

2<sup>nd</sup> European Innovation Policy Conference , 16 June 2011

## The 'MARCOM+' initiative

### 'Towards a Common Vision of the Marine and Maritime Science and Technology Community'

Adolf Kellermann, ICES Head of Science Programme

and Coordinator of MARCOM+



2<sup>nd</sup> European Innovation Policy Conference , 16 June 2011

## September 3<sup>rd</sup> 2008 Communication

The European Commission launched its:

'European Marine and Maritime Research, Technology and Innovation Strategy'

Objective: create a coherent European Research Area framework in support of a sustainable use of oceans and seas'

To be implemented under the Integrated Maritime Policy (IMP)

To focus on European Seas but also include the EU Shared Seas

2<sup>nd</sup> European Innovation Policy Conference , 16 June 2011

## Why have a strategy for M/M Research, Technology and Innovation?

stimulation of **innovativeness** primary concern to secure Europe's position in the world,

Integrated Maritime Policy (IMP) calls for intensified **cooperation** between the marine and the maritime research communities in Europe to create **synergies**

conceptual framework also drawn from the **environmental** (marine) perspective,

Building a **knowledge and innovation** base on which to further develop,

Delivering the highest quality of life in **coastal regions**

2<sup>nd</sup> European Innovation Policy Conference , 16 June 2011

## What's the goal?

The European Commission proposed support of a new governance model for M/M research that will take the form of a partnership to advise the EC



**MARCOM+**  
Integrating Marine & Maritime Science Communities

A Forum  
sustainable  
M/M r

nership  
ving existing  
partners

## An ambitious goal: who are the key partners? (1/2)

“The maritime research sector”: a diverse community

- transport and distribution sectors (shipyards, shipping lines, equipment suppliers, installation facilities, ports),
- offshore operations: mineral extraction, oil & gas, mining (trace metals, sulphides),
- fisheries and aquaculture,
- biotechnology: “genetic mining”
- naval activities
- touristic activities: cruise ships, sport boats
- coastal engineering



## An ambitious goal: who are the key partners? (2/2)

“The marine research sector”: another diverse community

- governmental research and universities
- applied science: fisheries and aquaculture management
- applied science: environmental impacts
- basic science: ‘biodiversity’ (from molecules to ecosystems)
- ocean physics, ocean chemistry and hydrology
- marine climatology
- marine geology
- operational ocean monitoring



## What drives research priorities? The maritime world

The **maritime industry** comprises diverse **activities** which potentially have **effects** on the marine environment

These activities imply research needs, because the goal is:

- to achieve competitiveness
- to run safe, sustainable and efficient operations
- to position the maritime industry to meet future challenges
- it is aiming at cost-efficiency, operating at short time scales (project) albeit with long term objectives

## What drives research priorities? Marine Science (1/3)

**Understanding** ecosystems: how they function, how they change

- ecosystem observation (field surveys, new technologies, observatories)
- data integration and assimilation
- models (IBM, E2E, ecosystem scale)
- quantifying goods and services
- decadal to century scale time series
- variability, scales and change

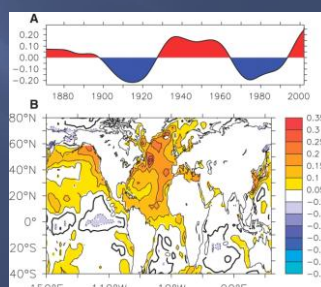
**Curiosity!**



## What drives research priorities? Marine Science (2/3)

Monitoring and assessment of **impacts** of human activities on the oceans and their changing environments:

- humans are part of the ecosystem
- mitigation of impacts, adaptation to changes
- quantify uncertainty in the information
- integrate the social and economic sciences



## What drives research priorities? Marine Science (3/3)

Develop options for **sustainable use** of the oceans:

- develop management tools for human activities
- identify governance issues
- holistic approach in support of the EAM needed
- provide the knowledge for meeting the challenges of tomorrow: the food challenge, ocean energy, biotechnology, non-renewables
- integrate ecosystem models with socio-economical models
- Marine Spatial Planning



## The role of science in the marine and maritime worlds

### Marine and maritime research: **distances** and **commonalities**:

- technology – driven: exploit what's possible!
- legitimacy of science for stakeholders: increasing confidence in policies
- credibility of science: reconciling and integrating knowledge leads to better information for all
- saliency of science: extends R&D knowledge in ways that support policy needs

## The goal of MARCOM+

to establish a sustained partnership Forum

(**European Marine and Maritime Science and Technology Forum**)

How to bring the research communities together?

=> Test of various dialogue and cooperation mechanisms.



## MARCOM + Consortium: Who are we?

- Coastal and Marine Union (EUCC)
- Waterborne Technology Platform (by CESA)
- European Council for Maritime Applied Research and Development Association (ECMAR)
- European Aquaculture Technology and Innovation Platform (EATIP)
- European Fisheries and Aquaculture Research Organization (EFARO)
- European Global Ocean Observing System (EuroGOOS)
- International Council for the Exploration of the Sea (ICES)
- Marine Board European Science Foundation (ESF-MB)
- European Network of Marine Research Stations (MARS)
- Mediterranean Science Commission (CIESM)

! representing all M/M research networks in Europe !

## What matters: Develop a common vision! (1/4)

### To achieve and sustain clean, healthy and productive oceans:

- clean      ➡      seafood and human health
- healthy   ➡      ecosystems, coastal communities
- productive ➡      sustainable economies

## What matters: Develop a common vision! (2/4)

### Achieve a competitive environment for maritime activities in European Seas

- providing the knowledge base of marine and maritime research to create innovation as a vehicle for sustainable development
- create job opportunities for the marine world
- create market opportunities for the maritime world
- science made by people for the people!
- achieve a common understanding of sustainability

## What matters: Develop a common vision! (3/4)

### Europe is leading in environmental standards: turn this into an opportunity and a competitive advantage

- exploit the leading edge of environmentally friendly technologies for export opportunities
- "green" and clean ship (incl. ballast water)
- ocean energy and other offshore operations
- coastal engineering ("building with nature")
- sustainable fisheries and marine aquaculture



## What matters: Develop a common vision! (4/4)

**The ocean is a changing environment. Change means uncertainty. Uncertainty can be quantified!**

Help to develop tools to **adapt to changes**:

- of the climate regime, atmosphere and oceans
- “economical regimes” (trade, policies, governance)
- behavioural changes (e.g. due to fuel prices, subsidies)

## Areas of common interests for future cooperation (1/2)

Aquatic living resources (sustainability, coastal and sea-based aquaculture, capture fisheries, transport and processing, future vessels);

Ocean energy (synergies between ocean energy/fisheries and aquaculture, green off-shore installations, cost-effectiveness);

Ocean resources for blue biotechnology (pharmaceuticals, material research for maritime products);

Impact of climate change on maritime activities;

## Areas of common interests for future cooperation (2/2)

Human activities and impact on ecosystems (resilience, vulnerability, marine litter);

Maritime spatial planning (incl. building with nature, coastal architecture and maintenance);

Human health and wellness (from the oceans);

Non living sea resources (incl. extraction technologies);

Maritime transport and non-native species.



## 'Clients' of the MARCOM Forum

The Forum will guide the implementation of the **European Strategy for Marine and Maritime Research**, and assist in development and implementation of the integrated **EU Maritime Policy** and the implementation of the **MSFD**.



European Commission  
**RESEARCH**



European Commission  
Directorate-General for Maritime Affairs and Fisheries



European Commission  
**Environment**



2<sup>nd</sup> European Innovation Policy Conference , 16 June 2011

## www.MarineMaritimeScienceForum.eu



2<sup>nd</sup> European Innovation Policy Conference , 16 June 2011

## Thank you for listening!

