

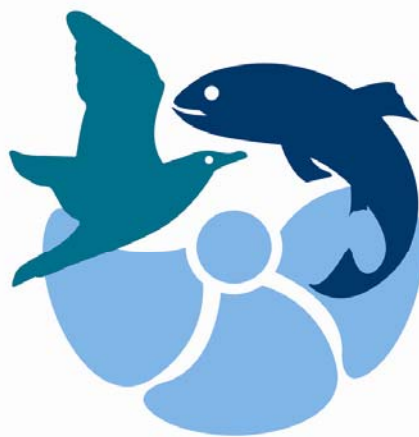
MARCOM+

Towards a European Integrated Marine and Maritime Science Community

Grant Agreement No.: 244060

Deliverable D 1.1 Setting the Policy Scene

FORCE Technology Project No. 110-20737



MARCOM+

Integrating Marine & Maritime Science Communities



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Deliverable D1.1 Setting the Policy Scene

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Executive summary

We are at a crossroad in our relationship with the oceans. The interaction between the population, industry, society and the seas are more intense, more varied, and create more value for Europe than ever before. The challenges faced are both in relation to the sustainable use and the exploitation of the oceans and seas. The importances of these challenges are already reflected in various European policies, but they are based on a sector by sector approach.

The aim of this rapport is to define the policy scene regarding EU research governance development in relation to the integrated marine/maritime policy. EU policies and other relevant documents will be examined in areas such as environment, climate change, energy, research, transport and fisheries that have a direct bearing on the need for a European Marine and Maritime Partnership community. The rapport will reveal the need for an integrated Marine and Maritime research community.

A systematic literature review of EU documents and scientific articles was conducted and 62 documents were selected. The data was categorized in three groups: 8 documents concerning the main policy development, 31 documents concerning a close relation to the main policy, and 23 documents with a peripheral relation to the main policy.

A red thread was found, starting from the “Lisbon Strategy” focusing on state of the art research with cross sectoral approaches.

This was followed by the “Seventh EU Framework Program for Research and Technological Development” with a special attention to cross-cutting priority areas such as marine science and technologies.

The Green Paper “Towards a future Maritime Policy for the Union” adapted 7 June 2006 was the starting signal for a one-year consultation on an EU Maritime Policy. The consultation process highlighted how much Europe’s prosperity relies on the availability of safe and efficient shipping services. Their efficiency is crucial for the competitiveness of the EU in a globalized world. Stakeholders are in favour of an integrated approach to Maritime Policy in the European Union, because it integrates the needs and concerns of liked sectors that are currently dealt with in separate policy activities.

“An Integrated Maritime Policy for the European Union” also called “The Blue Book” is build upon the Green Paper and the one year consultation period. The policy calls on taking an integrated and sustainable approach, based on excellence in marine research, technology and innovation.

Finally, the most important contribution on research to the Maritime Policy, the “European Strategy for Marine and Maritime Research” was published in 2008. The strategy formulated a coherent framework for the European Commission’s support for the scientific communities to the implementation of the Maritime Policy. The European Strategy for Marine and Maritime Research aims to create a better integration between marine and maritime research with a focus on improving interactions between marine and maritime research.

Therefore, the Commission has committed to develop a Marine and Maritime Research Strategy. Implementation of the EU Strategy for Marine and Maritime Research and initiation of the Maritime Policy began in 2008 and is now turning to the challenge of establishing mechanisms for acquiring marine and maritime scientific and technological expertise or in other words seeking scientific consultancy.

The focus on Maritime policy has already resulted in some initiatives. There are a few attempts to integrate the marine and maritime research agendas, but this paper clearly reveals a European policy scene with the need for an integrated Marine and Maritime research community.

Preface

An application “Towards an Integrated Marine and Maritime Science Community (MARCOM+)” has been submitted on January the 7th 2009 by the Aberdeen Plus Task Force to the European Union Framework Programme 7 (Priority 6 of cooperation section “Environment including climate change”, sub-priority 6.2. ‘Sustainable management of resources’, topic 6.2.1.3., topic ‘Support to maritime partnerships). The proposal consortium, acting on behalf of the wider Aberdeen Plus Partnership community consists of:

1. Coastal and Marine Union
2. Community of European Shipyards’ Associations (representing the Waterborne Technology Platform)
3. European Council for Maritime Applied Research and Development Association
4. European Aquaculture Technology and Innovation Platform
5. European Fisheries and Aquaculture Organization
6. Hellenic Centre for Marine Research (representing the European Global Ocean Observing System)
7. International Council for the Exploration of the Sea
8. Marine Board of the European Science Foundation
9. Mediterranean Science Commission
10. Royal Netherlands Academy of Arts and Sciences (representing the European Network of Marine Research Institutes and Stations)

The FP7 MARCOM+ project addresses the objectives of the Aberdeen Declaration¹ to support the marine and maritime science communities to concretize the concept of a partnership through the establishment of a European marine science partnership that would contribute to developing interactions between partners (Member States, regional authorities, the research community, industry and other stakeholders).

The “Aberdeen Plus interest group” joined forces with the “Venice Platform group” to take further steps in integrating the marine, maritime and coastal research sectors in Europe. The goal is to establish a sustainable and long-lasting partnership community, namely the “European Marine and Maritime Science and Technology Community”. The community will contribute to a new governance model in research that will exchange views, seek consensus among the marine and maritime sectors and serve to facilitate dialogue with policy makers.

¹ http://ec.europa.eu/research/environment/pdf/aberdeen_declaration.pdf

MARCOM+ project consists of a two-year work programme, starting 1st January 2010, comprising six work packages with the following objectives:

1. **Objective 1.1. - deliver a synthesis of the policy scene**
2. Objective 1.2. - to identify regional specificities in the global EU framework
3. Objective 1.3. - to identify priorities and commonalities
4. Objective 2.1 - one proximate objective will be to promote innovative, focused research/ industry dialogue leading to joint international R&D projects
5. Objective 2.2 - in the longer-term perspective, implement joint training and capacity building on how to exploit marine resources in a sustainable manner, so as to help prepare the next generation of world-class marine/ maritime specialists/experts to ensure continuing European leadership in this crucial field
6. Objective 3.1 - review regional research governance frameworks and partnerships
7. Objective 3.2 - test pilot forum (Mediterranean case study)
8. Objective 3.3 - assess important mechanisms and tools for regional governance.
9. Objective 4.1 - identification and mobilization of appropriate representative organisations in the partnership
10. Objective 4.2 - organisation of two Marine and Maritime Partnership Open Fora
11. Objective 4.3 - Assess the modalities to best address the longer-term Partnership sustainability
12. Objective 5.1 - develop and redesign the Partnership s internet portal
13. Objective 5.2 - produce relevant outreach material
14. Objective 5.3 - ensure proper and efficient communication between stakeholders
15. Objective 5.4 - ensure the operational activities of the established panels
16. Objective 5.5 - organize the project s final conference
17. Objective 6.1 - execute the project according to its plan and budget
18. Objective 6.2 - ensure proper decision-making dialogue among partners
19. Objective 6.3 - ensure proper reporting to the European Commission

This report is the result of the aim of the first task, led by Participant no.3 (ECMAR) that is, a synthesis to define the policy scene.

1.0 Introduction

Europe is a maritime continent. The various oceans, seas, and coastline have long been the scene of substantial activities. The Commission of the European Communities declares that the seas are the lifeblood of Europe and that the maritime spaces of Europe and its coasts are central to the wellbeing and prosperity of Europe. Oceans are home to an enormous range of species – many still undiscovered. They are also an integral part of the climate system and immense importance for the weather across the world. They influence climate, the carbon cycle and support an impressive diversity of life forms. Environmental degradation in the marine environment is likely to have a major impact on the planet as a whole and humanity in particular. The marine sciences thus have a crucial role to play in improving the understanding of this sub-aquatic environment and in guiding how research results can be applied in practice for its sustainable management.

The challenge

Challenges are faced in relation to both the sustainable use and the exploitation of the oceans and seas. The importances of these challenges are already reflected in various policies, but they are based on a sector by sector approach. This can lead to inconsistencies or conflicts and prevent the exploitation of possible synergies. This situation can also lead to the adoption of measures that negatively affect the environment or impose unnecessary constraints on competing maritime activities. Internationally, countries like USA, Canada and Australia have developed integrated approaches to manage this complex area.

