Integrated Monitoring Tools: Ways forward in Operational Oceanography

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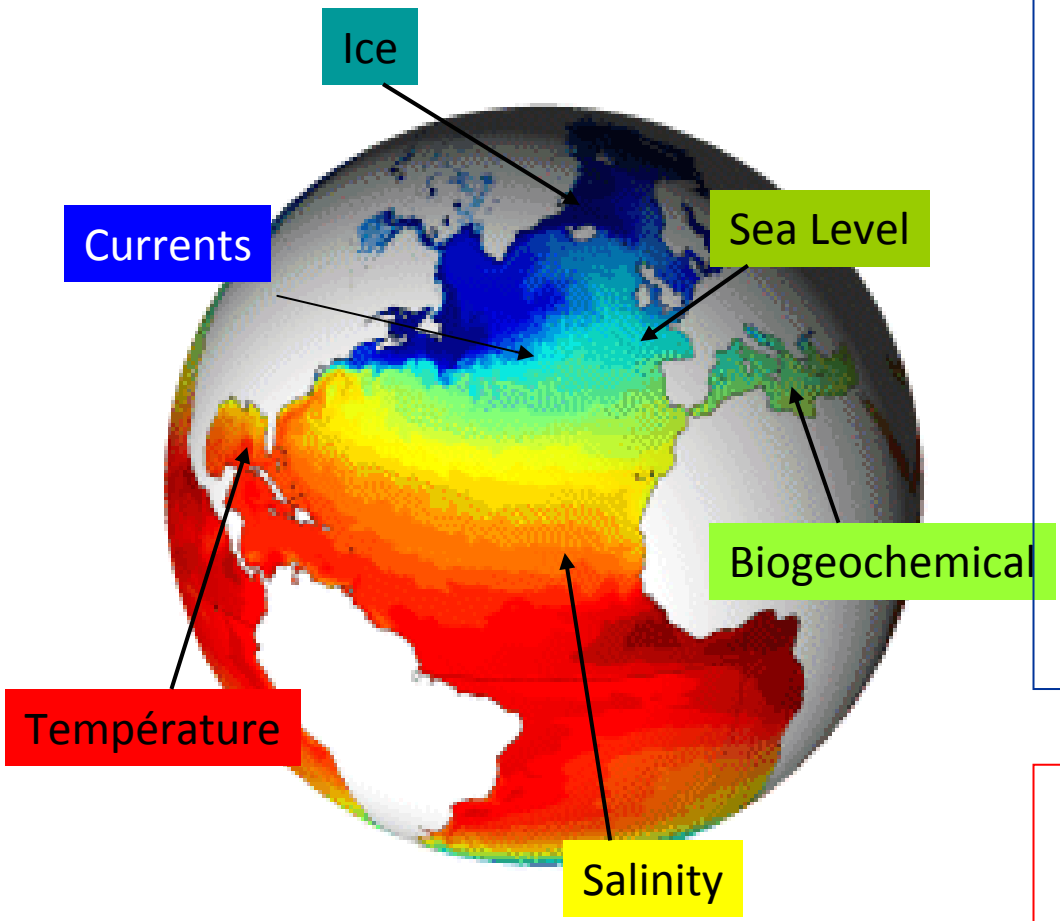
MyOcean – Developing the GMES Marine Core Service 2009-2012 ; 2012-2014

