

## **An Integrated Strategy for the Atlantic**

Ireland welcomes the opportunity to input to the current discussion on the proposed Integrated Strategy for the Atlantic.

An Integrated Strategy for the Atlantic, based on the supporting pillars outlined below and focusing on priority economic and environmental opportunities would, we believe, be of particular benefit to the Atlantic region and would add value to current programmes and planned expenditure.

### **Supporting Pillars:**

1. Economic Recovery, Competitiveness and Sustainable Socio-Economic Development;
2. Environmental Protection;
3. Governance;
4. Economic Connectivity

### **Priority Challenges /Opportunities for the Atlantic Area:**

- Renewable Ocean Energy;
- Maritime Transport & Accessibility;
- The Seafood Sector;
- Maritime Safety, Security & Surveillance;
- Marine Leisure and Tourism;
- Hi-tech Marine Services;
- Harnessing Industrial Value of Sustainable Marine Biomaterials;
- Oil and Gas Resources;
- Research, Innovation and Capacity Building;
- The Environment and Climate Change.

# **An Integrated Maritime Policy for the European Union (2007)**

## **A proposal for an Integrated Strategy for the Atlantic**

### **1. Background**

The **Integrated Maritime Policy for the European Union** (IMP-2007) recognizes the very substantial maritime dimension of the Union and sets out a **Vision** and a **Strategy** (The Blue Book and Action Plan) for its sustainable development.

*A dynamic maritime economy, in harmony with the environment; supported by sound science and technology, which allows human beings to continue to reap the rich harvest from the oceans in a sustainable manner*

As the essence of the IMP is to develop positive interaction between policies and economic and social interests it must also work in harmony with other key European Union policies, chief amongst these being the **Europe 2020 Strategy**, which seeks smart, sustainable and inclusive economic growth, employment and innovation, and the **European Innovation Union** launched on 6<sup>th</sup> October 2010.

**A Regional Seas / Sea Basin Approach:** Since the publication of the IMP-2007, serious effort has been given to the development of strategies to implement the IMP in the different European Seas and Oceans recognising their individual physical, socio-economic and environmental characteristics.

To-date, Regional Sea Strategies have been or are being prepared for the Baltic Sea (2009), the Arctic (2008) and the Mediterranean.

In 2010, the Commission circulated a *Non-Paper: The EU and the Atlantic Ocean* and published *A Scoping Paper Preparing for a Communication on the Atlantic Ocean* (2010). In addition, the Commission has launched a public on-line consultation on the proposal for a Commission Communication on an Integrated Maritime Policy for the Atlantic Ocean Sea Basin to run from 16<sup>th</sup> August to 15<sup>th</sup> October 2010<sup>1</sup>, to initiate a broadly based consultation on an Atlantic Strategy.

The Non-Paper and the Scoping Paper outline a potential list of issues that could be addressed in the Atlantic area including:

- A definition of the geographical scope of the EU Atlantic Region;
- How to achieve smart economic growth and create jobs when such actions often lack coherence across borders. This could include the design and implementation of multi-

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<sup>1</sup> [http://ec.europa.eu/fisheries/partners/consultations/atlantic\\_ocean/index\\_en.htm](http://ec.europa.eu/fisheries/partners/consultations/atlantic_ocean/index_en.htm)

annual research and innovation strategies aimed at exploiting current or emerging Atlantic Arc strengths (smart specialisation within an EU context), linked to bi-lateral or trans-national initiatives.;

- The marine environment does not recognise national boundaries, environmental problems, including climate change, are transboundary and implementation of the Marine Strategy Framework Directive (2008), the environmental pillar of the IMP, and development of policy on Good Environmental Status, can only be effective if Member States and regions co-operate;
- Maritime governance differs between Member States and regions and while various cooperative structures and projects connecting the Atlantic Regions exist, a coherent regional vision on maritime governance throughout the Atlantic Ocean Sea Basin is missing;
- The Atlantic Ocean cannot be seen from a European perspective alone – there is clearly a need for a strong global dimension

**Ireland's Approach: The successful implementation and development of the IMP as a driver of economic, social and environmental development is of great importance to Ireland** as one of the truly maritime nations of the Union. Ireland by virtue of its large marine and offshore territories and the economic resources they hold (maritime territorial capital), is one of the larger contributors in terms of maritime space to the European Atlantic Area. The whole of the Irish territory falls within the proposed Atlantic Region.