Research history and policy relevance

In 2007, with the Aberdeen Declaration, the European Marine and Maritime Science and Technology Community stated its support of the European Commission's proposal for an all-embracing European Maritime Policy, based on the principle of sustainable development. Following extensive consultation, in October 2007, the European Commission launched its vision of an integrated maritime policy for the EU through the "Blue Book". In addition, the European Strategy Forum for Research Infrastructure has made recommendations for integrating marine sciences in Europe and for strengthening marine research infrastructure. European marine scientists are contributing to the long-term observation and operational monitoring of the oceans and seas in the context of the Global Earth Observation System initiative and the Global Monitoring for Environment and Security initiative, in compliance with the INSPIRE Directive.

Vital to the economy and the environment

The sea and its resources make an important contribution to jobs and growth in the EU. They provide food (from fish) and energy (from offshore oil and gas fields), while the EU's merchant fleet carries its trade across the world's oceans. Coastal areas are home to tourism - another big economic sector. Therefore, exploitation of the sea's resources must take place in a responsible manner by preventing over-fishing and ensuring that maritime transport and oil and gas extraction does not harm the marine or coastal environment.

The importance of conservation

The EU fishing industry is the third largest in the world. It provides some 6.9 million tonnes of fish each year. Fishing and fish processing provide jobs for more than 400,000 people.

The priority for EU fisheries policy is to strike the right balance between having a competitive fishing industry and having both sustainable fish stocks and a sustainable marine eco-system.

Over the period 2007-2013, the European Fisheries Fund has €3.85 billion to spend on priorities established by each member state based on their own decisions on what they need most. The funds can be used for sea and inland fisheries, aquaculture businesses, producer organisations, the processing and marketing sectors, and for economic diversification in fishing communities.

Good enforcement is vital

To ensure compliance with restrictions on fishing in the interests of the long-term survival of fish stocks, the EU in 2005 set up the Community Fisheries Control Agency. Currently based in Brussels, this agency is due to move in July 2008 to a permanent home at Vigo in Spain, Europe's leading fishing port. The agency coordinates enforcement of rules to prevent over-fishing and protect other forms of marine life. It also trains inspectors and organises joint deployment of inspectors from more than one member state.

International cooperation and assistance

Fisheries agreements with countries outside the EU and negotiations within regional and international fisheries organisations ensure that not only the waters of the EU, but those of the whole world, are not over-fished. At the same time, they give EU fishermen access to fish in distant waters. With developing countries, the EU pays for access rights. The funds raised in this way are largely invested in the fisheries industries of these countries and in building up their fish stocks.

Developing aquaculture

Aquaculture can offset declining wild fish stocks. Already, 19% of the tonnage caught by the EU fishing industry comes from fish farms. Molluscs, mussels, rainbow trout and salmon are generally the most important aquaculture products, but carp and sea bream are important in some countries.

The EU industry has been growing less rapidly than the rest of the world. The European Commission is considering additional steps to develop this industry's potential. The key challenges include a lack of space and of water of good quality, and high standards of protection for public health and the environment. European aquaculture is at the forefront of sustainable development in the world, both in terms of social and environmental impacts, but this makes it more difficult to compete with producers in other countries, especially in Asia and in South America.

The maritime dimension

The EU has more sea than land; this is the world's largest maritime territory. There are 1,200 ports. Some 90% of foreign trade and 40% of internal trade is carried by sea. The EU's merchant fleet is the world's largest.

Coastal regions account for more than 40% of the EU's gross domestic product (GDP) and are home to 50% of the EU's population. The maritime economy accounts for five million jobs. Some 5% of GDP comes directly from marine-based industries and services. The figure is much higher when indirect contributions from related sectors, such as tourism, are taken into account.

While fisheries and environment policy have been seen as two sides of a single coin for some years, the EU is now taking a much broader view to encompass all uses of the maritime space. The goal is to build on Europe's strengths in marine research, technology and innovation. This fits with the Lisbon agenda for more and better jobs and growth, and with the EU's overarching commitment to ensuring that economic development does not come at the price of environmental sustainability. The integrated maritime policy encompasses maritime transport, the competitiveness of maritime businesses, employment, scientific research, fisheries and the protection of the marine environment. To emphasise the importance of this sector, the European Commission has designated May 20th each year as European Maritime Day².

Now it is in its place to bring a definition of marine and maritime:

² http://europa.eu/pol/fish/index_en.htm

Marine³

- Related to the sea or sea transport
- “Marine” refers to the physical, environmental aspects and biological resources of the sea...
- Of or relating to the sea: marine exploration. Native to, inhabiting or formed by the sea

Maritime⁴

- connected with human activity at sea
- near the sea or coast
- ‘Maritime’ refers to transport, offshore technologies, energy...
- Maritime: connected with the sea in relation to navigation, shipping, etc. or living near or in the

In fact most sea-based activities have both dimensions:

- Mariculture is marine (biological dimension) and maritime (farm equipment and management)
- Fishing is marine (stocks management) and maritime (fishing vessels)
- Dredging is a maritime activity with direct impact on the marine environment
- Wave & tidal energy are marine and maritime ... etc.

³ http://dictionary.cambridge.org/dictionary/british/marine_1

⁴ <http://dictionary.cambridge.org/dictionary/british/maritime>

2.0 Objectives

The aim of this paper is to define the policy scene regarding EU research governance development in relation to the integrated marine/maritime policy. EU policies and other relevant documents will be examined in areas such as environment, climate change, energy, research, transport and fisheries that have a direct bearing on the need for a European Marine and Maritime Partnership community. The synthesis will reveal the need for an integrated Marine and Maritime research community.

3.0 Method

The review was conducted in five parts.

1. Systematic literature review of EU documents
2. A search on the homepages of four Directorate General for documents related to maritime or marine policies or strategies
3. A systematic search in scientific journals
4. A chain search based on documents found in 1-3
5. A categorization of the data to find the leitmotif for “EU research governance development in relation to the integrated marine/maritime policy development” in the results from 1-4.

Part 1

A systematic and thorough literature review conducted by means of criteria of inclusion and exclusion. The aim is a general search for all documents containing issues related to maritime and/or marine subjects. This results in app. 1200 documents. The number of documents will be reduced by criteria of exclusion and by excluding all duplicates and documents not containing issues related to policy. The concept of policy is very broad and therefore, if in doubt, the document will be included.

The web site EUR-Lex⁵ provides direct access to all documents from the European Union. The site contains more than 3 600 000 documents, with texts dating back to 1951, and the database is updated daily.

Table 1. Criteria of inclusion in the document title

-
- Maritime *or*
 - Marine
-

Table 2. Criteria of inclusion in the document text

-
- Policy *and*
 - Research
-

⁵ <http://eur-lex.europa.eu/>

Table 3. Criteria of inclusion in the document text

-
- Environment *or*
 - Climate change *or*
 - Energy *or*
 - Transport *or*
 - Fisheries *or*
 - Shipping
-

Title = (maritime OR marine) AND Text = (policy AND research) AND Text = (environment OR climate change OR energy OR transport OR fisheries)

Table 4. Criteria of exclusion

-
- Obsolete programs
 - Working documents
 - State aid to the industry
 - Opinions
-

Part 2

A semi-systematic search on the EC homepages regarding research, maritime affairs, fisheries, transport and environment was conducted. In the following the five homepages are introduced:

*European Commission, research*⁶

This site is designed to help finding out about European Research. It is constructed in 23 thematic sub sites one of these is “Marine and Maritime Research”. In this site there is a lot of relevant information regarding marine and maritime research policies and strategies.

*European Commission, maritime affairs*⁷ *and fisheries*⁸

The mission of the Directorate General for Maritime Affairs and Fisheries (DG MARE) is to steer, in close relationship with stakeholders at regional and European level, the development and implementation of the Integrated Maritime Policy and to manage the Common Fisheries Policy with a view to promote the sustainable development of maritime

⁶ <http://ec.europa.eu/research/>

⁷ <http://ec.europa.eu/maritimeaffairs/>

⁸ <http://ec.europa.eu/fisheries/>

activities as well as the sustainable exploitation of fisheries resources within and beyond Community waters.

The aim is to help increase the prosperity and well-being of EU citizens through the relationship with the seas and oceans. Priorities are therefore geared towards achieving that aim in both Fisheries and Maritime Affairs.

The Commission is committed to setting the European Union on the path towards a European Maritime Policy. Such a policy will increase the coherence and co-ordination between the sea-related policies and activities. It will optimise the range of benefits that derive from the maritime activities without threatening the integrity of the resource base: the sea itself.

Furthermore, the Commission is committed to ensuring the necessary follow-up so that the Commission can come forward with a plan of action on the basis of feedback received from European citizens.

European Commission, transport⁹

This website is developed and managed by the European Commission's Directorate-General for Energy and Transport. The site offers information on transport policies.

