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**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE
COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE
COMMITTEE OF THE REGIONS**

Progress of the EU's Integrated Maritime Policy

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Progress of the EU's Integrated Maritime Policy

Two years after the creation of the Integrated Maritime Policy (IMP)¹, the Council and European Parliament welcomed a first Progress Report² and asked the Commission to present further developments before the end of 2012³. This document presents in detail the actions and activities pursued to implement the IMP and individual EU policies related to the seas, oceans and coasts since 2009. They are set out under the general headings of the second Progress Report on the IMP⁴.

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¹ COM(2007) 575 final of 10.10.2007.

² COM(2009) 540 final of 15.10.2009.

³ GAERC Council Conclusions on Integrated Maritime Policy — Doc. 15175/1/09.

⁴ Integrated Maritime Policy — Evaluation of progress made and new challenges (2010/2040(INI)).

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1. THE CONTRIBUTION OF MARITIME INDUSTRIES TO EUROPEAN GROWTH AND EMPLOYMENT

1.1. Blue Growth

In 2010, the Commission launched a study on future sources of growth in the context of the Europe 2020 strategy — Blue Growth: Scenarios and drivers for sustainable growth from the oceans, seas and coasts. Supported by the Council⁵, this 20-month study was budgeted in 2010 and ran through 2011 and 2012. It underpinned and accompanied the process leading to the adoption of the Blue Growth Communication in September 2012.

The study provided an overview of Europe's 'blue economy', comprising economic activities related to the oceans, seas and coasts. This includes the direct and indirect supporting activities necessary for the functioning of these economic sectors, which can be located anywhere, including in landlocked countries. The environmental challenges associated with the development of these activities were also identified and discussed. Following a ranking exercise based on key economic activities — those which have seen the strongest growth in the last five years (for which data were available) and those showing most growth potential for the coming years — eleven marine and maritime activities were analysed further. These included mature sectors such as coastal tourism, emerging sectors such as offshore wind, and developing sectors such as blue biotechnology. For each of these activities, foresight scenarios were developed through interviews and hearings with experts. This determined the most likely growth scenarios for the next 5 to 15 years in each case.

In keeping with the Integrated Maritime Policy approach, Europe's different sea basins and the clusters around them were also analysed. Synergies and tensions between the different marine and maritime activities also provided further insight into how potential growth in the blue economy can be unlocked. With the aim of establishing the conditions for sustainable growth in marine and maritime activities, the study made policy recommendations on: support for maritime research and development; access to finance for emerging maritime activities; the crucial importance of smart infrastructure and building critical mass through cluster support; the need to anticipate skills needs; the need for public engagement and integrated local development; and the importance of the development of maritime spatial planning.

The *Communication on Blue Growth: opportunities for marine and maritime sustainable growth* built on the findings of the Blue Growth study. In terms of policy context, blue growth represents the maritime dimension of the Europe 2020 strategy for smart, sustainable growth – in line with the Roadmap to a resource efficient Europe. Innovation is key to fostering economic growth and employment while ensuring the sustainability of the marine and coastal environment. There are already several initiatives in place or being developed by the EU and Member States in support of the blue economy. However, on the basis of the findings of the Blue Growth study, five areas are identified as suitable for further policy development on account of their growth potential: blue energy; coastal, maritime and cruise tourism; aquaculture; marine mineral resources; and blue biotechnology. For each area, policy developments are envisaged to support the expected sustainable growth in the next decade. All relevant actors, starting with the EU institutions, Member States and regions, have an important role to play in unlocking the potential for sustainable growth from our oceans, seas and coasts.

⁵ Council Conclusions on integrated maritime policy, 3022nd General Affairs Council meeting, Luxembourg, 14 June 2010.

1.2. Maritime transport

1.2.1. White Paper for Transport

The new White Paper for Transport was adopted in March 2011⁶. It provides a policy response to address some of the challenges confronting the transport sector, such as dependency on oil, climate and environment challenges, congestion, and scarcity of funding. For the maritime sector, the White Paper reflects the orientations of the ‘Maritime Transport Strategy until 2018’⁷:

- The ability of the maritime transport sector to provide cost-efficient maritime transport services adapted to the need for sustainable economic growth in the EU and world economies;
- The long-term competitiveness of the EU shipping sector, enhancing its capacity to generate value and employment in the EU, both directly and indirectly, across all maritime industries.
- The White paper also looks beyond the sectoral aspects and calls for seamless transport chains for passengers and cargo across modes, in particular by better integrating waterborne transport.

1.2.2. Motorways of the Sea and Marco Polo Programme

The Motorways of the Sea have been developed with the support of EU and national funding or directly by companies since 2001. In 2011, in the new guidelines for the development of the trans-European network, the Commission proposed a broader definition of Motorways of the Sea⁸. They should be the maritime component of the trans-European transport network, i.e. the main European corridors used for the movement of goods within the European Union. In order to meet our future needs for mobility, energy and economic efficiency, Motorways of the Sea should provide high-quality services.

Since 2010, the European Commission has been promoting studies, pilot projects and work through the TEN-T multiannual call for Motorways of the Sea to develop innovative solutions to reduce the environmental impact of transport and increase transport efficiency. This integrated approach has significantly contributed to the development of administrative ‘single windows’ in the Member States and better hinterland connections linking maritime and other transport modes. These actions provide wider benefits, as they develop European know-how that will spread throughout the maritime transport sector. Motorways of the Sea represent the spearhead in innovation for maritime transport and logistics.

The Marco Polo Programme was originally established in 2003 in order to reduce road congestion and to improve the environmental performance of freight transport within the EU. Dedicated funding for the service part of Motorways of the Sea actions was introduced in the second edition of the programme, in 2007. The current Marco Polo Programme runs until 2013 with an annual grant budget of about EUR 60 million. Marco Polo publishes a call for proposals from potential grant applicants at the beginning of each year on its website. JRC has developed the external cost calculator used to evaluate proposals received under the Programme. The calculator is an integrated tool for estimating the external costs of using different transport modes and technologies for a specific freight flow.

⁶ COM(2011) 144 final of 28.3.2011.

⁷ COM(2009) 8 final of 21.1.2009.

⁸ COM(2011) 650 final of 19.10.2011.

In 2010, in the interest of clarity, the European Parliament and the Council adopted a recast of the TEN-T Guidelines⁹. Transport infrastructure as such is now well developed within the European Union. However, it is still fragmented, both geographically and between and within transport modes. The main objective of the new guidelines proposed in 2011 was to establish a complete and integrated trans-European transport network, covering all Member States and regions and providing the basis for the balanced development of all transport modes in order to facilitate their respective advantages and maximise the added value of the network for Europe.

1.2.3. Blue Belt

According to the 2011 White Paper on Transport, a ‘Blue Belt’ in the seas around Europe would simplify the formalities for ships travelling between EU ports through the use of new technical facilities. It would further integrate intra-EU maritime transport within the overall transport network by ensuring rapid port transit of goods from elsewhere in the EU and seamless monitoring of vessels and transported goods in international waters. Against this background, the Council supported the launching of a pilot project by the European Maritime Safety Agency (EMSA), built on the existing SafeSeaNet technology, to validate and further refine the Blue Belt concept and to closely examine all relevant aspects of customs and port procedures and controls.

The project aimed to demonstrate to national authorities, starting with customs authorities, what services SafeSeaNet could offer to support their tasks, with a view to reducing administrative burdens for maritime transport. The pilot project was launched in May 2011 and ended in November 2011. An evaluation has since been carried out. All ports in the Member States and 253 vessels participated in the project. Information on the actual routes of participating ships and the last ports visited were transmitted to the national customs authorities prior to the arrival of ships in their ports. National customs authorities participating in Blue Belt acknowledged that the pilot project had successfully delivered timely, accurate and complete information related to the vessels and their voyages. However, it did not provide information on the customs status of the goods aboard, whereas their customs treatment depends on whether they are considered as EU goods or non-EU goods. The Commission is analysing solutions (possible legal amendments) to resolve the issue.

Though the operational phase of the pilot project formally finished on 2 November 2011, the Commission requested EMSA to continue the service offered to the national customs authorities after this date.

1.2.4. Promotion of short-sea shipping (SSS)

Short-sea shipping (SSS) is a vital component of the EU transport system, carrying around 40% of goods exchanged within the Single Market. It has a vastly underused potential, not simply as an alternative to road transport, but also in the overall context of co-modal logistics chains. In 2004, the Commission adopted an action plan to promote short-sea shipping, by simplifying administrative formalities and better using funding programmes and instruments such as TEN-T for infrastructure and the Marco Polo Programme for services.

The action plan was reviewed in 2006 and supplemented by other initiatives, notably the 2009 Communication and Action Plan on the establishment of a European maritime transport space without barriers¹⁰, which addressed the administrative barriers hampering SSS, and the 2011 ‘Sustainable Waterborne Transport Toolbox’, to support the sustainability dimension of the SSS actions.

⁹ Decision No 661/2010/EU.

¹⁰ COM(2009) 10 final of 21.1.2009.

The action plan is monitored in cooperation with the group of national focal points established by the European Commission, which meets twice a year, and with the Short Sea Promotion Centres in the Member States. On 1 June 2011, a maritime stakeholder event ‘Clean air at sea, exploring solutions for sustainable and competitive shipping’ was held in Brussels. The outcome of this event provided valuable input in particular for the Sustainable Waterborne Transport Toolbox.

1.2.5. European Maritime Transport Space without barriers and the eMaritime initiative

In 2009 the European Commission adopted a Communication and an action plan to establish a *European maritime transport space without barriers*, aiming to harmonise and simplify administrative procedures for intra-EU maritime transport. The action plan contains short- and medium-term measures and recommendations to the Member States.

In accordance with the action plan, the European Parliament and the Council adopted Directive 2010/65/EU on reporting formalities on 20 October 2010. The general objective of the directive is to simplify and harmonise the administrative procedures for maritime transport by making the electronic transmission of information standard practice and by rationalising reporting formalities.

In order to assist in implementing the reporting formalities directive, the Commission has established an expert group on maritime administrative simplification and electronic information services (known as the eMS group) with the task of developing specifications and services for electronic data exchange and ‘single windows’ for EU maritime transport. EMSA will support the Commission and the Member States in developing the functional and technical specifications.

In addition, in March 2010 the Commission adopted an amendment to the implementing provisions of the Community Customs Code to streamline the granting and management of authorisations for regular shipping services plying solely between EU ports.

1.2.6. Ports Policy

The European Commission’s Ports Policy is currently based on the Communication on a European Ports Policy¹¹. At the end of 2011, the European Commission also announced a full review of the Ports Policy to take into account the changing situation and challenges from a social, economic and environmental perspective. This review is focusing on three aspects: the full integration of ports in the Trans-European Network for Transport (TEN-T); further administrative facilitation (Maritime Space without Borders); and possible initiatives on transparency and regulated market access (to make sure that public funding is used in the most effective way). This will ensure that the port industry is fully integrated within the Europe 2020 Strategy and can contribute to the further development of the European economy. The review is taking place in full consultation with the port sector, Member States and the European Parliament. The results are expected in the course of 2013.

In 2011, the Commission received a common request from four EU organisations representing the employers and the workers of ports in view of creating a new EU social dialogue committee in the sector.

JRC is contributing to the preparatory work for the policy initiative. It is quantifying potential impacts using models, in this case TRANSTOOLS combined with ad-hoc models focusing on port competition. The objective is to estimate how the proposed new measures will attract new investment in ports, allowing them to improve their services and efficiency. As a result, competition between ports and across transport modes is expected to change in the direction

¹¹ COM(2007) 616 final of 18.10.2007.

anticipated in the recent White Paper on Transport (lower CO₂ emissions from transport in general, modal shift to non-road modes, lower transport costs in general). The models can capture and measure the extent of the changes in the transport system, provided the initial input, often empirical, is adequate.

1.3. Energy

1.3.1. Gas and electricity interconnections: European Energy Programme for Recovery (EEPR)

The EEPR Regulation¹² has its origins in the EUR 200 billion European Economic Recovery Plan, presented by the Commission in November 2008, as a response to the economic and financial crisis in Europe. It entered into force on 1 August 2009 with the aim of reinforcing the EU's energy supply with a budget of almost EUR 4 billion. Part of this budget (2.3 billion Euro) is used by the Commission to finance 43 energy projects in the fields of gas and electricity interconnections, including high-voltage lines, high-pressure gas pipelines, underground storage facilities, liquefied natural gas (LNG) terminals, and supporting equipment.

1.3.2. Offshore wind energy

Through EEPR, DG ENER grants EUR 565 million to industrial-scale innovative projects for offshore wind turbines and foundation structures as well as to first-of-a-kind projects deploying HVDC (high-voltage direct-current) technology for the grid integration of offshore wind farms. EEPR serves the twin objectives of contributing to the integrated EU climate and energy objectives (20-20-20 goals) and contributing to growth and jobs in the EU. As such, it contributes to economic recovery in the EU's coastal regions.

Wind energy technology has also been supported through successive FP programmes as part of the policy of transition towards a more sustainable energy system in Europe. Research and development projects related to offshore wind turbine and wind farm design have been supported starting in FP4. Since FP6, technology demonstration also includes offshore wind projects. Through the FP7, the Commission supports technology research and demonstration projects regarding very large offshore wind energy systems, reliability and maintenance (2008 and 2012 calls), offshore wind grid integration (2008 and 2009 calls), floating platforms for offshore turbines (2010 and 2011 calls).

Offshore wind energy technology has been singled out as a priority in the frame of the EU's Strategic Energy Technology Plan. This plan led to the development of a Roadmap for wind energy technology and to the establishment of the European Wind Industrial Initiative in which industry, member states and the EC work on a long-term approach to support technology demonstration projects. The recent FP calls are based on recommendations of the European Wind Initiative.

1.3.3. Ocean energy

R&D Ocean energy projects have been supported since the eighties. At DG RTD, the earlier projects were mainly focussed at device development while since FP7, a more global approach has been taken to optimise components (CORES) and methodologies (EQUIMAR) for various systems (wave and tidal). DG Energy has been supporting ocean energy projects with a predominant demonstration component since 2006. In earlier years, six such projects

¹² Regulation No 1233/2010 of the European Parliament and of the Council of 15 December 2010 amending Regulation (EC) No 663/2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy.

had been supported, with a total amount of €9.9 million. In 2009 four new grant agreements¹³ have been signed for a total support figure of €20.7 million. These projects were addressing the development, demonstration and monitoring of the operation of single devices.

The 2011 call for proposals was addressing the deployment of the first grid connected ocean energy farms, using the same device type, in real sea environments, with an installed capacity of 3MW or over.

For 2013, the FP7 call will address the design of ocean energy device arrays while coordination of Member States will be supported through an ERA-NET.

1.3.4. *Trans-European Energy Networks (TEN-E)*

In October 2011, the European Commission tabled a comprehensive package to enhance trans-European infrastructure development in the areas of transport, energy and the information society. This package includes five legislative proposals: the three sectoral guidelines setting out sectoral infrastructure policies; the Connecting Europe Facility (CEF); and the project bond pilot proposal as a forerunner for other financial instruments.

Communication COM/2011/0658 final sets out rules for the timely development and interoperability of trans-European energy networks¹⁴. To this end, it identifies, for the period up to 2020 and beyond, a limited number of trans-European priority corridors across electricity and gas networks and thematic areas where EU action is most warranted.

- **Priority Electricity Corridors:**
 - North Sea Offshore Grid
 - North-South electricity interconnections in Western Europe
 - North-South electricity interconnections in Central Eastern and South Eastern Europe
 - Baltic Energy Market Interconnection Plan for electricity
- **Priority Gas Corridors:**
 - North-South gas interconnections in Western Europe
 - North-South gas interconnections in Central Eastern and South Eastern Europe
 - Southern Gas Corridor
 - Baltic Energy Market Interconnection Plan for gas
 - Oil supply connections in Central Eastern Europe
- **Priority Thematic Areas:**
 - Smart-grid deployment
 - Electricity highways
 - Cross-border carbon dioxide network

¹³ TREN/FP7EN/239368 acronym: Waveport (support €4.6 million)

TREN/FP7EN/239533 acronym: Pulse Stream 1200 (sup. €8million)

TREN/FP7EN/239376 acronym: Standpoint (support €5.1 million)

TREN/FP7EN/239496 acronym: Surge (support €3.0 million)

¹⁴ COM/2011/0658 final — Proposal for a Regulation of the European Parliament and of the Council on guidelines for trans-European energy infrastructure.

