

# European Commission views and priorities in the Mediterranean Sea: R&D perspectives

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# Maritime Policy fits in broader R&D context

- Policy issues – climate, biodiversity (IPCC, CBD)
- Big Science – complex, global, decadal (IODP, NoEs, ERANets)
- Sustained observation – (GEOSS, GMES, EuroGOOS)
- Infrastructure – cost and access, ESFRI (EMSO, ARGO, LIFE WATCH, Aurora Borealis)
- Skills – (Marie Curie, ERC)
- Business innovation – Knowledge transfer, Lisbon Agenda..



# Green paper: a European vision for the oceans and the seas

Marine research and technological development has been identified by the Commission as a key component of a future Maritime Policy for the EU.

**This is recognised in both the Green Paper, “Towards a future maritime Policy for the Union: A European vision for the oceans and seas”,**

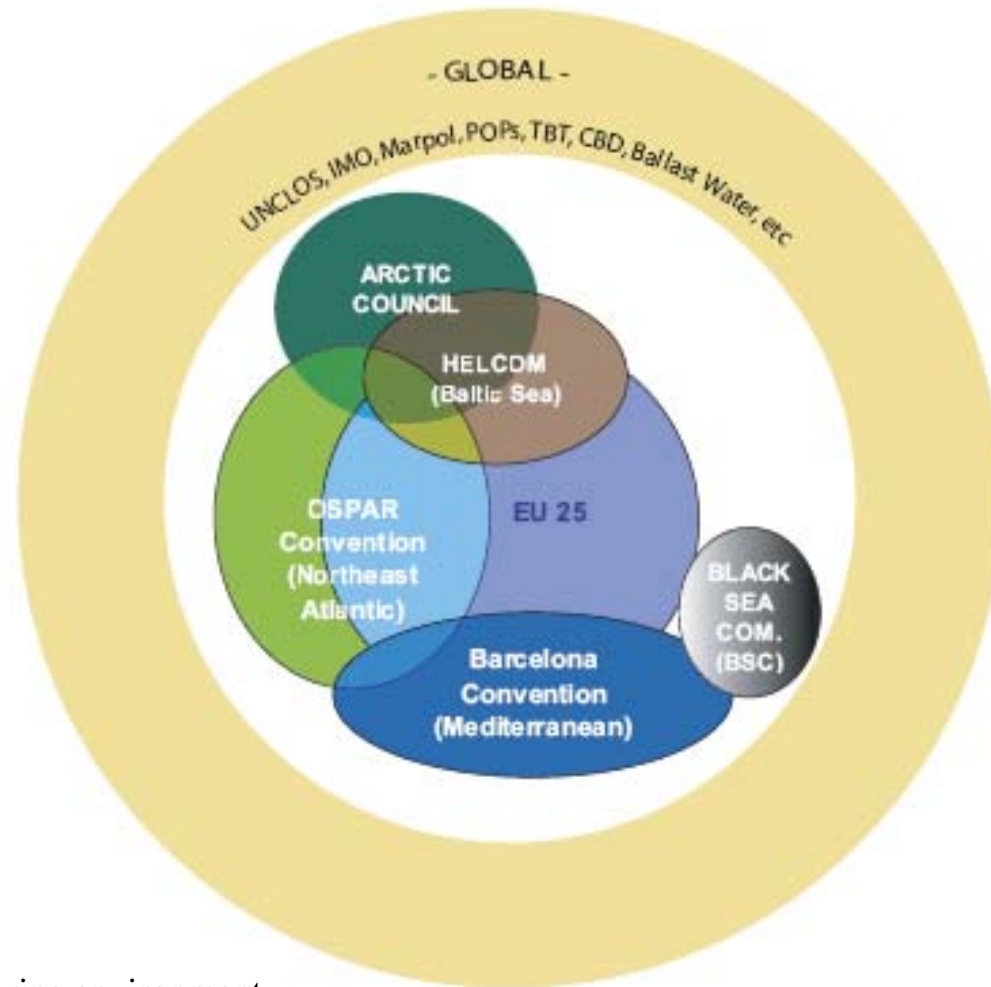
**and in the Commission’s overall strategic objectives for 2005-2009, where the Commission notes that:**

**“an all-encompassing maritime policy should be supported by excellence in marine scientific research, technology and innovation”.**

# Examples of EU Policies referenced in the Green Paper

- **Support to EU Common Fisheries and Regional Dev. Policies**
- **The 6th Environmental Action Plan, incl. the marine strategy**
- **Habitats Directive and Natura 2000 network**
- **Observation of the state and evolution of the global environment, including climate change (GMES & GEOSS)**

# The Institutional Framework for the protection of Europe's Seas and Oceans



Source: EU thematic strategy on the marine environment

# Maritime Policy - R&D issues

## Green paper Consultation process (1)

### Some conclusions:

The need for an holistic European Maritime Policy [EMP] welcomed, should be based on high quality RTD and innovation.