On the Transport home page, the "Policy areas" menu lists all available energy topics (European strategies, Sustainable transport, Air, Road, Road Safety, Rail, Maritime, Inland waterways, Galileo, EGNOS, Intelligent transport system, Clean Urban Transport, Transport infrastructure, Security & Safety, Passenger rights, State aid, International relations, Research). By clicking on a specific policy area, a new menu related to that topic is displayed.

European Commission, environment¹⁰

The Directorate-General for the Environment is one of the more than 40 Directorates-General and services that make up the European Commission. Commonly referred to as DG Environment, the objective of the Directorate-General is to protect, preserve and improve

⁹ <http://ec.europa.eu/transport/>

¹⁰ <http://ec.europa.eu/dgs/environment/>

the environment for present and future generations. To achieve this it proposes policies that ensure a high level of environmental protection in the European Union and that preserve the quality of life of EU citizens. The four priorities of the DG for the years 2002 to 2012 are climate change; nature and biodiversity; environment, health and quality of life; and natural resources and waste.

Part 3

A systematic search in scientific journals

“Business Source Complete”

This is the world's definitive scholarly business database, providing the ultimate collection of bibliographic and full text content. Business Source Complete contains far more active, peer-reviewed, business related journals than any other database currently available.

“International Bibliography of the Social Sciences”

References to journal articles, books, reviews and selected chapters dating back to 1951. Focuses mainly on four core social science disciplines - economics, politics, sociology and anthropology - but it also covers a range of interdisciplinary subjects, such as development studies, human geography and environment and gender studies. Is especially strong on international material with over 50 percent of journals published outside the US and UK.

Part 4

Chain search

When reading the documents found in the two first parts, a chain searching is conducted.

All documents found in the search were examined in order to find the main policy development history regarding “EU research governance development in relation to the integrated marine/maritime policy development”.

Part 5

The documents found by the four methods were thoroughly examined and divided in three categories. Documents containing data concerning the main policy development (EU research governance

development in relation to the integrated marine/maritime policy) were in category 1 and considered to be the red thread.

Documents with close relation to the main policy (Progress reports, comments, contributions, and documents related to both marine and maritime policy) were grouped in category 2. While the remaining documents with peripheral relation to the main policy (e.g. Solitary policies) were grouped in category 3.

4.0 Results

Part 1. Systematic literature review, search date 28.01.2010

Source:	http://eur-lex.europa.eu/
Inclusion:	no. of relevant documents
Title = (maritime OR marine)	1170
AND Text = policy	291
AND Text = research	111
AND Text = environment OR climate change OR energy OR transport OR fisheries OR shipping	109
Author = European Commission	58
Exclusion:	
NOT Title = state aid (6)	52
NOT Title = opinion (6)	46
NOT Title = working document (8)	38
Published before 2002 (8)	30
Result of	30

See Table 1 for a list of results from systematic literature review. The documents are numbered EU1 - EU30.

Part 2

A semi-systematic search on the relevant EC homepages was conducted.

Web-site	No of documents
http://ec.europa.eu/research	7
http://ec.europa.eu/maritimeaffairs	7
http://ec.europa.eu/environment/index_en.htm	1
http://ec.europa.eu/transport/index_en.htm	2

See Table 2 for a list of results from the semi-systematic search on the EC homepages. The documents are numbered R1-R7, M1-M7, E1 and T1-T2.

Part 3

A systematic search in scientific journals

Inclusion:		Total
Maritime policy in title	(13 + 17)	30
Marine policy in title	(9 + 18)	27
		57
Exclusion:		
Redundant	4 + 1	52
Policy not related to Europe	11 + 18	23
Journal "Maritime policy..."	4 + 0	19
Not a scientific paper	0 + 9	10
Total		10

See Table 3 for a list of results from the systematic search in scientific journals. The documents are numbered SJ1-SJ10.

Part 4

A total number of nine documents were found in the chain search.

See Table 4 for the list of results. The documents are numbered CS1-CS8.

Part 5

The documents found by the four methods were thoroughly examined and divided in three categories. Documents containing data concerning “EU research governance development in relation to the integrated marine/maritime policy development” were in category 1 and considered to be the leitmotif, the documents with a close relation to (but with no directly influence on) the development of the integrated Marine/Maritime research development were grouped in category 2, while the remaining documents are grouped in category 3.

Category 1: 8

Category 2: 31

Category 3: 23

See Table 5 for the list of the final result.

Table 1. The results of part 1, the systematic literature review. The web site EUR-Lex (<http://eur-lex.europa.eu/>)

No	Title	Reference	Date	Source
EU1	Progress report on the EU's integrated maritime policy	COM(2009)540 final	15.10.2009	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0540:FIN:EN:PDF
EU2	Towards the integration of maritime surveillance: A common information sharing environment for the EU maritime domain	COM(2009)538 final	15.10.2009	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0538:FIN:EN:PDF
EU3	Developing the international dimension of the Integrated Maritime Policy of the European Union	COM(2009)536 final	15.10.2009	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0536:FIN:EN:PDF
EU4	Towards an Integrated Maritime Policy for better governance in the Mediterranean	COM(2009) 466 final	11.9.2009	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0466:FIN:EN:PDF
EU5	Strategic goals and recommendations for the EU's maritime transport policy until 2018	COM(2009) 8 final	21.1.2009	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0008:FIN:EN:PDF
EU6	COMMISSION DECISION of 11 June 2008 on the confirmation of measures proposed by the Netherlands for the conservation of marine ecosystems in the Voordelta area	OJ 2008/L 332/1	10.12.2008	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:332:0001:0019:EN:PDF
EU7	Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU	COM(2008) 791 final	25.11.2008	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0791:FIN:EN:PDF
EU8	A European Strategy for Marine and Maritime Research. A coherent European Research Area framework in support of a sustainable use of oceans and seas.	COM(2008) 534 final	3.9.2008	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=C

OM:2008:0534:FIN:EN:PDF

EU9	Proposal for a COUNCIL DIRECTIVE implementing the Agreement concluded by the European Community Shipowners' Associations (ECSA) and the European Transport Workers' Federation (ETF) on the Maritime Labour Convention, 2006 and amending Directive 1999/63/EC	COM(2008) 422 final	2.7.2008	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=C OM:2008:0422:FIN:EN:PDF
EU10	Guidelines for an Integrated Approach to Maritime Policy: Towards best practice in integrated maritime governance and stakeholder consultation	COM(2008) 395 final	26.6.2008	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=C OM:2008:0395:FIN:EN:PDF
EU11	The role of the CFP in implementing an ecosystem approach to marine management	COM(2008) 187 final	11.4.2008	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=C OM:2008:0187:FIN:EN:PDF
EU12	Proposal for a COUNCIL REGULATION on the protection of vulnerable marine ecosystems in the high seas from the adverse impacts of bottom fishing gears	COM(2007) 605 final	17.10.2007	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=C OM:2007:0605:FIN:EN:PDF
EU13	An Integrated Maritime Policy for the European Union (Blue Book)	COM(2007) 575 final	10.10.2007	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=C OM:2007:0575:FIN:EN:PDF
EU14	Conclusions from the Consultation on a European Maritime Policy	COM(2007) 574 final	10.10.2007	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=C OM:2007:0574:FIN:EN:PDF
EU15	Common position of the Council on the adoption of a European Parliament and Council Directive establishing a Framework for Community Action in the field of Marine Environmental Policy (Marine Strategy Framework Directive)	COM(2007) 456 final	24.7.2007	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=C OM:2007:0456:FIN:EN:PDF
EU16	Cooperation in the field of accidental or deliberate marine pollution after 2007	COM(2006) 863 final	22.12.2006	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=C OM:2006:0863:FIN:EN:PDF

EU17	Reinforcing the management of the European Union's Southern Maritime Borders	COM(2006) 733 final	30.11.2006	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0733:FIN:EN:PDF
EU18	GREEN PAPER - Towards a future Maritime Policy for the Union: A European vision for the oceans and seas	COM(2006) 275 final Volume II - ANNEX	7.6.2006	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0275B:FIN:EN:PDF
EU19	Towards a future Maritime Policy for the Union: A European Vision for the Oceans and Seas	COM(2006) 275 final Volume I	7.6.2006	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=PLIT_COM:2006:0275(01):FIN:EN:PDF
EU20	Proposal for a directive establishing the fundamental principles governing the investigation of accidents in the maritime transport sector and amending Directives 1999/35/EC and 2002/59/EC	COM(2005) 590 final	23.11.2005	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0590:FIN:EN:PDF
EU21	Proposal for a DIRECTIVE on common rules and standards for ship inspection and survey organizations and for the relevant activities of maritime administrations	COM(2005) 587 final	23.11.2005	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0587:FIN:EN:PDF
EU22	Third package of legislative measures on maritime safety in the European Union	COM(2005) 585 final	23.11.2005	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0585:FIN:EN:PDF
EU23	Thematic Strategy on the Protection and Conservation of the Marine Environment	COM(2005)504 final	24.10.2005	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0504:FIN:EN:PDF
EU24	WHITE PAPER on the review of Regulation 4056/86, applying the EC competition rules to maritime transport	COM(2004) 675 final	13.10.2004	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2004:0675:FIN:EN:PDF
EU25	Proposal for amending Regulation (EC) No 1406/2002 establishing a European Maritime Safety Agency	COM(2003) 440 final	6.8.2003	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=C

