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Towards an Integrated Policy Framework for Maritime Spatial Planning in Ireland: Recommendations for Preparing Maritime Spatial Plans in Ireland

Authors: Conor Norton, Jerry Barnes, Wesley Flannery, Deiric O'Broin, Cillian Adamson, Sybil Berne

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EPA Research Programme 2014–2020

Recommendations for Preparing Maritime Spatial Plans in Ireland

(2014-SE-DS-1)

EPA Synthesis Report

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Prepared for the Environmental Protection Agency

by

Dublin Institute of Technology and MacCabe Durney Barnes

Authors:

Conor Norton, Jerry Barnes, Deiric O'Broin, Wesley Flannery, Cillian Adamson and Sybil Berne

ENVIRONMENTAL PROTECTION AGENCY
An Ghníomhaireacht um Chaomhnú Comhshaoil
PO Box 3000, Johnstown Castle, Co. Wexford, Ireland

Telephone: +353 53 916 0600 Fax: +353 53 916 0699
Email: info@epa.ie Website: www.epa.ie

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Project Partners

Conor Norton
Dublin Institute of Technology
School of Transport Engineering, Environment and Planning
College of Engineering and the Built Environment
Bolton Street
Dublin 1
Tel: +353-1-402-3709
Email: conor.norton@dit.ie

Jerry Barnes
MacCabe Durney Barnes
20 Fitzwilliam Place
Dublin 2
Tel: +353-1-676-2594
Email: jbarnes@mdb.ie

Dr Wesley Flannery
School of Planning, Architecture and Civil Engineering
Queen's University Belfast
David Keir Building
39 Stranmillis Road
Belfast BT9 5AG
United Kingdom
Tel: +44(0)2890 973091
Email: w.flannery@qub.ac.uk

Dr Deiric O'Broin
School of Transport Engineering Environment and Planning
Dublin Institute of Technology
Bolton Street, Dublin 1
Tel: +353-1-402-3742
Email: deiric.obroin@dit.ie

Sybil Berne
MacCabe Durney Barnes
20 Fitzwilliam Place
Dublin 2
Tel: +353-1-676-2594
Email: sberne@mdb.ie

Cillian Adamson
Dublin Institute of Technology
School of Transport Engineering, Environment and Planning
College of Engineering and the Built Environment
Bolton Street
Dublin 1

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Executive Summary

The use of Irish maritime space is increasing. As maritime activities intensify, there is increased competition for use of space and potential conflicts with other objectives such as the protection of the marine environment. Addressing governance issues and resolving conflicts between different stakeholders are increasingly important. There is a need for a holistic vision and management to allow for the balance of social, economic and environmental interests and to ensure that maritime space and resources are used in a planned and sustainable manner.

Maritime Spatial Planning Themes

Maritime spatial planning (MSP) is a process by which state authorities analyse and organise human activities in marine areas to achieve ecological, economic and social objectives. It is the subject of the Maritime Spatial Planning Directive (2014/EC/89). The directive has to be transposed by September 2016 and maritime spatial plans have to be in place by 31 March 2021. Arising from the literature review, the requirements of the directive, international best practice and stakeholder feedback, a number of key themes were identified for the project. These were to:

- promote the environmental, economic and social pillars of sustainable development;
- apply an ecosystem-based approach;
- address land–sea interactions;
- ensure coherence between MSP and other processes;
- promote the involvement of stakeholders;
- ensure the best use of available data;
- facilitate transboundary co-operation.

A number of assumptions were made in framing the approach to preparing maritime spatial plans. These assumptions related to the extent of the maritime area, the scope of the plans, the hierarchy, relevant competent authorities, consultation and transboundary co-operation.

Recommendations

The results of this research suggest that a staged integrated approach be adopted for the preparation of maritime spatial plans in Ireland. The staged approach is recommended as it ensures that a rational and consistent process is applied to the spatial plan-making processes. This approach ensures that there is a full understanding of the maritime environment and issues, allows for appropriate objective-setting and strategy development, provides a framework for drafting the plan and resolving conflicts, and allows for adoption and monitoring. As spatial planning is an ongoing process within plan-making cycles, there is a review process that allows for revision and updating. Integration of plan-making, environmental assessment and consultation promotes broader acceptance by stakeholders, ensures a legally robust plan and effectively integrates environmental considerations and the ecosystem-based approach into plan preparation.

The recommendations are designed to fit in with the Irish plan-making tradition and are informed by existing guidance. A series of case studies provided examples of best practice in relation to the various stages of the process. The approach follows from the establishment of the governance, reporting relationships, steering committee, project team, relevant advisory panel, stakeholder panel and all statutory requirements identified during the initial project management set-up phase. The stages are structured as follows:

- stage 1: understanding the marine environment;
- stage 2: vision, objectives and preferred strategy;
- stage 3: drafting the plan;
- stage 4: adopting, implementing and monitoring.

1 Introduction

1.1 Background and Project Objectives

The use of Ireland's marine waters gives rise to potential conflicts and competition for maritime space, both between different users and with the preservation of the marine environment. There is a need to promote the use of Ireland's maritime resources in such a way that ensures that the capacity of marine ecosystems to respond to human-induced changes is not compromised, while contributing to the social, economic and sustainable use of marine goods and services by present and future generations. Maritime spatial planning (MSP) provides a framework for the management of uses in the context of intensifying economic activities in Irish marine waters. MSP encourages investment in sustainable development, while securing preservation of the marine environment.

Currently, Ireland has a complex marine governance framework, which results from layered legislative and administrative systems at international, European and national levels. This is a challenge for the integrated and sustainable planning and management of the Irish marine environment.

The adopted Maritime Spatial Planning (MSP Directive) (EC, 2014) identifies MSP as a "… cross-cutting tool enabling public authorities and stakeholders to apply a coordinated, integrated and transboundary approach. The application of an ecosystem-based approach will contribute to promoting the sustainable development and growth of the maritime and coastal economies and the sustainable use of marine and coastal resources." Prior to the adoption of the MSP Directive, *Harnessing Our Ocean Wealth* (Inter-department Marine Coordination Group, 2012), which was adopted by the Irish Government in 2012 (DAFM, 2012), recognised the role that MSP could play in providing integrated decision-making across different sectors in a spatial framework.

The Dublin Institute of Technology and MacCabe Durney Barnes were commissioned under the Environmental Protection Agency's (EPA) Research Programme 2014–2020 to undertake a research project entitled *Towards an Integrated Policy Framework for Maritime Spatial Planning in Ireland.*

The overall aim of the project was:

> To inform the development of an integrated policy framework for MSP in Ireland.

The project had six objectives:

- objective 1: to establish the state of knowledge and main issues, both nationally and internationally;
- objective 2: to isolate and learn from successes and failures in integrated marine management policy frameworks in Ireland and internationally;
- objective 3: to identify key concerns and challenges in this area, with key stakeholders and policymakers;
- objective 4: to establish the role and potential of different approaches to MSP and related policy in Ireland;
- objective 5: to set out the priorities and elements of an effective framework for integrated policy for MSP in Ireland through recommendations on the preparation of maritime spatial plans;
- objective 6: to maximise the impact of the research on policymaking, plan-making, decision-making and public interest domains.

1.2 Purpose and Scope of this Report

The purpose of this synthesis report is to provide the key findings and recommendations of the research to inform good practice in the preparation of maritime spatial plans in Ireland, as defined in objective 5 of the project. A full final project report has been prepared, which fully outlines the methodology, stages and conclusions of the project. The end of project final report can be downloaded from the EPA's Safer Repository.[1]

While the recommendations in this report were drafted prior to full transposition of the MSP Directive, they indicate an approach that may be taken in the preparation of plans under the terms of the directive, which is consistent with best practice. It has made certain assumptions in relation to the overall MSP framework. The report aims to assist those responsible for preparing the plans and inform other stakeholders

1 Available for download online: http://erc.epa.ie/safer/reports

(e.g. coastal communities, maritime sectors, non-governmental organisations (NGOs), government bodies, prescribed bodies and local authorities) about a possible approach in relation to their appropriate inputs and roles in the process. As it is likely that a national maritime spatial plan will be the first plan to be prepared under the MSP Directive, it is anticipated that this report will be used to inform the preparation of plans at this level within the planning hierarchy in the first instance. However, the principles outlined in the staged approach can be equally applied to sub-national maritime plans or coastal plans, although the technical scope and detail would differ.

This document presents and recommends an integrated approach to the preparation of maritime spatial plans, having regard to the requirements of the Strategic Environmental Assessment (SEA) Directive (EC, 2001), the appropriate assessment (AA) requirements under the Habitats Directive (EC, 1992) and the Birds Directive (EC, 2009a), the public consultation requirements under the Public Participation Directive (EC, 2003) and the Aarhus Convention (UNECE, 1998), and Ireland's legal and administrative systems.

The core objectives of the recommendations are to:

- set out the essential context of MSP;
- identify the key issues in the preparation of maritime spatial plans in Ireland;
- present a robust overall process that can integrate the processes of plan-making, SEA, AA and consultation;
- detail key stages in the process, with reference to good practice in the area.

1.3 Methodology

The methodology adopted in the project includes the following:

- establishing a high-level steering group and precisely defining the scope of the project;
- reviewing relevant legislation, policy and literature;
- engaging with stakeholders through face-to-face interviews and hosting a stakeholder workshop;
- constructing case studies of good practice in MSP of relevance to the stage-by-stage approach;
- producing a synthesis of findings and a set of recommendations (this report).

Full details of the methodology are provided in the end of project final report.

1.4 Definitions

The following are key definitions for the document:

- **Maritime spatial planning** is a process by which competent state authorities analyse and organise human activities in marine areas to achieve ecological, economic and social objectives.[2]
- **Sustainable development** is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.[3]
- **An ecosystem-based approach** is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.[4]

1.5 How to Use this Document

This document provides a reference for existing information and a "sign-post" to good practice in preparing maritime spatial plans. It should be noted that this document does not constitute a legal interpretation of the MSP Directive or other legislative instruments.

Structure of document

- Chapter 1: Purpose and scope;
- Chapter 2: Context for MSP including policy, European Union (EU) directives, legislation, international experience and key themes;
- Chapter 3: Key considerations for MSP in Ireland;
- Chapter 4: Overall process for preparing plans for the marine area;
- Chapter 5: Stage-by-stage approach;
- References;
- Appendices: relevant guidance, MSP provisions and Marine Strategy Framework Directive (MSFD) descriptors (EC, 2008b).

2 Derived from the MSP Directive (EC, 2014).

3 Derived from Brundtland Report (UN, 1987).

4 Derived from the *Convention on Biological Diversity* (UN, 1992).

2 Context for Maritime Spatial Planning

2.1 European Union Framework

2.1.1 European policy

The overarching framework is provided by the Integrated Maritime Policy (IMP) for the EU (EC, 2007). The IMP promotes integrated management as a means of addressing the difficulties that arise from competing uses in the marine environment. It regards MSP as a fundamental tool for the sustainable development of marine areas and coastal regions in the EU. The IMP also acknowledges that an integrated maritime governance framework requires planning tools, such as MSP, that can support integrated policymaking across maritime sectors and it stresses the need for co-operation on a regional basis. The *Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU* (EC, 2008a) states that MSP is a key instrument for the IMP, providing authorities and stakeholders with a means to co-ordinate their actions and to optimise the use of marine space to benefit economic development and the marine environment.

Other relevant policies include *The Europe 2020 Strategy* (EC, 2012a) and the related Commission communication entitled *Blue Growth: Opportunities for Marine and Maritime Sustainable Growth* (EC, 2012b), which acknowledges the role of MSP in supporting smart, sustainable and inclusive growth. The Common Fisheries Policy (CFP), which was first introduced in the 1970s and reformed in 2014, outlines important maritime policies in relation to fisheries. The need for spatial planning is also acknowledged by the European Commission (EC) in *A Strategy for the Sustainable Development of European Aquaculture* (EC, 2002a). The *Developing a Maritime Strategy for the Atlantic Ocean Area* (EC, 2011a) seeks to unlock the untapped potential for growth in its blue economy while safeguarding biodiversity and protecting the environment. France, Ireland, Portugal, Spain and the United Kingdom are the Member States covered by the policy. The policy has been followed by an action plan (EC, 2013a), which aims to revitalise the marine and maritime economy in the Atlantic Ocean area.

2.1.2 European Union directives

EU directives provide the legal framework for the Member States in relation to environmental and sectoral issues. Member States are legally obliged to transpose these directives into national legislation, which is usually done through a combination of primary and secondary legislation.

The MSP Directive provides the legislative framework for MSP and was adopted on the 23 July 2014. Its key provisions include:

- promotion of sustainable development, utilisation of maritime space for different sea uses and management of spatial uses in marine areas;
- adoption of an ecosystem-based approach to allow for an adaptive management in light of further development as experience and knowledge in this area increase;
- facilitation of a transboundary approach by Member States and stakeholders;
- definition of the geographical scope for MSP in conformity with existing legislative instruments of the Union and international maritime law;
- the transposition and implementation of the directive having regard to existing national, regional and local rules and mechanisms;
- application by the Member States of the precautionary principle and the principle of preventative action;
- having regard to land–sea interactions.

Importantly, the MSP Directive does not interfere with Member States' competence for town and country planning, including any terrestrial or land spatial planning system used to plan how land and coastal zones should be used. The directive requires that stakeholders, authorities and the public are consulted at the appropriate stages. Member States are also required to make use of the best available data and information by encouraging the relevant stakeholders to share information. Appendix 2 summarises the articles of the directive and identifies where they are considered in this report.

Other relevant directives include the Marine Strategy Framework Directive (MSFD), which aims to achieve "good environmental status of marine waters" by 2020. It applies the ecosystem-based approach. Implementation of the MSF Directive requires the development of specific tools (including MSP) that can support an ecosystem-based approach to marine management in order to achieve good environmental status (GES). The SEA Directive[5] requires an environmental assessment for plans and programmes, which set the framework for future development consent for projects listed in the Environmental Impact Assessment (EIA) Directive (EC, 2011a). The Habitats Directive and the Birds Directive seek to maintain and, where necessary, restore the favourable conservation status of designated European sites and species throughout Member States. An AA of the likely significant effects of a plan or programme on a European site is required under these directives. The Renewable Energy Directive (RED) (EC, 2009b) makes a commitment to effective energy. The Water Framework Directive (WFD) (EC, 2000) requires "good ecological and good chemical status" for inland and coastal waters by 2015.

2.2 Irish Framework

2.2.1 Irish maritime policy

Harnessing our Ocean Wealth – an Integrated Plan for Ireland (HOOW) (Inter-Departmental Marine Coordination Group, 2012) sets out 39 actions and an implementation model, which includes a number of integrated government delivery mechanisms aimed at supporting an integrated system of policy and programme planning for marine affairs. The plan also sets out a series of early actions that will form the basis of a 2012–2014 roadmap. The plan's vision highlights the economic benefits of developing marine resources in a planned and co-ordinated manner. Three high-level goals are established: to promote a maritime economy, to achieve healthy ecosystems, and to enhance maritime identity and engagement with the sea.

The *Enablers Task Force on Marine Spatial Planning – Report to the Inter-Departmental Marine Coordination Group* (ETF, 2015) was produced in response to a governance action included in HOOW. It addresses the spatial scope, governance, data management, relationships with consenting systems, integration with terrestrial planning and coastal management, public consultation, environmental protection, plan-making processes, transboundary issues and the institutional capacity required to deliver MSP in Ireland.

Other policy of relevance to MSP in Ireland includes *The 2013 National Ports Policy (*DOTTS, 2013), which outlines government policy in relation to a wide range of issues relating to the commercial development of the ports. *Actions for Biodiversity 2011–2016: The National Biodiversity Plan 2011–2016* (DAHG, 2011) seeks to preserve and enhance the biodiversity using the ecosystem-based approach. *Food Harvest 2020*: *A Vision for Irish Agri-Food and Fisheries* (DAFF, 2010) aims to develop the agri-food and fisheries industries. *The Offshore Renewable Energy Development Plan* (DCENR, 2014) is also relevant and notable in that it considers the development potential for offshore wind, tidal and wave development.

2.2.2 Irish MSP legislative framework

Ireland does not currently have an integrated regulatory system for MSP in place. Development of the foreshore is governed by the Foreshore Act 1933, as amended. The Planning and Development Act 2000, as amended, governs only the terrestrial area, generally up to the high water mark. A *General Scheme for a Maritime Area and Foreshore (Amendment) Bill* was published in 2013 (DECLG, 2013a). The aims of the scheme are to align the foreshore and terrestrial planning consent systems and provide for a single EIA assessment of strategic infrastructure projects. It is envisaged that An Bord Pleanála will be the single consenting authority for such strategic infrastructure development, thus reducing duplication and potential issues associated with split authority. In addition, the scheme sets out a coherent mechanism to manage development in the Exclusive Economic Zone (EEZ) and on the continental shelf. It is proposed to define in Irish law an Irish Maritime Area, which would encompass the foreshore, the EEZ and designated parts of the continental shelf.

