



## **The Marine Board - ESF and the integration of priorities in European Marine sciences**

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The Marine Board - ESF, with its current membership of 25 marine research organisations from 17 European countries, encompasses the appropriate representation to provide a unique forum for marine science policy issues at the European level and to act as a voice for the European Marine Science community.

In an effort to provide an integrated view of current challenges in European marine sciences, the Marine Board has recently published its latest position *Navigating the Future III* that represents an important tool for developing a joint European strategy for marine research. It documents the most important thematic research priorities for Europe, taking into account the priorities not only of FP7 and the pending European Maritime Policy, but also the objectives of national research programmes, the European Marine Environment Strategy and the Galway Declaration 2004.

This effort considers Marine Sciences in the broadest way: it considers the societal dimension, marine resources, maritime transport, coastal environments, biodiversity, climate, new frontiers in sciences, technologies and research infrastructures. Within this framework, the Marine Board-ESF identified some major spatial-temporal trends, opportunities and challenges for scientific progress in the years to come:

Climate change and the oceans - towards enhanced detection and assessment of impacts of climate change on the oceans, particularly on ocean ecosystems;

Continental margins - including specific issues on sediment instabilities, gas hydrate behaviour, deep-sea ecosystems, and the necessity to further develop and implement deep-sea observatories;

Marine biodiversity - its functional role, evolution, protection and exploitation, the

latter including biotechnology and bioprospecting;

Coastal ecosystems - specific perspectives concerning toxic algae, viruses, and the ecotoxicological and health impacts of pollutants; - development of coastal and marine spatial planning initiatives;

Ecosystem approach to resource management - inclusive of the ocean and its intrinsic resources (including renewable energy), as required by fisheries, aquaculture, harbour development, and addressed in coastal zone management and marine spatial planning;

Operational oceanography - within the framework of GMES (Global Monitoring for Environment and Security), as a major tool for seasonal climate prediction, risk assessment, prediction of coastal algal blooms and impacts of pollution incidents, and support to maritime security; - real-time access and exchange of in situ data from various observing platforms;

Marine technology - through the development of in situ observing systems, of software for data processing and numerical modelling, as well as material and systems for maritime activities, and technology transfer between disciplines;

Marine infrastructures - towards innovating systems and an enhanced use of resources.