The interconnection, interoperability and development of trans-European networks for transporting electricity and gas are essential for the effective operation of the internal energy market in particular and the Single Market in general. TEN-E plays a crucial role in ensuring the security and diversification of supply¹⁵. Interoperability with the energy networks of third countries (accession and candidate countries and other countries in Europe as well as countries in the Mediterranean, Black Sea and Caspian Sea basins and in the Middle East and Gulf regions) is essential. The budget allocated to TEN-E (around EUR 20 million per year) is mainly intended for financing feasibility studies. Other EU instruments may also step in to part-finance investments, for example the Structural Funds in the convergence regions.

1.3.5. *Maritime projects within the Intelligent Energy Europe programme (IEE)*

- OffshoreGrid¹⁶ (2009-2011) was a strategic project to develop a design for the offshore grid in Northern Europe, along with a suitable regulatory framework taking into account technical, economic, policy and regulatory aspects. OffshoreGrid targeted European policy makers, industry, transmission system operators and regulators. Its geographical scope initially comprised the regions around the Baltic and North Seas, the English Channel and the Irish Sea. Later, the results were applied to the Mediterranean region, in qualitative terms. OffshoreGrid provided inputs for the preparation of the Commission's *Communication on Energy infrastructure priorities for 2020 and beyond*¹⁷. OffshoreGrid is referred to both in the Communication itself and in the Impact Assessment, and its achievements have been commended by high-level representatives of DG ENER and by the Commissioner for Energy, as well as by ENTSO-E, national TSOs and companies working in the sector.
- The WINDSPEED¹⁸ project (2008-2011) set out a roadmap for the deployment of offshore wind power in the central and southern North Sea basin. The roadmap included (a) the definition of an ambitious but realistic medium-term offshore wind energy target, (b) identification of risks and barriers, along with a set of coordinated policy recommendations for the deployment of offshore wind in the above-mentioned sea basin.
- The SEANERGY 2020¹⁹ project (2010-2012) aims to formulate concrete policy recommendations on how best to deal with maritime spatial planning (MSP) and remove MSP obstacles to the deployment of offshore power generation. The project focuses particularly on offshore renewable energy technologies and related grid infrastructure. It will provide policy recommendations for a more coordinated approach to MSP and for greater deployment of offshore renewables (wind, wave, tidal). These recommendations will be put to different national, regional and European authorities, and will also be disseminated to the different maritime users through specific bilateral meetings and workshops organised in four different sea basins (Atlantic, Mediterranean, Baltic and North Sea).

¹⁵ Decision No 1364/2006/EC of the European Parliament and of the Council of 6 September 2006 laying down guidelines for trans-European energy networks.

¹⁶ OffshoreGrid, Regulatory Framework for Offshore Grids and Power Markets in Europe: Techno-economic Assessment of Different Design Options. www.offshoregrid.eu/.

¹⁷ COM(2010) 677 final. Communication on energy infrastructure priorities for 2020 and beyond — A blueprint for an integrated European energy network.

¹⁸ WINDSPEED. Spatial Deployment of Offshore Wind Energy in Europe. www.windspeed.eu/.

¹⁹ SEANERGY 2020. Delivering Offshore Electricity to the EU: spatial planning of offshore renewable energies and electricity grid infrastructures in an integrated EU maritime policy. www.seanergy2020.eu/.

- GP WIND²⁰ (2010-2012) aims to address barriers to the development of onshore and offshore wind by developing good practice in reconciling objectives for renewable energy with environmental objectives and actively involving local and regional communities. The key European added value is demonstrating and disseminating good practice from individual countries to target audiences across Europe, thus providing tools that can be used by industry, developers, European, national and local policy makers, regulatory authorities, environmental agencies and groups and local communities to improve policy, guidance and practice in dealing with applications for new renewable energy projects. The project aims to deliver at least five official commitments from Member State stakeholders confirming that they have adopted the best practices identified. It also aims to reduce by at least 20 % the average time taken to process planning applications.
- SOWFIA²¹ (2010 – 2013) aims to facilitate the development of European-wide coordinated, unified and streamlined environmental and socio-economic Impact Assessment (IA) tools for offshore wave energy conversion developments. By utilising the findings from technology-specific monitoring at multiple sites, SOWFIA will accelerate knowledge transfer and jump-start European-wide expertise on environmental and socio-economic IA of large-scale wave energy projects. Regional coordination via SOWFIA project collaboration will enable the exchange, sharing and transfer of IA and policy experience and associated knowledge and good practices.

1.4. Shipbuilding

1.4.1. Revision of the LeaderSHIP strategy

Notwithstanding the current crisis in large parts of the global shipbuilding and shipping sector, Europe's maritime industry with its strong innovation and design capacity has a strategic role to play in addressing major challenges such as climate change and energy efficiency.

The LeaderSHIP 2015²² strategy was prepared by the shipbuilding industry in 2002 and endorsed by the Commission in 2003²³. It was launched as a strategic response to tackle fundamental challenges in the sector, and represents an ambitious programme to ensure the long-term future of the sector in the world market. Its main objectives are to gain competitive edge by building on the EU's already existing technological leadership in selected market segments in order to protect innovation and know-how, strengthen customer focus, and improve the industry structure. To this end, measures have been taken in eight action areas: level playing field; improving research, development and innovation (RDI); access to finance; safer and more environmentally friendly ships; naval shipbuilding; intellectual property rights (IPR); access to a skilled workforce; building a sustainable industry structure.

In 2007, in its review of the implementation of the strategy²⁴, the Commission reported on positive developments in the sector and major achievements of the strategy. Favoured by a

²⁰ GP WIND. Good practice in reconciling onshore and offshore wind with environmental objectives. www.project-gpwind.eu/.

²¹ SOWFIA. Streamlining of ocean wave farm impact assessments. www.sowfia.eu/.

²² COM(2003) 717 of 21.11. 2003.

²³ LeaderSHIP 2015, Defining the Future of the European Shipbuilding and Repair Industry – Competitiveness through Excellence, COM(2003) 717 of 21.11. 2003.

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2003:0717:FIN:en:PDF>.

²⁴ SEC(2007) 517 — LeaderSHIP 2015 Progress Report

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0220:FIN:en:PDF>.

positive market evolution, the European shipbuilding industry had made substantial progress in innovation and specialisation.

The current review and update of the LeaderSHIP initiative builds on the achievements of the existing approach and adapts to the demanding business environment caused by the profound crisis in global shipbuilding. It will address opportunities for diversification and challenges in the move to new business areas. Moreover, it aims to give a strong fresh impetus to future directions in innovation, greening, application of new technologies, and new emerging markets like off-shore wind energy. To reach this objective, cooperation between industry, the social partners, and public authorities at regional, Member State and European level needs to be strengthened. The renewed strategy will develop a vision for a sustainable foundation for the European shipbuilding industry, so as to contribute to sustainable, secure and safe waterborne transport and to further advances in the use of marine resources and energy generation.

1.4.2. Framework on State Aid to Shipbuilding

The *Framework on State Aid to Shipbuilding* determines which types of state aid are allowed for the shipyards. The previous Framework was due to expire on 31 December 2011. Therefore, in view of adopting a new Framework, the Commission carried out a public consultation²⁵ followed by an impact assessment²⁶. The new Framework was adopted in December 2011²⁷ and will be valid until the end of 2013. It contains specific provisions in relation to innovation aid and regional aid for shipbuilding, as well as provisions on exports credits.

The new set of rules has an extended scope as it now concerns inland waterway vessels and, as regards innovation aid, floating and moving offshore structures. Other novelties relate to innovation aid as the Framework now provides for precise rules ensuring that public support has a real incentive effect. It also increases the admissible intensity of the aid where innovation has a positive environmental impact.

As was the case before the revision, the shipbuilding industry is eligible under the horizontal State aid instruments, unless otherwise provided for in those instruments.

1.5. Fisheries and aquaculture

1.5.1. Common Fisheries Policy

The Common Fisheries Policy (CFP) is not achieving its key objectives: fish stocks are overfished, the economic situation of parts of the fleet is fragile despite high subsidies, jobs in the fishing sector are unattractive, and the situation of many coastal communities dependent on fisheries is precarious. Against this background, the Commission proposed an ambitious reform of the policy in July 2011²⁸. This reform is about putting in place the conditions for a better future for fish and fisheries alike, as well as the marine environment that supports them. The CFP has enormous potential to deliver the building blocks for sustainable fisheries that respect the ecosystem as well as ensuring high-quality, healthy fish products for European citizens, thriving coastal communities, profitable industries producing and processing fish, and more attractive and safer jobs.

²⁵ http://ec.europa.eu/competition/consultations/2010_shipbuilding_framework/index.html

²⁶ http://ec.europa.eu/governance/impact/ia_carried_out/cia_2011_en.htm#comp

²⁷ 2011/C 364/06

²⁸ COM/2011/0425 final of 13.7.2011.

The reform will contribute to the Europe 2020 Strategy²⁹ by working towards sustainable and inclusive growth, enhanced cohesion in coastal regions, and robust economic performance of the industry. By aiming to ensure that living marine resources are exploited sustainably, the reform is also a key component of the ‘resource-efficient Europe’ flagship³⁰ initiative.

Sustainability is at the heart of the proposed reform. Fishing sustainably means fishing at levels that do not endanger the reproduction of stocks and that provide high long-term yields. The Commission proposes that by 2015, stocks must be exploited at sustainable levels that produce the ‘maximum sustainable yield’. The Commission also proposes eliminating the practice of throwing unwanted fish overboard by 2016. Such discards are an unacceptable waste of resources. If stocks were exploited at maximum sustainable yield, this would increase stock sizes significantly along with overall catches, profit margins and return on investments. Gross value added for the catching industry would almost double.

Fishing sustainably will free the catching sector from depending on public support. It would also make it easier to achieve stable prices under transparent conditions, bringing clear benefits for consumers. A strong, efficient and economically viable industry operating under market conditions would play a more important, active role in managing stocks. It would also help to reduce fleet overcapacity, one of the main causes of overfishing today.

Fishing sustainably is essential for the future of coastal communities, which in some cases will need specific measures to help manage their small-scale coastal fleets. The Commission proposes to develop the CFP as part of the broader maritime economy. This will result in more coherent policies for the EU’s seas and coastal areas, and a better contribution to helping coastal regions diversify their sources of income so as to ensure a better quality of life. Fish is the resource base of the industry. It is also a source of healthy protein for human consumption. Making fishing and aquaculture sustainable in coastal and rural areas is in the interest of society at large, and will help to meet growing consumer demand for quality fish and seafood.

The reform aims to create a fundamentally different CFP:

- Throwing fish overboard will be stopped and stocks will be brought back to sustainable levels by 2015. Fisheries measures will contribute to a healthy marine ecosystem. Management measures will be closer to the reality of Member States and stakeholders.
- Fishermen will take economic decisions to adjust fleets to resources, small-scale fleets will improve their performance, and income diversification will help to strengthen coastal communities.
- When buying fish, consumers will have improved information on the quality and sustainability of products.
- EU funding will be limited to supporting sustainability initiatives, and only those which comply with the rules.
- In international and bilateral relations, the EU will actively promote the CFP principles of sustainable fisheries and good governance.

²⁹ COM(2010) 2020 of 3.3.2010.

³⁰ COM(2011) 21 of 26.1.2011.

In July 2011, the Commission submitted its proposals for reform of the CFP³¹. In order to deliver this reform and further implement the IMP, the Commission then proposed a new European Maritime and Fisheries Fund³² in December 2011.

Previously, in May 2011, the Commission presented a report on deterring illegal activities in the fisheries sector: genetics, genomics, chemistry and forensics to fight IUU (illegal, unreported and unregulated) fishing and support for fish product traceability³³.

To efficiently implement traceability in the fisheries sector and support control authorities, independent control measures are needed. While molecular techniques based on genetics and chemistry have great potential in this respect, they remain underutilised. To raise awareness among stakeholders and to facilitate technology transfer, a report produced by the European Commission's JRC describes state-of-the-art molecular technologies and discusses how these can be used for traceability and fisheries control. It provides examples of cases where molecular techniques were employed to reveal fisheries fraud, demonstrate the feasibility of the techniques. Also explored are venues to bring forensic genetics and chemistry into a European fisheries control and enforcement framework, within the context of EU policies and legislation.

The JRC is collaborating with EUROSTAT to carry out an analysis specifically of fisheries and aquaculture. The aim of the study is to define and locate fishing- and aquaculture-dependent local communities and analyse how important these activities are in terms of employment opportunities.

The research is based on the analysis of local connectivity networks in terms of focal points in coastal areas, gravitation models and other spatial analysis methods derived from economic geography approaches. Spatial information on aquaculture sites and fishing ports is combined in a geographical context with socio-economic data on fisheries, demographics and employment.

The preliminary results indicate that when a more detailed geographical breakdown is considered, the role of fishing activities for some local communities is more clearly apparent (up from 0.2% reported in previous studies for NUTS2 regions to 20-40% in some local fishing communities). The study will ultimately result in the mapping of areas of gravitation of population and employment in respect of fishing ports and aquaculture sites, and the quantification of the socio-economic role of fishing and aquaculture activities in these areas.

1.5.2. Aquaculture

At global level, aquaculture is the fastest growing food production industry. It is increasingly compensating for fisheries in meeting the growing demand for sea food and providing socio-economic development opportunities to coastal and rural communities.

Despite this great potential, European aquaculture remains stagnant. A number of reasons have been identified for this, many falling within the competence of the Member States, others linked to EU policies. One of the aims of the reform of the Common Fisheries Policy is to promote aquaculture growth through a coordinated approach based on non-binding strategic guidelines, common priorities and exchange of best practice.

The European Commission's JRC develops the European Aquaculture Performance Indicators (EAPI), which include a set of indicators on governance and on economic, social and environmental sustainability for the three main aquaculture segments: marine, freshwater fin

³¹ COM/2011/0425 final of 13.7.2011.

³² COM/2011/0804 final of 2.12.2011.

³³ <http://publications.jrc.ec.europa.eu/repository/handle/111111111/16295>.

fish and shellfish. In line with new priorities for aquaculture in the EU, the indicators are developed to describe aquaculture production in the Member States and to identify possible common priorities and targets for the development of sustainable aquaculture activities.

2. COOPERATION ACROSS SECTORS AND BORDERS TO ENSURE OPTIMUM GROWTH CONDITIONS FOR THE MARITIME ECONOMY

2.1. Maximising the sustainable pursuit of activities on coasts and at sea

The exploitation of coastal zone and marine resources is an important field of economic activity in the EU. Several sectors compete for space and resources across sea basins. Conflicts between sea users and demands for sea space are expected to increase dramatically in the coming years.

MSP and ICZM are linked concepts, as they both address the use of coastal and maritime space and the management of human activities. DG MARE and DG ENV have therefore decided to join forces in developing and integrating MSP and ICZM further within the EU. The added value of addressing MSP and ICZM jointly is also confirmed by stakeholder consultations.

2.1.1. Maritime Spatial Planning (MSP)

Limited space and resource availability in sea basins means that the organisation of activities in sea basins faces important challenges in different policy areas, including the environment, fisheries, maritime transport, offshore energy, etc. Each of these policies has its own specific objectives, which might cause conflicts in implementation if not dealt with in a coordinated way across sea basins. There is a need for tools that enable growth by increasing efficiencies, streamlining multiple activities and facilitating their coexistence.

Maritime spatial planning is a public process for analysing and deciding the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic and social objectives. It is a multi-sector tool to facilitate implementation of the ecosystem approach and to support, within a given maritime space, the reconciliation of concurrent human activities and the reconciliation of such activities and their impact on the marine environment, without any built-in priority for any type of claim on that space.

At EU level, MSP was identified as an important tool for integrated sea use management and sustainable development in the Blue Book of 2007³⁴. Elements for a coherent approach to MSP at EU level were set out in the 2008 Commission Communication ‘Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU’³⁵.

In 2010, the Commission adopted a second Communication on MSP entitled ‘Maritime Spatial Planning in the EU — Achievements and future development’³⁶. One of the main conclusions of this progress report was that there was broad agreement among stakeholders to further develop a common approach to MSP at EU level. The Communication also confirmed the validity of the 10 key principles for good MSP governance:

Using MSP according to area and type of activity

- (1) Defining objectives to guide MSP
- (2) Developing MSP in a transparent manner
- (3) Stakeholder participation

³⁴ COM(2007) 575.

³⁵ COM(2008) 791 final of 25.11.2008.

³⁶ COM(2010) 771 final of 17.12.2010.

- (4) Coordination within Member States — simplifying decision processes
- (5) Ensuring the legal effect of national MSP
- (6) Cross-border cooperation and consultation
- (7) Incorporating monitoring and evaluation in the planning process
- (8) Achieving coherence between terrestrial and maritime spatial planning — relationship with ICZM
- (9) A strong data and knowledge base.

