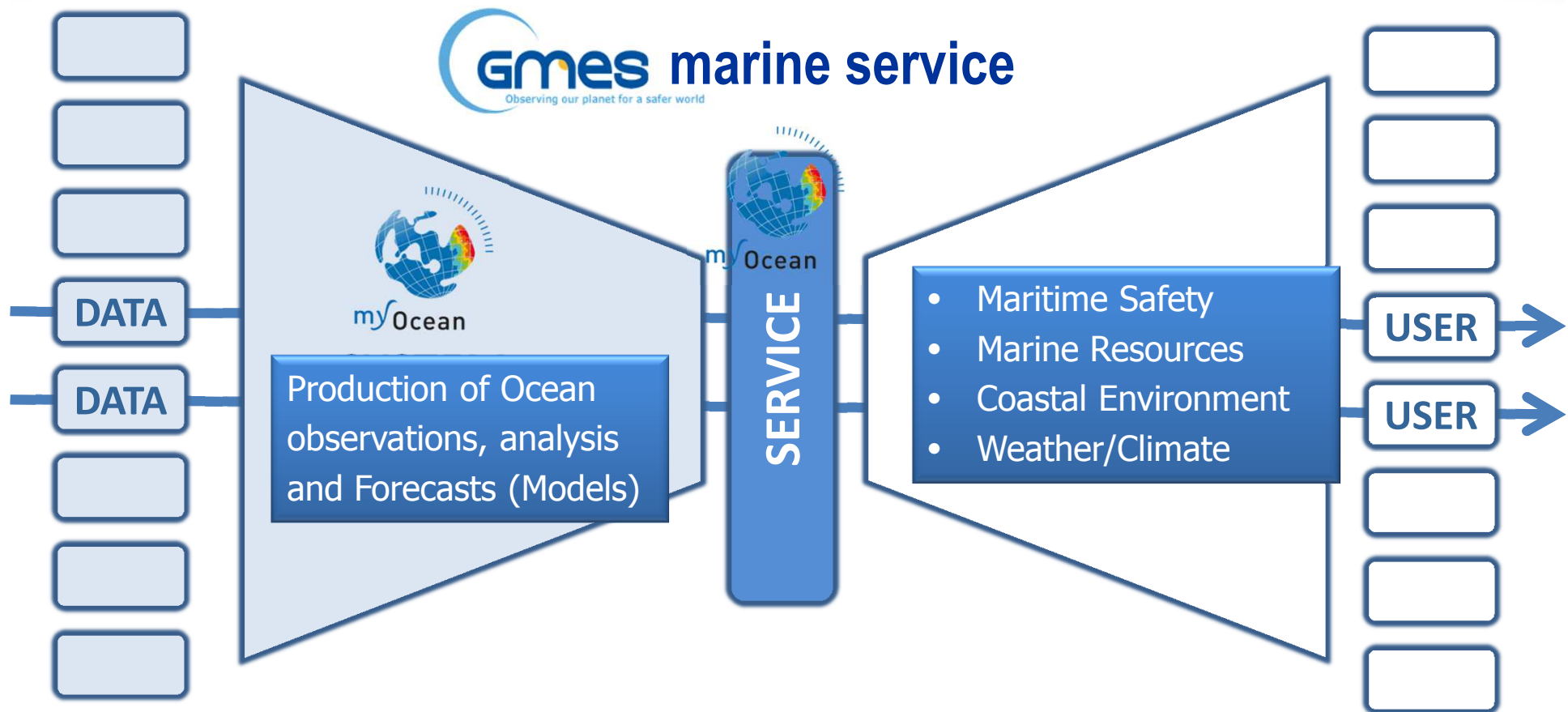
La Niña, the terrible Sister
Following its elder brother (El Niño) from mid-2010, La Niña has in turn wreaked havoc on Pacific coasts (and more). Catastrophic flooding in Australia, in particular, occurred in December 2010-January 2011. A new La Niña episode is ongoing, even if less intensive than last year one. It is expected to continue up till March-April-May 2012.
Learn more

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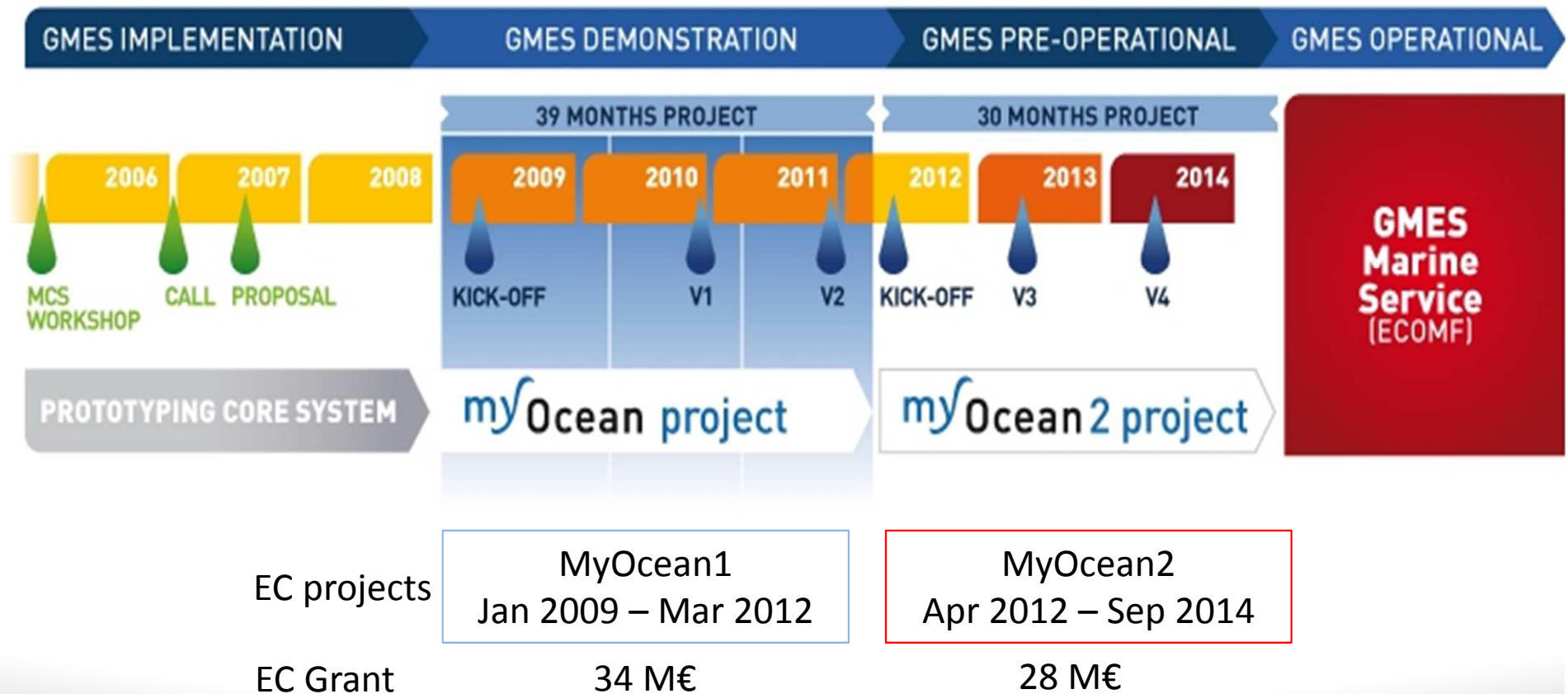
A GMES "Core" Service



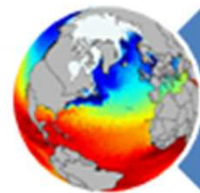


MyOcean2 following MyOcean towards a sustained GMES Marine Service

European Commission FP7 Space GMES program
Marine Service Implementation



2. The service



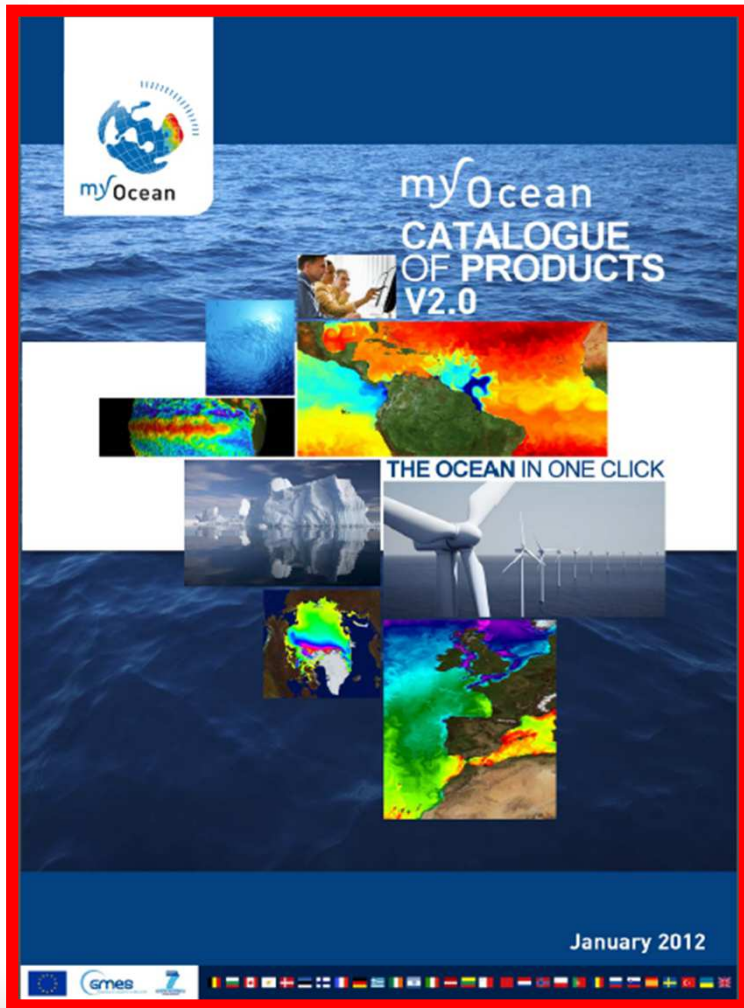
Describe
the ocean



Deliver
the data



Propose
information



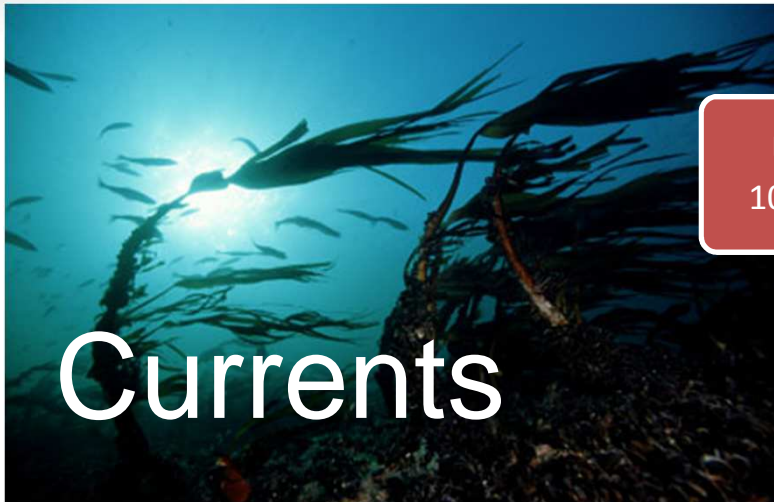
Global ocean & European seas

Mesoscale: $1/12^\circ$ ($1/4^\circ \rightarrow 1/36^\circ$)

