



MARCOM+

Integrating Marine & Maritime Science Communities

MARCOM+ 1st Interdisciplinary Dialogue Across Science /
Research Infrastructure Development

joint panel meeting

29 November - 1 December 2010

Zandvoort aan Zee, The Netherlands

report

Chairs: Adi Kellermann (ICES, Denmark) and Mike Thorndyke
(MARS, Sweden)

Participants: Franciscus Colijn, Ana-Tersa Caetano, Amy Diedrich, Job
Dronkers (day 2), Patrick Farcy, Herman Hummel, Adi Kellermann,
Dennis Lesbjerg, Maria Lifentseva, Kostas Nittis, Pierre Poulain, Sla-
womir Sagan, Mike Thorndyke, Wojciech Wawrzynski,

Monday, 29 November 15:00–18:00

1. Introduction

Adi Kellermann, the MARCOM+ coordinator, welcomed the participants to the meeting and invited them to present themselves during a tour de table.

Adi Kellermann presented the current state-of-the-art of the initiative, its background, concept, tools and progress. The introduction was followed by questions and additions. The agenda for the meeting was adopted.

2. Role of the IDDAS (Interdisciplinary Dialogue Across Science)/ RID (Research Infrastructure Development) panels

The meeting was continued by presentation on the role of the IDDAS & RID panels (Kostas Nittis).

The IDDAS panel mission

To explore the links and synthesize the capacities and priorities of the various actors / components of marine and maritime research in Europe in order to:

- Identify initiatives and potential for synergies that could lead to more interdisciplinary research
- Explore mechanisms to implement this interdisciplinary approach through increased collaborations
- Identify priority issues that call for interdisciplinary and cross-sectoral research
- Contribute to more integrated research agendas for Europe

The RID panel mission

To provide a more coordinated approach to the development of marine research infrastructure by:

- Mapping and analyzing the existing initiatives and identifying synergies and gaps
- Identifying new priorities in collaboration with other panels and through the other mechanisms of the Marine Research Partnership
- Proposing new mechanisms for joint investments and sharing infrastructures between marine and maritime research organizations including the industry
- Establishing a dialogue with the funding agencies (through the new overarching marine EraNET) in order to harmonize with national priorities and secure implementation of the new priorities
- Coordination with the various marine related ESFRI projects of which there are e.g. EMBRC, EMSO, Eur-Argo, Aurora borealis, LifeWatch, etc.

Tuesday, 30 November 9:00–16 :00

1. Actors and Initiatives

The main science actors/networks that are relevant to MARCOM+ are quite well known. The networks/actors related to the applied science/policy and industrial sectors are more difficult to be identified and attracted by the project. Moreover, many science networks act at a European wide scale, whereas the applied/policy/industrial sector often works at national / regional level which may hamper the communication and collaboration between fundamental science and applied/policy sector.

In addition, MARCOM+ might adopt the "think global, act local" view in our approaches to link the different networks (we should not forget that at the basis of most actions and networks are the national institutes). For identifying synergies between actors and networks we need in MARCOM+ a clear, independent science component, as could maybe be reached through the same working group mechanism as used by ICES. MARCOM+ structures should also be ready respond to the more and more top-down pressure on science stemming from policy makers and political demands.

2. SWOT Analysis

MARCOM+ for Interdisciplinary dialogue across science

Strengths

- Representativeness of marine and maritime research sectors
- High level of organization on the marine side, functioning networks
- Great competence and diverse disciplines gathered in organizations, key players represented
- Worked examples of interdisciplinary cooperation on record and inherent in the partnership
- Responding to questions driven by policy needs
- "holistic approach"

Weaknesses

- Weak on social and economical sciences, industrial networks linkages (e.g. energy sector)
- Lack of interaction with the Law of the Sea interests, legal implication of support of directives (e.g. NATURA 2000)
- Not sufficient incentives offered for improved participation of maritime research

- Lack of linkages with networks representing research needs from land-based impacts (only ports, shipyards, mariculture, “coastal activities” on board)
- Different structures present in marine and maritime networks (across national borders)
- Lack of broader communication

Opportunities

- Establish *THE* forum for integrated marine and maritime research agenda, promote recognition and efficient use of the forum
- More efficient use of funding and existing knowledge (data, expertise)
- Increase communication between all relevant partners
- Live up to the project expectations to MARCOM+ to establish solutions to meet future challenges
- Integrated approach to technological progress
- Provide the means for efficient communication between user needs and research output
- Promote growth by respecting ecosystem “values”
- Boost for marketing of knowledge
- Bring together public and private funding
- Provide the means for raising governance issues
- Develop visions even without funding opportunities

Threats

- Policy needs do not often match long-term research agenda
- Research funding is sectoral
- Insufficient recognition of the MARCOM+ activity / Forum amongst the science communities so far
- Value of bottom-up driven research not sufficiently recognized
- Develop independently from other relevant activities
- Hampering dialogue between sectors, among disciplines

MARCOM+ for Research Infrastructure Development

Strengths

- High level of organization on the marine side, functioning networks
- Great competence and diverse disciplines gathered in organizations, key players represented
- Responding to requirements driven by implementation of research needs
- Cooperation with SEASERA

- Match of long-term perspective with long-term investments needed for infrastructure
- Facilitate transnational access, efficient exploitation of infrastructure resources