Ireland recognizes great advantage in cooperation among Member States regarding the Atlantic Area in relation to a broad range of issues, including economic recovery; competitiveness; sustainable development; and environmental issues. Ireland also sees significant opportunities to:

- Improve the harmonization and implementation of EU policies and Directives in the area to ensure that the implementation strategies for policies such as, for example, the CFP, CAP, Energy Policy etc., are appropriate to the Atlantic area;
- Improve the competitiveness and sustainability of traditional sectors (e.g. maritime transport, seafood, marine tourism);
- Build and exploit global markets for new environmentally driven services and products (e.g. Renewable Ocean Energy, Marine Biotechnology linked to food and health, Hi-tech SMART products and services for environmental monitoring and management);
- Establish Maritime /Innovation Clusters to promote a range of new maritime value-added products and services;
- Ensure better exchange of and access to expertise and specialist infrastructures between Atlantic countries;
- Establish co-operative initiatives to quantify and map the total economic value (TEV) of Atlantic Seaboard resources in terms of their market (economic) and non-market (quality of life) values;

- Establish regional links to pan-European programmes and initiatives such as the European Maritime Safety Agency (EMSA) and The Global Monitoring for Environment and Security (GMES) initiative;
- Improve co-ordination and cooperation among the responsible agencies in the various jurisdictions in the area of maritime safety, security and surveillance, including information exchange, analysis and joint operations;
- Co-ordinate and focus national and EU Funding Programmes (Structural; Regional; Research; Environmental, etc) to better address and co-fund common priorities identified for the European Atlantic Area;
- Liaise on external maritime borders – European Exclusive Economic Zone (EEZ) and Continental Shelf.
- Capitalise on the Atlantic area’s geographical location and unique attributes while recognizing its peripherality to the economic core of the European Union.

In responding to the Commission Communication, Ireland recognizes the significant value-added in adopting a regional approach, in improving economic connectivity and providing a unique focus (competitive branding) on the European Atlantic Area.

## 2. Defining the Area

Much effort has been put into defining the specific geographical boundaries of the European Atlantic Area. However, the reality is that, as *the sea knows no boundaries*, any boundary will be artificial and we should think therefore in terms of what objectives we want to achieve and what is the geographical area that needs to be considered in order to achieve those objectives.

From a legal and administrative perspective the European Atlantic (sometimes referred to as the **European Atlantic Arc**) consists of the maritime coastal areas and offshore territories of the five European Member States (UK, Ireland, France, Spain and Portugal) facing the Atlantic Ocean. This area includes the Irish Sea (see map)

However, from an economic and environmental perspective it would not make sense to exclude the coastal areas and maritime territories of Norway, Iceland and the Faeroe Islands (administered by Denmark) thus extending the European Atlantic area to those regions of the European continent that face on to the Atlantic Ocean (including the Irish Sea) – **The European Atlantic Area**.



To fully address maritime transport and safety, fisheries, and environmental (including climate change) issues a **Sea Basin** model is required, including the eastern seaboard of Greenland (administered by Denmark), Canada and the United States of America: - **The North Atlantic Sea Basin**.

**RECOMMENDATION: Defining the Area:**

In defining the geographic scope or operational area of the Atlantic Strategy, we believe the best approach is to consider the objectives aimed at and then consider the area (e.g. European Atlantic Arc, European Atlantic Seaboard, North Atlantic Sea Basin) necessary to achieve those objectives (Table 1).

Issue	Geographical Area
Governance and Implementation of EU Policies	European Atlantic Arc
Economic development and environmental issues	European Atlantic Arc + Faeroe Islands, Iceland and Norway
International/global issues	North Atlantic Sea Basin

**Table 1. Geographic areas of the North Atlantic.**

### 3. Components of an Atlantic Strategy

**The Objective:** The objective of the Atlantic Strategy should be to implement the IMP-2007 Vision of “a dynamic maritime economy, in harmony with the environment; supported by sound science and technology, which allows human beings to continue to reap the rich harvest from the oceans in a sustainable manner” in the Atlantic area.

An Integrated Strategy for the Atlantic requires a clear demand and support from the Member States and regional stakeholders and a clear perspective that the Strategy will provide value-added opportunities to existing Member State government priorities and programmes.

