



Monitoring the Oceans

Essential Knowledge for a Sustainable Maritime Economy



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Mercator Ocean, France

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European Parliament, Brussels

EURO
Eur
OCEAN
2010

Thermae Palace (Oostende, Belgium, 12–13 October 2010)

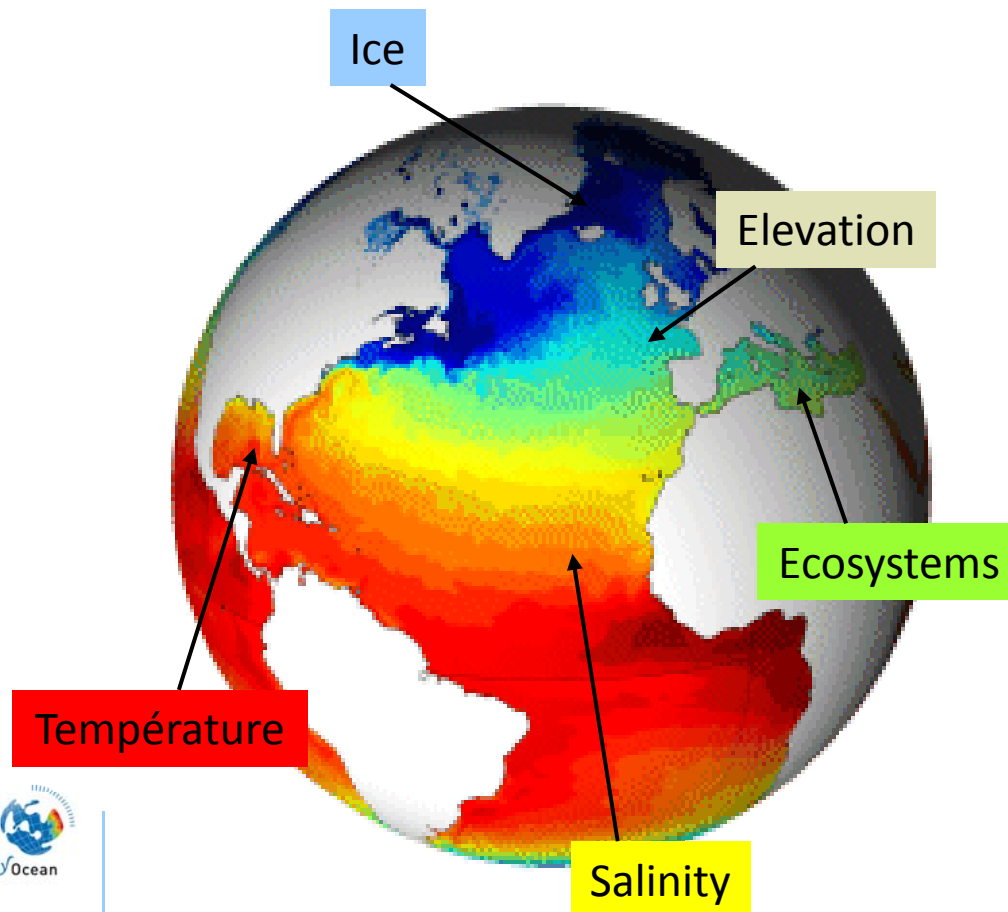
[1] Need

Europe
needs
« Ocean
Monitoring »



Ocean Monitoring

Marine Core Service



- n Currents,
- n Temperature,
- n Salinity,
- n Sea Level,
- n Ice,
- n Ecosystems

- n Anywhere
- n At any time
- n Real time, long period

A 3D and dynamic vision of the ocean

Different areas, different purposes and a common need

Marine Core Service

- A worldwide European maritime economy with multiple faces
- European Integrated Maritime Policy
- European Member States responsibilities
- Competitiveness of European actors in the world economy