- ✓ Integrated **Maritime and Marine Science, Research, Technology and Innovation Strategy** needs to be developed.
- ✓ Collection, archiving, analysis, interpretation of, and access to, **spatial and time series data**
- ✓ Requiring the building of **partnerships** between all stakeholders from the marine and maritime sectors
- ✓ **Strengthening** the links and levels of co-operation between EU research initiatives and Member State research programmes, the research community, industry and others.

# Maritime Policy - R&D issues

## Green paper Consultation process (2)

- ✓ Reducing **unnecessary duplication** and fragmentation (use of ERA-NETs, Technology Platforms and Article 169 considered)
- ✓ Support for the creation of a **Network of Networks** with a co-ordinating role able to encourage and enhance the rapid exchange of information across the European research community, using as its base, and strengthening, existing Networks and other research structures
- ✓ **European Monitoring and Observation Data Network [EMODNet]** supported by the research community
- ✓ Reinforce **cooperation** with neighbouring countries bordering seas such as the Baltic, the Black Sea and the Mediterranean.

Wide range of responses received from 487 marine & maritime stakeholders (14% science organisations)



## Maritime Policy “Blue Book”

The Blue package includes a Vision, and an Action Plan to be carried out by the Commission in cooperation with MS and the different stakeholders

- Will concretise the vision of a European Maritime Policy, based on an **EU research strategy** delivering excellence in marine research, science and technology, in a spirit of **partnership** between scientific community, the industry and policy makers.
- Launching in 2008 of a **Communication** of the Commission on "Marine and maritime related research strategy" will certainly make these orientations concrete with a view of boosting a research sector which can bring a lot to Europe.



# Maritime Policy - R&D issues Blue Book (2)

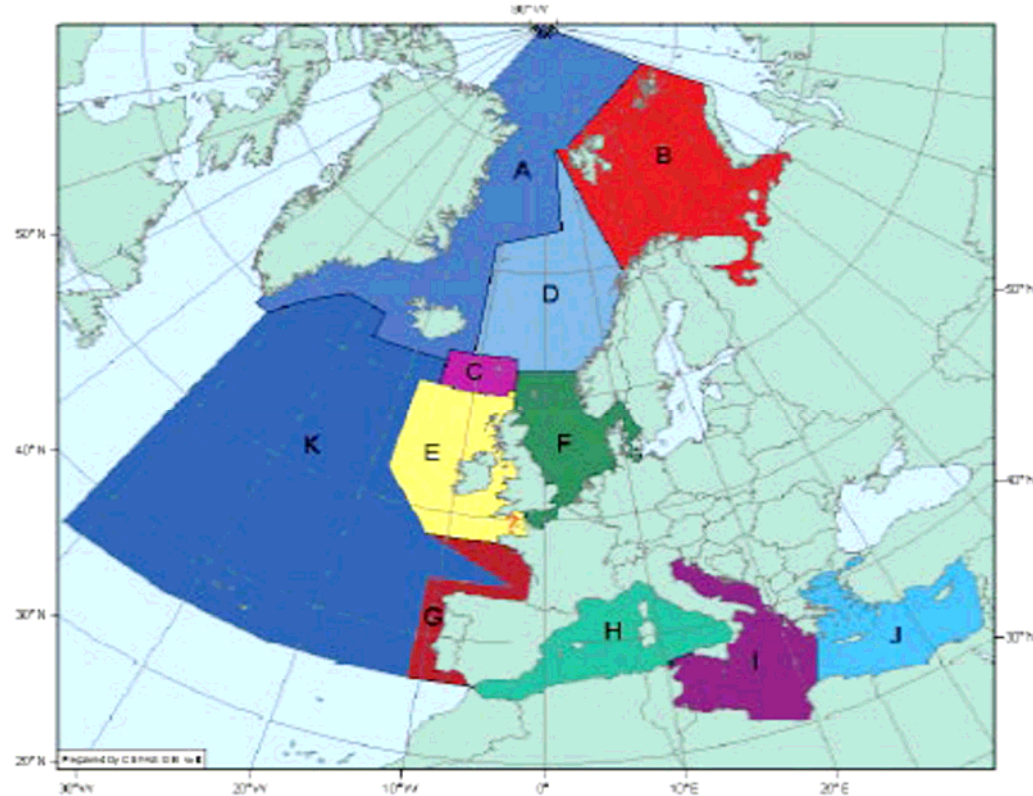
## Some political priorities of the Blue Book:

[http://ec.europa.eu/maritimeaffairs/index\\_en.html](http://ec.europa.eu/maritimeaffairs/index_en.html)

- Marine spatial planning / integrated management of sea space
- Predicting and mitigating impact of climate change, particularly on coastal regions
- More sustainable maritime transport
- Sustainable exploitation of marine resources, Networking maritime surveillance
- Maritime / Marine clusters
- International cooperation  
(Importance of Mediterranean, Black sea and potential of outermost regions)

***The ecosystem approach is a central principle***

# Marine Eco-Regions in Europe



Marine Eco-Regions proposed by ICES for implementation of the ecosystem approach in European Waters: (H) Western Mediterranean (I) Adriatic-Ionian Seas (J) Aegan-Levantine Seas



EUROPEAN  
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Community research

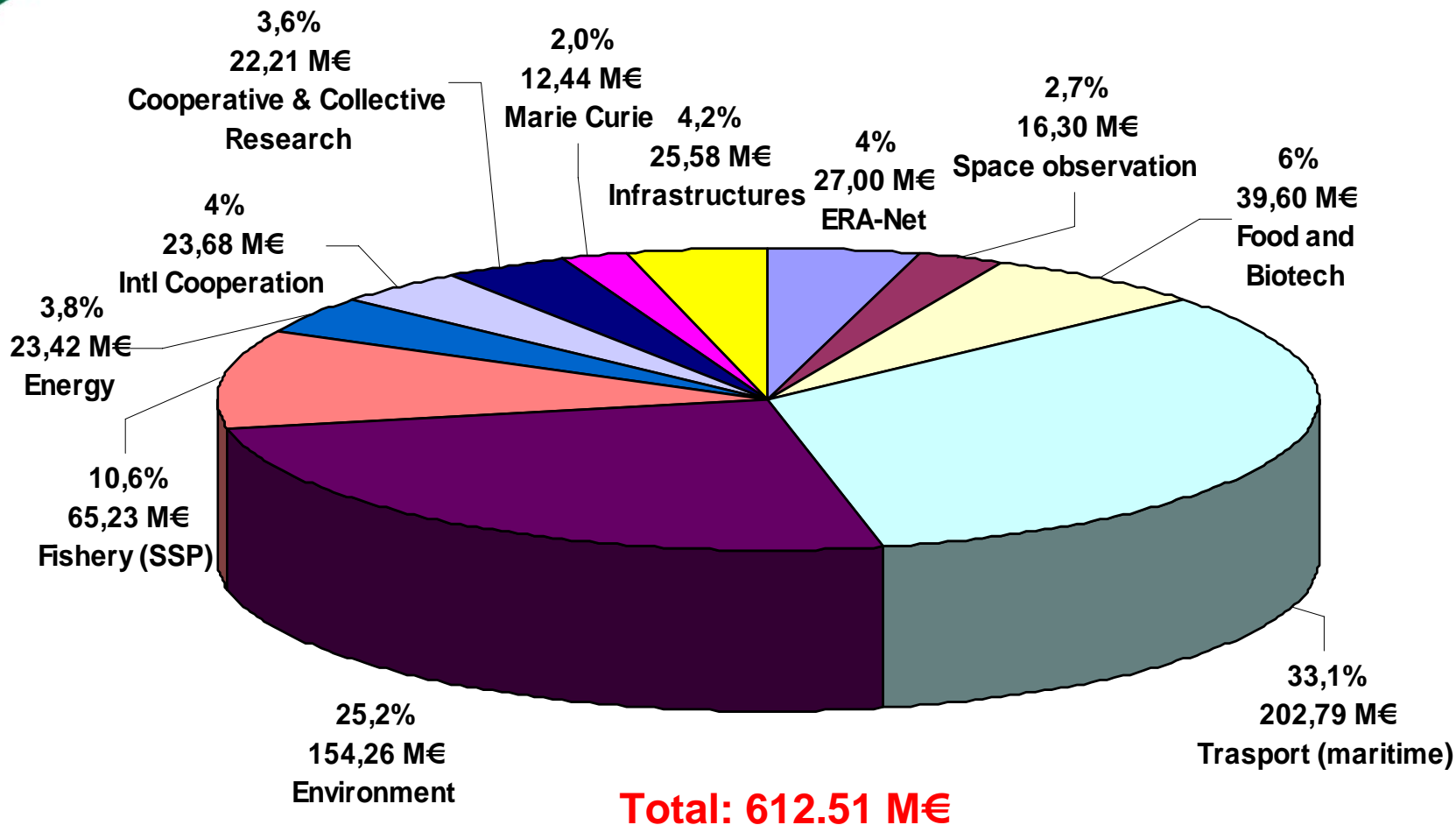
# The 7<sup>th</sup> Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013)