5 The SEA Directive was transposed into Irish planning legislation under the EC (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 to 2011 and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 to 2011.

2.3 International Experience

A Review of Marine Spatial Planning Best Practice of Relevance to Ireland (Flannery, 2015) was undertaken for the HOOW Enablers Task Force. The following plans and projects were reviewed for this report: BaltSeaPlan; Canada's Eastern Scotian Shelf Integrated Management (ESSIM) Initiative; the German plan for the North Sea; the Great Barrier Reef Marine Park plan; the Norwegian plan for the Barents Sea-Lofoten area; Scottish pilot projects; the Netherland's Policy Document for the North Sea; plans for marine areas for England [Marine Management Organisation (MMO)]. The main findings of the best practice review in relation to plan-making stages are summarised in the end of project final report.

2.4 Workshops and Stakeholder Interviews

A workshop and a series of face-to-face interviews were undertaken as part of the project in order to gain an insight into the key themes and issues for MSP in Ireland. These have informed the framing of this synthesis report. A detailed account of the findings from this process can be found in the end of project final report.

2.5 Key Themes for Maritime Spatial Planning

As part of this project, a critical review of the MSP literature relating to key MSP thematic areas of the MSP Directive was undertaken. The key themes emerging from this review by the authors are outlined below.

To promote the environmental, economic and social pillars of sustainable development, MSP should:

- build on the MSFD process;
- include the analysis of sectoral trends and interactions;
- map these interactions;
- seek to balance each of the three pillars.

To apply an ecosystem-based approach, MSP processes should:

- highlight interactions between social and ecological systems at relevant spatial and temporal scales;
- clearly define what an ecosystem-based approach will mean in practice in the Irish context;
- emphasise the ecosystem-based approach in the objective setting phase and through the plan development stage, and be fully incorporated into implementation strategies;
- be based on best available science;
- pay attention to the social and economic aspects, as well as ecological data.

To focus on land–sea interactions:

- Plan-making processes must be developed for land–sea integration, for example including non-statutory Integrated Coastal Zone Management (ICZM), or co-ordination of terrestrial and maritime spatial plans.
- MSP processes must ensure regular exchange of information between terrestrial and marine planners.
- MSP processes must allow for the participation of both terrestrial and marine stakeholders.

To ensure coherence between MSP and other processes, Ireland should adopt:

- an integrated approach that pays attention to both vertical and horizontal co-ordination;
- governance measures that will facilitate organisational and territorial co-ordination.

To ensure the involvement of stakeholders, MSP processes should:

- identify and meaningfully include stakeholders at an early stage in the planning process;
- utilise participation mechanisms that encourage dialogue and interaction between stakeholder groups;
- be cognisant of power and resource imbalances and work with groups that are vital but ill-equipped to participate in a meaningful manner.

To ensure the best use of available data, MSP should:

- build on existing datasets;
- where possible, spatialise data;
- adopt the precautionary principle where data are lacking.

To facilitate transboundary co-operation:

- It should not be assumed that neighbouring countries agree on marine boundaries; these should be clarified during the process.
- It may be easier to achieve transboundary agreement on high-level, strategic objectives and it may be necessary to develop sub-national plans for boundary marine areas (e.g. shared loughs).
- Transboundary working groups should be established to harmonise data to be shared and to ensure close working by neighbouring states.

3 Maritime Spatial Plans for Ireland

3.1 Legal Requirements and Governance

3.1.1 Transposing the MSP Directive

While the principal focus of this research is not to determine how the directive should be transposed, but rather to advise on how maritime spatial plans can be prepared, the research team is of the opinion that any new governance systems, such as MSP, should be brought into force through primary legislation. The introduction of new legal systems and structures should be subject to full scrutiny by the Oireachtas and may require amendments to other acts (e.g. in relation to the link with licensing and consents of projects and activities).

3.1.2 Competent authorities and decision-making

Article 13 of the MSP Directive requires the designation of a competent authority or authorities for the purpose of implementing the directive. Recommendations 20 to 26 of the Enablers Task Force Report (ETF, 2015) state that there should be a lead minister for MSP and that an existing department or public agency should be charged with preparing the plan or plans. If responsibilities are assigned to a particular agency, that agency should establish an MSP body that would report to the minister. Ultimately, the designated competent authority or authorities should have the relevant skills, expertise and institutional capacity to fulfil its remit. The Department of Environment, Community and Local Government (DECLG) has been tasked with transposing the directive and overseeing the introduction of MSP for Ireland. Feedback from interviews carried out as part of this project showed that stakeholders considered the DECLG, supported by the Marine Institute, to be well-positioned to lead in preparing the plans. Other entities considered for the plan-making function were local authorities and regional assemblies, but issues were raised over whether they would have the required skills for the preparation of plans and how they would be adopted through the respective councils and/or regional assemblies. However, councils and regional assemblies could have a role in preparing local coastal, bay or ICZM plans.

Competent authorities must have, or acquire, the relevant competences. Fundamentally, spatial planning seeks to *resolve* conflicts, seek synergies and opportunities, and mediate a sustainable future. The key professional competences require spatial planners (preferably marine spatial planners), geographic information system (GIS) and data experts, and environmental scientists and socio-economic experts skilled at preparing spatial plans and undertaking the relevant assessments. Expertise in public consultation and engagement is also key. Figure 3.1 illustrates a corporate governance structure for MSP as suggested by the Enablers Task Force.

Decision-making structures will be determined by the nature and status of the competent authority. The general principles of transparency, accountability, equity and efficiency should apply in the decision-making process. Ultimately, a national maritime plan should be formally adopted by the Government[6] and may be brought to Cabinet and laid before the Oireachtas by the lead minister. For sub-national maritime plans and other more localised plans, it should not necessarily be a requirement for the Government to adopt the plan, but the adoption process should be clear. It is important that the process of adoption is clearly defined to avoid a scenario where a draft plan is left unadopted and its status as a framework for assessing projects and activities is uncertain.

3.1.3 Public consultation and participation

Article 9 of the MSP Directive outlines basic requirements in relation to public consultation in the preparation of plans. Recommendations 12 and 13 of the Enablers Task Force Report relate to early and meaningful participation by stakeholders and by the public (ETF, 2015). The MSP lead department should review international best practice in relation to promoting public participation. The Planning Policy Statement (DECLG, 2015) emphasises that public participation should be facilitated at every stage in the plan-making process.

6 Enablers Task Force Recommendation 21 (ETF, 2015).

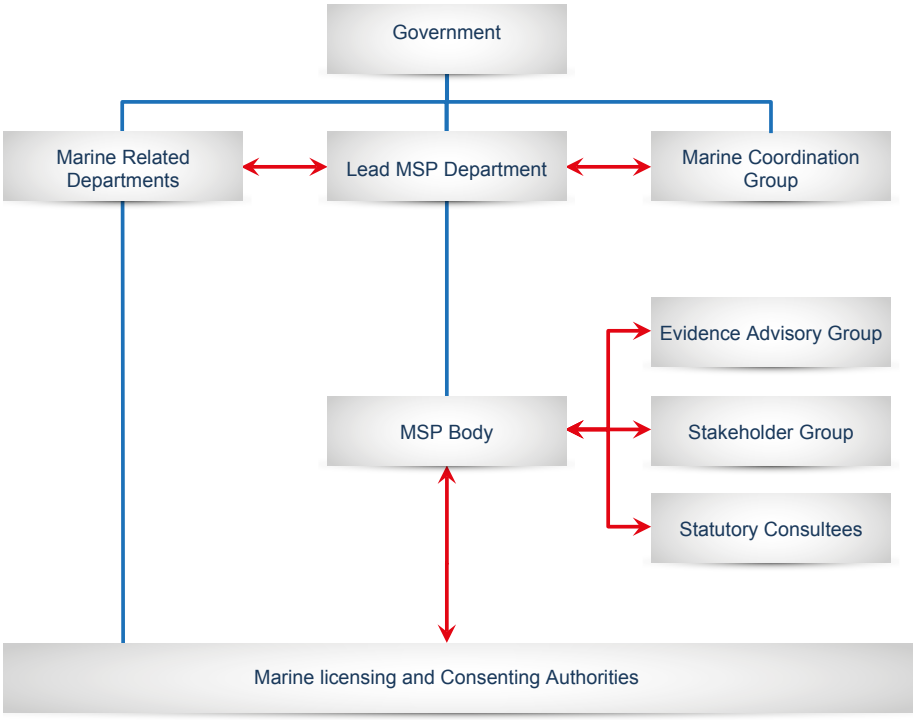


Figure 3.1. Suggested MSP governance structure (source: ETF, 2015).

3.1.4 Co-ordination with other Member States

The SEA, Habitats, Birds and MSFD Directives currently require co-ordination and consultation with adjoining Member States. Article 11 of the MSP Directive requires co-operation between Member States to ensure coherence and co-ordination across the marine region concerned. Ireland's marine waters fall within the Celtic Seas Region. The United Kingdom (UK) is the only other Member State whose marine waters border Ireland's. However, different jurisdictional and planning regimes apply to the constituent nations of the UK (i.e. England, Scotland, Wales and Northern Ireland). Article 11(2) of the MSP Directive indicates that such co-ordination may be pursued through existing co-operation mechanisms. The British Irish Council[7] is an appropriate national level mechanism that could be utilised. Informal bilateral co-operation with the Northern Ireland Department of the Environment, the Welsh National Assembly, the Department of the Environment, Food and Rural Affairs (DEFRA) in England (responsibility delegated to MMO) and the Scottish Government (responsibility delegated to Marine Scotland) will also have an important role. Other mechanisms include the Atlantic Arc Commission set up under the Conference of Peripheral Maritime Regions.

3.1.5 Consenting and licensing

The MSP Directive does not refer directly to procedures relating to consenting and licensing of individual projects. However, in many instances it may provide the framework for the assessment of marine-related projects and activities. Marine-related consents are issued under:

- the Foreshore Act 1933 (as amended) (Government of Ireland, 1933–2014) for development from the high water mark out to the 12 nautical miles (Nm) from the straight baseline;
- the Planning and Development Act 2000 (Government of Ireland, 2000) for development on the foreshore immediately adjoining the functional area of a local authority;
- the Electricity Regulation Act 1999 (Government of Ireland, 1999);
- the EC (Birds and Natural Habitats) Regulations 2011 for all marine areas;
- the Fisheries Amendment Act 1997 (Government of Ireland, 1997) in respect of aquaculture licensing;

7 The British–Irish Council was established in 1998 and is made up of the representatives of the Irish and British Governments, and the devolved administrations of Northern Ireland, Scotland, Wales, the Isle of Man, Guernsey and Jersey.

- the Gas Act 1976, the Petroleum and Other Minerals Development Act 1960 in relation to oil and gas exploration/exploitation (Government of Ireland, 1960, 1976);
- the Dumping at Sea Act 1996 (Government of Ireland, 1996).

The plans prepared under the MSP Directive are subject to the provisions of the SEA Directive. The SEA Directive is applicable where such a plan provides a framework for the assessment of projects that are listed in Annexes I and II of the EIA Directive. Such licensing proposals should be consistent with and not merely have regard to the relevant maritime spatial plan.[8] This will ensure that the provisions of the maritime spatial plan are actually enforced in the decision-making process for marine projects requiring EIA.

8 The legal term "have regard to" was examined in the *McEvoy* v *Meath County Council* case [2003] 1 I.R. 208 in the context of regional planning guidelines, where it was held that the planning authority must inform itself of, and give reasonable consideration to, any guidelines, with a view to accommodating the objectives of those guidelines. Planning authorities were not bound to comply with the guidelines. As a result of this ruling the Planning and Development Act was amended to replace "have regard to" with "be consistent with".

3.2 Spatial Boundaries and Hierarchy

3.2.1 Irish marine waters and extent of maritime spatial planning for Ireland

Under Article 3(1) of the MSP Directive, "marine waters" relate to those covered by Article 3(1)(a) of the MSFD and coastal waters as defined in Article 2(7) of the WFD. The MSP Directive does not require maritime plans for transitional waters (e.g. inlets, such as the Shannon Estuary), which is defined by Article 2(7) of the WFD. Furthermore, under Article 2(1) the MSP Directive, MSP under the terms of the directive cannot relate to areas covered by Member States' town and country planning systems (e.g. Ireland's Planning and Development Act 2000, as amended), but Member States may provide for an overlap, if they wish. The Enablers Task Force Report recommends that area for MSP should correspond with the area of the EEZ.[9] Figure 3.2 outlines the possible extent of Ireland's marine waters for the purposes of MSP and this accords with the Enablers Task Force Report recommendations (ETF, 2015). The area totals 490,000 km^2.

9 The EEZ boundaries to the north and north-west of Ireland and the Irish Celtic Seas were confirmed following bilateral agreement with the UK and defined in SI No. 86 of 2014.

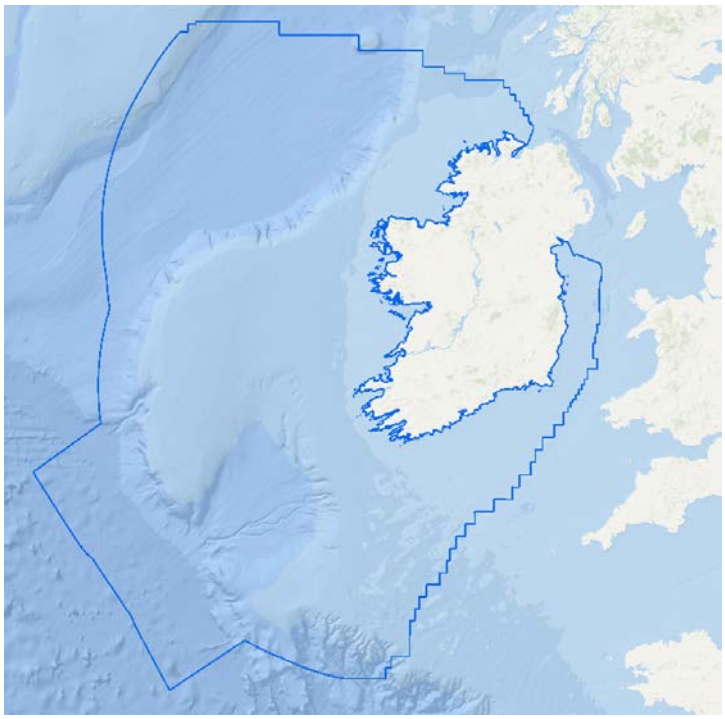


Figure 3.2. MSP area for Ireland [as per consultation draft EU (Framework for MSP) Regulations 2016]. Original data sources: Marine Institute, Esri Ireland, NOAA, National Geographic Survey, DeLorme.

3.2.2 Maritime sub-national regions

The EU has adopted marine regions for European waters. Ireland's marine waters fall within the Celtic Seas sub-region of the North-east Atlantic Ocean region. This region is extensive and includes all Irish marine waters. The EEZs of Britain and France also extend into the Celtic Seas sub-region.

Other jurisdictions with substantial marine areas have provided for MSP at a sub-national level. In the UK for example, the Marine and Coast Access Act 2009 provides for marine regions for inshore and offshore areas of the constituent nations of the UK. In Scotland, a total of 11 marine regions for inshore areas (i.e. within the 12 Nm) have been proposed and will be established by secondary legislation. England has also established a process for identifying maritime sub-national areas (Box 3.1). Other Member States with smaller areas of marine waters (e.g. Belgium and the Netherlands) have not adopted a hierarchical or sub-national approach.

Box 3.1. Case study: marine plan areas in England – developing maritime sub-national areas

Description: using a detailed set of boundaries and public consultation, the MMO defined marine plan areas for England, based on the initial split introduced by the Marine and Coastal Act 2009.

1. A number of steps were undertaken to define the boundaries of the marine regions. Along with practical considerations, the number of marine plans and the contribution to integration, the following existing boundaries were used and overlayed:
   - country boundaries;
   - charting progress regions (regional units monitoring marine water quality);
   - Oslo/Paris Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR) regions;
   - terrestrial local authorities and regional planning boundaries;
   - harbour and ports authorities;
   - MSFD;
   - WFD's river basin districts;
   - sea fisheries committees;
   - inshore fisheries and conservation authority districts;
   - shoreline management plans and local authority coastal groups;
   - nature conservation designations and areas of high environmental vulnerability;
   - marine conservation zone regional projects;
   - areas of human activity;
   - International Council for the Exploration of the Sea (ICES) eco-regions;
2. Twelve marine areas were then put forward for public consultation.
3. The division between inshore and offshore was deemed as adding unnecessary complexity. As a result of public submissions, it was decided that an inshore/offshore division was contrary to the principle of an ecosystem-based approach, which resulted in a change to the proposed boundaries and fewer plans.