In 2010, the Commission published a study on the economic benefits of MSP. The main conclusion was that MSP can lead to significant economic benefits in terms of lower coordination and transaction costs as well as a better investment climate. For three scenarios, a reduction of 1% in transaction costs led to savings ranging from EUR 170 million to EUR 1.3 billion in 2020, a figure that can increase further due to the acceleration of emerging activities such as renewable energy installations. In 2011 the Commission published a study on the potential for MSP in the Mediterranean³⁷. The main conclusion was that there is potential for implementing MSP in the Mediterranean sea but that the scope for coastal states to do so is in most cases limited to their territorial seas, since up to now only very few exclusive economic zones have been established in this sea basin.

Two 18-month preparatory actions on cross-border cooperation on MSP were concluded in June 2012, one for the Baltic Sea (Plan Bothnia) and one for the North Sea (MASPNOSE), both co-financed by the EU. Each project involved bodies from different Member States and aimed to gain practical experience of applying MSP in cross-border areas.

The Plan Bothnia³⁸ project looked into maritime spatial planning in the Baltic Sea. Partners from Finland and Sweden as well as international institutions participated in the project, coordinated by the HELCOM Secretariat. The MASPNOSE³⁹ project addressed maritime spatial planning in two areas in the North Sea, the Thornton Bank and the Dogger Bank. It included partners from the Netherlands, Belgium, Germany and Denmark, coordinated by Wageningen University. Both projects have provided concrete lessons for the cross-border application of MSP and have further developed various aspects, such as the 10 key principles for MSP referred to above and the setting up of monitoring and evaluation systems.

An international conference on MSP, hosted by Commissioner Damanaki, was held in Brussels on 26 March 2012. High-level representatives from the European Union and third countries, public authorities, representatives from maritime industries and NGOs had an opportunity to share their experiences on MSP in the EU and around the world, and to reflect on how they want to see it develop in the future.

2.1.2. *Integrated Coastal Zone Management (ICZM)*

Coastal zones are among the most densely populated areas in the EU. A large share of their economic activities relate to sea areas. This intensive and increasing use leads to the unsustainable use of marine and coastal resources. The management of the interaction between uses of coastal zones and the sea thus becomes increasingly important. This entails moving from a sectoral approach to the management of European marine and coastal areas to a more integrated and coherent decision-making process across sea basins.

³⁷ These studies can be found at http://ec.europa.eu/maritimeaffairs/index_en.html.

³⁸ <http://planbothnia.org/>.

³⁹ <https://www.surfgroepen.nl/sites/CMP/maspnose/default.aspx>.

ICZM is a process tool aiming to achieve integrated management of all policy processes affecting coastal zones. Its added value⁴⁰ is that it addresses the land and the sea simultaneously. The linkages between the ‘dry side’ (land) and ‘wet side’ (sea) of the coast are such that the sustainable use of coastal/marine resources requires coordinated management of activities. Existing EU legislation focuses either on the terrestrial side or on the marine side. In the rare cases where land-sea interaction is considered, not all relevant interactions are addressed⁴¹.

In 2002, the Council and the European Parliament adopted a Recommendation on ICZM⁴² defining the principles of sound coastal planning and management and referring to the need for sound and shared knowledge, a long-term, adaptive approach, a cross-sector perspective, the involvement of stakeholders, and consideration of both the terrestrial and marine components of the coastal zone. Implementation of the EU ICZM Recommendation is fragmented and progress remains slow. Member State action has improved since 2006⁴³, but the number of national ICZM strategies remains small (5 out of 22 coastal Member States). An evaluation of Member States’ progress reports on ICZM concluded that this approach led to variation in the scope and level of activity⁴⁴. The overall level of implementation is evaluated at 50%, with significant divergences between Member States. Consequently, large potential benefits are not realised⁴⁵.

The ICZM Protocol to the Barcelona Convention⁴⁶ entered into force in March 2011. It makes ICZM compulsory for coastal Member States in the Mediterranean.

In 2009, the working group report on the follow-up to the EU ICZM Recommendation⁴⁷ identified three policy options for detailed examination: a programme, a revised recommendation and a directive. Regarding the content of the options, the report signals that more focused objectives and deliverables would need to be defined compared to the 2002 Recommendation.

In 2011, the comparative analysis of OURCOAST cases⁴⁸ concluded that there is significant experience with ICZM practice in Europe, leading to improved coastal planning and management. The report provides insights into success factors for and barriers to ICZM.

Reports were submitted by 16 coastal Member States (out of 22)⁴⁹ in 2011 on a voluntary basis for the period 2006-2010. The study of Member State progress reports on ICZM⁵⁰ provides an overview of these Member State reports. It shows that some Member States have advanced in terms of delivering a national ICZM strategy, with progress on the ICZM principles, but large variations in scope and contents are observed.

⁴⁰ FAO (1994) Corporate Document Repository, ‘integrated management of coastal zones’, ID 59975.

⁴¹ For example, the Water Framework Directive (2000/60/EC) introduces holistic water management for inland, transitional and coastal waters. However, it does not cover sediment management or coastal erosion, which are among the most dynamic processes in land-water interaction.

⁴² Recommendation (2002/413/EC), OJ L48, 6.6.2002, p. 24.

⁴³ The reporting period formally covered by the Recommendation ended in 2006.

⁴⁴ http://ec.europa.eu/environment/iczm/pdf/Final%20Report_progress.pdf.

⁴⁵ COWI (2011) http://ec.europa.eu/environment/iczm/pdf/ICZM%20IA%20study_Final_report.pdf.

⁴⁶ Council (2009/89/EC), OJ L344 22009; <http://ec.europa.eu/environment/iczm/barcelona.htm>; the Protocol covers the coastal zone up to the external limits of the territorial seas of the Parties.

⁴⁷ <http://www.acceptance.ec.europa.eu/environment/iczm/pdf/Report%20Earlyreflection.pdf>. The working group responded to the need identified in the evaluation of the EU ICZM Recommendation (COM(2007) 308).

⁴⁸ <http://ec.europa.eu/ourcoast/download.cfm?fileID=1709>.

⁴⁹ http://ec.europa.eu/environment/iczm/ia_reports.htm.

⁵⁰ http://ec.europa.eu/environment/iczm/pdf/Final%20Report_progress.pdf.

The 2011 study on options for coastal information systems⁵¹ analysed a selection of coastal information systems and subsequently identified and assessed three policy options, with increasing degrees of ambition, to improve coastal information systems to support ICZM implementation. As part of this study, a stakeholder workshop was held on 6 May 2011.

In 2011, the JRC completed a study on the impact of policy alternatives on European coastal zones 2000-2050⁵². The land-use modelling results in this study indicate that the intensified trends towards built-up and fragmented areas in Europe's coastal zones compared to inland areas also hold true under future scenarios.

A 2011 support study for an impact assessment for a follow-up to the EU ICZM Recommendation⁵³ evaluated the different policy options identified in the impact assessment.

2.1.3. *Public consultation on MSP and ICZM*

On 23 March 2011, DG MARE and DG ENV launched a joint public web-based consultation on MSP and ICZM. A total of 225 contributions were received, including 109 responses from organisations. The overall findings of this consultation were as follows:

- Confirmation that conflicts in the use of sea space are becoming more frequent and will continue in the future.
- Confirmation of the usefulness of implementing MSP in European waters and overall support of the work towards a common approach within the EU.
- Confirmation that EU action on cross-border issues on MSP would be particularly useful.
- Confirmation of the benefits and added value of EU action on ICZM. There is still significant potential to achieve the full implementation of ICZM principles.
- Sustainable development remains an important objective, with institutional coordination, coherent planning of the land and sea parts of coastal zones, and integration across interests (social, economic and environmental) forming the core tenets of ICZM.
- There is scope to strengthen the basis of EU ICZM policy, up to and including a binding but flexible legislative framework⁵⁴. Support for ICZM through studies, projects and research is considered important as well.
- Confirmation of the need to ensure a strong link between ICZM and MSP.

A public hearing on ICZM was organised on 30 May 2011⁵⁵. It highlighted the need to consider the differences in coastal contexts and the linkages between ICZM and MSP. The consultation has shown that the business community, in particular those sectors involved in cross-border investments at sea, such as transnational grids, is very much in favour of a European approach to MSP and ICZM, since this is expected to reduce their operating costs and facilitate the development of their activities.

⁵¹ http://ec.europa.eu/environment/iczm/pdf/21807-REL-T006.2_Final_Report.pdf.

⁵² http://ec.europa.eu/environment/enveco/impact_studies/pdf/land_use_modelling%20adaptation_activities_coastal.pdf.

⁵³ COWI (2011) http://ec.europa.eu/environment/iczm/pdf/ICZM%20IA%20study_Final_report.pdf.

⁵⁴ 72 % fully agree or agree with the statement that an EU binding legislative framework would provide a better basis for ICZM implementation in the long term and in cross-border contexts.

⁵⁵ EC (2011). Public Hearing on Integrated Coastal Zone Management 30 May 2011 — Hearing Report. http://ec.europa.eu/environment/iczm/pdf/ICZM_Hearing_Report_20110530.pdf.

2.2. Protecting European citizens and maritime industries against sea-related threats

2.2.1. Integrated maritime surveillance

European governments have an increasing interest in ensuring safe, secure, and clean seas as fundamental conditions for sustainable economic growth. Indeed, Europe's external trade, with 90% carried by sea, needs increased protection by navies and police against piracy and other forms of crime, Europe faces human trafficking carried out increasingly at sea, fish stocks need to be protected against depletion, and the oceans and seas need to be protected against land and seaborne pollution. More efficient and cost-effective maritime surveillance is therefore a priority to ensure the sound, sustainable and efficient use of the major opportunities offered by the EU maritime domain.

The purpose of maritime surveillance is to provide the necessary information to allow for effective supervision of all man-made and natural occurrences at sea. Maritime surveillance is the responsibility of about 400⁵⁶ public authorities, mainly at Member State but also at EU level, carrying out seven maritime surveillance functions: border control, customs, defence, fisheries control, general law enforcement, marine environment, and maritime safety and security. These seven functions involve many different initiatives at Member State level (national and regional) as well as EU level. A number of efforts have been made at both Member State and EU level to overcome sectoral thinking by utilising the knowledge provided by combining sectoral information. As a result, sectoral surveillance systems have been moving towards at least partial cross-sectoral information exchange, thus picking up the idea of creating a common information sharing environment⁵⁷. In many cases, however, national sectoral legislation depends on EU rules, so it is often not possible for Member States to proceed on their own with the legal amendments necessary to allow for appropriate data exchange between the seven different maritime functions.

The Common Information Sharing Environment (CISE) for the surveillance of the EU maritime domain is a concept that the Commission has been working on since 2009 in close collaboration with the Council and the Member States to provide an adequate policy response to the current challenges. The immediate overarching objective of CISE is to improve the efficiency and cost-effectiveness of maritime surveillance in the EU maritime domain by enabling appropriate, lawful, secure and efficient data sharing across sectors and borders throughout the EU in a decentralised fashion.

Six steps have been identified in the CISE Roadmap as fundamental preliminary work to be carried out before establishing CISE⁵⁸. In May 2011, Council Conclusions on the subject welcomed the Commission's Roadmap⁵⁹.

Step 1: Identifying all user communities

⁵⁶ This figure is an approximation, as in certain cases an undefined number of communal authorities are involved.

⁵⁷ At EU level, this is the case for systems or initiatives such as SafeSeaNet, CleanSeaNet, BlueBelt Eurosur, Marsur and cooperation efforts between agencies such as EMSA, Frontex, EFCA and Europol. At national level, a number of centres have been created to bring together the various existing coastguard functions.

⁵⁸ COM(2010) 584 of 20.10.2010.

⁵⁹ COM(2010) 584final.

Council Conclusions of May 2011 supporting the Commission's roadmap towards establishing CISE (3092nd General Affairs Council meeting of 23.5.2011).

Seven user communities at EU level and about 400 relevant authorities at national level have been identified as handling information in about 20 mainly sectoral systems. This will remain a living reference list open to adaptation by Member States.

Step 2: Mapping of data sets and gap analysis

A Technical Advisory Group (TAG) was set up to carry out four of the six CISE Roadmap steps. The Group is co-chaired by DG MARE and JRC, which provides scientific and technical support to the TAG. Within this setup, TAG established an overview of the main existing data types relevant for maritime surveillance. This exercise revealed the existence of over 500 data elements relevant to maritime surveillance across sectors and borders. This list has constituted a useful reference for developing the other steps of the Roadmap. TAG further found that, of the total information required on a regular or sporadic basis by all seven user communities, 40 % to 90 % is not yet made systematically available. This is due to the current lack of information exchange across sectors and borders.

Step 3: Identifying common data classification levels

TAG found that most data could be exchanged at a non-classified level, even though arrangements need to be found for data that are unclassified but of a sensitive nature, e.g. for commercial reasons. Only few data require classification or higher security levels for exchange through CISE. Existing security levels currently used in the various sectors to classify information should not be modified by CISE.

Step 4: Developing the technical supporting framework for CISE

A preliminary study is currently being carried out by an external IT consultant essentially with a view to understanding the diversity and functionality of the various IT tools used by existing and forthcoming sectoral and regional systems. It aims to identify reusable IT features or concepts and semantics and to propose possible IT choices to interlink these systems in a decentralised manner. In doing so, the study takes particular account of the functionalities already developed within existing and planned systems.

Step 5: Establishing appropriate access rights

As access rights are linked to particular data elements, TAG is currently investigating the relevance of structuring data elements into ‘purpose-oriented information service packages’ with corresponding predefined ‘access rights’ based on the predefined maritime tasks of the seven user communities. Such service packages would, of course, in any case have to be taken up by Member States as the main stakeholders in maritime surveillance.

Step 6: Ensuring compliance with legal provisions

A study will soon be launched to identify the legislative adjustments necessary to allow for the additional cross-sectoral and cross-border information exchanges identified as necessary by TAG. CISE will fill the gap by enabling such information exchange, thus allowing authorities to carry out their maritime tasks more efficiently in the future.

2.2.2. MARSUNO and BluemassMed

The results of two pilot projects MARSUNO⁶⁰ and BluemassMed⁶¹ launched in December 2009 have been regularly fed into the work of TAG under the relevant Roadmap Steps.

BlueMassMed is pilot project aiming to integrate maritime surveillance in the Mediterranean Sea Basin over a period of two years. It covers six different Member States and all seven user

⁶⁰ <http://www.marsuno.eu/>.

⁶¹ <http://www.bluemassmed.net/>.

communities, with a total of 37 different partners (authorities from the respective communities). BluemassMed will deliver its final report in the third quarter of 2012.

Marsuno was a pilot project aiming to integrate maritime surveillance in the North Sea Basin over a period of two years. It covered nine different Member States and six (out of seven) user communities, with a total of 24 different partners. MARSUNO submitted its final report at the beginning of 2012, which contains a number of main outcomes and recommendations⁶²:

- Harmonising the legal framework, a key requirement for CISE to allow for cross-sectoral and cross-border information exchange. This goes for both sectoral and horizontal legislation.
- Solving the technical aspects involved in interlinking all systems and authorities, which is equally crucial to the success of CISE. Such work calls for common definitions, standards, procedures and semantics as well as national CISE points of contact.
- Managing CISE at three levels: (i) an Advisory and Policy Board (APB) (Member State representatives), (ii) an Administrative Advisory Group (to be designated by DG MARE) to work in cooperation with TAG to support the APB, and (iii) specific Action Working Groups (on specific tasks).
- Maximising efficiency and cost-effectiveness by going beyond simply interlinking systems and authorities towards sharing capabilities as well as developing and sharing maritime information services.
- Enhancing civil/military cooperation.
- Involvement of EU agencies in CISE information exchange.
- Deployment of common tools⁶³ and measures⁶⁴ to promote trust and willingness of user communities to cooperate.
- Involving third countries in CISE.

2.2.3. *Joint Research Centre — maritime surveillance research*

In order to improve existing maritime surveillance capabilities, research is being carried out into innovative sensors, platforms and applications. New opportunities for maritime surveillance are being explored using passive radars and MIMO coastal radars so as to enhance the ability to detect maritime objects. In order to ensure consistent situational awareness at sea and to overcome the differences between surveillance data in terms of content, format, and spatial or temporal resolution, the Blue Hub — a prototype data platform for the collection, integration and analysis of global, regional and local vessel positioning data — is being developed. Such research provides the scientific and technical support needed for the conception, development, implementation and evaluation of relevant EU policies, e.g. for GMES, CISE and EUROSUR.

2.2.4. *EU maritime safety*

The EU and its Member States are at the forefront in improving maritime safety and promoting high-quality standards. The aim is to eliminate sub-standard shipping, increase the protection of passengers and crews, reduce the risk of environmental pollution, and ensure

⁶² <http://www.marsuno.eu/PageFiles/598/Final%20Report%20111222.tryck.pdf>.

