

HARNESSING OUR OCEAN WEALTH

An Integrated
Marine Plan for Ireland

Roadmap

*New Ways
New Approaches
New Thinking*



July 2012



As Taoiseach, I want to see us reconnect to the sea in a way that harnesses the ideas, innovation and knowledge of all our people, at home and abroad. I want to see us setting out to secure for ourselves and our children the social, cultural and economic benefits that our marine assets can deliver.

Enda Kenny, T.D.,

Taoiseach

February 2012

Marine or Maritime?

Different European Coastal States have different terminologies to describe activities and resources related to the sea. In formulating the EU Integrated Maritime Policy (IMP-EU), the European Commission felt it necessary to include the terms marine and maritime whilst recognising that they overlap and, in some countries, are synonymous. In Ireland, different stakeholders also use different terminologies to describe activities; e.g. maritime is often associated with the shipping sector only. In this document we use 'marine' to reflect both maritime and marine.

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Taoiseach & Minister Joint Statement



Enda Kenny, T.D.,
Taoiseach



Simon Coveney, T.D.,
Minister for Agriculture,
Food and the Marine

When the Government launched its public consultation on *Our Ocean Wealth* in February, we were serious about creating the opportunity for you the public to have your say. Heartened and inspired by the scale of feedback and ideas expressed in the consultation process, we have re-doubled our efforts through the Marine Coordination Group, under the leadership of Minister Coveney, to prepare an integrated marine plan to dramatically improve our ability as a nation and people to harness our ocean wealth.

We are determined to put behind us the days of underachievement in the marine area. We want to make our ocean wealth a key component of our economic recovery and sustainable growth, generating social, cultural and economic benefits for all our citizens.

The Government sets out two targets in this plan: exceeding €6.4 billion a year in turnover from our maritime sectors by 2020, and doubling their contribution to GDP to 2.4% a year by 2030. We have identified the key actions needed to enable these targets to be achieved.

We realise that an integrated approach across Government is essential. We will strengthen the role of the Marine Coordination Group (MCG) with the introduction of two operational Task Forces to work under the auspices of the Group, one to address Enabling actions and the other to address Development actions.

A critically important role of these Task Forces, drawn from the relevant Departments and Agencies as well as external participants, will be to provide the unifying horizontal support for the policies and programmes established by the Departments. This horizontal component reflects the high degree of cross-Department cooperation needed for the various marine sectoral policy and programme goals to be achieved. The Task Forces will support the integration, cohesion and alignment of key players and actions across Government to achieve our goals.

There will be a pragmatic and concentrated effort in the short term (to 2014) to establish the necessary progress in the critically important early actions. There will be a strong focus on the State getting the conditions right so that we can promote investment and enable growth. There will be an annual report in 2014 and each year thereafter, to show the progress or otherwise under *Harnessing Our Ocean Wealth*. There will also be an Annual National Seminar.

The implementation of *Harnessing Our Ocean Wealth* will be a whole-of-Government initiative under the supervision of the Marine Coordination Group. The plan will be a dynamic one that will evolve over the period to 2020 in light of evolving circumstances nationally and internationally. While factors and circumstances may change in this period, our Vision will remain constant:

Our ocean wealth will be a key element of our economic recovery and sustainable growth, generating benefits for all our citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner.

Enda Kenny, T.D.,
Taoiseach

Simon Coveney, T.D.,
Minister for Agriculture,
Food and the Marine

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Executive Summary

The Opportunity

Harnessing Our Ocean Wealth is an Integrated Marine Plan (IMP), setting out a roadmap for the Government's vision, high-level goals and integrated actions across policy, governance and business to enable our marine potential to be realised. Implementation of this Plan will see Ireland evolve an integrated system of policy and programme planning for our marine affairs. Implementation of the Plan will, of course, have to be delivered within the over-riding medium-term fiscal framework and budgetary targets adopted by the Government.

Our ocean is a national asset, supporting a diverse marine economy, with vast potential to tap into a €1,200 billion global marine market for seafood, tourism, oil and gas, marine renewable energy, and new applications for health, medicine and technology. In 2007, Ireland generated 1.2% of GDP (€2.4bn direct and indirect Gross Value Added) from its ocean economy, supporting about 1% of the total workforce. Global marine economic activity is estimated to contribute 2% of the world's GDP and the European Commission estimates that between 3% and 5% of Europe's GDP was generated from sea-related industries and services in 2007. Many believe that we can achieve substantially more. This real opportunity demands a strong integrated cross-government plan of action.

Our marine resources also provide essential non-commercial benefits such as amenity, biodiversity and our mild climate. Ireland's marine ecosystems (i.e. offshore, inshore and coastline) are home to a rich and diverse range of species and habitats. Our national asset offers significant potential for Ireland's marine enterprises and sectors and needs to be protected, managed and developed for and by our citizens. The Government is determined to ensure that our ocean wealth will be a key component of our economic recovery and sustainable growth, generating benefits for all our citizens.

An Integrated Marine Plan for Ireland

In Ireland, responsibility for marine matters is spread across a number of government departments and agencies. In recognition of the need for better coordination, the broad scope of the sector and the underutilisation of our ocean wealth, the Government, through the Marine Coordination Group (MCG), which includes senior representatives from the departments with marine responsibilities, have developed *Harnessing Our Ocean Wealth – An Integrated Marine Plan (IMP)* for Ireland. The IMP provides a new momentum for growth in the marine area and seeks to ensure government departments work together more efficiently and effectively on the diverse issues related to the marine. The IMP marks a key milestone, with recognition by Government that integrated planning and actions become the norm for marine and maritime affairs. The IMP is designed to make a valuable contribution to getting the environment right for investment and so stimulate essential private investment. The IMP will help realise the potential of our marine economy and will allow us to strike a balance between protecting our marine environment (and its species and habitats) and maximising the use of its resources as a source of economic growth.

A key step in developing *Harnessing Our Ocean Wealth – An IMP for Ireland* was to gather the widest possible source of ideas and opinions through inclusive stakeholder consultation. Early in 2012, a consultation document entitled *Our Ocean Wealth: Seeking Your Views: New Ways; New Approaches; New Thinking* was launched. One hundred and ninety-two submissions were received from a wide range of stakeholders. As part of the consultation process, Minister Coveney T.D. and representatives of the Marine Coordination Group presented the initiative to the Joint Oireachtas Committee on Communications, Natural Resources and Agriculture, which later made a formal submission to the process. The views from the consultation have informed and shaped *Harnessing Our Ocean Wealth*.

Vision and Goals

Harnessing Our Ocean Wealth – An IMP for Ireland sets out a **shared vision**:

OUR VISION

Our ocean wealth will be a key element of our economic recovery and sustainable growth, generating benefits for all our citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner.

Three high-level goals, of equal importance, based on the concept of sustainable development have been developed.

Goal 1 focuses on a **thriving maritime economy**, whereby Ireland harnesses the market opportunities to achieve economic recovery and socially inclusive, sustainable growth.

Goal 2 sets out to achieve **healthy ecosystems** that provide monetary and non-monetary goods and services (e.g. food, climate, health and well-being).

Goal 3 aims to increase our **engagement with the sea**. Building on our rich maritime heritage, our goal is to strengthen our maritime identity and increase our awareness of the value (market and non-market), opportunities and social benefits of engaging with the sea.

The vision and goals have been framed within the context of what is happening at the broader global and EU levels, particularly the Integrated Maritime Policy for the European Union, recognising the contribution the 'blue economy' can make to global economic growth and the need for appropriate policies, strategies and funding mechanisms to enable this.

Harnessing Our Ocean Wealth 2020 Targets:

- Double the value of our ocean wealth to 2.4% of GDP by 2030.
- Increase the turnover from our ocean economy to exceed €6.4bn by 2020.

Enablers

To support the vision and goals, eight enablers that are key to creating the conditions for growth and investment have been identified. These enablers are not prioritised in order of importance and display strong inter-dependencies and synergies. In total, 39 actions have been identified under these eight enablers. Each action is linked to the appropriate goal (1-3) and timelines and responsibility for delivery are set out.

ENABLERS



Good governance and maritime safety, security and surveillance of our ocean wealth are vital to achieving our vision and goals. Cross-sectoral integrated marine policy, planning and decision-making at the various levels of governance (international, national, regional and local) are a vital component of harnessing our ocean wealth. The delivery of more efficient and effective public services; the removal of impediments where appropriate; and the provision of a robust planning and licensing framework, underpinned by robust legislation and regulation can support sustainable development and create a degree of certainty, as well as a safe and stable environment for business and consumers. **(8 Actions)**

Healthy marine ecosystems, including a clean, green environment, are not only an essential goal for achieving our vision; they are also an important enabler for harnessing our ocean wealth. Ireland's clean, green image plays a critically important role in the promotion of marine products and services (e.g. in our food and tourism sectors). The future growth of our marine industries depends on protecting the credibility of our clean, green image, e.g. through implementation and compliance with environmental legislation. Equally, we need to promote and raise awareness amongst the public, investors and entrepreneurs that Ireland is open for, and a good place to do, marine business. **(12 Actions)**

Ireland has significant strengths in Research, Technology, Development and Innovation (RTDI) and a growing international industry base centred around ICT and Life Sciences. These, coupled with an indigenous strength in marine science and technology, provide the means to enable smart, knowledge-based enterprises to target globally traded products and services in existing and new markets. A skilled and experienced workforce that adapts to changing requirements and new opportunities is a pre-requisite for achieving our vision and goals. Enabling infrastructure (e.g. ports, piers, electricity grid, research infrastructure) is essential for harnessing our ocean wealth at national, regional and local levels. **(15 Actions)**

International cooperation is an important element of integrated marine policy and planning because global seas and oceans do not fall naturally into jurisdictional boundaries. Irish maritime law and policy reflects developments at EU and international levels and consequently we need to influence the development of new and emerging policy areas. Close North/South cooperation and collaboration with our Atlantic neighbours and international partners can also bring about economic returns and benefits. **(4 Actions)**

Implementation

The Government has developed a model to implement *Harnessing Our Ocean Wealth – An IMP for Ireland*, assigning overarching responsibility to the MCG and the Minister for Agriculture, Food and the Marine to supervise cross-government delivery and implementation. The model is based on:

1. Individual departments implementing relevant policy and strategy programmes;
2. Improved cross-government communication and engagement;
3. Ongoing updates to the MCG;
4. Focused task forces with broad participation that address specific actions; and
5. Annual reviews of progress to commence in 2014, with feedback to stakeholders.

Individual departments and their associated agencies will continue to develop and implement policies and strategies that come within their remit, taking account of *Harnessing Our Ocean Wealth*. Improved cross-government communication and engagement will support departments and agencies to work together towards the shared vision and goals, enhancing the delivery of existing and new and emerging policy and strategies. Relevant government departments and agencies will update the MCG on progress in implementing existing and new emerging policies, strategies and initiatives. The MCG will establish independently chaired Task Force(s), enabler or development focused, for a specific period, with defined Terms of References comprising of government and non-government participants. The recommendations/ outputs of the Task Force will be presented to the MCG and a decision on appropriate implementation will be made by the MCG in association with the lead department(s). The MCG will ensure that any new Task Force will complement and enhance/support existing structures that deal with the same specific marine initiative.

Delivering the growth potential for Ireland demands an increasingly integrated, dynamic and interactive approach. An annual review, including feedback to stakeholders, will promote the evolution of existing structures and plans for *Harnessing Our Ocean Wealth*.

The following 10 points capture the progress and commitments that have been achieved in developing *Harnessing Our Ocean Wealth – An IMP for Ireland*:

1. Concluded a public consultation that has stimulated a public debate on the marine in Ireland, looking at our vast resources and marine potential as we never did before. This has raised awareness and promoted public discussion on our ocean wealth and where we want to be in the future. The public submissions ('Your Views') have fed into the development of this Plan.
2. Set targets. Ireland will double the value of our ocean wealth to 2.4% of GDP by 2030. Ireland will increase the turnover from our ocean economy to exceed €6.4bn by 2020.
3. Developed a clear vision, three high-level goals and eight inter-linked enablers that are built around the concept of a sustainable future for our ocean wealth.
4. Identified 39 key enabling actions that will support the conditions for growth and investment and allow us reach our vision and goals.
5. Prioritised these actions and developed the IMP roadmap for 2012-2014.
6. A clear 'Statement of Intent' from government that all departments and agencies will work together towards our shared vision and goals in delivering developed policies and strategies.
7. The MCG will maintain ownership and provide leadership for the delivery of *Harnessing Our Ocean Wealth* as an integrated Government initiative.
8. The actions outlined in this report will be further developed by the MCG. The MCG will set up the Implementation Framework (e.g. focused enabler and development task forces and ongoing engagement on cross-government marine initiatives) to progress the key actions as appropriate.
9. The MCG will review progress in 2014, publish a progress report and host a public seminar.

10. The appropriate framework and mechanisms have now been set in place to prepare and plan policy and programmes for our marine and maritime affairs in a fully integrated and cross-government manner. This process marks an evolution of existing structures and processes, and the beginning of a mindset change, as we adopt new ways, new approaches and new thinking on how to harness our ocean wealth.

The implementation of *Harnessing Our Ocean Wealth* will be a whole of Government initiative under the supervision of the MCG. It will be a dynamic plan that will evolve over the period to 2020 in light of evolving circumstances nationally and internationally. Although circumstances may change in this period our vision will remain constant.

OUR VISION

Our ocean wealth will be a key element of our economic recovery and sustainable growth, generating benefits for all our citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner.

GOAL
1

THRIVING MARITIME ECONOMY

- Sustainable economic growth of our marine/ maritime sectors
- Increase the contribution to our national GDP
- Deliver a business-friendly yet robust governance, policy and planning framework

GOAL
2

HEALTHY ECOSYSTEMS

- Protect and conserve our rich marine biodiversity and ecosystems
- Manage our living and non-living resources in harmony with the ecosystem
- Implement and comply with environmental legislation

GOAL
3

ENGAGING WITH THE SEA

- Building on our maritime heritage, strengthen our maritime identity
- Increase our awareness of the value, opportunities and societal benefits
- Engagement and participation by all

ENABLERS

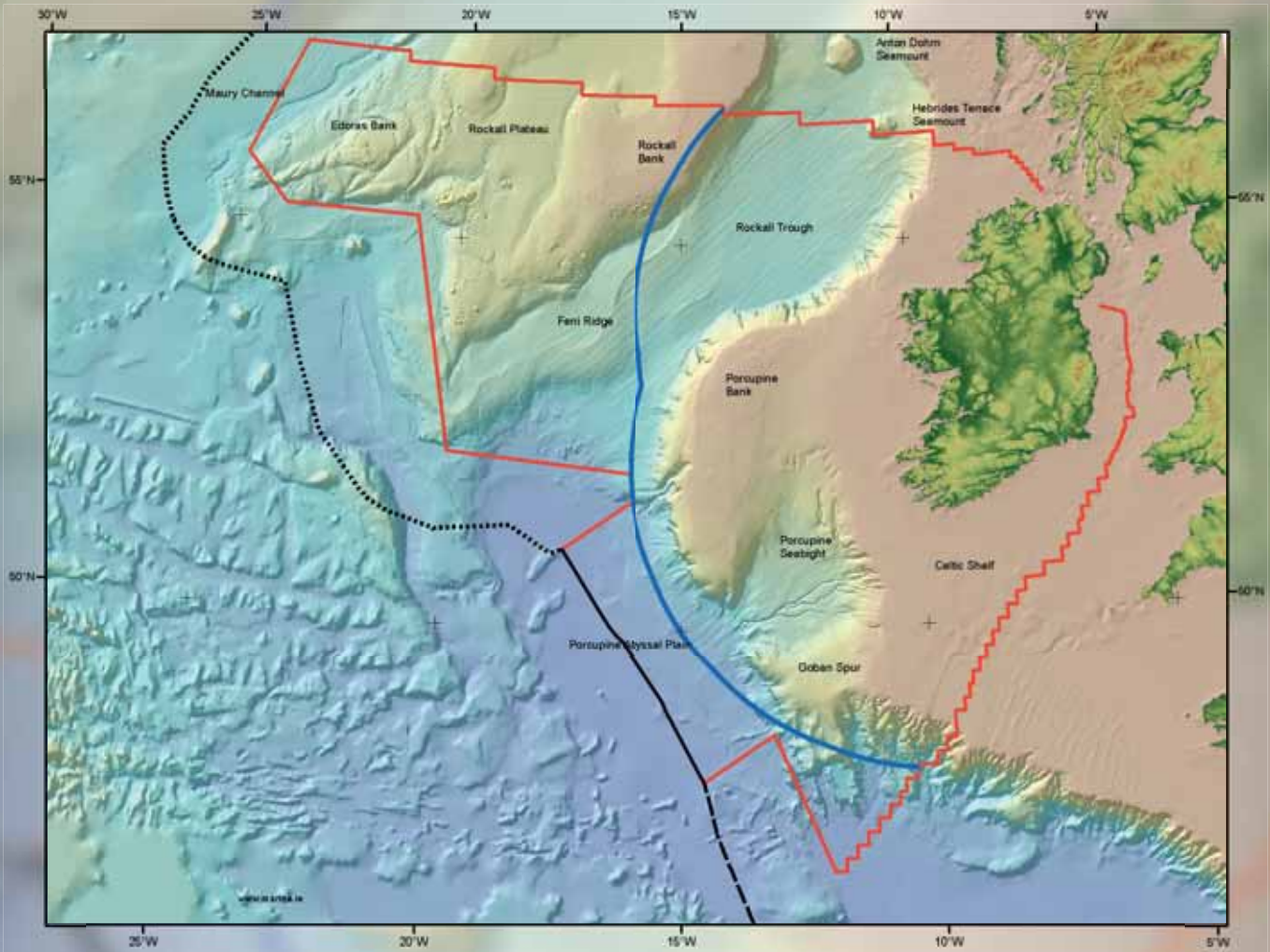
Harnessing Our Ocean Wealth – Enabling Our Sustainable Future

Governance	Clean – Green – Marine	Research, Knowledge, Technology & Innovation	Infrastructure
Maritime Safety, Security & Surveillance	Business Development, Marketing & Promotion	Capacity, Education, Training & Awareness	International & North/South Cooperation

Part I

Context

The 'Real' Map of Ireland with 220 Million Acres Under the Sea




Bathymetry (m)

0
-500
-1,000
-1,500
-2,000
-2,500
-3,000
-3,500
-4,000
-4,500
-5,000
-5,500


- 200nm (EEZ)
- Currently Designated Irish Continental Shelf
- Outer limit of Continental Shelf based on the recommendations of the UN CLCS and designated by Ireland in March 2009
- - - Outer limit of Continental Shelf of Ireland, UK, France and Spain based on the recommendations of the UN CLCS received in April 2009
- ⋯ Outer limit of Continental Shelf as submitted by Ireland to the UN CLCS in March 2009

Map Created: January 2012
 Map Spheroid: WGS-84
 Map Projection: UTM, Zone 28 N

Bathymetry image derived from the following
 * Reproduced from the GEBCO Digital Atlas published by the



Department of Communications, Energy and Natural Resources
 Roinn Cumarsáide, Fuinnemhí agus Komarsáid Nádúrtha



THIS CHART IS NOT TO BE USED FOR NAVIGATION

I. Introduction

Taking our seabed area into account, Ireland is one of the largest EU states; with sovereign or exclusive rights over one of the largest sea to land ratios (over 10:1) of any EU State. Our coastline of 7,500km is longer than that of many European countries. Yet we see the land as the primary provider of our food and fuel, and often overlook our ocean wealth.