## BUILDING THE EUROPE OF KNOWLEDGE

ENVIRONMENT (including Climate Change)



# Follow-up on past programmes: European Community funding of Marine related R&D in FP6



ENVIRONMENT (including Climate Change)

4 Specific Programmes	Budget in M€
<i>Cooperation—Collaborative research</i>	<i>(44 432)* 32 413</i>
<i>Ideas—Frontier Research</i>	<i>(11 862)* 7 510</i>
<i>People—Human Potential</i>	<i>(7 129)* 4 750</i>
<i>Capacities—Research Capacity</i>	<i>(7 486)* 4 097</i>

+

JRC (non-nuclear)	1 751
JRC (nuclear)	<i>for 2007-2011 517</i>
Euratom	<i>for 2007-2011 2 234</i>

\* Initial Commission Proposal

Total EC Budget: **M€ 50 521**

Total Euratom Budget (2007-2011): **M€ 2 751**

## Annual budget:

~ 40% increase compared to FP6 on average

75% real terms increase between 2007 to 2013

# Cooperation—Collaborative Research 10 Themes

1	Health	6100
2	<b>Food, Agriculture and Biotechnology</b>	1935
3	Information and Communication Technologies	9050
4	Nanosciences, nanotechnologies, materials and new production technologies	3475
5	<b>Energy</b>	2350
<b>6</b>	<b>Environment (including Climate Change)</b>	<b>1890</b>
7	Transport (including Aeronautics)	4160
8	Socio-economic Sciences and the Humanities	623
9	Security	1430
10	<b>Space</b>	1400
	<b>TOTAL</b>	<b>32413</b>

*Budget in M€*

- ✓ Environment has links with all the other themes
- ✓ Attention to cross-thematic subjects (e.g. marine science and technology)

**ENVIRONMENT (including Climate Change)**

# FP7 WORK PROGRAMME *Research topics in 2007 call*

## *In Theme 2: Food, Agriculture and **Fisheries**, Biotechnology*

- Sustainable production and management of biological resources from land, forest, and **aquatic environments**.
- Optimised animal health, production and welfare, across agriculture, **fisheries and aquaculture**.
- Fork to farm: Food (including **seafood**), health and well being.
- Life sciences, bio-technology and bio-chemistry for sustainable non-food products and processes.

*This includes **marine bio-mass production**.*



# FP7 WORK PROGRAMME *Research topics in 2007 call*

## *In Theme 5: Energy*

- Renewable electricity generation.

*This includes **ocean (e.g. wave, tidal) power** and hydropower*

## *In Theme 9: Space*

- Global Monitoring for Environment and Security (GMES).