**A Vision for the Atlantic:** An Integrated Atlantic Strategy provides a unique opportunity for the European Maritime States of the Atlantic seaboard to prepare a common vision which brands the region as a place to do business in, to live in and to distinguish it from other regions of the Community. Ireland can play a strong role in contributing to this shared vision.

An example of the Baltic Sea Strategy (2009) Vision Statement is provided<sup>2</sup>

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<sup>2</sup> Baltic Sea Vision Statement (2009). “An integrated framework that allows the European Union and Member States to identify needs and match them to available resources through a coordination of appropriate policies, thus enabling the Baltic Sea to enjoy a sustainable environment and optimal economic and social development”

**An Action Plan for the Atlantic:** An Action Plan should, consistent with current EU policies (i.e. IMP-2007, Europe 2020, Innovation Union) and Member States' priorities and Programmes, identify those broad themes (Economic Recovery, Environmental Protection, Governance, Connectivity) and a short suite of specific challenges/opportunities unique to the Atlantic that would benefit from a regional approach.

### **Supporting Pillars:**

1. Economic Recovery, Competitiveness and Sustainable Socio-Economic Development
2. Environmental Protection & Climate Change
3. Governance
4. Economic Connectivity

### **Priority Challenges/Opportunities**

- Renewable Ocean Energy;
- Maritime Transport & Accessibility;
- The Seafood Sector;
- Maritime Safety, Security & Surveillance;
- Marine Leisure and Tourism;
- Hi-tech Marine Services;
- Harnessing Industrial Value of Sustainable Marine Biomaterials;
- Oil and Gas Resources;
- Research, Innovation and Capacity Building;
- The Environment and Climate Change.

**Renewable Ocean Energy:** Ocean energy contained in the world's wind, waves and marine tidal currents provides an untapped source of renewable energy. **The European Atlantic seaboard, stretching from the north of Norway to the south of Portugal, is one of the world's richest areas in terms of wind, wave and tidal energy generation.** Indeed, this is one of the greatest assets and future opportunities of the European Atlantic Arc/Area.

In Ireland wind, wave and tidal energy have a vital role to play in meeting longer-term targets for electricity consumption from renewable sources and the first technologies to exploit this valuable source of energy are currently under development to achieve:

- The creation, in Ireland, of a centre of excellence in ocean energy technology and the stimulation of a world-class industry cluster;
- The connection of 500MW of ocean energy by 2020.

While there are many technical, economic, environmental and social risks related to these new technologies and there is increased competition for marine space (with existing sectors: transport, fisheries, aquaculture, leisure & tourism) and strong international competition, the potential benefits to the Region and the European Union are significant. It is currently estimated that by 2050, a substantial proportion of Europe's electricity supply could be

provided by renewable ocean energy generated off the Atlantic coast. This would have advantages for the region in terms of job creation and internationally traded products and services, and for the Union as a whole in terms of energy security, and of a reduction in the EU's reliance on fossil fuels and CO<sub>2</sub> emissions.

However this potential will only be realized by coordinated action and governance putting the right regulations and supports in place to facilitate the sustainable development of this new emerging industry, mobilizing the significant economic, technical and scientific capabilities of the region and ensuring inter-connectivity (the European Electricity Grid) to move energy from where it is produced (Atlantic seaboard) to where it is needed (the urban and industrial centres of the Union)

**Maritime Transport:** The maritime transport and ports sector is one of the most valuable resources in terms of revenue and employment in the European Atlantic Area. This sector provides vital links for trade and commerce within the Atlantic Arc region, between European regions (e.g. the North Sea, Baltic and Mediterranean) and North America and globally.

Considerable opportunities exist for further development of multimodality and logistics platforms within the Atlantic Arc region; in the area of green transport (engine efficiency, reduction of emissions, on board/onshore waste treatment) and short-sea shipping and motorways of the sea (to take container lorries off Europe's crowded roads including blue belt development).

An Atlantic Strategy should provide a focus on **transport and accessibility**. The development and promotion of freight transports link between peripheral Member States, port and infrastructure development, and port hinterland traffic management are key issues. A strategic focus on developing and promoting maritime transport as a green and sustainable transport mode, with an emphasis on reducing carbon emissions, protection from ship source pollution and development of green port infrastructure is important and would confer competitive advantage on the region.