				OM:2003:0440:FIN:EN:PDF
EU26	Amended proposal for a COUNCIL REGULATION laying down certain technical measures applicable to fishing activities in the area covered by the Convention on the conservation of Antarctic marine living resources	COM(2003) 384 final	1.7.2003	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2003:0384:FIN:EN:PDF
EU27	COMMUNICATION on enhancing maritime transport security and Proposal for a REGULATION on enhancing ship and port facility security	COM(2003) 229 final	2.5.2003	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2003:0229:FIN:en:PDF
EU28	Proposal for a Directive amending Directive 1999/32/EC as regards the sulphur content of marine fuels	OJ 2003/C 45 E/33	25.2.2003	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2003:045E:0277:0296:EN:PDF
EU29	Proposal for Council Regulation laying down certain control measures applicable to fishing activities in the area covered by the Convention on the conservation of Antarctic marine living Resources and repealing Regulations (EEC) No 3943/90, (EC) No 66/98 and (EC) No 1721/1999	OJ 2002/C 262 E/18	29.10.2002	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2002:262E:0310:0320:EN:PDF
EU30	Towards a strategy to protect and conserve the marine environment	COM(2002) 539 final	02.10.2002	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2002:0539:FIN:EN:PDF

Table 2. The results of part 2, a semi-systematic search on the EC homepages regarding research, maritime affairs, fisheries, transport and environment, <http://ec.europa.eu/research>

No	Title	Reference	Date	Source
R1	The European Union and the Arctic region	COM(2008) 763 final	20.11.2008	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0763:FIN:EN:PDF
R2	The European Research Area: New Perspectives	COM(2007) 161 final	4.4.2007	http://ec.europa.eu/research/era/pdf/era_gp_final_en.pdf
R3	The Galway Declaration	EurOCEAN	May 2004	http://ec.europa.eu/research/press/2007/maritime-briefing/pdf/24-galway-declaration_en.pdf
R4	Speech “The importance of maritime research for sustainable competitiveness”	Janez Potočnik	Brussels, 8 February 2006	http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/65&format=HTML&aged=0&language=EN&guiLanguage=en
R5	The Aberdeen Declaration – A New Deal for Marine and Maritime Science	EurOCEAN	June 2007	http://ec.europa.eu/research/environment/pdf/aberdeen_declaration.pdf
R6	Towards joint programming in research: Working together to tackle common challenges more effectively	COM(2008) 468 final	15.7.2008	http://ec.europa.eu/research/press/2008/pdf/com_2008_468_en.pdf
R7	The Lund Declaration	“New Worlds – New solutions” conference	9 July 2009	http://www.se2009.eu/polopoly_fs/1.8460!menu/standard/file/lund_declaration_final_version_9_july.pdf

<http://ec.europa.eu/maritimeaffairs>

No	Title	Reference	Date	Source
M1	Speech "An integrated approach to science for an integrated maritime policy"	Joe Borg	Brussels, 16 September 2009	http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/392&format=HTML&aged=0&language=EN&guiLanguage=da
M2	Speech "Making headway: progress on the Integrated Maritime Policy"	Joe Borg	Rome , 20 May 2009	http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/256&format=HTML&aged=0&language=EN&guiLanguage=en
M3	Speech "The importance of maritime spatial planning for Integrated Maritime Policy"	Joe Borg	Brussels, 26 February 2009	http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/79&format=HTML&aged=0&language=EN&guiLanguage=en
M4	Speech "Marine and Maritime Research: a strategy for the 21st century"	Joe Borg	Normandy, 12 February 2009	http://ec.europa.eu/maritimeaffairs/speeches/speech120209a_en.html
M5	Speech "The European Union's strategy of sustainable management for the Arctic"	Joe Borg	Tromso, 19 January 2009	http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/9&format=HTML&aged=0&language=EN&guiLanguage=en
M6	Speech "A European Marine Research Strategy for the European Maritime Policy". Opening address at EurOCEAN 2007 Conference	Joe Borg	Aberdeen, 22 June 2007	http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/07/413&format=HTML&aged=0&language=EN&guiLanguage=en
M7	Europe – Global Powerhouse of Maritime Innovations	Waterborne	04.05.2006	http://www.cesa-shipbuilding.org/download.phtml?document_id=NzBIMW1kZGg%3D=

http://ec.europa.eu/environment/index_en.htm

No	Title	Reference	Date	Source
E1	Cooperation in the field of accidental or deliberate marine pollution after 2007	COM(2006) 863 final	22.12.2006	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0863:FIN:EN:PDF

http://ec.europa.eu/transport/index_en.htm

No	Title	Reference	Date	Source
T1	A sustainable future for transport: Towards an integrated, technology-led and user friendly system	COM(2009) 279 final	Brussels, 17.6.2009	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0279:FIN:EN:PDF
T2	Towards a better integrated transeuropean transport network at the service of the common transport policy	COM(2009) 44 final	Brussels, 4.2.2009	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0044:FIN:EN:PDF

Table 3. The results of part 3, a systematic search in scientific journals

No	Title	Author	Source
SJ1	Towards a 'new form of governance' in science-policy relations in the European Maritime Policy	Jan-Stefan Fritz	Marine Policy 34 (2010) 1-6
SJ2	EU marine policy on the move: The tension between fisheries and maritime policy	L.van Hoof & J.van Tatenhove	Marine Policy 33(2009) 726-732
SJ3	A note on the European Union's Integrated maritime Policy	Timo Koivurova	Ocean Development & International Law, 40:171-183,2009
SJ4	The European vision for oceans and seas – Social and political dimensions of the Green Paper on maritime Policy for the EU	Juan Luis Suarez de Vivero	Marine policy 31(2007) 409-414
SJ5	The European Union and Ocean Use management: The Marine Strategy and the Maritime Policy	Lawrence Juda	Ocean Development & International Law, 38:259-282, 2007
SJ6	The determinants of maritime policy	Li, K. X.; Jin Cheng	Maritime Policy & Management, 2007-1234:6, 521(13)
SJ7	Maritime policy, management and research: role and potential	Panayides, Photis M.	Maritime Policy & Management, 2006-0533:2, 95(11)
SJ8	Integrated management of marine biodiversity in Europe: perspectives from ICZM and the evolving EU Maritime Policy framework	Queffelec, Betty; Cummins, V.;Bailly, D.	Marine policy 33:6, (2009) 871(7)
SJ9	Geopolitical factors of maritime policies and marine spatial planning: state, regions, and geographical planning scope	Suarez de Vivero, Juan L.; Rodriguez Mateos, J.C.; Florido del Corral, D.	Marine policy 33:4, (2009) 624(11)

Table 4. The results of part 4, chain search

No	Title	Reference	Date	Source	
CS1	M7	WATERBORNE Strategic research agenda, 2007	2007	http://www.waterborne-tp.org/bal_ims_controler.php?menu=Y2RqMTgzPjdoZzZjNG1iMw%3D%3D=&page=1&reset=search	
CS2	EU17	LeaderSHIP 2015: Defining the Future of the European Shipbuilding and Repair Industry – Competitiveness through Excellence	COM(2003) 717 final	21.11.2003	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2003:0717:FIN:en:PDF
CS3	EU17	STRATEGIC OBJECTIVES 2005 – 2009. Europe 2010: A Partnership for European Renewal Prosperity, Solidarity and Security	COM(2005) 12 final	Brussels, 26.1.2005	http://eur-lex.europa.eu/LexUriServ/site/en/com/2005/com2005_0012en01.pdf
CS4	EU23	Accompanying document to “An Integrated Maritime Policy for the European Union”. Action Plan	SEC(2007)1278	Brussels, 10.10.2007	http://ec.europa.eu/maritimeaffairs/pdf/ActionPaper/action_plan_en.pdf
CS5	EU03	Establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)	OJ L164/19	25.6.2008	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:164:0019:0040:EN:PDF
CS6	EU8	Lisbon Strategy		March 2000	http://www.europarl.europa.eu/summits/lis1_en.htm
CS7	EU18	Seventh EU Framework Program for Research and Technological Development (FP7)		December 2006	http://cordis.europa.eu/fp7/home_en.html
CS8	EU03	The European Union Strategy for the Baltic Sea Region	COM(2009)248 final	Brussels, 10.6.2009	http://ec.europa.eu/regional_policy/sources/docoffic/official/communic/baltic/com_baltic_e