*This includes handling of **natural disasters and Marine Services**, development of space-based and in situ **systems for ocean monitoring** and crisis management.*

*In the environmental domain: **fishing, conditions of seas.***

# FP7 Environment Work Program

## *Examples of research topics in 2007 call*

### Management of Marine Environments

- ✓ Ecology of important marine species
- ✓ Habitat-marine species interactions in view of ecosystem based management in the deep-sea
- ✓ Dynamic of marine ecosystem in a changing environment
- ✓ Investigating life in extreme environments
- ✓ Fostering improved co-operation between marine science and the private sector

### Earth and Ocean Observing Systems

- ✓ Monitoring of the carbon cycle on a global level
- ✓ Monitoring the ocean interior, seafloor and sub-seafloor

## *6.1.1. Pressures on environment and climate* ***Examples of topics—Provisional***

### **Area 6.1.1.1. The Earth System and Climate: Functioning and abrupt changes**

- **Sea-Level Rise: Trends in contributions from continental ice, processes and links to climate change**

*Funding scheme: collaborative project (large-scale integrating project)*

### **Area 6.2.2.1. Marine resources**

- **Monitoring and Evaluation of Spatially Managed Areas**
- **Deep-Sea Ecosystems**
- **Ecosystem approach to marine environment and resource**

*Funding scheme: collaborative project (large-scale integrating project)*

***Examples of topics—Provisional***

**Area 6.3.1.6. Marine environment**

**Development of automated sensing technologies for estuaries, coastal areas and seas**

*Funding scheme: collaborative projects (small- or medium-scale focused research projects)*

**Area 6.4.1.2. Cross-cutting research activities relevant to GEO**

**Monitoring and observing oxygen depletion throughout the different Earth system components**

*Funding scheme: collaborative project (small or medium-scale focused research projects)*

**Area 6.4.1.4. Developing capacity building activities in the domain of Earth observation in the new EU countries and in the developing countries**

**Developing necessary research activities for capacity building relevant to Earth Observation and GEO in the Black Sea basin**

*Funding scheme: collaborative project (large-scale integrating project)*

## Potential Research Topics :

1. Improve Communication and further exploitation of scientific results
2. International cooperation
3. Address emerging needs e.g. Marine genomics
4. Infrastructure – ESFRI list
5. Major challenges: climate change, biodiversity
6. Further structuring the research community by strengthening the partnerships with Eranets, Noe, etc.
7. Sea observation systems – GEOSS (to be linked with the EMODNet of the blue paper)
8. Deep sea observatory
9. Urban, coastal, rural, land-sea relationships and uses.

# *Tools*

## **International Co-operation**

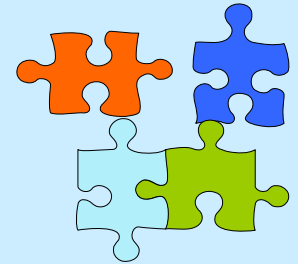
- **Enhanced participation of researchers and research institutions from third countries.**
- **Specific cooperation actions dedicated to third countries.**
- **In particular:**
  - **reinforcing the research capacities of candidate and neighbourhood countries;**
  - **cooperative activities targeted at developing and emerging countries, focusing on their particular needs (fisheries and environment included).**

# Tools

## Coordination of national programmes

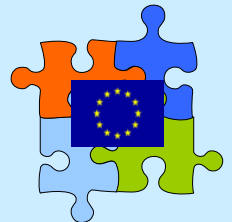
### ERA-NET

- Like in FP6: Coordination of programmes
- ✓ MS agree and fund joint calls/programmes
  - ✓ EU funding only for coordination



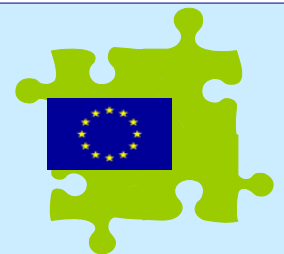
### ERA-NET Plus

- New in FP7: To up of a single joint call
- ✓ MS contribute to a joint trans-national call 2/3
  - ✓ EU funding for research: 1/3 of the joint call



### Art. 169

- Full integration of national programmes
- ✓ Scientific and financial: strong EU funding
  - ✓ Single implementing structure





## Information sources

- **FP6 Global Changes and Ecosystems**  
*<http://cordis.europa.eu.int/sustdev/environment/home.html>*
- **FP7 Environment Programme**  
*[http://cordis.europa.eu/fp7/environment/home\\_en.html](http://cordis.europa.eu/fp7/environment/home_en.html)*
- **FP7 calls**  
*<http://cordis.europa.eu/fp7/dc/index.cfm>*
- **Maritime Policy**  
*[http://ec.europa.eu/maritimeaffairs/index\\_en.html](http://ec.europa.eu/maritimeaffairs/index_en.html) (blue book)*



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Community research

# Thank You!

**ENVIRONMENT (including Climate Change)**



SEVENTH FRAMEWORK  
PROGRAMME

Slide 24