

European Deep Sea Observatory Initiatives: EuroSITES, ESONET & EMSO

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european
multidisciplinary
seafloor
observatory

emso

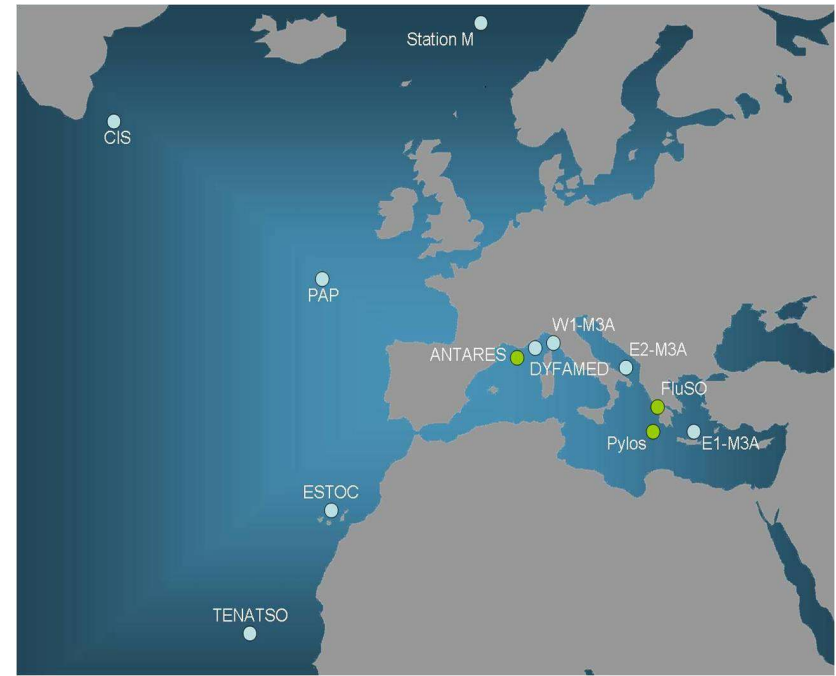


EuroSITES
European Ocean
Observatory Network





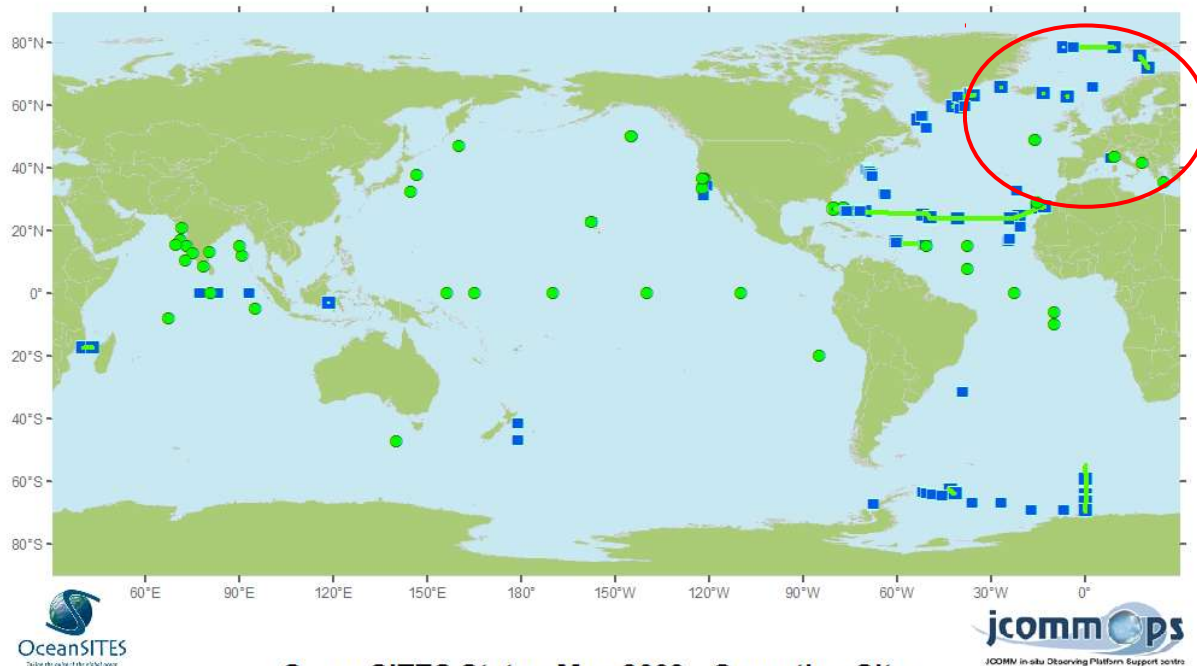
EuroSITES
European Ocean
Observatory Network