**MARINE AND
COASTAL ENVIRONMENT**



MARINE RESSOURCES



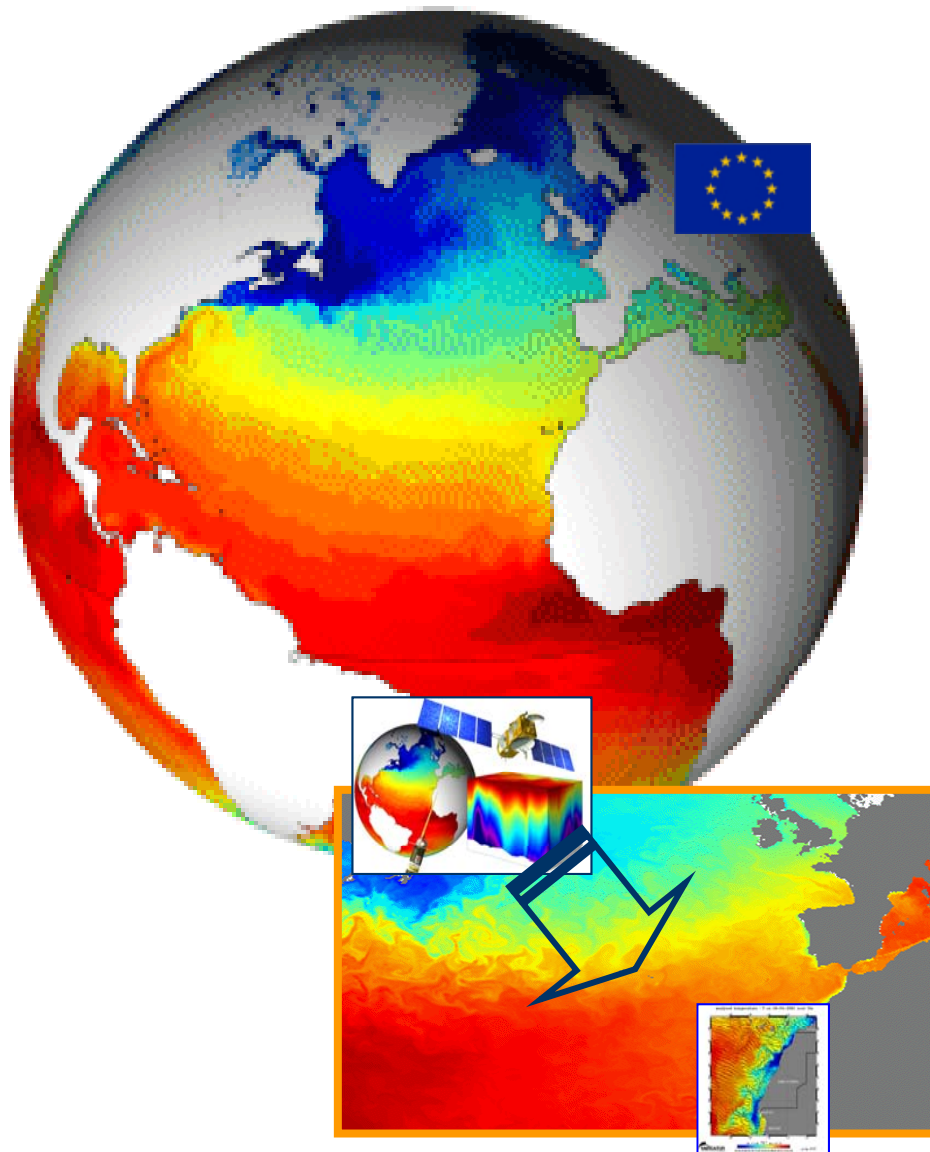
MARINE OPERATIONS