Last decades

Real time

~ 200 products



- **Model products**
 - **CURRENTS (U, V)**
 - From - **6000 m to surface**
 - Source: 7 MFCS, 13 different systems

REANALYSES
10 to 45 years

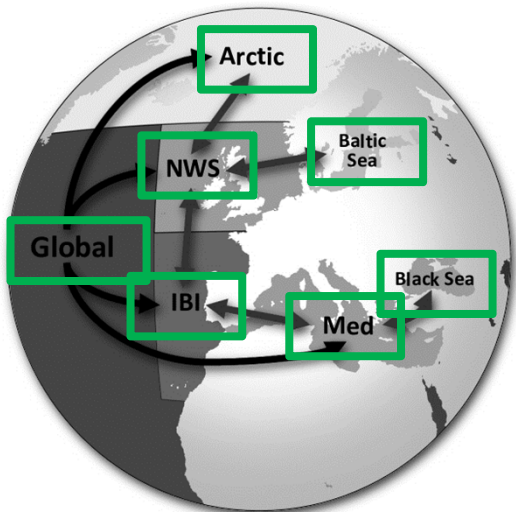


REAL-TIME
Daily hourly



FORECAST
2 to 10 days

- **In Situ Observation products**
 - **CURRENTS (U, V)**
 - From – **100m to surface**
 - Source: 1 TAC, thousands platforms
- **Satellite Observation products**



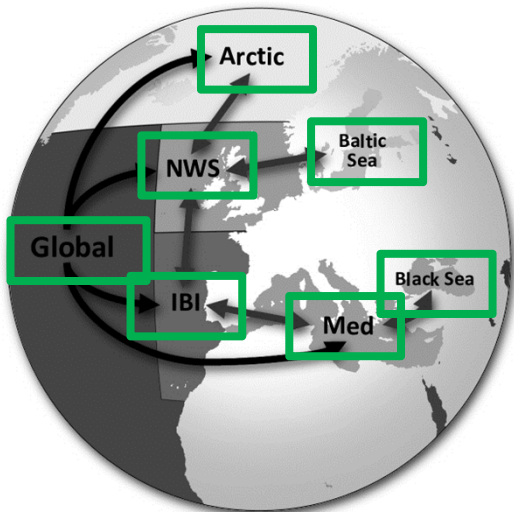
DATA SET
1 to 6 years



REAL-TIME
Daily



Temperature & Salinity



Model products

- **TEMPERATURE (T)**
- **SALINITY (S)**
- From - **6000 m** to surface
- Source: 7 MFCS, 13 different systems

REANALYSES
10 to 45 years

REAL-TIME
Daily hourly

FORECAST
2 to 10 days

In Situ Observation products

- **TEMPERATURE (T)**
- **SALINITY (S)**
- From - **1000 m** to surface
- Source: 1 TAC, different platforms (ARGO, FerryBox Vessels, XBT, GTS....)

Satellite Observation products

- **SURFACE TEMPERATURE (SST)**
- Surface
- Source: 1 TAC, 8 different satellites

DATA SET
1 to 23 years

REAL-TIME
Daily



- **Model products**
 - **SEA ICE COVERAGE, THICKNESS, DRIFT**
 - surface
 - Source: 3 MFCS, 6 different systems

REANALYSES
10 to 18 years

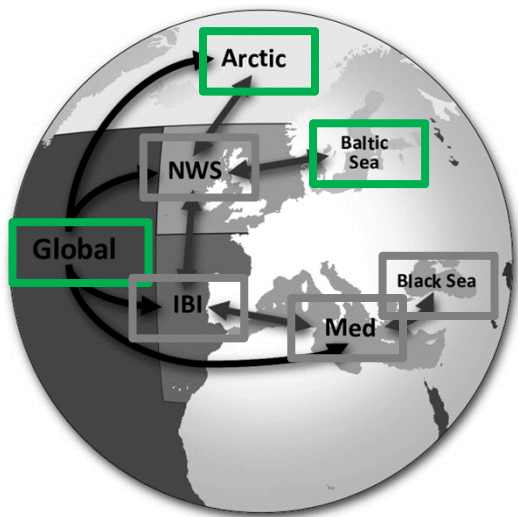


REAL-TIME
Daily Hourly



FORECAST
2 to 10 days

- In Situ Observation products
- **Satellite Observation products**
 - **SEA ICE COVERAGE, THICKNESS, DRIFT and TEMPERATURE**
 - **ICEBERG DENSITY**
 - Surface
 - Source: 1 TAC, 6 different satellites



DATA SET
1 to 30 years



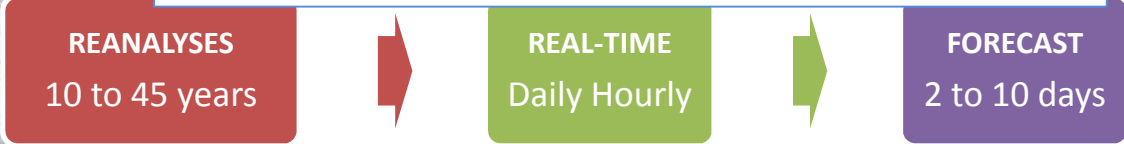
REAL-TIME
Daily

Sea Level



- **Model products**

- **SEA SURFACE HEIGHT (SSH)**
- Surface
- Source: 7 MFCS, 13 different systems

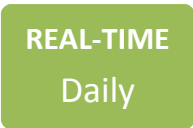
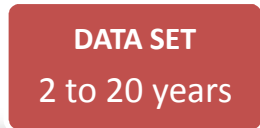
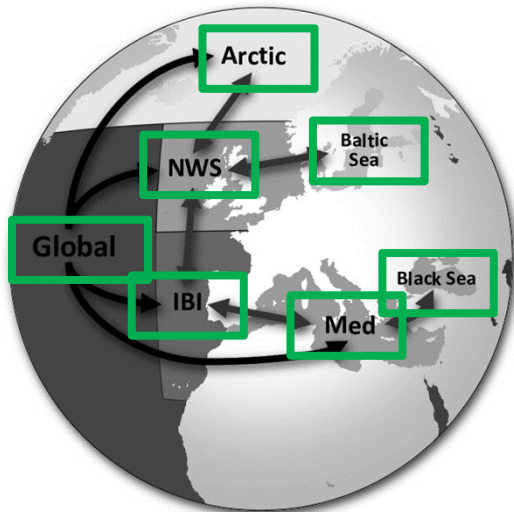


- **In Situ Observation products**

- **SEA SURFACE HEIGHT (SSH)**
- Surface
- Source: 1 TAC, thousand different tidegauges

- **Satellite Observation products**

- **SEA SURFACE HEIGHT (SSH)**
- **MEAN DYNAMIC TOPOGRAPHY (MDT)**
- Surface
- Source: 1 TAC, 8 different satellites