EuroSITES

- European Project
- 13 partner Institutions
- 01. April 2008 – 31. March 2011 (*tomorrow!*)
- **Geographical Focus:**
Northeast Atlantic (5 stations; WD: 2000 to 4800m)
Mediterranean Seas (4 +2 stations; WD: about 1500m)
- **Objective:**
Integrating and **enhancing** Europe's **existing** fixed-point open ocean observation capability

- A European component of the **OceanSITES** network of deep water reference stations
- **EuroSITES** is integrated in **GOOS**



OceanSITES Status Map 2009 - Operating Sites

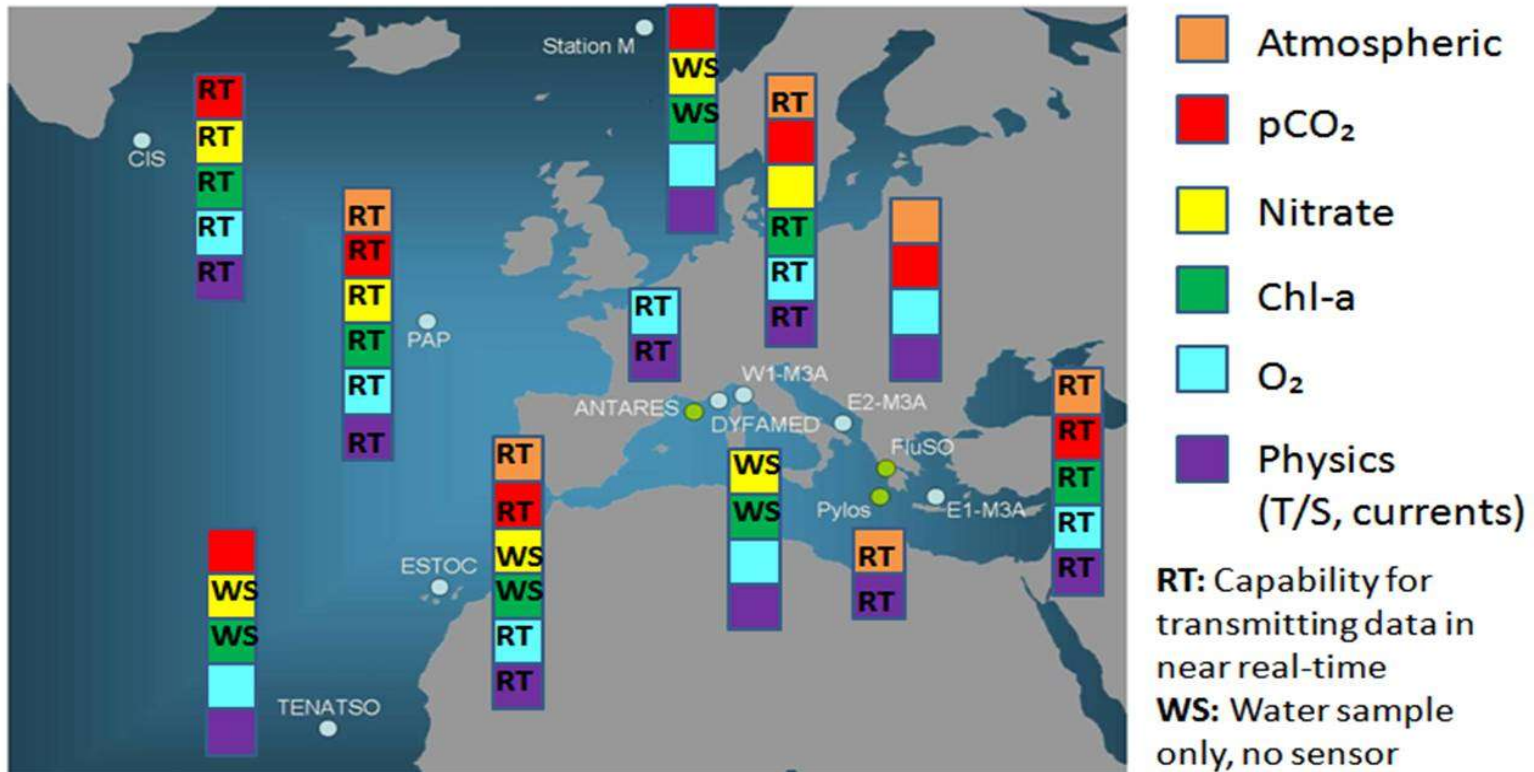
OceanSITES Moorings and Observatories (91)		Transport sites (16)	Transport Stations (67)
● OPERATING Real time data (44)	— OPERATING	● OPERATING Real time data (2)	■ OPERATING, Delayed Mode data (65)
■ OPERATING Delayed Mode data (47)			

Note: This status was based on information provided in 2009.