Source: Marine Management Organisation (© Crown copyright).

http://webarchive.nationalarchives.gov.uk/20101109165532/http:/www.defra.gov.uk/corporate/consult/marine-plan/index.htm

The Enablers Task Force Report (ETF, 2015) recommended the consideration of sub-national plans. Given the scale of Irish marine waters, it is appropriate to consider sub-national plans, particularly for areas experiencing development pressures (e.g. the Irish Sea). The question, therefore, arises as to how to define such areas for the purposes of MSP. It may not be appropriate to artificially and wholly define such areas with reference to inshore or offshore locations in an Irish context.

The criteria for defining sub-national maritime areas for the purposes of MSP in Ireland could include consideration of:

- stakeholder engagement in the plan area selection, including coastal stakeholders;
- jurisdictional boundaries, including high-water mark, baseline, foreshore and limits of the EEZ;
- ecosystem areas, with regard to any sub-boundaries relevant to Ireland's obligations under the MSFD, which would allow for the co-ordinated collation of data and sharing of relevant information for common use under both the MSFD and the MSP Directive;
- implications of current and proposed Marine Protected Areas;
- areas experiencing similar pressures on the marine environment;
- the boundaries of maritime plans in other Member States' jurisdictions.

The boundaries of such marine sub-national areas should be confirmed at an early stage, ideally within the context of a national maritime plan.

3.2.3 Hierarchy

In the event that a hierarchy is established for Irish MSP, careful consideration will need to be given to the level of detail in any initial "broad brush" national maritime plan and subsequent lower level plans. The first iteration of a national plan must illustrate spatial and temporal distribution of existing and future uses in accordance with Article 8(1) of the MSP Directive and so a broad policy approach may be inadequate in effectively transposing the requirements of the directive. Furthermore, it may be some time before regional or sub-national plans are prepared and a national plan will need to provide a framework for the consideration of applications for consent at EIA project level. On the other hand, a national plan that is too detailed would take a significant amount of time to prepare and could replace the need for sub-national maritime plans. There is also the potential for localised bay or coastal plans. In this context, and in order to align with the recommendations of the Enablers Task Force [i.e. broad-brush national maritime spatial plan (based on HOOW), to be followed by one or more detailed sub-national plans] and the requirements of the MSP Directive, consideration could be given to providing spatial guidance for different levels as follows:

- National maritime plan – high-level objectives, principles and constraints [e.g. Marine Protected Areas (MPAs), shipping lanes, military areas, national ports)] and preferred location for principle activities (e.g. offshore wind farms, international grid, oil and gas extraction) set within an economic and social context.
- Sub-national maritime plans – objectives and principles to reflect the national plan, detailed existing constraints (e.g. zones of landscape value, MPAs, existing local marine recreational use, zones of archaeological interest, fisheries) and areas to accommodate specific pressures (e.g. wind/tidal/wave renewables, aquaculture, harbours, local cables, new recreational use, raw material extraction, tourism, aquaculture). These plans may only be a discretionary requirement and prepared for areas under particular pressures.
- Local bay or coastal plans – such plans may be comparable to local area plans in the terrestrial system and cater for very localised areas of intensive use (e.g. aquaculture, marine recreation, coastal defences). Informal collaborative approaches may be pursued.

3.3 Relationship between Terrestrial and Maritime Planning Systems

Article 7(2) of the MSP Directive indicates that Member States should aim to ensure coherence between maritime spatial plans and other plans, without interfering with the terrestrial town and country planning systems. The directive allows for the landward boundaries of maritime plans to correspond with the mean high water mark, excluding transitional waters under the WFD. The development plan boundaries correspond with the boundaries of coastal local authority jurisdiction, which

generally terminate at the high water mark.[10] There are exceptions to this where, for example, in the Shannon Estuary the county boundaries of Co. Clare and Co. Limerick run down the centre of the estuary. However, in this case, the estuary is composed of transitional waters and are therefore not specifically covered by the MSP Directive. Generally, it is not recommended that local authority development plan provisions would overlap with the provisions of maritime plans, as the overlap could give rise to potential conflicts of policy and uncertainty in the assessment of applications for consents for individual projects.

There is, nonetheless, a need for consistency between adjoining plans in terrestrial and marine areas. Compatibility of policy is likely to be needed in areas such as renewable energy, electricity networks, coastal and flood defences, fish farming, ports and harbours, public access, tourism and recreation, protected sites and species, and seascape and landscape. This will be important in addressing land–sea interactions required under Article 7 of the MSP Directive.

The principal means by which to ensure compatibility of maritime and terrestrial plans include:

- liaison between marine and terrestrial authorities;
- consistency between maritime and terrestrial plan policy and proposals;
- timing of plans;
- sharing of evidence through GIS, and SEA monitoring and reporting.

Plans should be aligned within the hierarchy, so that a national maritime plan is aligned, if possible, with the forthcoming terrestrial National Planning Framework. Sub-national maritime plans could be aligned with the new regional spatial and economic strategies to be prepared for the new regional assemblies, and also, importantly, with county development plans. More localised ICZM, bay or coastal plans (e.g. for Dublin Bay or the Shannon Estuary) could be more akin to local area plans for terrestrial planning, consistent with the provisions or commitments of an adjoining local area or development plan. Figure 3.3 illustrates the possible relationship between the different plans.

10 Recommendation 17.9 of the Enablers Task Force Report (ETF, 2015) stated that the alignment between maritime and terrestrial plans should be at the low water mark. This would not however correspond with the current jurisdiction of local authorities or landside limits identified in the MSP Directive.

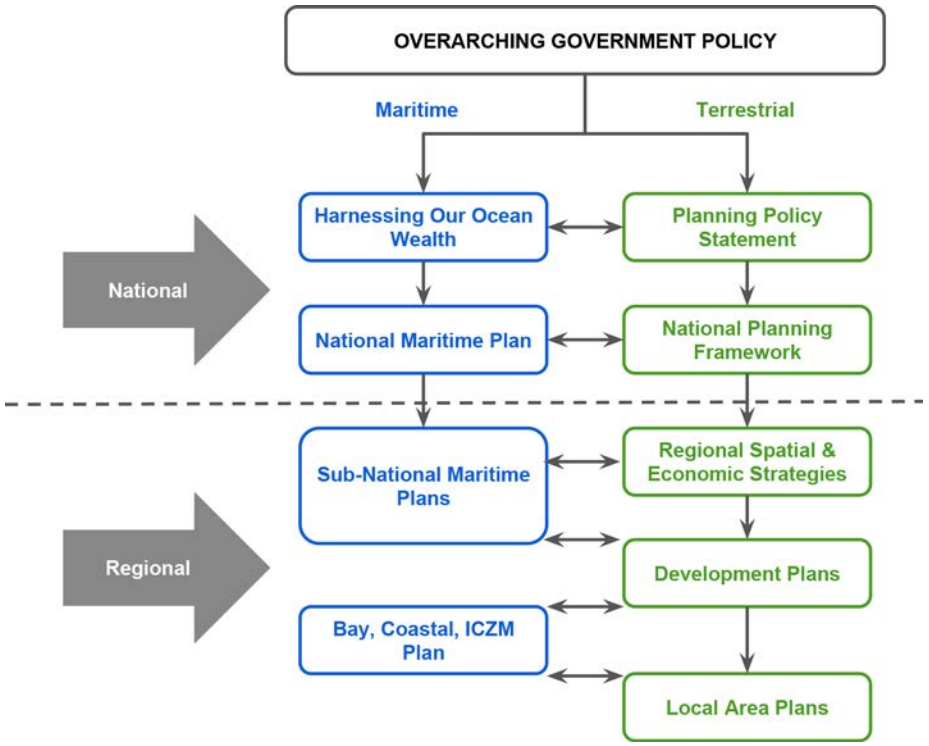


Figure 3.3. Alignment of maritime and terrestrial planning.

4 Overall Process of Plan-Making

4.1 Assumptions

The preceding sections set out the overall context for MSP in Ireland and the issues arising from the transposition of the MSP Directive. This section sets out an overall process for preparing maritime spatial plans having regard to the requirements of the MSP Directive, SEA Directive, the Habitats Directive, the Birds Directive and the Public Participation Directive. Certain assumptions have been made in relation to boundaries, hierarchy, scope and competent authorities as discussed in the previous sections of this report. These are:

- Maritime area – this is as outlined in Figure 3.2 and will extend from the high water mark (excluding transition waters under the WFD) to the outer limits of the EEZ. Further maritime areas may be defined, which would provide the spatial framework for sub-national maritime spatial plans.
- Hierarchy – this will consist of a national maritime spatial plan covering the full extent of the maritime area to be followed in due course by sub-national and local maritime plans, as required.
- Scope – the maritime spatial plan will include, but not be limited to, topics covered in Article 8(2) of the MSP Directive, although there will be a different emphasis on different uses/topics depending upon the level of the plan within the hierarchy.
- Competent authorities and decision-making – a government department or minister and a statutory designated MSP body are best placed to be the competent authorities for the purposes of preparing a national and sub-national maritime plans. Local bay, coastal or ICZM plans may allow a role for local authorities or regional assemblies, but depending upon the landside boundary, they may not fall within the terms of the MSP Directive.
- Consultation and transboundary co-operation – as the adoption of the plan or plans is likely to be by the minister, and possibly the government in the case of a national plan, there will be a need to put in place strong measures to ensure that national and local interests are appropriately balanced in the decision-making process. Structured advisory panels and stakeholder forums, prescribed by regulation as necessary, can be formulated as appropriate to the scale and position of the plan within the hierarchy. Formal and informal transboundary co-operation should be catered for.

4.2 Staged Integrated Process

The key stages in plan preparation, as informed from existing guidance (e.g. DEHLG, 2007; Ehler and Douvere, 2009; DECLG, 2013b; EPA, 2013) are:

- stage 1 – understanding the marine environment;
- stage 2 – vision, objectives and preferred strategy;
- stage 3 – drafting the plan;
- stage 4 – adopting, implementing and monitoring.

As spatial planning is an ongoing process within plan-making cycles, there is a review process that allows for revision and updating. These stages are set out in Figure 4.1.

Integration of environmental assessment, consultation and plan preparation is essential in the production of robust maritime spatial plans. Assessments under the SEA and Habitats Directives require the integration of environmental considerations into the preparation of a plan. This ensures that SEA and AA are not merely retrospective assessments of predetermined solutions. Information gathered during the environmental assessments of the plan should be used in the preparation of the plans themselves. The focus of AA is on the integrity of the Natura 2000 network, while SEAs take a broader range of environmental considerations into account. Significantly, appropriate decision-making structures should be in place to record key decisions in relation to the preparation of the plan, including consideration of alternatives, screening for AA and examining how environmental considerations have been integrated into the process. AA and SEA are objective assessments of the proposed plan, and the requirement to undertake them should be reflected in the project management structures.

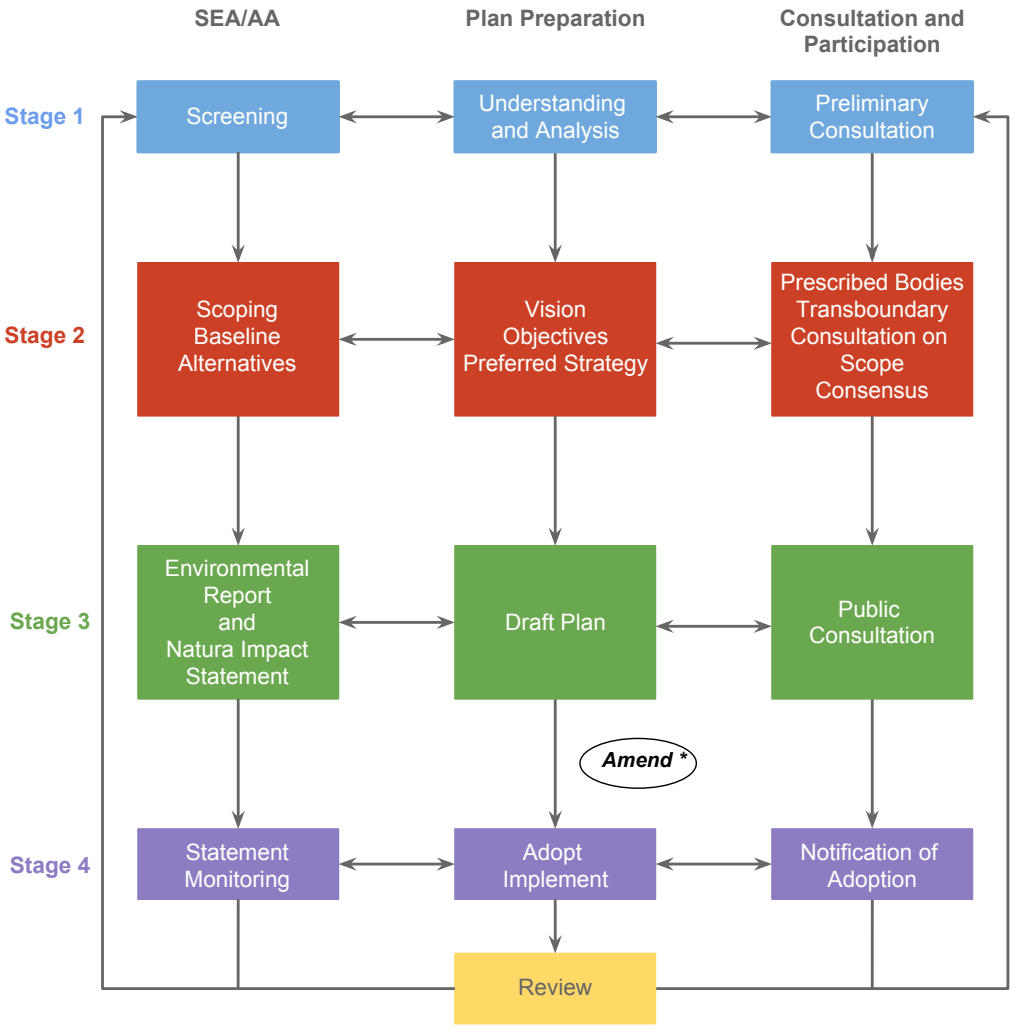


Figure 4.1. MSP staged plan preparation process.

Consultation with, and participation of, key stakeholders, state bodies and the public is a key element in the preparation of plans. Consultation and participation can be particularly difficult in marine environments, owing to the challenges of identifying those with an interest in maritime matters, which would include both users and those affected by the plans.

4.3 Project Management

It is essential that the appropriate project management structures are put in place at the outset, as they are central to the success of plan-making. While a multi-agency approach is appropriate for complex MSP, ultimately a single entity, or designated MSP body, should be responsible and be sufficiently resourced to prepare the plan. A generic project management approach is outlined in Figure 4.2 and is based on the Enablers Task Force suggested governance structure detailed in Figure 3.1.

The project management structure can be adapted for different levels of maritime spatial plan preparation. This will be important, for example, in determining the composition of the steering group. The terms of reference and the make-up of any steering committee will be important. As the role of the steering committee

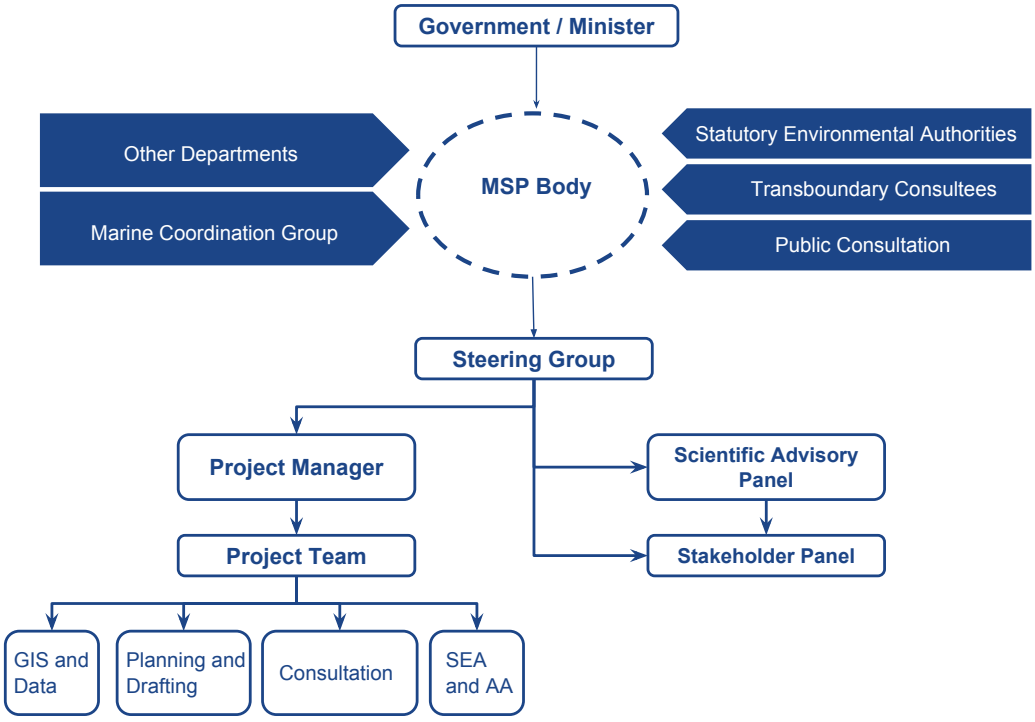


Figure 4.2. Suggested project management structure for maritime plan preparation.

should be to guide the development of policy, it should include relevant state bodies and agencies, including representation from relevant government departments, environmental state agencies (e.g. Marine Institute and the EPA), coastal local authorities, regional assemblies and state agencies responsible for infrastructure (e.g. Eirgrid).