Our ocean is a national asset, supporting a diverse economy, with vast potential to tap into the global marine market for seafood, tourism, energy, and new applications for health, medicine and technology. In parallel, our marine resource gives us many non-commercial benefits; for example, amenity, biodiversity and our mild climate. The Government is determined to ensure that our ocean wealth will be a key component of our economic recovery and sustainable growth, generating benefits for all our citizens.

What do we mean by Our Ocean Wealth?

Ireland's coastline, inshore and offshore waters:

- Contain some of the largest and most valuable sea fisheries resources in Europe;
- Are the western gateway for shipping to Europe's busiest seaports;
- Are an ideal location for finfish, shellfish and seaweed aquaculture;
- Are amongst the richest and most accessible renewable energy (wind, wave and tidal) resources in the world;
- Contain significant oil and gas resource potential as evidenced by recent discoveries and ongoing research;
- Provide opportunities to develop new products and services;
- Offer spectacular tourism and leisure opportunities and a rich maritime culture and heritage;
- Support a rich and diverse range of ecosystems, habitats and species and unique land and seascapes; and
- Contribute to our citizen's wellbeing, health and quality of life.

Ireland's Ocean Wealth also includes:

- Irish flagged ships, including fishing vessels, trading globally;
- Irish qualified seafarers, fishers and recreational craft users working globally; and
- Irish maritime companies and organisations providing global products and services.



In recognition of the under-utilisation of our ocean wealth, the Marine Coordination Group (MCG), on behalf of the Government, has developed *Harnessing Our Ocean Wealth – An Integrated Marine Plan (IMP) for Ireland*. Key challenges in the crafting of such an IMP include creating the dynamic to dramatically improve our ability as a nation and a people to harness our ocean wealth. This Plan taps into the key theme of the Programme for Government in that it will embrace “new ways, new approaches, new thinking”. The IMP provides a new momentum for growth in the marine area and seeks to ensure government departments work together more efficiently and effectively on the diverse issues related to the marine. This will enable economic growth, investment and the creation of jobs in our ocean economy, relying heavily on investment and participation by the private sector. The IMP will also allow us to strike a balance between protecting our marine ecosystems and maximising the use of its resources as a source of economic growth.

Marine Coordination Group

The Inter-Departmental Marine Coordination Group, established in 2009, is chaired by the Minister for Agriculture Food and the Marine and convened by the Department of the Taoiseach. The Group meets monthly, bringing together representatives of departments with an involvement in maritime/ marine issues to discuss/coordinate issues that require inter-departmental action.

Members of the Group are at Assistant Secretary level with the following Departments represented:

<i>Agriculture, Food and the Marine</i>	<i>Taoiseach</i>
<i>Defence</i>	<i>Communications, Energy and Natural Resources</i>
<i>Arts, Heritage and the Gaeltacht</i>	<i>Environment, Community and Local Government</i>
<i>Jobs, Enterprise and Innovation</i>	<i>Public Expenditure and Reform</i>
<i>Transport, Tourism and Sport</i>	

The Attorney General's Office and Marine Institute also participate.



What do we mean by an Integrated Marine Plan (IMP) and why do we need one?

Globally, our oceans are prone to competing agendas among different user groups; competition among sectors (e.g. food, energy, tourism) and divergent policy objectives among government bodies that share jurisdiction over the marine space (e.g. protection of sensitive ecosystems and resource exploitation). An IMP can respond to these multiple user issues by approaching the management of the marine more holistically and taking into consideration economic, environmental and social concerns (the concept of sustainable development). An IMP brings together governance structures designed to incorporate the needs of multiple users and sectors, along with multiple authorities, organisations and individuals¹. It provides a more coherent approach to marine/maritime issues, with increased coordination among different policy areas/marine sectors; focusing on issues that do not fall under a single sector-based policy and issues that require the coordination of different sectors and actors.

Many IMPs take an adaptive approach, recognising the uncertain nature of marine ecosystems and economies and the need for management plans to adapt to change¹. An IMP supports an efficient and effective framework by encouraging authorities to cooperate across policy, and rather than working separately on different aspects of the same problem. An IMP builds up close cooperation between decision-makers in the different sectors at all levels of government, national maritime authorities, regional and local authorities, and international authorities. Many countries are recognising this need and are moving towards more structured and systematic collaboration.

Ten Guiding Principles for an Effective Integrated Marine Plan²

1. Inclusive stakeholder participation
2. High-level government leadership with clear accountability
3. A policy and legal framework that provides clear direction
4. Comprehensive goals with measurable targets
5. Effective strategies for achieving goals and targets
6. Regular progress monitoring and evaluation
7. Adaptive management to assess relationships between management actions and outcomes and modify plans as required
8. Adequate scientific information
9. Adaptive plans to take account of the unique characteristics of the context
10. Integration of spatial, jurisdictional and sectoral dimensions.

¹ Dickinson, M., Rutherford, M. and Gunton, T., 2010, *Principles for Integrated Marine Planning: A Review of International Experience*, *Environments Journal*, Vol. 37(3).

² Modified from Dickinson, M., Rutherford, M. and Gunton, T., 2010, *Principles for Integrated Marine Planning: A Review of International Experience*, *Environments Journal*, Vol. 37(3).

Harnessing Our Ocean Wealth – An Integrated Marine Plan for Ireland

The first step in developing an IMP for Ireland sought, through a public consultation, to gather the widest possible source of ideas and opinions to better inform the process. This IMP presents a roadmap for harnessing our ocean wealth, setting out a series of integrated government actions to enable our marine potential to be realised. The roadmap will be evaluated against the ten guiding principles identified above. An initial self evaluation of progress against these principles is presented in Annex I.

Harnessing Our Ocean Wealth – An IMP for Ireland, sets out the Government’s Vision, High-level Goals and the Key Actions it will take to put in place the appropriate policy, governance and business climate to enable our marine potential to be realised. This is in line with best international practice, and in keeping with Europe’s approach to an integrated maritime policy. It will ensure our natural ocean assets continue to provide the resources and environmental services on which our well-being relies and, in so doing, is aligned to the Government’s Framework for Sustainable Development in Ireland (*Our Sustainable Future*³) and its medium-term fiscal and budgetary targets.

An Integrated Marine Plan for Ireland – The Process



Figure 1: An Integrated Marine Plan for Ireland: The Process

3 Our Sustainable Future: A Framework for Sustainable Development for Ireland, 2012.

2. Policy Context

The Government's Action Plan for Jobs and the EU's Europe Strategy 2020 represent concerted efforts to address the current economic downturn and stimulate economic recovery, focusing principally on growth and job creation. Both seek to mobilise new and innovative approaches to economic recovery.

The Government has decided to concentrate on the potential of our ocean wealth to contribute to our economic recovery and has prepared *Harnessing Our Ocean Wealth – An IMP for Ireland*. This has taken place as EU and Member States are collectively engaging in an Integrated Maritime Policy (IMP-EU) as a driver of economic recovery and growth. The IMP-EU seeks to put in place integrated actions in all relevant policy areas related to the seas; including transport, environment, renewable ocean energy, enterprise, employment, research, fisheries and external relations. Specifically, the IMP-EU covers cross-cutting issues such as:

- maritime spatial planning;
- integrated maritime surveillance;
- blue growth (economic growth based on different maritime sectors);
- marine knowledge; and
- sea basin strategies (including the EU Strategy for the Atlantic).

Blue Book for Maritime Policy

A new Vision and Action Plan for an integrated approach to EU Maritime Policy



Integrated Maritime Policy for the EU (2007)⁴ and the EU Strategy for the Atlantic (2011)⁵

Sea basin strategies are the regional component of the IMP-EU. This sea basin or regional approach recognises the local and regional differences that exist between European Regional Seas (Baltic, Mediterranean, Black Sea) and oceans (Atlantic, Arctic). The European Union Strategy for the Atlantic (EUSA) is of specific interest to Ireland.

The EUSA—involving Ireland, Spain, Portugal, France and the UK—identifies five priorities:

- implementing the ecosystem approach—e.g. the Common Fisheries Policy and Marine Strategy Framework Directive;
- reducing Europe's carbon footprint—e.g. climate change, marine renewable energy and low-emission maritime transport;
- exploiting the Atlantic's seafloor natural resources—e.g. marine raw materials for food, fuel, pharmaceuticals, and marine knowledge;
- responding to threats and emergencies—e.g. maritime safety, maritime crisis management and maritime surveillance; and
- socially inclusive growth—e.g. coastal community initiatives, maritime clusters, training and tourism.

Harnessing Our Ocean Wealth – An Integrated Marine Plan for Ireland takes account of the opportunity for synergies with the EU Strategy for the Atlantic, and is a valuable contribution to getting the environment right for investment to drive the potential of our marine economy.

4 *An Integrated Maritime Policy for the European Union*, 2007, available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52007DC0575:EN:NOT>

5 http://ec.europa.eu/maritimeaffairs/index_en.htm

3. Drivers for Growth – The Market Opportunity

The principal driver of economic growth is market demand, shaped by consumer preference and underpinned by cost competitiveness and market access. Although the Irish Government cannot dictate market demand, it can facilitate economic growth by delivering business-friendly and robust governance, policy and planning environment, which is supportive of private investment and entrepreneurship. In other words, governments can create the right conditions for growth.

Data on the economic value of the global ocean economy is difficult to come by. Data that is available has to be treated with caution. For example, data are not always comparable; different valuations are used such as Gross Domestic Product (GDP) and Gross Value Added (GVA) and various sectors may be excluded from calculations. In this section we provide a snapshot of the global market opportunity.

Identification of market opportunities needs to focus on current growth areas and expected future growth.

The Global Ocean Market⁶

The global ocean market is estimated to be valued at approximately €1,200 billion per annum, contributing approximately 2% to the world's Gross Domestic Product (GDP). Marine services, such as tourism and shipping, provide the largest proportion (€786bn), followed by sectors categorised under marine resources (€337bn) and marine manufacturing (€96bn).

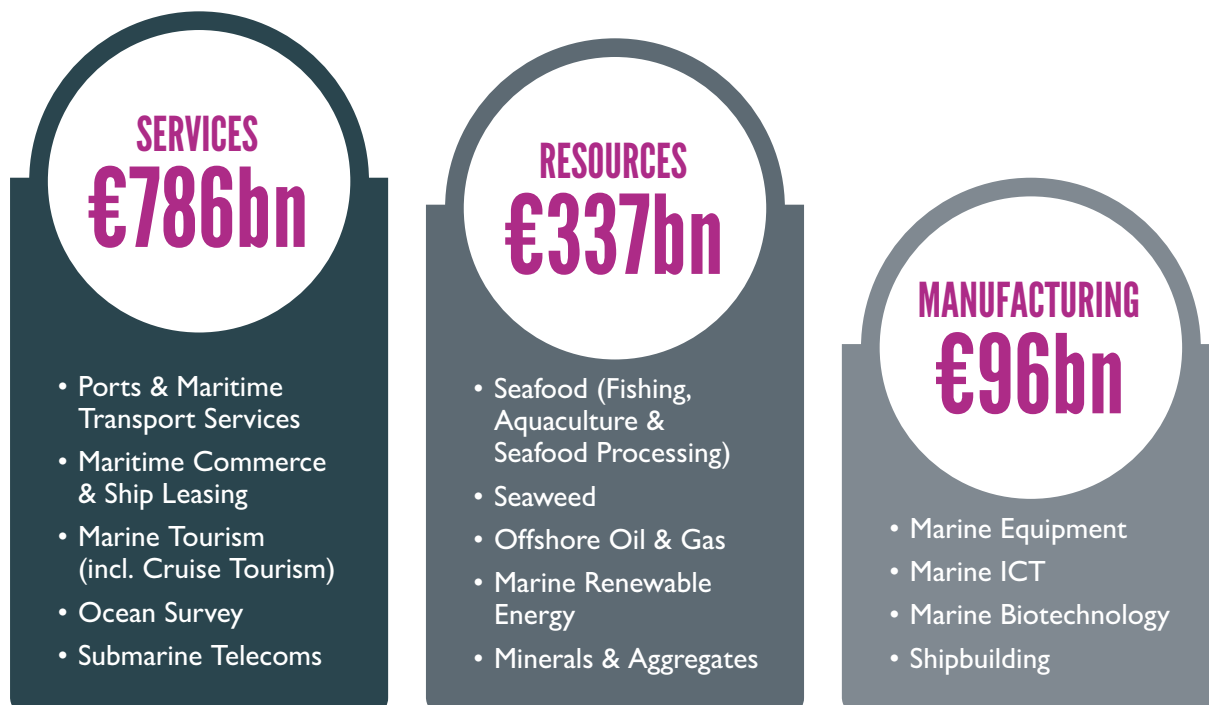


Figure 2: The Global Ocean Market

6 Douglas-Westwood Limited, *Marine Industries Global Market Analysis*, 2005, Marine Foresight Series No.1, Marine Institute. Where updated figures were available, these are provided. Sources include: *The State of World Fisheries and Aquaculture*, 2010 FAO Fisheries and Aquaculture Department, Food and Agriculture Organization of the United Nations; *Future Prospects for Fish and Fishery Products – Part 2 – Country Projections*, FAO Fisheries Circular 972/4, 2008, Food and Agricultural Organisation of the United Nations; and *Cruise Tourism to Ireland Research Report*, 2010, Fáilte Ireland and figures provided from the Irish Maritime Development Office.

EU Ocean Market

Indicative figures extracted from the EU DG MARE commissioned report *Blue Growth: Scenarios and Drivers for Sustainable Growth from the Oceans, Seas and Coasts*⁷ estimate the value (Gross Value Added – GVA) of 27 maritime functions (e.g. maritime transport, leisure, working and living, and coastal protection) as €495 billion. This ranges from established sectors such as coastal tourism (€121 billion GVA), to developing sectors such as cruise tourism (annual GVA of €14.1 billion) and prospective sectors such as blue biotechnology.

Future Growth Opportunities

The EU Blue Growth Study looks to the future to identify growth areas using a number of scenarios. The most promising activities/markets in the future, were assessed on indicators such as ‘innovativeness’, potential for competitiveness, employment creation and sustainability considerations. The study identified offshore wind, coastal protection, cruise tourism, marine monitoring and surveillance, ‘blue’ biotechnology and ocean renewable energy as the most promising activities. It categorised maritime economic activity into three life-cycle stages⁸:

- **Mature Stage** – Bedrock of ‘Blue Growth’. Economic activity remains stable at a big size. Market positions of main players are clear and competition is fierce.
- **Growth Stage** – Creating new jobs right now. Strong economic growth and /employment growth. Smaller sized companies can enter the market, prices of technologies gradually go down.
- **Pre-development Stage** – Investing in jobs for tomorrow. Inventions have been made; however, most promising outputs have still to be defined. Much R&D is required. The possible outputs are clear but commercial viability still needs to be proven.

Table 1: Maritime economic activities studied by development stage, recent growth (average annual GDP growth last 5 available years) and potential (ranking 1-6 with 6 highest). Reproduced from: *Blue Growth – Scenarios and Drivers for Sustainable Growth from the Oceans, Seas and Coasts*, Third Interim Report, 2012.

Maritime economic activity	Size (bn €)	Recent growth	Future potential
Mature stage			
1. Shortsea shipping	63	6.1%	2
2. Offshore oil and gas	107-133	-4.8%	1
3. Coastline tourism & yachting	144	3-5%	4
4. Coastal protection	1.0-5.4	4.0%	6
Growth stage			
5. Offshore wind	2.4	21.7%	6
6. Cruise tourism	14.1	12.3%	5
7. Marine aquatic products	3.3	4.6%	4
8. Maritime monitoring and surveillance	1.8-2.3	+	5
(Pre-)development stage			
9. Blue Biotechnology	0.6-3.3	4.6%	5
10. Ocean renewable energy	<0.25	+	5
11. Marine minerals mining	<0.25	0/+	4

Note: Data on size, recent growth and future potential are taken from the First Interim Report.

⁷ *Blue Growth – Scenarios and drivers for Sustainable Growth from the Oceans, Seas and Coasts*, Third Interim Report, 2012.

⁸ Although this report is important in an EU context, these opportunities must be placed in a geographical context, taking into account our marine resource asset base.

The study identified an inclusive and smart policy response, access to finance, a fresh approach to R&D, smart infrastructure, building critical mass (clusters) and appropriate regulations and standards as critical factors for development.

It should be noted that this analysis does not include seafood. The latest FAO projections to 2030 show that an additional 42 million tonnes of farmed seafood will be required by 2025.