myOcean

Ocean Monitoring and Forecasting

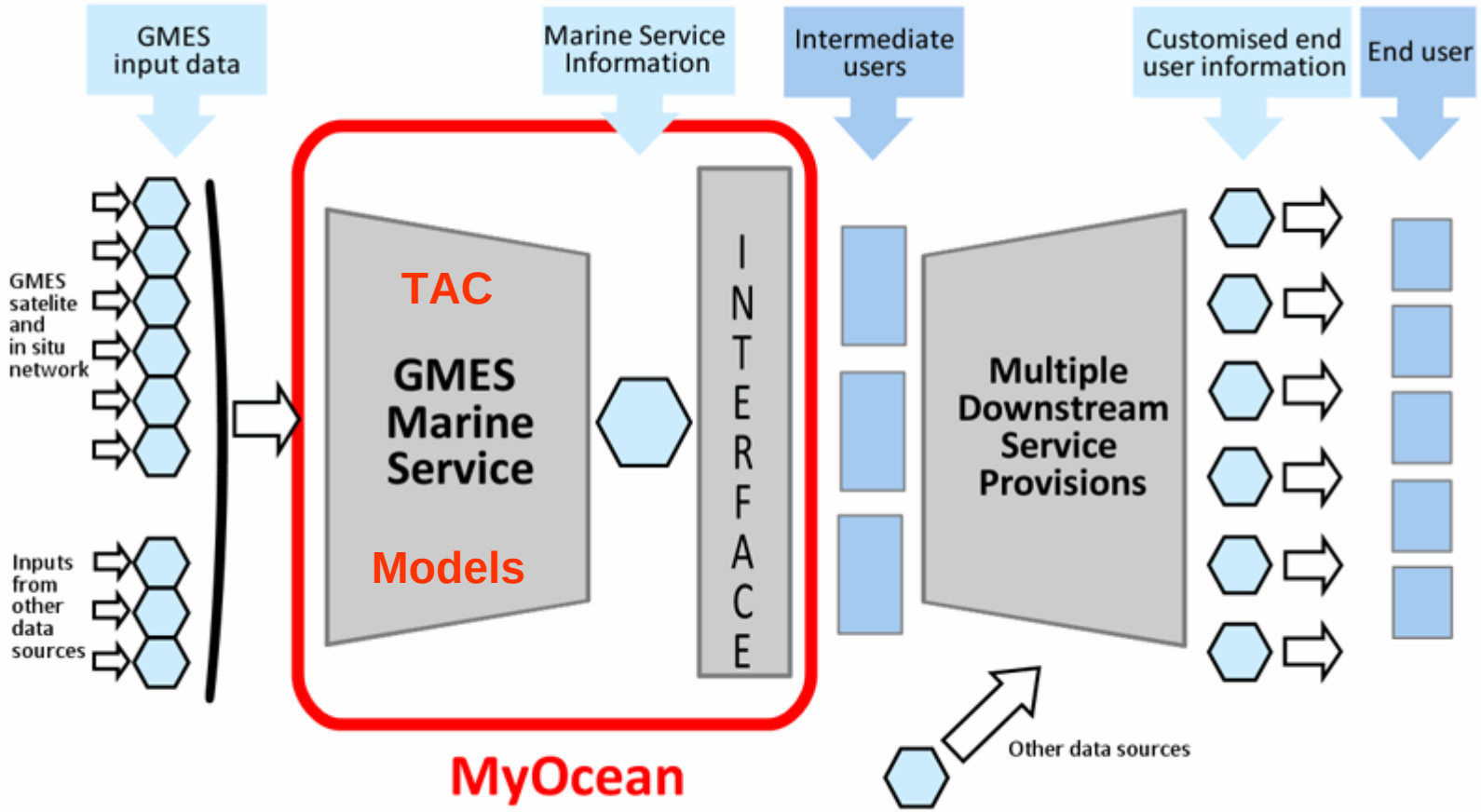


A 3D and dynamic
vision of the ocean

- Currents,
- Temperature,
- Salinity,
- Sea Level,
- Ice,
- Biogeochemistry

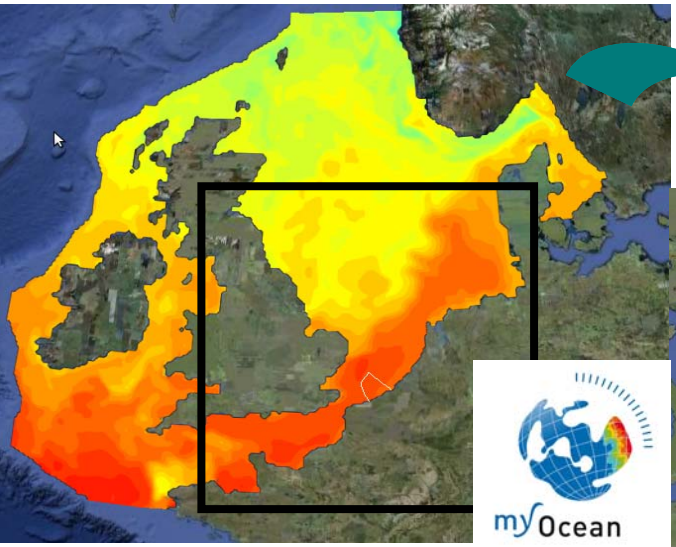
- Anywhere (global & 3D)
- At any time (past, present, future)