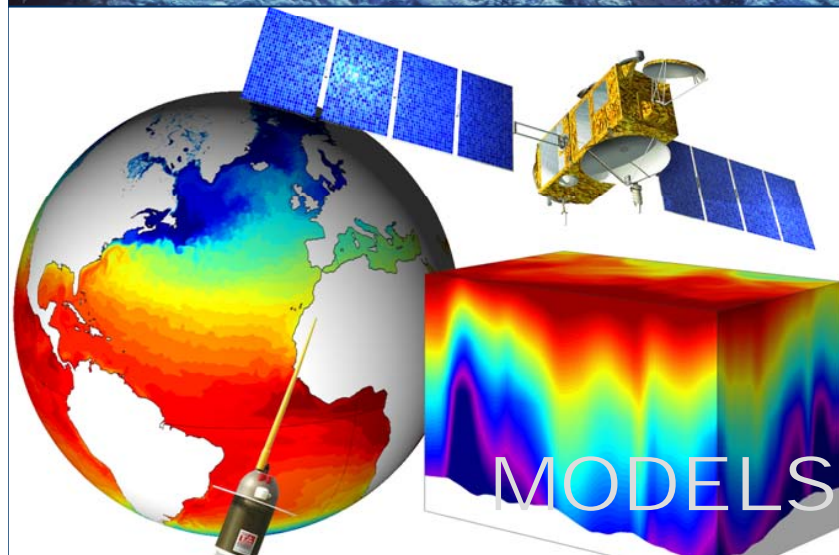
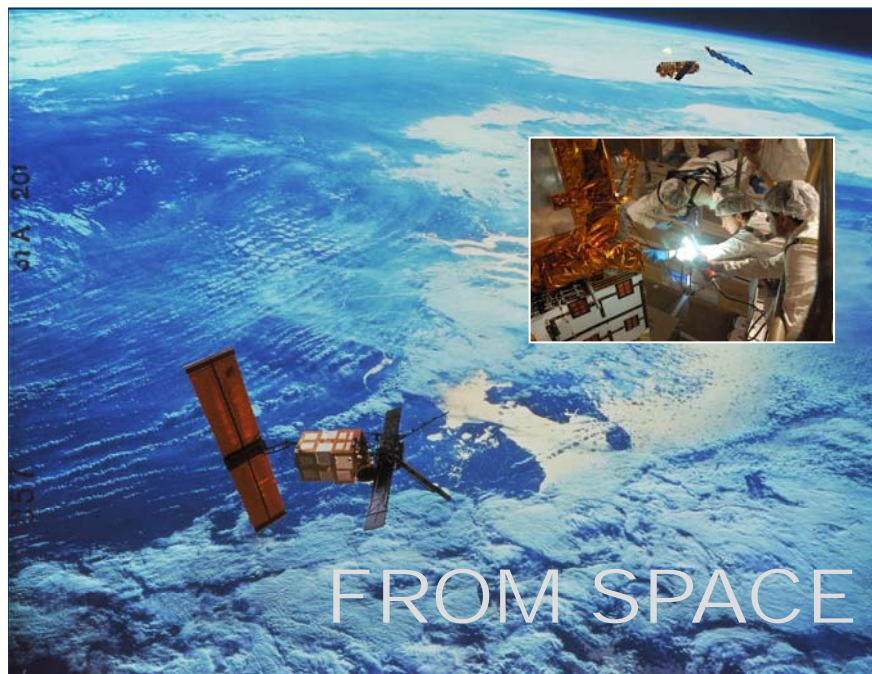
**CLIMATE &
WEATHER FORECASTING**