**The Seafood Sector:** An Atlantic Strategy should be consistent with and supportive of the Common Fisheries Policy (CFP) Review process and the National Submission from Ireland on this matter. Regional structures and initiatives that support the CFP (including RACs) could be harnessed to support an increased awareness of, and improved data on, spawning and nursery ecosystems. Enhanced emphasis is also required to develop eco-labelling of seafood at the EU level to promote Community fisheries. Regional scale collaborations could also assist in achieving the development potential of aquaculture in an environmentally friendly manner throughout the Atlantic region.

Ireland's vision for the **seafood sector** (Fisheries; Aquaculture and Seaweed) sets out a sustainable, profitable and self-reliant industry that will maximise the long-term contribution to coastal communities. This vision is contingent on a resource base restored to sustainable levels in the context of a healthy and diverse marine environment. Ireland supports a scenario where seafood has re-established itself as a regular fixture in the diet of half a billion European consumers; where the sector can meet the demand for high-quality locally produced seafood; where the resource base has been restored to maximum sustainable yield; where people in coastal communities once again see fishing as an attractive and stable means of making a living; where stakeholders fully participate in decisions and debate on policy implementation. The European Atlantic Strategy should help provide a delivery mechanism for this vision.

The resource base is the bedrock of the seafood sector and the European Atlantic area contains some of the most **productive fishing grounds** and biologically sensitive areas in EU waters. There are major fishing grounds from Portugal to the west of Scotland which yield very diverse and economically significant catches of sardine, mackerel, horse mackerel, hake, monkfish, haddock and *Nephrops*. These catches are major suppliers to the European seafood market. The Atlantic area also contains the major North-east Atlantic spawning grounds for mackerel, blue whiting, horse mackerel and hake. The Atlantic area also contains important coral areas that need to be protected.

There are many challenges facing the Seafood sector and Ireland believes that these challenges can be met by the Member States working together within an Atlantic Strategy approach. The focus could be on such areas as: pooling technical resources for management; product traceability and food safety; joint programmes to improve scientific knowledge on the resource base and the environment; decentralised management that promotes the development of area-based management plans; and encouraging the landing and processing of fish close to where they are caught. The Atlantic Strategy will provide a platform to implement ecosystem-based management across this important seafood area.

The European Atlantic Arc is home to a broad spectrum of **aquaculture developments** from finfish such as salmon and cod in the Northern waters with sea bream and seabass produced in the south to various shellfish such as oysters and mussels along the tidal waters of the Arc. Ireland believes there can be a much greater role for aquaculture in meeting the increased demands for seafood. Aquaculture development offers the potential to support greater food security for the Community and to provide economic support for coastal communities traditionally dependent on fishing. Aquaculture production must be carried out to the highest standards under an environmentally friendly regime. The protection of the excellent environment of the Atlantic in line with the Marine Strategy Framework Directive offers unrivalled opportunity for the production of high-quality seafood products from aquaculture. The potential of aquaculture to provide sustainable, locally sourced seafood products must also be considered in the context of climate change. The Atlantic Strategy offers the potential for coastal states to work together to develop and promote environmentally-sustainable aquaculture while addressing the challenges of the competing commercial uses of the sea.

Ireland believes that the IMP will make a substantial contribution to alleviating socio economic consequences of reduced fishing capacity, reduced fishing opportunities and stricter environmental regulations. Coastal community development cannot be addressed by the CFP alone, but must be seen as a wider undertaking within the context of the IMP as well as European environmental and structural policy.

Ireland fully recognises that the seafood sector, and particularly the catching sector, interacts closely with other maritime sectors. We must strive to better understand these interactions and move away from stand-alone sectoral management towards a more holistic, integrated ocean management approach. Ireland recognises that the Atlantic Strategy approach, with all coastal States working together, provides the best opportunity to realise this vision for the Seafood Sector.

**Maritime Safety, Security & Surveillance:** At European and at national level there has been a recognition of the need to integrate the co-ordination and inter-operability of the Member States ability to exercise sovereignty in European waters. In this regard, good progress has been made with Member State co-operation in the area of maritime safety, security and surveillance, in particular in relation to: emergency at sea responses (including search and rescue); pollution response (including catastrophic events), environmental protection, fisheries enforcement; improved vessel traffic management and information; and maritime security and surveillance at sea (including border control, counter-narcotics, human trafficking, smuggling and other forms of organized crime). Given the broad expanse covered by the Atlantic Arc, there are significant opportunities to improve the efficiency and effectiveness of member States operations in these areas, both within the agencies within each jurisdiction and across jurisdictions through greater cooperation, information exchange and shared analysis.