- Real time & long period

Scope of responsibility :
Delivering generic, medium resolution products to intermediate users

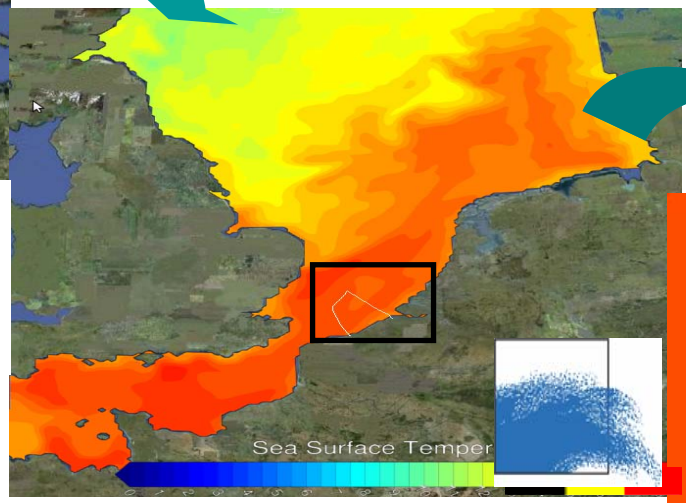


MARINE AND COASTAL ENVIRONMENT

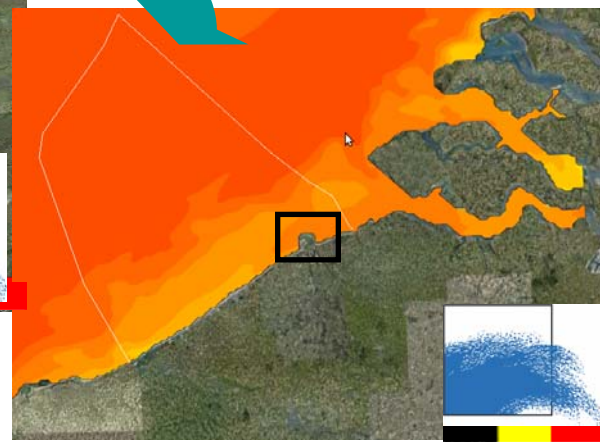
MUMM is downscaling myOcean products
to improve its regional, national and local models