[2] Solution

Europe has
developed
world-leading
solutions in
ocean
monitoring

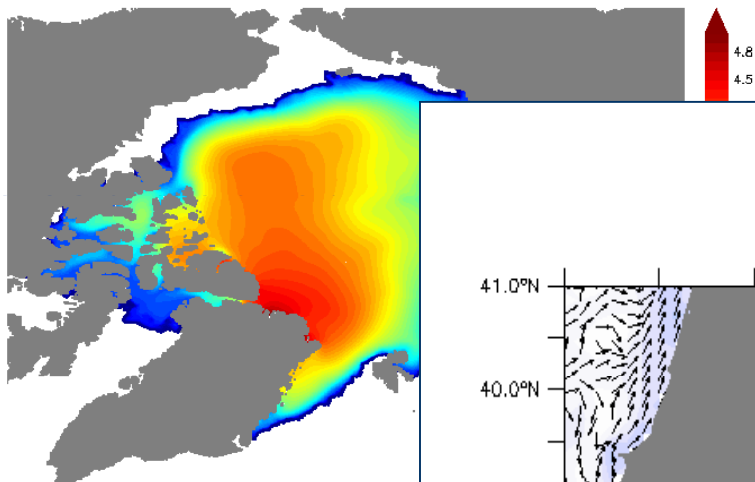


Ocean Monitoring

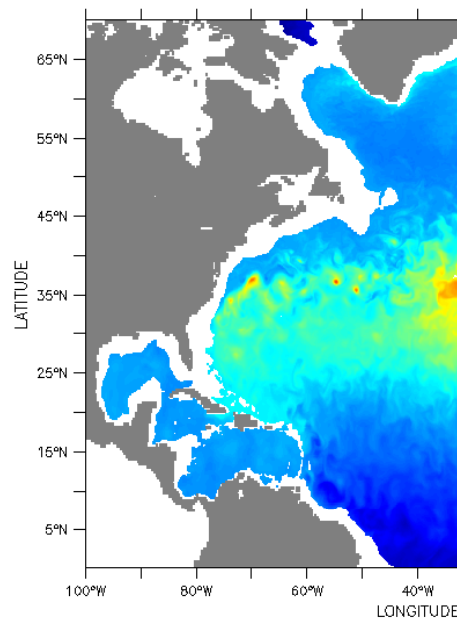


Ocean Forecast 19 October 2010

Ice thickness in the Arctic



Deep Salinity (1000 m)