Variables measured

EuroSITES open ocean time-series

Capabilities for atmospheric and ocean variables
Spring, 2011



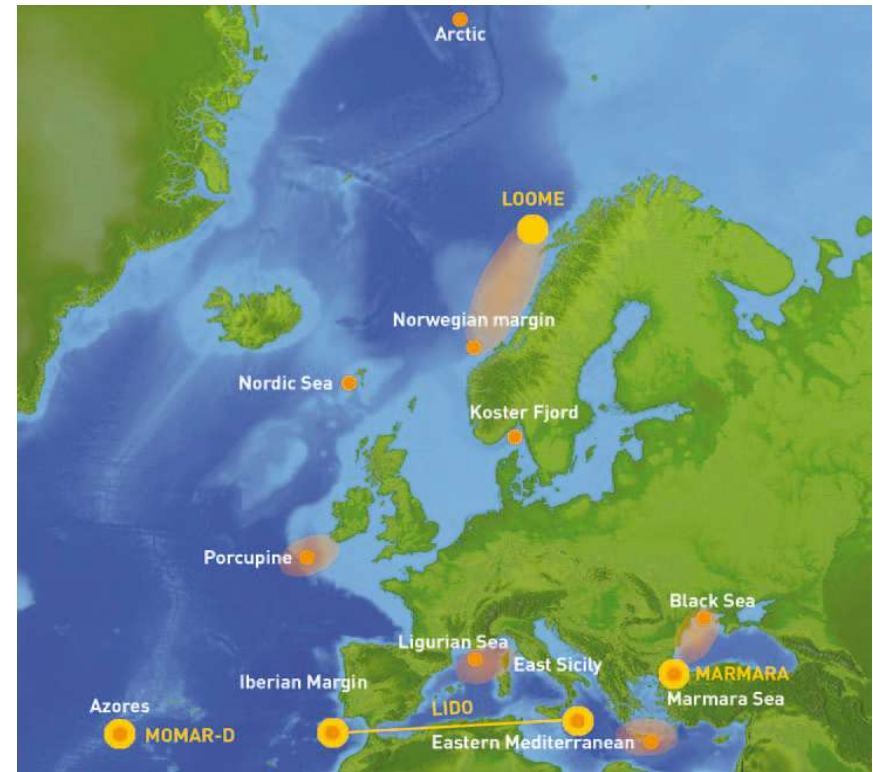
See www.eurosites.info for full information on time-series and sensors/samplers used



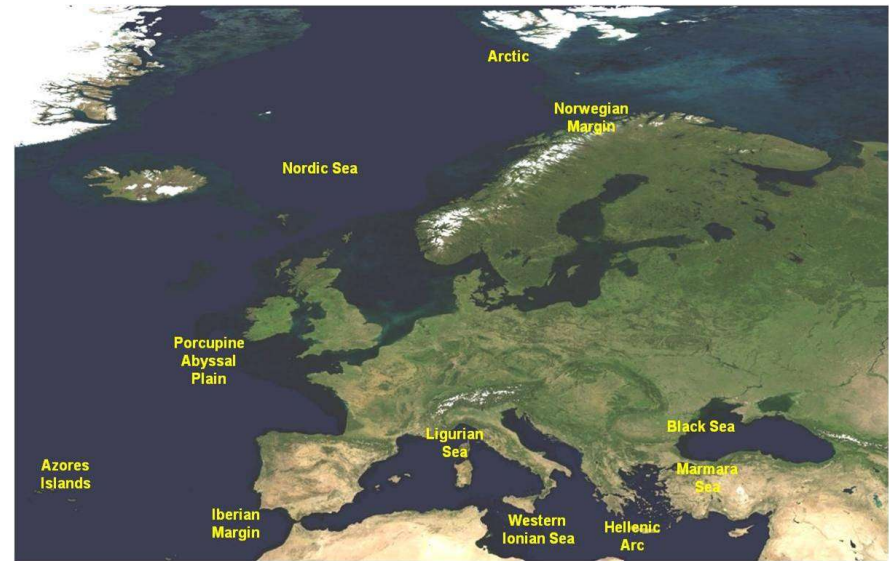
ESONET

European Seas Observatory NETwork

- European Project
- 50 partner Institutions & SME's
- 01. March 2007 – 28. February 2011 (*ended*)
- **Geographical Focus:**
European Seas
- **Objective:**
Promote the **implementation** and **management** of a network of **long-term multidisciplinary** ocean observatories in deep waters around Europe



EMSO



European Multidisciplinary Sea(floor?) Observatory – PP (preparatory phase)

- European Project
(in context of “European Strategy Forum on Research Infrastructures” - ESFRI)
- 12 countries, 01. April 2008 – 31. March 2012
- **Geographical Focus:**
European Seas (currently: 11 potential sites)
- **Objective:**
Creating the organisational backbone of a European Deep Sea Observatory Research Infrastructure – focus on legal & governance framework.
“to clear the way to establish an European Research Infrastructure Consortium (ERIC)”