Ireland already shares resources and exchanges relevant maritime information with other European Atlantic maritime States on a regular basis, particularly in the areas of search and rescue, marine assistance services, maritime safety, pollution, fisheries protection, counter narcotics and other crime prevention activities. The Irish Coast Guard currently shares an Automatic Identification System (AIS) for monitoring and tracking vessels off the Irish coast and in European Atlantic waters. The Naval Service through the Fisheries Protection Systems shares data from the Fisheries Vessel Monitoring System (VMS) through the Commission. Together with the Gardai and the Customs Service of the Irish Revenue Commissioners, the Naval Service supports the MAOC (Narcotics) centre in Lisbon and, as the primary seagoing agency of the State, has responsibilities, within the Irish jurisdiction, for exercising the rule of law at sea in support of the Irish Police Service.

An Atlantic Strategy should build on existing initiatives at national, bilateral, regional and EU level, and support greater cooperation across a range of areas within the Maritime Safety, Security & Surveillance space, to the benefit of the Member States involved and the EU as a whole.

**Marine Leisure and Tourism:** Marine leisure is a critical component of human health and well-being and of quality of life across the Atlantic Area, while marine tourism has very different aspects depending on the actual location in the Atlantic Area (e.g. from activity holidays to sun holidays).

Marine leisure and tourism is a rapidly growing sector, in spite of the economic recession, and is of great importance to diverse and peripheral coastal communities. Co-operation and greater inter-connectivity in this area opens a whole range of new opportunities and challenges for coastal regions to explore. This could be assisted greatly through regional scale cooperative initiatives supported by an Atlantic Strategy.

In Ireland marine tourism and leisure is a major contributor to the economy. In 2007, the tourism industry contributed an estimated €6.45 billion to the Irish economy - marine tourism and leisure accounts for 7% of this figure. This relates to a wide range of activities enjoyed by Irish and overseas tourists ranging from visits to the beach, to specialised angling packages, watersports, sailing etc. The development of multi-centre packaged holidays for specialist holiday makers within the Atlantic Arc area could be further enhanced through strategic bi-lateral and trans-national approaches.

A more recent development has been the inclusion of Ireland as a destination for the European cruise line industry. This industry generated €29 billion in total economic benefits for Europe in 2007. While the Irish Cruise industry is still embryonic (€45m in 2007) compared to its European counterparts, significant potential exists to develop innovative cruise packages along the Atlantic Arc

**High Tech Marine Services:** The Scoping Paper on the Atlantic Ocean emphasizes the importance of research and innovation in addressing the objectives of the Europe 2020 Strategy for smart, green, innovative, sustainable and inclusive growth and job creation. It specifically refers to the **Irish SmartOcean Innovation Strategy** and European experience in the establishment of **Maritime Clusters**.

Through the establishment of **Innovation Clusters** (Innovation Union) and the *convergence of technologies* – drawing on new and emerging technologies particularly in the ICT and Life Science sectors - we can anticipate the establishment of a new Hi-Tech Marine Services sector providing a range of value-added internationally traded hi-tech products and services.

These will be applied to:

- bring new opportunities to further develop traditional sectors (e.g. fishing, aquaculture, maritime transport, tourism, etc);
- open up exciting new opportunities such as the use of marine biological/chemical resources in drug development, bio medical devices, food ingredients (the knowledge-based bio-

economy) and industrial chemicals, development of renewable wave and tidal energy sources and the application of ICT and engineering technology to environmental monitoring and new service based and internationally traded sectors.

**Ireland's SmartOcean Innovation Strategy** aims to consolidate and further develop Ireland's current Hi-Tech Marine Services Sector. In 2007, the '*high tech marine services*' sub-sector in Ireland had a turnover of €39.7 million in 2007. €10.8 million of this turnover was derived from exports. It generated €25.4 million in gross value added to the Irish economy and employed 340 individuals in 2007. Since 2007, there has been significant growth in the number of companies involved in this sector and Ireland is currently mobilising National Capabilities in Information and Communications Technologies (ICT) to capitalise on opportunities for convergence associated with the marine sector. This includes distributed sensing, wireless and cable communications and informatics for the development of next generation decision based management tools. These enabling technology platforms are currently deployed across a range of existing marine related sectors including shipping, security and logistics, environmental monitoring, offshore energy and emerging markets including marine renewable energy.