Surface Wind

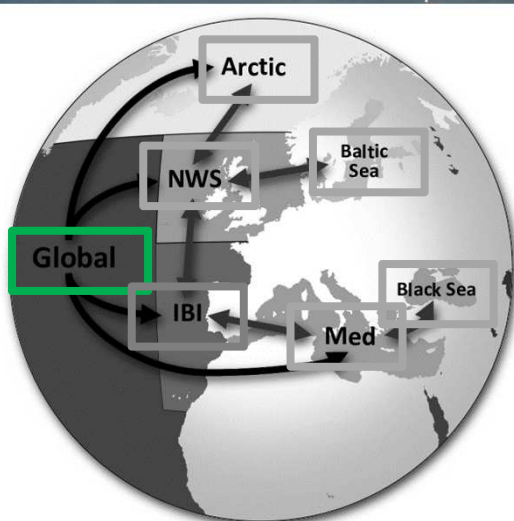
- Model products



- In Situ Observation products

- **Satellite Observation products**

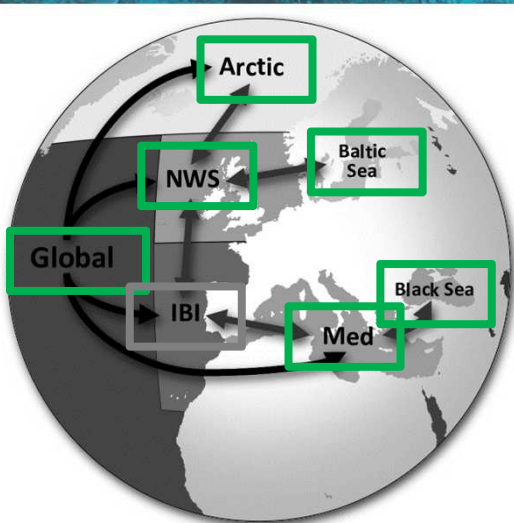
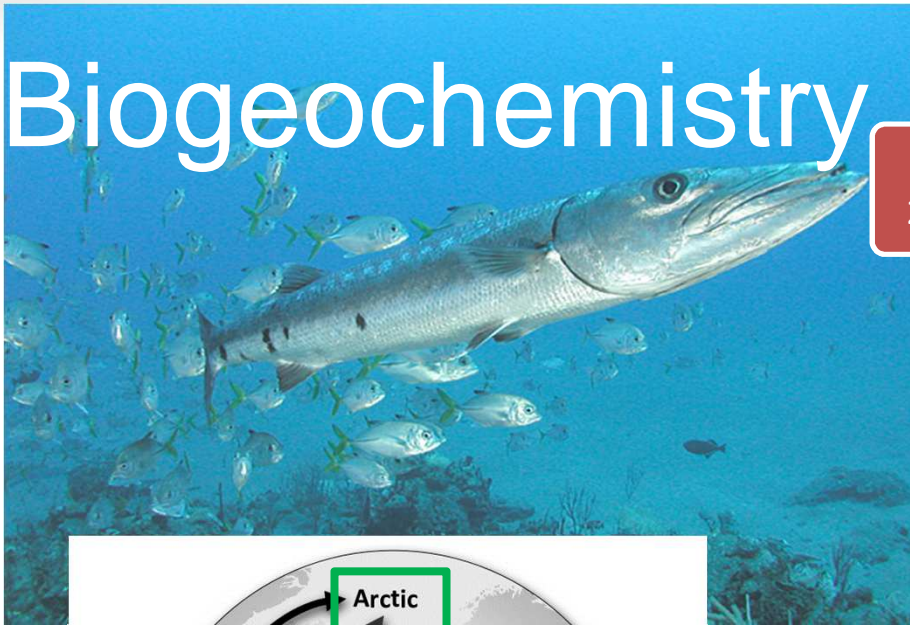
- **SURFACE WIND**
- Surface
- Source: 1 TAC, 2 different satellites



DATA SET
5 years

REAL-TIME
Daily

Biogeochemistry



• Model products

- **OXYGEN, NUTRIENTS, CHLOROPHYLL, PRIMARY PRODUCTION**
- From - 6000 m to surface
- Source: 6 MFCS, 10 different systems

REANALYSES
2 to 37 years

REAL-TIME
Daily

FORECAST
2 to 10 days

• In Situ Observation products

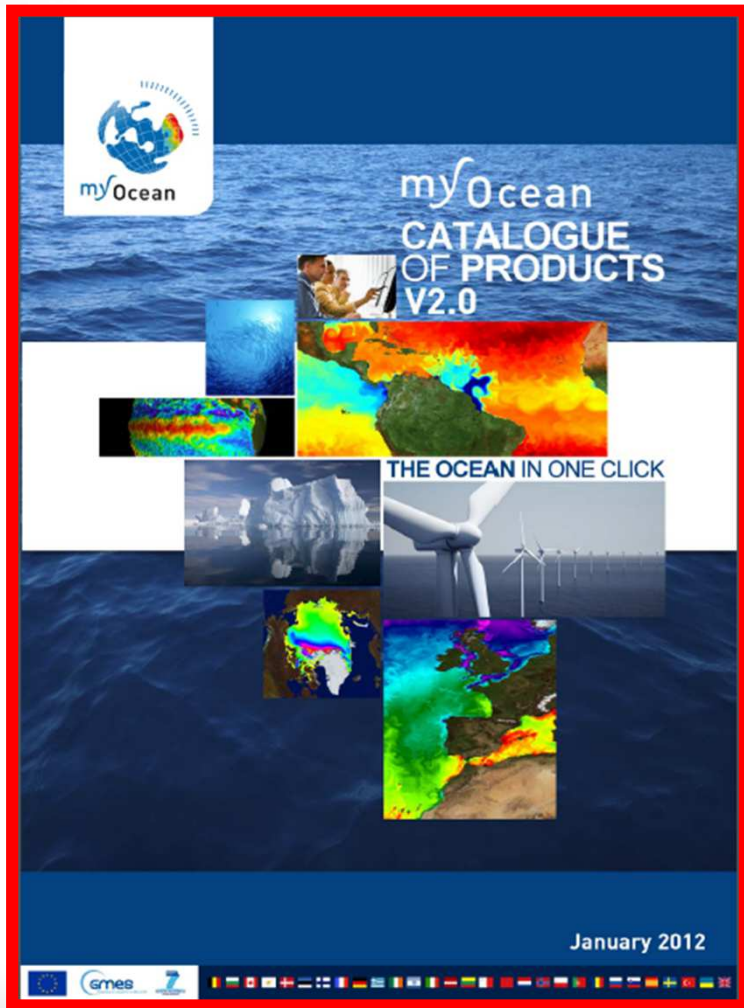
- **OXYGEN, CHLOROPHYLL**
- From – 1000 m to surface
- Source: 1 TAC, thousand different platforms

• Satellite Observation products

- **CHLOROPHYLL**
- **OPTICAL PROPERTIES**
- Surface
- Source: 1 TAC, 5 different satellites

DATA SET
1 to 14 years

REAL-TIME
Daily Hourly



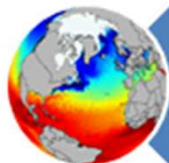
Global ocean & European seas

Mesoscale: $1/12^\circ$ ($1/4^\circ \rightarrow 1/36^\circ$)

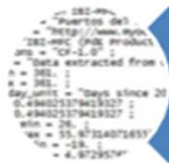
Last decades

Real time

~ 200 products



Describe
the ocean



Deliver
the data



Propose
information



A single and easy access point for users www.myocean.eu

The screenshot displays the MyOcean website interface. At the top left is the MyOcean logo. The main header reads "OCEAN MONITORING and FORECASTING" with the tagline "Providing PRODUCTS and SERVICES for all marine applications." A search bar is located at the top right. Below the header are several navigation tabs: "ABOUT US", "MARITIME SAFETY", "MARINE RESOURCES", "COASTAL & MARINE ENVIRONMENT", and "WEATHER, CLIMATE & SF". A "USER CORNER" section on the right lists: "ASK THE SERVICE DESK", "NEWS FLASH!", "ACCESS TO CATALOGUE", and "REGISTER NOW!". The left sidebar contains sections for "SERVICES", "PRODUCTS", "NEWS & EVENTS", "FOCUS ON", "PRODUCT SHOWCASE", "EDUCATION", "PRESS/EDITION CORNER", and "SCIENTIFIC PUBLICATIONS". The main content area shows a breadcrumb trail: "Home > Products and services > Products > Access to catalogue". Below this is the "MYOCEAN INTERACTIVE CATALOGUE" section, which includes a search mode selector and a note: "Please note you have to register first before downloading MyOcean products." The catalogue is organized into three columns: "1 - AN AREA" (listing Global Ocean, Arctic Ocean, Baltic Sea, Atlantic-European North West Shelf-Ocean, Atlantic-Iberian Biscay Irish-Ocean, Mediterranean Sea, and Black Sea), "2 - A PARAMETER" (listing Wind, Biogeochemistry, Currents, Sea ice, Sea level, Temperature, and Salinity), and "3 - A PRODUCT TYPE" (listing Observation and Analysis and Forecast). A "SEARCH" button is at the bottom of the catalogue section. At the bottom of the page, there are links to "Download the latest MyOcean catalogue" (with a PDF icon) and "Access full catalogue online" (with a consult icon). The footer includes the European Union flag, the Gmes logo, and a row of national flags.

DISCOVER

VIEW

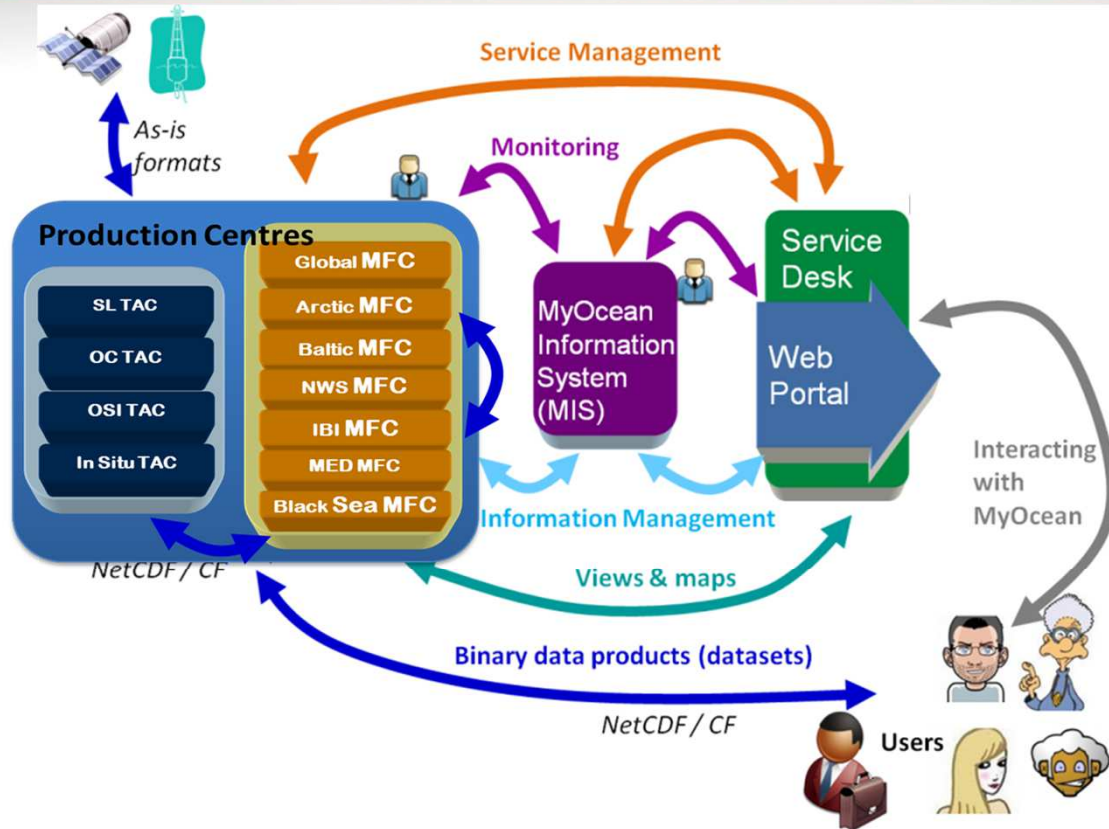
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Open & Free