Aquaculture will become more and more important (FAO)

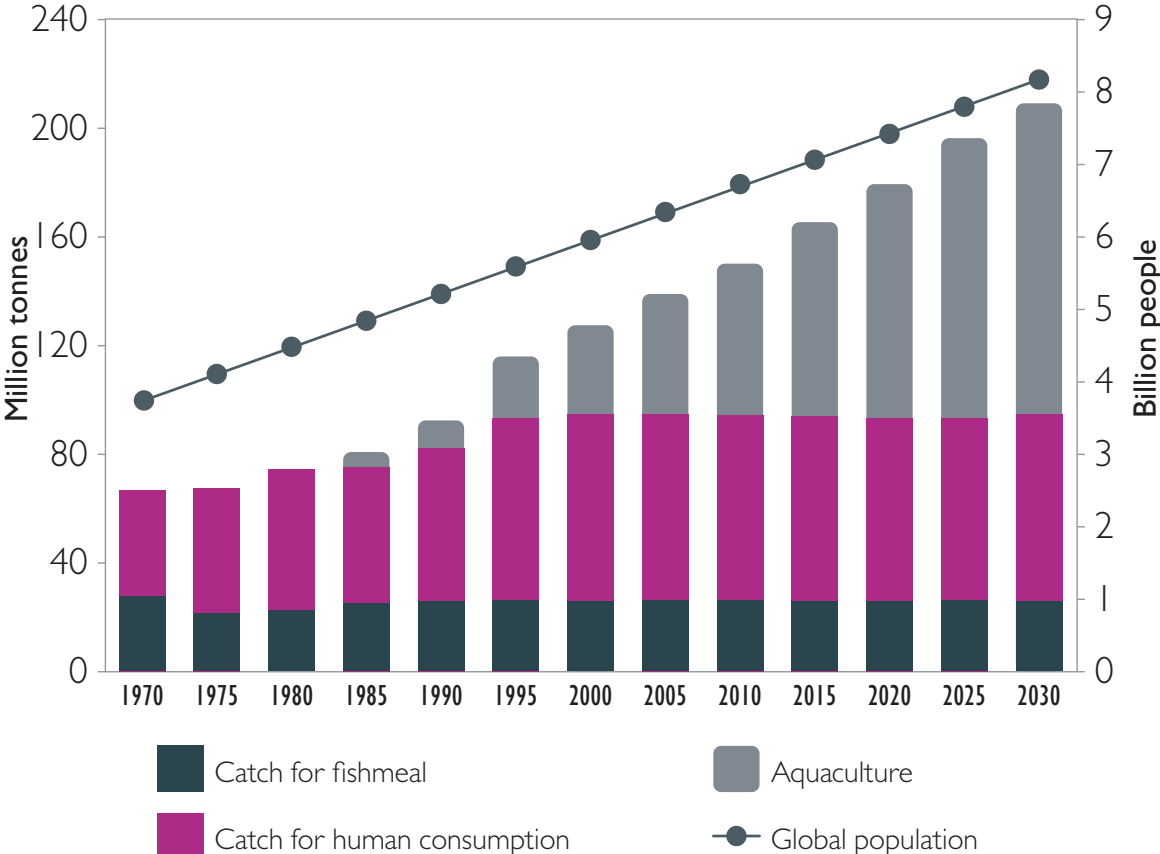


Figure 3: Projected demand for seafood and the respective roles of fisheries and aquaculture in the future supply (reproduced from FAO).



4. Our Ocean Wealth – Facts & Figures

Taking into account the extent of our seabed area, Ireland is the third largest EU State in the North Atlantic, with a seabed territory of approximately 880,000 km²; over 10 times greater than our landmass. Earlier in Section 1, we explained that this vast resource, 'Our Ocean Wealth', has both market and non-market components. In this section we provide an overview of some of the monetary aspects of our coastal and ocean economy (often referred to as the 'blue economy') – putting it into context of the global market opportunity. We also present a snapshot of our rich and diverse marine ecosystems, which provide essential goods and services.

Our ocean wealth plays a key role in regional and rural development. Our marine resources support livelihoods in rural coastal and Gaeltacht areas where often few other employment or income sources exist. Traditionally, this has included commercial activities associated with, for example, fishing, aquaculture and seaweed harvesting. Our coastal scenery/seascapes have long been an important element of our national tourism product, generating important niche commercial opportunities. Looking to the future, there is a real opportunity for regions and rural coastal communities to harness our ocean wealth. This will create much needed employment opportunities, generating growth and jobs in the regions through both established sectors such as seafood and tourism and emerging areas such as marine renewable energy and associated services.

Our Ocean and Coastal Economies and How do we Compare⁹?

When providing an economic overview for our ocean wealth it is important to differentiate between our 'ocean economy' and our 'coastal economy'. This is particularly true when attempting to compare with other nations and across the EU. In Ireland we tend to look at our ocean economy as an indicator of our ocean wealth. Eurostat – the EU statistical agency – generates statistics on a coastal regional scale. This section provides an overview of both Ireland's 'coastal economy' and 'ocean economy' and, where possible, benchmarks us against other maritime nations.

Our Coastal Economy

The Irish coastal region, as defined by the EU (Eurostat NUTS-3), includes counties that either have a coastline or have at least half of their population within 50km of the coast. This equates to most of the area of Ireland, with the exception of four counties in the Midlands. In Ireland, this represents an estimated €149 billion GVA (€170 billion GDP)¹⁰. The EU coastal economy accounts for a gross value added (GVA) of €4,108 billion¹¹.

Coastal Economy Definition:

Economic activity along the coast; the sum of employment, wages and output in the region.

Ocean Economy Definition:

Economic activity that indirectly or directly uses the marine as an input.

⁹ The most comprehensive up-to-date overview for Ireland's ocean and coastal economy is *Ireland's Ocean Economy*, 2010, published by the Socio-Economic Marine Research Unit, NUI Galway. This report uses 2007 as the baseline year.

¹⁰ *Ireland's Ocean Economy*, 2010, Socio-Economic Marine Research Unit, NUI Galway.

¹¹ *Blue Growth – Scenarios and drivers for Sustainable Growth from the Oceans, Seas and Coasts*, Third Interim Report, 2012.

Ireland's Ocean Economy¹²

As described above, our ocean economy is the economic activity, that indirectly or directly uses the marine as an input. In 2007, our ocean economy generated 1.2% of GDP, an estimated €3.4 billion in turnover¹³, €1.4 billion direct GVA¹⁴ and €2.5 billion direct and indirect GVA. The European Commission estimates that between 3% and 5% of Europe's GDP was generated from sea-related industries and services in 2007¹⁵. The recent EU commissioned Blue Growth study estimates that the GVA of maritime economic activities in the EU-27 amounts to €495 billion. The UK derives 4.2% of GDP from its ocean economy¹⁶.

Ireland's ocean economy provides full-time, part-time and seasonal employment. In 2007, our ocean economy supported an estimated 17,000 full time equivalents (FTEs) and an estimated 51,000 direct and indirect jobs. Statistics for the seafood sector alone show an estimated 11,000 people employed in full-time, part-time and seasonal employment. In 2007, our ocean economy supported 1% of the total workforce. The equivalent figures in neighbouring countries are UK 2.2%, Norway 6%, Netherlands 2.2% and Portugal 3.3%¹⁷.

OUR OCEAN WEALTH

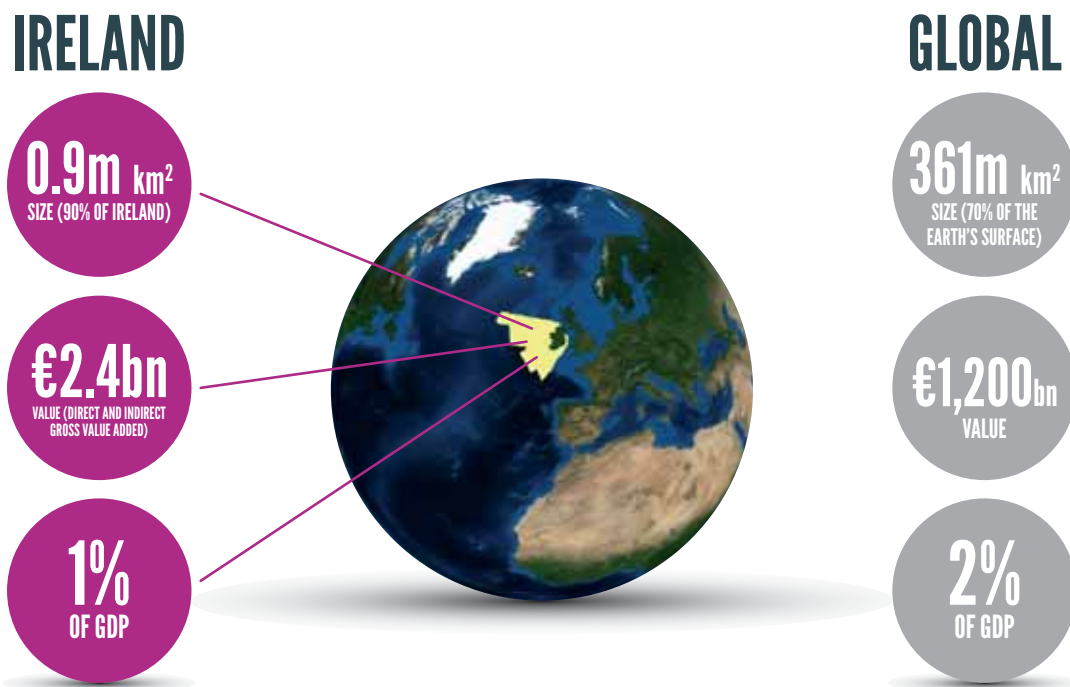


Figure 4: Ireland's Ocean Wealth in the Global Ocean Wealth Perspective

¹² Ireland's Ocean Economy, 2010, Socio-Economic Marine Research Unit, NUI Galway.

¹³ Turnover is the total value of goods and services produced.

¹⁴ Gross Value Added (GVA) refers to the sectors turnover minus intermediate consumption.

¹⁵ Information provided by DG Mare, European Commission, 2007 in Country Fact Sheets on EU Maritime Policy. Information now available from the European Atlas of the Seas at http://ec.europa.eu/maritimeaffairs/atlas/index_en.htm

¹⁶ Crown Estate, 2008, Socio-Economic indicators of marine-related activities in the UK Economy.

¹⁷ Information provided by DG Mare, European Commission, 2007 in Country Fact Sheets on EU Maritime Policy. Information now available from the European Atlas of the Seas at http://ec.europa.eu/maritimeaffairs/atlas/index_en.htm

- Marine Services (ports and maritime transport, cruise tourism, marine and coastal tourism and leisure, high-tech services, maritime commerce and ship leasing, and other offshore services) provide 66% of the GVA and 53% of direct employment.
- Marine Resources (sea fisheries, aquaculture, seafood processing, seaweed, offshore oil and gas and marine renewables) provide 26% of the GVA and 38% of direct employment.
- Marine Manufacturing provide 8% of the GVA and 9% of direct employment.

Our ocean economy comprises a multitude of small, medium and large enterprises operating across a spectrum of sectors at varying levels of maturity.

- **94%** of turnover of these enterprises are in **established ocean industries** (e.g. ports and maritime transport, water-based tourism and leisure, seafood processing, fisheries, aquaculture, marine manufacturing, marine services and oil and gas).
- **New and emerging ocean industries** (e.g. marine renewable energy, maritime commerce and ship leasing, high-tech services and marine biotechnology) represent **6%** of turnover.

According to global market forecasts, the emerging sectors, combined with more established sectors, offer significant potential for sustainable economic growth (see section 3).



Our Ocean Wealth – Some Economic Facts & Figures¹⁸

Marine and Coastal Tourism & Leisure

- Marine tourism and leisure is estimated to represent 7% of our overall tourism and leisure sector and contributed €453 million to the Irish economy in 2007.
- Over 200 cruise liners, carrying 205,000 passengers, visited Ireland in 2010, an increase of over 200% in the last decade.
- In recognition of this opportunity, Fáilte Ireland is preparing a policy paper to provide insights and direction for its work in this area.



Seafood & Seaweed

- The Irish seafood sector has an estimated annual sales value of €700 million with a potential to increase revenue to €1 billion by 2020.
- Irish seafood exports increased by 14% in 2010 and 13% in 2011, to €420 million.
- There is significant scope to expand Ireland's aquaculture industry, with increases expected from both conventional aquaculture and a new deep sea salmon farming initiative, amounting to a 78% increase in volume of production by 2020.
- The seafood sector employs close to 11,000 people, primarily in peripheral coastal locations. With increased economic activity this is expected to reach 14,000 in 2020.
- Ireland's seaweed industry is worth approximately €18 million per annum, processing 36,000 tonnes of seaweed (entirely from wild resources).



¹⁸ The various sources of statistics are provided in the background briefing documents prepared for the consultation (available on www.ouroceanwealth.ie).

Ports & Maritime Transport Services

- Maritime shipping, ports and services are critical to Ireland. It is estimated that the sector employs 7,200 people directly in maritime transport related activity.
- Sea-based transport accounted for 99% of the total volume (45 million tonnes) and 95% of the total value (€128 billion) of the goods traded (imports/exports) in Ireland in 2010.
- Traffic demand conditions at Irish Ports began to stabilise in 2011 after 3 years of successive volume reductions.
- Ireland ranks 11th from 150 countries in the Global Logistics Performance Index.



Maritime Commerce & Ship Leasing sector

- International ship leasing and charter operations are one of the fastest growing segments of the maritime services cluster. Growth in this segment has been driven by both indigenous and foreign inward investment.
- The ship leasing sector has a fleet value of an estimated €2.8 billion with over 430 vessels managed, owned and operated from Ireland. These companies had an estimated turnover of €600 million in 2009.
- There was a 40% increase in the numbers of firms operating in the international shipping services sector between 2006 -2010. In 2010, employment in this niche services sector in Ireland grew by 10% to 632 people.
- Marine fiduciary services (law/accounting/finance/broking/Insurance) had a turnover of €99.5 million in 2007.



Energy

- Ireland's offshore Atlantic margin is estimated to hold substantial 'potential, yet-to-find' hydrocarbon reserves of some 10 billion barrels of oil equivalent (including gas).
- Total investment to-date by the private sector in exploration activity is estimated at approximately €3 billion, resulting in four commercial discoveries (three off Cork and the Corrib Field, off Mayo).
- Ireland's offshore wind, waves and tides have the potential to offer a source of clean, green, renewable energy along with exciting new commercial opportunities (services), provided the technologies become commercially viable.
- The marine renewables sector saw an increase of activity from €18 million in 2003 to €101 million in 2007.
- Our renewable energy resources, both onshore and offshore, are significantly greater than the national energy requirement. Ireland's onshore wind, offshore wind and ocean energy resources are an export opportunity. As set out in the Strategy for Renewable Energy 2012-2020, the Government is committed to working with the UK Government, under the auspices of the British Irish Council, and with the European Commission and Member States in the context of the North Seas Offshore Grid Initiative to create the framework and conditions for renewable energy export, using the co-operation mechanisms provided for in the Renewable Energy Directive, provided benefits for the state and its citizens can be harnessed in doing so.



Marine Biotechnology and ICT

- Fish, shellfish, seaweeds and other marine species are a recognised source of functional ingredients (i.e. health-promoting additives) that offer huge potential for Ireland's large food and ingredients companies to target the estimated €242 million global market for functional foods and ingredients.
- Marine-derived drugs, enzymes and bio-materials (e.g. glues and bone replacement) are the subject of significant research and commercial interest. Irish companies target markets for animal health and horticultural products using compounds derived from native Irish seaweeds.
- Over 50 ICT companies (SMEs and multinationals) are involved in the Irish SmartOcean cluster, targeting the fast-growing market for marine ICT products and services for the oil and gas, renewable ocean energy, and transport and shipping sectors and for environmental monitoring and maritime security and surveillance.



Our Ocean Wealth – A Rich and Diverse Marine Ecosystem

Ireland's marine ecosystems (i.e. offshore, inshore and coastline) are home to a rich and diverse range of species and habitats. This is due to our unique geographical location, where warm southern waters mix with cold northern waters, resulting in high levels of productivity and a food-rich environment. These ecosystems are home to a diverse range of animals and plants, including plankton, cold water corals, fish, seabirds, dolphins and whales.

This ocean wealth provides essential non-market goods and services (nationally and globally)—often referred to as ecosystem goods and services.

Ecosystem goods and services are the benefits arising from the ecological functions of healthy ecosystems. Such benefits accrue to all living organisms, including animals and plants, rather than to humans alone. There is a growing recognition of the importance to society that ecological goods and services provide for health, social, cultural, and economic needs.

A Rich and Diverse Marine Ecosystem – Some Facts & Figures

Our Coastline:

- Is home to over 24 species of resident and visiting seabirds (e.g. terns, puffins, guillemots, sea gulls and gannets)—many of which nest on islands, headlands and sand/shingle beaches—that feed on fish in the rich inshore and offshore waters. There are over 500,000 pairs of seabirds around the island of Ireland.
- Supports approximately 60 species of resident and migrating wildfowl (ducks, geese and swans) and waders (including plovers, sandpipers and curlews), attracted to the abundance of food and safe breeding sites and roosting areas in our wetland habitats (e.g. mudflats and sandflats, coastal lagoons, polders/sloblands and shallow bays).
- Has a network of protected sites, designated under European and national legislation for the species (mammals, birds and fish) and/or habitats (e.g. estuaries, saltmarshes, inlets and bays) that occur within them.



Our Inshore and Offshore Waters:

- Support over 400 fish and cephalopod (e.g. octopuses, squid, and cuttlefish) species and contain some very important spawning and nursery areas for commercial fish species, e.g. herring spawning grounds on gravel beds around the coast; mackerel, horse mackerel and blue whiting spawning areas in deeper waters off the north-west, west and south-west coasts; and cod, whiting and haddock spawning in the north-west Irish Sea and off the south coast.
- Provide feeding and breeding grounds for 24 species of resident and visiting whales (e.g. blue, fin, sperm, minke and killer) and dolphins (e.g. common, bottlenose, striped and white-sided) and host some regular large visitors (leatherback turtles and basking sharks).
- Contain a rich variety of physical habitats and associated species, ranging from shallow inshore reefs and sandbanks to canyons, seamounts, troughs and coldwater coral reefs in deeper waters occurring between 400 and 1,200m deep along the edge of the Continental Shelf.
- Greatly influence our weather and climate patterns by storing and dissipating solar energy (heat). Ireland enjoys a mild climate in comparison to other locations at the same latitude (e.g. Newfoundland) because of the warming affect of the North Atlantic Current.
- Produce some of the world's vital oxygen supplies and absorb carbon dioxide produced by burning fossil fuel.



Our Ocean Wealth includes:

- 100 sites, with seabird or wading bird interests, designated as Special Protection Areas under the EU Birds Directive.
- 130 sites designated as Special Areas of Conservation under the EU Habitats Directive for marine or coastal habitats and species.