Table 5. The results of part 5, the categorization of the documents found in the previous four searches

Year	Main policy development (EU research governance development in relation to the integrated marine/maritime policy)	Close relation to the main policy (Progress reports, comments, contributions, documents related to both marine and maritime policy)	Peripheral relation to the main policy (Solitary policies)
2010		SJ1, Towards a 'new form of governance' in science-policy relations in the European Maritime Policy	
2009		<p>EU1, Progress report on the EU's integrated maritime policy</p> <p>EU3, Developing the international dimension of the Integrated Maritime Policy of the European Union</p> <p>EU4, Towards an Integrated Maritime Policy for better governance in the Mediterranean</p> <p>R7, The Lund Declaration</p> <p>M1, Speech "An integrated approach to science for an integrated maritime policy"</p> <p>M2, Speech "Making headway: progress on the Integrated Maritime Policy"</p> <p>M3, Speech "The importance of maritime spatial planning for Integrated Maritime Policy"</p> <p>M4, Speech "Marine and Maritime Research: a strategy for the 21st century"</p> <p>M5, Speech "The European Union's strategy of sustainable management for the Arctic"</p> <p>SJ2, EU marine policy on the move: The tension between fisheries and maritime policy</p> <p>SJ3, A note on the European Union's Integrated maritime Policy</p>	<p>EU2, Towards the integration of maritime surveillance: A common information sharing environment for the EU maritime domain</p> <p>EU5, Strategic goals and recommendations for the EU's maritime transport policy until 2018</p> <p>T1, A sustainable future for transport: Towards an integrated, technology-led and user friendly system</p> <p>T2, Towards a better integrated transeuropean transport network at the service of the common transport policy</p>

		<p>SJ8, Integrated management of marine biodiversity in Europe: perspectives from ICZM and the evolving EU Maritime Policy framework</p> <p>SJ9, Geopolitical factors of maritime policies and marine spatial planning: state, regions, and geographical planning scope</p> <p>CS8, The European Union Strategy for the Baltic Sea Region</p>	
2008	<p>EU8, A European Strategy for Marine and Maritime Research A coherent European Research Area framework in support of a sustainable use of oceans and seas</p> <p>R6, Towards joint programming in research: Working together to tackle common challenges more effectively</p>	<p>EU10, Guidelines for an Integrated Approach to Maritime Policy</p> <p>R1, The European Union and the Arctic region</p> <p>CS5, Establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)</p>	<p>EU6, Commission decision of 11 June 2008 on the confirmation of measures proposed by the Netherlands for the conservation of marine ecosystems in the Voordelta area</p> <p>EU7, Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU</p> <p>EU9, Proposal for a council directive</p> <p>EU11, The role of the CFP in implementing an ecosystem approach to marine management</p>
2007	<p>EU13, An Integrated Maritime Policy for the European Union (Blue Book)</p> <p>R5, The Aberdeen Declaration</p>	<p>EU14, Conclusions from the Consultation on a European Maritime Policy</p> <p>EU15, Common position of the Council on the adoption of a European Parliament and Council Directive establishing a Framework for Community Action in the field of Marine Environmental Policy (Marine Strategy Framework Directive)</p> <p>R2, The European Research Area: New Perspectives</p> <p>M6, Speech "A European Marine Research Strategy for the European Maritime Policy". Opening address at EurOCEAN 2007 Conference</p> <p>SJ4, The European vision for oceans and seas – Social and political dimensions of the Green Paper on maritime Policy for the EU</p>	<p>EU12, Proposal for a council regulation on the protection of vulnerable marine ecosystems</p> <p>SJ6, The determinants of maritime policy</p>

		<p>SJ5 The European Union and Ocean Use management: The Marine Strategy and the Maritime Policy</p> <p>CS1, WATERBORNE Strategic research agenda, 2007</p> <p>CS4, Accompanying document to “An Integrated Maritime Policy for the European Union”. Action Plan</p>	
2006	<p>EU18, Towards a future Maritime Policy for the Union: A European vision for the oceans and seas (GREEN PAPER)</p> <p>CS7, Seventh EU Framework Program for Research and Technological Development (FP7)</p>	<p>EU16, Cooperation in the field of accidental or deliberate marine pollution after 2007</p> <p>R4, Speech “The importance of maritime research for sustainable competitiveness”</p>	<p>EU17, Reinforcing the management of the European Union's Southern Maritime Borders</p> <p>M7, Europe – Global Powerhouse of Maritime Innovations</p> <p>SJ7, Maritime policy, management and research: role and potential</p>
2005		<p>EU23, Thematic Strategy on the Protection and Conservation of the Marine Environment</p>	<p>CS3, Strategic objectives 2005 – 2009. Europe 2010: A Partnership for European Renewal Prosperity, Solidarity and Security</p> <p>EU20, Proposal for a directive establishing the fundamental principles governing the investigation of accidents in the maritime transport sector and amending Directives 1999/35/EC and 2002/59/EC</p> <p>EU21, Proposal for a DIRECTIVE on common rules and standards for ship inspection and survey organizations and for the relevant activities of maritime administrations</p> <p>EU22, Third package of legislative measures on maritime safety in the European Union</p>
2004	R3, The Galway Declaration		<p>EU24, WHITE PAPER on the review of Regulation 4056/86, applying the EC competition rules to maritime transport</p>
2003			<p>EU25, Proposal for amending Regulation (EC) No 1406/2002 establishing a European Maritime Safety Agency</p>

		<p>EU26, Amended proposal for a COUNCIL REGULATION laying down certain technical measures applicable to fishing activities in the area covered by the Convention on the conservation of Antarctic marine living resources</p> <p>EU27, COMMUNICATION on enhancing maritime transport security and Proposal for a REGULATION on enhancing ship and port facility security</p> <p>EU28, Proposal for a Directive amending Directive 1999/32/EC as regards the sulphur content of marine fuels</p> <p>CS2, LeaderSHIP 2015: Defining the Future of the European Shipbuilding and Repair Industry</p>
2002	EU30, Towards a strategy to protect and conserve the marine environment	EU29, Proposal for Council Regulation laying down certain control measures applicable to fishing activities in the area covered by the Convention on the conservation of Antarctic marine living Resources and repealing Regulations (EEC) No 3943/90, (EC) No 66/98 and (EC) No 1721/1999
2001		
2000	CS6, Lisbon Strategy	

5.0 Discussion

The purpose of this synthesis is to follow the main policy development history (EU research governance development in relation to the integrated marine/maritime policy development) and not to scrutinize anything relevant but focus on the core interests.

It is a fundamental premise of the EU's Integrated Maritime Policy that each se-region is unique and needs individual attention in balancing its uses in a sustainable manner. EU policies in areas such as environment, climate change, energy, research, transport, and fisheries have a direct bearing on the Arctic.

The European Council defined the objective of the strategy for the EU "to become the most dynamic and competitive knowledge-based economy in the world by 2010 capable of sustainable economic growth with more and better jobs and greater social cohesion and respect for the environment".

All documents found in this survey emphasize the importance of the seas and oceans. The role of the seas and oceans for the wealth and prosperity in Europe cannot be overestimated. As a food source, international trade, commerce and maritime transport, Europe has prospered from its partnership with the sea. Likewise, as recreational, sports arena, tourist attractions and renewable energy, the seas will be a part of a prosperous future of Europe.

In the following, the eight documents found to be the main policy development regarding European marine and maritime research will be presented in a chronological order.

Lisbon Strategy 2000

At the Lisbon summit in March 2000, European Union leaders set out a new strategy, based on a consensus among Member States, to modernize Europe. This became known as the Lisbon Strategy. The Lisbon Strategy¹¹ was launched as a response to the globalisation and the ageing of Europe. The Lisbon Strategy, also known as the Lisbon Agenda or Lisbon Process, was an action and development plan for the European Union between 2000 and 2010. Its aim was to make the EU "the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion," by 2010.