An integrated System and Service



28 European Countries in the consortium	59 public and private partners	350 European Experts	7 Areas covered Global Ocean and All European Maritime Regions
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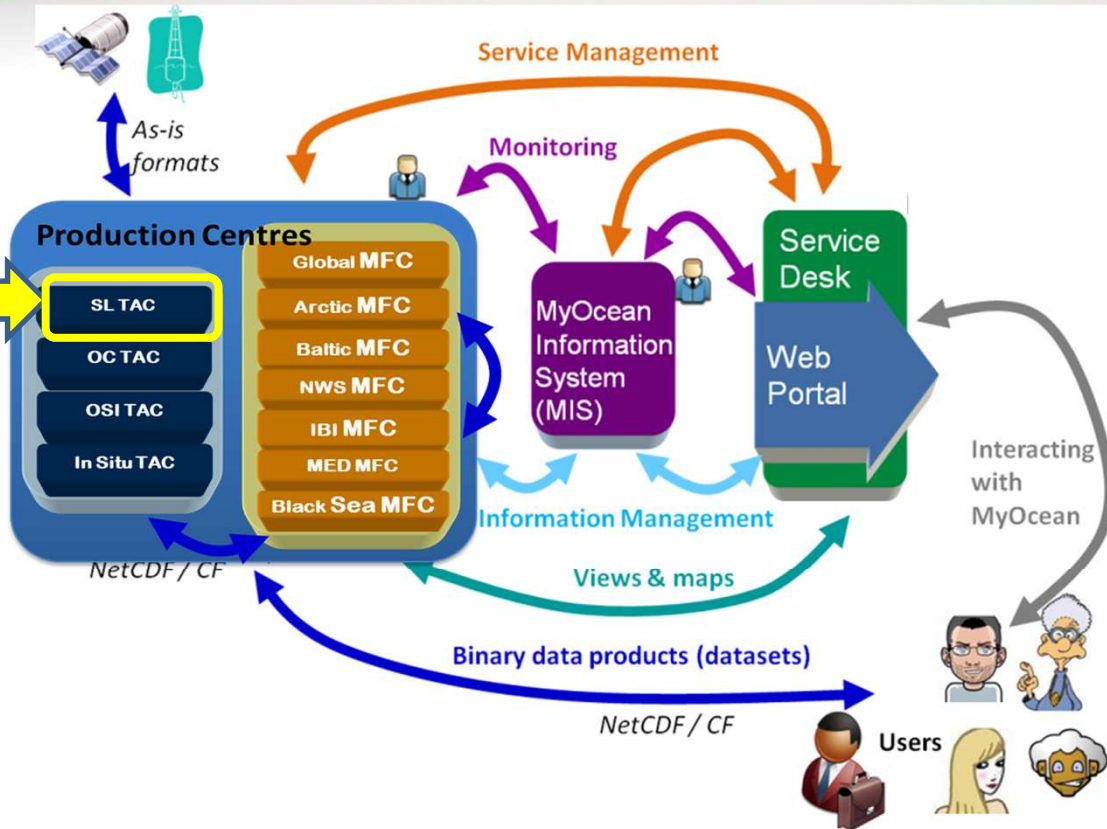
An integrated System and Service

Sea Level Thematic Assembly Centre

Entry point for altimetry

centre of expertise

i/f with space agencies



28 European Countries in the consortium	59 public and private partners	350 European Experts	7 Areas covered Global Ocean and All European Maritime Regions
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OCEAN MONITORING AND FORECASTING

Providing PRODUCTS and SERVICES for all marine applications.

Search... OK

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» MARINE RESOURCES

» COASTAL & MARINE ENVIRONMENT

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» NEWS FLASH!

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▶ GO

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» TECHNICAL FAQ

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NEWS & EVENTS

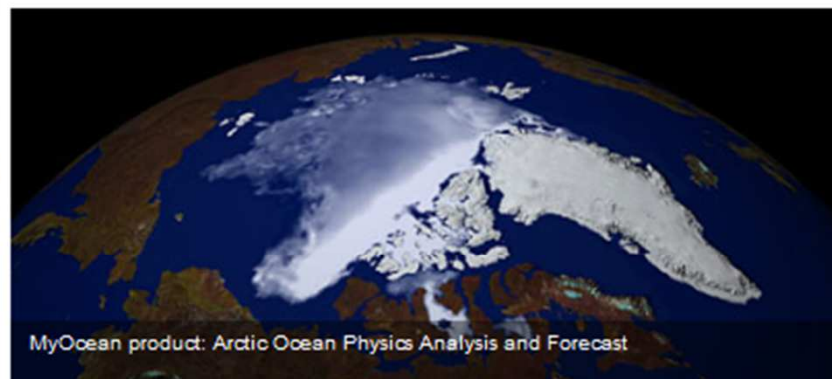
Costa Concordia: MyOcean on alert to help control potential oil spill



When the cruiser Costa Concordia ran aground off the Italian coast in January 2012, MyOcean started to provide the Italian Coast Guard Operational Centre with daily valuable information on currents in the Mediterranean Sea.

» more

ARCTIC ICE ON THE MOVE



MyOcean product: Arctic Ocean Physics Analysis and Forecast

EDUCATION

Come and discover how MyOcean monitors and forecasts oceans.

- » Observation
- » Modelling
- » Ocean parameters

PRESS/EDITION CORNER

» all corners

SCIENTIFIC PUBLICATIONS

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FOCUS ON

EuroGOOS Regional Operational Oceanographic Systems and In-Situ Observations



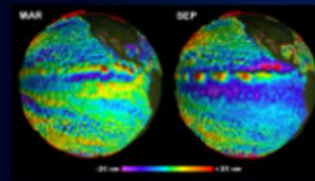
MyOcean does not operate in situ observing systems but collect observations from data providers outside MyOcean, and mainly from EuroGOOS which have contributed significantly to structure the Operational Oceanography community as an efficient network.

FOCUS ON A MyOcean KEY-SUPPLIER and

KEY-PARTNER.

» Learn more

La Niña, the terrible Sister



Following its elder brother (El Niño) from mid-2010, La Niña has in turn wreaked havoc on Pacific coasts (and more). Catastrophic flooding in Australia, in particular, occurred in December 2010-January 2011.

A new La Niña episode is ongoing, even if less intensive

than last year one. It is expected to continue up till March-April-May 2012.

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PRODUCT SHOWCASE



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NEWS & EVENTS

Costa Concordia: MyOcean on alert to help control potential oil spill



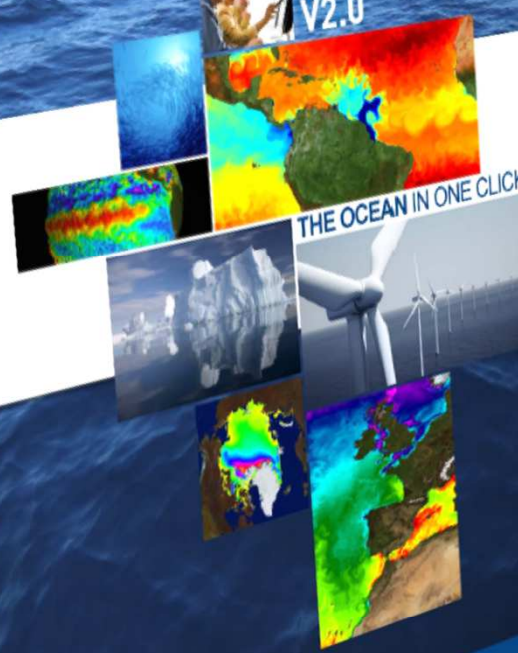
When the cruiser Costa Concordia ran aground off the Italian coast in January 2012, MyOcean started to provide the Italian Coast Guard Operational Centre with daily valuable information on currents in the Mediterranean Sea.

» more



myOcean CATALOGUE OF PRODUCTS V2.0

THE OCEAN IN ONE CLICK



January 2012

EDUCATION

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- » Observation
- » Modelling
- » Ocean parameters

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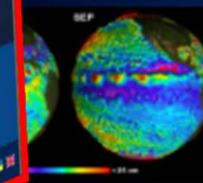
EuroGOOS Systems a



KEY-PARTNER.

» Learn more

the terrible Sister



Following its elder brother (El Niño) from mid-2010, La Niña has in turn wreaked havoc on Pacific coasts (and more). Catastrophic flooding in Australia, in particular, occurred in December 2010-January 2011. A new La Niña episode is ongoing, even if less intensive

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Home > Products and services > Products > Access to catalogue

MYOCEAN INTERACTIVE CATALOGUE

Search mode: multi-criteria or full catalogue

Please note you have to register first before downloading MyOcean products.

- » Service commitments & licence

1 » AN AREA

- Global Ocean
- Arctic Ocean
- Baltic Sea
- Atlantic-European North West Shelf-Ocean
- Atlantic-Iberian Biscay Irish-Ocean
- Mediterranean Sea
- Black Sea

2 » A PARAMETER

- Wind
- Biogeochemistry
- Currents
- Sea ice
- Sea level
- Temperature
- Salinity

3 » A PRODUCT TYPE

- Observation
- Analysis and Forecast

SEARCH



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Access full
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- » ACCESS TO CATALOGUE
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Home > Products and services > Products > Access to catalogue

MYOCEAN INTERACTIVE CATALOGUE

Search mode: multi-criteria or full catalogue

Please note you have to register first before downloading MyOcean products.