⁶³ E.g. satellite pictures, seabed management, drift modelling system, geographic information systems.

⁶⁴ E.g. common training and joint exercises, exchange of best practices.

that operators who follow good practices are not put at a commercial disadvantage compared to those who are prepared to take short-cuts with vessel safety.

The European Maritime Safety Agency (EMSA), founded in 2002 and based in Lisbon, has the task of assisting the Commission and Member States in this regard. Since 2000, the European Union has put in place three packages of maritime safety legislation, the most recent (the Third Maritime Safety Package) in 2009.

The Third Maritime Safety Package is made up of eight legislative texts covering six policy themes linked to maritime safety:

1. The quality of European flags

Directive 2009/21/EC aims to improve the quality of European flags. As a major maritime power accounting for 25 % of the world fleet, the European Union has to guarantee that all Member States effectively verify that international standards are upheld by ships sailing under their flags. This includes requiring EU Member States to implement the International Maritime Organisation's (IMO) audit plan for national maritime administrations and the certification of their quality management systems. The IMO scheme is otherwise implemented only on a voluntary basis.

EU Member States declared their firm commitment to adhere to the main international maritime safety conventions and to apply the IMO Flag State Code, which gives a clear message to the international maritime community that Europe is ready to lead by example. Member States also undertook to further improve the quality and performance of their maritime administrations.

2. Classification societies

Two legislative texts — Directive 2009/15/EC and Regulation (EC) 391/2009 — aim to improve the quality of the work undertaken by classification societies. These bodies constitute a fundamental link in the maritime safety chain: better performance by classification societies means less room for sub-standard shipping at no additional cost for safety-conscious owners. A specialised voluntary body (QUASE) has been set up in order to audit and certify the quality management systems of EU-recognised organisations to which Member States delegate the inspection and statutory certification of their ships.

In addition, the recognition criteria will be made stricter and a system of financial penalties will be established for those organisations that do not do their job properly. If the shortcomings of a recognised organisation are such that safety is no longer guaranteed, their licence will be withdrawn. Furthermore, recognised organisations will now be required to agree to mutual recognition of their certificates whenever they are issued on the basis of equivalent technical standards.

3. Port State Control

Port State Control (PSC) is the inspection of vessels in ports of countries other than the flag of the vessel in order to verify that the competence of the master and officers on board, the condition of a ship and its equipment comply with the requirements of international conventions and that the vessel is manned and operated in compliance with international law.

The EU regime for PSC is based on Directive 2009/16/EC, which re-cast and reinforced the previous legislation in this field dating back to 1995. The EU regime is based on the pre-existing framework provided by the Paris Memorandum of Understanding (PMoU) on Port State Control. All maritime Member States as well as Canada, Russia, Croatia, Iceland and Norway are signatories of the PMoU.

With the adoption of Directive 2009/16/EC, a further step has been taken towards improving the effectiveness and quality of the visits and inspections carried out by the port state in European ports, while concentrating on the riskier and lower-performing ships and alleviating the pressure on the high-quality ships. The PSC system has been thoroughly reformed, by requiring inspection of all ships making a stopover in European ports. The previous obligation for each Member State to inspect 25 % of the ships calling at its ports has been replaced by a target of 100 % for the EU as a whole.

These inspections will vary in frequency depending on the risk the ships pose: the most dangerous ships will thus be inspected every six months, while quality ships will be subject to less frequent inspections. The Directive also strengthens the EU's ability to keep sub-standard ships out of European waters, by making it possible to ban any category of ships, inserting a minimum time limit for a ban and introducing a permanent ban for those ships that continue to flout the rules.

4. Traffic monitoring — assisting ships in distress

Directive 2009/17/EC amends Directive 2002/59/EC to better assist ships in distress. A clear and precise legal framework for refuge zones has been defined in order to ensure that the authorities responsible for the designation of refuge zones take independent decisions and possess the necessary means to do so.

As regards the monitoring of ships in European waters, all Member States will be interconnected via SafeSeaNet, which is a platform for data exchange between the national maritime administrations, in order to obtain a complete overview of the movements of hazardous cargoes on ships sailing in European waters. The Directive also provides for a European Union Long Range Identification and Tracking (LRIT) Data Centre to process long-range identification and tracking information on ships. Finally, the automatic identification system is extended to fishing vessels over 15 metres, in order to reduce the risk of collisions at sea.

5. Accident investigation

Directive 2009/18/EC establishes a common EU framework in order to guarantee the effectiveness, objectivity and transparency of inquiries following maritime accidents occurring in EU waters or involving EU-flag ships or EU interests.

This involves the harmonisation of technical inquiries, which are to be carried out following a common methodology in accordance with the IMO Code for the Investigation of Marine Casualties and Incidents. Accident investigations will be carried out independently of any judicial inquiries. An information and analysis system on accidents at sea has also been established.

6. Protection of victims

Two further measures have been put in place to protect the victims of marine accidents.

Regulation (EC) 392/2009 affords further protection for passengers in the aftermath of an accident. It introduces rules on liability and insurance that will benefit passengers travelling on European and domestic maritime routes.

The objective of this Regulation is to provide all passengers travelling in Europe by ship and the carriers themselves with a harmonised legal framework setting out their rights and obligations in the event of an accident. This harmonisation should aim to ensure not only fairer compensation for loss or damage, but also improved accident prevention.

Regulation (EC) 392/2009 incorporates into EU law the 2002 Protocol to the 1974 Athens Convention Relating to the Carriage of Passengers and their Luggage by Sea ('the Athens Convention'), adopted under the auspices of the IMO. The Athens Convention sets out clearly the rights and obligations of passengers and carriers: it provides for a system of strict liability — 'liability without fault' — of the carrier in respect of loss or damage in the event of shipping incidents, lays down sufficiently high maximum compensation amounts, requires all carriers to take out an insurance policy and allows the complainant to claim compensation from the insurer directly. The Regulation makes a number of adjustments. In particular, it extends the scope of the Convention to include international maritime transport, and also to cover main cabotage lines (maritime transport within a single Member State) according to a specified timetable.

Directive 2009/20/EC on the insurance of shipowners for maritime claims represents a major step in establishing a minimum set of rules for the insurance of ship owners. It requires that all ships flying the flag of a Member State (throughout the world) and all ships entering a maritime area under the jurisdiction of a Member State have insurance cover. The cover must correspond to the ceilings set out in the IMO Convention on the Limitation of Liability for Maritime Claims (1996 version). Whether or not the ship is carrying an insurance certificate can be verified during an inspection under Directive 2009/16/EC. Where the ship is not carrying a certificate, it may be detained or even expelled, without prejudice to any financial penalties to be determined by each Member State.

The transposition deadlines for five of the six Directives in the package have now elapsed. While only 40% of the Member States managed to transpose them on time, additional notifications are received on a daily basis from Member States and full transposition is expected. The Commission also has to verify that the above Directives are correctly implemented. If necessary, it can initiate infringement proceedings.

EMSA

In May 2012 the inter-institutional political negotiations on the Regulation founding EMSA were concluded. The revised Regulation will extend EMSA's core tasks and will add a number of ancillary tasks. Among the most important is that EMSA has to provide a response to marine pollution caused by oil and gas installations and also to work to facilitate the establishment of a European maritime transport space without barriers. EMSA will continue to provide assistance to the Commission and Member States as well as to Neighbourhood countries.

2.2.5. *Enhancing maritime transport security*

A technology (CONTRAFFIC) has been developed by the Joint Research Centre, in collaboration with the European Anti-Fraud Office, to automatically gather and analyse data on global maritime container movements to identify potentially suspicious consignments. The Contraffice project is carried out under the mutual assistance arrangements between EU customs authorities. The system has been successfully tested to identify false declarations of origin used to circumvent anti-dumping duties and quotas or to smuggle prohibited or counterfeited goods.

Contraffice's data is gathered systematically from a number of online sources and is independent of customs declarations. Contraffice's risk analysis focuses exclusively on container itineraries and complements other risk analysis done by customs authorities. All EU customs authorities have access to Contraffice, which is used routinely together with other systems in joint customs exercises.

2.2.6. *Securing Europe's maritime borders*

Securing Europe's maritime borders is an increasingly crucial challenge for Member States. On 12 December 2011, the Commission proposed a Regulation establishing the European Border Surveillance System⁶⁵ (EUROSUR). The aim of EUROSUR is to reinforce control of the Schengen external borders. It will provide a mechanism for Member State authorities carrying out border surveillance activities to share operational information and to cooperate with each other and with Frontex and EMSA in order to reduce the loss of life at sea and the number of irregular immigrants entering the EU undetected, and to increase internal security by preventing cross-border crimes, such as trafficking in human beings and the smuggling of drugs. EUROSUR should become operational from 1 October 2013.

2.3. **Maritime employment and career mobility**

The economic sectors that together make up the maritime economy are interlinked and jointly constitute a vast reservoir of jobs that is currently not being exploited to its full capacity. Crucial to fulfilling this potential and increasing mobility of workers will be transparency and mobility with regard to both skills and qualifications. The Commission has made an exhaustive inventory of all actions under EU policies that are relevant for employment in the maritime economy. This document was published together with the Communication on Blue Growth in September 2012⁶⁶.

3. **RESEARCH, KNOWLEDGE AND END-USERS: BRIDGING THE GAP BETWEEN RESEARCH AND INDUSTRY**

3.1. **Ensuring European maritime leadership through innovation and research**

The EU Strategy for marine and maritime research was adopted in September 2008 by the Commission, and endorsed by the Council in December 2008. It follows a specific commitment made in the Action Plan for the EU Maritime Policy adopted by the Commission in October 2007. It is an essential part of the EU's integrated maritime policy. The strategy seeks essentially to provide the scientific basis to support the Maritime Policy goal of maximising the value of the maritime economy in a sustainable manner.

The Strategy has been implemented since the end of 2008, following an implementation roadmap, steered by an inter-service group involving DGs MARE, ENV, JRC, MOVE, ENER and ENTR. Among other aspects, the strategy highlights the importance of integration between established marine and maritime research disciplines in order to reinforce excellence in science, with a view to addressing complex sea-related issues. To this end, it provides for the launching of joint calls under FP7 on major research topics requiring a cross-thematic approach. The 'Ocean of Tomorrow' joint calls thus represent a concrete step in the implementation of the strategy. The Communication calls for a progress report on the implementation of the strategy to be presented to the Council by the beginning of 2013.

Three 3 FP7 joint calls⁶⁷ have brought together efforts of up to 5 Directorates for a total EU contribution of 134M€ This effort was complemented with the launch of 9 coordinated topics in 2012 in order to support the implementation of the Marine Strategy Framework Directive⁶⁸ for a total EU contribution of €42 million.

⁶⁵ COM(2011) 873 final of 12.12.2011.

⁶⁶ COM(2012) 473 final of 29.8.2012

⁶⁷ FP7-OCEAN-2010, FP7-OCEAN-2011 and FP7-OCEAN 2013

⁶⁸ Directive 2008/56/EC

Besides the cross-thematic calls, within the first four years of FP7, 644 projects with either a marine-related dimension or potential applications for the maritime sector were selected for funding with an EU financial contribution of about EUR 1.4 billion. This corresponds to about 6.4% of the funding awarded by the EU to all proposals selected under FP7 during the period and 5% in terms of the number of proposals.

Projects financed in FP7 cover for instance multi-use offshore platforms (MERMAID, H2OCEAN, TROPOS), combining several services of these platforms to optimise use of marine space and provide an adequate return on these substantial investments. Another example is the GAP2 project, which seeks to develop inclusive governance for fisheries involving stakeholders, scientists and managers in support to the Common Fisheries Policy.

Other initiatives aiming to foster synergies between and with Member States, such as ERANETS (SEAS-ERA, Martec II, etc.), an Article 185 initiative for the Baltic Sea (BONUS) and the JPI initiative on 'Healthy and Productive Seas and Oceans' (JPI Oceans), have sought to address challenges affecting the oceans in a cross-cutting way since 2009.

Better integration between marine and maritime research communities has also been sought through improved governance mechanisms (the MARCOM+ forum, the EMAR2RES partnership), with a view to improving interactions between them and the European Commission.

In order to facilitate integration of and access to a range of marine data acquired by in-situ marine observation infrastructures, the Commission has supported a marine infrastructure project (SeaDataNet). SeaDataNet has been instrumental in the development of the European Marine Observation Data Network (EMODNET) by DG MARE. DG RTD has also undertaken work with an expert group to develop a vision for integrating marine observation infrastructures (including marine ESFRI projects) in Europe.

3.2. Sharing marine knowledge to facilitate innovation, investment and sound policy-making

The aim of the European Marine Observation and Data Network (EMODnet) is to improve access to marine data and so reduce costs to users, stimulate innovation and reduce uncertainty about the behaviour of the seas and oceans.

An impact assessment⁶⁹ has shown that once the present fragmented marine data infrastructure is rationalised, those involved in marine and maritime activities will gain EUR 300 million in competitiveness and another EUR 200 million a year will be generated through innovative new products and services.

To test how this could be done, a number of preparatory actions were started in the period 2008-2010. Thematic groups, selected through calls for tender and supported by procurement contracts, set up portals to provide access to marine data, metadata and data products for entire sea basins. 53 different organisations participated in the projects, largely public bodies responsible for managing marine data on a national scale but also including some small private companies with expertise in managing distributed data. All the metadata and data products and most of the data are made available to users free of charge and without any restrictions on use. A total of EUR 6 450 000 was committed.

The aim is not to construct a giant database; the data themselves may remain in separate archives but should be accessible through a single entry point or portal. Each data category requires a separate approach, so six different portals have been set up:

⁶⁹ SEC(2010) 998.

- (1) hydrography — bathymetry (water depth), coastlines, underwater features (wrecks etc.)
- (2) geology — sediments, strata, coastal erosion, geological hazards
- (3) physics — temperature, waves, currents, sea level, light penetration
- (4) chemistry — concentrations of chemicals in water, sediments and biota
- (5) biology — abundance of living species
- (6) physical habitats — habitat classification based on physical parameters (water depth, light penetration, sediments etc.)

The funding for the preparatory actions was not sufficient to allow the portals to cover data from all European seas, so each one covers a subset of the sea basins. Each includes the North Sea and at least two other basins. All European seas subject to the Marine Strategy Framework Directive⁷⁰, except Macaronesia⁷¹, are included in at least one portal. The portals should provide access to:

- (1) data — raw observations or measurements
- (2) metadata — information about the data such as location and time of measurement, units, precision
- (3) data products — products derived from the data; normally by interpolation in space and time. Data products include digital terrain models on regular grids or geological maps. Thus, users can obtain estimates of parameter values between measurement points.

The contract for one of the portals, physical parameters, only began at the end of 2010, so no conclusions can be drawn yet. The portals provide access not only to the data themselves but also to data products. Thus, rather than being limited to information at a discrete set of measurement points, users are able to obtain information on parameters such as sediment type, water depth and habitat type at all points in the sea basin.

The work of the groups was closely monitored by the Commission, the European Environment Agency and an independent Marine Observation and Expert Group. An Expert Group monitored the projects and hosted a number of meetings where public authorities and the marine industry explained their needs for data⁷². The offshore wind industry, cable laying companies and those in charge of protecting coastlines against erosion have all expressed strong support for the European Marine Observation and Data Network.

The portals allow users to obtain an overview of available data and data products and to download data for use. Public bodies spend over one a half billion euros every year on collecting marine data. For a proportionally small outlay, many of these previously inaccessible data have become available. The cost reflects not only the work done in processing the data to common standards but also the agreement of data providers to release data.

⁷⁰ 2008/56/EC of 17 June 2008.

⁷¹ Macaronesia consists of five archipelagos: the Azores (Portugal), Canary Islands (Spain), Cape Verde (Cape Verde), Madeira, including Porto Santo Island and the Desertas Islands (Portugal), and the Savage Islands (Portugal), administratively part of the Madeira Autonomous Region.

⁷² Summaries of the meetings and the presentations made at them are publicly accessible on the EU maritime forum <https://webgate.ec.europa.eu/maritimeforum/category/161>.

The effectiveness of the portals was checked through a specific contract⁷³. The consultants, MRAG Ltd, were given the task of checking the operation of the portals for user-friendliness and fitness for purpose, based on:

- (1) mutual awareness through common six-monthly meetings;
- (2) examination by peers (the independent 28-member Marine Observation and Expert Group⁷⁴ attend the ur-EMODnet mutual awareness meetings and deliver opinions on progress);
- (3) assessment by the Commission and EU agencies.

All the portals were found to be intuitive to use, with all of them, apart from the physical habitats one, providing a searchable catalogue and a map interface for retrieving records. The data quality indicators were generally clear and useful for the data products assembled during the projects. The information on the quality of the underlying data sets was sometimes harder to interpret if the set was composed of data from more than one provider.