Key aspects for the successful project management of maritime spatial plans are:

- a multi-agency/department steering group;
- a multi-disciplinary planning team, consisting of either in-house expertise or co-ordinated external consultants;
- defined internal roles (including dedicated project managers), responsibilities and resources;
- established clear processes, timelines, milestones, deliverables;
- confirmed methodology, scope and objectives of the plan;
- data management, GIS and early identification of data gaps;
- established consultation strategy and relationship with expert advisory panel, stakeholder forums, statutory consultees, transboundary consultees and the public;
- confirmed statutory requirements.

An example of adapted project management procedures that allows for integration of processes is provided in Box 4.1.

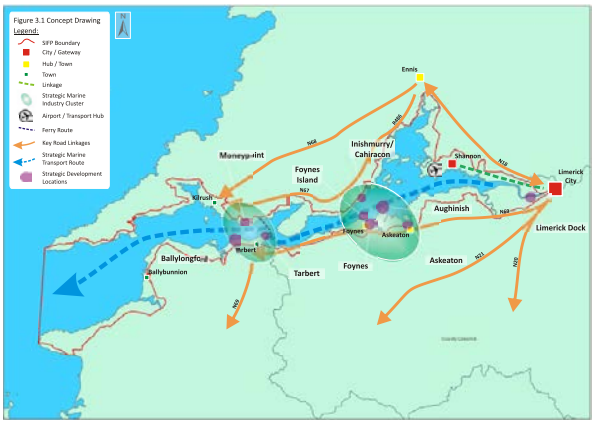
Box 4.1. Case study: Shannon Integrated Framework Plan – project management

Description: Clare County Council (lead), Kerry County Council, Limerick City and County Councils, Shannon Development and Shannon Foynes Port Company prepared this inter-jurisdictional plan to guide future development and management of the marine and land areas in the Shannon Estuary. The project was overseen by a multi-agency steering group.

The Shannon Integrated Framework Plan (SIFP) is a multi-organisation-formulated plan, which provides an excellent example of integrated governance encompassing several jurisdictions.

By its nature, the plan is both land- and marine-based and integrates varying interests so that social, economic and environmental objectives can be achieved.

A multi-agency steering group was created to oversee the preparation, implementation and monitoring of the plan, including local authorities, government departments, port companies and statutory prescribed bodies.



Source: RPS, Shannon Estuary Strategic Integrated Framework Plan.

The key role of the steering group was to ensure that all issues, challenges and opportunities outlined in each of the current development plans were examined and comprehensively addressed. In order to ensure the longevity of the plan, a number of measures were undertaken.

- All three local authorities in the vicinity have integrated its provisions into their county development plans.
- An up-to-date database of all key stakeholders and a stakeholder engagement plan for the subsequent stages of the plan were developed. This includes all those consulted during the preparation of the plan.
- A system for inter-jurisdictional and inter-departmental consultation and feedback was devised.
- An inventory of all information available to inform future proposals within the study area was formulated.
- A GIS database of planning historical and environmental mapping information was developed, to be maintained and updated at regular intervals. This will ensure that the evidence base for the aims, objectives and spatial proposals is kept updated and relevant, in time for each review.

https://shannonestuarysifp.wordpress.com/

5 Staged Approach

The staged approach is recommended as it ensures that a rational and consistent process is applied to spatial plan-making. The approach follows from the establishment of the governance, reporting relationships, steering committee, project team, relevant advisory panel, stakeholder panel and all statutory requirements identified during the initial project management set up phase.

5.1 Stage 1: Understanding the Marine Environment

5.1.1 Approach

Figure 5.1 provides an indicative framework for stage 1 of the process. It also shows how the plan preparation can be integrated with SEA, AA and the consultation requirements.

5.1.2 Scope of plan

The geographical and thematic scope and parameters of the plan need to be confirmed. A national plan will cover the whole national maritime area, but may focus on certain elements and strategic activities and uses (e.g. offshore renewables, oil and gas extraction, shipping lanes) as outlined in Article 8(2) of the MSP Directive. The boundaries of a maritime region may be confirmed in the higher national maritime plan, or may be defined by predetermined criteria laid out in statute. The scope of themes for a sub-national maritime plan may place greater emphasis on localised issues (e.g. aquaculture, marine recreation, ports and harbours, and land–sea interactions).

5.1.3 Methodology

The methodology and technical requirements for the preparation of the plan should be clearly laid out at this stage. The methodology for the preparation of the plan should be aligned with that adopted for the assessment of likely significant effects in the SEA. Again, the methodology used will depend on the scope of the plan and its level in the hierarchy. Different elements of the approaches detailed below can be emphasised to reflect the scope of the plan.

- Objectives, policies and criteria – this approach involves setting out broad strategic objectives for the plan, including policies and criteria for resolving conflicts in the assessment of development projects. This approach is often used for national policy and plans, particularly in the UK planning system (e.g. Scotland's National Marine Plan).

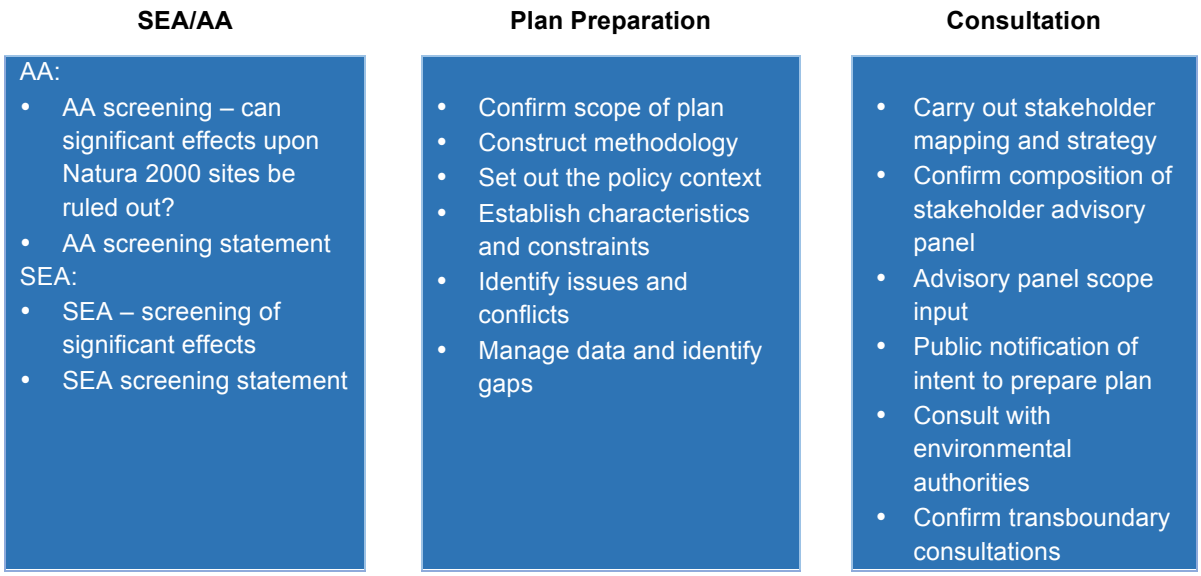


Figure 5.1. Stage 1: integrated plan-making process.

- Environmental carrying capacity – this approach is most closely associated with the ecosystem-based approach, which considers all the links between living and non-living resources using sensitivity matrices, cumulative impacts and the capacity of the marine environment to absorb future development within a defined area. It can be closely aligned with MSFD characterisation and targets for GES. The *Pilot Maritime Spatial Plan for the Pomeranian Bight and Arkona Basin* describes how MSP can achieve GES (Kappeler *et al.*, 2012). Specialist GIS tools (e.g. Marxan) are required to map cumulative effects. A location-centred approach is suited to maritime sub-national plans and is sympathetic to local factors. This environmental carrying capacity approach is more appropriate for the development of criteria linked to targets, as opposed to the consideration of broader policies. This approach, when associated with the ecosystem-based approach, can be challenging to develop and apply.
- Constraints and resource capacity – this approach involves an assessment of a theoretical resource (e.g. tidal, wind or wave), taking into consideration exclusion and restriction mapping and the cumulative impact and capacity of a particular area for different quanta of development. This is used for sectoral energy plans, for example the Offshore Renewable Energy Development Plan (OREDP) SEA (SEAI, 2010) and in the Local Authority Renewable Energy Strategy (LARES) Guidelines (SEAI, 2013). This approach requires significant amounts of data and has previously been driven by the specific requirements of individual sectors for specific areas.
- Zoning and mapping – this approach is a conventional method of resolving conflicts and maximising shared use of space. A variety of zoning approaches may be taken, including priority areas (e.g. excluding a use that would significantly constrain the identified use); reservation areas (providing a weighting but not priority given to a particular use); designated or suitable areas (providing for an exclusive use in these areas); and open areas (no priority use and specified restricted uses). Notably, the Belgian North Sea and the Netherlands National Marine Plan have adopted priority zoning for strategic uses of national importance.

5.1.4 Policy context

A full review of the relevant policies is required to ensure a fully integrated sectoral and spatial understanding of the policy context. This review needs to consider EU, other Member States, national, regional, local and sectoral plans. The nature and focus of the review will be dependent upon the position of the plan within the hierarchy. Currently, EU policy sets the context for national policy in relation to areas of EU competencies. National policy is set out in HOOW and is the principal policy relating to the marine environment. It is, however, non-spatial in nature. Table 5.1 outlines the main policy documents of relevance to MSP in Ireland.

Table 5.1. Integrated policy review for maritime spatial plans

Policy level	Policy document
International and EU	*United Nations Convention on the Law of the Sea* (UNCLOS) (UN, 1982)
	Europe 2020 strategy (EC, 2012a)
	Blue Growth: Opportunities for Marine and Maritime Sustainable Growth (EC, 2012b)
	Energy Roadmap 2050 (EC, 2011b)
	Common Fisheries Policy (EC, 2013b)
	The EU Strategy on Adaptation to Climate Change (EC, 2013c)
	Strategic Goals and Recommendations on EU's Maritime Transport Policy Until 2018 (EC, 2009c)
	Recommendations on the implementation of ICZM in Europe (EC, 2002b)
	EC directives (e.g. MSFD, WFD, RED)
Other Member State	*Scotland's National Marine Plan 2015* (Scottish Government, 2015)
	Welsh National Marine Plan (forthcoming)
	UK grid plans (various)
	English marine regional plans (various)

Table 5.1. Continued

Policy level	Policy document
National	**Cross-sectoral:**
	Harnessing our Ocean Wealth (Inter-Departmental Marine Coordination Group, 2012)
	Planning Policy Statement 2015 (DECLG, 2015)
	National Spatial Strategy for Ireland (Government of Ireland, 2002)
	Actions for Biodiversity 2011–2016: Ireland's National Biodiversity Plan 2011–2016 (DAHG, 2011)
	National Climate Change Adaptation Framework (DECLG, 2012a)
	National Capital Investment Plan 2016–2021 (DPER, 2015)
	Ireland's Marine Strategy Framework Directive Implementation (Marine Institute and DECLG, 2012)
	National Landscape Strategy for Ireland 2015–2025 (DAHG, 2015)
	Sectoral:
	Food Harvest 2020 (DAFF, 2010)
	Tourism Product Development Strategy 2007–2013 (Fáilte Ireland, 2007)
	Offshore Renewable Energy Development Plan 2014 (DCENR, 2014)
	Strategy for Renewable Energy 2012–2020 (DCENR, 2012)
	National Renewable Energy Action Plan (DCENR, 2010)
	*Grid 25 (*Eirgrid, 2008)
	White Paper: *Ireland's Transition to Low Carbon Future 2015–2030* (DCENR, 2015)
	Putting People First (DECLG, 2015)
	Food Wise 2025 (DAFM, 2015a)
	National Strategic Plan for Sustainable Aquaculture Development (DAFM, 2015b)
	Renewable Energy Plan (forthcoming)
	National Ports Policy (DOTTS, 2013)
	Framework and Principles for the Protection of Archaeological Heritage (DAHG, 1999)
Regional and Local	Regional planning guidelines (various)
	Regional spatial and economic strategies (various)
	Development plans of coastal local authorities (various local authorities)
	Local area plans (various local authorities)
	Port and harbour plans (various port/harbour authorities)

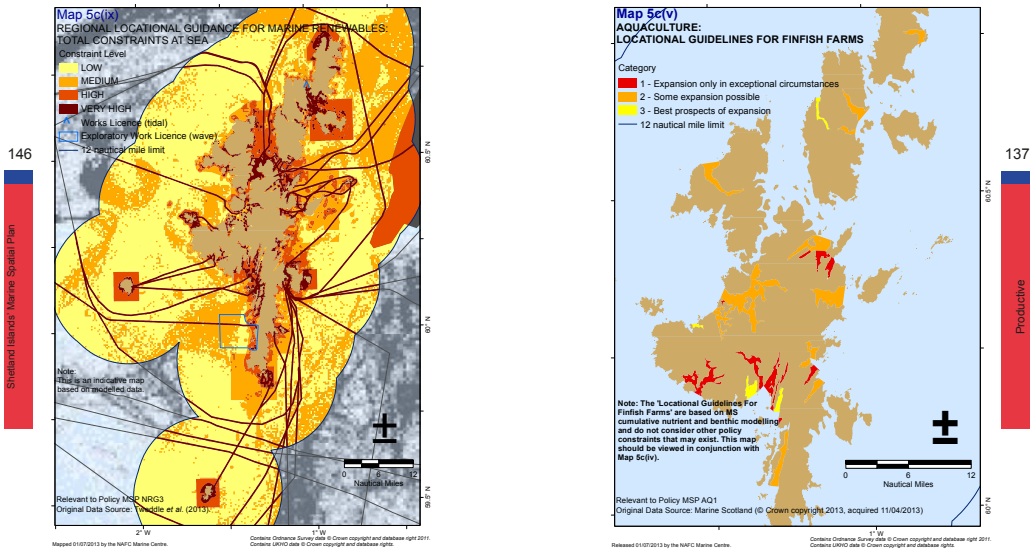
Where the plan or policy has a clear spatial dimension, the information must be captured in the GIS framework devised for the plan to allow for an appraisal of conflicting uses in specific areas (refer to section 5.1.7). It is also useful to undertake an analysis of existing policies and programmes to consider (a) the extent to which the implementation of the plan or policy will have on the use of sea space and (b) the likelihood of their implementation. The policy impact assessment can be expressed in terms of strength, whether it is direct or indirect, and whether short, medium or long term. Furthermore, the sectoral briefs document prepared as part of HOOW contains opportunities, constraints, existing government policies, plans and targets for each sector. These should be reviewed to assess their maritime spatial implications, particularly in relation to the preparation of any national maritime spatial plan.

5.1.5 Characteristics and constraints of the plan area

Key characteristics and constraints within the plan area need to be identified. These will not only apply to environmental constraints, but also to social and economic constraints and characteristics (see Box 5.1). Existing users of the marine space relevant to the scope and level of the plan need to be identified and be reflected in the characterisation of the plan area. The Marine Atlas prepared by the Marine Institute as part of the MSFD provides a very good starting point in the mapping and identification of constraints and characteristics. The means by which data and information can be collected is considered in further detail in section 5.1.7. The characteristics and constraints of the plan area can include the following:

Box 5.1. Case study: Shetland Islands' Marine Spatial Plan – plan area characterisation and constraints

Description: The Shetland Islands' Marine Spatial Plan (SIMSP) sets out the policies and criteria against which development proposals will be assessed. It forms part of the local development plan. The policies and maps set out in the plan form material considerations in decision-making on individual marine development proposals.



Sources: Extracted from SIMSP, mapped by NAFC, © Crown copyright and NAFC. Contains Ordnance Survey data, © Crown copyright and database right 2011. Contains UKHO data, © Crown copyright and database rights.

The SIMSP was first prepared in 2006, and is now at its fourth iteration. As part of the planning process, an extensive mapping exercise was undertaken to clearly depict the current known situation, the location of planning constraints, the assets to safeguard and the risk of cumulative impacts. The maps are supplemented by a sensitivity matrix to help determine potential impacts deriving from human activities. The maps constitute the first step of the planning context for the plan.

The SIMSP resulted in a series of maps detailing the location of opportunities for future development. The 42 maps provide a good overview of the most common activities in the Shetland Islands, as well as land–sea interactions, including, for example, wastewater, water, navigation, ports and harbour areas, pipelines and cables, protected areas, marine species, habitats and species, seabed type, protected landscape areas, archaeology, community council areas, recreational areas, fishing and aquaculture, renewable energy production, marine and coastal tourism, shore access, dredging and disposal of dredged material.