» Service commitments & licence


» Access "Product Quality Accuracy Numbers"

1 > AN AREA 2 > A PARAMETER 3 > A PRODUCT TYPE

<input type="radio"/> Global Ocean	» <input type="checkbox"/> Wind	» <input type="checkbox"/> Observation
<input type="radio"/> Arctic Ocean	» <input type="checkbox"/> Biogeochemistry	
<input type="radio"/> Baltic Sea	» <input type="checkbox"/> Currents	» <input checked="" type="checkbox"/> Analysis and Forecast
<input type="radio"/> Atlantic-European North West Shelf-Ocean	» <input type="checkbox"/> Sea ice	
<input checked="" type="radio"/> Atlantic-Iberian Biscay Irish-Ocean	» <input type="checkbox"/> Sea level	
<input type="radio"/> Mediterranean Sea	» <input checked="" type="checkbox"/> Temperature	
<input type="radio"/> Black Sea	» <input checked="" type="checkbox"/> Salinity	

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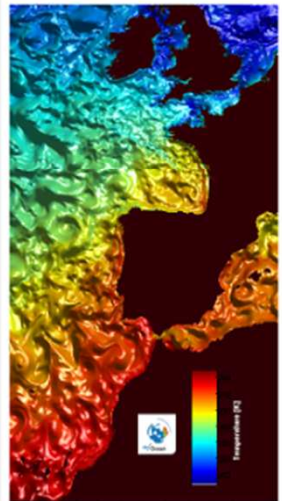
Home > Products and services > Products > Access to catalogue > MyOcean interactive catalogue

MYOCEAN INTERACTIVE CATALOGUE

Found 1 product matching your criteria

Free text: **REFINE RESULTS** ▶

IBI-ANALYSIS-FORECAST-PHYS-005-001-b



ATLANTIC-IBERIAN BISCAY IRISH- OCEAN PHYSICS ANALYSIS AND FORECAST

The operational IBI (Iberian Biscay Irish) Ocean Analysis and Forecasting system, daily run by Puertos del Estado and Mercator Ocean, provides a 5-day hydrodynamic forecast (+ 1 day of hindcast as best estimate) including high frequency processes of paramount importance to characterize regional scale marine processes (i.e. tidal forcing, surges and high frequency atmospheric forcing, fresh water river discharge, etc.). The system is based on a (eddy-resolving) NEMO model application run at 1/36 deg. horizontal resolution.

- » INFO
- » DATA ACCESS



Accuracy Numbers™

TYPE

on

and Forecast

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OCEAN MONITORING and FORECASTING
Providing PRODUCTS and SERVICES

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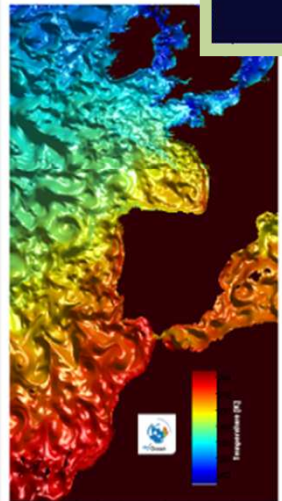
MyOcean IBI-MFC Ocean Forecast (NEATL36-NEMO): sea_surface_height_above_geoid

Units: m

Time: 2012-03-27 00:00:00.000Z

Elevation: []

@demis.nl



ANALYSIS AND FORECAST

The operational IBI (Iberian Biscay Irish) Ocean Analysis and Forecasting system, daily run by Puertos del Estado and Mercator Ocean, provides a 5-day hydrodynamic forecast (+ 1 day of hindcast as best estimate) including high frequency processes of paramount importance to characterize regional scale marine processes (i.e. tidal forcing, surges and high frequency atmospheric forcing, fresh water river discharge, etc.). The system is based on a (eddy-resolving) NEMO model application run at 1/36 deg. horizontal resolution.

- INFO
- DATA ACCESS



and Forecast

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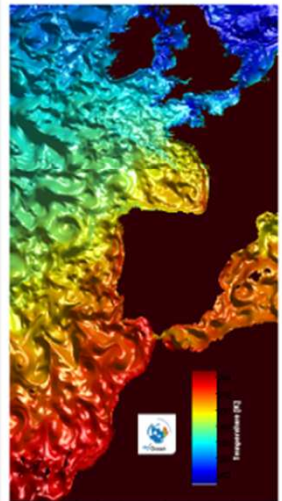
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MYOCEAN INTERACTIVE CATALOGUE

Found 1 product matching your criteria

Free text: **REFINE RESULTS** ▶

IBI-ANALYSIS-FORECAST-PHYS-005-001-b



ATLANTIC-IBERIAN BISCAY IRISH- OCEAN PHYSICS ANALYSIS AND FORECAST

The operational IBI (Iberian Biscay Irish) Ocean Analysis and Forecasting system, daily run by Puertos del Estado and Mercator Ocean, provides a 5-day hydrodynamic forecast (+ 1 day of hindcast as best estimate) including high frequency processes of paramount importance to characterize regional scale marine processes (i.e. tidal forcing, surges and high frequency atmospheric forcing, fresh water river discharge, etc.). The system is based on a (eddy-resolving) NEMO model application run at 1/36 deg. horizontal resolution.

- » INFO
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Accuracy Numbers™

TYPE

on

and Forecast

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ine

DATASET-IBI-ANALYSIS-FORECAST-PHYS-005-001-DAILY

SELECTION

Select output:

Select region:


Select time range: to

Select depth (m): to

VARIABLE

Download	Name	Description	Standard name	Unit	Dimensions
<input type="checkbox"/>	v	Northward velocity	sea_water_y_velocity	m s-1 (Meters per second)	(time, depth, latitude, longitude)
<input type="checkbox"/>	u	Eastward velocity	sea_water_x_velocity	m s-1 (Meters per second)	(time, depth, latitude, longitude)
<input checked="" type="checkbox"/>	salinity	Salinity	sea_water_salinity	1e-3 (Practical Salinity Unit)	(time, depth, latitude, longitude)
<input type="checkbox"/>	ssh	Sea surface height	sea_surface_height_above_geoid	m (Meters)	(time, latitude, longitude)
<input checked="" type="checkbox"/>	temperature	Temperature	sea_water_potential_temperature	K (Kelvin)	(time, depth, latitude, longitude)

Script

Download 



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TYPE

forecast

DATASET-IBI-ANALYSIS-FORECAST-PHYS-005-001-DAILY

```
netcdf dataset-ibi-analysis-forecast-phys-005-001-daily_1332427273433 {
dimensions:
  time = 1 ;
  depth = 1 ;
  latitude = 1080 ;
  longitude = 864 ;
// global attributes:
  :title = "MyOcean IBI-MFC Ocean Forecast (NEATL36-NEMO)" ;
  :institution = "Puertos del Estado (PdE)" ;
  :references = "http://www.myocean.eu.org" ;
  :source = "IBI-MFC (PdE Production Center)" ;
  :Conventions = "CF-1.0" ;
  :history = "Data extracted from dataset http://puertos.cesga.es" ;
  :time_min = 361. ;
  :time_max = 361. ;
  :julian_day_unit = "Days since 2011-03-31" ;
  :z_min = 0.494025379419327 ;
  :z_max = 0.494025379419327 ;
  :latitude_min = 26. ;
  :latitude_max = 55.9731407165527 ;
  :longitude_min = -19. ;
  :longitude_max = 4.97295761108398 ;
variables:
  int time(time) ;
    time:calendar = "gregorian" ;
    time:units = "Days since 2011-03-31" ;
    time:standard_name = "time" ;
    time:long_name = "time" ;
    time:valid_min = 361 ;
    time:valid_max = 361 ;
    time:_CoordinateAxisType = "Time" ;
    time:axis = "Time" ;
  float longitude(longitude) ;
    longitude:long_name = "Longitude" ;
    longitude:units = "degrees_east" ;
    longitude:standard_name = "longitude" ;
    longitude:axis = "X" ;
    longitude:unit_long = "Degrees East" ;
    longitude:step = "0.02777863f" ;
    longitude:valid_max = 4.972958f ;
    longitude:valid_min = -19.f ;
    longitude:_CoordinateAxisType = "Lon" ;
  float latitude(latitude) ;
    latitude:long_name = "Latitude" ;
    latitude:units = "degrees_north" ;
    latitude:standard_name = "latitude" ;
    latitude:axis = "Y" ;
    latitude:unit_long = "Degrees North" ;
    latitude:step = "0.02777863f" ;
    latitude:valid_max = 55.97314f ;
    latitude:valid_min = 26.f ;
```

MyOcean data set
NetCDF file

Dimensions
e, depth, latitude, longitude)
e, depth, latitude, longitude)
e, depth, latitude, longitude)
e, latitude, longitude)
e, depth, latitude, longitude)

Download



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DATASET-IBI-ANALYSIS-FORECAST-PHYS-005-001-DAILY

SELECTION

Select output:

Select region:

Select time range: to

Select depth (m): to

VARIABLE

Download	Name	Description	Standard name	Unit	Dimensions
<input type="checkbox"/>	v	Northward velocity	sea_water_y_velocity	m s-1 (Meters per second)	(time, depth, latitude, longitude)
<input type="checkbox"/>	u	Eastward velocity	sea_water_x_velocity	m s-1 (Meters per second)	(time, depth, latitude, longitude)
<input checked="" type="checkbox"/>	salinity	Salinity	sea_water_salinity	1e-3 (Practical Salinity Unit)	(time, depth, latitude, longitude)
<input type="checkbox"/>	ssh	Sea surface height	sea_surface_height_above_geoid	m (Meters)	(time, latitude, longitude)
<input checked="" type="checkbox"/>	temperature	Temperature	sea_water_potential_temperature	K (Kelvin)	(time, depth, latitude, longitude)

Download

Script

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- » Modell
- » Ocean

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Python script command line that matches the extraction:

To request data, you can also use the Python script. This page should help you to enter your command line from the shell of your system (Linux/Unix/windows).

You can download the Motu Python Client package [here](#).

Python 2.5 or higher is required in order to execute the Motu Python script. Python can be downloaded [here](#).

To execute your extraction through the Motu Python Client, type (copy/paste) the [command-line](#) below on your system command prompt.

```
python motu-client.py -u pbahurel -p your_password(1) -m http://puertos.cesga.es/mis-gateway-servlet/Motu -s http://purl.org/myocean/ontology/individual/myocean#IBI_ANALYSIS_FORECAST_PHYS_005_001_b-TDS -d dataset-ibi-analysis-forecast-phys-005-001-daily -x -19 -X 4.972957611083984 -y 26 -Y 55.973140716552734 -t "2012-03-25" -T "2012-03-25" -z 0.49 -Z 5727.92 -v v -v u -o your_output_directory(1) -f your_output_file_name(1) --proxy-server=your_proxy_server_url:your_proxy_port_number(2) --proxy-user=your_proxy_user_login(3) --proxy-pwd=your_proxy_user_password(3)
```

(1) Value must be replaced by yourself.