The Marine Observation and Data Expert Group met four times a year. At two of these meetings, the work of the thematic data assembly group working was presented. Summaries of all meetings and copies of all presentations are publicly available on the EU maritime forum⁷⁵.

There is now a better understanding of the data policies of the hundreds of data holders within the EU. Hydrographic offices are still reluctant to release their highest-resolution data. However, a Memorandum of Understanding with the International Hydrographic Organisation has now been signed and this should enable a structured dialogue on how data policies could be liberalised.

The initiative meshes well with other EU initiatives, including Global Monitoring for Environment and Security (GMES), the Global Earth Observation System of Systems (GEOSS), the Data Collection Framework in fisheries and the Marine Framework Strategy Directive.

4. THE TERRITORIAL BENEFITS OF MARITIME POLICY

4.1. Regional policy

The Communication '*Regional Policy contributing to smart growth in Europe 2020*'⁷⁶, calls for national and regional governments to design 'smart specialisation strategies'. It announces the setting-up of a Smart Specialisation Platform to assist regions and Member States in this task. The platform will act as a facilitator bringing together the relevant policy support activities in research, regional, enterprise, innovation and education policies, and informing on funding opportunities under the relevant EU funding programmes. RTD, ENTR, EAC and INFSO, together with REGIO and the JRC, will run the platform, which will be established at the Joint Research Centre (ITTPS) in Seville.

Several maritime projects have been supported through the EU regional policy funds, such as: an autonomous, environmentally friendly and efficient floating desalination unit (Greece); the

⁷³ The value of the contract is EUR 45 000.

⁷⁴ Details of the group and summaries of meetings can be found on the publicly accessible part of the EU maritime forum <https://webgate.ec.europa.eu/maritimeforum/category/161>.

⁷⁵ <https://webgate.ec.europa.eu/maritimeforum/category/events/161>.

⁷⁶ COM(2010) 53 final
http://ec.europa.eu/regional_policy/sources/docoffic/official/communic/smart_growth/comm2010_53_en.pdf.

Wave Hub project, which provides shared offshore infrastructure for the demonstration and proving of arrays of wave-energy generation devices over a sustained period of time (UK); a project in West Wales on growth in environmental marine science, etc.

4.1.1. Cross-border maritime cooperation

Cross-border maritime cooperation has been promoted by several EU Cross-Border Cooperation Programmes in the sea basin areas of the English Channel, North Sea, Irish Sea and the Mediterranean Sea. This cross-border cooperation is a good model for further developing a regionalised approach towards IMP. Some projects carried out so far include:

English Channel and North Sea

- LICCO: to empower Channel communities to adapt to coastal climate change.
- CHARM3 — CHANNEL INTEGRATED APPROACH FOR MARINE RESOURCE MANAGEMENT: to contribute to the preservation of Channel marine resources by enhancing knowledge of marine resources and by providing new tools to improve the sustainable management of the Channel area.
- DIESE: to assess the threat of endocrine disruption (ED), immunotoxicity and carcinogenicity in freshwater and marine ecosystems of the Channel area in order to ensure the sustainable development of aquaculture and better water quality.
- MERIFIC: to advance the adoption of marine energy on the island of le Parc Naturel Marin d'Iroise and the Isles of Scilly.
- A2S-Archaeological Atlas of the 2 Seas project: to enhance our understanding of the submerged heritage of the Channel and southern North Sea.

Irish Sea

- SMART COAST: to equip Irish and Welsh communities to maintain the economic and strategic value of their near-shore waters by facilitating the use of new real-time management systems.
- SUSFISH: to produce guidelines for future fisheries management, ensuring sustainable development of the shellfish industry in Ireland and Wales for the next 50-100 years. This will be achieved by assessing the effects of climate change (via oceanographic models) on shellfish productivity in the Irish Sea and determining adaptation or mitigation strategies for the industry in the cross-border area, including recommendations for protection of certain areas under MSP.
- ISLES: to assess the opportunities, challenges and barriers to developing an offshore grid infrastructure. This will ensure greater cooperation and energy trading between the countries in the area.
- BIOMARA: to investigate both macro-algae (seaweeds) and single-celled microalgae as potential sources of biofuel. The project includes a techno-economic evaluation of potential systems, environmental impact assessment and ongoing stakeholder engagement to ensure that the ultimate findings of the research have wide applicability.
- SAIL WEST — to provide a cohesive marine leisure development strategy for the areas of Donegal, Sligo, the maritime counties of Northern Ireland and the west coast of Scotland.

Mediterranean sea

- MAREMED: to develop innovative approaches to territorial governance by improving the coordination of regional maritime policies with each other and with other levels of governance, in particular the national, European and Mediterranean levels. Specific themes are addressed: integrated management of coastal and maritime areas, fisheries, adaptation to climate change in coastal areas, efforts to reduce pollution, and data management.
- SHAPE: to develop a multi-level, cross-sector governance system, based on integrated management of natural resources, risk prevention and conflict resolution among uses and users of the Adriatic coast and sea. Project activities promote the application of the Integrated Coastal Zone Management Protocol in the Mediterranean and a Roadmap for Maritime Spatial Planning in the Adriatic region.
- MEDESS-4MS: to prevent maritime risks and strengthen maritime safety in relation to oil spill pollution in the Mediterranean. The project will deliver an integrated operational multi-model oil spill prediction service in the Mediterranean, connected to existing monitoring platforms (CleanSeaNet, AIS), and using well-established oil spill modelling systems, data from the Marine Core Services and national ocean forecasting systems.

Atlantic Area

- BIOTECMAR — BIOTEChnological exploitation of MARine products and by-products. The overall aim is to help companies in the Atlantic area (which are mainly SMEs) make use of modern biotechnological tools and to contribute to diversification of activities concerned with marine biomass exploitation with strict attention to the sustainable management of marine natural resources.
- MARMED: to develop innovative biomedical products from marine resources. The project aims to exploit marine residues and sub-products from several companies in the marine sector, with demonstration of real cases (collaboration with industries as proof-of-concept), and to demonstrate the added value and high potential for using such materials (marine origin biopolymers and ceramics) in biomedical applications, also with close industrial collaboration in order to evaluate the market potential of the applications to be developed and/or studied in the project.
- NETALGAE — Inter-regional network to promote sustainable development in the marine algae industry. The aim is to create a Europe-wide network of relevant stakeholders in the marine macro-algae sector and to carry out a wide-ranging policy study to establish a best-practice model and suggest policies for successful and sustainable commercial utilisation of marine macro-algae resources.
- PHARMATLANTIC — Knowledge Transfer Network for Prevention of Mental Diseases and Cancer in the Atlantic Area. The aim is to inform industries situated on the Atlantic seaboard about research and innovation advances in medical prevention.
- SHAREBIOTEC — Sharing life science infrastructures and skills to support the biotechnology sector in the Atlantic area. The main objective is to strengthen the biotechnology sector by maximising the benefits of life science infrastructures and skills for the development of the Atlantic area, which has notable areas of excellence (marine science, the variety and increasing number of SMEs, policy initiatives) but also weaknesses.

4.1.2. *Proposal for EU structural policy 2014-2020*

EU cohesion policy has been a force for change over the last ten years, making a genuine contribution to convergence and growth in the EU by directly creating over one million jobs and investing in training to improve the employability of over ten million people. To continue this work in the future and strengthen the focus on European economic priorities, the European Commission adopted on 6 October 2011 a legislative package for cohesion policy for the period from 2014 until 2020. It is designed to boost growth and jobs across Europe by targeting EU investment on Europe's Growth and Jobs Agenda (Europe 2020).

The European Commission considers that cohesion policy, rural development and maritime and fisheries policies should remain essential elements of the 2014-20 financial package because of their pivotal role in delivering the Europe 2020 strategy. It has therefore proposed that structural policies should concentrate funding on a smaller number of priorities strongly linked to the Europe 2020 strategy, focusing on results, monitoring progress towards agreed objectives and simplifying delivery.

The focus on fewer investment priorities in line with these objectives will be at the heart of the new Partnership Contracts, to be agreed by the Member States with the European Commission. They will set clear targets and set aside a financial performance reserve to reward regions who do best in reaching their goals. To ensure that the impact of EU investments on growth and jobs is not undermined by unsound macro-economic policies or by weak administrative capacity, the Commission can ask to review programmes, or suspend funding if remedial action is not taken.

The impact of the funds will also be strengthened by simplifying and harmonising the rules of different funds, including rural development and maritime and fisheries. A more integrated approach will make sure the various funds serve coherent goals and strengthen each other's impact.

Sea basin strategies are specifically referred to in the Regulation laying down common provisions for the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development (EAFRD), and the European Maritime and Fisheries Fund⁷⁷. It will increase coherence among these instruments to ensure better synergies and greater impact. In the Partnership Contracts, Member States are to take into account, where appropriate, macro-regional and sea basin strategies. European territorial cooperation is particularly important because in some contexts such as sea basins and coastal regions, cooperation and transnational action are indispensable to support growth, employment and ecosystem-based management.

4.2. Sea basin strategies

4.2.1. A maritime strategy for the Atlantic area

The Atlantic Strategy was adopted by the Commission on 21 November 2011⁷⁸. It aims to help create sustainable jobs and growth in the Atlantic area. A high-level ministerial event was organised in Lisbon by the Portuguese administration (28-29 November 2011) for its official launch.

The Atlantic Strategy highlights the following five challenges and opportunities:

- Implementing the ecosystem approach
- Reducing Europe's carbon footprint

⁷⁷ COM(2011) 615 final of 14.3.2012.

⁷⁸ COM(2011) 782 final of 21.11.2011.

- Sustainable exploitation of the Atlantic seafloor's natural resources
- Responding to threats and emergencies
- Socially inclusive growth

The Strategy formally launched an Atlantic Forum to allow Member States, the European Parliament, regional authorities, civil society and representatives of existing and emerging industries to contribute. It will include a set of workshops focusing on the challenges and opportunities outlined above and a think tank to suggest options for achieving objectives.

The Atlantic Forum is led by a Leadership Group and steered by a Steering Group, which both meet regularly. The Forum is to focus on delivering proposals that are innovative, have an EU dimension and can provide a lever for growth and employment in the Atlantic area. The intention is to link the Forum's deliverables to future EU financial instruments. Concretely, the Forum should put forward priority actions and project proposals to develop the blue economy. The Commission has also visited each Atlantic Member State to raise awareness of the Atlantic Forum and Cohesion Policy processes and to encourage Member States and local authorities to identify Atlantic priority actions with a view to the Cohesion Policy negotiations and the Atlantic Action Plan.

4.2.2. *EU strategy for the Baltic Sea Region*

The EU Strategy for the Baltic Sea Region (EUSBSR), adopted by the Commission in June 2009⁷⁹, and endorsed by the European Council in October 2009, responds to the key challenges facing the region, such as improving the marine environment, addressing transport bottlenecks, energy links and maritime safety and security issues, and ensuring prosperity and economic growth.

The EUSBSR provides regional implementation of the EU's integrated maritime policy. Maritime policy serves as a cross-cutting policy linking different priority areas and integrating horizontal actions within the Strategy.

In 2011, after two years of implementation, the Commission reported that while the implementation process points to issues needing to be further addressed, including better alignment of funding and policies, and a reinforced organisational structure, the Strategy contributes positively to enhanced cooperation in the region⁸⁰.

The Strategy brings together the maritime community in the region. In fisheries, the BaltFish Forum provides an opportunity to develop and test new regional approaches to fisheries management. The two successfully completed flagship projects under the Strategy, MARSUNO and the Baltic Sea Maritime Functionalities study, pave the way for more comprehensive cooperation between maritime authorities. The 'Clean-ship' project aims to significantly reduce pollution from ships. Principles agreed jointly by VASAB and HELCOM provide the basis for preparing cross-border ecosystem-based plans. Furthermore, the Strategy serves as a pioneer in paving the way, within the next financial perspective 2014-2020, for better streamlining of EU, national and regional funding instruments to achieve the objectives of macro-regional and sea basin strategies.

In response to the Council recommendations and requests of 15 November 2011 to review the Strategy, the Commission adopted in March 2012 a Communication recommending improvements to the strategic focus of the Strategy, calling for closer alignment of policies

⁷⁹ COM(2009) 248 final of 10.6.2009.

⁸⁰ COM(2011) 381 final of 22.6.2011.

and funding, highlighting the importance of maintaining high-level political commitment and ensuring better communication, and clarifying the responsibilities of different actors.

The revised Strategy endorsed by the Council in June 2012 is firmly based within the Europe 2020 agenda and concentrates on three main mutually reinforcing objectives — to save the sea, to connect the region and to increase prosperity — each accompanied by indicators and targets.

The ‘Save the Sea’ objective supports the various efforts to secure good environmental status and biodiversity in the sea, such as reducing nutrient inputs and promoting clean shipping, and stresses the importance of regional cooperation, including cooperation with HELCOM, with a view to ensuring maritime safety and security and facilitating sustainable growth.

4.2.3. *The Mediterranean dimension of IMP*

The Mediterranean is the largest shared sea basin in Europe with more than 21 coastal states.

In March 2011, the EU set new objectives for the region, focusing on building a partnership for democracy and shared prosperity based on comprehensive institution-building, dialogue on migration, mobility and security, and further sectoral cooperation, notably in the fields of the environment, transport, energy and employment. The need for a more strategic approach and cooperation on maritime affairs was underlined.

The IMP actions being taken forward in the Mediterranean are part and parcel of the EU’s objectives for the region. The Commission Communication on improving governance in the Mediterranean⁸¹, adopted in 2009, was the starting point for this process.

With improved understanding by coastal states of their rights and duties at sea comes greater responsibility and better capacity for enforcement of the applicable rules. A study has been carried out by the Commission to obtain further knowledge of the costs and benefits of existing and potential maritime zones and areas in the Mediterranean sea on the basis of UNCLOS. This analysis could be of help to policy-makers at national level and to stakeholders.

The EU is a Party to the Barcelona Convention for the protection of the marine and coastal environment and is actively supporting its efforts to achieve and maintain good environmental status of the marine and coastal environment in the Mediterranean, in particular through the implementation of the Ecosystem Approach. The Barcelona Convention is the regional forum supporting the implementation of the Marine Strategy Framework Directive by Mediterranean EU Member States.

Steps have been taken to stimulate effective dialogue and exchanges of best practice with non-EU partners in the region. The regional Working Group on IMP in the Mediterranean, set up in November 2009, provides an effective platform for debate on sectoral developments with an impact on the sea. Through this platform, among others, key regional conventions, such as the Barcelona Convention and GFCM, have come to see the need for more consistency in their respective programmes of work. An MoU between the Barcelona Convention and GFCM is under preparation to this end.

With support from the IMP-MED project, partners under the European Neighbourhood Policy (ENP) have benefited from capacity building for key regional developments of a cross-cutting nature (Marine Protected Areas, underwater culture heritage, offshore pollution, maritime surveillance, etc.). Tunisia, Morocco and Algeria, in particular, have taken steps towards definition of a national roadmap for integrated maritime policy making. The other five

⁸¹ COM(2009) 466 final of 11.9.2009.

partners in the project are endeavouring to stimulate inter-ministerial discussions at various levels.

Innovative ways for stimulating private sector investment in the maritime sectors of the southern partners are being devised by the Commission in cooperation with the EIB and IMO. An ongoing feasibility study under the FEMIP Trust Fund is looking into maritime infrastructures, maritime training, and safety and surveillance capacities. Follow-up proposals will be presented at a FEMIP ministerial meeting on maritime affairs early in 2013.

Research institutes and universities from across the region have come together to work on two major cross-thematic projects under FP7 (Oceans for Tomorrow): PERSEUS — ‘Assessing and predicting the combined effects of natural and human-made pressures in the Mediterranean and the Black Sea in view of their better governance’ — with a total contribution of EUR 13 million, and COCONET — ‘Knowledge base and tools for regional networks of Marine Protected Areas, integrated management of activities, assessment of wind energy potential in the Mediterranean and the Black Sea’, with a total contribution of EUR 9 million.

As mentioned above, regions and Member States have redirected some of their 2007-2013 funding for European territorial cooperation in the Mediterranean to focus on IMP objectives. The year 2013 will be dedicated to pulling these experiences together and engaging further with the Mediterranean Member States so as to ensure that future Cohesion Policy funding and horizontal funding programmes (Horizon 2020, LIFE+, EIB loans) can effectively address maritime investment priorities in the region.