A final map was produced to outline broadly the current marine activities around the Shetland Islands, therefore forming the basis of future marine development management.

https://www.nafc.uhi.ac.uk/research/msp/simsp

- sectoral plans and existing users: renewable energy sectoral plans, main fishing areas, shipping lanes, ports, oil and gas;
- physical, infrastructure and resources: sea depth, bedrock and seabed morphology, wind speeds, tidal, shipping lanes, port access points, grid systems; existing and permitted infrastructure (e.g. cables, port development, wind farms, tidal schemes) should be mapped;
- environmentally sensitive areas: European sites, OSPAR, MPAs, Ramsar Sites, designated archaeological zones and national monuments,

protected views and coastal landscapes, spawning grounds;
- economic: major ports by tonnage landed, fishing ports by tonnage landed, trade routes by volume and value, cruise and marine recreation numbers and tourism, economic impact of oil, gas and offshore renewables;
- social: demographic or social profile of coastal communities.

Stakeholders will have a key role in defining the constraints and the criteria that should be applied in defining the spatial extent of constraints and characteristics of the plan area.

The protection of seascapes is an increasingly significant element of MSP. It is also an important component in the consideration of land–sea interactions. Seascape has been defined is "the visual and physical conjunction of land and sea which combines maritime, coastal and hinterland character" (SNH, 2012). Most guidance relating to offshore development has been prepared in relation to projects as opposed to plans. However, the *Guide to Best Practice in Seascape Assessment* (Hill *et al.*, 2001) does consider the issue of national, regional and local characterisation. The national unit, for example, would extend out to the 12 Nm territorial limit offshore and inland to the extent of the Zone of Visual Influence (ZVI).

5.1.6 Identification of trends (pressures and opportunities)

Pressures and opportunities should be identified at this stage. These are the issues upon which the plan should focus. The format and presentation of this information will differ depending upon the scale and scope of the plan. Pressures and existing areas of conflict can be identified for each sector and the likely conflict with other sectors is often illustrated in a matrix format. There have been notable examples where this approach has been successfully adopted in planning. *The Marine Spatial Plan for the Belgian Part of the North Sea* (Belgian Government, 2014) used a matrix of all uses (cable, renewable energy, military zones, etc.) which allowed for an identification of conflicts between uses. A study undertaken as part of the Clyde Pilot Study (Thomson *et al.*, 2008) required representatives of different sectors to complete an interaction matrix and to categorise the interactions. A further simple matrix methodology is illustrated in Figure 5.2 below (Veum *et al.*, 2011).

This approach will have to be developed further to provide a spatial context for the illustrated conflicts. It should be noted that at this stage it is merely a matter of identifying the potential areas of conflict, rather than attempting to resolve them. The work undertaken in this phase can feed into the issues/scoping element of the next stage.

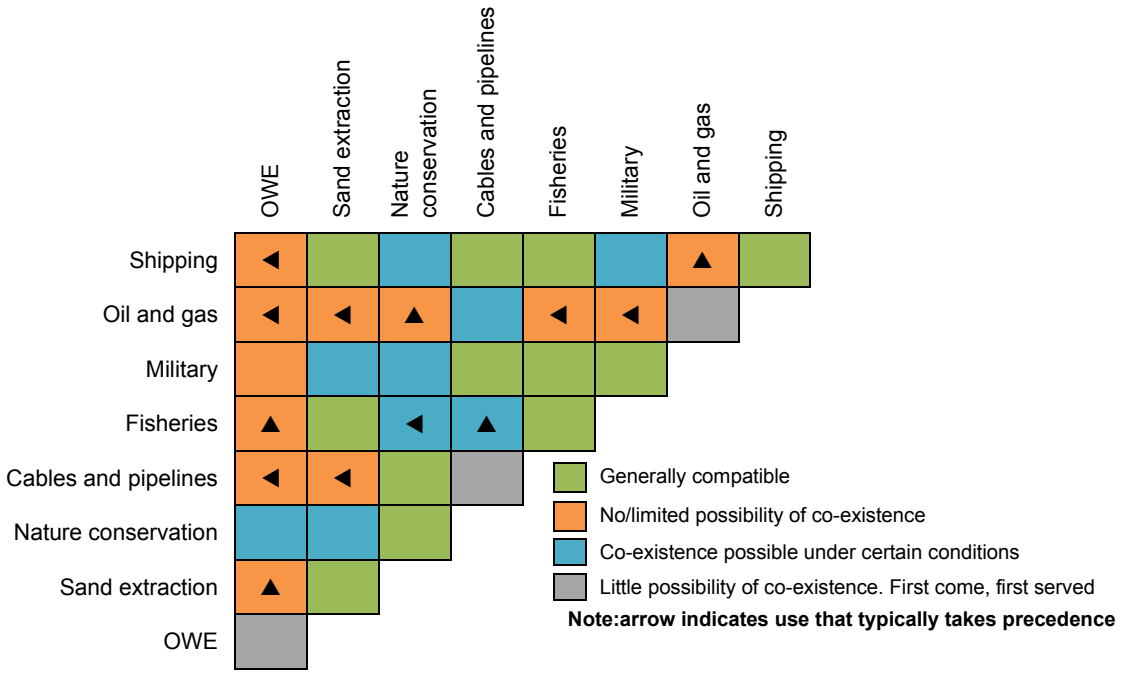


Figure 5.2. Framework for indentifying and categorising conflicts. Source: Windspeed project, adapted from van der Wal *et al.*, 2009 (Veum *et al.*, 2011).

There also needs to be an assessment of *future potential*, for example in relation to renewable energy generation, oil or gas exploitation, or aggregates extraction. At the national level, this assessment of future potential may be "broad brush" (e.g. indicative areas of renewable energy generation with reference to wind speeds). However, at the maritime sub-national level, more refined data will be required. In the event that a capacity assessment approach is taken in relation to the plan, as indicated in the OREDP SEA (SEAI, 2010) or LARES (SEAI, 2013), a cross-sector and multi-use approach would have to be adopted.

5.1.7 Data requirements, collection, management and data gaps

Data provide the evidence to inform decision-making. While the best available information should be utilised in the SEA and AA processes, data should not necessarily be the determinant or sole basis for plan-making, as a plan will be the result of professional judgements made in relation to resolving conflicts and realising opportunities.

Data and GIS requirements[11] should be established at this stage. Data quality and scale are important in informing decisions. Data quality relates to availability, currency and completeness. Data scale is dependent upon data creation and methodologies. Various data sources should be considered, including:

- consultation with key stakeholders and marine users in the pre-draft stage (e.g. through formal questionnaires) to determine existing plans and uses;
- the Marine Atlas, which provides a good starting point in relation to the mapping of existing constraints and has been recently updated to include relevant socio-economic and other spatial data;
- the data sources, availability and data gap analysis for the implementation of the OREDP,[12] which lists relevant marine related datasets;
- data collected and collated for the OREDP SEA (SEAI, 2010);
- relevant data under the MSFD in relation to the initial assessment of current environmental status of national marine waters, the determination of GES and setting environmental targets;
- Integrated Mapping for the Sustainable Development of Ireland's Marine Resource (INFOMAR), which is the joint programme between the Geological Survey of Ireland and the Marine Institute.

There are number of other considerations to be taken into account in the collection of data, including:

- the data collected must allow for the establishment of the baseline for the SEA and AA;
- methodologies and protocols should be established for data collection and configuration that is consistent with integration and analysis requirements;
- the appropriate use of GIS decision support tools and models [e.g. the Bayesian Belief Network (BBN) approach, which can highlight cumulative human pressures], taking into account ecosystems and socio-economic and stakeholder considerations;
- any data required for the preparation of the plan or for the assessment of the likely significant effects should be identified at this stage, including any identified data gaps to be filled through the collection of relevant data;
- compatibility of data with the INSPIRE Directive (EC, 2007);
- sharing of data and objectives/targets between MSFD and MSP processes (e.g. any MSP scientific advisory panel established as part of the overall project management is likely to include an overlap with those advising in relation to the MSFD).

Maritime spatial plans are required to be in place by March 2021. It is likely that the first marine spatial plan will be prepared at the national level. Given current and likely time and resource constraints, existing and readily available data will play an important role in the preparation of this plan.

5.1.8 Appropriate Assessment and Strategic Environmental Assessment

The initial stage for marine spatial plan-making is also a particularly important stage in the AA process. A comprehensive AA screening exercise should be undertaken to establish the Natura 2000 sites that are potentially subject to significant effects resulting from the plan. An ecosystem or eco-network approach can

11 Further detailed guidance on GIS in SEA (EPA, 2015).

12 Sustainable Energy Authority of Ireland (SEAI) publication forthcoming.

be adopted to defining the zone of influence, which may extend beyond the boundaries of the plan. If likely significant adverse effects of the plan cannot be ruled out, then the competent authority must proceed to a full stage 2 Natura Impact Statement (NIS). A screening for SEA should also be undertaken for all plans, including modifications and variations. This stage concludes with AA and SEA screening statements with decisions appropriately recorded. The need for an NIS or Environmental Report (ER) under the SEA Directive will be determined by the outcome of the screening process.

5.1.9 Consultation and transboundary co-operation

A key part of the consultation process will be the undertaking of a stakeholder mapping exercise to identify those groups affected and the development of a consultation strategy to define who, how and when different sectors should be consulted and to confirm arrangements for participation. The mapping exercise can be done by producing a matrix showing overlapping interests, conflicts and possible synergies between marine stakeholders. It will also assist in identifying possible participants on any stakeholder advisory panel established.

There are a number of methods to provide the public with *information* (advising public of content and stages), including factsheets, issues papers, websites and public displays. Public *participation* (contributing to decision-making) may be principally through stakeholder panels or forums and it is recommended that such stakeholder panels/forums have a statutory basis of some form. *Consultation* with the public (gathering and reviewing submissions) can be undertaken at specific stages of the process through public notices, public displays and receipt of submissions. Consideration should be given to issuing a public notice indicating that the process of preparing the plan has commenced, and outlining the timeframe and the opportunities for public consultation that will arise. This notice would be similar to that issued at the outset of the preparation of a statutory development plan under the Planning and Development Acts. The BaltSea Project provided a good example of how to undertake stakeholder mapping, to develop a consultation strategy and ensure effective transboundary co-operation (Box 5.2).

Statutory consultees and environmental authorities should be identified at this stage and informal engagement and consultations undertaken, particularly in relation to identifying issues, pressures and required data.

Relevant authorities in adjoining Member States should also be identified at this stage for the purposes of transboundary consultation during the plan-making process. Formal state to state consultations should be distinguished from informal lower level agency to agency consultations.

5.2 Stage 2: Vision, Objectives and Preferred Strategy

5.2.1 Approach

Once stage 1 has been completed, stage 2, outlined in Figure 5.3, can commence. This involves establishing a vision, defining strategic objectives and the identification of a preferred strategy.

5.2.2 Vision statement

The vision is the overall goal or aim of the plan. It encapsulates the focus for the plan and can be expressed in a number of different ways: a mission statement; a narrative that sets out some desired qualities or characteristics; or a set of goals or more specific targets. Again, the nature of the vision is dependent upon the level of the plan within the hierarchy. Generally, the vision should be aligned with any higher level plan. So, the vision for a national maritime plan should be aligned with that of HOOW, which is stated as: “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”. The HOOW vision is further elaborated by three goals/principles relating to issues of economic development, environmental protection and maritime engagement. A vision for a maritime spatial plan has to reflect the principles underpinning the MSP Directive (i.e. that of sustainable development and the ecosystem-based approach). Furthermore, the vision, and objectives which follow, should attempt to balance the needs of different sectors, address existing and emerging trends and reconcile any conflicting higher level policies within

Box 5.2. Case study: BaltSea Project – consultation and transboundary co-operation

Description: 14 partners from seven countries across the EU Baltic Sea region were involved in the development of the BaltSeaPlan. Although it is a European funded project and not a legally-binding plan, it provides lessons in carrying out consultation and transboundary co-operation.

Consultation: as part of the project a number of steps were undertaken to understand, identify and promote best practice in marine spatial planning consultation. A report was delivered as a summary of the experience in the BaltSea project. Extensive stakeholder consultation was undertaken during each of the eight planning phases (from pre-planning to evaluation) and using a wide range of tools from printed or digital material to site visits and Café Scientifiques. In broad terms, stakeholder management was organised as follows:

Agreement on the stakeholder management approach	What do we want?
Identification of potential stakeholders and stakeholder groups	Who should be informed/involved?
Running a stakeholder typology	How do we learn more about the stakeholders?
Finding the right techniques and timing to interact with each different group	How to and when?
Evaluation of the process and activities	How did it work?

Transboundary: transboundary/transnational management was a key element of the project with seven countries working together around the development of one plan. A transnational MSP body was set up as part for the project. International policy was reviewed to identify drivers, spatial implications and policy responses. Then, a bottom-up approach was adopted with countries providing the project team with key information on their marine space. The exercise sought to identify significant and driving forces that are considered to impact on the Baltic Sea space; specific spatially relevant trends and pressures; coastal conflicts or synergies; spatial and non-spatial targets; and governance needs. It resulted in a plan aimed at bringing together the proponents' perspectives and establish the overall approach, determine how the existing targets (renewable energy, MSFD, etc.) would be met, provide guidance on how to deal with emerging development and set priorities for the Baltic Sea. As a result of the BaltSeaPlan vision arising from this work, the parties have agreed that, by 2030, the ministers responsible for spatial planning in the Baltic region will establish a formal body responsible for endorsing pan-Baltic MSP, agree on common objectives and targets and, if necessary, adapt the vision for their respective jurisdictions.

http://www.baltseaplan.eu/index.php/Tools-for-MSP;850/1

a spatial framework. The vision should also guide the objectives and overall strategy.

5.2.3 Setting strategic objectives

A tiered approach can be adopted in the process of setting objectives within initial strategic objectives for the entirety of the plan. This can then be followed by detailed objectives, policies and criteria for different sectors (refer to stage 3 in section 5.3). An appropriate means by which to integrate the ecosystem-based approach into maritime spatial plans is to align strategic objectives with GES status descriptors (as in the BaltSeaPlan). The GES descriptors are detailed in Appendix 3. It is appropriate to also include objectives relating to climate change. The Enablers Task Force Report (ETF, 2015) outlined indicative high-level strategic objectives for the MSP process, but not necessarily the plans themselves. Ultimately, any objectives for individual maritime spatial plans, whether they are at the national or the sub-national level, will be the product of inputs from other preceding stages and from stakeholders.

Strategic objectives could broadly be broken down into:

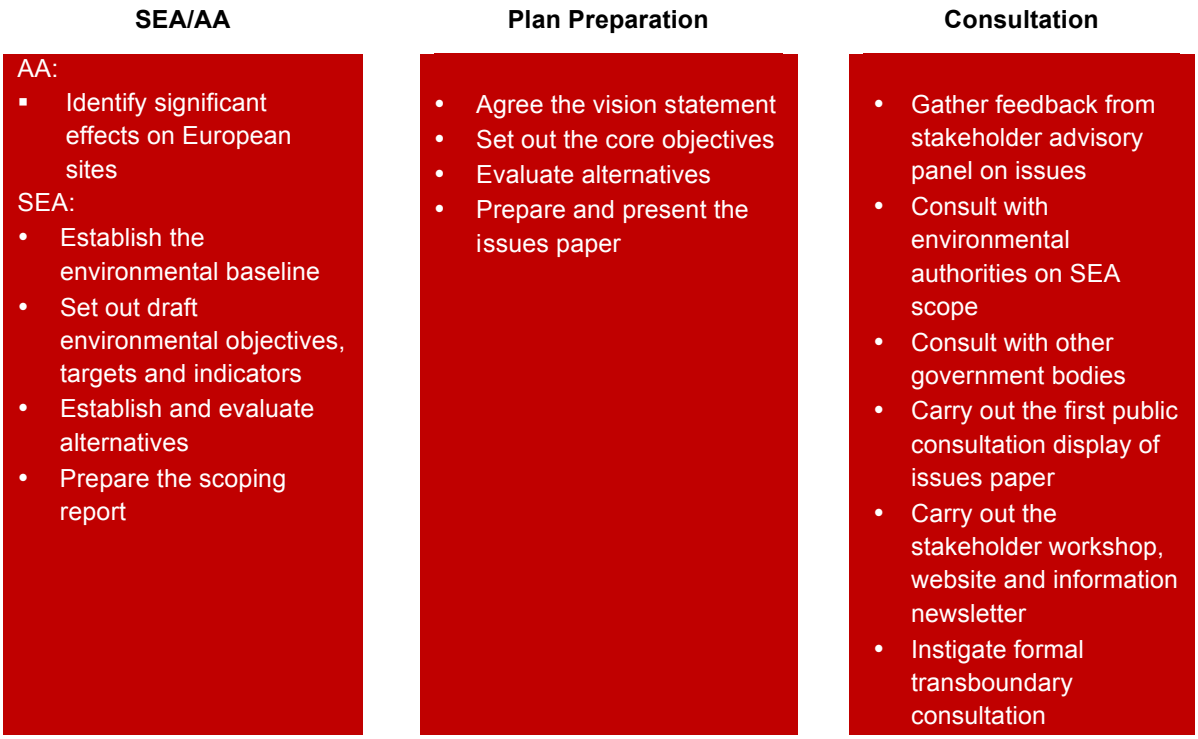


Figure 5.3. Stage 2: integrated plan-making process.