The Lisbon Strategy intended to deal with the low productivity and stagnation of economic growth in the EU, through the formulation of various policy initiatives to be taken by all EU member states. The broader objectives, set out by the Lisbon strategy, are to be attained by 2010.

¹¹ European Council. Lisbon Strategy. http://www.europarl.europa.eu/summits/lis1_en.htm 2010

The main fields are economic, social, and environmental renewal and sustainability. The Lisbon Strategy is heavily based on the economic concepts of: Innovation as the motor for economic change (based on the writings of Joseph Schumpeter), the "learning economy", and Social and environmental renewal.

Under the strategy, a stronger economy will create employment in the EU, alongside social and environmental policies, which will themselves drive economic growth even further.

Failure of Lisbon Strategy was widely commented in the news and by member states leaders. "The European Union has failed in its effort to become the world's most innovative region under the so-called Lisbon Agenda", the Swedish Prime Minister proclaimed¹². Some of the reasons for the lack of success were that the strategy developed into a complex structure with multiple goals and an unclear division of responsibilities. Therefore, the strategy was re-launched¹³ in 2005 with focus on growth and jobs and a structure based on partnership between the Member States and the EU institution. However, in the Lisbon Strategy evaluation document¹⁴, published 2020, some positive impacts on the EU were identified. One of the four priority areas were research and innovation and therefore, the Lisbon Strategy was an important step to provide greater focus on this area and placing research and innovation at the top of the political agenda. In 2005, the concept of partnership was introduced. This concept had a positive impact on the willingness to exchange good practices and the co-operation and division of responsibilities between institutions and the Member States.

The Lisbon Strategy was launched in 2000 as a response to the challenges of globalisation and ageing. The objective for the EU to become a knowledge economy was centred on an ambitious research and innovation agenda. However, the original strategy gradually developed into an overly complex structure with multiple goals and actions and an unclear division of responsibilities and tasks. The Lisbon Strategy was therefore re-launched in 2005 following a mid-term review. In order to provide a greater sense of prioritisation, the re-launched Strategy was focused on growth and jobs. A new governance structure based on a partnership approach between the Member States and the EU institutions was put into place.

The renewal of the strategy in 2005 helped clarify its scope and aims. In particular, the definition of four priority areas was an important step forward in providing greater focus.

1. Research and innovation
2. Investing in people/modernising labour markets
3. Unlocking business potential
4. Energy/climate change

¹² <http://www.euractiv.com/en/priorities/sweden-admits-lisbon-agenda-failure/article-182797> 9 A.D. June 3

¹³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0534:FIN:EN:PDF>

¹⁴ http://ec.europa.eu/archives/growthandjobs_2009/pdf/lisbon_strategy_evaluation_en.pdf 2010

The partnership concept introduced in 2005 has had a positive impact on the co-operation and division of responsibilities between the European Union institutions and the Member States.

Every Member State has experienced success with the implementation of reforms, so there is significant scope for mutual learning and spreading good practise, taking account of national contexts and traditions. Since 2005, there has been an intensification of policy learning and exchanges of good practices. Member States showed considerable interest in the experiences of others in many different areas.

Translation of the Lisbon Strategy goals into concrete measures led to the extension of the Framework Programmes for Research and Technological Development into FP7 and the Joint Technology Initiatives.

May 2004 – Galway declaration

Highlights that the ocean plays a crucial role in planetary/ecosystem function => the critical role that ERA and FP7 must play in supporting world class excellence in marine science & technology.

EurOCEAN Conferences are major European marine science policy conferences providing a forum for policy makers and strategic planners both at European and Member State level to interface with the marine research community and marine and maritime stakeholders.

The EurOCEAN 2010 (Ostend) Conference is the 7th Conference in the very successful series of EurOCEAN / MAST Days Conferences which started more than 15 years ago. Previous EUROCEAN conferences were held in Brussels (1994), Sorrento (1996), Lisbon (1998), Hamburg (2000), Galway (2004), and Aberdeen (2007).

The EurOCEAN 2004¹⁵ Conference was jointly organised by the European Commission, the 2004 Irish Presidency of the European Union and the Marine Board-ESF. Aside from presenting a wide range of Marine Science challenges and opportunities, it reviewed progress towards a European Research Area for marine science and technology and examined ways to achieve further integration in Europe. The high-level messages from the EUROCEAN 2004 Conference were communicated for the first time through a Conference Declaration, which became known as the “Galway Declaration”¹⁶.

The messages from both the Galway (2004) and Aberdeen (2007) Declarations were primarily targeted at the European Commission. The overarching goal of the Galway Declaration was to ensure that critical areas in marine science were adequately supported in the 6th and 7th Framework Programmes.

¹⁵ http://ec.europa.eu/research/conferences/2004/eurocean2004/index_en.html

¹⁶ http://www.eurocean.org/np4/file/129/galway_declaration.pdf

The Galway declaration endorsed by the 2004 Euroceans Conference identified the contribution of marine industries towards achieving the Lisbon objectives and the role of marine science and technology in the seventh EU Framework Programme for Research and Technological Development (FP7) towards developing world class excellence in marine science and technology.

The Commission strategic objectives 2005-2009¹⁷

The commission put forward the strategic objectives in March 2005. In view of the environmental and economic value of the oceans and the seas, there is a particular need for an all-embracing maritime policy aimed at developing a thriving maritime economy and the full potential of sea-based activity in an environmentally sustainable manner. Such a policy should be supported by excellence in marine scientific research, technology and innovation.

Green paper, 2006

A communication by the European Commission in 2006 “Towards a future Maritime Policy for the Union: A European vision for the oceans and seas¹⁸”, called the “Green Paper”, was the first document proposing a European vision for an integrated Maritime policy.

This is the first step towards an all-embracing EU Maritime Policy. It aims to launch a debate about a future Maritime Policy in the EU. Build upon existing EU policies and the Lisbon strategy. Create a new awareness among Europeans.

So far policies have been developed separately.

1. The policy should be anchored within the Lisbon Strategy.
2. Maintain and improve the status of the resource (ocean itself)

To regulate maritime activities it is necessary to develop universally applicable rules. Yet, each part of the oceans and seas is different and may require its own more specific rules. Action at EU level should be undertaken only where it contributes and adds value to the activities of others.

Europe’s leadership in the maritime industry is beyond any doubt. The importance of being competitive, this requires an international level playing field. The adoption of the Green Paper on Maritime Policy on 7 June 2006 was the start signal for a one-year consultation on an EU Maritime Policy. The consultation process highlighted how much Europe’s prosperity relies on the availability of safe and efficient shipping services. Their efficiency is crucial for the competitiveness of the EU in a globalising world.

¹⁷ http://eur-lex.europa.eu/LexUriServ/site/en/com/2005/com2005_0012en01.pdf

¹⁸ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0275B:FIN:EN:PDF>

Stakeholders agree that European shipping services and ports are sectors with high growth potential and key elements of the Lisbon Strategy for making Europe the most competitive trading entity in the world.

Stakeholders are in favour of an integrated approach to Maritime Policy in the European Union, because it integrates the needs and concerns of liked sectors that are currently dealt with in separate policy activities. This can lead to conflicting measures, or to concerns that stakeholders in one area are not being taken into account in another. The impact of environmental protection measures on ports expansion is cited by the ports industry as a particularly clear example of this. A majority of stakeholders expect a beneficial impact from a stronger integration of policies.

The success of EU maritime industries depends on their capacity to innovate. This includes an important science and research component. The science community was very active in developing proposals to better link maritime science and research bodies, and technology and innovation. Researchers point to the economic benefits of the combined use of expensive assets for their work.

The technologies of the future will be crucial building blocks for a more sustainable economy developing renewable energy. Stakeholders point out that up to 80% of the pollution of the marine environment is land-based, and calls for more action on this.

Environmental NGOs call for EU action on the planning of maritime and coastal spaces to ensure implementation of ecosystem-based management. The integration of sectoral policies is a means to ensure the integration of environmental goals across all sectors. Linking environmental research with fisheries research is likely to lead to better and more sustainable results.

December 2006 – FP7¹⁹

On 18 December 2006, the Council adopted decisions establishing the Seventh Framework Programme of the European Community (EC) for research and technological development for the period 2007 to 2013. Included in the decision it was stated: “special attention to cross-cutting priority areas such as ...marine science and technologies”.

“Sustainable management of marine environments” is an important sub-activity of the research theme on the environment (including climate change). It focuses on improving the understanding of the impacts of human activities on the ocean and seas and on marine resources. Following the first FP7 calls in 2007, several projects are currently being launched with a wide thematic scope ranging from investigation of

¹⁹ http://cordis.europa.eu/fp7/home_en.html

marine habitat-species relationships to life forms in extreme environments. The common rationale underlying this research is that by increasing the knowledge of the complex marine world, the damage caused by human activities can be better assessed and mitigated.