Resolution : ~7 nm



Resolution : ~5km

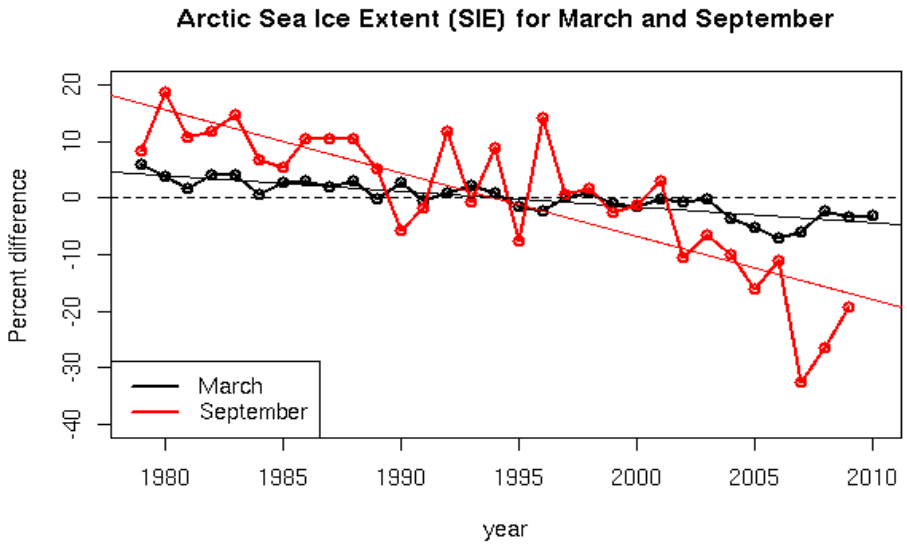


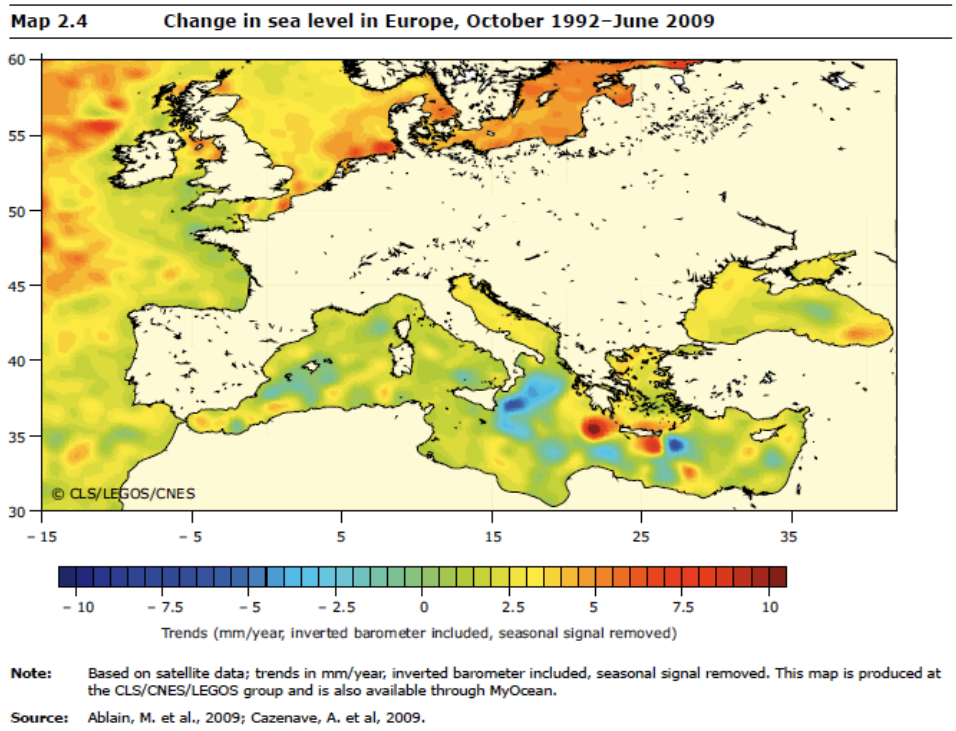
Resolution : 50 - 750 m

Sea Surface Temperature on 28/09/2010, noon

CLIMATE & SEASONAL FORECASTING

EEA is computing indicators from MyOcean products





Note: Based on satellite data; trends in mm/year, inverted barometer included, seasonal signal removed. This map is produced at the CLS/CNES/LEGOS group and is also available through MyOcean.

Source: Ablain, M. et al., 2009; Cazenave, A. et al, 2009.

Take-home messages

- Operational oceanography can provide a 3D and dynamic vision of the oceans, seas and/or marine environment.

- Operational oceanography products also include long time series useful to support integrated monitoring.

- MyOcean just 1 example out of many others…
  European level : Marcoast, Emodnet, SeaDataNet, EMECO…
  Belgian level : OPTOS, AMORE, BELCOLOUR …

- Dedicated services are being developed
  to meet end-users specific needs, including those of the integrated monitoring.