- maintaining marine ecosystems (e.g. through linking with the GES descriptors);
- sustainable environment (e.g. including landscape, cultural heritage, climate change and matters not covered by GES descriptors);
- strong inclusive society;
- sustainable marine economy;
- promotion of good governance.

5.2.4 Alternative strategies

An essential part of spatial plan-making is the consideration of alternatives. A staged approach can also be adopted to the identification of alternatives. The first stage is the consideration of broad alternative strategies. These can be outlined in the public consultation documentation. However, it is premature to arrive at a preferred strategy until the results of the public consultation have been considered. A "do nothing" scenario may be included in plans, where it is not a mandatory requirement to prepare the plan (e.g. at the sub-national level) and this scenario can act as a benchmark against which to assess alternatives. However, where there is a mandatory requirement for the initial maritime spatial plan (e.g. at the national level) it is not appropriate to include a "do-nothing" scenario, as it is a legal requirement to prepare such a plan under the MSP Directive.[13] Alternatives for a national maritime spatial plans could include alternative strategic approaches (e.g. spatial policy, zonal, themed emphasis) and temporal alternatives.

The main elements of strategy should be capable of being expressed graphically using clear and simple concept maps. The second stage in developing alternatives could be considered during the stage 3 drafting of the plan, which would consider the spatial distribution of principal uses (multiple use zones, priority use, etc.). An example of a useful consideration of alternatives is provided is the Belgian example detailed in Box 5.3.

5.2.5 Issues paper

An important output in considering the vision, objectives and potential strategies is an issues paper. The issues paper should summarise key issues and focus on the key considerations, such as:

- overall alternative potential strategies and objectives;

13 Refer to *Developing and Assessing Alternatives in Strategic Environmental Assessment – Good Practice Guidance* (EPA, 2015).

Box 5.3. Case study: marine spatial plan for the Belgian part of the North Sea – alternatives

Description: the plan outlines three alternatives as part of the SEA. Those were determined based on the broad vision, which assumes a clean, healthy, safe, productive and biologically diverse sea.

Three alternatives were defined and assessed as part of the process, some of which provide spatial variations. These were:

1. Alternative "MSP at Hand" based on environmental, safety, economical, cultural, social and scientific targets for the Belgian part of the North Sea. It included:
   - maximum potential for multiple usage;
   - more care for MPAs and European sites through stimulation of multiple uses of space outside the current nature conservation zones, partial limitation of ground-disrupting activities;
   - facilitation of full operation of the zone for wind energy;
   - no risk for future expansions and safety of users at sea;
   - stimulation of alternatives and sustainable fisheries in certain parts of the North Sea;
   - redefinition of the gravel extractions sectors in zone 2 on shipping safety grounds and nature conservation with eventual gradual reduction of extraction in this zone.
2. An additional alternative was considered, as it builds on other alternatives that have been considered but not chosen for the plan. It differentiates itself from the first one by:
   - catering for extensive nature conservation;
   - imposing more prerequisites for cabling and pipelines;
   - choosing other locations for the energy atoll;
   - reducing the fisheries sector and zones for military activities, and limiting of research and recreational activities.
3. A Zero Alternative was used as reference and against which the other two will be assessed.

http://www.unesco-ioc-marinesp.be/uploads/documentenbank/25ad8a7ad6fbb0a0bd07562e392c382f.pdf

- trends and opportunities for each sector considered in the plan (e.g. fisheries, aquaculture, renewable energy, ports and shipping);
- key issues for each sector;
- identification of principal inter-sector conflicts.

In order to focus responses, a series of open questions can be posed. The issues paper can be complemented by the SEA scoping report, which should reflect the initial scope of the plan itself.

5.2.6 Appropriate Assessment and Strategic Environmental Assessment

There is no statutory requirement to undertake a scoping exercise for AA, although it is useful. Article 5 of the SEA Directive requires an appraisal of the scope of the assessment, in addition to the consideration of alternatives. Only information that may reasonably be required for the environmental assessment should be included, taking into account the methods of assessment, the contents and level of detail in the plan, the stage of the plan in the decision-making process and the extent to which certain matters are more appropriately dealt with at different levels in decision-making.

5.2.7 Consultation and transboundary co-operation

The stakeholder advisory panel will have a key role in contributing to the vision, goals and strategy development during this phase. It should also have an important input into the issues identified in the issues paper arising from this stage.

This stage also provides the first formal consultation with environmental authorities in relation to the SEA scoping report. The issues paper can also be circulated to give valuable context to the plan. While environmental authorities are prescribed by regulation, consultation with other government departments and state bodies should also be undertaken at this stage.

The issues paper and the SEA scoping report should be placed on public display. This could be done by means of a website and display at the offices of the competent authority and the offices of coastal local authorities affected by the proposed plan. The stakeholder mapping exercise undertaken in the previous stage should have identified the main stakeholders. Stakeholder forums and newsletters should be considered and an email database of those who engage should be maintained.

Transboundary consultations should be undertaken on the basis of the documentation prepared at this stage. While there should be ongoing informal consultation to acquire relevant information on the plan and data, formal consultation at this stage should also be considered. A report should be prepared on all submissions received from the consultations in this phase and this should be presented to the steering group. This report should be available for public inspection.

5.3 Stage 3: Drafting the Plan

5.3.1 Approach

Stage 3 constitutes the intensive phase of drafting the plan itself. It is also the stage at which the preparation of the ER and NIS for the plan is undertaken. Figure 5.4 illustrates the main tasks involved.

5.3.2 Preferred strategy

The strategies should be evaluated at a high level on the basis of:

- consistency with higher level plans;
- the vision for the plan and the strategic objectives;
- a consideration of the likely significant effects of the preferred strategy as part of the SEA.

Ideally, the evaluation of the preferred strategy should be an integrated evaluation combining each of the three elements detailed above. A variety of methods can be used in the evaluation, including weighted multi-criteria analysis or SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis. Each of the alternative strategies should be assessed to the same level of detail and against the same criteria in a systematic manner. Spatial dimensions of alternatives should be mapped on the GIS system adopted for the preparation of the plan. The preferred strategy emerges from this process and reasons for selecting or elimination of the alternatives should be given. The preferred strategy needs to be resilient and able to cope with a range of shocks and scenarios. The SEA can assist in the selection of the preferred strategy, but it must be recognised that the SEA Directive is principally concerned with the assessment of significant environmental effects.

5.3.3 Decision-supporting tools

The essence of MSP is to resolve conflicts between competing uses within the marine area as part of the decision-making process in plan-making. This will necessitate further detailed consideration of alternatives, as the plan is refined. The framework by which competing uses can co-exist is a combination of technical assessment, but also critically, a result of stakeholder contributions and professional planning judgement on balancing needs having regard to higher level plans/policies, the stated vision for the plan and its associated strategic objectives.

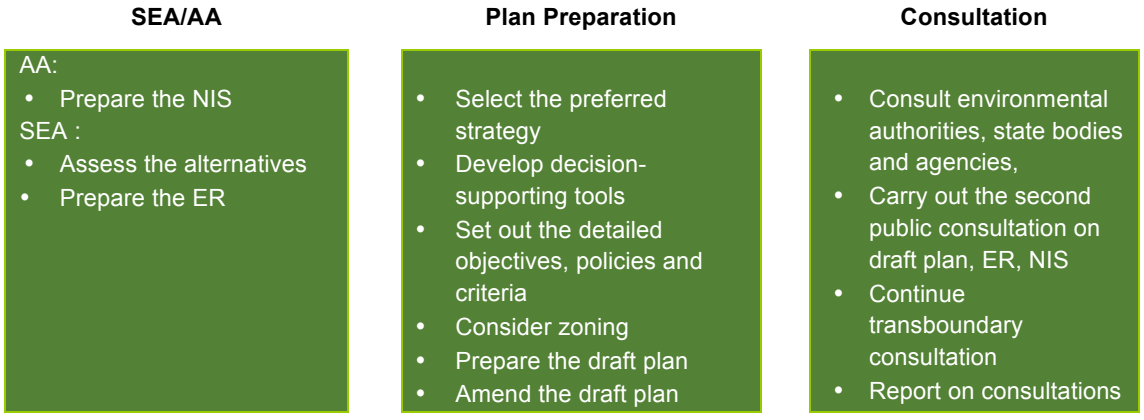


Figure 5.4. Stage 3: integrated plan-making process. Source: Windspeed project (Veum *et al.*, 2011).

There are different approaches to establishing the best way to manage different uses and activities in spatially defined areas, including:

- Constraints mapping – the constraints mapping detailed in section 5.1.5 is a way to identify areas best suited for development of certain forms of marine development.
- GIS-based decision support tools – these are developed to identify technically feasible resources and are restricted by identified constraints. Examples include the Windspeed Decision Support System as part of the EU project Windspeed (Box 5.4), Marxan software,[14] focusing on conservation objectives and Ecopath software,[15] which adopts the ecosystem-based approach to managing resources.
- BBN tools – this is also a GIS-based tool, but adopts a multi-sectoral spatial planning approach that allows for the integration of socio-economic factors and stakeholder weightings to be reflected in the analysis. Specific software associated with this approach includes Bayesian analysis for Spatial Siting (BASS) tool[16] developed in Oregon, USA. The BASS tool uses probabilistic Bayesian principles to combine modelled BBN suitability predictions with stakeholder viewpoints to create a hybrid output that informs spatial siting decisions.

These can be useful tools in supporting decision-making in MSP, although they should be used only to support

14 http://uq.edu.au/marxan/

15 http://www.ecopath.org/

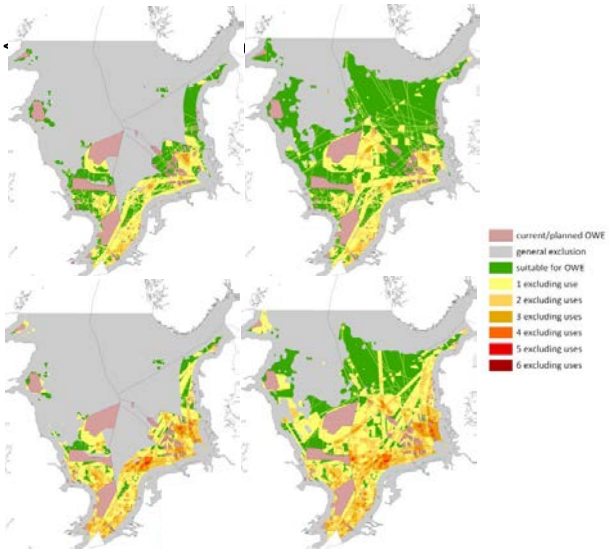
16 http://www.activetectonics.coas.oregonstate.edu/bass.htm

Box 5.4. Case study: Spatial Deployment of Offshore Wind Energy in Europe (Windspeed) – decision support tool

Description: the methodology developed as part of the project includes a GIS-based decision support system (DSS) for offshore wind energy in the North Sea, which allows spatial representation of wind energy potential in relation to non-wind functions and nature conservation. The project allows for the involvement of stakeholders in defining the DSS tool.

The Netherlands, Germany, Denmark, the UK and Norway worked together to develop a DSS GIS platform to determine the wind energy development potential in the North Sea.

The adopted bottom-up approach assumes a site-specific cost model developed for the study area for input to the DSS. The data included bathymetry, geological conditions, storm surge, spring tidal amplitude, mean wave height, extreme wave height, staging ports, grid connection points and average wind speed at 90 m. Spatial usage patterns were then collected along with "nature values" (data regarding the sensitivity of marine wildlife and habitats) and were harmonised to allow for overlay. A set of exclusion criteria was also determined.



Source: Windspeed project (Veum *et al.*, 2011).

The GIS-based platform was then developed. It presents all the spatial data available in the area and helped assess a number of development scenarios in the North Sea.

The project resulted in a map/database of sites that would present opportunities for developing wind energy in the study area, depending on criteria.

https://ec.europa.eu/energy/intelligent/projects/sites/iee-projects/files/projects/documents/windspeed_roadmap_final_publication_en.pdf

rather than to determine decisions. To date, there has not been extensive use of computer modelling for the preparation of national maritime spatial plans prepared under the MSP Directive.

5.3.4 Detailed objectives and policies

Article 8(2) of the MSP Directive lists possible activities and uses and interests that may be included in MSP frameworks. While there is no prescribed format for addressing these matters, it is important to consider what is understood by objectives, policies and development management criteria within the Irish terrestrial planning system.

Detailed objectives

An *objective* may be considered as a positive action undertaken by the competent authority or other state agency. It is vitally important to consider how objectives would be achieved. The use of SMART (specific, measureable, achievable, realistic and time-bound) principles is useful in ensuring aspirational objectives are implementable (Day, 2008; Flannery, 2015). A series of specific detailed objectives may be considered for each of the topics to be considered in the plan. These objectives should relate back to any higher level strategic objectives established in the previous stage. In setting out such objectives, information should be available to measure whether they have been implemented and achieved. The Scottish case study in Box 5.5 illustrates how detailed objectives can be set for a specific sector within a national maritime plan.

Policies

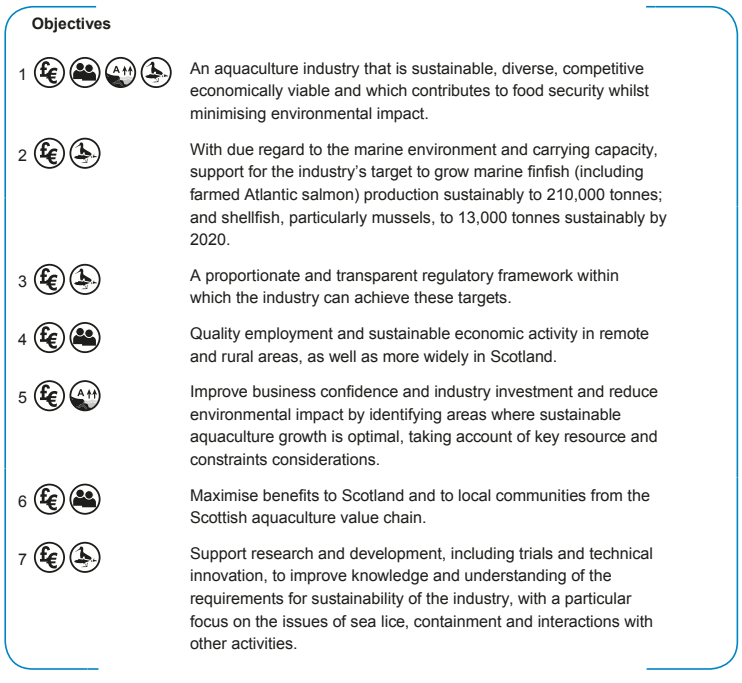
Within the Irish terrestrial planning system, there is often a distinction between objectives and policies. While objectives are often specific and measurable, policies tend to be general and sometimes aspirational in nature. Policies are used mainly to guide key activities or sectors. They are also the basis, along with objectives, for decision-making for individual projects during the consenting process. Sector-specific policies and

Box 5.5. Case study: Scotland's National Marine Plan – detail of objectives setting

Description**:** the plan provides general policies that apply to all existing and future developments and uses of the marine environment. It adopted the guiding principles of sustainable development to ensure that any resulting policy, plan or activity is carried out within environmental limits.

The plan sets out a broad vision statement that is underpinned by a series of strategic objectives. The objectives seek to integrate both the ecosystem approach and the guiding principles of sustainable development to deliver a robust approach to the managing of activities in Scottish inshore and onshore regions. The ecosystem approach is reflected in the adoption of strategic objectives of the 11 descriptors of GES. The plan sits under the UK High-level Marine Objectives. Each sector chapter contains a number of objectives specific to that marine sector, an example of which is provided.

http://www.gov.scot/Resource/0046/00465865.pdf



criteria may also be appropriate in guiding development and activities in the marine area. As with any planning policy, there needs to be the appropriate balance between certainty for users of the system and flexibility to facilitate sustainable development based upon the ecosystem approach. The use of criteria and targets may also be tied into environmental targets used in the SEA process.

