



European  
Commission

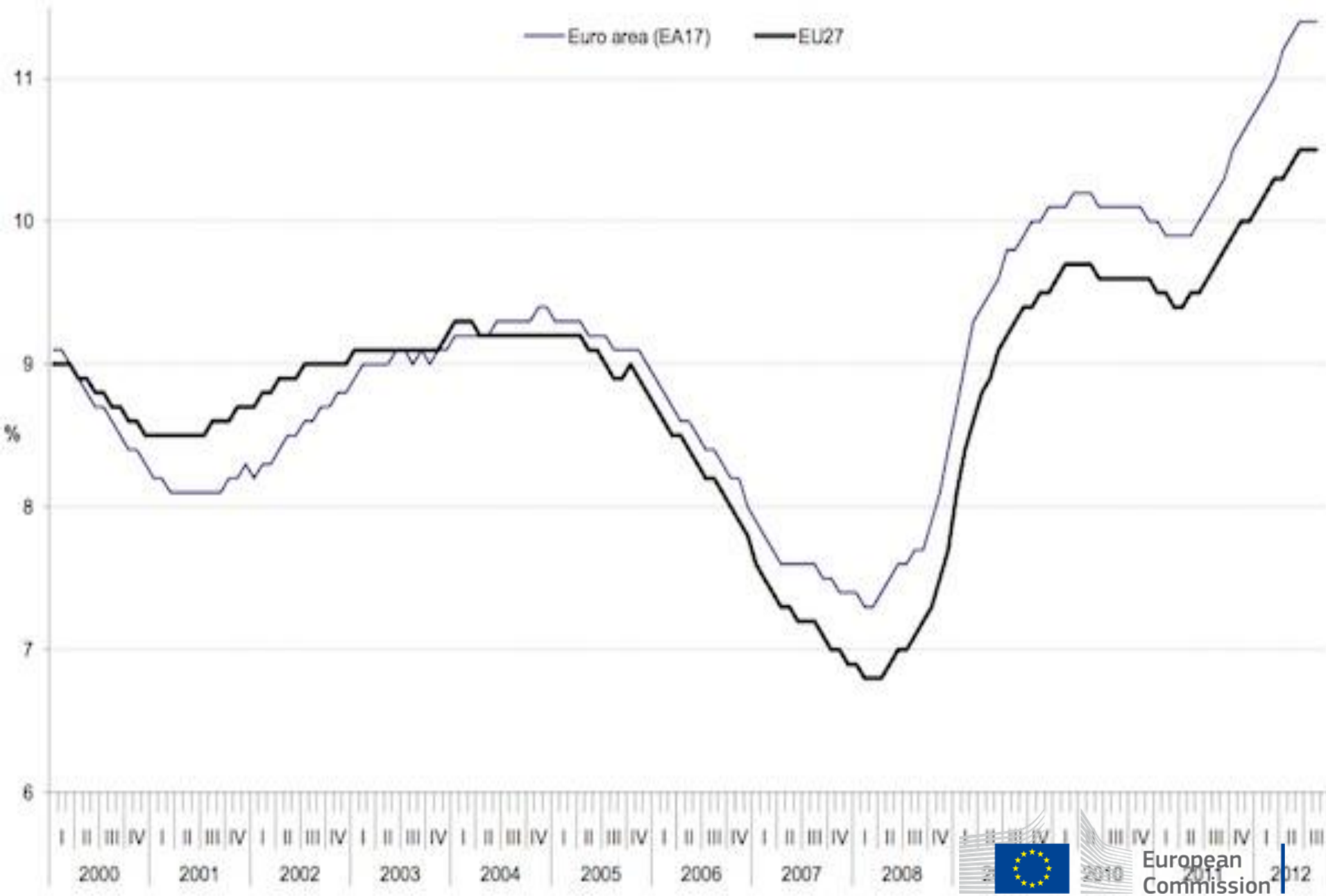


# EMODnet: progress so far

Integrated  
Maritime  
Policy

# Euro area and EU27 unemployment rates

Seasonally adjusted series



# Opportunity for growth

- Running out of land and freshwater
- Technology from oil and gas
  - Underwater robotics
  - Operate safely in deep water