5. Engaging with the Sea: Ireland – A Maritime/Coastal Nation

Section 4 highlighted how the EU categorises Ireland as primarily a coastal nation. However, do we see ourselves in the same way? In Ireland, we have a strong and long maritime heritage, culture and tradition. The Irish seascape is of enormous significance to Irish people at home and abroad in terms of its contribution to an overall national sense of identity, belonging and well-being; including traditions, myth, and folklore. Our maritime cultural landscapes are the product of thousands of years of human occupation and our coastlines contain many historic villages, towns, and cities. Our maritime past is scattered across our coastline, the intertidal zone and out onto the seabed. Our wealth of maritime archaeology includes ancient settlements, piers, harbours, fish traps on the intertidal zone and thousands of shipwrecks with untold stories and hidden secrets.

Although we are an island nation and seen by many as a coastal economy, we have embraced the land as the primary provider of food and fuel; often overlooking our ocean wealth. We often hear that we tend to have a blind spot in relation to Ireland's marine resource. This is changing, both in Ireland and in the EU. We are beginning to look once again to the sea for economic recovery and growth.

The Government recently published its framework for sustainable development *Our Sustainable Future*¹⁹. In this report, the Government acknowledges the importance of community consultation, participation and development, emphasising that *“Communities are at the heart of everything the State does and they must be enabled to identify and address social and economic issues in their own areas”*.

Through the *Ocean Wealth Seeking Your Views Consultation* there was a call for *traditional approaches to policy making to be replaced with a more open, inclusive process at all levels*. Many of the submissions were encouraged by the consultation itself seeking the views and ideas of our citizens on how to harness our ocean wealth. The process of engaging with the public needs to continue. There is a need to move towards more inclusive stakeholder participation in the management of our ocean wealth, creating further opportunities for our citizens to make meaningful contributions to decision-making.

To make it through the crisis, Europe needs the contribution of all sectors of its economy. In this context, the marine and maritime sectors – the ‘blue economy’ – have an important role to play in the overall road to Europe’s economic recovery... Blue Growth can make a real, tangible and positive difference in terms of growth and jobs for Europe’s citizens.

Maria Damanaki, EU Commissioner
for Maritime Affairs and Fisheries.
June 2012

¹⁹ *Our Sustainable Future: A Framework for Sustainable Development for Ireland*, 2012.

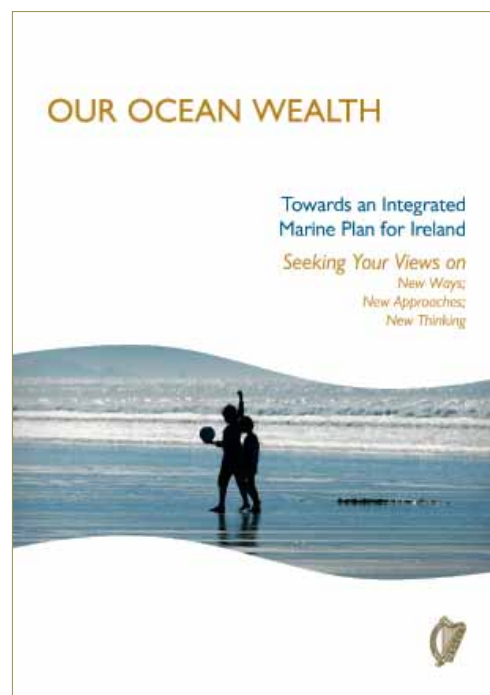
6. Feedback from the Public Consultation

In February 2012, a consultation document entitled *Our Ocean Wealth: Seeking Your Views: New Ways; New Approaches; New Thinking* was launched by Minister Simon Coveney T.D.. The discussion document posed 10 questions designed to capture the views and ideas of the public on generating sustainable growth in our marine economy. Additional views and ideas were welcomed and a public debate was facilitated through an online discussion forum; helping to inform marine policy-making and improving the quality of decisions reached and services provided.

One hundred and ninety-two submissions were received from a wide range of stakeholders.

The following summarises the main points arising from the submissions:

- There was significant support for the development of an Integrated Marine Plan for Ireland.
- There was mostly agreement with the general approach of the draft vision, with some suggestions as to possible alternate timeframes and a larger focus on non-economic benefits. Submissions also focused on the need for the vision to include references to co-ordinated and integrated governance, sustainable development and environmental protection, innovation and effective implementation of the Integrated Marine Plan.
- There were calls for integrated governance of the marine sector, with clear roles and responsibilities allocated to governmental departments and agencies.
- The need for continued public consultation and participation in marine governance was highlighted.
- The need for effective planning systems to provide for the sustainable development of our marine sector was identified. An effective licensing system was described by many submissions as the single most important contribution the public sector can make to the development of the marine sector.
- Emphasis was put on focusing research funding on priority areas for development, while facilitating necessary collaboration between institutions and agencies. The need to improve the commercialisation of research was referred to numerous times in submissions.
- Suggestions were made that infrastructure was a key enabler in developing the marine sector.
- The importance of marine security and surveillance was regarded as significant, as it provides certainty and transparency for potential investors in the sector and is regarded an essential element of good governance.
- Numerous submissions detailed the importance of including marine-related subjects in the curricula at all levels of education.
- Submissions highlighted the need for our maritime identity to be strengthened and suggested measures such as early stakeholder engagement, public outreach programmes and encouragement for entrepreneurship within coastal communities so that they have a greater sense of ownership of our maritime resource.
- Some called for the preservation of environmental resources to deliver benefits to all, to promote the common good, and to deliver a commitment to sustainable development.



- The need to promote Ireland as a location for marine sector development which focused on good environmental standards and which is open and attractive as a place to do business, both domestically and internationally was echoed in many submissions.
- It was felt that Ireland should develop a more robust representation and negotiation strength at EU level. The opportunities associated with the EU Strategy for the Atlantic and in the Irish EU Presidency in 2013 were highlighted.

Many of the submissions to the consultation agreed that an Integrated Marine Plan is needed to “harness our ocean wealth, get the environment right for investment and use the potential of our marine economy to create jobs in a sustainable manner.” A summary of the feedback is presented in Part IV. A more detailed report is available at www.ouroceanwealth.ie.



Part II

Enabling an Integrated Marine Plan for Ireland



7. Harnessing Our Ocean Wealth – An Integrated Marine Plan for Ireland

Harnessing Our Ocean Wealth – Our Vision and Goals

As part of the consultation, a draft vision was presented for comment²⁰. An amended vision, based on the feedback, is presented below. The feedback also assisted with the drafting of the high-level goals. (Feedback from the public is provided in Part IV of this document *Our Ocean Wealth – Your Views*.)

OUR VISION

Our ocean wealth will be a key element of our economic recovery and sustainable growth, generating benefits for all our citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner.

In order to enable this vision we set out three **high-level goals**, of equal importance, built around the concept of the sustainable development of our marine resources.

GOAL 1

THRIVING MARITIME ECONOMY

Goal 1 focuses on a **thriving maritime economy**, whereby Ireland harnesses the market opportunities to achieve economic recovery, socially inclusive and sustainable growth. In 2007, we generated 1.2% of our GDP from our ocean resources – our goal is to increase this. Getting the conditions right for growth, delivering business-friendly yet robust governance, policy and planning framework are critical to realising this ambition.

GOAL 2

HEALTHY ECOSYSTEMS

Our ocean wealth depends on **healthy ecosystems (Goal 2)**. Our goal is to protect, preserve and, where possible, restore our rich biological diversity and ecosystems. We need to proactively manage our living and non-living resources in harmony with those ecosystems, so that they continue to provide essential monetary and non-monetary goods and services (e.g. food, climate, health and well-being). Protection of our marine ecosystems and compliance with environmental legislation are essential components of our ecologically sustainable future and need to be seen as an essential enabler for a thriving maritime economy.

GOAL 3

ENGAGING WITH THE SEA

Ireland is a maritime nation and our rich maritime heritage (cultural, physical and ecological dimensions) is a valuable national asset. Yet as a nation we have embraced the land as the primary provider of food, energy and economic growth; overlooking our ocean wealth. Our ambition under **Goal 3** is to strengthen our **engagement with the sea** – strengthening our maritime identity and increasing our awareness of the value (market and non-market), opportunities and social benefits. Our ocean wealth is a national asset and needs to be protected, managed and developed for and by our citizens.

²⁰ *Our Ocean Wealth: Towards an Integrated Marine Plan for Ireland – Seeking Your Views*, 2012.

Enabling Our Sustainable Future

In order to realise the Vision and achieve the Goals presented, we have identified **eight key areas (enablers)** that are vital for creating the conditions for growth and investment – *Enabling Our Sustainable Future*. These enablers are not prioritised in order of importance and there are strong inter-dependencies and synergies between them (highlighted in the diagram below).

ENABLERS



A major focus of this plan is to tackle in an **integrated manner** the key enabling actions that are largely in the remit of the State. In doing so we believe we can make a major contribution to supporting the achievement of growth in marine sectors. **It is important to note that these enablers alone (e.g. in the absence of private sector investment) cannot guarantee success.**



8. Setting Ambitious, yet Realistic, Targets for Our Ocean Economy

In 2007, Ireland generated €3.4bn in turnover from its ocean resources²¹. There is a widely held belief that we can achieve substantially more. The Government has set an overarching target to double the value of our ocean wealth to **2.4% of GDP by 2030**, exceeding the global average of 2% of GDP and moving towards the EU average of 3-5%.

Although this target of doubling of our ocean economy may seem a challenging objective in light of the prevailing economic circumstances, there is a realistic and pragmatic determination to achieve our ambition. *Harnessing Our Ocean Wealth* presents the integrated action plan by Government to get the conditions right for growth so that the private sector will have confidence to make the investments that are critical to the achievement of our economic targets.

Furthermore, in light of market opportunities as outlined in section 3, the Government has set a **2020 target of exceeding €6.4bn** in annual turnover. This would represent an increase of €3bn (approximately 88%), drawn from a diverse range of marine sectors.

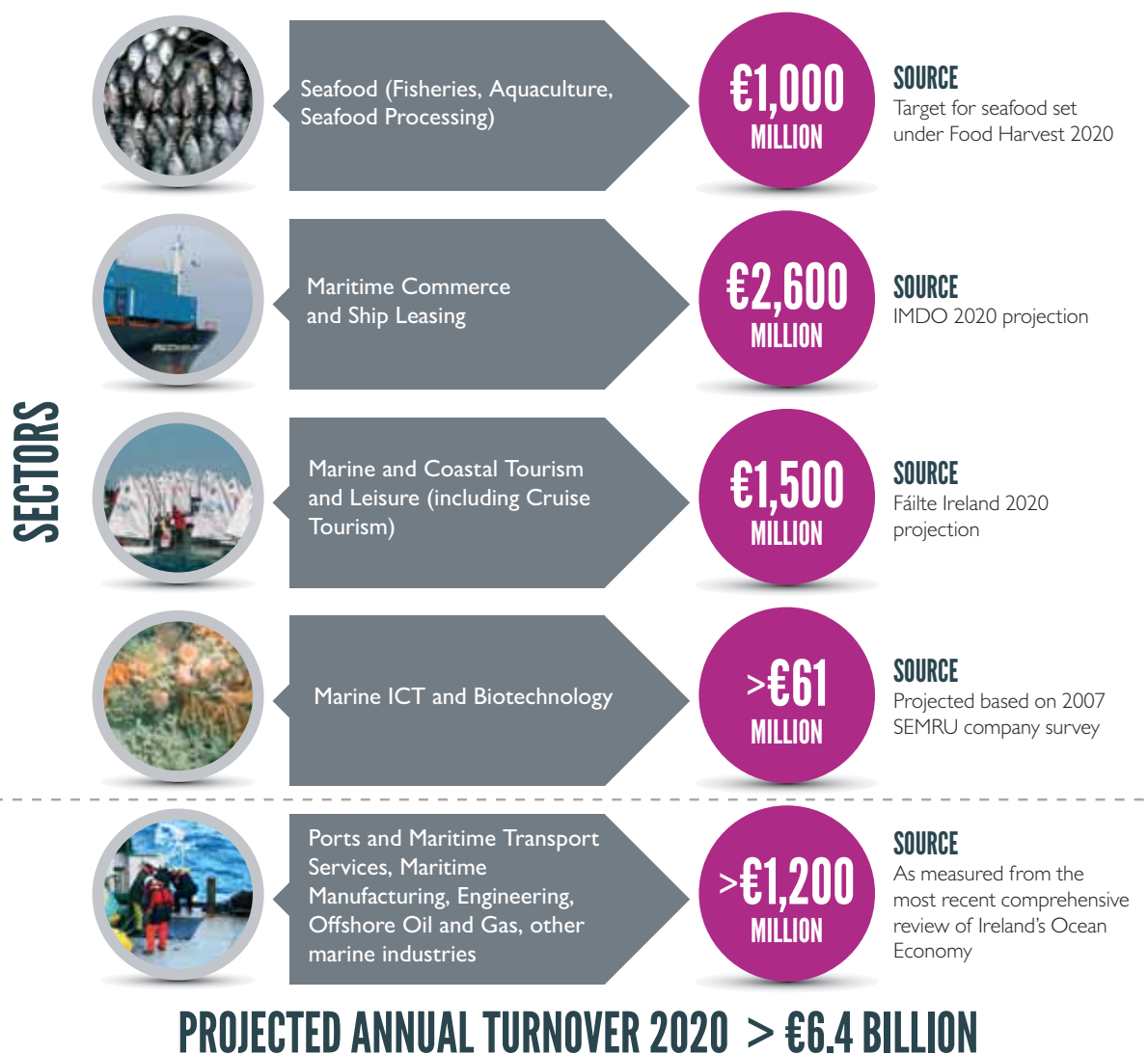


Figure 5: 2020 Growth Scenarios for Our Ocean Wealth

21 €2.4bn in direct and indirect GVA (1.2% of GDP).

Harnessing Our Ocean Wealth sets a clear high-level target of €6.4bn that is underpinned by strategies and programmes for the period ahead. It is not the 'boundary to ambition' for the sector, but a realistic target. Figure 5 presents a growth scenario outlining where €5.2bn (81%) of the target turnover can be profiled (above the dashed line). This figure has been drawn from existing Government programmes (e.g. Food Harvest 2020) and sector specific projections from the relevant departments/agencies (e.g. marine and coastal tourism and maritime commerce). The remaining contribution (€1.2bn) to the overall target is derived from a baseline level of activity in shipping, marine manufacturing, oil and gas and other marine industries (below the dashed line in figure 5), as measured in the most recent comprehensive review (Ireland's Ocean Economy Report²²).



Our renewable energy resources, both onshore and offshore, are significantly greater than the national energy requirement. Ireland's onshore wind, offshore wind and ocean energy resources are an export opportunity. As set out in the Strategy for Renewable Energy 2012-2020, the Government is committed to working with the UK Government, under the auspices of the British Irish Council, and with the European Commission and Member States in the context of the North Sea Offshore Grid Initiative, to create the framework and conditions for renewable energy export, using the co-operation mechanisms provided for in the Renewable Energy Directive, provided benefits for the state and its citizens can be harnessed in doing so.

Companies operating in the **ports and maritime transport services** area are largely dependent on the wider performance of the Irish economy to drive growth and investment. The growth in this segment can be linked to future domestic GDP forecasts. The ports and maritime transport services sector in Ireland is likely to see modest growth over the next 3-5 years. The sector has an important role to play in the competitiveness and connectivity of the economy. Ireland currently ranks 11th in the Global Logistics Performance Index, which is an important consideration for many foreign direct multinationals considering locating manufacturing or production facilities in a region. The maritime commerce cluster has greater growth potential and is likely to continue to grow (see projection for 2020 in figure 6).



The principal benefit to the economy from the **offshore oil and gas** sector arises from producing fields in terms of the direct return to the Exchequer in the form of taxation and the strengthening of Ireland's security of energy supply. Commencement of production from the Corrib gas field, currently forecast for late 2014, will be an important milestone in this regard, producing the equivalent of up to 60-65% of domestic demand for natural gas in its early years. The precise value of this will depend on the price of gas at that time. The long-term aim of the sectoral strategy of promoting the opportunity to invest in exploration in the Irish offshore is to achieve new commercial discoveries leading to new development projects. In the short to medium-term, this strategy can help generate increased activity levels for support services for offshore operations.



22 Ireland's Ocean Economy, 2010, Socio-Economic Marine Research Unit (SEMURU), NUI Galway.

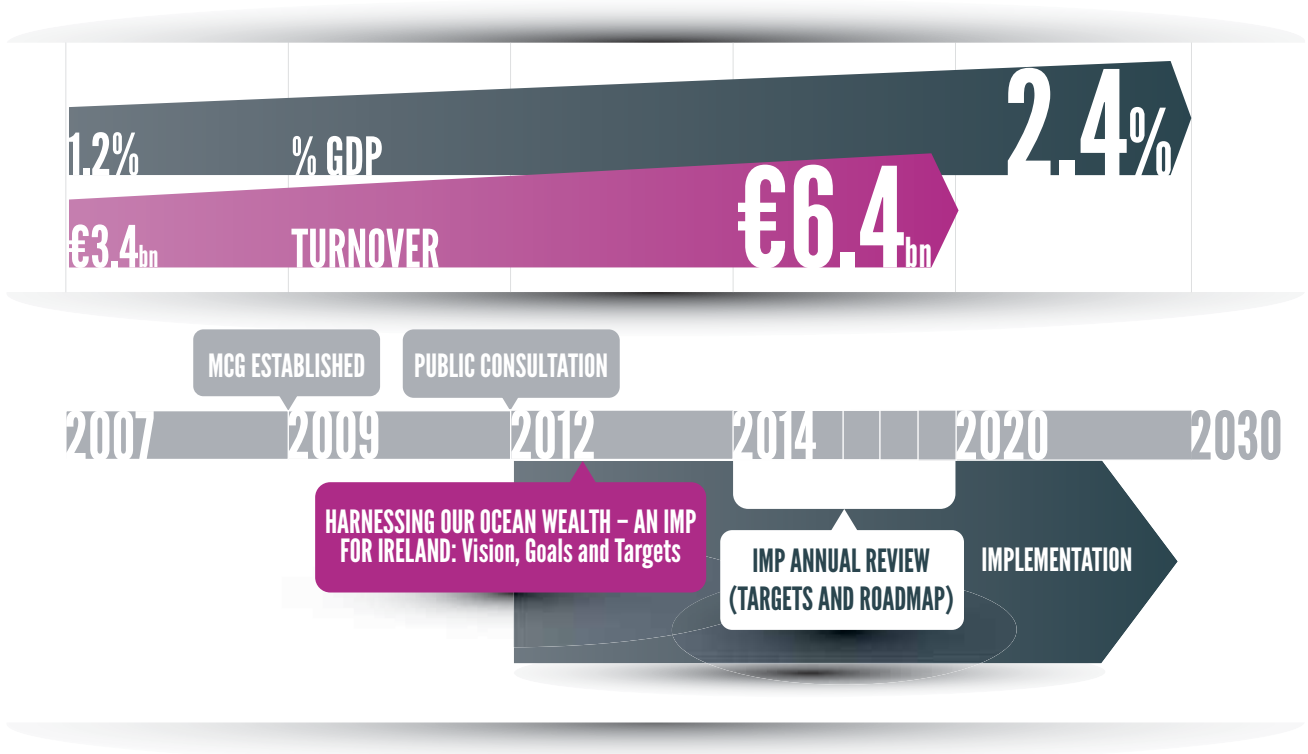
There are a number of other opportunities and emerging growth areas whose potential is linked to other sectors (e.g. marine renewables)/developments (e.g. technological, policy). For example, Irish ports are important nodes where future renewable and offshore energy projects could be based to stimulate new employment and investment opportunities.