5.3.5 Zoning and mapping

The use of zoning or other maps is a key component of MSP, as it allows for the visual representation of the distribution of different uses and activities and it is well understood in the Irish terrestrial planning system. Importantly, zoning maps allow for consideration of the interaction between these different uses. It can also take account of shipping movements by identifying or defining key maritime corridors. Citation 19 of the MSP Directive also emphasises that MSP should identify and encourage multi-purpose use of marine waters. Section 5.1.3 outlines the zoning approaches that can be adopted in MSP (i.e. priority, reservation, designated or open areas). At a minimum, constraints mapping is required to establish the suitable zones. Priority zoning gives flexibility in terms of shared use of common space, but will usually need to be complemented by reservation areas in the case of marine conservation and designated European sites. Complex zoning approaches require significant amounts of data and analysis to avoid unintended restrictions and criteria. An example of detailed maritime zoning is shown in Box 5.6.

In the event that a zoning approach is not taken, there will still be a need to illustrate the spatial distribution of uses and the interaction of uses. This requires, at a minimum, a description of the interaction of uses and there will be a heavy reliance on text to describe spatial concepts and to complete the presentation of information.

5.3.6 Draft plan format

The format of the plan may vary, depending upon the scope of the plan and its level within the hierarchy. However, by adapting the format for terrestrial development plans and using a similar approach to recent case examples, the format for an Irish Maritime National Plan could be as shown in Table 5.2.

5.3.7 Appropriate Assessment and Strategic Environmental Assessment

Article 6(3) of the Habitats Directive requires an AA of plans likely to have significant effects of the plan on a European site, having regard to the site's conservation objectives. The output is an NIS.

Annex I of the SEA Directive requires an assessment of the likely significant effects on the environment, including consideration of issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the inter-relationship between the above factors. Assessing different alternatives strategies can use conventional SEA objectives matrices. An outline of the reasons for selecting the alternatives should be provided and mitigating measures to address any

Table 5.2. Maritime spatial plan format

Section A: Strategic context introduction
Introduction
Purpose
Legislative requirements
Period of plan
Current trends and issues
Policy context
Characteristics of the plan area
Trends and opportunities
Key issues for the plan
Vision, strategic objectives and strategy
Vision
Strategic objectives
Overarching strategy
Section B: Objectives and policies to implement strategy
Fisheries
Aquaculture
Nature and species conservation and protected areas,
Cultural heritage and seascape
Offshore renewable energy
Extraction of materials – oil, gas and marine aggregates
Shipping, ports, harbours
Recreation and tourism
Cabling and infrastructure
Section C: Supporting information
Maps
Appendices

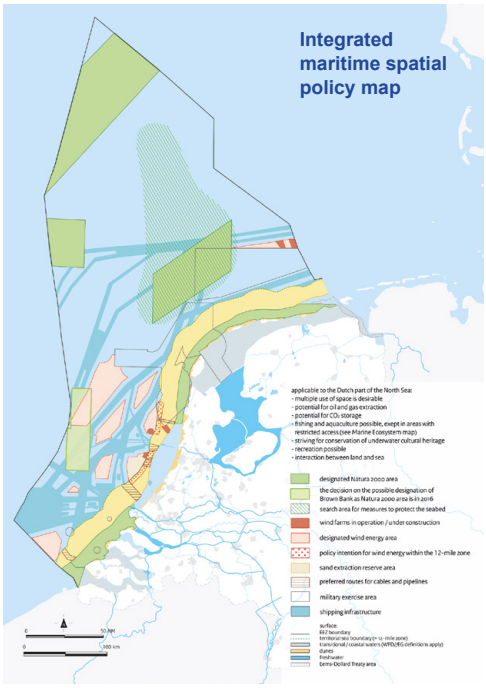
Box 5.6. Case study: Dutch integrated maritime spatial planning policy – zoning

Description: the objective of the Dutch plan is to allow the intensively used marine space to evolve efficiently, safely and sustainably. It states that the multiple use of space in an important fundamental principle in that regard, presenting opportunities for all forms of use in the North Sea. The plan seeks to allow for co-operation on spatial planning tasks within a limited surface area and stringent ecological requirements.

The Dutch plan or "Spatial Agenda" first determined five themes for the North Sea up to 2050: building with nature in the North Sea; energy transition at sea; multiple use of space; connection between land and sea; and accessibility and shipping.

A number of spatial and non-spatial considerations were also included as follows:

- respect the marine environment and achieve GES through the implementation of the MSFD measures;
- protect the six MPAs, of which four are within the EEZ;
- respect the cultural heritage in accordance with the Treaty of Malta;
- maintain the coastal defences;
- free up the horizon to the 12 Nm.



Creative Commons zero statement.

The plan entails limiting areas (temporarily or permanently) to only a single form of usage if the vulnerability of the marine environment requires this. This means that users will already be obliged to take one another into consideration at an early stage (planning, design and construction). The majority of opportunities for multiple uses relate to combining activities that logically go together from an ecological and/or economic perspective.

https://www.noordzeeloket.nl/images/Draft%20Policy%20Document%20on%20the%20North%20Sea%202016-2021_3917.pdf

adverse environmental impacts should be identified. At this point the environmental objectives, targets and indicators should be finalised for the assessment process. These objectives can be aligned with those of the plan itself and this provides a basis for monitoring the implementation of the plan. The effects of each relevant element of a plan on the environment should be identified. The output of this stage of the SEA is an ER.

5.3.8 Consultation and transboundary co-operation

This is the main stage for consultation with statutory consultees, environmental authorities, the general public and other Member States. The documents that will be the subject of this consultation are the draft plan, the ER and the NIS. It will be critically important to fulfil all statutory consultation requirements in relation to this phase. The relevant competent authority should formally sanction the draft plan prior to it being placed on public display. For a national plan, publication of notices in the national media is appropriate, combined with arrangements for online availability of documentation and submission forms. Any database of stakeholders compiled in previous stages should be utilised. Public displays at key coastal communities should also be considered. As this is a formal consultation on the draft plan, it is not considered appropriate to undertake workshops with stakeholders. This stage should be about presenting the information in the most accessible means possible. The documentation may be

made available in public buildings (e.g. local authority or regional assembly offices and libraries).

Consultation requirements in relation to SEA, including transboundary consultations, are set out in the EC (SEA) Regulations 2004–2011. It may be that formal consultations for maritime spatial plans would mirror the requirements of the SEA regulations. Generally, the draft plan and associated ER/NIS are sent by the competent authority to the relevant Member State following consultation with the relevant minister.

To conclude this task, a report on all submissions received should be prepared.

5.4 Stage 4: Amendment, Adoption, Implementation, Monitoring and Review

5.4.1 Approach

Figure 5.5 provides an indicative framework for stage 4 of the process.

5.4.2 Amendment

Amendments to the plan will be necessary following the consultation process outlined in stage 3. The amendments should result directly from observations and comments made on the draft plan, the ER and the NIS. The reason for making amendments should be clear and transparent. In addition, it is important to record all amendments made. The decisions on amendments should be formally made by the competent authority (e.g. the relevant minister) and should not be left to the steering committee, although they can make recommendations to the minister. Consideration needs to be given as to whether the amendments require further public display. The test is whether the amendments are material and significant.

5.4.3 Adoption

The adoption process needs to be clear, transparent and finite. Adoption procedures need to be clearly set down in the relevant statutory provision used. For a national plan, it is appropriate that it is laid before the Oireachtas. As the adopted plan may provide a framework for the assessment of lower level projects defined under Annex I and II of the EIA Directive, it is important that statutory procedures in relation to AA and SEA are followed (refer to section 5.4.7). Member States should submit a copy of the adopted MSP to the European Commission within 3 months of its publication.

5.4.4 Implementation and enforcement

Implementation of the adopted plan requires that a number of key actions be undertaken, which include:

- identifying the lead body responsible for overseeing the implementation of the plan – the body will usually be the competent authority tasked with preparing the plan;
- clearly defining roles and responsibilities of the main stakeholders involved in implementing the objectives of the plan (e.g. the competent authority, state bodies, utility companies, other EU Member States, members of the public);

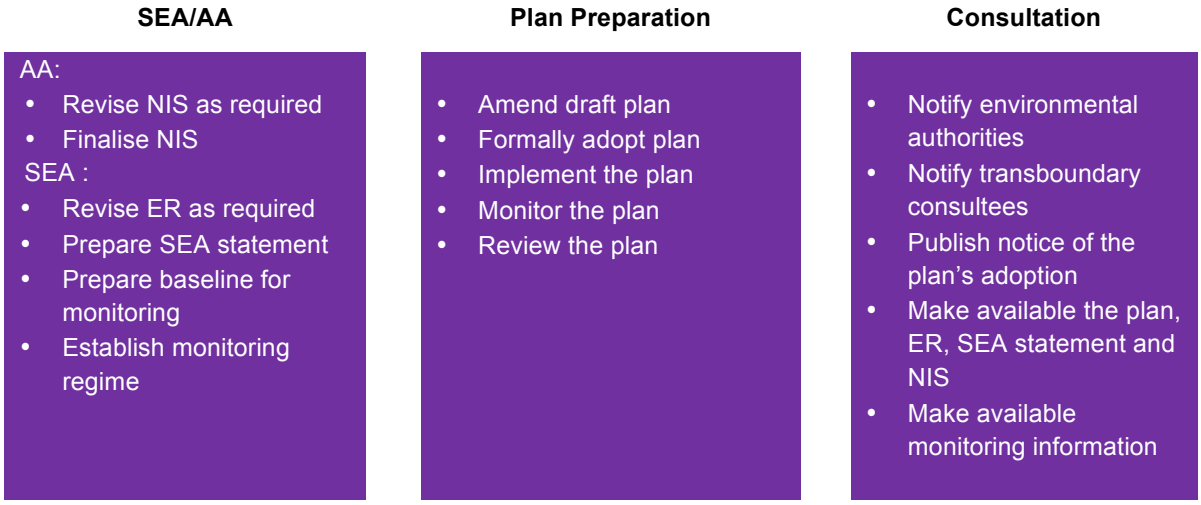


Figure 5.5. Stage 4: integrated plan-making process.

- ensuring that mechanism and arrangements are in place to co-ordinate implementation [e.g. continuation of the Marine Coordination Group (MCG)];
- confirming that appropriate funding and financial instruments are available to allow for investment in key infrastructure and other measures specified in the plan;
- ensuring that key provisions of the plan are enforced in the consenting/licensing process and that the provisions of the plan are co-ordinated with other plans and programmes (e.g. with lower level plans, terrestrial plans, MSFD and WFD);
- informing the public and other stakeholders of ongoing measures resulting from the implementation of the plan and making all relevant information publicly available;
- monitoring and evaluating the plan to ensure that key objectives are being met, and reviewing or amending as required to cater for new opportunities or unidentified pressures.

The implementation strategy should be aligned with the development and implementation of monitoring programmes required under the MSFD Directive. These will allow for monitoring and evaluation of MSP objectives based upon the MSFD descriptors. Box 5.7 outlines how HOOW is implemented.

5.4.5 Monitoring and evaluation

The focus of these recommendations is on performance monitoring, which is the ongoing process for assessing

Box 5.7. Case study: Harnessing Our Ocean Wealth (HOOW) – implementation

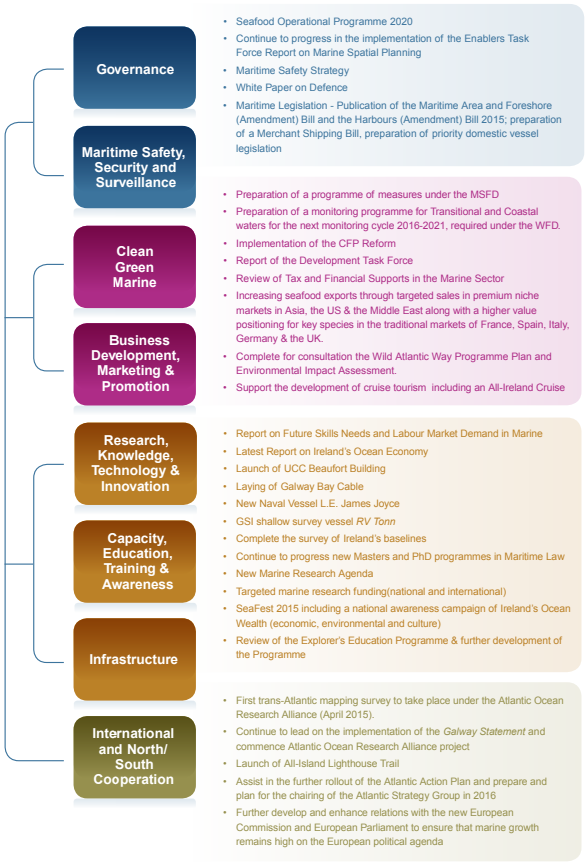
Description: HOOW is Ireland's first IMP. It is not spatial in nature but defines a timeline of tasks and responsibilities which could, if a similar approach was used, allow for the implementation of a MSP. The plan defined eight enablers of key importance to Ireland.

Part II sets out 39 actions that will be undertaken by specific authorities or groups within specified timeframes.

Part III is a short term roadmap which identifies a set of early actions, identified for the period 2012–2014. The actions have been pinpointed for the support they would provide to building capacity, readiness, feasibility and resources. The focus is on governance, maritime safety, security and surveillance, clean and green marine environment, research, knowledge, technology and innovation, capacity, education, training and awareness, infrastructure and international north/south co-operation. These were the subject of monthly updates in relation to their progress.

HOOW is supplemented with annual reviews which are publically available online. The MGC which was set up to prepare the plan meets every month to discuss implementation. The plan set up two task forces: the Development Task Force; and the ETF, the latter specifically given responsibility for MSP. A yearly conference and a website are used to meet public consultation requirements.

http://www.ouroceanwealth.ie/



Source: Government of Ireland.

programme accomplishments, particularly in relation to pre-established objectives. Evaluation can consider the appropriateness of specified objectives, indicators and targets (Ehler, 2014). This process also assists in the review of the plan. There is also an overlap with the monitoring required under the SEA Directive, which is an objective assessment of the environmental effects of implementing the plan. There are a number of steps in the monitoring and evaluation, which should be considered as an integral part of the plan-making process. The vision, strategic objectives, detailed objectives and policies can be set out in the plan itself. A monitoring plan, which can be included as part of the main plan, or as an accompanying document can include:

- the actual actions required to achieve specified objectives can also be included in the plan;
- indicators that are quantitative or qualitative statements or measured (observed) parameters that can be used to measure the effects of specific actions over time – each objective or action should have at least one indicator or set of indicators that can be developed for aspects such as good governance, socio-economic development or environmental protection;
- a baseline, which is the starting point for performance monitoring and evaluation of each performance indicator;
- a data collection plan related to each indicator to inform the baseline, which will need to address reliability, validity and timeliness.

A monitoring and evaluation report should be prepared at regular intervals (e.g. every 1 or 2 years) to inform all involved parties on the progress of the implementation of the plan. This report should analyse the data, interpret it and make any recommendations as appropriate. The report should be made available to the public and stakeholders.

5.4.6 Review

Plan-making is an ongoing cyclical process and data gathered during the monitoring and implementation phase should feed back into the new plan. Due regard should be had to the lead in times to review a plan and go through the process of preparation and adoption. For plans with 10-year review periods, it is recommended that this process should commence at least 2 years before the expiry of the then current plan.

5.4.7 Appropriate Assessment and Strategic Environmental Assessment

Article 9 of the SEA Directive provides that where a plan is adopted, the environmental authorities, the public and other Member States (if required) should be informed that the plan is adopted. A statement summarising how environmental matters were considered in the plan, along with proposed monitoring measures, must be included.

Article 10 of the SEA Directive requires monitoring of significant environmental impacts of implementing the plan or programme in order, *inter alia*, to identify at an early stage unforeseen adverse effects and be able to undertake appropriate remedial action. This monitoring exercise should be effectively integrated with the monitoring and evaluation of the plan itself. The SEA will often identify the appropriate targets and indicators for each of the environmental related objectives.

Article 6(3) of the Habitats Directive indicates that a plan can only be adopted after it has been ascertained that it will not adversely affect the integrity of a European site and, if appropriate, after having obtained the opinion of the general public. There is no specific statutory requirement for AA monitoring, however, environmental indicators can be captured in the required SEA-related monitoring measures. Under Article 6(4) derogation procedures must be followed in the cases where the plan should proceed for imperative reasons of overriding public interest (IROPI), notwithstanding that it may adversely affect the integrity of a European site, and compensatory procedures should be proposed.

5.4.8 Consultation and transboundary co-operation

A notice should be published informing the public that the maritime spatial plan has been adopted. The adopted plan should be made publicly available along with the final ER, the SEA statement and the NIS. There will be consultation requirements at this stage arising from the SEA Directive, as outlined above. It is imperative that the consultation with key stakeholders and the public is maintained throughout the implementation phase. A copy of the adopted plan should be sent to any other relevant Member State within 3 months of its publication.