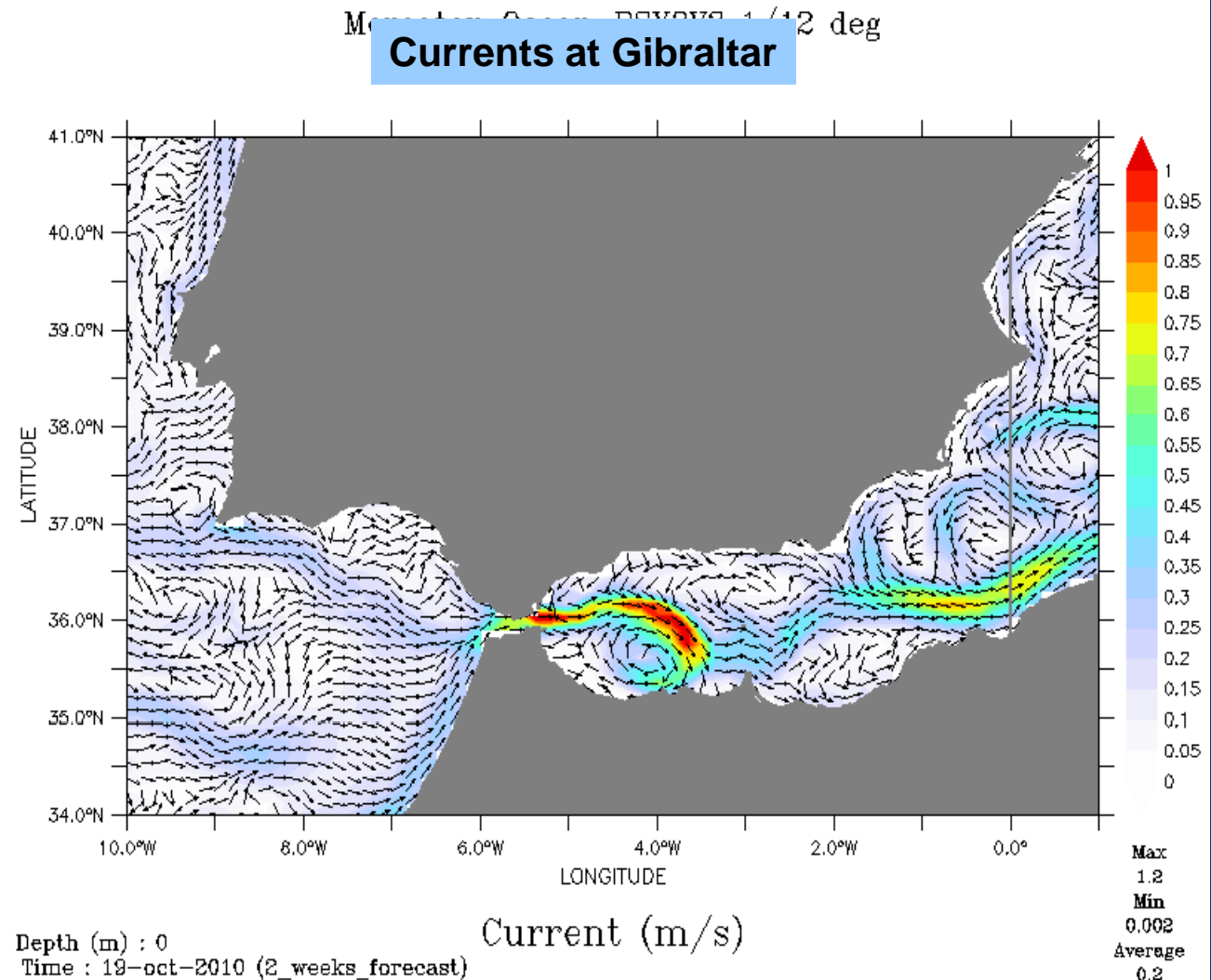


Depth (m) : 1000
Time : 19-oct-2010 (2_weeks_forecast)

Salinity (psu)