Since 2006, the JRC has been continuously measuring air pollutants during spring, summer and autumn from an automated monitoring station placed on a cruise ship following a fixed course in the Western Mediterranean. This provides data on air pollution from areas where such observations are lacking, thus filling a gap left by the existing observational networks. The measurements focus on air pollutants with a potential impact on climate in the Mediterranean area (ozone, black carbon, particles). Their main purpose is to obtain information about sources of air pollution in the area, particularly the contribution from shipping, and to understand how atmospheric processes in the area influence the distribution of pollutants. The measurements have been used for testing inventories of ship emissions used in atmospheric transport models. Recently, measurements performed on the ship while at berth in harbours have been used to investigate the impact of an EU Directive on the allowed sulphur content of ship fuels used in harbours. It was found that the Directive had brought about a clear improvement in air quality in these Mediterranean harbours.

4.2.4. Adriatic-Ionian Sea basins

Italy, Slovenia, Greece and Croatia together with the other countries of the sub-region have taken up the challenge of engaging in deeper maritime cooperation at sub-regional level in the Adriatic and Ionian Seas. A maritime strategy is being consolidated by the Commission to this end, to be followed by an Action Plan in 2013. A set of priority areas will be proposed for cooperation and for streamlining current and future EU funding for the region. The countries have agreed to enhance cooperation at sea basin level with a view to improved growth and employment in the maritime sectors, long-term sustainable and responsible fishing, good environmental status of the marine environment, and a safer and more secure sea. Meetings of contact points from the eight Adriatic-Ionian countries are organised regularly to steer the process. A series of three workshops have been organised to gather input for possible priorities, actions and projects, raise awareness of the strategy and build ownership.

4.2.5. *Black Sea*

An inclusive dialogue with maritime public authorities and stakeholders from Bulgaria and Romania has been launched with a dedicated brainstorming event. The event identified areas and actions on which the IMP should focus in the Black Sea (notably maritime surveillance between Member States and more coordinated regional initiatives on marine and maritime research, protection of the marine and coastal environment, integrated coastal zone management and fisheries management).

Bulgaria and Romania have started a bilateral dialogue to discuss how to enhance maritime surveillance in the Black Sea.

Maritime policy is understood to provide a useful framework for linking the EU's external and internal dimensions and enhancing the EU's role in Black Sea regional cooperation. Efforts have been made to explain the objectives of the IMP through contacts (also at high level) with stakeholders and regional organisations (Black Sea Commission for the protection of the marine and coastal environment, Black Sea Economic Cooperation) and to understand the possible role that these organisations can play in implementing the IMP.

4.2.6. *EU policy towards the Arctic*

The Arctic is a vital component of the Earth's environment, but climate change is affecting the region more and faster than most other parts of the world, disturbing its ecosystem and the traditional livelihoods of those living there. At the same time, the retreating ice and technological progress are opening up new economic opportunities in the region, such as shipping, mining, energy extraction and fishing. While beneficial for the global economy, these activities also call for a prudent approach: further repercussions for the fragile Arctic can be expected if strict environmental standards are not met.

In order to respond to these challenges, the European Commission and the EU High Representative for Foreign Affairs and Security Policy adopted on 26 June 2012 a Communication proposing steps for the EU's constructive engagement in the Arctic⁸². It contains a set of tangible actions, from contributing to research and sustainable development in the region to promoting environmentally friendly technologies that could be used for sustainable shipping and mining. It also looks back at the EU's activities in the Arctic since 2008. The EU has contributed EUR 20 million to Arctic research every year over the last decade and has invested more than EUR 1.14 billion in the sustainable development of the region since 2007. The Communication also aims to kickstart a dialogue and consultation process with the Arctic countries, indigenous peoples and other interested parties to further refine the EU's policy towards the Arctic.

The Communication contains a series of measures to support effective stewardship of the Arctic. They include:

- Supporting Arctic research under the Commission's proposed EUR 80 billion Horizon 2020 research and innovation programme;
- Contributing to search and rescue in the Arctic with the launching of next-generation observation satellites;
- Stepping up actions to combat climate change;
- Committing to establish a legally binding global instrument to cover the use of mercury;

⁸² JOIN(2012) 19 final of 26.6.2012.

- Using the EU funding to maximise sustainable development in the Arctic for the benefit of local and indigenous communities;
- Promoting and developing environmentally friendly technologies that could be used by extractive industries in the Arctic;
- Enhancing bilateral dialogue on Arctic issues with Canada, Iceland, Norway, the Russian Federation and the United States;
- Stepping up efforts to hold regular dialogues with representatives of indigenous peoples.

5. PROTECTING MARINE ECOSYSTEMS — A CONDITION AND FACTOR FOR GROWTH

5.1. The challenge of healthy marine ecosystems: implementing the Marine Strategy Framework Directive

5.1.1. Progress in MSFD implementation

The Marine Strategy Framework Directive (MSFD) aims to achieve good environmental status (GES) for the EU's marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend⁸³. The Directive enshrines in a legislative framework the ecosystem approach to the management of human activities with an impact on the marine environment, integrating the concepts of environmental protection and sustainable use.

In 2010, the Commission adopted a Decision on criteria and methodological standards to achieve good environmental status in marine waters⁸⁴. This Decision was based on substantial scientific research and will be used by Member States for further implementation. The Decision also recognises the need for regular updates based on scientific information and for the adoption of management measures, in line with the 6-year cycle under the Directive.

Together with Member States, the Commission has set up an informal Common Implementation Strategy, with a series of meetings (including a high-level meeting of Marine Directors for each EU Presidency), to develop a common understanding in the process of policy development. In parallel, the European Commission is stepping up its activity in the various Regional Sea Conventions around Europe, which perform the role of facilitating regional coordination by Member States in the implementation of the Directive.

In 2011, the Commission also produced a Staff Working Paper on the relationship between the initial assessment of marine waters and the criteria for good environmental status⁸⁵.

Article 19 of the Marine Strategy Framework Directive (MSFD) requires each Member State to organise public consultations on the implementation of the Directive. These took place in the first part of 2012. Member States have to ensure that all interested parties are given early and effective opportunities to participate, involving, where possible, existing management bodies or structures.

The MSFD has seen further important milestones with the preparation by 15 July 2012 and reporting by 15th October of the initial assessments (Article 8), the determination of good environmental status (Article 9) and the establishment of environmental targets (Article 10) by the Member States. This will be followed by a Commission analysis and recommendations

⁸³ Directive 2008/56/EC.

⁸⁴ Decision 2010/477/EU.

⁸⁵ SEC 2011/1255/final of 14.10.2011.

to the Member States (Article 12). An assessment of the role of the MSFD in implementing various marine global and EU commitments, according to article 20, is also underway.

Financing for the IMP is in line with Article 22 MSFD, which specifies the need for ‘Community financing’ in the establishment of the marine strategies by stating that *‘the implementation of this Directive shall be supported by existing Community financial instruments’*. In 2012, the Commission signed "framework contracts" to address coordination of the implementation of the ecosystem approach between Regional Seas Conventions, to develop methodological standards for GES and to address emerging pressures and emerging human activities in the marine environment..

5.1.2. Pilot projects on marine litter

Marine litter is a descriptor within the Marine Strategy Directive. To gather information to help to implement the MSFD requirements on marine litter and further develop the policy framework, three pilot projects on marine litter were launched in 2011⁸⁶. They aim to study the feasibility of introducing instruments to prevent littering, the main loopholes within the packaging material flow, and the plastic recycling cycle and its marine environmental impact. The projects will be finished by the end of 2012.

- Feasibility study on introducing instruments to prevent littering

This study aims to identify best practices in preventing and cleaning up plastic litter and assess the feasibility of different options to prevent littering and increase public awareness, including the use of economic incentives, and to trigger preventive and remedial action by public authorities. Such measures should reduce the amount of litter, especially plastic, reaching the marine environment. Study of the main loopholes within the packaging material flow

The objective of this study is to identify the main loopholes in the plastic packaging material flow in the EU and in a number of countries sharing European seas but with less developed waste management systems.

The result of the feasibility study will be a report containing a description of the study, an analysis of different options, the identification of selection criteria, and final proposals for measures to close the cycle of plastic packaging material.

- Plastic recycling cycle and marine environmental impact — case studies on the plastic cycle and its loopholes in regional European sea areas.

The objective is to identify loopholes in the local or regional plastic cycle in the four marine regions of the EU and to propose measures to fix these loopholes. The result will be a report containing a description of the four study areas, the monitoring results for marine litter in each area, an analysis of the sources of the plastics found, and proposals for measures to address the causes of the marine litter problem. Since marine litter at the coasts is often monitored by NGOs, it is essential to involve such NGOs in the pilot project. Based on the analysis, possible measures to address the loopholes identified in the plastic cycle should be proposed.

A pilot project on ‘marine litter recovery’ recovery’ is launched in 2012 with the aim of assisting EU Member States with environmental actions. The project will assess and develop best practices for collection/recovery systems for litter including ghost nets from fisheries. This will be tested in the 4 regional seas of the EU. Although prevention is the best measure, this pilot project deals with litter already in the marine environment.

⁸⁶ Specifications can be found at http://ec.europa.eu/environment/funding/calls2011_en.htm.

The Commission's proposal for a new European Maritime and Fisheries Fund included 'fishing for litter' as a possible activity that could be financed.

5.1.3. *Scientific and technical support for the Marine Strategy Framework Directive (MSFD)*

In September 2010, ten expert task groups together with the Joint Research Centre reported on the state of the art concerning assessment, monitoring and definitions of good environmental status (GES) and setting of targets. The information was used as input for a Decision (2010/477/EU) on criteria and methodological standards.

Furthermore, a JRC report reviewed the existing methodological standards and highlighted the existing gaps and the need to develop additional scientific understanding to assess GES in a coherent and holistic manner.

The JRC is co-chairing a technical sub-group on marine litter and is organising meetings of experts. A report was delivered in 2011 with technical recommendations for the implementation of MSFD requirements. The outcomes of the expert meetings in 2012 will also feed into policy implementation.

Moreover, a report on the evaluation of concepts and options for effective and targeted monitoring to ensure consistency and comparability across all European seas was delivered to support the implementation of Article 9 MSFD.

JRC is continuing to support the MSFD in 2012 by assuring the continuity of ongoing work and preparing the future structure of the WG GES with support for methodological approaches to monitoring in order to ensure consistency and comparability across all European seas.

5.2. Port reception facilities

The protection of the marine environment can be enhanced by reducing discharges of ship-generated waste and cargo residues into the sea, which account for about 20% of total discharges at sea. To meet this challenge, and in accordance with requirements set at international level (Marpol 73/78 convention), the European Union adopted Directive 2000/59/EC on port reception facilities for ship-generated waste and cargo residues '*to reduce the discharges of ship-generated waste and cargo residues into the sea (...), by improving the availability and use of port reception facilities*'. The Directive provides for specific obligations and mechanisms to ensure the adequacy of reception facilities, the management and control of deliveries, and the effective enforcement of its requirements.

After ten years of implementation, the Commission decided to undertake a formal revision of Directive 2000/59/EC with a view to further reducing discharges of waste and cargo residues at sea, by making the system of port reception facilities more effective, more efficient and more user-friendly.

A broad public consultation was organised in 2011 and an impact assessment for a possible revision of the Directive is underway. The Commission will adopt specific proposals in 2013.

5.3. Marine Natura 2000 and habitat mapping

The establishment of a marine network of conservation areas under Natura 2000 contributes to the target of halting the loss of biodiversity in the EU, taking also into account the lack of scientific knowledge on the distribution/abundance of species and habitat types. To date substantial progress has been achieved with Natura 2000 sites covering more than 200.000 km² of EU marine waters; however significant gaps still exist, especially offshore.

In January 2011, the Commission adopted Guidelines on the Implementation of the Birds and Habitats Directives in Estuaries and Coastal Zones with particular attention to port development and dredging⁸⁷.

The Commission's LIFE+ financial instrument for the environment has helped to establish to and manage the Natura 2000 Network at sea, by promoting inter alia innovative techniques for the protection of the marine environment and through capacity building. Efforts currently focus on the completion of the establishment of marine Natura 2000 areas and their sustainable management.

A project on 'Mapping the Essential Habitat of Marine Species' was developed by scientists at the European Commission's Joint Research Centre (JRC) to identify the habitats of key marine species, mainly fish of high market value, using satellite-derived data on the sea surface in order to support fisheries management and control and/or species protection. The current target species are the Atlantic bluefin tuna, the European hake and fin whale in the Mediterranean Sea, and the yellowfin and skipjack tuna species in the tropical Atlantic and Indian Ocean. Only the habitat models for bluefin tuna and fin whale in the Mediterranean Sea are currently published. The JRC habitat model enables the creation of near real-time maps of feeding and spawning potential bluefin habitats in the Mediterranean Sea, as well as habitat maps over a decade. The novelty of this model is the use of satellite data on chlorophyll concentrations on the sea surface, as well as temperatures, to track specific oceanographic features that play a key role in fish distribution. Feeding habitats are mainly derived from the simultaneous occurrence of oceanic fronts of temperature and chlorophyll-a content, while spawning habitats are mostly inferred from the heating of surface waters. The model performs well in areas where both satellite data and ABFT observations are available, as 80% of presence data are closer than 9 km to potential habitats. Overall, the habitat size of ABFT is about 6% of the Mediterranean sea surface. The results achieved with the model clearly highlight that bluefin tuna feeding and spawning are concentrated in some recurrent locations. This variability is key to evaluating the pertinence of Marine Protected Areas (or sensitive areas) for this species. The fin whale potential habitat can be used to estimate the ship strike risk with large commercial vessels once data on maritime traffic have been integrated.

5.4. Maritime safety

The JRC has developed the European Marine Casualty Information Platform (EMCIP) for the European Maritime Safety Agency (EMSA). At European level, the purpose of EMCIP is to provide the European Commission and the Member States with objective, reliable and comparable information on maritime safety as well as to facilitate cooperation and analysis in accordance with Regulation (EC) 1406/2002. At national level, EMCIP facilitates the collection of statistics and any other data analysis needs of the Member States in the field of marine casualties and helps to meet national obligations to report investigation findings on certain casualties to the IMO.

5.5. Atmospheric pollution from maritime shipping

The 2005 Thematic Strategy on Air Pollution identified that ship emissions of sulphur oxides, nitrogen oxides, and particulate matter significantly contribute to widespread exceedences of health-based air quality limits across Europe. Without additional action, ship emissions in EU sea areas would exceed emissions of SO_x and NO_x from all land based sources combined in the EU by 2020. Key impacts relate to human health and acidification and extend beyond the coastal regions. Pollution from maritime transport is regulated by Annex VI of the

⁸⁷ http://ec.europa.eu/transport/maritime/doc/guidance_doc.pdf.

Convention for the Prevention of Marine Pollution from Ships (MARPOL 73/78) governed by the International Maritime Organization (IMO), a United Nation's specialized agency. On 9 October 2008 the IMO adopted an amendment to MARPOL Annex VI which will lead to significant reductions of emissions of sulphur oxides from maritime shipping by reducing the maximum sulphur content of marine fuels from currently 1.0% to 0.1% in Sulphur Emissions Control Areas (SECAs) such as the North and the Baltic Sea and from currently 3.5% to 0.5% in non-SECA areas such as the Mediterranean and the Black Sea. These provisions enter into force in 2015 for SECAs and in 2020 for non SECAs. The later date can be postponed by 5 years pending the result of a fuel availability review to be carried out in 2018. Furthermore, the 2008 amendment sets also limits for emissions of nitrogen oxides.

Directive 1999/32/EC on the sulphur content of certain liquid fuels lays down the maximum permitted sulphur content of, inter alia, marine fuels used in the EU and thus transposes corresponding sulphur provisions of MARPOL Annex VI. On 15 July 2011 the Commission adopted a proposal for an amendment of this Directive in order to align it with the 2008 IMO provisions on the sulphur content of marine fuels and to improve implementation of the Directive by harmonizing and strengthening provisions for monitoring of compliance and reporting. On 23 May 2012 Council and the European Parliament reached a provisional agreement on the amendment of Directive 1999/32/EC. The amendment goes further than the provisions of MARPOL Annex VI as it fixes a date of entry into force of the non-SECA standard in 2020 without a possibility to postpone it by 5 years. The amendment also foresees a general cap of 3.5% sulphur content on fuels used by ships in the EU.

In 2010, JRC published the report: *'Regulating Air Emissions from Ships: The State of the Art on Methodologies, Technologies and Policy Options'*. This reference report⁸⁸ summarises the main findings of research carried out over several years and provides a reference framework for analytical tools to regulate air emissions from ships. It outlines the state of the art with regard to the main methodological aspects of designing policy measures to regulate air emissions from maritime transport. These are: identification of impacts; estimation of emissions; and identification and selection of technological and policy options to abate air emissions from ships. The overall aim of the report is to provide analytical tools to help define a policy strategy to regulate air emissions from ships, by providing various insights into how to design and apply policy-efficient and equitable instruments.