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Glossary

Appropriate assessment (AA)	Assessment of the likely significant effects of a plan, programme or project on a European site in view of its conservation objectives. The assessment is underpinned by the precautionary principle, whereby a proposal cannot be granted permission, consent or authorisation if it cannot be excluded on the basis of scientific examination that the plan or project will adversely affect the integrity of one or more European sites. The process entails the preparation of a NIS in the current Irish legislative system
Competent authority	The public authority that is designated by Member States and which is responsible for implementing the MSP Directive and preparing the maritime spatial plans
Consent	Includes any licence, permission, permit, approval or other such authorisation granted by a public authority for any activity or project
Conservation objectives	These refer to the maintenance of favourable status or restoration to such favourable status of the habitat and species for which a site has been designated as a European site. The objectives also include such particular objectives as the Minister for Arts, Heritage and the Gaeltacht [Department of Arts, Heritage and the Gaeltacht (DAHG)] may from time to time establish for these purposes under Regulation 26 of the EC (Birds and Natural Habitats) Regulations 2011
Designated	In the context of these recommendations and in recognition of common usage, and unless otherwise specified, the term “designated” is used to refer to international sites (e.g. Ramsar, Biosphere Reserve), European sites [i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)] and national sites [e.g. National Heritage Area (NHA), Nature Reserve, National Parks] that are legally designated or are going through the process of designation
Ecosystem-based approach	An approach to ensure that the collective pressure of all activities is kept within levels compatible with the achievement of GES and that the capacity of marine ecosystems to respond to human-induced changes is not compromised, while contributing to the sustainable use of marine goods and services by present and future generations
Environmental Impact Assessment (EIA)	Assessment of the effects of projects on the environment. The process entails the preparation of an Environmental Impact Statement to inform decision-making and the carrying out of an assessment by the competent authority. The term is defined in section 171A of the Planning and Development Act 2000, as amended, and in the EIA Directive (2014/52/EU)
European site	As defined in section 177R of the Planning and Development Act 2000, as amended. This definition includes candidate SACs and SPAs, in addition to current SACs and SPAs

Geographic information system (GIS)	Array of technological tools presented on a geographic basis for the management, analysis and display of spatial data that can provide evidence-based information to support plan-making, impact assessment and AA
Good environmental status (GES)	As defined in Article 3(5) of the MSFD Directive (2008/56/EC) means the environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas that are clean, healthy and productive within their intrinsic conditions, and the use of the marine environment is at a level that is sustainable, thus safeguarding the potential for uses and activities by current and future generations
Imperative reasons of overriding public interest (IROPI)	Where a plan is likely to have adverse effects upon the integrity of a European site, or where adverse effects cannot be ruled out, and in the absence of suitable alternative solutions, the competent authority may approve the plan in the case where it can be considered to be necessary for imperative reasons of overriding public interest (IROPI)
Maritime spatial planning	Process by which competent state authorities analyse and organise human activities in marine areas to achieve ecological, economical and social objectives
Natura 2000 network	EU-wide network of nature protection areas established under the 1992 Habitats Directive. The aim of the network is to assure the long-term survival of Europe's most valuable and threatened species and habitats. It includes designated European sites
Natura Impact Statement	A report comprising the scientific examination of a plan or project and any relevant European site or European sites, to identify and characterise any possible implications of the plan or project individually or in combination with other plans or projects in view of the conservation objectives of the site or sites, and any further information including, but not limited to, any plans, maps or drawings, scientific information or data required to enable the carrying out of an AA
Nautical mile (Nm)	Measurement used for distances at sea. 1 Nm equates to 1.852 km. It is the length of 1 minute of latitude along the circumference of the earth at the equator. Marine jurisdiction is determined by reference to nautical miles
Sustainable development	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs

Abbreviations

AA	Appropriate assessment
BASS	Bayesian Analysis for Spatial Siting
BBN	Bayesian Belief Network
DECLG	Department of Environment, Community and Local Government
DSS	Decision Support System
EC	European Commission
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
ER	Environmental Report
EU	European Union
GES	Good environmental status
GIS	Geographic information system
HOOW	Harnessing Our Ocean Wealth
ICZM	Integrated Coastal Zone Management
IMP	Integrated Maritime Policy
IROPI	Imperative reasons of overriding public interest
LARES	Local Authority Renewable Energy Strategy
MMO	Marine Management Organisation
MPA	Marine Protected Area
MSFD	Marine Strategy Framework Directive
MSP	Maritime spatial planning
NIS	Natura Impact Statement
Nm	Nautical mile
NOAA	National Oceanic and Atmospheric Administration
OREDP	Offshore Renewable Energy Development Plan
OSPAR	Oslo/Paris Convention for the Protection of the Marine Environment of the North East Atlantic
RED	Renewable Energy Directive
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SEAI	Sustainable Energy Authority of Ireland
SIMSP	Shetland Islands' Marine Spatial Plan
SPA	Special Protection Area
UK	United Kingdom
UNCLOS	United Nations Convention on the Law of the Sea
WFD	Water Framework Directive

Appendix 1 Relevant Guidance Documents

Topic Sector	Publication Guidance document
General guidance	Agardy, T., Christie, P. and Nixon, E., 2012. *Synthesis document on the experience and use of marine spatial planning.* Convention on Biological Diversity. Subsidiary Body on Scientific and Technological Advice, UNEP/CBD/SBSTTA/16/INF/18.
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Topic Sector	Publication Guidance document
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Appendix 2 Summary of Maritime Spatial Planning Directive

Article	Summary of provision	Section
1	MSP to promote maritime economies, sustainable development and sustainable use of resources, taking into account land–sea interactions and transboundary co-operation	1.4, 2.1.2, 3.1.4
2	The directive applies to marine waters, but not to coastal waters or areas covered by town and country planning, military requirements and in accordance with UNCLOS	3.2.1, 3.3
3	Definitions for the purposes of the directive	1.4, 3.2.1
4	Member States to establish maritime spatial planning to take into account land–sea interaction, governance, institutional particulars of the marine region, existing and future uses. This may include existing policies.	2.5, 3.1, 3.1.2, 3.1.5, 3.2.1, 5.1.6
5	Promote sustainable development by applying an ecosystem-based approach with reference to energy, maritime transport, fisheries, aquaculture, tourism, extraction of raw materials, preservation of the environment and resilience to climate change	5.1.3
6	Appropriate procedures should be put in place to contribute to the maritime spatial planning objectives and plans should be reviewed at least every 10 years	5.4.5, 5.4.6
7	Formal and informal processes should be used to take account of land–sea interactions (e.g. integrated coastal management) without interfering with Member States' town and country planning competences	3.3
8	Spatial and temporal distribution existing and future activities should be considered and can include aquaculture areas, fishing areas, installations and infrastructures for the exploration, exploitation and extraction of oil, gas and other energy resources, of minerals and aggregates, and for the production of energy from renewable sources, maritime transport routes and traffic flows, military training areas, nature and species conservation sites and protected areas, raw material extraction areas, scientific research, submarine cable and pipeline routes, tourism and underwater cultural heritage	4.1, 5.1.6
9	Ensure public participation and consultation at an early stage	3.1.3, 5.1.9
10	Data should be used and shared in accordance with the INSPIRE Directive	5.1.7
11	Border Member States should co-operate to ensure a coherent approach is taken to MSP across marine regions. Existing mechanisms and regional sea conventions should be used	3.1.4, 5.2.7
12	Co-operation with third countries	3.1.4, 5.1.9
13	Member States should specify competent authorities for the purposes of implementing MSP	3.1.2
14	Member States send published plans to the Commission and other Member State concerned and report on implementation of the MSP Directive	5.4.8
15	Directive to be transposed and competent authorities identified by 18 September 2016 and plans to be in place by 31 March 2021	3.1.1
16	Entry into force date	
17	Addressees	

Appendix 3 Marine Strategy Framework Directive Descriptors

Descriptor	Text
Descriptor 1	Biological diversity (species and habitats maintained)
Descriptor 2	Non-indigenous species (levels are minimised)
Descriptor 3	Population of commercial fish/shellfish (within safe biological limits – healthy stocks)
Descriptor 4	Elements of marine food webs (all elements at normal abundance and diversity)
Descriptor 5	Eutrophication (excessive nutrient input from human activities is minimised)
Descriptor 6	Sea floor integrity (species, habitats and structures and functions are not adversely affected)
Descriptor 7	Alteration of hydrographical conditions (changes in physical conditions of waters does not affect marine ecosystems)
Descriptor 8	Contaminants (levels do not give rise to pollution effects)
Descriptor 9	Contaminants in fish and seafood for human consumption (levels do not exceed standards)
Descriptor 10	Marine litter (quantities do not cause harm to the environment)
Descriptor 11	Introduction of energy, including underwater noise (levels do not affect the environment)

AN GHNÍOMHAIREACHT UM CHAOMHNÚ COMHSHAOIL

Tá an Ghníomhaireacht um Chaomhnú Comhshaoil (GCC) freagrach as an gcomhshaol a chaomhnú agus a fheabhsú mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaol a chosaint ó éifeachtaí díobhálacha na radaíochta agus an truaillithe.

Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

Rialú: *Déanaimid córais éifeachtacha rialaithe agus comhlíonta comhshaoil a chur i bhfeidhm chun torthaí maithe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcloíonn leis na córais sin.*

Eolas: *Soláthraímid sonraí, faisnéis agus measúnú comhshaoil atá ar ardchaighdeán, spriocdhírithe agus tráthúil chun bonn eolais a chur faoin gcinnteoireacht ar gach leibhéal.*

Tacaíocht: *Bímid ag saothrú i gcomhar le grúpaí eile chun tacú le comhshaol atá glan, táirgiúil agus cosanta go maith, agus le hiompar a chuirfidh le comhshaol inbhuanaithe.*

Ár bhFreagrachtaí

Ceadúnú

Déanaimid na gníomhaíochtaí seo a leanas a rialú ionas nach ndéanann siad dochar do shláinte an phobail ná don chomhshaol:

- saoráidí dramhaíola *(m.sh. láithreáin líonta talún, loisceoirí, stáisiúin aistrithe dramhaíola)*;
- gníomhaíochtaí tionsclaíocha ar scála mór *(m.sh. déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta)*;
- an diantalmhaíocht *(m.sh. muca, éanlaith)*;
- úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe *(OGM)*;
- foinsí radaíochta ianúcháin *(m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíocha);*
- áiseanna móra stórála peitril;
- scardadh dramhuisce;
- gníomhaíochtaí dumpála ar farraige.

Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil

- Clár náisiúnta iniúchtaí agus cigireachtaí a dhéanamh gach bliain ar shaoráidí a bhfuil ceadúnas ón nGníomhaireacht acu.
- Maoirseacht a dhéanamh ar fhreagrachtaí cosanta comhshaoil na n-údarás áitiúil.
- Caighdeán an uisce óil, arna sholáthar ag soláthraithe uisce phoiblí, a mhaoirsiú.
  - Obair le húdaráis áitiúla agus le gníomhaireachtaí eile chun dul i ngleic le coireanna comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, trí dhíriú ar chiontóirí, agus trí mhaoirsiú a dhéanamh ar leasúchán.
- Cur i bhfeidhm rialachán ar nós na Rialachán um Dhramhthrealamh Leictreach agus Leictreonach (DTLL), um Shrian ar Shubstaintí Guaiseacha agus na Rialachán um rialú ar shubstaintí a ídíonn an ciseal ózóin.
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaol.

Bainistíocht Uisce

- Monatóireacht agus tuairisciú a dhéanamh ar cháilíocht aibhneacha, lochanna, uiscí idirchriosacha agus cósta na hÉireann, agus screamhuiscí; leibhéil uisce agus sruthanna aibhneacha a thomhas.
- Comhordú náisiúnta agus maoirsiú a dhéanamh ar an gCreat-Treoir Uisce.
- Monatóireacht agus tuairisciú a dhéanamh ar Cháilíocht an Uisce Snámha.

Monatóireacht, Anailís agus Tuairisciú ar an gComhshaol

- Monatóireacht a dhéanamh ar cháilíocht an aeir agus Treoir an AE maidir le hAer Glan don Eoraip (CAFÉ) a chur chun feidhme.
- Tuairisciú neamhspleách le cabhrú le cinnteoireacht an rialtais náisiúnta agus na n-údarás áitiúil *(m.sh. tuairisciú tréimhsiúil ar staid Chomhshaol na hÉireann agus Tuarascálacha ar Thascairí)*.

Rialú Astaíochtaí na nGás Ceaptha Teasa in Éirinn

- Fardail agus réamh-mheastacháin na hÉireann maidir le gáis cheaptha teasa a ullmhú.
- An Treoir maidir le Trádáil Astaíochtaí a chur chun feidhme i gcomhair breis agus 100 de na táirgeoirí dé-ocsaíde carbóin is mó in Éirinn.

Taighde agus Forbairt Comhshaoil

- Taighde comhshaoil a chistiú chun brúnna a shainaithint, bonn eolais a chur faoi bheartais, agus réitigh a sholáthar i réimsí na haeráide, an uisce agus na hinbhuanaitheachta.

Measúnacht Straitéiseach Timpeallachta

- Measúnacht a dhéanamh ar thionchar pleananna agus clár beartaithe ar an gcomhshaol in Éirinn *(m.sh. mórphleananna forbartha)*.

Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéil radaíochta, measúnacht a dhéanamh ar nochtadh mhuintir na hÉireann don radaíocht ianúcháin.
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha.
- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíochta.
- Sainseirbhísí cosanta ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

Treoir, Faisnéis Inrochtana agus Oideachas

- Comhairle agus treoir a chur ar fáil d'earnáil na tionsclaíochta agus don phobal maidir le hábhair a bhaineann le caomhnú an chomhshaoil agus leis an gcosaint raideolaíoch.
- Faisnéis thráthúil ar an gcomhshaol ar a bhfuil fáil éasca a chur ar fáil chun rannpháirtíocht an phobail a spreagadh sa chinnteoireacht i ndáil leis an gcomhshaol (*m.sh. Timpeall an Tí, léarscáileanna radóin).*
- Comhairle a chur ar fáil don Rialtas maidir le hábhair a bhaineann leis an tsábháilteacht raideolaíoch agus le cúrsaí práinnfhreagartha.
- Plean Náisiúnta Bainistíochta Dramhaíola Guaisí a fhorbairt chun dramhaíl ghuaiseach a chosc agus a bhainistiú.

Múscailt Feasachta agus Athrú Iompraíochta

- Feasacht chomhshaoil níos fearr a ghiniúint agus dul i bhfeidhm ar athrú iompraíochta dearfach trí thacú le gnóthais, le pobail agus le teaghlaigh a bheith níos éifeachtúla ar acmhainní.
- Tástáil le haghaidh radóin a chur chun cinn i dtithe agus in ionaid oibre, agus gníomhartha leasúcháin a spreagadh nuair is gá.

Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil

Tá an ghníomhaíocht á bainistiú ag Bord lánaimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóirí. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inmharthanacht Comhshaoil
- An Oifig Forfheidhmithe i leith cúrsaí Comhshaoil
- An Oifig um Fianaise is Measúnú
- An Oifig um Cosaint Raideolaíoch
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag comhaltaí air agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair imní agus le comhairle a chur ar an mBord.

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Towards an Integrated Policy Framework for Maritime Spatial Planning in Ireland: Recommendations for Preparing Maritime Spatial Plans in Ireland

Authors: Conor Norton, Jerry Barnes, Wesley Flannery, Deiric O'Broin, Cillian Adamson, Sybil Berne

Identifying Pressures

The use of the Irish marine space is increasing. As maritime activities intensify, there is increased competition for use of space and potential conflicts with other objectives such as the protection of the marine environment. Addressing governance issues and resolving conflicts between different stakeholders are increasingly important. There is a need for a holistic vision and management to allow for the balance of social, economic and environmental interests and to ensure that maritime space and resources are used in a planned and sustainable manner. This report outlines a holistic vision and management to allow for the balance of social, economic and environmental interests and to ensure that maritime space and resources are used in a planned and sustainable manner.

Informing Policy

Maritime spatial planning (MSP) is a process by which state authorities analyse and organise human activities in marine areas to achieve ecological, economic and social objectives. It is the subject to the Maritime Spatial Planning Directive (2014/EC/89). The Directive has to be transposed by September 2016 and maritime spatial plans have to be in place by April 2021. There is a need adopt a coherent approach to the preparation of maritime spatial plans in an Irish context. The research outlined in this report will support policy implementation in this important area.

Developing Solutions

This research project seeks to develop a staged integrated approach for the preparation of maritime spatial plans in Ireland which will facilitate the management of maritime area in a sustainable manner. The staged approach ensures that a rational and consistent process is applied to the spatial plan-making processes. This approach facilitates a full understanding of the maritime environment and issues, allows for appropriate objective-setting and strategy development, provides a framework for drafting the plan and resolving conflicts, and allows for adoption and monitoring. As spatial planning is an on-going process within plan-making cycles, there is a review process which allows for revision and updating. Integration of plan-making, environmental assessment and consultation promotes broader acceptance by stakeholders, ensures a legally robust plan and effectively integrates environmental considerations and the ecosystem-based approach into plan preparation.

EPA Research: McCumiskey House, Richiew, Clonskeagh, Dublin 14.

Phone: 01 268 0100
Twitter: @EPAResearchNews
Email: research@epa.ie

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