Min
34.5
Average
35.1

Currents at Gibraltar

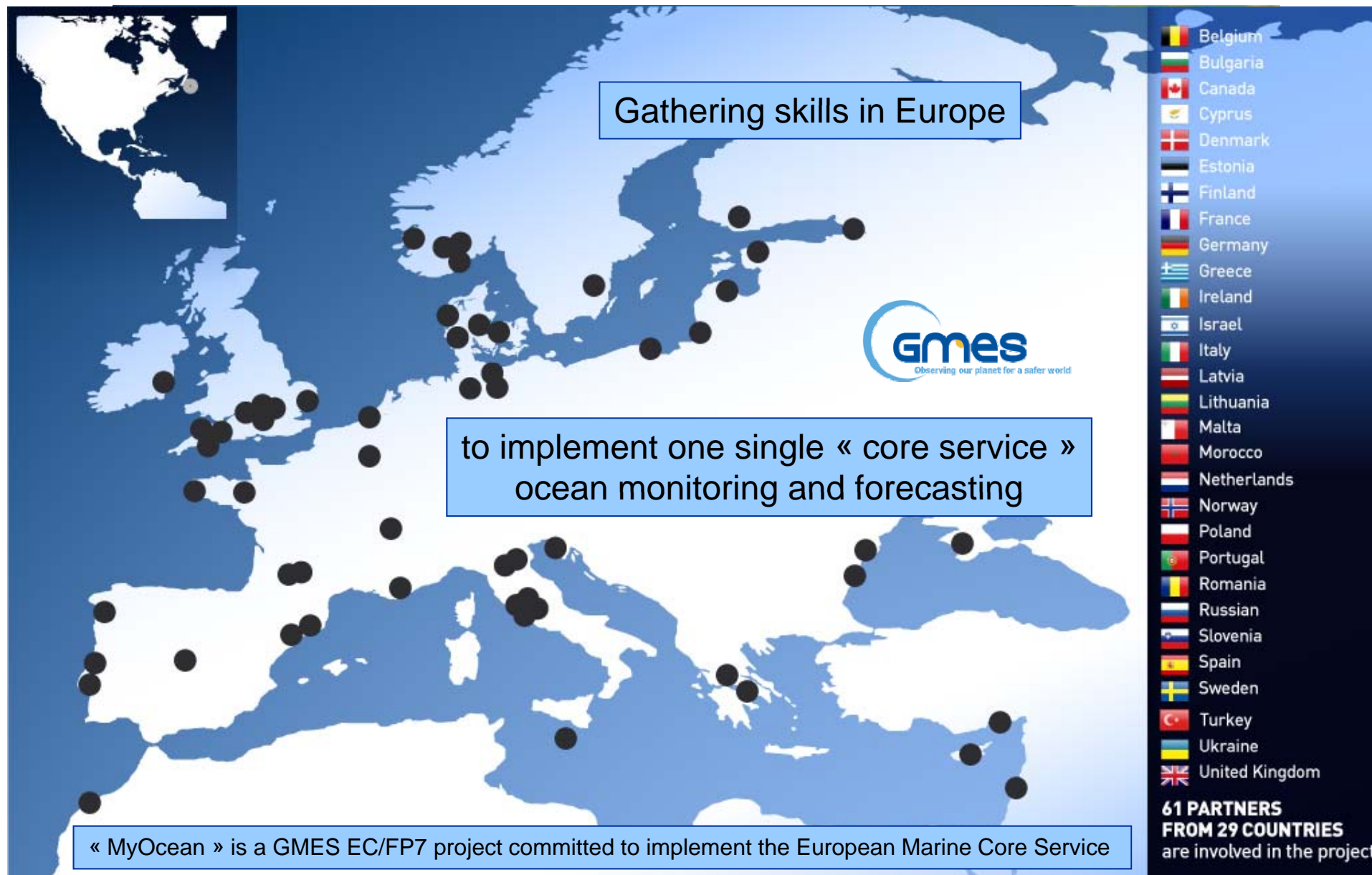




[3] Action!

An integrated approach,
Europe is
setting up its
« Marine Core
Service »

Gathering skills in Europe to implement an *integrated* **Marine Core Service**



A first implementation of a European Marine Core Service : first feedback

Marine Core Service



Ocean monitoring information made
available thanks to a European integrated approach:
first 6-month feedback



- n A single access point:
www.myocean.eu
- n An open and free data access,
according to GMES approach
- n A service desk with a growing
number of users
- n A 3-year demonstration phase
- n A sustainability to organize
through the EU GMES program