June 2007 - Aberdeen Declaration²⁰

The EurOCEAN 2007²¹ Conference (Aberdeen, Scotland, 22nd June 2007), took place during the final phase of a public consultation process on the EU Green Paper “Towards a future for the Union: A European Vision for the Oceans and Seas”, and provided a unique opportunity for the European Marine and Maritime Science Communities to respond through the Aberdeen Declaration. The declaration includes stakeholders call for integration across scientific disciplines.

Existing mechanisms for dialogue, including the Waterborne Technology Platform²² and the Marine Board of the European Science Foundation²³, issued together the Aberdeen Declaration endorsing the idea for integration among marine and maritime research.

The Aberdeen plus interest group joined forces with the Venice Platform group²⁴ to take further steps in integrating the marine, maritime and coastal research sectors in Europe. The goal is to establish a sustainable and long-lasting partnership community (European Marine and Maritime Community), based on shared interests and shared leadership, and to test it on regional seas and pan-European basis.

The process will contribute to developing interactions between partners (the research community, industry, regional authorities, civil society and other stakeholders) starting from regional scales to broader issues shared with EU-neighbouring countries. This, being in line with the European Strategy for Marine and Maritime Research, will underpin the future integrated EU Maritime Policy. The action will be supported by the already established key structures and will constitute a Community which will be an operationally open structure.

The European Marine and Maritime Science and Technology Community: Recognising the great importance of the oceans and seas for Europe’s economic, social and environmental development, and in particular the major challenges posed by global environmental change and the significant opportunities offered by the global market economy. The overarching goal of the Aberdeen Declaration was to embed marine science as

²⁰ http://ec.europa.eu/maritimeaffairs/pdf/Aberdeen_Declaration_final_2007.pdf

²¹ <http://ec.europa.eu/maritimeaffairs/eurocean2007.html>

²² <http://www.waterborne-tp.org/>

²³ <http://www.esf.org/>

²⁴ https://webgate.ec.europa.eu/fpfis/iwt/sites/default/files/Venice_Platform_Declaration.pdf

a central pillar of a future Integrated Maritime Policy (IMP) for Europe and to call for a European Strategy for Marine and Maritime Research as an integral part the IMP.

The Research Strategy must enable:

- Foresight activities to identify new and emerging scientific challenges and opportunities.
- Cross-sectoral, multinational and interdisciplinary research partnerships.
- Co-operation between research, industry and other stakeholders to enhance knowledge and technology transfer and innovation.
- Development of scientific and technology capacity to strengthen the knowledge economy.
- Shared use, planning and investment of critical infrastructure on a Europe-wide basis.

Rationale: The above action will support the objectives of the proposed European Maritime Policy, delivering significant added-value in key areas:

- **Economic Development:** to increase Europe's share of the estimated €4,360 billion global maritime market economy through the development and up-take of innovative marine and environmental technologies.
- **Environmental Management:** to provide the knowledge and tools needed to implement European Union Directives and Regulations, International Conventions and Regional / National / Local Action Plans.
- **Ocean and Coastal Governance:** to enable the application of the principles of marine spatial planning and the ecosystem approach to resource management within the European Union with neighbouring states and globally to support effective governance of the marine and maritime environment.

In this context, marine science will contribute significantly to Europe's response to one of the greatest challenges currently facing mankind – that of Global Climate Change. An appropriate response to Global Climate Change can only be achieved through a partnership.

October 2007 – Blue Book²⁵ *“An Integrated Maritime Policy for the European Union”*.

The policy builds upon the green paper “Towards a future Maritime Policy for the Union” as well as a one year public consultation period.

²⁵ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0575:FIN:EN:PDF>

The EU's Integrated Maritime Policy is also referred to as "The Blue Book" or "IMP". The Blue Book is the central area of policy development and it recognises that each sea-region is unique and needs individual attention in balancing its uses in a sustainable manner. The Blue Book is an important element of EU research governance development in relation to the integrated marine/maritime policy.

The Integrated Maritime Policy for the European Union was proposed by the Commission in October 2007 and, later endorsed by the European Council and the European Parliament. The programme is extremely broad covering actions under many different EU sectoral policy areas. Among the many initiatives are: "developing a European marine research strategy" and "promoting national integrated maritime policies". The policy calls on taking an integrated and sustainable approach to realising these goals, based on excellence in marine research, technology and innovation.

The most important contribution on research to the Maritime Policy is, however, the "European Strategy for Marine and Maritime Research"²⁶, which was published in 2008 to formulate a coherent framework for the European Commission's support for the scientific communities to the implementation of the Maritime Policy.

Commissionaire Joe Borg has eagerly promoted the importance of an integrated approach to Marine and Maritime science. Several of his speeches during 2009 were dedicated to this subject.

The policy is extremely broad. The stated goals are to "maximize the sustainable use of the oceans and seas, build a knowledge and innovation base for maritime policy, deliver the highest quality of life in coastal regions, promote Europe's leadership in international maritime affairs, and raise the visibility of Maritime Europe"

Initiatives of particular importance include: developing a common European maritime transport space; developing a European marine research strategy; promoting national integrated maritime policies in EU Member States; developing a European network for maritime surveillance; formulating a maritime spatial planning roadmap; developing a strategy to mitigate the effects of climate change on coastal regions; setting CO2 emissions and pollution limits by shipping; eliminating pirate fishing and destructive high seas bottom trawling; developing a European network of maritime clusters; and, reviewing EU labour law exemptions for the shipping and fishing sectors.

²⁶ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0534:FIN:EN:PDF>

The Policy calls on taking an integrated and sustainable approach to realising these goals, based on excellence in marine research, technology and innovation. The maritime policy ought to be based on excellence in research and technology development and should constitute a “new form of governance”.

An integrated approach to maritime Policy in the EU requires an interdisciplinary scientific and technological knowledge base. Therefore, the European Commission has committed to developing a Marine and Maritime Research Strategy. Adoption of the Communication on a European Strategy for Marine and Maritime Research was the first milestone.

Likewise, the Commission Communication, *“Towards joint programming in research: Working together to tackle common challenges more effectively”*²⁷ in 2008, realize that investing in research today ensures a better tomorrow, both for the present and for future generations. Joint programming has the potential to become an important mechanism in the European research landscape. In recent years, Member States and the Community have taken many initiatives to boost the impact and efficiency of public research. Yet one of the most obvious causes of sub-optimal returns is the lack of collaboration and coordination between national public research programmes.

In this context, a more strategic approach is proposed in the Commission Communication “A European Strategy for Marine and Maritime Research”, which will create concrete opportunities for joint programming.

September 2008, “A European Strategy for Marine and Maritime Research”²⁸: A coherent European Research Area framework in support of a sustainable use of oceans and seas

The aim of the Strategy for marine and maritime Research was to propose means to create better integration between marine and maritime research. The European Commission plays an important role in the implementation of the strategy:

1. Make full use of all instruments, including the 7th research framework programme, as leverage to achieve the objectives of the strategy;
2. Facilitate a coordinated approach between Member States;
3. Oversee the implementation and continuous adaptation of the strategy in partnership with Member States and the marine and maritime scientific communities.

²⁷ http://ec.europa.eu/research/press/2008/pdf/com_2008_468_en.pdf

²⁸ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0534:FIN:EN:PDF>

Unquestionably, scientific and technological expertise will play an important contributing factor in the implementation of the youngest of EU policies, namely the Maritime Policy. If the aim is to implement a Maritime Policy based on excellence in research, then the scientific communities will need to be included in the process of implementation as partners. December 2008 – The Council endorses the MMS in its conclusions.

The Green Paper on Maritime Policy for Europe appear as a milestone toward the management of coastal and marine environments within the EU, and subsequently as key factors for consideration in the management of marine biodiversity. The paper by B. Queffelec et al.²⁹ concludes that an examination of the evolving framework for a Maritime Policy for Europe highlights the difficulty of isolating a cross cutting topic such as marine biodiversity. An integrated approach is clearly needed to encompass all issues linked to marine biodiversity in a coherent way. Marine biodiversity links all topics related to the environment: conservation, exploitation as well as research aspects.

In line with the above, the paper by J.L. Suarez de Vivero et al³⁰ finds that the conception of an integrated, holistic vision of a maritime policy is a highly complex issue, as cross-institutions incorporating large numbers of sectoral competences need to be created, resulting in power being unevenly distributed in governmental structures. Whereas emerged land has a well-defined structure administratively speaking, a similar structure still remains to be created for the marine environment that would allow planning to be implemented and which would also make the coordination of maritime-land planning systems easier.