Harnessing Our Ocean Wealth Targets:

- Double the value of Our Ocean Wealth to **2.4% of GDP by 2030**²³.
- Increase the **turnover** from our ocean economy to exceed **€6.4billion by 2020**.

The Marine Coordination Group will regularly review the total economic activity across the ocean economy in Ireland in order to update the Government on progress towards the 2020 and 2030 targets.

TARGETS



²³ This target is in line with the outcome of the consultation where it was felt that we can and should aim to generate at least the EU average in terms of the size of coastal Member States' ocean economies as a percentage GDP.

9. Enablers – Getting the Conditions Right for Growth

As part of the consultation we asked the question: *What contributions can the public sector make to achieving growth potential in our ocean economy?* The following sets out the key actions the State will deliver in facilitating economic growth in the marine sector under each of the identified enablers.

Under each of the eight enablers identified, a series of key actions are presented, showing:

- the specific goal(s) that the action addresses;
- the timeline for action (ongoing, short-term 2012–2013; medium-term 2014–2020; and long-term 2020+); and
- responsibility for each action.

In some cases a **‘Task Force’** is identified as responsible for an action. Section 10 provides an overview of the implementation model for this Plan. This includes setting up targeted Task Forces (Enablers or Development focused) to drive the delivery of specific actions that require a high degree of cross-government integrated action.

These actions do not represent the only actions being taken by Government to harness our ocean wealth. These actions complement existing and emerging international, national, regional and local marine and non-marine plans already underway e.g. EU Blue Growth Strategy, EU Strategy for the Atlantic (in prep), Government Action Plan for Jobs, Report of the Research Prioritisation Steering Group, Sustainable Development Framework for Ireland, Food Harvest 2020, and a new Ports Policy (due in 2012).

How did we select these key actions for each enabler?

- Initial analysis by the MCG (as part of the Public Consultation Process);
- Feedback from the public consultation;
- Feedback from departments and agencies, including initiatives already underway as part of existing policies and plans; and
- Further analysis of the feedback and assessment by the MCG.



Governance

Good governance and coordinated cross-government action is essential to achieving our Vision and Goals. Responsibility for marine activities is spread across a number of government departments and agencies. In 2009, the Inter-Departmental Marine Coordination Group (MCG) was established to bring together senior representatives of departments with an involvement in maritime/marine issues so as to discuss/coordinate issues that required inter-departmental action. As part of the *Ocean Wealth Seeking Your Views* consultation the public were asked their views on how we can foster and integrate marine policy and planning in Ireland. The submissions were reviewed with regard to options on governance of marine policy affairs including suggestions for the re-establishment of a Marine Department or a single Executive Agency to drive marine development. It is considered that the combination of existing departments, supported by the MCG, provides the best working model to advance from our current scenario. This model embraces a diverse spread of portfolios across departments with a strong horizontal MCG mechanism, centred in the Department of the Taoiseach.

The MCG have identified the need for more efficient and effective cross-government work on the diverse issues related to the marine in order to generate an environment that is conducive to sustainable growth and jobs.

Currently in Ireland the majority of planning, licensing and regulation for marine-based activity are carried out on a sectoral and demand-driven basis. Managing our ocean wealth requires an overarching national marine 'spatial' plan underpinned by an efficient and robust planning and licensing framework. Such an approach can provide a governance structure and blueprint for national, regional and local planning of our ocean wealth. This will provide competitive advantage for our marine sectors, help realise the full benefit of our ocean wealth and assist with managing our resources effectively and sustainably.

As a whole of Government initiative, responsibility for the Integrated Marine Plan (IMP) resides with the Marine Coordination Group, chaired by the Minister for Agriculture, Food and the Marine, convened by the Department of the Taoiseach. The group consists of a senior representative from each of the departments with marine responsibilities, and the CEO for the Marine Institute.

All specific measures and spending proposals arising from the implementation of the IMP will be subject to robust economic and financial appraisal. In particular, any new measures arising from the implementation of the IMP will be subject to the appraisal and evaluation requirements as outlined in the VFM Code which brings together best practice and guidance in relation to appraising, planning, implementing and evaluating of public expenditure – current as well as capital in evaluation and appraisal (www.vfm.per.gov.ie). It will be a matter for the lead line departments concerned to undertake such analysis.

No.	Key Actions	Supports Goals	Timeline	Responsibility
1.	<p>Develop and implement clear and forward-looking policies and strategies that support an increased contribution from our ocean economy to national GDP.</p> <ul style="list-style-type: none"> Implement existing (e.g. Food Harvest 2020) and planned (e.g. Ports Policy, Offshore Renewable Energy Development Plan) sectoral strategies/plans through effective coordination of actions across a range of government departments and agencies. 	1	Ongoing	All departments and agencies involved with the marine

No.	Key Actions	Supports Goals	Timeline	Responsibility
	<ul style="list-style-type: none"> Develop an integrated enterprise strategy to generate momentum in specific emerging market opportunities prepared across development agencies (e.g. offshore renewables, offshore services, ICT and sensors, biotechnology). Continue to develop new policies/strategies that address gap areas through an integrated approach. 	1	Short-Medium Term	<i>Development Task Force</i>
2.	<p>Develop an integrated approach to marine and coastal planning and licensing in order to maximise the potential for Ireland's ocean economy; assist with managing our resources effectively and sustainably; manage potential conflicts; and ensure harmonisation with coastal/terrestrial planning.</p> <ul style="list-style-type: none"> Address the deficiencies in the current planning and licensing system by continuing make business process improvements; e.g. administrative efficiencies and licensing decisions to address the current caseload. Update/improve legislation to streamline planning and consent processes. Develop an appropriate Maritime Spatial Planning Framework for Ireland within which the scope and objectives of an overarching national Marine Spatial Plan will be defined. Areas to be examined include: <ul style="list-style-type: none"> emerging EU policy in relation to maritime spatial planning; the need for any further legislative changes that may be required to support a national maritime spatial planning framework; international best practice on developing integrated marine planning and licensing – benchmarking Ireland's marine regulatory framework; and a national maritime spatial planning capacity and responsibility for data coordination and exchange. This system will facilitate decision support through the visualisation of ecosystem features and existing and proposed activities in our ocean space. 	1	Ongoing	DECLG, DAFM, DCENR and appropriate departments and agencies
		1	Short-Medium Term	DECLG
		1,2,3	Short-Medium Term	<i>Enablers Task Force</i>

Maritime Safety, Security & Surveillance

The creation of the conditions needed for economic growth, investment and job creation depend on the State ensuring a safe, secure and protected environment consistent with best international standards of governance and the protection of the maritime environment. This means Ireland must have in place effective and efficient security and surveillance arrangements and quality maritime regulatory regimes that meet best practice within which our ocean wealth can prosper.

In order to provide assurances to investors and meet our international obligations, Ireland must continually improve national capabilities in the area of security, safety, surveillance and eco-protection of the maritime domain. This will be achieved through effective enforcement of maritime safety standards, improved information sharing and increased cooperation and innovation among all actors, at both national and EU level, together with the effective deployment of air and sea surveillance, monitoring and enforcement capacity. Ireland also needs to continue to provide an effective maritime administration to ensure that Irish flagged ships and Irish ports can trade freely with the world.

Progress has been made over the last few years. In 2009, the Marine Coordination Group established a steering committee and working group on maritime surveillance, comprising representatives from Department of Transport/Irish Coast Guard, the Department of Defence, the Irish Naval Service, the Revenue Commissioners and An Garda Síochána. This group is tasked with the development of a shared common maritime picture, which will facilitate enhanced maritime data sharing not only at national level but also between our EU counterparts, including under the proposed EU 'Common Information Sharing Environment (CISE)' initiative, the 'Safe Sea Net' system and the European Defence Agency 'EDA – MARSUR' project. The development of a shared common maritime picture will support organisations and agencies charged with ensuring the protection, safety and security of Ireland's maritime domain and the defence of Ireland's maritime interests, sovereignty and exclusive sovereign rights.

Inter-agency cooperation at national, EU and international level, together with industry and research collaboration, are key elements in delivering on this agenda. Within their area of competence, the relevant agencies will support the development and implementation of advanced technology solutions that support real-time information gathering, analysis and dissemination through secure networks. Improved sensor and surveillance technologies; including satellite and unmanned surveillance systems, along with situational and analytical technology, skills and capacity, will enhance delivery of maritime safety, security and surveillance services across all systems.





No.	Key Actions	Supports Goals	Timeline	Responsibility
3.	Develop and implement systems to provide real-time operating, surveillance and monitoring information on activity within Ireland's maritime domain.	1, 2, 3	Short Term	DTTAS/ Coast Guard & DoD/NS
4.	Update national legislation code for an effective Irish Maritime Administration in accordance with national and international requirements.	1, 2, 3	Ongoing	DTTAS
5.	Implement effective flag and port state inspection regimes and improved enforcement of existing regulation, including new regulation standards emanating from the EU and IMO.	1, 2	Ongoing	DTTAS
6.	Maintain and improve Ireland's status on the international shipping benchmarks and use Ireland's positive status to promote shipping related enterprises.	1, 3	Ongoing	DTTAS
7.	Develop the Irish Maritime Administration to provide effective and efficient services to people, ships and ports. <ul style="list-style-type: none"> – Enhance the maritime regulatory and marine emergency response services. 	1, 2, 3	Ongoing	DTTAS
8.	Collaborate with industry and R&D institutes to deliver leading-edge technology that supports more effective and efficient maritime surveillance capacity.	1, 2	Medium Term	DTTAS & DoD

Clean – Green – Marine

Ireland's marine ecosystems are home to a rich and diverse range of species and habitats. We must protect and conserve these ecosystems, ensuring development strategies and management practices do not impair the capacity of ecosystems to deliver market and non-market goods and services. We enjoy a reputation for a clean, green marine environment, which benefits many of our marine enterprises (e.g. seafood, tourism and leisure) and this plays a critical role in the promotion of marine products and services. The future sustainability and growth of our marine industries depends on protecting the credibility of this clean, green image. The protection of our marine ecosystems and compliance with national and international environmental legislation are essential components of our sustainable future – compliance is a competitive advantage.

No.	Key Actions	Supports Goals	Timeline	Responsibility
9.	Implement the EU Marine Strategy Framework Directive: <ul style="list-style-type: none"> • Carry out an initial assessment and related works required under the MSFD in order to provide an accurate picture of the environmental status of our marine waters; • Set appropriate targets in the pursuit of good environmental status; and • Develop an Atlas of the Irish Marine Environment, which will include the collation of all relevant information into a central GIS. This will be an important tool underpinning decisions on policies and actions to protect biodiversity and act as a stepping-stone to future, long-term measures (e.g. in the development of a National Marine Habitat Map and a Maritime Spatial Plan). 	1, 2, 3	Short-Medium Term	DECLG in association with other appropriate departments and agencies
10.	Deliver all measures relevant to Ireland as directed under the Common Fisheries Policy (CFP) and national measures including the conservation, management and rebuilding of fish stocks and long-term sustainable exploitation of marine biological resources.	1, 2	Short-Medium Term	DAFM
11.	Continue to implement the EU Water Framework Directive through the River Basin Management Plans.	2	Short-Medium Term	DECLG with other appropriate departments and agencies
12.	Continue to implement EU Natura 2000 legislation (Birds and Habitats Directives): <ul style="list-style-type: none"> • Complete the preparation of management plans to facilitate sustainable development (e.g. aquaculture, offshore energy); and • Complete the designation process for marine SACs (2012) and SPAs (2014). 	2	Ongoing-Medium Term	DAHG with other appropriate departments and agencies

No.	Key Actions	Supports Goals	Timeline	Responsibility
13.	<ul style="list-style-type: none"> • Maintain and where appropriate, expand key marine observations/sentinel sites for Essential Climate Variables (ECVs) as endorsed by the UNFCCC Global Climate Observing System (GCOS). Such measurements (collected, quality assessed and analysed on an on-going basis) are essential to support improved regional modelling, scenario development, forecasting and climate impact risk assessment. • Carry out a prioritisation and costing exercise with a view to implementing an expanded, long-term and fit-for-purpose monitoring programme to include additional ocean ECVs currently being discussed by GCOS. 	1, 2, 3	Ongoing	EPA with other appropriate agencies
14.	Implement Ireland's National Biodiversity Plan " <i>Actions for Biodiversity, 2011-2016</i> ", to conserve and restore biodiversity and ecosystem services in the marine environment.	2	Ongoing	DAHG with other appropriate departments and agencies
15.	Promote further research into economic values of marine biodiversity and ecosystem services to ensure best practice planning and management of the ocean resource.	1, 2	Medium Term	DAFM/MI, DECLG/EPA, DAHG



Business Development, Marketing & Promotion

Creating the right conditions for business, branding and building on Ireland's reputation as a high-tech, innovative economy, are critical for harnessing our ocean wealth. These factors help to generate interest and stimulate investment by foreign and indigenous enterprises in established and emerging sectors. A range of support services are provided to marine businesses and entrepreneurs through state agencies (e.g. Enterprise Ireland, IDA, BIM, Údarás na Gaeltachta and IMDO). At a local level, specific programmes aimed at creating new and sustainable sources of income for coastal communities are being promoted (e.g. establishing Fisheries Local Action Groups through the European Fisheries Fund²⁴).

The vision of Ireland as a *clean, green, high-quality, innovative producer of excellent food* is being branded at home and aboard²⁵. The food industry is embracing this concept, contributing to economic recovery with its ability to grow and export. This image is also being promoted as an essential component of Ireland's tourism product. Other branding initiatives include the promotion of Ireland in the broad maritime commerce space by the IMDO under the *Maritime Ireland* brand.

No.	Key Actions	Supports Goals	Timeline	Responsibility
16.	Strengthen and develop a common message and theme that promotes Irish marine products and services using high standards of environmental compliance (the 'Clean Green' brand).	1, 2, 3	Short-Medium-Long Term	Development Task Force, EI, IDA, Bord Bia
17.	Give a clear message to investors that Ireland is 'open for, and a good place to do, marine business' domestically and internationally and continue to market and promote business opportunities associated with the marine through the IDA, EI, IMDO Bord Bia, BIM, Údarás na Gaeltachta, Fáilte Ireland.	1	Short-Medium-Long Term	Development Task Force, IDA, EI, IMDO, Bord Bia, BIM, Údarás na Gaeltachta, Fáilte Ireland
18.	Continue to market and develop Ireland as a world-class location for international shipping services.	1	Short-Medium-Long Term	IMDO
19.	Encourage and facilitate coastal communities to avail of existing and future marine enterprise opportunities, e.g. through: <ul style="list-style-type: none"> • Training programmes • Business supports • Provision of specialist marketing and investment advice, market intelligence and consumer research. 	1, 3	Ongoing	Local enterprise development boards, Údarás na Gaeltachta, Fáilte Ireland, BIM
20.	Progress a number of targeted emerging business development opportunities (e.g. offshore renewables, offshore services, maritime security and safety, shipping logistics and transport, ICT and sensors, biotechnology). This would include the collection/collation of market intelligence and foresight and the promotion of clusters using SmartOcean and IMERC as vehicles for innovation-led commercial development.	1	Short-Medium Term	Development Task Force

²⁴ For further information see: <http://www.bim.ie/news-and-events/content,63631.en.html>

²⁵ *Food Harvest 2020, A Vision for Irish Agri-food and Fisheries*, Department of Agriculture, Fisheries and Food, 2010 & Bord Bia's *Pathways for Growth – Building Ireland's largest indigenous industry and associated Origin Green initiatives*.

Research, Knowledge, Technology & Innovation

Research and Development (R&D) and other knowledge-generating activities (e.g. seabed mapping and collection of baseline data supporting EU Directives such as the Habitats and Birds Directives) support sustainable economic growth and job creation through the development of new products and services; facilitate better management and protection of marine ecosystems; and inform policy, governance and regulation of the marine sector. Ireland has invested significantly in all of these areas over the past decade.

Research and innovation clusters also support economic growth and job creation. In Ireland a number of marine clusters/networks have emerged in recent years e.g. Irish Maritime Energy & Research Cluster (IMERC) and SmartOcean Innovation Cluster. This approach brings together SMEs, educational and research institutes to add value and competitiveness within Ireland. In the context of a national strategy to maximise the potential of the ocean energy resource, the IMERC project (University College Cork, the Cork Institute of Technology, and the Irish Naval Service) will be developed as a world leading research and education centre for marine energy, maritime security and safety, shipping logistics and transport and marine recreation.

Opportunities for economic growth through marine research (notably seafood, marine functional foods, marine renewable energy and ICT applications in the marine environment) are clearly recognised in the *Report of the Research Prioritisation Steering Group*, adopted by Government in March 2012. This Report, which seeks to accelerate the delivery of economic outcomes from public investment in science, technology and innovation, also identifies the need for investment in underpinning research, integrated infrastructure and research in support of policy.

Other knowledge generating programmes include Ireland's Seabed Mapping Programme (INSS & INFOMAR²⁶), one of the largest such programmes worldwide has been shown to have a benefit to cost ratio of over 4:1.