(2) If you use an HTTP proxy, replace the value by your proxy url and port number: e.g. 'http://myproxy.org:8080'. If you don't use HTTP proxy, remove this option.

(3) If you use an HTTP proxy with authentication, replace the value by your login and password. If you don't need to authenticate to your proxy, remove these options.

Full documentation is available in the Motu Python Client package.

To get help on the Motu Python Client, type : 'motu-client.py --help' on your system command prompt.

Note that if your python bin directory is not in your path environment variable, the full command is:

```
path_to_your_python_bin_directory/python path_to_your_motu_python_script_directory/motu-client.py your_extraction_parameter_and_options
```



temperature

Temperature

sea_water_potential_temperature

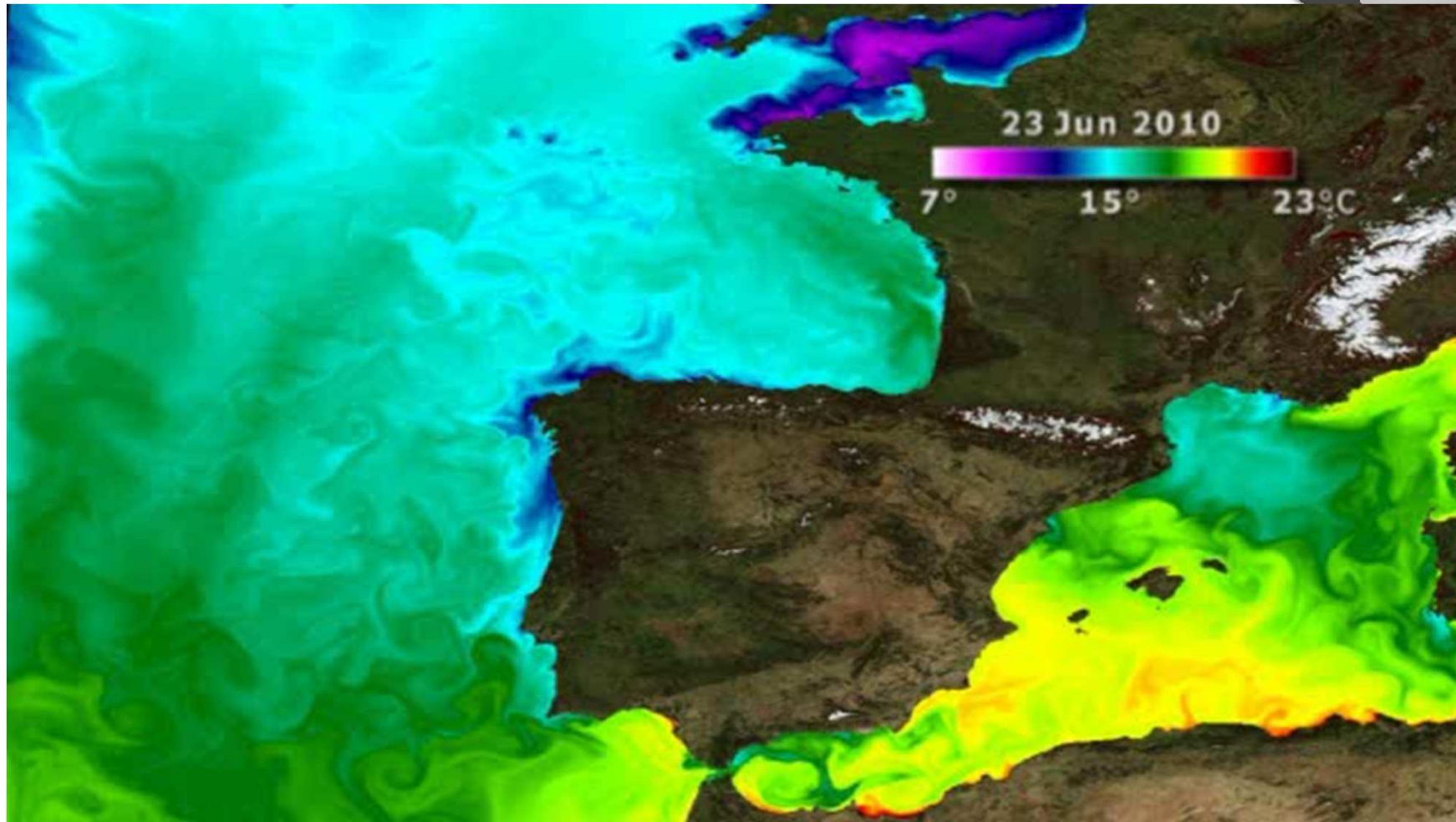
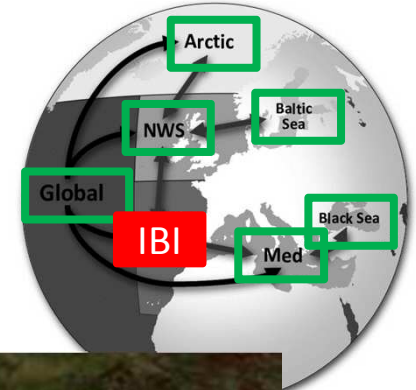
K (Kelvin)

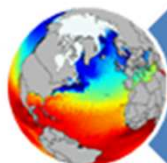
(time, depth, latitude, longitude)

Script

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Describe
the ocean



Deliver
the data



Propose
information



Information about us



OCEAN MONITORING AND FORECASTING

Providing PRODUCTS and SERVICES for all marine applications.

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MARITIME SAFETY

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COASTAL & MARINE ENVIRONMENT

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ABOUT US

NEWS & EVENTS

Launch Event "The Growing Use of GMES across Europe's Regions" 10th October 2012 - Brussels.



HERCULES, the Network of European Regions Using Space Technologies and ESA, the European Space Agency, are pleased to invite you to a special event on Wednesday, 10 October 2012 from 12.00 to 22.00 - European Parliament - Brussels to inaugurate the joint publication "The Growing Use of GMES across Europe's Regions".

[» more](#)

20 YEARS OF PROGRESS IN RADAR ALTIMETRY

→ 20 YEARS OF PROGRESS IN RADAR ALTIMETRY SYMPOSIUM

24-29 September 2012 | Venice, Italy

Welcome to MyOcean stand

Palazzo del Casinò
First floor
Stand#9



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Come and discover how MyOcean monitors and forecasts oceans.

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- [» Modelling](#)
- [» Ocean parameters](#)

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FOCUS ON

UPDATE ON SATELLITE DATA SUPPLY TO MyOcean2



Space-based observation systems and data are essential for GMES in general and for MyOcean services in particular. What about the recent Envisat end of mission? What impacts on MyOcean services and products for users?

[» Learn more](#)

La Niña, the terrible Sister



Following its elder brother (El Niño) from mid-2010, La Niña has in turn wreaked havoc on Pacific coasts (and more). Catastrophic flooding in Australia, in particular, occurred in December 2010-January 2011. A new La Niña episode is ongoing, even if less intensive than last year one. It is expected to continue up till March-April-May 2012.

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PRODUCT SHOWCASE





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Information about the systems


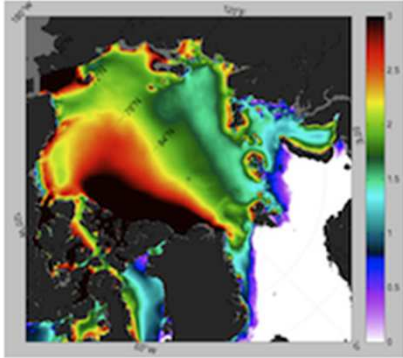
MYOCEAN INTERACTIVE CATALOGUE

Found 4 products matching your criteria

Free text:

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<p>INSITU-ARCTIS-NRT-OBSERVATIONS-011-006-6</p> 	<h3>ARCTIC OCEAN- IN-SITU OBSERVATIONS DAILY DELIVERY</h3> <p>For the Arctic Ocean- The Arctic In Situ Thematic Assembly Center (INS TAC) integrates the real-time in situ data for temperature and salinity measurements. These data are collected from data providers in the Arctic and made available through both the Arctic INS TAC and the global INS TAC. The data are quality controlled using automated procedures. It is updated daily.</p> <p>i INFO 📁 DATA ACCESS</p>
<p>ARCTIC-REANALYSIS-PHYS-002-003</p> 	<h3>ARCTIC OCEAN PHYSICS REANALYSIS (1991-2000)</h3> <p>The TOPAZ4 Arctic Ocean Reanalysis provides 3D physical ocean and sea ice variables for the time period 1991-2000. The reanalysis uses the HYCOM model and a 100-members DEKF to assimilate both in situ profiles and satellite data from different sensors.</p> <p>i INFO 📁 DATA ACCESS</p>

Observation platforms

Modelling/assimilation systems



Information about the product quality

Product: IBI-ANALYSIS-FORECAST-PHY-005-001

Sea surface temperature (K)		
	Hindcast	
	Mean difference	RMS difference
Full domain	0,04	0,55
On-shelf	0,07	0,60
Off-shelf	0,03	0,57

Sea surface height (cm)		
	Hindcast	
	Mean difference	RMS difference
	7,5	13

Temperature (K)		
	Hindcast	
	Mean difference	RMS difference
0-50m	0,12	0,65
0-500m	0,07	0,54

Salinity (PSU)		
	Hindcast	
	Mean difference	RMS difference
0-50m	0,03	0,14
0-500m	0,01	0,09