Weaknesses

- Weak on industrial / maritime research networks linkages (e.g. energy sector)
- Lack of interaction with LoS interests, legal implication of support of directives (e.g. UNCLOS)
- Not sufficient incentives offered for improved participation of maritime research
- Lack of linkages with networks representing research needs from land-based impacts (only ports, shipyards, mariculture, “coastal activities” on board)
- Different structures present in marine and maritime networks (across national borders)
- Lack of broader communication
- Mostly national commitments at present, move to international/European scale

Opportunities

- Establish *THE* forum for integrated marine and maritime research agenda, promote recognition and efficient use of the forum
- More efficient use of funding and existing capacities
- Increase communication between all relevant partners
- Live up to the expectations to MARCOM+ to establish solutions to meet future challenges
- Provide the means for efficient communication between research needs and technology development and output
- Boost for marketing of knowledge
- Bring together EU and national as well as private funding
- Provide the means for raising governance issues
- Recognition of the importance of infrastructure
- Promoting unique marine European ocean observatories (“EU Sealab”) as integral part of Earth observing systems
- Create opportunities for EU maritime industry to take the lead
- Coordinate m/m approach to infrastructure development (i.a. ESFRI) with funding agencies
- Improved integration and harmonization between different types of field observations

- Promote technical standards for research gear and methodologies
- Increase the demands for developing new technologies
- National research budgets proportional to share of resources
- Develop visions even without funding opportunities

Threats

- infrastructure funding is mostly national but must be sustainable
- infrastructure development in an uncoordinated way
- insufficient recognition of the needs so far
- independent developments from other relevant activities
- lack of systems sustainability (funding, governance)
- the civil market is limited

3. Marine and maritime science priority issues and cooperation mechanisms

- 1) Sea food – mariculture, capture fisheries, distribution, marketing, transport, processing, sustainability of all operations, consumer behaviour and demand, under changing environments, production of values in the secondary etc. sectors, benchmarking;
- 2) Ocean energy – affordable, eco compliance;
- 3) Blue biotechnology and material research – new components for industrial purposes; new resources (CIESM workshops);
- 4) Combined efforts and expertise on addressing global change issues – ocean and ecosystem observatories, assessments, E2E carbon flux, indicators and sensors, developing new tools;
- 5) Integrated coastal observatories – instrumentation of observing bottom near water exchanges, online zooplankton observation, camera observation of fish behaviour; telemetry etc.: underwater node with online access (Action: Fransiscus Colijn, Herman Hummel, Mike Thorndyke, Amy Die-drich, Pierre Poulain, Kostas Nitis);
- 6) Integrate ocean observations with experimental forecasting studies (e.g. mesocosms);
- 7) Look into ecosystem properties, e.g. resilience, vulnerability, and resulting requirements for input from different disciplines (with observatories);
- 8) MSP and its science and tool box;
- 9) Human activities and impacts on ecosystems;
- 10) Use of the oceans and human health;
- 11) Marine litter – removal, development of new degradable material;
- 12) Biomass from the sea;

- 13) Solar energy from the sea;
- 14) Mechanisms to set up joint programmes and activities are needed; how can MARCOM+ set up those mechanisms; Science-based decision-making support systems, e.g. indicators and communication tools for decision-makers, crisis management tools, risk analysis and its tools;
- 15) Exploit communication tools, building on existing attractiveness of the oceans.

Wednesday, 1 December 08.30–11.00

Highlights of discussions and main conclusions:

The SWOT analysis and priorities will provide basis for identification of mechanisms (next panel meeting). Strong representativity of maritime sectors is envisaged for the next meeting. The group should further explore mechanisms of how to bring in the ESFRI experiences.

The groups made first attempts to recommend mechanisms of future functionality of the Marine and Maritime Science and Technology Forum. The model of European Platform for Biodiversity Research Strategy with two representatives per country for policy and science may be considered as a pattern. However a caveat was raised that the model should not end up with annual 'routine' meetings, as is currently the case in the EPBRS. It should be individual organizations funding expert participation in the MARCOM Forum meetings. This will happen once the future Forum is recognized by the partners as the marine-maritime science advisory structure.

Actions to be taken before the next meeting:

Franciscus Colijn and **Pierre Poulain** will work out a two-pager on infrastructure for oceanic and coastal observatories (priority cross-cutting issues) - deadline 25 January. This will be circulated electronically and will feed the discussions during the next IDDAS/RID panel meeting.

Ana-Teresa Caetano will contact the Coordinator with Ms. Corrine Lepage (Chair of the European Parliament Intergroup on Seas and Coastal Affairs) – the **Coordinator** will update Ms Lepage with MARCOM+ developments and investigate opportunities of cooperating with that group.

Efforts will be taken to arrange presentations of a social scientist, economist and a lawyer (LoS) at the next meeting. **Amy Diedrich** will present possibilities of social-science input to marine and maritime science dialogue.

The Coordinator will make sure reports of panel meetings and project workshops (e.g. CIESM workshop on 'new partnerships in blue biotechnology and maritime transport research') will be made available to panel experts prior to future meetings.

Second meeting of the two groups will be held jointly in April 2011, tentative invitation to Palma, Spain from SOCIB has been received.

ICES will share progress in ICES Science Programme on MSP and its science with the panels, once it becomes available.