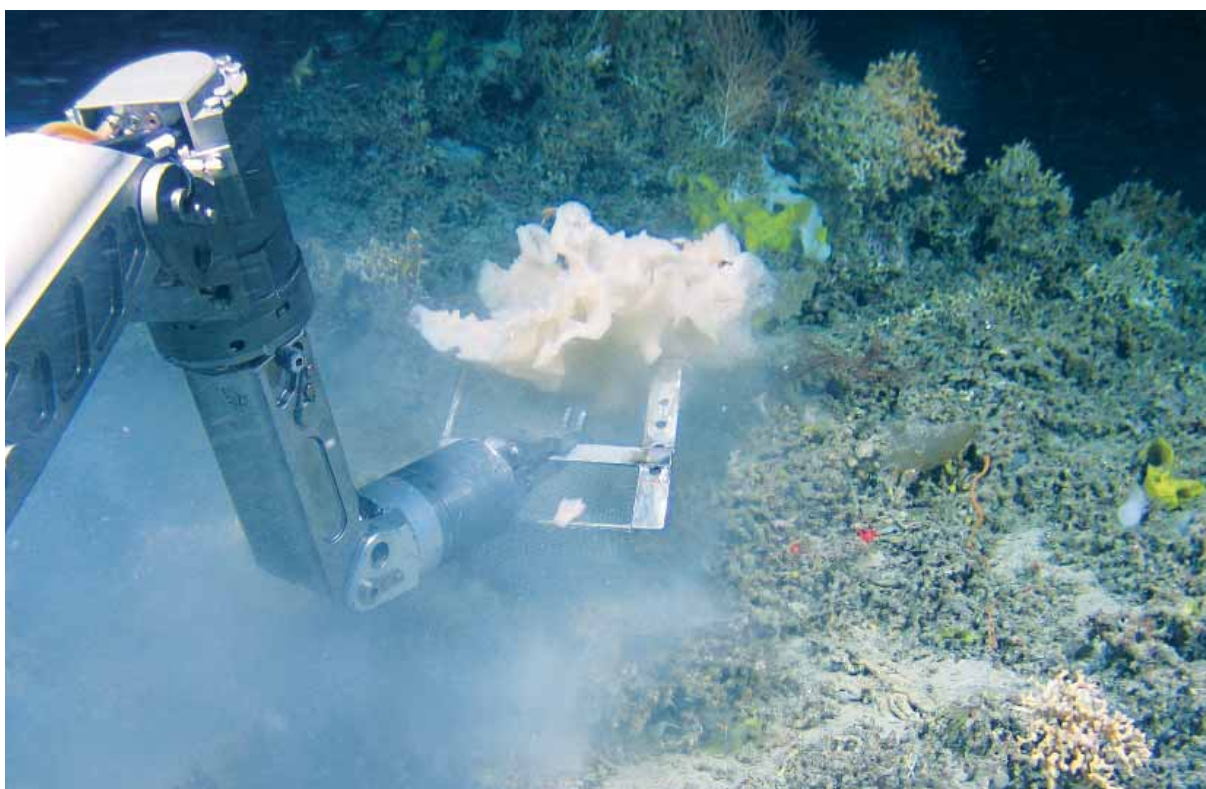
Identifying and defining ongoing strategic research needs, in an inclusive and adaptive manner (e.g. through fora such as the Irish Fisheries Science Research Partnership), together with the appropriate funding resources and mechanisms, is essential for achieving economic development and informing policy.

No.	Key Actions	Supports Goals	Timeline	Responsibility
21.	<p>Continue to fund strategic marine RTDI (industry, policy and discovery research) through cross-government/ agency collaboration across a range of national and international funding mechanisms.</p> <ul style="list-style-type: none"> Continue to implement <i>Sea Change – A Marine Knowledge Research & Innovation Strategy for Ireland 2007-2013</i>, taking account of the <i>Report of the Research Prioritisation Steering Group</i> (March 2012) and the relevant action plans (under development), that address marine opportunities; e.g. sustainable food production and processing, food for health and marine renewable energy. 	1, 2, 3	Short-Medium Term	DAFM (MI) in association with relevant departments and agencies

No.	Key Actions	Supports Goals	Timeline	Responsibility
	<ul style="list-style-type: none"> Continue to implement research supporting increased hydrocarbon prospectivity through government-industry and international collaboration, supported by research teams in the third-level sector across a range of national and international funding mechanisms (2012-2013), to address data, knowledge and specialised research capabilities to support and enable offshore exploration for indigenous oil and gas resources. 	I	Ongoing	DCENR
	<ul style="list-style-type: none"> Develop and implement a new Strategic Marine Research Agenda 2014-2020 and associated Action Plan, focused on industry, policy and discovery research through cross-agency collaboration on joint initiatives. The new plan will identify and develop funding instruments that facilitate: <ul style="list-style-type: none"> – maximum participation in EU funding programmes, including Joint Programming Initiatives (JPIs), ERA-NETS and co-operation projects; – increased industry R&D activity and industry-academia collaborations; – addressing barriers to marine innovation and the progression of research into applied products and services (commercialising research); – integrated targeted planning of R&I in key areas as part of a dedicated integrated enterprise plan; and – existing and new clusters/networks in order to create critical mass, mitigate risk in frontier enterprises and strategically fund critical path research and information gaps. 	I, 2, 3	Medium-Long Term	<i>Enablers Task Force</i>
22.	Provide direction and focus for expenditure of marine research funding where appropriate through the relevant action plans for priority areas being developed by the Prioritisation Action Group.	I, 2, 3	Medium Term	DJEI, DAFM, DECLG, DAHG, DCENR, DTTAS



No.	Key Actions	Supports Goals	Timeline	Responsibility
23.	<p>Complete the INFOMAR seabed mapping programme, to provide data, products (e.g. databases, charts, physical habitat maps) and services (marine decision support tools) as critical inputs to maritime spatial planning and enablers of infrastructural development, research, education and value-added products.</p> <p>Further develop the role of INFOMAR in:</p> <ul style="list-style-type: none"> • Training of Irish graduates in latest techniques in seabed mapping, which are applicable world-wide; • Utilisation of data in major research projects; and • Development of collaborative added-value products through engagement with SMEs and the research community. 	1, 2, 3	Short – Medium Term	DCENR (GSI) and MI
24.	Strengthen the collation of marine socio-economic data to ensure the timely availability of marine socio-economic statistics, providing an evidence-base for policy and decision-making, economic forecasting and scenario planning.	1,2, 3	Medium Term	<i>Enablers Task Force and Development Task Force</i>
25.	Support existing and new test-beds/facilities for demonstration and commercialisation purposes that promote Ireland as a test-bed for renewable energy technologies and ICT (SmartOcean) focusing on the development of innovative technologies that support real-time information gathering (e.g. for security, surveillance, environmental monitoring).	1, 2	Short-Medium Term	<i>Development Task Force</i>



Capacity, Education, Training & Awareness

A skilled and experienced workforce that adapts to changing requirements and new opportunities is essential for developing indigenous Irish industry, attracting foreign direct investment and providing efficient public services. Identifying future skills needs and labour market supply and demand trends and adapting and developing existing education, vocational and professional training programmes to meet them is critical to achieving our Vision and Goals. Raising public awareness and knowledge of our marine resources and maritime heritage is equally important in this respect.

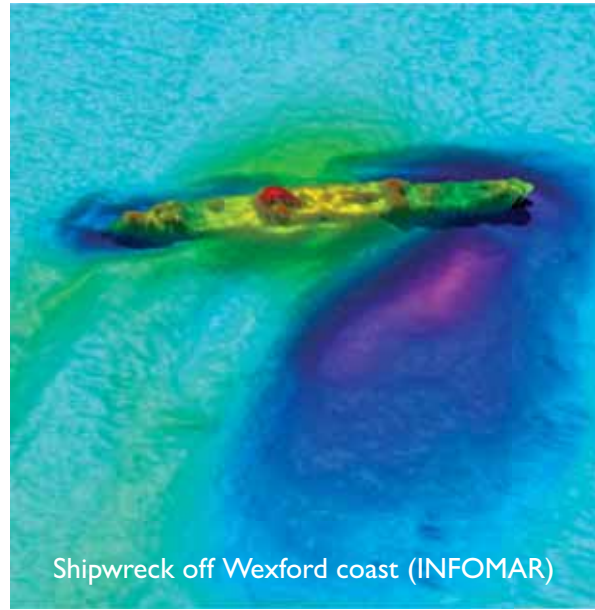
No.	Key Actions	Supports Goals	Timeline	Responsibility
26.	Plan for the appropriate human resources to be in place to efficiently and effectively meet the current demands and capture the future opportunities in relation to our ocean wealth.	1,2, 3	Ongoing	Appropriate departments
27.	Maintain and build capacity (people) to meet the needs of the maritime sector; e.g. through tailored education and training programmes and research capacity building.			
	<ul style="list-style-type: none"> Identify future skills needs and labour market supply and demand trends in the marine area; 	1, 3	Short-Medium Term	DJEl , DES (Forfás – Future Skills Group)
	<ul style="list-style-type: none"> Tailor higher education, vocational and professional training programmes to meet the identified needs; 	1, 3	Medium Term	HEIs, appropriate departments and agencies
	<ul style="list-style-type: none"> Encourage utilisation of employment and training programmes (e.g. Job Bridge and Springboard) that offer the necessary training and upskilling for marine personnel, taking account of local employment needs and opportunities; and 	1, 3	Ongoing	Appropriate departments and agencies
	<ul style="list-style-type: none"> Continue to build marine research capacity and capability through targeted national and international research funding. 	1, 3	Ongoing	Appropriate departments and agencies
28.	Establish Ireland as an international marine training destination, maximising the capacity and potential of existing marine training facilities/programmes (e.g. BIM training, IMERC, Ryan Institute, NMCI, ship-based SMART initiative, private training operators); and integrate into national initiatives such as <i>Education in Ireland</i> .	1, 3	Ongoing-Medium Term	<i>Development Task Force</i>
29.	Embed knowledge of our ocean wealth into the primary and secondary curricula: <ul style="list-style-type: none"> Explore the potential to roll out existing pilot programmes (e.g. Explorers' Programme and Follow-the Fleet) across the primary school network; and Consider options for the inclusion of marine studies in the secondary school curriculum. 	3	Medium Term	DES, DJEl
30.	Develop outreach programmes that create an awareness of our ocean wealth (e.g. national sea week, maritime day, maritime festivals, showcasing state infrastructure such as the Naval and Air Corps, Coast Guard, Research Vessels).	3	Medium Term	All departments and agencies

Infrastructure

Infrastructure includes fixed assets (e.g. ports, fisheries harbours, harbours, piers, slipways, buildings etc), mobile assets (e.g. research vessels, naval vessels, ROVs, coast guard assets etc), research, educational and innovation platforms (e.g. test and demonstration sites such as SmartBay, NMCI), and datasets (e.g. seabed mapping).

Maintaining, upgrading and providing these infrastructures is critical to our national economy (e.g. 99% of Ireland's exports and imports are transported through Ireland's ports); energy needs and export potential (e.g. grid infrastructure); supporting coastal and rural communities (e.g. access points); the running of operational programmes (e.g. environmental monitoring and fish stock assessment); enabling research, development and innovation activities; facilitating technology transfer; the development of new products and services; and ensuring the safety and security of the maritime domain.

No.	Key Actions	Supports Goals	Timeline	Responsibility
31.	Maximise the utilisation of existing state maritime infrastructure (e.g. research vessels, coastal access points) through multi-purpose usage and sharing, in support of operational programmes, research, test and demonstration and monitoring.	1, 2	Ongoing	Appropriate departments and agencies
32.	Put in place clear integrated policies and strategies for the development of new key strategic infrastructures to support job creation and economic growth (e.g. the grid and port infrastructure to support renewable energy and export potential).	1	Short-Medium-Long Term	Appropriate departments and agencies
33.	Securely store all publicly funded marine data (e.g. seabed mapping, monitoring, research and scientific data) and where appropriate make available, as easily and freely as possible, in compliance with existing standards (e.g. INSPIRE) for multi-purpose usage (e.g. for research, governance, maritime spatial planning and commercial development purposes). Leverage for value-added purposes, including links to key EU projects in this area, such as, the EMODNET initiative.	1, 2	Ongoing	Appropriate departments and agencies
34.	Carry out national, regional and local initiatives aimed at tapping into the potential of new and existing coastal infrastructure to develop sustainable products, services and jobs. This would encourage investment along the coast. Initiatives include: <ul style="list-style-type: none"> • Mapping existing marine and coastal infrastructure and amenities throughout the country to support the development of marine and coastal tourism and leisure products and services; • Research into best practice regarding the development and funding of marina and berthing facilities in Ireland and abroad, with a view to shaping national policy in this area; 	1, 3	Ongoing	DTTAS/Fáilte Ireland
		1	Ongoing	DTTAS/Fáilte Ireland



Shipwreck off Wexford coast (INFOMAR)

No.	Key Actions	Supports Goals	Timeline	Responsibility
	<ul style="list-style-type: none"> • ‘The Wild Atlantic Way’ – a themed and packaged driving trail from Donegal to Cork; • Utilising existing built and natural assets (e.g. lighthouses and offshore islands) to develop tourism products and services; • Investigating opportunities to increase Ireland’s share of the cruise tourism market and develop Ireland as a turnaround destination including supporting port companies in their plans to develop or expand cruise facilities using their own resources; and • Supporting major national seaports in the implementation of their master plans to provide additional capacity and greater draft using their own resources. 	<p>1, 3</p> <p>1, 3</p> <p>1, 3</p> <p>1, 3</p>	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>	<p>DTTAS/Fáilte Ireland</p> <p>Appropriate departments and agencies</p> <p>DTTAS, Port Companies and other relevant organisations (public and private)</p> <p>DTTAS/Port Companies</p>
35.	<ul style="list-style-type: none"> • Complete the Irish Coastal Protection Strategy Study (ICPSS), which will provide strategic level coastal flood and erosion hazard maps for the national coastline. • Incorporate ICPSS coastal flood hazard assessment into long-term flood risk management plans focused on prevention, protection and preparedness. • Establish permanent tidal monitoring infrastructure (national tide gauge network) around the coast of Ireland. 	<p>1, 2, 3</p> <p>1, 2, 3</p> <p>1, 2, 3</p>	<p>Ongoing-Medium Term</p> <p>Ongoing-Medium Term</p> <p>Ongoing-Medium Term</p>	<p>OPW</p> <p>OPW</p> <p>MI, OPW, LAs, other public & private bodies</p>

International and North/South Cooperation

North/South and East/West cooperation in the marine area is traditionally strong. Areas of common interest include shipping, energy, tourism, aquaculture and research. International cooperation is an essential element of integrated marine policy and planning. Irish maritime law and policy reflects developments at EU and international levels and consequently we need to influence the development of new and emerging policy areas. Close cooperation with our Atlantic neighbours and international partners can also bring about economic returns and benefits.

No.	Key Actions	Supports Goals	Timeline	Responsibility
36.	Influence the development and implementation of EU maritime policy, strategies and programmes (e.g. IMP-EUSA, CFP, MSP, MSFD, EMODNET) to assist in the delivery of the goals of <i>Harnessing Our Ocean Wealth</i> . This will be achieved by: <ul style="list-style-type: none"> • Maximising relevant funding opportunities (e.g. structural and cohesion funding); • Utilising Irish representation in Brussels; and • Highlighting our marine sector/our ocean wealth during the Irish EU Presidency (Jan – Jun 2013). 	1, 2, 3	Ongoing	DFA, MCG
		1, 2, 3	Ongoing	All departments
		1, 2, 3	Short Term	All departments
37.	Ensure the inclusion of marine research in all relevant Work Programmes developed under HORIZON 2020 in order to maximise EU marine research funding opportunities and support the implementation of IMP – EU and its Sea Basin Strategies.	1, 2, 3	Short-Medium Term	All departments
38.	Continue to foster a North/South and East/West approach in developing/enabling the marine sector (e.g. grid/all-island energy strategy, marine tourism and leisure) through existing structures and bodies.	1, 2, 3	Ongoing	Appropriate departments and agencies
39.	Establish key trade and research links in non-EU markets and countries (e.g. China and transatlantic initiatives).	1, 2, 3	Short-Medium-Long Term	Appropriate departments and agencies



Part III

Implementing an Integrated Marine Plan for Ireland



10. Implementing an Integrated Marine Plan for Ireland

A Model for Implementation

Harnessing Our Ocean Wealth – An IMP for Ireland provides a new momentum for growth in the marine area. It builds on the spirit of the Programme for Government; ensuring government departments and agencies work together more efficiently and effectively on the diverse issues related to the marine, in order to generate an environment conducive to sustainable growth and jobs.

The IMP sets out the vision, high-level goals and integrated actions that, on implementation, will significantly improve the conditions for investment and growth. A number of integrated government delivery mechanisms have been identified and the Roadmap puts in place a process that the government departments and agencies will use in developing integrated marine policy and planning. Overarching responsibility has been assigned to the MCG and the Minister for Agriculture, Food and the Marine to supervise cross-government delivery and implementation of this Plan. The implementation is based on the following mechanisms:

1. Individual departments implementing relevant policy and strategy programmes;
2. Improved cross-government communication and engagement;
3. Ongoing updates to the MCG;
4. Focused task forces with broad participation that address specific actions; and
5. Annual review of progress, to commence in 2014, with feedback to stakeholders.

Implementation of this Plan will be delivered within the medium term fiscal framework and budgetary targets adopted by the Government.

1. Individual departments

Individual departments and their associated agencies will continue to develop and implement policies and strategies that come within their remit, taking account of *Harnessing Our Ocean Wealth*.

2. Improved cross-government communication and engagement

Departments and agencies with a marine function will work together towards the shared vision and goals of *Harnessing Our Ocean Wealth*. This improved communication and engagement will enhance the delivery of existing emerging and new policies and strategies.

3. Ongoing updates to the MCG

Relevant government department and agencies will update the MCG on progress in implementing existing and new emerging strategies and policies.

4. Focused Task Forces

The MCG will establish independently chaired Task Force(s) for a specific period, with defined Terms of Reference, comprising participants from a broad range of expertise and knowledge (e.g. **Departments, Agencies, Higher Education and Private Sector**). The recommendations/outputs of the Task Force(s) will be presented to the MCG and a decision on appropriate implementation will be made.

Enablers Task Force (ETF)

ETFs will be established by the MCG on an 'as needs' basis and will focus on a specific action(s) identified around the enablers. The ETF will engage relevant bodies collectively and cohesively around key issues that will improve policy objectives of the MCG and Government.

Development Task Force (DTF)

DTFs will be established by the MCG on an 'as needs' basis and will focus on developing growth and jobs in targeted emerging sectors that require a high degree of integration.

The MCG will ensure that any new Task Force(s) will complement and enhance/support any existing structures that are in place dealing with the same/similar specific marine initiative.