# blue tourism

2.35 million = 1.1% of total EU employment



# blue energy

## Offshore wind:

- by 2020 4% of EU electricity demand and 170,000 jobs

## Wave and Tidal in future

# blue biotechnology

- pharmaceuticals and cosmetics
- food, feed and chemicals
- biofuels

# aquaculture

- 80,000 jobs in Europe
- Production stagnant



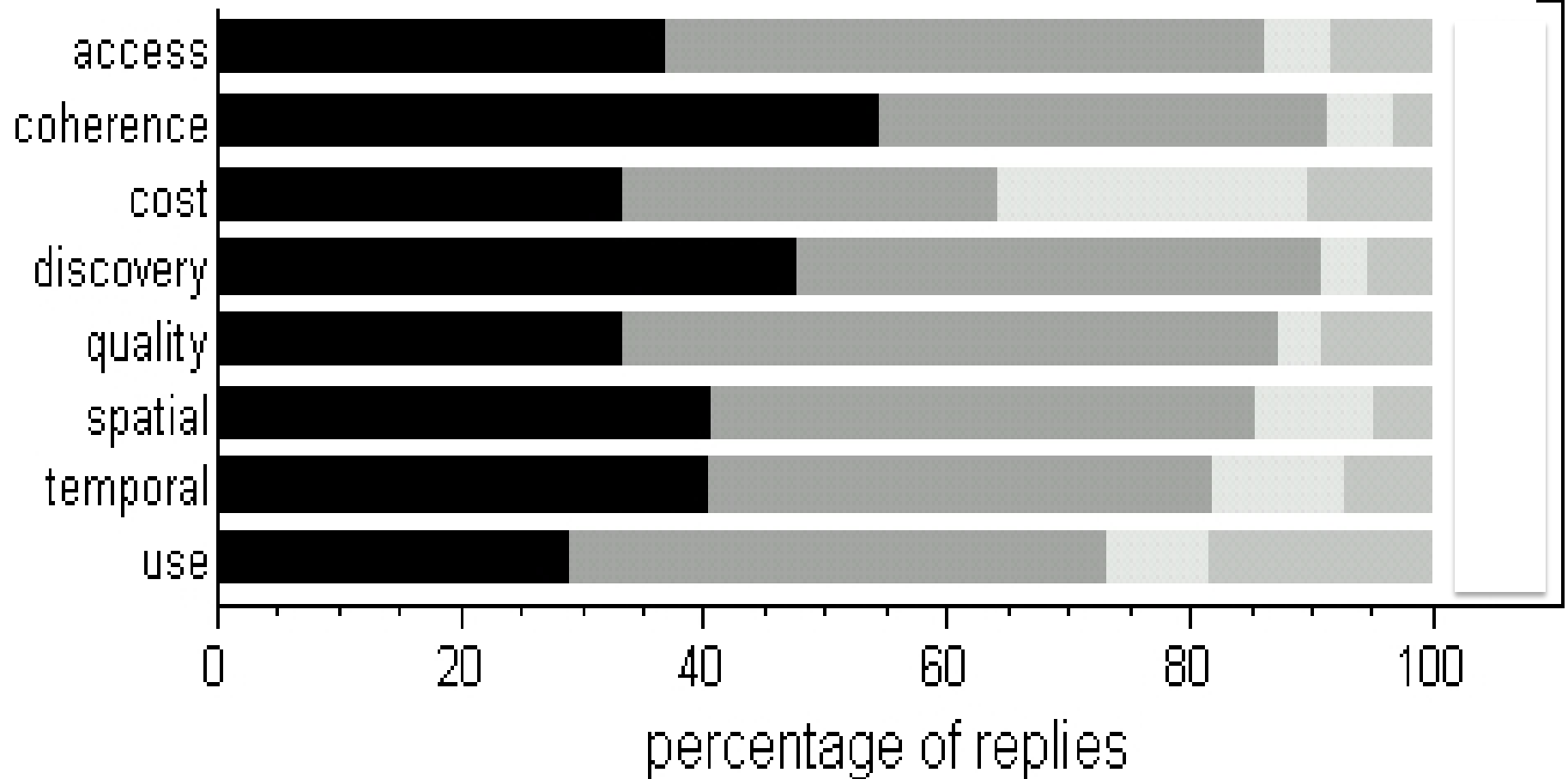
# marine mineral resources

- aggregates
- polymetallic sulphides

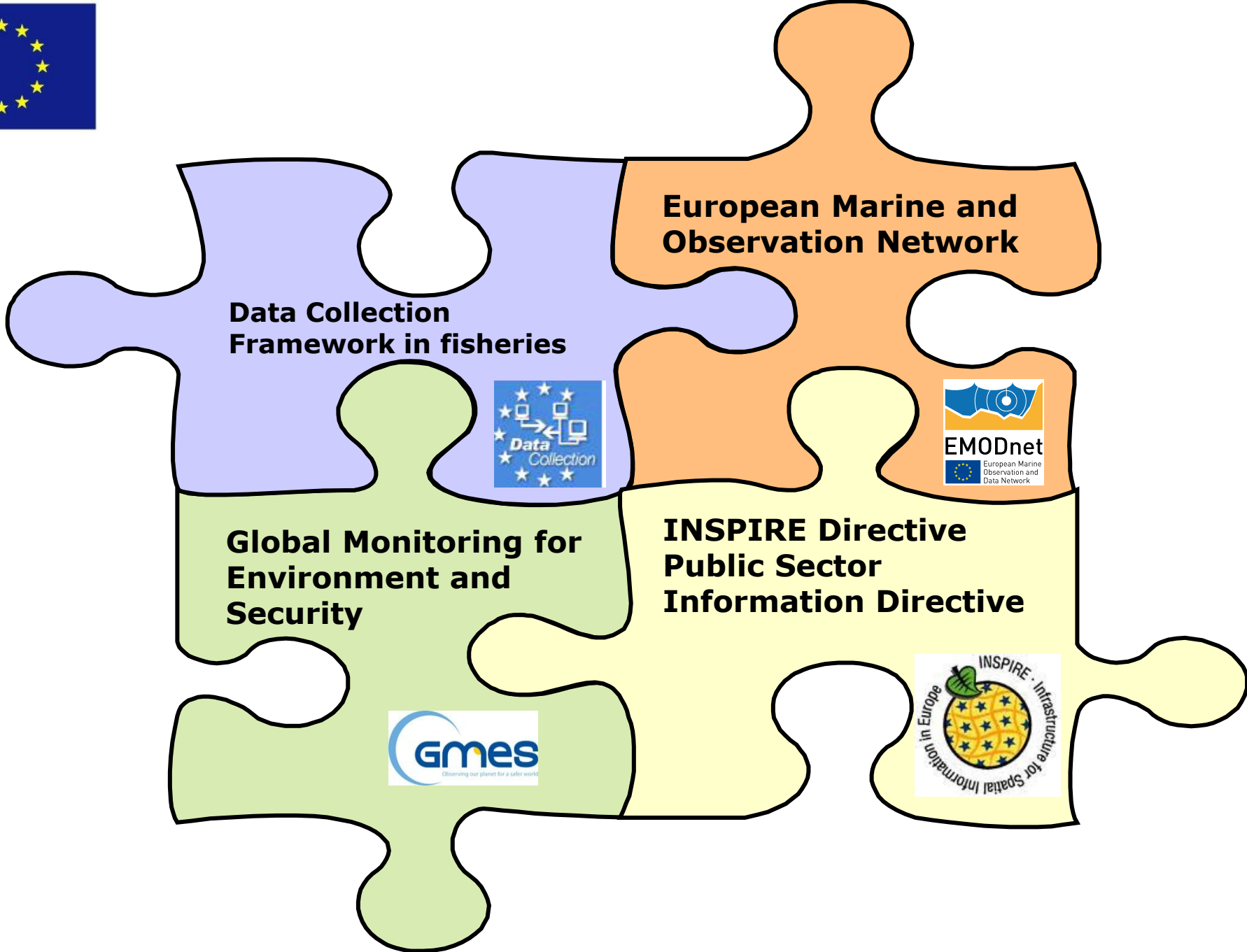




## consultation reveals dissatisfaction with status quo



- opinion
- 0 there are significant barriers
  - 1 there could be some improvemen
  - 2 not applicable
  - 3 I am satisfied with the status