Ireland also has a number of key national marine test and demonstration infrastructures in place or under development including SmartBay a National Facility for the real world deployment of ICT solutions for the Sea and the Quarter Scale Test Ocean Energy co-located with SmartBay in Galway Bay and the Offshore grid connected National Ocean Test Site in Belmullet. These test facilities form part of the network of marine infrastructure facilities along the Atlantic seaboard and thus provide research test and demonstration opportunities to EU researchers and companies.

The Atlantic Strategy should facilitate the development and application of such technologies across the Atlantic area.

### **Harnessing the Industrial value of Sustainable Marine Biomaterials:**

Ireland is well placed geographically to maximise the potential of **marine biotechnology**. A long standing maritime heritage; extensive marine territories comprising diverse marine habitats and traditional linkages to the UK, France, Portugal and Spain represent opportunities to collaborate on the development of marine bio-resources. Progress in Ireland is already driven by strong industry participation within the National Marine Biotechnology Programme (funded under *Sea Change* – Ireland's Marine Research and Innovation Strategy 2007-2013), which is facilitating industry to maximise the marine biological resource in a wide range of products.

Irish marine biotechnology offers a huge potential for innovative, sustainable development. Marine biotechnology is the creation of products and processes from marine organisms including from the cells of these organisms or at the molecular level by applying the principles of biotechnology. Marine biotechnology is already contributing to nearly every industry sector, from healthcare to environmental bioremediation and from cosmetics to food and including

advanced materials with industrial applications. In doing so, marine biotechnology is filling the gap for novelty demanded by industry in order to maintain a competitive position in global markets. With a projected global market valued at €3.6 billion (2012), Marine Biotechnology is expected to be one of the major enabling technologies of the 21st century, with a forecast annual average growth rate of the sector of 4 percent<sup>3</sup>.

Marine biotechnology is enabling economic development through the development of novel products and services. For example, it is already recognised that Ireland's agrifood sector will grow and prosper through the delivery of sustainable, high quality naturally based produce. Links between marine biotechnology and the food sector are being strengthened in response to demands from industry for contributions from the SMART economy. In particular by greater contribution from genomics to identify product attributes that add value in the market place and by the provision of novel marine based functional materials.

Recurrent issues that marine biotechnology can help to further develop include sustainable supply of high quality and healthy food; alternative sources of energy; solving environmental issues; human and animal health and innovative biomaterials. Europe's diverse market-led industrial economy targets marine living resources as a huge and almost untapped source of genes, organisms and materials; some of which will present unique commercially viable solutions for industry.

The Atlantic Strategy should facilitate the development of the marine biotechnology sector across the Atlantic area.

**Oil and Gas Resources:** Ireland's Atlantic Margin is an under-explored frontier petroleum province with proven working hydrocarbon systems, as demonstrated by a large number of hydrocarbon shows as well as a number of discoveries in the area. The potential of the area has also been demonstrated by source rock modelling and prospect evaluation. The financial benefits to Ireland from exploiting our petroleum natural resources could be significant, as could the benefits in terms of strengthening Ireland's energy security of supply.

Ireland is actively promoting the opportunities for investing in exploration in the Irish offshore with the aim of attracting an increased share of mobile international investment. It is only through an increased level of exploration activity that the true potential of Ireland's Atlantic Margin will be realised.

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<sup>3</sup> BizAcumen report

**Research, Innovation and Capacity Building:** The IMP-2007, the Europe 2020 Strategy and the Innovation Union all emphasise the vital role of research and innovation in future economic recovery and sustainable development.

The European Atlantic Arc/Area hosts a large number of Centres of Excellence in marine and maritime research and innovative SMEs which it needs to mobilize. The skills and expertise of these Centres/SMEs need to be better harnessed and coordinated to address the challenges facing existing industries, such as shipping and maritime transport (e.g. the green ship), fisheries, aquaculture, and provide a catalyst for creating new markets industries linked to activities such as renewable ocean energy; marine biotechnology and marine technology.

These Centres also have a critical role to play in supporting the science base of the MSFD and in evidence-based policy decisions and addressing regional aspects of climate change mitigation and adaptation strategies.

The **European Strategy for Marine and Maritime Research** (2008), the research pillar of the IMP-2007, and the **EU Framework Research Programme** provide vehicles to improved regional co-operation and would benefit from a stronger regional focus in:

- Better cooperation between existing research and innovation institutes and the development of a market-led approach to addressing key challenges and opportunities;
- Better access to and pooling of existing Research and Demonstration Facilities and Infrastructures;
- The development of Smart specialisation strategies and enhanced co-operation to achieve a more strategic approach to the development of distinctive strengths;
- Pooling of training resources and encouragement of mobility.