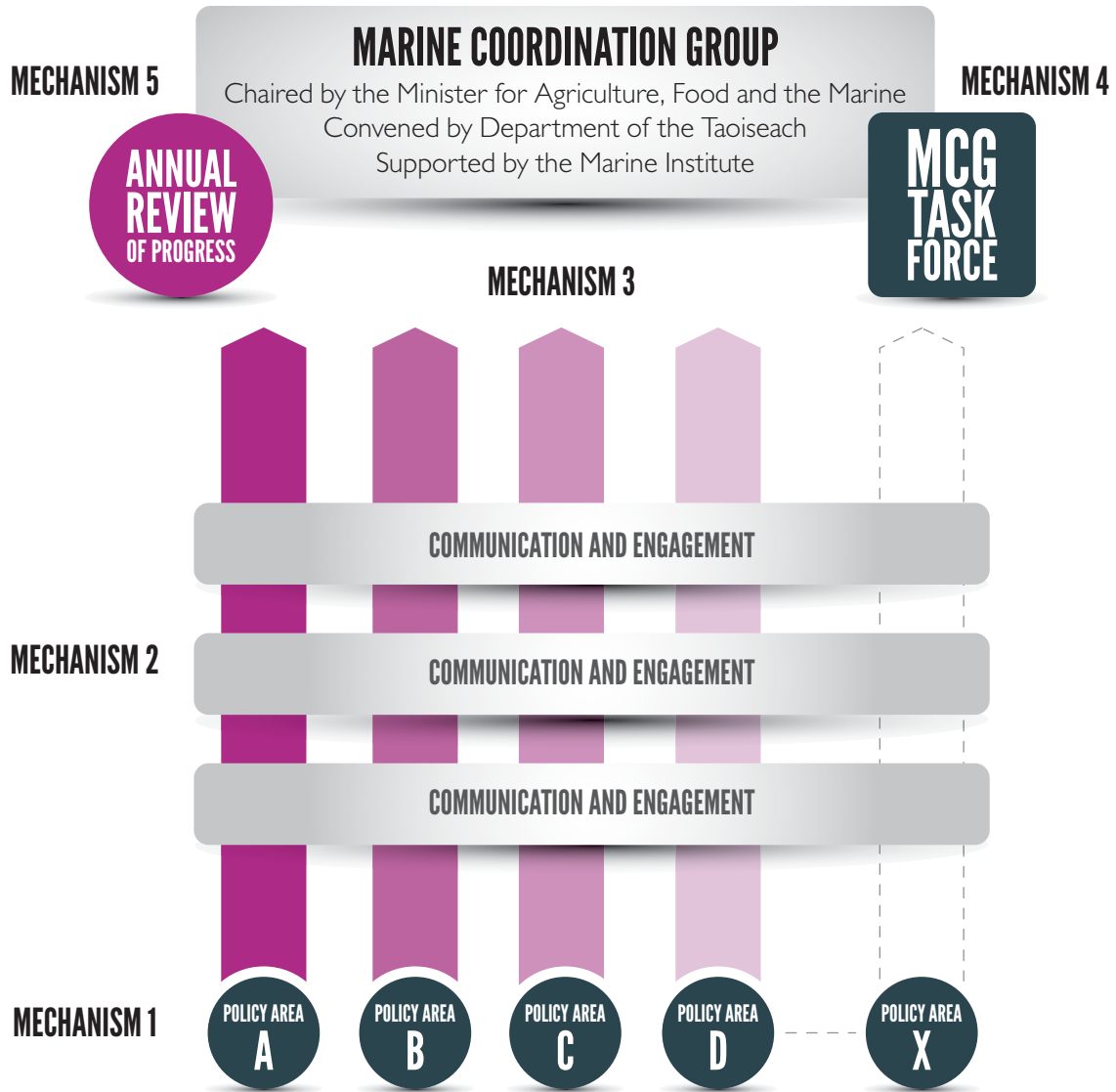
5. Annual Review of Progress

Progress in relation to the implementation plan outlined in this document will be reviewed annually and will include feedback to stakeholders. The first review will be completed in early 2014. Progress will be assessed in relation to the Roadmap and an updated roadmap for subsequent years will also be agreed.

Delivering an Integrated Marine Plan for Ireland demands an increasingly integrated approach that is ongoing, dynamic and interactive. This annual approach will promote the evolution of existing structures and plans for *Harnessing Our Ocean Wealth*.

Harnessing Our Ocean Wealth – An Integrated Marine Plan for Ireland

IMPLEMENTING CROSS-GOVERNMENT MECHANISMS TO ACHIEVE GREATER COORDINATION AND INTEGRATION



This schematic represents the five implementing for *Harnessing Our Ocean Wealth – An IMP for Ireland*.

- MECHANISM 1** Individual departments implementing relevant policy and strategy programmes;
- MECHANISM 2** Improved cross-government communication and engagement across sectors;
- MECHANISM 3** Ongoing updates to MCG;
- MECHANISM 4** Focused Task Forces that address specific actions; and
- MECHANISM 5** Annual review of progress by MCG.

Figure 6: Implementation Mechanisms

II. Early Actions for a 2012–2014 Roadmap

Selecting early actions for 2012–2014

Part II of this Plan sets out 39 actions that will be taken to get the conditions right to harness our ocean wealth. In this section a set of early actions have been identified that will form the basis of a 2012–2014 Roadmap. Taking a pragmatic and focussed approach in selecting these early actions, the key selection considerations include capacity; readiness; feasibility and resources. In many respects, harnessing our ocean wealth has already begun, as some of the early actions we have identified are already being carried out by various departments and agencies. The IMP aims to enhance these ongoing actions.

Governance – Action 1

Develop and implement clear and forward-looking policies and strategies that support an increased contribution from our ocean economy to national GDP.

- Implement existing (e.g. Food Harvest 2020) and planned (e.g. Ports Policy, Offshore Renewable Energy Development Plan) sectoral strategies/plans through effective coordination of actions across a range of government departments and agencies.

Appropriate departments will continue to action and provide updates to MCG.

- Develop an integrated enterprise strategy to generate momentum in specific emerging market opportunities prepared across development agencies (e.g. offshore renewables, offshore services, ICT and sensors, biotechnology).

Development Task Force.

Governance – Action 2

Develop an integrated approach to marine and coastal planning and licensing in order to maximise the potential for Ireland's ocean economy; assist with managing our resources effectively and sustainably; manage potential conflicts; and ensure harmonisation with coastal/terrestrial planning.

- Address the deficiencies in the current planning and licensing system by continuing to make business process improvements; e.g. administrative efficiencies and licensing decisions to address the current caseload.

DECLG, DAFM and DCENR will continue to action and provide updates to MCG.

- Develop an appropriate Maritime Spatial Planning Framework for Ireland within which the scope and objectives of an overarching national Marine Spatial Plan will be defined.

Enablers Task Force.

Maritime Safety, Security & Surveillance – Action 3

Develop and implement systems to provide real-time operating, surveillance and monitoring information on activity within Ireland's maritime domain.

DTTAS/Coast Guard and DoD/NS will continue to action and provide updates to MCG.

Clean – Green – Marine – Action 9

Implement the EU Marine Strategy Framework Directive.
DECLG will continue to action and provide updates to MCG.

Clean – Green – Marine – Action 10

Deliver all measures relevant to Ireland as directed under the CFP and national measures including the conservation, management and rebuilding of fish stocks and long-term sustainable exploitation of marine biological resources.

DAFM will continue to action and provide updates to MCG.

Clean – Green – Marine – Action 12

Continue to implement EU Natura 2000 legislation (Birds and Habitats Directives).

DAHG and appropriate departments and agencies will continue to action and provide updates to MCG.

Business Development, Marketing & Promotion – Action 17

Give a clear message to investors that Ireland is 'open for, and a good place to do, marine business' domestically and internationally and continue to market and promote business opportunities associated with the marine through the IDA, EI, IMDO, Bord Bia, BIM, Údarás na Gaeltachta, Fáilte Ireland.

Development Task Force.

Research Knowledge, Technology & Innovation – Action 21

Continue to fund strategic marine RTDI (industry, policy and discovery research) through cross-government/agency collaboration across a range of national and international funding mechanisms.

Develop and implement a new Strategic Marine Research Agenda 2014-2020 and associated Action Plan, focused on industry, policy and discovery research through cross-agency collaboration on joint initiatives.

Enablers Task Force.

Research Knowledge, Technology & Innovation – Action 25

Support existing and new test-beds/facilities for demonstration and commercialisation purposes that promote Ireland as a test-bed for renewable energy technologies and ICT (SmartOcean) focusing on the development of innovative technologies that support real-time information gathering (e.g. for security, surveillance, environmental monitoring).

Development Task Force.

Capacity, Education, Training & Awareness – Action 27

Maintain and build capacity (people) to meet the needs of the maritime sector; e.g. through tailored education and training programmes and research capacity building.

Appropriate departments will continue to action and provide updates to MCG.

Capacity, Education, Training & Awareness – Action 28

Establish Ireland as an international marine training destination, maximising the capacity and potential of existing marine training facilities/programmes (e.g. BIM training, IMERC, Ryan Institute, NMCI, ship-based SMART initiative, private training operators), and integrate into national initiatives such as *Education in Ireland*.

Development Task Force.

Infrastructure – Action 31

Maximise the utilisation of existing state maritime infrastructure (e.g. research vessels, coastal access points), through multi-purpose usage and sharing, in support of operational programmes, research, test and demonstration and monitoring.

Appropriate departments and agencies will continue to action and provide updates to the MCG.

Infrastructure – Action 34

Carry out national, regional and local initiatives aimed at tapping into the potential of new and existing coastal infrastructure to develop sustainable products, services and jobs. This would encourage investment along the coast.

Appropriate departments and agencies will continue to action and provide updates to MCG.

International and North/South Cooperation – Action 36

Influence the development and implementation of EU maritime policy, strategies and programmes (e.g. IMP-EUSA, CFP, MSP, MSFD, EMODNET) to assist in the delivery of the goals of *Harnessing Our Ocean Wealth*.

Appropriate departments will continue to action and provide updates to MCG.

International and North/South Cooperation – Action 38

Continue to foster North/South and East/West approach in developing/enabling the marine sector (e.g. grid/all-island energy strategy, marine tourism and leisure) through existing structures and bodies.

Appropriate departments and agencies will continue to action and provide updates to MCG.

12. Progress and Commitment

The following ten points capture the progress and commitments that have been achieved in the developing *Harnessing Our Ocean Wealth – An IMP for Ireland*.

1. Concluded a public consultation that has stimulated a public debate on the marine in Ireland, looking at our vast resources and marine potential as we never did before. This has raised awareness and promoted public discussion on our ocean wealth and where we want to be in the future. The public submissions ('Your views') have fed into the development of this Plan.
2. Set targets. Ireland will double the value of our ocean wealth to 2.4% of GDP by 2030. Ireland will increase the turnover from our ocean economy to exceed €6.4bn by 2020.
3. Developed a clear vision, three high-level goals and eight interlinked enablers that are built around the concept of a sustainable future for our ocean wealth.
4. Identified 39 key enabling actions that will support the conditions for growth and investment and allow us reach our vision and goals.
5. Prioritised these actions and developed the IMP roadmap for 2012-2014.
6. A clear 'Statement of Intent' from Government that all departments and agencies will work together towards our shared vision and goals in delivering developed policies and strategies.
7. The MCG will maintain ownership and provide leadership for the delivery of *Harnessing Our Ocean Wealth* as an integrated Government initiative.
8. The actions outlined in this report will be further developed by the MCG. The MCG will set up the Implementation Framework (e.g. focused enabler and development task forces and ongoing engagement on cross-government marine initiatives) to progress the key actions as appropriate.
9. The MCG will review progress in 2014, publish a progress report and host a public seminar.
10. The appropriate framework and mechanisms have now been set in place to prepare and plan policy and programmes for our marine and maritime affairs in a fully integrated and cross-government manner. This process marks an evolution of existing structures and processes, and the beginning of a mindset change, as we adopt new ways, new approaches and new thinking on how to harness our ocean wealth.

Annex I presents progress and commitments in relation to the ten guiding principles for an effective integrated marine plan (see section 1). *Harnessing Our Ocean Wealth – An IMP for Ireland* is a dynamic plan that will evolve. Although circumstances (national and international) may change in this period, our vision will remain constant.

Part IV

Your Views

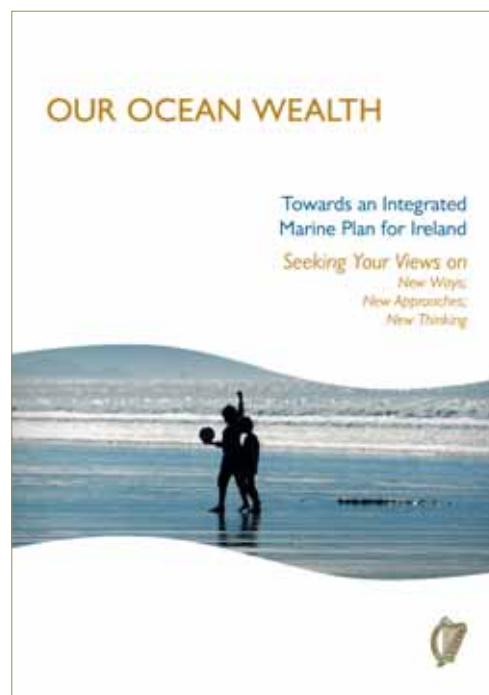


13. Summary Feedback from the Consultation – Your Views

Introduction and Overview of Submissions

In February 2012, a consultation document entitled **Our Ocean Wealth: Seeking Your Views: New Ways; New Approaches; New Thinking** was launched by Minister Simon Coveney T.D. This discussion document posed 10 questions designed to capture the views and ideas of the public on generating sustainable growth in our marine economy. Additional views and ideas were also welcomed and a public debate was facilitated through an online discussion forum; helping to inform marine policy-making and improving the quality of decisions reached and services provided.

One hundred and ninety-two submissions were received from a wide range of stakeholders including Government/State organisations/committees (21); NGOs (7); individuals (106); local community groups (8); SMEs, MNCs and other private enterprises (22); Industry, Trade & Professional Organisations (17); Higher Education Institutions & Research Consortia (9); and Political Organisations/Representatives(2). As part of the consultation process, Minister Coveney T.D. and representatives of the Marine Coordination Group presented the initiative to the Joint Oireachtas Committee on Communications, Natural Resources and Agriculture. The Committee also delivered a submission²⁷ on *Our Ocean Wealth*, welcoming the Government's plan to initiate the development of an Integrated Marine Plan for Ireland and strongly supporting the sustainable exploitation of our marine resources. The submission also recognises the great potential of the ocean and marine resource for the creation of employment, wealth, commercial opportunities as well as an environmental and leisure resources. Specific comments in relation to aquaculture and seafood developments were also provided in the submission.



27 <http://www.oireachtas.ie/parliament/media/Agreed-Submission-on-'Our-Ocean-Wealth'-from-JCNRA-060612.pdf>

Key Themes and Messages

Towards an Integrated Marine Plan for Ireland

Overall, respondents welcomed and supported the public consultation in the development of an Integrated Marine Plan. A need for continued public participation and consultation was highlighted, emphasising the role of local and regional authorities. The need to underpin this plan with an effective implementation framework, with clear lines of responsibility, was highlighted. Submissions also emphasised the need to reflect environmental and social elements of development and avoid focusing solely on economic dimensions.

The Vision

The discussion document provided a draft vision for our ocean wealth. Respondents agreed with the general approach of the draft vision with some suggestions as to possible alternate time frames and a greater focus on non-economic benefits. It was also suggested that the vision should include references to coordinated and integrated governance, sustainable development, environmental protection, innovation and effective implementation of the Integrated Marine Plan.

Targets for Our Ocean Wealth

The discussion document highlighted the need to substantially improve our economic performance from our ocean resources, given that in 2007, these resources generated €3.4 billion in turnover and 1.2% GDP. The targets suggested varied widely, ranging from €2.1 to €34 billion and 1.5% to 10% of GDP. The majority of respondents suggested that a target should be set between €5 to €7 billion, and 1.5%-2.5% of GDP. Some submissions suggested that the use of TEV (Total Economic Value) would be a more appropriate measure of the contribution of the marine economy. Respondents suggested alternative time frames for such targets, with submissions favouring both shorter and longer term time frames. The benefit of focusing on specific sectors (i.e. Marine and Coastal Tourism and Leisure, Marine Renewable and Non-Renewable Energy, and Maritime Transport) in achieving overall marine sector economic growth was highlighted.

Enablers

The questions posed in the discussion document called on the public to share their views and ideas on the necessary conditions to achieve growth in the marine sector. An overview of these views and ideas on the enablers specifically identified in the discussion document, and other enablers which were identified through submissions (i.e. environmental protection, infrastructure and maritime safety, security and surveillance), is presented below.

Marine Governance, Policy and Legislation

There was significant agreement on the need for integrated governance of the marine sector with clear roles and responsibilities allocated to government departments and agencies. Continued public consultation and participation in marine governance was highlighted as necessary. The leadership demonstrated by the Department of the Taoiseach in the Our Ocean Wealth initiative was broadly welcomed. Many suggested the re-establishment of the Department of the Marine, a single responsible agency or an effective coordination mechanism. A call for the broadening of the membership of the Marine Coordination Group, to include for example, the Irish Naval Service, HEIs, NGOs, and industry representatives, was included in some submissions. There was a range of conflicting views on the extent to which local governance should feature in the development of the marine sector.

There was general agreement that marine sector policies should be integrated at the highest level and must be focused on establishing Ireland as an attractive place to do business. It was suggested that this could be achieved through favourable fiscal regimes, sector specific strategies and infrastructure development. Submissions highlighted the need to amend certain pieces of legislation in order to simplify development process and to improve access to the sea. The need to amend sectoral regulations was identified as critical, ensuring they are fit-for-purpose and enforceable to allow growth in the sector.

Planning and Licensing

There was very strong agreement on the need for better planning systems to provide for sustainable development. Marine spatial planning was regarded by many as critical in optimising the use of our marine resources. Marine spatial planning was viewed as a tool and views were expressed that it must not be regarded as a complete solution for conflict resolution. The need for continuous stakeholder involvement in the design of this tool was regarded as important. Submissions highlighted the need to take account of practices in other jurisdictions. The need to link marine spatial planning with integrated coastal zone management as a continuously evolving overarching framework focusing on long-term sustainable development was regarded as vital.