**Data Collection Framework in fisheries**



**European Marine and Observation Network**



**Global Monitoring for Environment and Security**



**INSPIRE Directive Public Sector Information Directive**



# expected benefits

- €300 million annually
  - reducing of operating cost of which
    - €100 million for science
    - €56 million for public authorities
    - €150 million for private companies
- €200 million annually
  - increasing competition and opportunities
    - contributes to innovation and growth

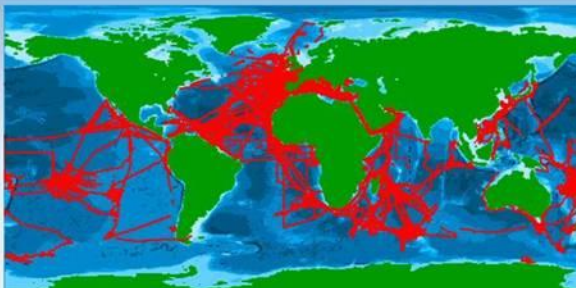
with inevitable growth in marine economy, these benefits will increase



**EMODnet** European Marine Observation and Data Network  
**Pilot Portal for Biological Data Discovery and Access**

Cart: 0 Dataset(s) Proceed to check out Reset basket Export Store query Summary Hide map ?

Tools: Enlarge Position Index



Layer control Expand Add layer

- CDI entry Points
- CDI entry Tracks
- CDI entry Areas
- Grid Lines
- Regional sea
- Regional sea labels
- Main sea
- Main sea labels
- Bathymetry
- Blue Marble

Display all selected records  
 Only selected records in results list

Zoom to selected

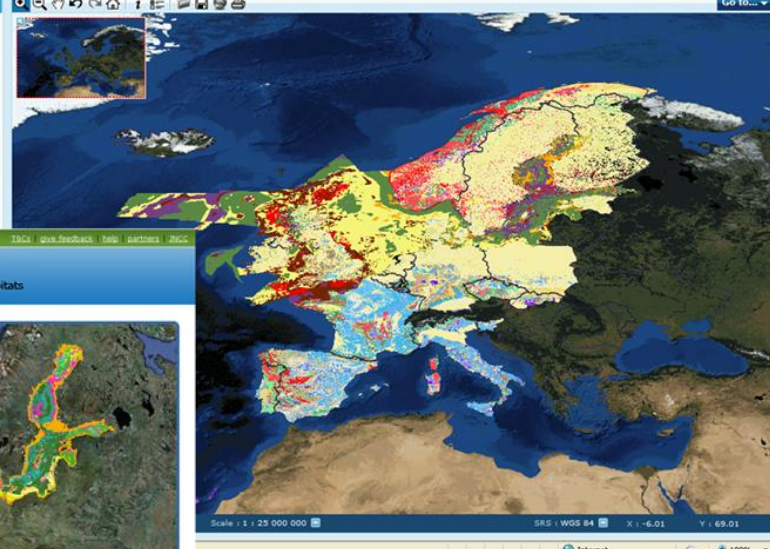
OneGeology Europe - Client - Microsoft Internet Explorer provided by The British Geological Survey

http://onegeology-europe.bgrm.fr/portal/viewer.jsp?language=en

Search Map viewer

Layers

- Emodnet Substrate map
- Emodnet Substrate map
- Country Outlines/Political boundaries
- ISE - 1M:1M Harmonized Geological Map



Scale: 1 : 25 000 000  
 SRS: WGS 84 X: -6.01 Y: 69.01

**EMODnet** European Marine Observation and Data Network  
**Pilot Portal For Biological Data Discovery and Access**

Search Legend Feedback Help

Lat 56.7 Lon: 37.77

- Google Satellites #
- NOAA ETOPO1
- NOAA Blue Marble
- cscoc\_gis
- Atlantic data
- salinity Mediterranean
- salinity North Sea
- salinity Baltic Sea
- seabed substrate (North Sea and Baltic Sea)
- Administrative Boundaries
- Exclusive Economic Zones
- ICES Ecoregions
- Administrative Boundaries
- HD sea areas
- Data
- Myths added in BiorGIS