The Irish marine research and innovation strategy is laid out in ***Sea Change: A Marine knowledge, Research and Innovation Strategy for Ireland 2007 – 2013*** and is the marine component of the national Strategy for Science Technology and Innovation (SSTI: 2006-2013). The *Sea Change* Strategy is also fully consistent with the research pillar of the IMP-2007, the **European Strategy for Marine and Maritime Research** (2008), and indeed had a major influence on the drafting of the ESMR through the Galway (2004) and Aberdeen (2007) Declaration processes.

The ***Sea Change Strategy*** sets ambitious targets aimed at ensuring the Ireland fully maximises the economic, social and environmental contribution of its marine resources. At the mid-way point in the implementation of the strategy, significant progress has been achieved. Over the period 2007-2010, in excess of €140 million has been invested in marine R&D via competitive national and European funding programmes (24% from European Programmes). This investment is building significant research capacity and capability, improving the competitiveness and sustainability of existing marine sectors and driving the development of new marine opportunities in emerging sectors. It is also a major contributor to driving the national convergence agenda, where Ireland's small scale offers considerable advantage.

Within Europe, marine research and innovation remains fragmented and not sufficiently market led. In line with the Innovation Union (2010), the challenge now for marine research and innovation is to move beyond business as usual, to create synergies with the market and with policy needs that are necessary to deliver significant value added to Europe from its vast marine resources. An Atlantic Strategy should provide a strong focus for a co-ordinated initiative in marine research and innovation.

**The Marine Environment and Climate Change:** The quality of the marine environment is crucial to the well being of European, including Irish, citizens and to many productive marine sectors, particularly the seafood and marine leisure & tourism sectors. It is not surprising, therefore, that reference to “*in harmony with the environment*” is included in the IMP-2007 Vision Statement or that the Marine Strategy Framework Directive (MSFD) is regarded as the environmental cornerstone or pillar of the IMP.

The **implementation of the MSFD**, in particular environmental monitoring and developing programmes and measures to achieve Good Environmental Status (GES) represents significant logistical and scientific challenges. Progress can best be made through regional co-operation using the Regional Seas Convention (OSPAR) and a coordinated approach between ICES / OSPAR / EC and international fisheries and seabed authorities.

Essential to the effective and efficient delivery of the MSFD is a regional approach and cooperation on **Maritime Spatial Planning (MSP)**<sup>4</sup>, **seabed mapping**; the mapping and protection of **biological diversity** and establishment of a network of **Marine Protected Areas (MPAs)**.

In the context of marine environmental monitoring and climate change impacts, cooperation between Atlantic Centres of Excellence, their expertise and infrastructure (including research vessels) and their contribution to the EU initiatives **WISE-Marine** and the **European Marine Observation and Data Network (EMODN)**, is essential to ensure the comprehensiveness of the data collected, cost effective and avoidance of duplication.

In a similar vein, issues related to **climate change** and **ocean acidification** impacts, monitoring, assessment and the development of predictions and scenarios to inform mitigation and adaptive strategies must be global and regional in scale if they are to be effective and enable Member States to take local action to protect their citizens and natural assets.

The development of such capabilities, e.g. in-sensing systems – the National Data Buoy Network, Tidal Gauge Network, SmartBay, SmartCoast and SmartCities - is well developed in

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<sup>4</sup> A recent Commission Press Release (13/09/2010) indicates that MSP could trigger economic growth worth over a billion euro.

Ireland with strong buy-in from industry and could contribute significantly to other regional centres.

## **1. Governance:**

Ireland has considerable experience of cooperation with our EU partners in policy areas. Examples of governmental co-operation relevant to the Atlantic include the Regional Advisory Councils for Fisheries, the OSPAR, etc

Regional and Local Authorities in Ireland are also very familiar with the concept of inter-regional cooperation and have been supported through the EU Regional Funding Programmes (e.g. INTERREG) in a number of pan-European and European Atlantic cooperative initiatives. Further, organizations such as the Conference of Peripheral Maritime Regions (CPMR) and in a national context, the Association of Irish Regions (AIR), have very positive experiences of regional cooperation.