Other Deep Sea observatory relevant European projects

- HERMES/HERMIONE “Hotspot Ecosystem Research on the Margins of European Seas”
until: 31. Mar. 2012
- THOR: “Thermohaline Circulation at risk?”
Establish an operational system that will monitor and forecast the development of the North Atlantic THC on decadal time scales
until: 30. Nov. 2012

Links and common regions with other FP7 initiatives



From data to end users

Projects are all “up-stream” in situ ocean data provider to a range of European Data Management and Modelling Initiatives

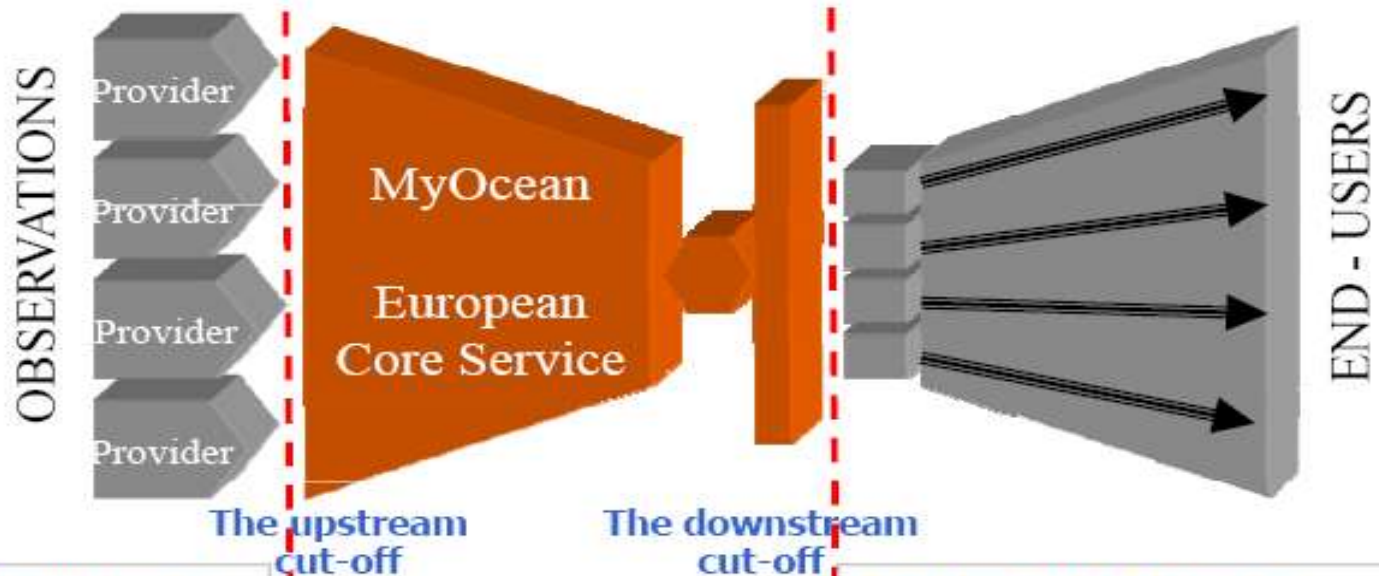


Observation networks providing in-situ data sets (in near real-time) to GMES – Marine Core Service



Marine Core Service

Scope of responsibility



upstream to our service

... is done (duty) by an **observation** agency or center (raw data)
Example : **Eumetsat SAF**
or the **ESA PAC**

*Data, Model
European added-value*

downstream to our service:

... is done (duty), or will be better done (skill) by a **specialized** agency, a **European** agency or a **national** center ; usually already in place
Example : **COASTAL SYSTEMS**

An Integrated Ocean Observing System: A key European Priority

- **2nd ESF Marine Board meeting, Brussels (September 2010)**

Towards a European Network of Marine Observatories for Monitoring and Research.

“A long-term, stable and integrated network of strategic marine observatories, installed and operated through multi-national cooperation and support, providing consistent in situ data from the seas and oceans in support of the EU Integrated Maritime Policy¹ and as a driver for smart, sustainable and inclusive growth in Europe (Europe 2020²)”.

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European Ocean Observing System, a key priority in the Ostend declaration

2. European Ocean Observing System

Support the development of a truly integrated and sustainably funded “**European Ocean Observing System**” to (i) re-establish Europe’s global leading role in marine science and technology; (ii) respond to societal needs by supporting major policy initiatives such as the **Integrated Maritime Policy** and the **Marine Strategy Framework Directive**; and (iii) support European contributions to global observing systems. This could be achieved through better coordination of national capabilities with appropriate new investments, in coordination with relevant initiatives (e.g. ESFRI, EMODNET, GMES) and the engagement of end-users.

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- **GEO 'Observe, Share and Inform'**