EMODNET (Chemical data) - Mozilla Firefox

http://gher-diva.phys.ulg.ac.be/emodnet/

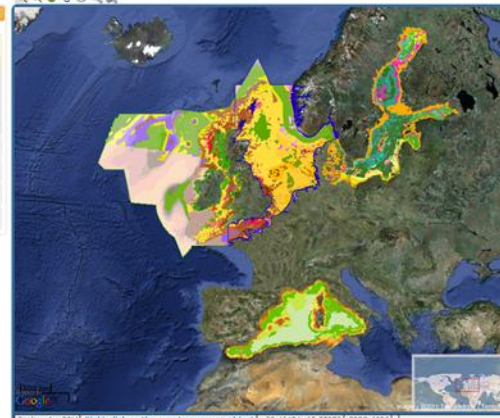
**EMODnet** European Marine Observation and Data Network  
**EUSeaMap** Pilot portal for broadscale modelled seabed habitats

Home > EUSeaMap > EUSeaMap webGIS

Volume Map Layers Area

Add layer(s) from other mapping portals

- Modelled seabed habitats
- Detailed classification #
  - Celtic & North Sea
  - Baltic Sea - by energy
  - Baltic Sea - by salinity
  - West Mediterranean
- Simplified classification #
- Input layers
- Raw data
- Confidence
- Boundaries



Scale = 2 : 20M Right click on the map to query an object -30.46484, 65.57373 (EPG: 4326)

**Portal For Physical Parameters**



Scale: 1 : 25 000 000  
 SRS: WGS 84 X: -6.01 Y: 69.01

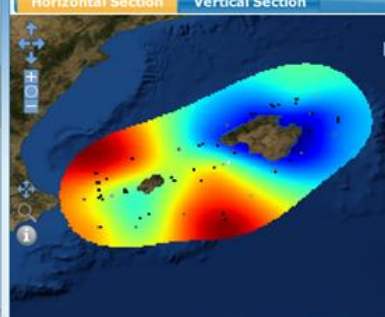
**EMODnet** European Marine Observation and Data Network  
**Pilot portal for Viewing and Downloading**

DIVA 4D analysis of Nitrate\_19871987

- Nitrate masked using relative error threshold 0.3
- Nitrate masked using relative error threshold 0.5
- Additional fields
  - Nitrate
  - Error standard deviation of Nitrate
  - Relative error of Nitrate
  - Logarithm10 of number of data in bins
  - Logarithm10 of number of

Field produced by EMODNET

Horizontal Section Vertical Section



Logarithm10 of number of data in bins  
 Style Download Remove

depth[meters]: -0.0  
 time[season]: 1

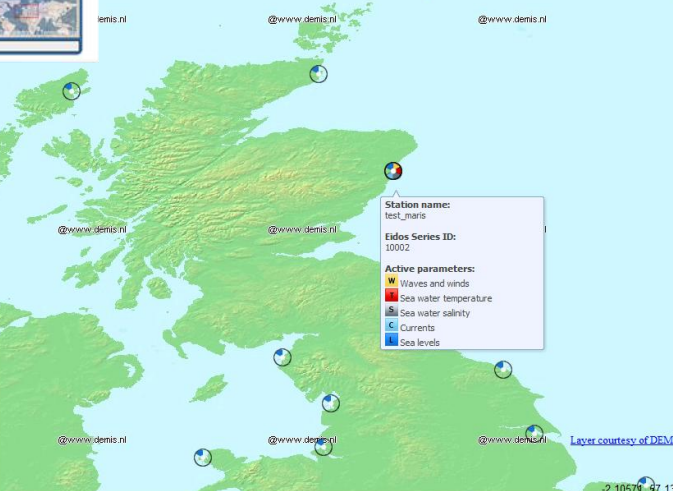
Nitrate masked using relative error threshold 0.3 [Units: millimole/m<sup>3</sup>]  
 Style Download Remove

depth[meters]: -0.0  
 time[season]: 1

Add server Plot/update About Help

Station name: test\_maris  
 Eidos Series ID: 10002

Active parameters:  
 W Waves and winds  
 S Sea water temperature  
 C Sea water salinity  
 I Currents  
 L Sea levels



Station name Parameters Delete Go

test\_maris W S C I L

Layer courtesy of DEMIS

0 Dataset(s) Proceed to check out Reset basket Export Store query Summary Hide map

- 8400 bathymetric survey datasets
- 14 data centres
- 9 countries
- 118 institutes

- DTM resolution 1/8'
- by end of 2014
- all European waters

Layer control Expand

- CDI entry Points ?
- CDI entry Tracks ?
- CDI entry Areas ?