The project 'Remote sensing of SO₂ emissions from ships', developed under an Administrative Agreement between the JRC and DG ENV, has identified and tested remote surveillance methods for identifying ships that do not comply with regulations on the emission of sulphur dioxide and oxides of nitrogen in exhaust gas plumes in order to provide a measurement system that can be employed routinely by regulatory authorities in the Member States. Through a literature review, a number of potentially useful measurement methods were selected for further study and field testing. These techniques were tested in a large field trial, involving several European research institutions, in and around the port of Rotterdam, as well as in a smaller trial at the port of Genoa. The so-called 'sniffing' method was found to provide the best option for remote surveillance of SO₂ emissions and, at the moment, the only option for surveillance of Nox emissions among the methods tested. However, with further technological development, optical methods could potentially become attractive alternatives. On the basis of the work carried out within this project, a detailed description was provided of the 'sniffing' method, its uncertainties and costs, along with a set of recommendations concerning instrumental set-up, data handling, and analysis of results.

⁸⁸ <http://publications.jrc.ec.europa.eu/repository/handle/11111111/15265>.

5.6. Climate change

The elevated concentrations of greenhouse gases in the atmosphere have an impact on marine life and coastal communities. Since the concentration of carbon dioxide in the atmosphere will continue to rise even under aggressive carbon dioxide reduction strategies, these trends are expected to continue for the rest of the century. Moreover, climate change has to be considered in relation with other relevant stressors on the marine environment (such as acidification, de-oxygenation or pollution), in order to implement effective adaptation and mitigation strategies, defined at appropriate scales.

The main challenge is to develop a management approach that will maintain performance as far as possible under uncertain and variable conditions. One of the most effective ways in which the EU can support adaptation to climate change is through a better observation infrastructure.

5.6.1. European Climate Adaptation Platform

The European Climate Adaptation Platform⁸⁹ (CLIMATE-ADAPT), is an online tool designed to support policy-makers at EU, national, regional and local levels in the development of climate change adaptation measures and policies. It helps users to access and share information on:

- (1) Expected climate change in Europe
- (2) Current and future vulnerability of regions and sectors
- (3) National and transnational adaptation strategies
- (4) Adaptation case studies and potential adaptation options
- (5) Tools that support adaptation planning

Since it was launched in March 2012, it has been visited by over 100 000 viewers, which reflects the interest in this type of knowledge information system for adaptation. The Commission and the EEA are planning a range of activities to further develop and disseminate this tool and enhance its content. CLIMATE-ADAPT has two main functions:

- (1) a technical function, to provide relevant data and information and to gain visual insight on spatial impacts, vulnerability and adaptation issues
- (2) a policy support function, to guide users easily and step by step through the development of adaptation strategies and measures, by means of online support tools, guidance documents, presentation of best practices and sources of information.

In relation to maritime sectors:

- CLIMATE-ADAPT has a section on EU Maritime and Fishery policies as well as one on Coastal Areas
- CLIMATE-ADAPT contains a database of research projects, indicators, guidance documents, case studies, maps and adaptation options related to the marine sector. This database is constantly updated thanks to the input of users.
- A Case Study Search Tool allows browsing of available case studies in Europe, in particular those related to Coastal Flooding
- Country pages present all climate change activities carried out at national level.

⁸⁹ <http://climate-adapt.eea.europa.eu>.

- An online interactive Adaptation Support Tool guides the user through the policy cycle for the development of adaptation strategies and measures.

5.6.2. *Adaptation to the effects of climate change*

The adoption of an EU Adaptation Strategy is planned for spring 2013 and aims to provide a more comprehensive approach to climate change adaptation in Europe. The main objective is to have a more resilient Europe at national, regional and local level, in particular by facilitating the exchange of good practices and coordination in a cost-effective way, taking due account of the economic, social and environmental impacts of climate change and climate change adaptation policies.

The objective is also to strengthen the knowledge base on climate change impacts, vulnerability and adaptation, as well as to facilitate its dissemination. Mainstreaming adaptation into policies, strategies and programmes at EU level (and developing dedicated adaptation action where needed) will help in building a more resilient Europe. This likewise holds true for devising effective approaches to deal with the impacts of climate change, which will frequently have a cross-border dimension (flooding, sea-level rise, etc).

Both the public and the private sectors should contribute to delivering the right instruments, products and services to increase Europe's resilience to climate risks. As already outlined in the 2009 White Paper on Adaptation, the Adaptation Strategy is going to be based around three main objectives:

The knowledge objective is to further the understanding of adaptation, improve and widen the knowledge base, and enhance access to information on adaptation. All the information gathered will feed into CLIMATE-ADAPT, the European Climate Adaptation Platform.

The policy and market objective

The private sector is not yet fully delivering the right products and services to help private actors increase their resilience to climate risks. EU-promoted adaptation action can help capture the potential of the market, market-based instruments and the private sector in order to strengthen the capacity and preparedness of the EU as a whole to adapt and respond to climate impacts.

Mainstreaming is another important element of the Commission's work on adaptation, with tangible results seen already in the multi-annual financial framework (MFF), the CAP (Common Agricultural Policy), TEN-T (Trans-European Network - Transport) and TEN-E (Trans-European Network – Energy) or Horizon 2020 (the future research support framework). The Strategy could build on this work, and possibly expand its scope to all relevant sectors and policy areas.

The facilitation and cooperation objective

Not all EU Member States, regions or cities have the same level of knowledge, development or capacity to respond to the adverse effects of climate change. The Strategy aims to work with and facilitate cooperation between Member States and stakeholders. It will try to support and facilitate exchanges between Member States, regions, cities and all other relevant stakeholders. It will also address cross-border climate impacts and adaptation measures, and foster regional (cross-border) collaboration.

5.6.3. *Climate change mitigation*

Mitigation measures aim to reduce the sources or enhance the sinks of greenhouse gases. Greenhouse gas (GHG) emissions from international maritime transport currently represent around 3% of global GHG emissions. This is likely to grow as a result of increasing world

trade and demand for shipping. The GHG emissions of maritime transport have been recognised as a growing environmental problem. Closely linked to the development of the world economy, these emissions have increased strongly in the past few years. Indeed, the CO₂ emissions of international shipping to and from the EU and on intra-EU routes increased by +24 % between 1990 and 2010, and are expected to increase by 87 % by 2050.

In 2011, the Commission set out the goal of reducing EU GHG emissions from maritime transport by 40% or 50% if feasible by 2050⁹⁰.

At international level, on 15 July 2011, Parties to the Annex VI of MARPOL represented in the Marine Environment Protection Committee (MEPC) adopted mandatory measures to reduce GHG emissions from international shipping. The amendments to MARPOL Annex VI Regulations for the prevention of air pollution from ships, add a new chapter 4 to Annex VI on Regulations on energy efficiency for ships to make mandatory the Energy Efficiency Design Index (EEDI), for new ships and existing ships which have undergone a major conversion, progressively by 1st January 2013. However, as this measure does not address all ship types, existing ships and operational measures, shipping emissions are expected to continue growing.

The MARPOL Annex VI was also amended on 15 July 2011 to ensure that each ship covered by MARPOL has a Ship Energy Efficiency Management Plan (SEEMP) on board. This SEEMP aims to record the operational measures taken to enhance the energy efficiency of the ship. However, the measures described in the SEEMP are not mandatory. Therefore, the impact of SEEMP in terms of CO₂ emission reduction remains uncertain.

In the Climate and Energy Package adopted on 23 April 2009, the Council and the Parliament stressed that: *"in the event that no international agreement which includes international maritime emissions in its reduction targets through the International Maritime Organisation has been approved by Member States or no such agreement through the UNFCCC has been approved by the Community by 31 December 2011, the Commission should make a proposal to include international maritime emissions in the Community reduction commitment, with the aim of the proposed act entering into force by 2013. Such a proposal should minimise any negative impact on the Community's competitiveness while taking into account the potential environmental benefits."*⁹¹

As there has been no such international agreement leading to emission reductions by end of 2011, the European Commission is considering and preparing background analysis for possible European action.

Under the European Climate Change Programme II (ECCPII), a working group⁹² has been established for formal technical stakeholder consultation. It aims to provide input to the Commission's work on developing and assessing options for the inclusion of international maritime transport in the EU's GHG reduction commitment.

5.6.4. Geological storage of CO₂

Oceans play an important role in carbon dioxide capture and storage (CCS). In February 2012, a Directive on the geological storage of CO₂⁹³ established a legal framework for the

⁹⁰ COM(2011) 144 final of 28.3.2011

⁹¹ Recital 2 of the decision n°406/2009/EC and recital 3 of the directive n°2009/29/EC

⁹² [WG 6 — Reducing greenhouse gas emissions from ships.](#)

⁹³ Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006.

environmentally safe geological storage of CO₂ to contribute to the fight against climate change. It covers all CO₂ storage in geological formations in the EU, and lays down requirements covering the entire lifetime of a storage site. Existing legal frameworks are used to regulate the capture and transport components of CCS.

Under the CCS Directive, the Commission may give a non-binding opinion on a national draft storage permit — submitted by a Member State — within four months of receipt. On 28 February 2012 the Commission adopted its first opinion on the draft permit for the permanent storage of CO₂ offshore on the Dutch continental shelf.

As a first step, storage is expected to be demonstrated by the Rotterdam Capture and Storage Demonstration (ROAD) project in the port of Rotterdam, which was awarded EUR 180 million of funding under the European Energy Programme for Recovery (EEPR). The CO₂ from the capture installation would then be transported by pipeline to an offshore platform for permanent storage, where the CO₂ would be injected into the storage site at a depth of over 3 km⁹⁴.

6. BETTER MANAGEMENT OF MARITIME AFFAIRS

6.1. Developments in Member States

In *Germany*, Guidelines for a Maritime Development Plan were adopted by the Federal Government in 2009, serving as a strategic basis for a Maritime Development Plan and Strategy for an integrated German maritime policy, which was agreed by the government on 20 July 2011. The Plan provides an overview of German maritime activities and interests, the political priorities within maritime affairs, and ongoing and planned activities in this field at various levels. It aims to make a strong contribution to innovation, growth and employment in the maritime sectors and at the same time to protect the marine resources that provide the necessary basis for those sectors. A number of German coastal *Länder* have also adopted their own maritime strategies. Comprehensive legislation has also been adopted to ensure the implementation of maritime spatial planning both in territorial waters (under the control of the *Länder*) and in the EEZ (under federal responsibility).

In the *Netherlands*, a fully-fledged MSP has been implemented at national level in order to handle the management of their busy sea areas. Of particular importance for the Netherlands is securing safe access for maritime transport activities to their ports, such as Rotterdam.

France issued an implementing decision in February 2012 to specify the process for setting up the *Conseil national de la mer et des littoraux* (CNML), as provided for in the *Grenelle de la Mer* legislation, and to define the geographical limits of the sea basins. The CNML should be launched by the end of 2012. In March 2012, the Ministry of Ecology (*Commissariat Général au Développement Durable*) issued the second progress report on the implementation of the *Grenelle de la Mer*.

During 2011, the Government of *Ireland* initiated the first steps in developing an Integrated Marine Plan for Ireland. The ‘Our Ocean Wealth’ public consultation was the first step to promote public debate on how best to harness the economic potential of Irish seas. A total of 191 submissions were received and there were over 4000 visits to the website during the consultation period. The consultation fed into the drafting of ‘Actions that will deliver an Integrated Marine Plan for Ireland’. The objective of the actions will be to move from generating only 1.2% of GDP from ocean resources to getting the environment right for

⁹⁴ http://ec.europa.eu/clima/news/articles/news_2012022901_en.htm.

investment and using the potential of the marine economy to create jobs in a sustainable manner.

Denmark's government issued a national integrated maritime strategy in July 2010, focusing on five overarching priorities: potential for growth in the maritime industries; reduced greenhouse gas emissions and air pollution; protection of the marine environment and the coastal zone; enhanced safety at sea; and coordination of initiatives in the maritime field. The latter includes increased coordination between national authorities and the development of maritime spatial planning.

In *Cyprus*, as a response to the evolution of the IMP, the government speeded up its efforts and launched a National Integrated Maritime Strategy on 4 January 2011. It established an inter-ministerial committee and a National Coordination Team to this end. The work is coordinated by the Ministry for Communications and Works.

In March 2010, *Lithuania* established an inter-ministerial Commission on Integrated Maritime Policy, chaired by the Deputy Minister of Transport and Communications and assisted by the Ministry of Foreign Affairs and the Ministry of Environment. The first task of the Commission was to verify the content of all existing strategies to ensure that there are no contradictions and that they are inter-linked.

In 2011, *Latvia* also established an inter-ministerial group to deal with IMP. The main objectives of the group are better coordination of sectoral policies, better information, and data sharing.

Poland has played a very active role in developing an integrated approach to maritime policy at national level. The Inter-Ministerial Committee on Maritime Policy is an advisory body to the Prime Minister, while the Minister of Infrastructure is responsible for the coordination of maritime policy implementation. Based on the guidelines for maritime policy until 2020, adopted in 2009, the Inter-Ministerial Committee has prepared a Maritime Strategy for Poland until 2020. Following public consultation, the Strategy is expected to be adopted by the Council of Ministers in autumn 2012. The Strategy sets out the mission of Polish maritime policy, which is to maximise the all-round benefits for the Polish people from balanced exploitation of Poland's coastal location and the natural resources of the seas and oceans. It addresses the issue of governance and Poland's role in the Baltic sea region and international fora, focusing on maritime regions, human resources and maritime spatial planning. The Strategy also lists instruments for the implementation of maritime policy.

In June 2009, the *Swedish* parliament adopted a national Integrated Maritime Strategy. It calls for sustainable use of maritime and coastal resources, covering a number of aspects such as governance, maritime spatial planning, international and regional cooperation, marine knowledge, fisheries, shipping and protection of the marine environment. In order to implement the Strategy, a new Agency for Marine and Water Management was set up on 1 July 2011, replacing the Board of Fisheries and parts of the Board of Nature Protection. Among other things, the Agency will be responsible for maritime spatial planning, for which new national legislation is due to enter into force during 2012.

6.2. Developments at EU level

6.2.1. Joint Programming Initiative Healthy and Productive Seas and Oceans

17 member states and associated countries (Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, The Netherlands, Norway, Portugal, Romania, Spain, Sweden, Turkey and United Kingdom) are involved in the Joint Programming Initiative Healthy and

Productive Seas and Oceans which was officially launched in May 2010⁹⁵. The initiative seeks to promote synergies between research resources and capacities of countries involved, with a view to make the most of marine resources and opportunities, protect the marine environment and adapt to climate change.

6.2.2. *European Parliament*

The EP has from the very beginning advocated the promotion of an integrated approach to maritime affairs. This is illustrated by the two positive resolutions of 2007 and 2008 (the so-called Piecyk I and Piecyk II reports), following the publication of the Green and the Blue Papers. A third EP resolution on the IMP was adopted on 21 October 2010, confirming the validity of the IMP⁹⁶. The report submitted for adoption by the plenary was prepared by the rapporteur Ms Gesine Meissner, coordinator in the TRAN Committee, and includes the amendments made to her draft during the Transport and Tourism Committee meeting of 28 September 2010. The report was drafted in close coordination with the Fisheries Committee and the Regional Development Committee as associated committee (opinions). The Committee voted on the report with 33 votes in favour, 5 against and 3 abstentions.

The resolution was a cross-policy stock-taking of progress made so far, and contained concrete demands for the Commission to further develop the IMP. The EP considers that the IMP has the potential to lead to more coherent policy-making and recommends greater focus on the maritime dimension of the Europe 2020 Strategy. It calls for adequate funding and greater transparency. Overall, with this resolution, the EP has demonstrated that it has a say in the future direction of the IMP, beyond the sectoral dimensions of maritime affairs. In its resolution, the EP also highlights the importance of funding for further developing and implementing the IMP. In its opinion of 19 July 2010 on the motion of the TRAN Committee for the IMP resolution of 21 October 2010, the PECH Committee supported the Commission's intention to finance IMP actions over the following three years, building in particular upon previous projects in the areas of policy governance, sustainability and surveillance (point 18).

On 9 March 2011, the European Parliament voted on a motion for a resolution on the Atlantic Strategy. The resolution was carried by an overwhelmingly majority, with 589 in favour, demonstrating considerable support for an EU strategy for the Atlantic.

6.2.3. *Council*

Since 2007, the General Affairs Council has adopted cross-policy conclusions on the IMP at least once a year, providing an overview of recent developments, expressing its endorsement or reservations with regard to ongoing initiatives, and giving impetus to future development. So far, the Council has adopted five Conclusions on the Integrated Maritime Policy, namely under the Portuguese (November 2007), French (December 2008), Swedish (November 2009), Spanish (June 2010) and Polish (December 2011) Presidencies⁹⁷. Under the Belgian and Spanish Presidencies, special conclusions on the integration of maritime surveillance were adopted in 2009 and 2010.