An effective licensing system was viewed by many submissions as the single most important contribution the public sector can make to the development of the marine sector. Numerous submissions regarded the current licensing systems as a barrier to growth (e.g. foreshore and aquaculture licensing and planning permission). It was felt that such systems must be fit-for-purpose, quick, consistent, efficient and transparent in order to attract investment.

Research, Technology, Knowledge and Innovation

Submissions highlighted that an Integrated Marine Plan must facilitate the focusing of research funding on priority areas for development, while facilitating necessary collaboration between institutions and agencies. Many submissions suggested the establishment of various frameworks and task forces to better focus research activities on the marine sector and the need to develop clusters in the sector in order to attract investment. The need to improve the commercialisation of research was referred to numerous times and HEIs were called upon to concern themselves with this priority, with the aid of state agency support and through strategic partnerships. It was suggested that funding agencies should be better aligned in order to ensure that appropriate funding is allocated to research activities in the marine sector.

Infrastructure

Respondents regarded infrastructure as a key enabler in developing the marine sector. A significant number of submissions highlighted the need for a national strategy on infrastructure for coastal areas as views were expressed that current infrastructure fell below the international standard and constituted a significant barrier to development. Many submissions identified island communities as particularly dependent on such infrastructure development. The need to categorise infrastructure developments according to activity, area, urgency and level of development or maintenance required was regarded as a necessity. The need to identify interdependencies between sectors in relation to infrastructure was also identified. In providing such infrastructure elements, it was suggested that the possibility of public-private partnerships needs to be explored. A number of submissions highlighted INFOMAR (seabed mapping programme) as an example of a successful and important overarching national infrastructure enabling programme.

Maritime Safety, Security and Surveillance

The importance of this enabler in developing the marine sector was considered as significant; as it provides certainty and transparency for potential investors in the sector and is regarded as an essential element of good governance. Submissions identified the need to highlight the role of the Irish Naval Service and the Irish Coast Guard. It was suggested that maritime security aspects of the Integrated Marine Plan would need to be aligned with the EU Integrated Maritime Policy and the future EU Maritime Security Strategy. Some submissions expressed the view that the discussion document did not adequately deal with the issue of marine environmental security. It was recommended that the Naval Service have access to better technology in carrying out surveillance and ensuring maritime security. Suggestions were also made around the sharing of resources with other agencies and organisations.

Capacity, Education, Training & Awareness

Submissions identified the need for more skilled manpower resources and an assessment for future skills in order to harness the potential of the marine sector. Numerous submissions detailed the importance of including marine-related subjects in the curricula at all levels of education. The need for the promotion of career possibilities related to the marine sector was regarded as key in developing the sector. At third-level, it was suggested that HEIs should pursue stronger industry links and improved course offerings to ensure skills requirements of the developing marine sector are met. The need for professional and ongoing training opportunities was highlighted, along with training courses for local coastal communities.

Submissions highlighted the need for our maritime identity to be strengthened and suggested measures such as early stakeholder engagement, public outreach programmes (e.g. 'Sea Week') and encouragement for entrepreneurship within coastal communities so that they have a greater sense of ownership of our maritime resource. Communities were encouraged to become more involved with our marine potential, and be supportive of the development of the sector. Local coastal communities were identified as key players in certain marine sectors; e.g. tourism and leisure. The need to promote engagement with the sea at a recreational level and strengthen our awareness and identity of our ocean wealth was highlighted. It was suggested that this might be fostered through the use of broadcasting, the internet, marine ambassadors, and through the presence of the Irish Naval Service and Coast Guard at maritime events.

Environmental/Ecosystem Protection – Clean – Green – Marine

The preservation of environmental resources to deliver benefits to all and to promote the common good was a recurrent theme throughout submissions. Policy makers were called on to deliver a commitment to sustainable development. It was suggested that environmental protection would be best achieved through proper, effective, adequately resourced, legislative, regulation and licensing frameworks that were effectively enforced and monitored. The need for proper data collection and auditing as well as the use of Environmental Impact Assessments was highlighted. The need to comply fully with EU and International environmental obligations was emphasised.

Balancing environmental protection with economic growth was discussed and calls were made for the private sector to lead the way in sustainable and eco-friendly exploitation and development through environmentally friendly methods and practices. On the issue of licensing and permitting systems to regulate development, it was suggested that the private sector should pay into an environmental contingency fund to support monitoring and policing. Communities were identified as having an important role to play in ensuring environmental standards are maintained. Some submissions felt that monitoring and compliance data in relation to licensing should be made publicly available to ensure transparency in these systems.

Business Development, Marketing and Promotion

A need to promote Ireland as a location for marine sector development in compliance with the highest environmental standards, which is an open and attractive as a place to do business, was identified. The current marketing of Ireland as a green, land-based economy was noted with a desire expressed to expand promotion of Ireland as a 'green and marine' economy. The need for sector specific promotion was highlighted (e.g. Irish seafood, marine and coastal tourism and leisure, and maritime heritage). The need for market and consumer trend data for specific sectors, socio-economic data on the effect of marine sector development, and seabed mapping data and collection were also highlighted as key enablers for business development.

International and North/South Cooperation

It was felt that Ireland should strive for a more robust representation and negotiation strength at EU level. The opportunities associated with the EU Strategy for the Atlantic and in the Irish EU Presidency in 2013 were emphasised. It was suggested that local representatives should be better consulted on Ireland's negotiating position. The CFP was identified as key area for Ireland to focus on in pushing for ambitious reform. There was a disparity in submissions as to the effect EU environmental legislation has on growth and development of the marine sector. The role of the private sector in lobbying for policy changes at EU level was also highlighted through submissions. It was suggested that a stronger cross-border and transnational approach be adopted in relation to governance and development of the marine sector, in order to further harness our growth potential.

Sectors

Shipping, Ports and Services

The contribution of the shipping, ports and services sector was acknowledged as vital in the recovery of Ireland's economy. Submissions identified opportunities for further development of the sector; including the establishment of an international shipping and shipping services hub in Ireland and niche market areas for development (e.g. renewable energy, tourism and leisure, training and support services). The proposed Ports Policy Statement was welcomed and seen as an opportunity to allow for integrated planning so that Ireland's ports will have the capacity to adapt to changing markets. Greater cooperation between responsible government departments and agencies was highlighted as vital for the continuing successful development of the sector, as was a review of planning and foreshore application processes and regimes; marine spatial planning; and appropriate and fit-for-purpose training and education opportunities to meet future skills shortages in the sector.

Marine and Coastal Tourism and Leisure

The current and significant future development potential of the marine and coastal tourism and leisure (sailing and cruising, other water sports, angling, coastal walking and cycling) was highlighted by a significant number of submissions. The importance of the sector to rural coastal and island communities, especially on the West Coast, was referred to by many respondents, with a particular focus on the maritime heritage of such areas. Fragmentation between the various responsible departments and agencies was viewed by some as a barrier to future development. It was suggested a national strategy with a local focus could help overcome this. Other key issues highlighted included: a need for integrated planning to resolve potential conflicts with other sectors; a simplified planning and licensing regime; appropriate training and enterprise development opportunities; the provision of adequate infrastructure; and a healthy marine environment protected by fit-for-purpose legislation and regulation.

Seafood (Fisheries, Aquaculture, Processing)

Overall, the enormous potential for the seafood sector was highlighted in the many submissions received.

Seafood Processing

The opportunities provided by the Irish seafood processing sector were highlighted, with a general feeling that the sector understood the challenges, opportunities and the need to contribute to employment. It was suggested that the sector was aware of the need to meet the demands contained in a reform of the CFP. Submissions highlighted recent efforts to develop a growth strategy, aiming to add value to the sector by branding Irish produce at home and abroad. An important link between the seafood sector and marine and coastal tourism was identified in many submissions. In relation to seafood processing, it was suggested that environmental protection must become a key element. The area of high value-added seafood processing and organic production was regarded as an important potential growth area. It was suggested that the level of research and development should be increased in the sector through support from state agencies. Tailored training courses and business development assistance were also regarded as necessary.

Fisheries

It was suggested that greater stakeholder engagement is required in the fisheries management process, with submissions highlighting the need for better representation at European level to pursue an ambitious reform of the CFP that reflect Irish interests. The need to return ownership of our fisheries resources to local communities, or national bodies, to sustain the sector and the well-being of such communities was identified. The need for adequate infrastructure in certain locations to support the fisheries sector was highlighted, as was the need to allocate greater research resources to the investigation of stock levels and conservation tools. Submissions discussed the need to regard environmental protection as an enabler, rather than an inhibitor, of growth. Finally, it was suggested that a ban on commercial fishing of sea bass be maintained in order to sustain the contribution of angling to the economy.

Aquaculture

The areas of fish and shellfish farming were highlighted as key areas of potential growth that could generate large-scale employment opportunities. However, some submissions suggested there was a low value and low-level nature of employment opportunities associated with aquaculture. Growth in this sector was identified as potentially creating growth in other sectors (e.g. vessel building and support services). Serious barriers to growth were identified, including; the lack of strong government intent; the need for a more efficient licensing process; the lack of public assistance (including financial supports) for start-up businesses; and a focussed research effort. The export potential of Irish aquaculture produce was viewed as significant, provided the right promotion and branding was in place—i.e. high-quality sustainable seafood. Balancing the views on the development potential of the sector were concerns over the potential environmental interaction/impacts of aquaculture (e.g. disease, wild fish interactions); the need for adequate monitoring to ensure compliance with environmental regulations; and the need to consider the balance/interaction with other sectors.

Marine Renewables

Many submissions focused on the significant potential for Ireland in the marine renewable energy (wave, wind and tidal) sector and highlighted that development could offer export potential and long-term direct and indirect economic benefit and contribute to Ireland's energy security, renewable energy policy and CO₂ reduction targets. The submissions outlined what was needed in order to develop this potential:

- A clear recognition by government of the opportunity as a national priority for development;
- Publication of the Offshore Renewable Energy Development Programme, together with a focused and clear implementation plan;
- An appropriate, clear and stable policy framework to create an attractive and secure place for investment and to confirm (internationally) that Ireland is "open for business"; and
- Adequate enabling legislation, effective planning procedures, stable tariff/fiscal regimes, appropriate enterprise development opportunities, physical infrastructure (including grid interconnectors, port facilities, seabed mapping and energy storage facilities) and incentives for investment.

Submissions pointed to the critical need to ensure environmental protection and to involve local communities and stakeholders, and relevant government departments and agencies in the process of any development. Submissions highlighted the contribution the higher education sector can make to development of the sector (e.g. research expertise, targeted courses) and the need to provide continued research support.

Offshore Oil and Gas

Many submissions highlighted the importance of offshore oil and gas to our energy supply and economic growth. There were, however, mixed views expressed on the indigenous employment opportunities and revenue return to the exchequer that oil and gas developments can deliver. The associated risks and potential negative impacts on the marine environment and coastal communities were emphasised. Differing views were expressed as to the extent to which the state should engage in promoting (via the development agencies) and developing Ireland's offshore potential, with some suggestions that the state should partner with E&P companies. The need for a robust, stable and effective regulatory regime to attract investment, demonstrate stability and ensure protection of the marine environment was seen as vital.

Marine ICT

The potential of this sector to contribute to economic growth by servicing markets for Marine ICT products and services to support/enable sectors such as shipping and port services, renewable energy, oil and gas, and aquaculture, and to marine environmental monitoring/regulation was emphasised. The development of a Marine ICT cluster in Ireland was viewed as a key to realising this potential, building on existing research capacity and test and demonstration infrastructure (e.g. SmartBay, IMERC).

Marine Biotechnology/Functional Foods/Seaweed

Submissions highlighted the potential from sustainably and innovatively exploiting our marine biological resources for high-value products and processes. Biotechnology, functional foods and seaweed were recognised as key areas for development in this regard. Building on the recent investments in research, knowledge and innovation was regarded as a key to realising the opportunities in the sector. Support for the development of seaweed aquaculture and the resolution of licensing issues for seaweed aquaculture and wild harvesting were considered vital.

Ocean Mining and Gas Hydrates

A small number of submissions addressed ocean mining and gas hydrates, highlighting the size of the market and the potential of the sector. It was suggested that existing patented technology could be put to use in extracting minerals, metals and gas hydrates from offshore Ireland. The need to invest in a skilled workforce and associated research to take advantage of this potential was noted.

Conclusion

Many of the submissions to the consultation agreed that an Integrated Marine Plan is needed to harness our ocean wealth, get the environment right for investment and use the potential of our marine economy to create jobs in a sustainable manner. A more detailed report on the feedback from the consultation (Our Ocean Wealth; Your Views) is available at www.ouroceanwealth.ie

Our Ocean Wealth:

Annexes



Annex I:

Progress and Commitments in relation to the Ten Guiding Principles of an Integrated Marine Plan – An Initial Self Evaluation

Principles	Progress and Commitments To-date
1. Inclusive stakeholder participation	<ul style="list-style-type: none"> • <i>The Our Ocean Wealth – Seeking Your Views Public Consultation</i> • Commitment to Annual Review of Progress to commence in 2014 with feedback to Stakeholders • Ongoing consultation and participation in current and future policy and plans (international, national, regional and local)
2. High-level government leadership with clear accountability	<ul style="list-style-type: none"> • The Marine Co-ordination Group chaired by the Minister for AFM and convened by Department of the Taoiseach • IMP – Commitment to Annual Review of Progress with feedback to Stakeholders
3. A policy and legal framework that provides clear direction	<ul style="list-style-type: none"> • <i>Harnessing Our Ocean Wealth – The IMP for Ireland Roadmap</i> • Ongoing evolution of integrated policy and planning • Planned new legislation and a review of further legislative changes that may be required to support a national maritime spatial plan (See Action 2)
4. Comprehensive goals with measurable targets	<ul style="list-style-type: none"> • Vision, Goals and Actions developed • Targets identified – double the value of our ocean wealth to 2.4% GDP by 2030 and exceed €6.4bn in annual turnover by 2020
5. Effective strategies for achieving goals and targets	<ul style="list-style-type: none"> • Early Actions for a 2012–2014 Roadmap identified • IMP Implementation Roadmap developed • Sectoral policies and plans developed (e.g. seafood) or in prep (e.g. marine and coastal tourism)
6. Regular progress monitoring and evaluation	<ul style="list-style-type: none"> • Annual Review of Progress to commence in 2014 which includes a review of the Roadmap • Regular updates to MCG
7. Adaptive management to access relationships between management actions and outcomes and modify plans as required	<ul style="list-style-type: none"> • Annual Review Process will include development of new Roadmap
8. Adequate scientific information	<ul style="list-style-type: none"> • Use available scientific information • Look at existing scientific data sets in a new way

Principles	Progress and Commitments To-date
<p>9. Adaptive plans to take account of the unique characteristics of the context</p>	<ul style="list-style-type: none"> • The IMP gives high-level guidance on policies, strategies and plans • Regional and local marine plans need to be developed that are area specific • Define the scope and objectives of an overarching national maritime spatial plan and recommend an appropriate framework for Ireland through an Enabler Task Force
<p>10. Integration of spatial, jurisdictional and sectoral dimensions.</p>	<ul style="list-style-type: none"> • Define the scope and objectives of an overarching national maritime spatial plan and recommend an appropriate framework for Ireland through an Enabler Task Force

Annex II:

Glossary of Acronyms and Terms

AFM	Agriculture, Food and the Marine
BIM	Bord Iascaigh Mhara
CFP	Common Fisheries Policy
CISE	Common Information Sharing Environment
DAFM	Department of Agriculture, Food and the Marine
DAHG	Department of Arts, Heritage and the Gaeltacht
DCENR	Department of Communications, Energy and Natural Resources
DECLG	Department of the Environment, Community and Local Government
DES	Department of Education and Skills
DFA	Department of Foreign Affairs
DJEI	Department of Jobs, Enterprise and Innovation
DoD	Department of Defence
DPER	Department of Public Expenditure and Reform
DTF	Development Task Force
DTTAS	Department of Transport, Tourism and Sport
E&P	Exploration and Production
ECV	Essential Climate Variables
EDA	European Defence Agency
EI	Enterprise Ireland
EMODNET	European Marine Observation and Data Network
EPA	Environmental Protection Agency
ERA-NETS	European Research Area Networks
ETF	Enablers Task Force
EU	European Union
EU DG MARE	European Commission's Directorate-General for Maritime Affairs and Fisheries
EUSA	European Union Strategy for the Atlantic
FAO	Food and Agriculture Organization (of the United Nations)
FDI	Foreign Direct Investment
FI	Fáilte Ireland
FTE	Full Time Equivalent
GCOS	Global Climate Observing System
GDP	Gross Domestic Product
GIS	Geographic Information System
GSI	Geological Survey of Ireland
GVA	Gross Value Added
HEI	Higher Education Institution

ICPSS	Irish Coastal Protection Strategy Study
ICT	Information and Communications Technology
IMDO	Irish Maritime Development Office
IMERC	Irish Maritime and Energy Resource Cluster
IMO	International Maritime Organization
IMP	Integrated Marine Plan
INFOMAR	INtegrated mapping FOr the sustainable development of Ireland's MArine Resource
INSPIRE Directive	Infrastructure for Spatial Information in the European Community
INSS	Irish National Seabed Survey
JPI	Joint Programming Initiatives
LA	Local Authority
MARSUR	Maritime Surveillance
MCG	Inter-Departmental Marine Co-ordination Group
MI	Marine Institute
MSC	Marine Stewardship Council
MSFD	Marine Strategy Framework Directive
MSP	Maritime Spatial Planning
Natura 2000	EU wide network of nature protection areas established under the 1992 Habitats Directive comprising of Special Areas of Conservation (SACs) designated by Member States under the Habitats Directive, and also incorporates Special Protection Areas (SPAs) designated under the 1979 Birds Directive.
NGO	Non-Governmental Organisation
NMCI	National Maritime College of Ireland
NS	Naval Service
OPW	Office of Public Works
R&D	Research and Development
R&I	Research and Innovation
ROV	Remotely Operated Vehicle
RTDI	Research, Technology, Development and Innovation
SAC	Special Area of Conservation
SEMURU	Socio-Economic Marine Research Unit
SMART	Strategic Marine Alliance for Research and Training
SME	Small and Medium Enterprise
STI	Science, Technology & Innovation
TEV	Total Economic Value
UNFCCC	UN Framework Convention on Climate Change

OUR VISION

Our ocean wealth will be a key element of our economic recovery and sustainable growth, generating benefits for all our citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner.

Further Information:
www.ouroceanwealth.ie

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