MARINE OPERATIONS

31 %

MARINE AND
COASTAL ENVIRONMENT

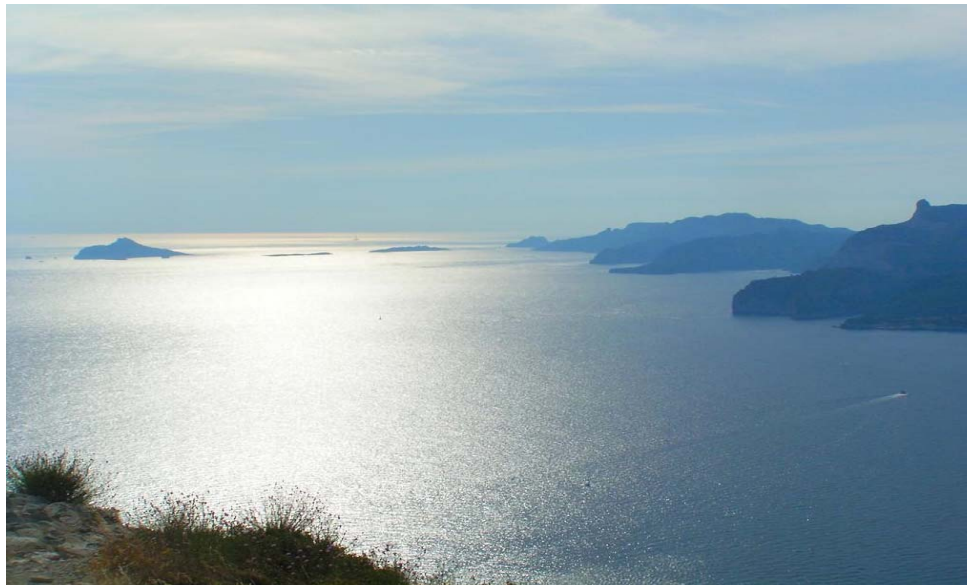
27 %

MARINE RESSOURCES

13 %

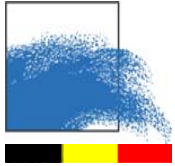
CLIMATE &
WEATHER FORECASTING

29 %



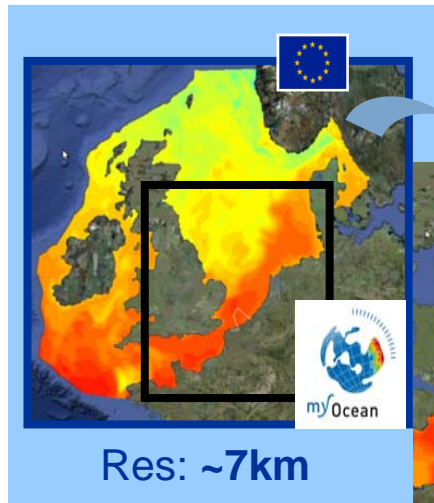
[4] Value

A European
Marine Core
Service
bringing value
to Member
States

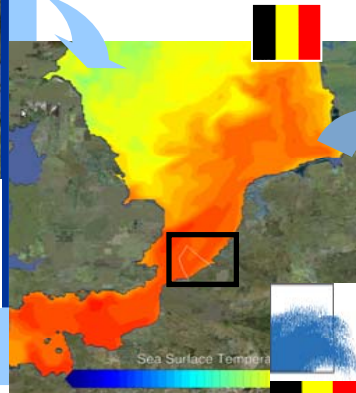


From Global to Local: an example MUMM study for the port of Zeebrugge

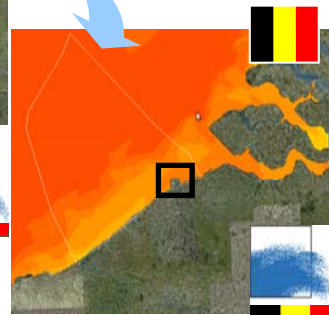
Marine Core Service



Res: ~7km



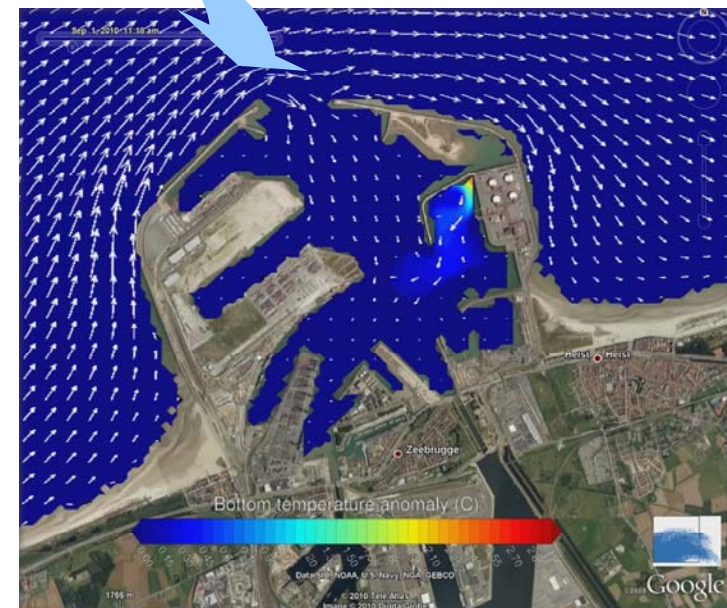
Res: ~5km



Res: 500 m

MUMM is downscaling European MyOcean information to improve regional, national and local models

MUMM
North Sea Monitoring
Brussels, Belgium
www.mumm.ac.be
Courtesy: S.Legrand



Currents in the Port of Zeebrugge



Monitoring the Oceans **Essential Knowledge for a** **Sustainable Maritime Economy**



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Conclusion

- n **Operational oceanography is needed**
- n **European leadership is established**
- n **GMES Marine Core Service is under implementation and already delivers**
- n **European countries will benefit from its economy of scale**
- n **Development of public and private downstream services should be fostered**