---

- Grid Lines ?
- Regional sea ?
- Regional sea labels ?
- Main sea ?
- Main sea labels ?
- Bathymetry ?
- Blue Marble ?

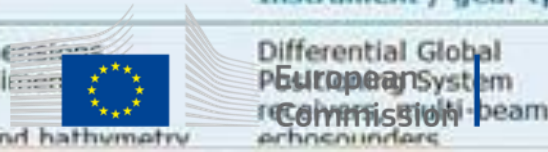
Display all selected records  
 Only selected records in result

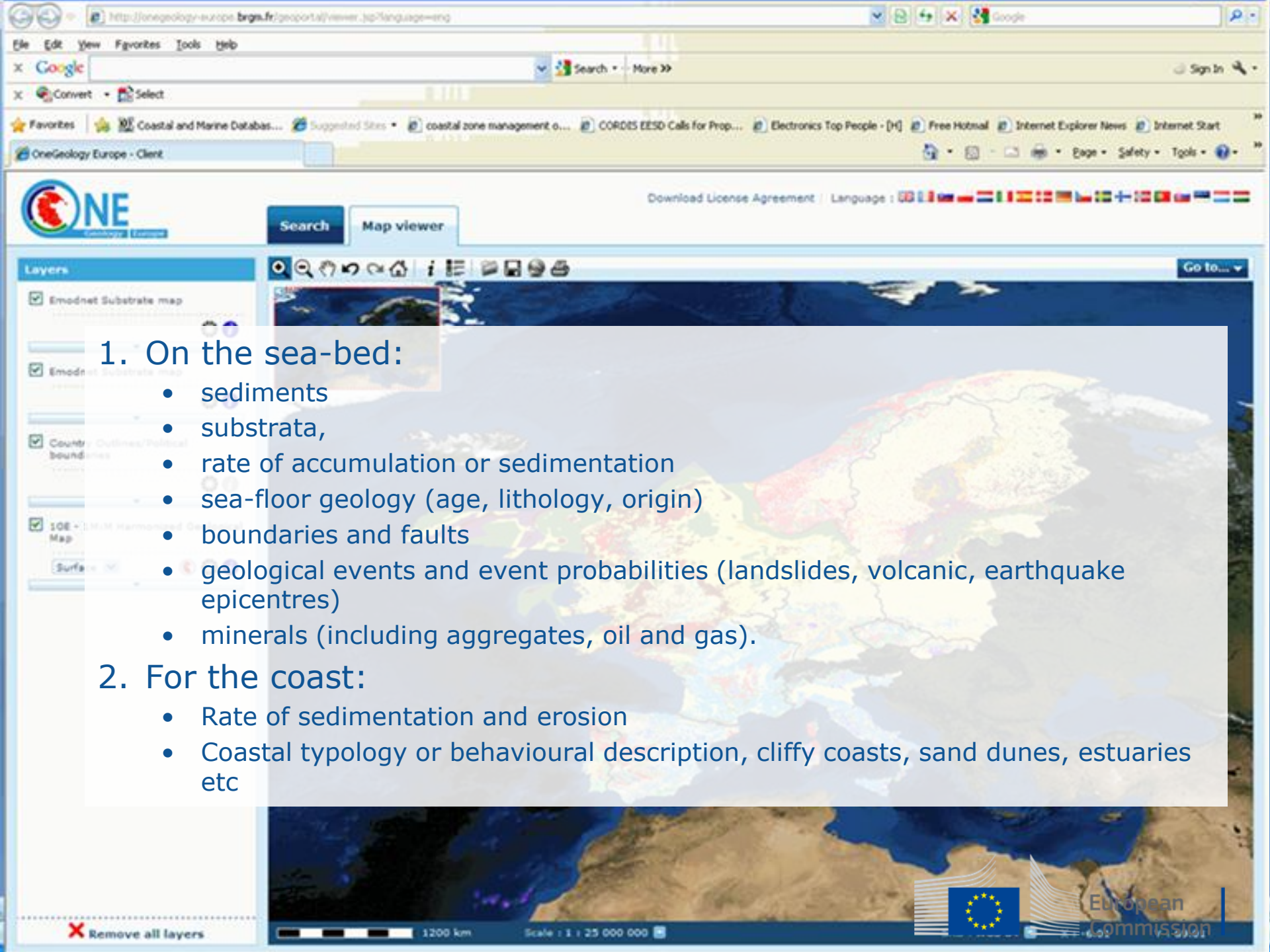
Zoom to selected

Add to basket 20 50 100 Records Go

| Found 7235 | Show (1-20) | Previous

#	Data set name	Variables measured	Instrument / gear type
<input type="checkbox"/>	RV Connamara Bathymetry IMAR 2007 Loop Head 5m NetCDF	Administration and dimensions > Administration and dimensions Marine geology > Gravity, magnetics and bathymetry	Differential Global Positioning System Single beam echosounders





## 1. On the sea-bed:

- sediments
- substrata,
- rate of accumulation or sedimentation
- sea-floor geology (age, lithology, origin)
- boundaries and faults
- geological events and event probabilities (landslides, volcanic, earthquake epicentres)
- minerals (including aggregates, oil and gas).

## 2. For the coast:

- Rate of sedimentation and erosion
- Coastal typology or behavioural description, cliffy coasts, sand dunes, estuaries etc



# physical habitats



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# hydrography and geology lots

- geology
  - homogeneous consortium of national geological surveys
- hydrography
  - heterogeneous consortium
  - mixture of hydrographic offices and research institutes
  - not all countries represented (although some provide data)





Home > EUSeaMap > EUSeaMap webGIS

Welcome | Map layers | Key

All layer(s) from other mapping portals

**Modelled seabed habitats**

**Detailed classification #**

- Celtic & North Seas
- Baltic Sea - by energy
- Baltic Sea - by salinity
- West Mediterranean

**Simplified classification #**

**Input layers**

**Raw data**



Budget	years	resolution	coverage	Participation
<b>Preparatory actions</b>	2008-2010	Very low resolution	Limited coverage	53 organisations most coastal Member States
<b>Integrated maritime policy financial regulation</b>	2012	Low resolution	All European sea basins	➤ 100 organisations all coastal Member States
<b>European Maritime and Fisheries Fund</b>	2014-2020	High resolution	All European sea basins.	