The study by K.X.Li and Jin Cheng³¹ “The determinants of maritime policy” concludes that maritime policy is firmly based on economic conditions rather than as the result of a rational analysis of policy makers.

Jan Fritz³² argue that the Maritime Policy is among the most important policy processes in Europe that seeks to realise sustainable development in all its facets. Implementation of the Maritime Policy began in 2008 and is now turning to the challenge of establishing mechanisms for acquiring marine and maritime scientific and technological expertise. By determining that the Maritime Policy ought to be based on excellence in research and technology development, and that this should constitute “a new form of governance”, the EU has placed science-policy relations in the midst of the political process. The

²⁹ Queffelec B, Cummins V, Bailly D. Integrated management of marine biodiversity in Europe: Perspectives from ICZM and the evolving EU Maritime Policy framework. *Marine Policy* 2009 Nov;33(6):871-7.

³⁰ de Vivero JLS, Mateos JCR, del Corral DF. Geopolitical factors of maritime policies and marine spatial planning: State, regions, and geographical planning scope. *Marine Policy* 2009 Jul;33(4):624-34.

³¹ Li KX, Jin C. The determinants of maritime policy. *Maritime Policy & Management* 2007 Dec;34(6):521-33.

³² Fritz J-S. Towards a new form of governance in science-policy relations in the European Maritime Policy. *Marine Policy* 2010 Jan;34(1):1-6.

implementation phase of the marine and maritime research strategy initiated shortly after its adoption by the Commission.

The Commission has invited the scientific communities to make proposals via a call for a “marine science partnership” that was published in the 7th Research Framework Programme.

Initiatives

The focus on Maritime policy has resulted in some initiatives. The initiatives found are listed below with a short introduction.

*The Venice Platform*³³ initiative aims to bring science and stakeholder communities together in the process of an emerging European maritime platform. The subscribing parties, representatives of maritime, marine and coastal networks, express their intention to engage in a cooperation process, which will support the European Maritime Policy in several ways. The parties will strive for the establishment of a common European Platform. This workshop stages the preparation of a work program 2010-2011, enabling those interested to become actively involved in:

- an all embracing Maritime Stakeholders Platform for the EU Maritime Policy
- the establishment of a marine, maritime and coastal science community (MARCOM+)

*EMODNET*³⁴, the Commission proposed a new European Marine Observation and Data Network in its Green Paper on maritime policy. Following an overwhelmingly positive response from stakeholders to its proposal, the European Commission, in its EU's Maritime Policy Blue Book, adopted in October 2007, undertook to take steps towards EMODNET in order to improve availability of high quality data. This marine data infrastructure will be a network of existing and developing European observation systems, linked by a data management structure covering all European coastal waters, seas and oceans, accessible to everyone.

*EMAR2RES*³⁵ is a support action financed by the transport research budget to identify commonalities and strengthen cooperation between marine science and maritime industries.

*MarinERA*³⁶ (2004-2009) was an EU FP6 pilot European Research Area Network (ERA-NET). MarinERA involved 16 partners including leading Marine Research Funding Organisations from 13 European countries.

³³ <https://webgate.ec.europa.eu/fpfis/iwt/node/687>

³⁴ http://ec.europa.eu/maritimeaffairs/emodnet_en.html#1

³⁵ <http://www.esf.org/research-areas/marine-sciences/framework-programme-activities/emar2res.html>

³⁶ <http://www.esf.org/research-areas/marine-sciences/framework-programme-activities/marinera.html>

The legal and financial coordination was provided by Ifremer (France), while the directional and operational coordination was provided by the Marine Board-ESF.

*CLAMER*³⁷ FP7 project aims to raise the awareness of European citizens and society at large to the effects of climate change on the marine environment and their socio-economic consequences.

*SEAS-ERA*³⁸, “Towards Integrated Marine Research Strategy and Programs” is of strategic importance for the European Research Area. Several European strategic fora (e.g. ESFRI) and European Commission’s Communications (e.g. Communication on Joint programming – 2008) have emphasized marine research as a field where major synergistic benefits can be reached by improving the coordination of research and infrastructure investments. SEAS-ERA overall objective is to facilitate the establishment of a stable and durable structure for strengthening marine research across the European Sea Basins. To do so the project brings together 20 major European Marine Research Funding Organizations from 20 countries in the basin regions of the Atlantic, the Mediterranean and the Black Sea, and the Marine Board-ESF. SEAS-ERA will start in Q2 2010 for a 48-month period under the coordination of Spanish Ministry of Science and Innovation (MICINN).

*EUROFLEETS*³⁹, “Towards an alliance of European research fleets”, started September 2009, aims to define a common strategic vision for European research fleets and associated heavy equipment, use more cost-effectively the existing European ocean/global and regional fleets, facilitate a wider sharing of knowledge and technologies between industry, promote greener and sustainable research vessel operations and responsibility, develop training and education at sea

“*The ocean of tomorrow*”⁴⁰ is a joint call to promote excellence in marine and maritime research, and in particular an improved integration between all the relevant scientific disciplines, are needed to address complex sea-related issues in the framework of the EU maritime policy. This is an essential objective of the Communication “A European Strategy for Marine and Maritime Research” which suggested, among other actions, to launch joint calls under FP7 in 2009-2010 on major research topics requiring a cross-thematic approach. The ocean of tomorrow call, which has been launched on 30 July 2009 and closed 14 January 2010, is the first Commission initiative to implement this commitment. The objective of the call is to build the knowledge base for a sustainable growth of sea-based activities. It will do this in two ways: by improving understanding of marine ecosystems’ response to a combination of natural and anthropogenic

³⁷ <http://www.esf.org/research-areas/marine-sciences/framework-programme-activities/clamer.html>

³⁸ <http://www.esf.org/research-areas/marine-sciences/framework-programme-activities/seas-era.html>

³⁹ <http://www.eurofleets.eu/np4/home.html>

⁴⁰ http://cordis.europa.eu/fp7/dc/index.cfm?fuseaction=UserSite.FP7DetailsCallPage&call_id=274

factors, and by providing a scientific foundation for feasible, sustainable management measures supporting policies and possible related technologies.

6.0 Conclusion

We are at a crossroad in our relationship with the oceans. The interaction between the population, industry, society and the seas are more intense, more varied, and create more value for Europe than ever before. The present technology and know-how makes it possible to extract more and more value from the seas and more people want to benefit from the value of the seas. The cumulated effect of this activity is leading to conflicts of use and to the deterioration of the marine environment. The European Commission has recognised this and is promoting an integrated and inter-sectoral approach to face the challenges.

The **Lisbon Strategy** was an important step to put research high on the political agenda. Furthermore, the Lisbon Strategy, promoted the exchange of good practise between institutions and Member States.

The Commission has invited the scientific communities to make proposals via a call for a “marine science partnership” that was published in the **7th Research Framework Programme**.

The aim of the **Integrated Maritime Policy** is to promote the sustainable growth of both the maritime economy and the coastal regions by improving coordination between the different sectoral policies and developing crosscutting tools.

In the commission staff working document⁴¹ accompanying the Progress report on the EU’s integrated Maritime Policy it is stated that: *An integrated approach to Maritime Policy in the EU requires an interdisciplinary scientific and technological knowledge base.*

The role of the European Commission in the implementation of this strategy is:

- To make full use of all Community instruments, first of all the 7th Research Framework Programme, as leverage to achieve the objectives of the strategy;
- To facilitate a coordinated approach between Member States contributing to the objectives of the strategy;
- To oversee the implementation and continuous adaptation of the strategy, in partnership with Member States and the marine and maritime scientific communities.

Therefore, the Commission has committed to develop a Marine and Maritime Research Strategy⁴².

Implementation of the EU Strategy for Marine and Maritime Research and initiation of the Maritime Policy

⁴¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SEC:2009:1343:FIN:EN:PDF>

⁴² <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0534:FIN:EN:PDF>

began in 2008 and is now turning to the challenge of establishing mechanisms for acquiring marine and maritime scientific and technological expertise or in other words seeking scientific consultancy.

The European Strategy for Marine and Maritime Research aims to create a better integration between marine and maritime research with a focus on improving interactions between marine and maritime research.

As specified in the Action plan for the Maritime Policy, a European Maritime Research Strategy is necessary to provide the interdisciplinary knowledge base to underpin the future EU Maritime Policy. There are a few attempts to integrate the marine and maritime research agendas, but this synthesis clearly reveals a European policy scene with the need for an integrated Marine and Maritime research community.