**In the context of managing and implementing a Strategy for the Atlantic, an appropriate architecture to support and oversee the Atlantic Strategy Action Plan would be needed.** Ireland considers this would be best achieved through coordination at a national level by Member States in the Atlantic Area, using to the greatest extent possible existing structures relevant to the marine region of the North-East Atlantic i.e. the Convention for the Protection of the Marine Environment of the North-East Atlantic (the OSPAR Convention).

**An Atlantic Identity:** In the context of governance, the development of an *Atlantic Identity* embracing all Atlantic stakeholders is important. This identity would be based on a shared maritime and cultural heritage, a common vision for the Atlantic seaboard and existing cultural and trade linkages and would involve all stakeholders (Member State, Regional Authority, Trade Associations and Commerce, Education, etc).

Such an identify would help to foster a better a understanding by civil society of the complex relationships involved and of the importance of the seas for human life and well-being, would promote a better engagement of civil society in maritime affairs and would provide a basis for appropriate mechanisms to liaise with:

- Regional and Local Authorities;
- Trade Associations and Networks;
- Broad base of stakeholders and interested parties
- USA, Canada, Greenland.

## **2. Making it Happen:**

We can anticipate economies of scale through better planning and cooperation, economic connectivity, avoidance of unnecessary duplication and joint funding, operation and maintenance where this makes sense.

As acknowledged in the Innovation Union Strategy, there are a number of ways that Structural and Regional Funds could be used more effectively e.g. pooling resources and expertise to support research infrastructure, the emergence of world class clusters along the Atlantic Arc or the pursuit of Smart Specialisation strategies. Other financial instruments such as the European Social Fund could be used to step up the innovation effort in conjunction with FP7/FP8, Regions of Knowledge, CIP funded cluster initiatives and Enterprise Europe Network and projects funded under European Territorial Co-operation Programmes. This would enable the Atlantic Arc region to consolidate economic actions and increase regional development impacts. Further it would be important to build links and incentivise co-operation between leading innovation regions (outside the Atlantic Arc) and less performing and more peripheral regions in the Atlantic Arc, where specific European strategic interests are identified. Discussion on the next EU Multi-Annual Financial Framework (post 2013) provides an opportunity to fund implementation of the Atlantic Strategy when agreed.

## RECOMMENDATIONS

Ireland:

- Supports the initiative of the European Commission to prepare and develop a Strategy for the Atlantic Ocean in the context of the Integrated Maritime Policy for the European Union;
- recognizes that there is no single definition of the geographical scope or boundaries of the European Atlantic Area and recommends that different definitions be used according as the different economic development, maritime safety, security and surveillance, environmental protection and governance issues are being addressed;
- recommends a concerted focus on opportunities for economic development, in the context of the IMP-2007, the Europe 2020 Strategy and the Innovation Union , with respect to, for example, the development of renewable Ocean Energy, Maritime Transport and Accessibility; the Seafood Sector, Maritime Leisure and Tourism and the High-Tech Marine Services Sector;
- recommends an Atlantic approach to addressing environmental protection including implementation of the Marine Strategy Framework Directive, addressing climate change and loss of biodiversity issue, noise pollution etc.
- recommends that the Strategy stresses the importance of an Atlantic Arc approach to maritime safety, security and surveillance (including safety and emergency response events; security and counter-narcotics, human trafficking, smuggling and other forms of organized crime) and the cost-benefits and efficiencies arising from a co-operative and co-coordinated approach;
- recommends that the Strategy emphasises the need to better mobilize the Atlantic Arc's significant research, innovation and capacity building resources to support economic recovery, competitiveness and the creation of new global market opportunities; This could include the design and implementation of multi-annual research and innovation strategies aimed at exploiting current or emerging Atlantic Arc strengths (smart specialisation within an EU context), linked to bi-lateral or trans-national initiatives; and
- recommends the development of a co-ordinated and co-operative **European Atlantic Marine Observatory** linking existing national and European (EMSA, ESA, GMES, etc) monitoring systems (strategically located *in-situ* data buoys, SMART sensors and satellite data) with existing modeling and forecasting capabilities. This could provide important and cost effective environmental assessments and forecasts. In addition, such a virtual Marine Observatory could provide information and forecasts on storm events; subsea mud slides; sea level rise and coastal inundation; safety at sea, maritime surveillance (including drug trafficking) and pollutant identification (including noise pollution) and tracking.

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