# MARITIME AFFAIRS

European Commission > Maritime Affairs > Policy > Marine knowledge 2020

Maritime Affairs
 Fisheries
 Atlas
 Forum
 12
 Share

Maritime Affairs

Search

[http://ec.europa.eu/maritimeaffairs/policy/marine\\_knowledge\\_2020/index\\_en.htm](http://ec.europa.eu/maritimeaffairs/policy/marine_knowledge_2020/index_en.htm)

- › **Integrated maritime surveillance**
- › **Sea basin strategies**
- News
- Events
- Financial assistance
- Documentation
- About us

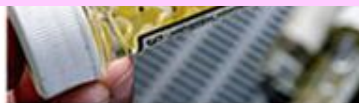
### Help us improve

Find what you wanted?

- Yes
- No

What were you looking for?

- effective use of them to develop new products and services.
- Improving our understanding of how the seas behave.



### Why EU-level action?

National data do not tell us all we need to know about the seas as a global system connected by shifting winds, seasonal currents and migrating species; analysis at European level is essential.

The integration of different national and local systems into a coherent whole has been driven by the EU. Its explicit powers in fields like fisheries, the environment, transport, research, enterprise and industry enable it to provide funding and legislate for marine knowledge 2020.

### How does it work in practice?

Through the prototype websites of the [European Marine Observation and Data Network \(EMODNET\)](#), engineers and scientists can see what data are available for a given sea basin, and download both original observations and derived data products such as digital terrain models, sediment distributions and marine habitats.

### More on marine data

[more keywords](#)

### News

**08/10/2012 - [New Maritime Agenda for growth and jobs adopted](#)**

A European agenda for creating growth and jobs in the marine and maritime sectors was adopted today by European Ministers for maritime policy and the European Commission, represented by President ...

**13/09/2012 - [Blue Growth: Commission presents prospects for sustainable growth from marine and maritime sectors](#)**

To make it through the crisis, Europe needs the contribution of all sectors of its economy. In a Communication on