The Council conclusions are addressed in a 'Friends of the Presidency' Working Group, given the horizontal and cross-border remit of the IMP. Implementation of the policy is also checked against the political guidance provided by the conclusions.

⁹⁵ <http://www.jpi-oceans.eu/>

⁹⁶ Integrated Maritime Policy — Evaluation of progress made and new challenges (2010/2040(INI)).

⁹⁷ Council Conclusions of 19 November 2007, 8 December 2008, 16 November 2009, 14 June 2010 and 12 December 2011.

6.2.4. *Committee of the Regions*

The Committee of the Regions has been very active on the IMP, providing important input. Its opinion on the Blue Paper, CoR 22/2008 fin, adopted on 9 April 2008, and the 2009 ‘Maritime and coastal package’, CoR 416/2008 fin, adopted on 17 June 2009, are examples of how divergent issues and interests can be linked together in a coherent, complementary and synergetic fashion. Local and regional authorities, in particular in coastal regions, are fully involved in the governance of maritime affairs as fully fledged institutional partners.

In addition to the CoR opinions, significant work on IMP is being carried out within the CoR’s interregional groups, including the ‘Baltic Sea Regions’ Group and the ‘Mediterranean’ Group, in line with the Commission’s objective to support the development of integrated sea basin strategies taking into account the specificities of each sea basin. They also work closely with the Conference of Peripheral Maritime Regions (CPMR).

The Committee of the Regions adopted an opinion on the IMP and Marine Knowledge on 27 January 2011⁹⁸. Its key messages are:

- need for adequate funding within the next financial perspective;
- importance of highlighting the regional maritime strategies;
- support for Maritime Spatial Planning;
- need for a clean ship/clean port initiative;
- importance of the role of all maritime stakeholders in the development of IMP, especially in initiatives relating to marine knowledge.

6.2.5. *The European Economic and Social Committee*

Since 2007, the European Economic and Social Committee has been supportive of the development of an integrated maritime policy. The most recent opinion of 17 February 2011 supported the overall IMP objectives⁹⁹. It stressed that the cross-sectoral and cross-border nature of maritime activities and the synergies between sectoral policies sufficiently justify the adoption and financing of measures and actions to ensure an integrated maritime policy.

The Committee adopted an opinion on maritime surveillance on 29 July 2010¹⁰⁰. It recommended that advanced security risk management should remain a top priority for the European maritime domain. It also supported a common EU-wide surveillance mechanism based upon a harmonised legal framework to cater for the sharing of sensitive and non-sensitive information among the EU Member State authorities, agencies and users.

On 26 January 2010, it adopted an opinion on the sustainable development of coastal areas, focusing on problems related to the protection of the marine environment, maritime transport (trans-European transport networks, Motorways of the Sea) and coastal economic activities in difficulty (requesting targeted action by the European Social Fund, the European Regional Development Fund and the European Fisheries Fund), tourism, and climate change¹⁰¹.

On 11 January 2010, an opinion on the EU’s maritime transport policy until 2018 called for a more coordinated approach to maritime careers, involving all relevant stakeholders (maritime

⁹⁸ The development of an Integrated Maritime Policy and Marine Knowledge 2020, CdR 339-2010 of 27 January 2011.

⁹⁹ Opinion 1686/2010 of 17/2/2011 on the ‘Proposal for a regulation of the European Parliament and of the Council establishing a Programme to support the further development of an Integrated Maritime Policy’.

¹⁰⁰ Opinion 987/2010 of 29/07/2010 on the integration of maritime surveillance.

¹⁰¹ Opinion 104/2010 of 26/1/2010 on the sustainable development of coastal areas.

administrations, schools, shipowners' associations, seafarers' unions). It also urged improvements in the standard of training for the maritime professions in Europe.

6.2.6. *Financing of the IMP*

On 6 December 2011, European Parliament and Council Regulation No 1255/2011 establishing a Programme to support the further development of an Integrated Maritime Policy entered into force¹⁰². Its multiple legal bases acknowledge the horizontal approach of the IMP. The Regulation provides the IMP with its first financing programme for actions and projects to be launched in 2012 and 2013. The 40 million euro budget will be spent mainly on supporting tools to facilitate synergies among sectoral policies, including a knowledge base for growth and innovation in the ocean economy, integrated maritime surveillance, and maritime spatial planning. It will also support stakeholder dialogue, the development of dedicated strategies for different European sea basins, and the implementation of the Marine Strategy Framework Directive. The EU legislators chose to focus on initiatives that can best contribute to growth and job creation in maritime sectors across Europe, in line with the Europe 2020 strategy.

A Commission Implementing Decision establishing the IMP Work Programme for 2011 and 2012 was adopted by the Commission on 12 March 2012¹⁰³, following a positive vote by the Member States in the Examination Committee. The Work Programme specifies the content, implementation modalities and timing for the IMP actions, in accordance with the objectives set out in Regulation 1255/2011. The horizontal approach to implementing the Work Programme is demonstrated by the fact that it is managed jointly by different Commission departments (Maritime Affairs and Fisheries, Environment and Transport) in line with and complementing activities managed by other departments, e.g. Research (the 7th Framework Programme for Research and the Joint Programming Initiative 'Healthy and productive seas and oceans') and Regional Policy (INTERREG projects).

The implementation of the Work Programme is well under way and a number of calls for tender and calls for proposals have been published following its adoption¹⁰⁴. Others will follow before the end of 2012. All the available funding will be committed, as a minimum on a provisional basis, by the end of 2012.

On 2 December 2011, the European Commission proposed a new fund for the EU's maritime and fisheries policies for the period 2014-2020: the European Maritime and Fisheries Fund (EMFF)¹⁰⁵. The Fund would help to deliver the ambitious objectives of the reform of the

¹⁰² Regulation (EU) No 1255/2011 of the European Parliament and of the Council of 30 November 2011 establishing a Programme to support the further development of an Integrated Maritime Policy, OJ L 321 of 5.12.2011, p. 1.

¹⁰³ Commission Implementing Decision C(2012) 1447 final.

¹⁰⁴ The following calls have been published so far: MARE/2012/07: Framework contract for support for the implementation of the integrated maritime policy of the EU; – MARE/2012/08: Project on maritime spatial planning in the Atlantic, including the Celtic Sea and Bay of Biscay; MARE/2012/10: Knowledge base for growth and innovation in the ocean economy: assembly and dissemination of marine data for seabed mapping; MARE/2012/11: Growth and innovation in the ocean economy — gaps and priorities in sea basin observation and data; ENV.D.2/FRA/2012/0017: Framework contract for services related to coordination between the different marine regions in implementing the ecosystem approach; ENV.D.2/FRA/2012/0019: Support for the development of methodological standards in relation to good environmental status of the seas under the Marine Strategy Framework Directive; ENV.D.2/FRA/2012/0025: Emerging pressures, human activities and measures in the marine environment (including marine litter). For more details, see the relevant websites: http://ec.europa.eu/maritimeaffairs/index_en.htm and http://ec.europa.eu/environment/funding/calls_en.htm.

¹⁰⁵ COM/2011/0804 final of 2.12.2011.

Common Fisheries Policy and to further implement the IMP. The EMFF proposal (Title VI of the proposed Regulation) provides for the financing of IMP actions that benefit different sectors but cannot be fully accomplished within individual policy areas, or at Member State level. So far, operational and exploratory work has been carried out to develop policy objectives for the IMP and test them in small-scale projects. In the course of the next financial framework, IMP initiatives should be fully implemented and completed in order to fully support the growth of the maritime economy. For instance, the funding up to now has served to develop only a limited part of EMODNet. The marine knowledge architecture will require more funding to cover additional data sets and hence reach its full potential to support innovation. Likewise, a roadmap to exchange information on maritime surveillance, endorsed by Member States, will be fully implemented through EMFF support.

The maritime pillar of the EMFF would finance actions that are not already covered by other EU financial instruments and therefore not eligible for assistance from them. Synergies and complementarity should be sought with such other EU instruments. In particular, the EMFF would finance further implementation of the Marine Strategy Framework Directive. This would accompany the funding provided by other instruments, reflecting Article 22(1) of the Directive, which stipulates that *'the implementation of this Directive shall be supported by existing Community financial instruments in accordance with applicable rules and conditions'*¹⁰⁶.

6.2.7. Coordination between the Commission and the Member States

Regular political contacts among Member States and with the Commission are ensured through the High-Level Focal Points Group, chaired by the Presidency, which provides strategic input to the IMP. The Group was set up at the initiative of a number of Member States under the Portuguese Presidency at the end of 2007. The Commission conducts dialogue with the Member States at technical level in the Commission's Member State Expert Group, which meets around 3-4 times per year to exchange information, share experiences, build common knowledge (notably in the surveillance sub-group) and work towards the development of specific IMP deliverables. The Group thus represents a point of reference for sharing information on relevant maritime initiatives and contributes to the take-up of integrated thinking in the Member States.

6.3. Developments at international level — strengthening global ocean governance

Marine ecosystems and maritime economies transcend national boundaries. This renders international cooperation on ocean matters essential. Moreover, open dialogues and exchanges of views are a means to identify best practices, harmonise positions and more generally promote global ocean governance.

For the last three years, the implementation of the Communication from the Commission on *'Developing the international dimension of the Integrated Maritime Policy of the European Union'*¹⁰⁷ has been driven by a strategy to foster international ocean governance based on the law of the sea. Global membership of UNCLOS is an EU priority and is promoted through dialogue with third countries. Key objectives of the strategy are: the protection of marine biodiversity, including in areas beyond national jurisdiction; international cooperation in order to reduce and mitigate climate change impacts; ensuring maritime safety, maritime security and freedom of navigation; promoting decent working conditions in the maritime sectors; and understanding the sea better. All these goals have been pursued through the

¹⁰⁶ Directive 2008/56/EC of 17.6.2008.

¹⁰⁷ COM(2009) 536 final.

United Nations and other international fora as well as through other informal processes, regional cooperation (in particular in shared sea basins) and bilateral relations.

At global level, the EU has repeatedly demonstrated leadership, notably pushing for more ambition in the Resolutions on Oceans and the Law of the Sea and on Sustainable Fisheries (e.g. to boost the fight against destructive fishing practices and improve the protection of vulnerable marine ecosystems).

A particular success is the launching of a process at UN level which should ultimately lead to the negotiation of an UNCLOS implementing agreement for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction. The EU also pushed for progress in the protection of oceans and seas and in maritime governance at the UN Conference on Sustainable Development in Rio in June 2012 with an ambitious ocean agenda.

The UN Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socio-economic Aspects is expected to deliver its first global report by 2014.

At FAO level, the EU has actively negotiated new legal tools to combat illegal, unregulated and unreported (IUU) fishing in the FAO, notably the Port States Agreement. The latter was ratified by the EU in the second half of 2011. Within the FAO the EU is also promoting support for developing countries in pushing for the identification of criteria and a process for the evaluation of flag state performance.

Bolder external action, as called for in the Commission Communication on the external dimension of the CFP¹⁰⁸, is yielding success with stronger performance by Regional Fisheries Management Organisations (RFMOs) and increasing cooperation with third countries in the EU's fight against IUU fishing.

Under the leadership of the EU, RFMOs are increasingly implementing an eco-system approach to fisheries management, and putting in place rules to protect vulnerable marine eco-systems (e.g. NAFO) and marine areas (e.g. CCAMLR). The fight against IUU within RFMOs is complemented by strong bilateral cooperation. The signing of joint statements to fight IUU with the US in September 2011 and with Japan in 2012 now means that the three biggest markets have joined forces in this fight.

Moreover, maritime affairs have become a regular topic in discussions with the EU's partners at bilateral level, such as China, with which the EU has signed a Memorandum of Understanding on Integrated Maritime Policy, Russia, Japan, Canada and US, gradually expanding the scope of the sectoral dialogues into a more overarching cooperation on global maritime affairs, with the focus on exchanging best practice with regard to cross-cutting tools such as maritime surveillance, marine knowledge, integrated coastal zone management, marine technology development, and renewable marine energies. Proposals for framework agreements with third countries (e.g. Australia, New Zealand) systematically include cooperation on marine affairs.

6.4. Improving socio-economic data for maritime sectors and maritime regions

Since the launch of the Integrated Maritime Policy for the European Union and the adoption of the 'The Blue Book'¹⁰⁹ in 2007, DG ESTAT (Eurostat) has been providing statistical information to support this policy and this new approach. The ongoing and planned initiatives in this field are included in the multi-annual and annual working programmes. In particular,

¹⁰⁸ COM(2011) 424final.

¹⁰⁹ COM(2007) 575.

Eurostat has been regularly disseminating publications on the topic since 2009 and participating in exchanges with the other Commission DGs.

The Community Statistical Programme 2008-2012¹¹⁰ states that: ‘Eurostat will follow the developments in the proposed Maritime Policy and adapt its programme of work accordingly. New statistical information will be compiled and launched for guidance of the proposed Maritime Policy which is currently being drafted by the Commission.’

The Statistical Work Programme of the Commission for 2012¹¹¹, in the section on maritime policy statistics, includes actions such as maritime policy data collection using data from available sources in the Commission and data collected within the European harmonised survey, and the preparation of statistical publications devoted to coastal regions and maritime sector.

Since 2009, Eurostat has regularly disseminated statistical information for the EU integrated maritime policy:

2009

- Statistics in Focus: Nearly half of the population of EU countries with a sea border is located in coastal regions: Key figures for coastal regions and sea areas (Issue number 47/2009 — June 2009)¹¹²

2010

- Statistics in Focus: Portrait of EU coastal regions — (Issue number 38/2010 – July 2010)¹¹³
- Pocketbook: Chapter 6 Agricultural statistics: Main results — 2008–09 – October 2010)¹¹⁴
- Regional yearbook 2010: Chapter 14 — Coastal regions — November 2010¹¹⁵

2011

- Statistics in focus: The Mediterranean and Black Sea basins — Issue number 14/2011 – March 2011¹¹⁶
- Statistics in focus: Maritime service areas — Issue number 41/2011 – August 2011¹¹⁷
- Regional yearbook 2011: Chapter 13 — Coastal regions — December 2011¹¹⁸

2012 (planned)

¹¹⁰ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:344:0015:0043:EN:PDF>.

¹¹¹ http://cybernews.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-SF-09-047.

¹¹² http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-SF-10-038.

¹¹³ http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-ED-10-001.

¹¹⁴ http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-HA-10-001.

¹¹⁵ http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-SF-11-014.

¹¹⁶ http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-SF-11-041.

¹¹⁷ http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-HA-11-001.

¹¹⁸ http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-HA-11-001.

- Regional yearbook 2012: Chapter 13 — Coastal regions (online article June 2012 paper version end of 2010)
- Statistics in focus: Maritime sector

6.5. Awareness and visibility of maritime Europe

The **Maritime Forum** website¹¹⁹ became operational in the summer of 2009 (with a budget of EUR 550 000) as an interactive tool to develop dialogue with and among maritime stakeholders. The Forum allows parties interested in EU maritime policy to communicate on a common platform. They can publish events or documents and follow developments in their areas of interest. Information can be shared among a closed community or published openly. Anyone can register on the forum and comment on its content.

The pilot version of the **Atlas of the Sea** was launched in May 2010. The European Atlas of the Sea is a support tool for the IMP. It aims to raise awareness of Europe's oceans and seas and to facilitate access to sea-related information. The Atlas is available on DG MARE's website¹²⁰ in three languages (EN, DE, FR) with around 70 different maps on geography, nature, tourism, security and safety, people and employment, transport and energy, governance and European policies, and fisheries and aquaculture sectors. The atlas will help increase knowledge of the various dimensions of our maritime Europe, as it offers a remarkably diverse range of information about Europe's seas, across national borders. The atlas responds to the Commission's drive to improve communication with citizens. It is an up-to-date, easy-to-use communication tool enabling a rapid flow of information. It is mainly made up of dynamic maps, complemented by textual and graphical information. Version 2 is planned to be released at the end of 2012, with improved performance, maintainability and interoperability.

The **European Maritime Day** conferences¹²¹ in Brussels, Rome, Gijón, Gdansk and Gothenburg have been the key events for the visibility of maritime Europe. Member States have been supportive of this event, as reflected in Council conclusions. The event is co-financed by the host country, the host region and the Commission.

¹¹⁹ <https://webgate.ec.europa.eu/maritimeforum/>.

¹²⁰ http://ec.europa.eu/maritimeaffairs/atlas/index_en.htm.

¹²¹ http://ec.europa.eu/maritimeaffairs/maritimeday/index_en.htm.