ESTIMATED ACCURACY NUMBERS

GLOBAL_ANALYSIS_FORECAST_PHYS_001_001_1T
 GLOBAL_ANALYSIS_FORECAST_PHYS_001_001_1T
 GLOBAL_ANALYSIS_FORECAST_PHYS_001_002_1T
 GLOBAL_ANALYSIS_BIO_001_002_1T
 ARCTIC_ANALYSIS_FORECAST_PHYS_003_001T
 BALTICSEA_ANALYSIS_FORECAST_PHYS_003_001T
 NORTHWEST_SHELF_ANALYSIS_FORECAST_PHYS_004_001T
 NORTHWEST_SHELF_ANALYSIS_FORECAST_BIO_004_002_1T
 IBI_ANALYSIS_FORECAST_PHY_005_001T
 MEDITERRANEA_ANALYSIS_FORECAST_PHYS_006_001T
 MEDITERRANEA_ANALYSIS_BIO_006_002T
 BLACKSEA_ANALYSIS_FORECAST_PHYS_007_001_1T
 BLACKSEA_ANALYSIS_FORECAST_PHYS_007_001_1T
 BLACKSEA_ANALYSIS_FORECAST_BIO_007_002T
 BLACKSEA_ANALYSIS_BIO_007_002T
 SEALEVEL_GLO_SLA_L3_NRT_OBSERVATIONS_002_001_1T
 SEALEVEL_GLO_SLA_L3_RAN_OBSERVATIONS_002_001_1T
 SEALEVEL_MED_SLA_L3_NRT_OBSERVATIONS_002_002_1T
 SEALEVEL_MED_SLA_L3_RAN_OBSERVATIONS_002_002_1T
 SEALEVEL_BS_SLA_L3_NRT_OBSERVATIONS_002_003_1T
 SEALEVEL_BS_SLA_L3_RAN_OBSERVATIONS_002_003_1T
 SEALEVEL_BUR_SLA_L3_NRT_OBSERVATIONS_002_004_1T
 SEALEVEL_ARC_SLA_L3_NRT_OBSERVATIONS_002_005_1T
 OCEANCOLOUR_GLO_CDIM42_MERIS_L3_MODIS_SEAWIFS_L3_L4_RAN_OBSERVATIONS_002_001_1T
 OCEANCOLOUR_GLO_BBP442_MERIS_L3_MODIS_SEAWIFS_L3_L4_RAN_OBSERVATIONS_002_001_1T
 OCEANCOLOUR_GLO_KD492_MERIS_L3_MODIS_SEAWIFS_L3_L4_RAN_OBSERVATIONS_002_001_1T
 OCEANCOLOUR_GLO_Z502_MERIS_L3_MODIS_SEAWIFS_L3_L4_RAN_OBSERVATIONS_002_001_1T
 OCEANCOLOUR_GLO_CHL_MERIS_L3_MODIS_L3_L4_NRT_OBSERVATIONS_002_001_1T
 OCEANCOLOUR_GLO_CHL_MERIS_L3_MODIS_SEAWIFS_L3_L4_RAN_OBSERVATIONS_002_001_1T
 OCEANCOLOUR_MED_CHL_MODIS_L3_OT_OBSERVATIONS_002_002_1T
 OCEANCOLOUR_MED_CHL_SEAWIFS_L3_RAN_OBSERVATIONS_002_002_1T
 OCEANCOLOUR_MED_CHL_MERIS_L3_OT_OBSERVATIONS_002_003_1T
 OCEANCOLOUR_GLO_CHL_SEAWIFS_L3_RAN_OBSERVATIONS_002_007_1T
 OCEANCOLOUR_BUR_CHL_MODIS_L3_RAN_OBSERVATIONS_002_012_1T
 OCEANCOLOUR_BUR_CHL_SEAWIFS_L3_RAN_OBSERVATIONS_002_012_1T
 OCEANCOLOUR_MYS_CHL_MODIS_L3_OT_OBSERVATIONS_002_002_1T



Information about the product quality

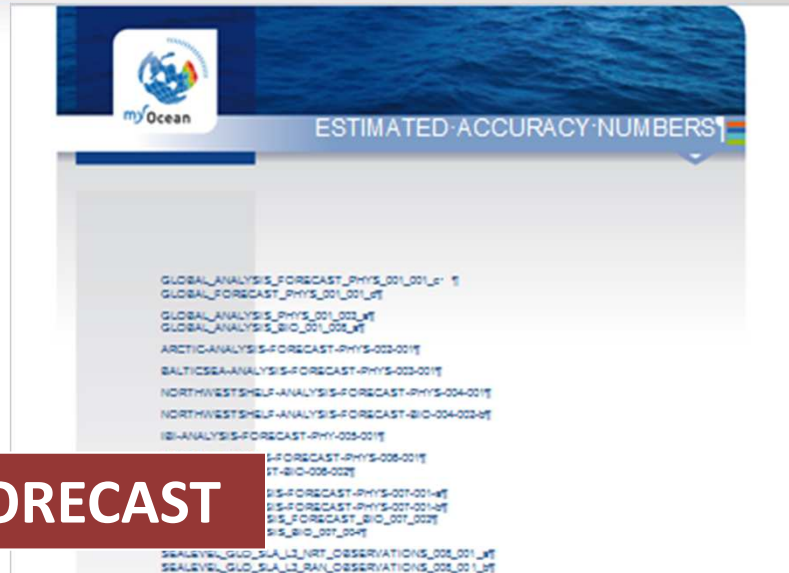
Product: IBI-ANALYSIS-FORECAST-PHY-005-001

Sea surface temperature (K)		
	Hindcast	
	Mean difference	RMS difference
Full domain	0,04	0,55
On-shelf	0,07	0,60
Off-shelf	0,03	0,57

Sea surface height (cm)		
	Hindcast	
	Mean difference	RMS difference
	7,5	

Temperature (K)		
	Hindcast	
	Mean difference	RMS difference
0-50m	0,12	
0-500m	0,07	

Salinity (PSU)		
	Hindcast	
	Mean difference	RMS difference
0-50m	0,03	0,27
0-500m	0,01	0,09



IBI-ANALYSIS-FORECAST

Temperature (K)	Mean Difference
Surface	0,04
0-50m	0,12
0-500m	0,07



Information about the product quality

MED_MFC-Currents
Long Time Series
Evaluation

Cal/Val myOcean WP9

MED_MFC-Biogeochemistry
Chlorophyll Evaluation

Buoy Time Series

Variable: **Temperature**
Salinity

1st datasource: **In situ daily mean**

2nd datasource: MFS National sys

3rd datasource: MFC Currents V1 AN
MFC Currents V1 FC -3d

Organisation: ALERMO FC
ALERMO AN
SCRM AN
POSEIDON FC
CYCOFOS FC
WWRM AN
SELIPS FC
ROSARIO FC
NAPOM FC

Buoys: S1
ODAS (W1M3)
Cabrera
Enderrocat
Athos
E1-M3A
Kalamata
Lesvos
Mykonos
Pylos
Santorini

Buoy Profiles

About

Athos 1m, Temperature [C]

RMS=0.87, bias=-0.11
RMS=0.72, bias=-0.13

Athos

Moored buoy

Latitude: N 39°57'50"
Longitude: E 24°43'12"
Sea bottom depth: 212 m

Temperature: 1m 20m 50m 75m 100m
Salinity: 1m 20m 50m 75m 100m
Currents: 1m

Begin: 2010-03-25
End: 2012-02-17
Interval: 3 hours

Seawatch buoy. Quality control by range check, comparison with regional climatology, spike detection and stationary test.

[Web page](#)



Human assistance to users

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Providing assistance
Connecting users and experts

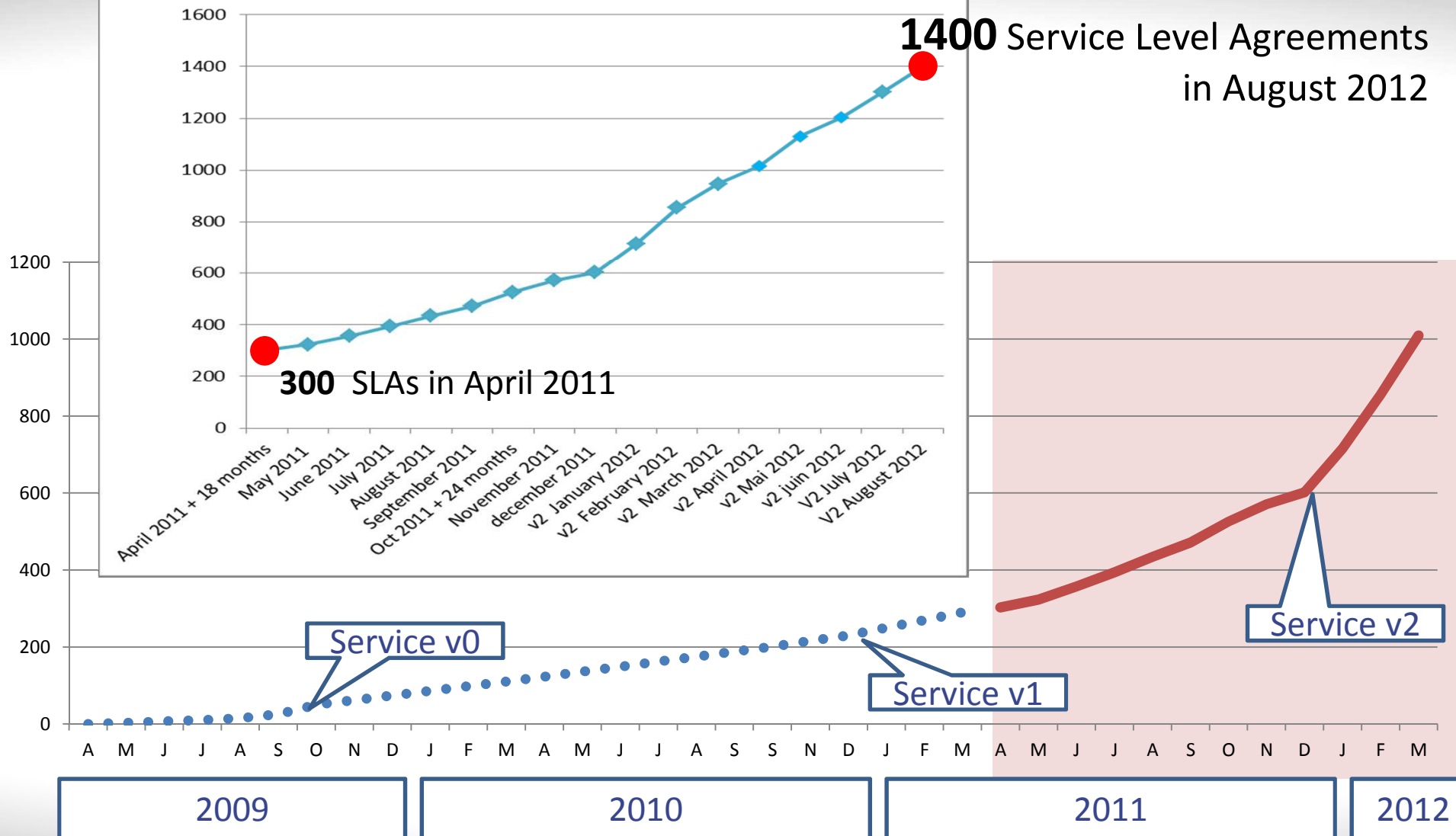
3. The users response





A growing number of users

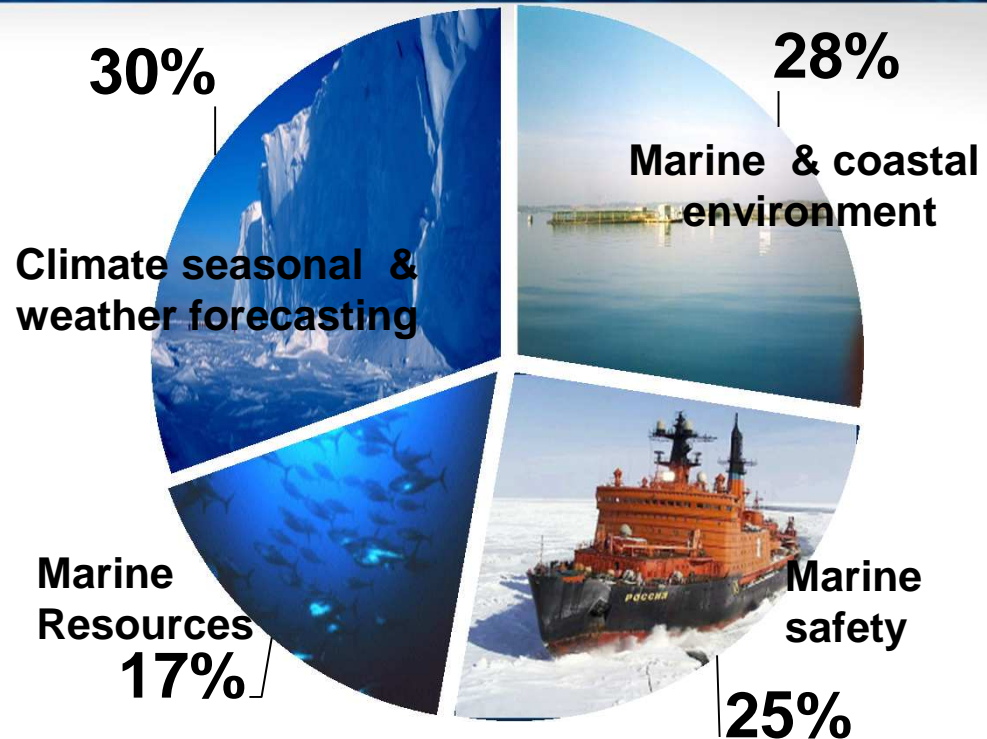
Total number of USERS





An international and multi-sector response

Users in **65** different countries (25 EU members)

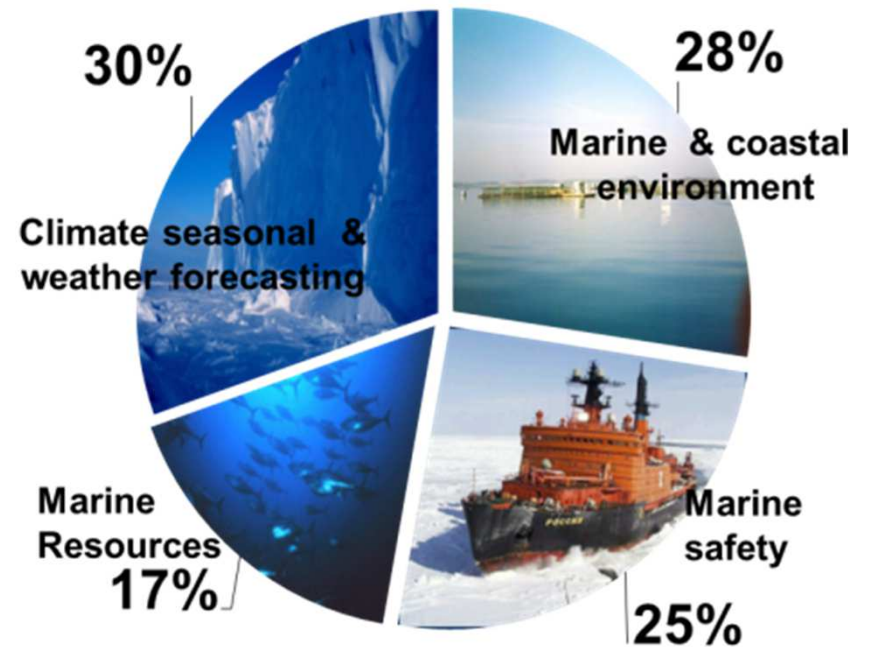
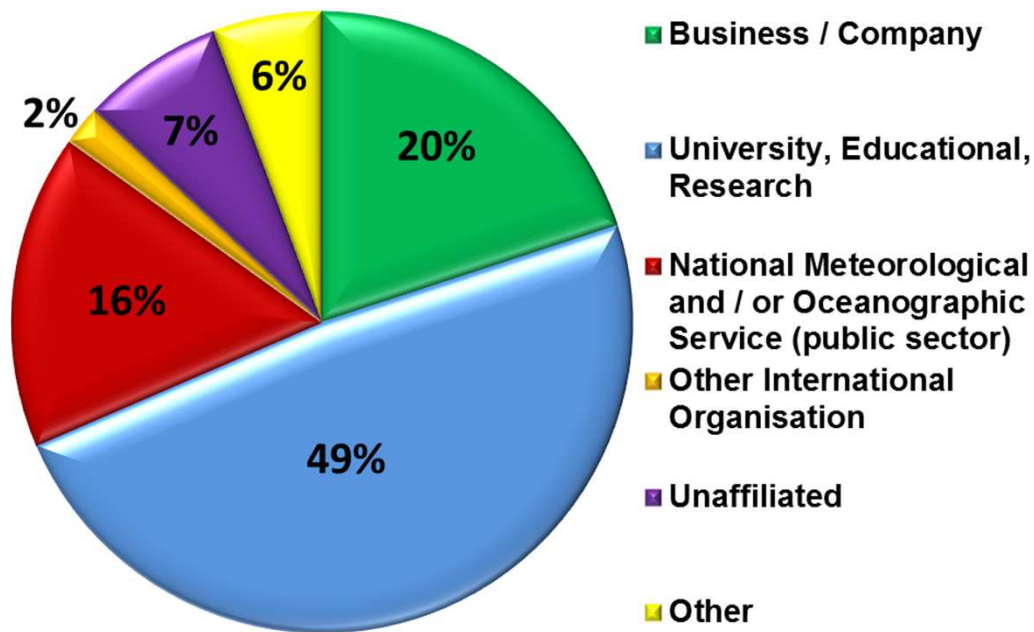


A fair **repartition** in application areas

And **67%** of users using the core service in more than one sector

Highly-qualified users, experts in their application fields

- Types of users, areas of benefit





Conclusion

Our driver : users needs

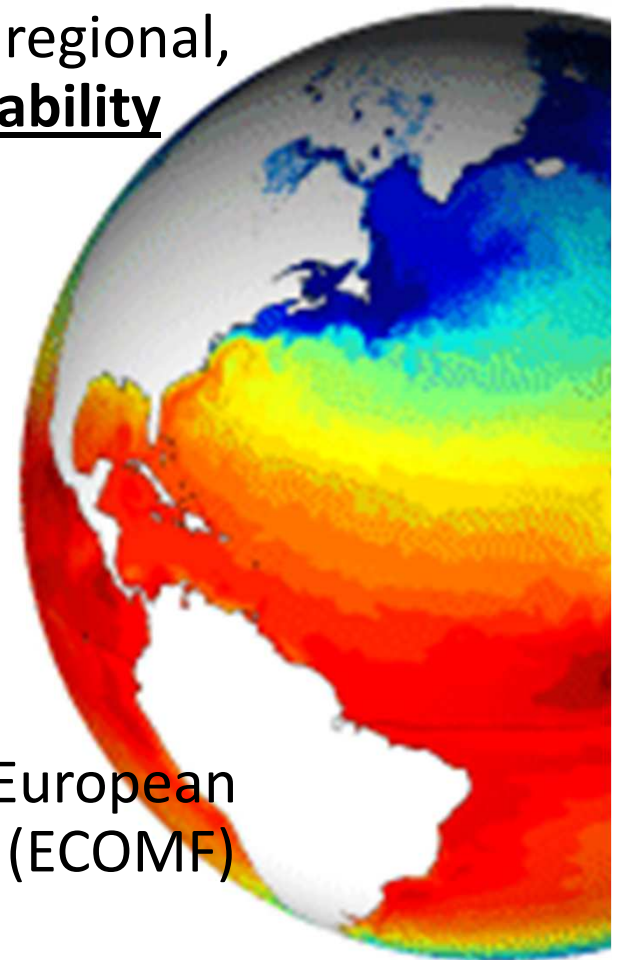
- Highly qualified and consistent data, global & regional, last decades & real time, continuity & **sustainability**

The situation: a successful start for GMES

- A European Marine Service for Ocean Monitoring and Forecasting
- A pan-European organization in place
- A very positive users' uptake
- A perfect integration of altimetry information

Our challenge: sustainability

- An initiative of 14 leading agencies to form a European Centre for Ocean Monitoring and Forecasting (ECOMF)
- A critical dependence on altimetry!





Contact us and learn more

Come and visit us on: www.myocean.eu

MyOcean coordinator:

Pierre.Bahurel@mercator-ocean.fr

MyOcean project manager:

Joel.Dorandeu@mercator-ocean.fr

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End

