

EMFF Operational Programme 2014-2020

# Technical and Scientific Programmes for Marine Spatial Planning

Fostering the Implementation of the Integrated Maritime Policy



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## Technical and Scientific Programmes for Marine Spatial Planning

<b>Operational Programme</b>	European Maritime and Fisheries Fund (EMFF) Operational Programme 2014-2020
<b>Priority</b>	Union Priority 6 – Fostering the Implementation of the Integrated Maritime Policy
<b>Thematic Objective</b>	TO 6 – Preserving and protecting the environment and promoting resource efficiency
<b>Specific Objective</b>	SO1 - Development and implementation of the Integrated Maritime Policy
<b>Measure</b>	Blue Growth & Marine Spatial Planning Scheme
<b>EMFF Certifying Body</b>	Finance Division, Department of Agriculture, Food and the Marine
<b>Managing Authority</b>	Marine Agencies & Programmes Division, Department of Agriculture, Food and Marine
<b>Specified Public Beneficiary Body</b>	Marine Institute
<b>Grant Rate</b>	100%
<b>EU Co-Financing Rate</b>	50%
<b>Legal Basis</b>	Article 79 and 80 EMFF

## 1. Introduction

The Blue Growth & Marine Spatial Planning Scheme is established under Union Priority 6 (Integrated Maritime Policy) of Ireland's European Maritime and Fisheries Fund (EMFF) Operational Programme. It is co-funded by the Irish Government and the EU.

Operation 1 of the Scheme is providing technical and scientific support for the development of a Marine Spatial Plan for Ireland.

## 2. Objective

The objective of the Scheme is to address a number of needs identified under Ireland's European Maritime and Fisheries Fund Operational Programme. These include:

- a. Improving data and knowledge generation, management and sharing; including the development of new products and services (e.g. Ireland Marine Atlas and delivery to EMODNET), in support of a range of policies and directives such as Common Fisheries Policy, Natura, Marine Strategy Framework Directive and Maritime Spatial Planning.
- b. Collecting, collating and mapping accurate, up-to-date spatial and temporal information on marine ecosystems and human activities taking place within Ireland's maritime domain to support marine spatial planning.
- c. Developing strong marine spatial data analysis, modelling and decision support capabilities.
- d. Developing integrated/coordinated marine and coastal planning and licensing in order to sustainably maximise the potential for Ireland's ocean economy.
- e. Better understanding the implication of climate change on ecosystem goods and services and human activities through monitoring and modelling.
- f. Delivering social and economic development objectives, consistent with our environmental obligations and Ireland's Integrated Marine Plan – Harnessing Our Ocean Wealth.

*"The implementation of UP6 will allow Ireland to improve the level of protection of marine resources and to create conditions for the sustainable exploitation of natural resources which can form the basis of a blue economic plan. The implementation is aligned with Ireland's IMP. The possibilities to co-ordinate maritime activities and sharing of information (including across Member States) will be supported as will the development of maritime spatial planning."*

Ireland's EMFF Operational Programme

### 3.

## Implementation

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Funding under this Scheme requires the Specified Public Beneficiary Body (the Marine Institute) to submit to the Managing Authority (DAFM) annual/multi-annual work programmes for approval. Specific projects outlined in these work programmes are directly related to:

- Integrated Maritime Policy for the EU (COM(2007) 575), and associated Regulation (EU) No 1255/2011 of the European Parliament and of the Council of 30 November 2011 establishing a Programme to support the further development of an Integrated Maritime Policy;
- Maritime Spatial Planning Directive (2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning). The Directive was transposed into Irish legislation by S.I. No. 352 of 2016. The regulations establish the legal basis and broad framework for Ireland to implement MSP through the development of a maritime spatial plan on a 10 year cycle. ;
- Cross cutting policies linked to the EU's Integrated Maritime Policy, including:
  - Blue growth
  - Marine data and knowledge
  - Maritime spatial planning
  - Integrated maritime surveillance
  - EU Strategy for the Atlantic and associated Action Plan,
- EMFF Regulation (508/2014) and Ireland's policy objectives under this Scheme and the EMFF OP;
- Ireland's policy and legislative framework for Marine Spatial Planning,;
- Ireland's policy document 'Harnessing Our Ocean Wealth – An Integrated Marine Plan for Ireland'.

## 4. Technical & Scientific Programmes

The Department of Housing, Planning and Local Government (DHPLG) is the competent authority for the purposes of the MSP Directive and for the preparation of Ireland's first marine spatial plan. The Marine Institute is providing technical and scientific support to the DHPLG and other relevant departments and agencies in preparing the Plan.

The principal purpose of the Technical and Scientific Programmes for Marine Spatial Planning is to deliver spatial data and evidence services to support MSP in Ireland. Projects have been split into three categories:

### 1: Spatial Data and Evidence Projects

Spatial Data and Evidence Projects will provide a technical and scientific foundation for implementation of MSP in Ireland. A data discovery, collation, and a gap analysis will be undertaken and where critical gaps are identified, data will be sourced. Ireland's marine ecosystem services will be characterised and mapped. The implication of climate change on marine spatial planning will be explored. A review of existing decision support tools and spatial modelling will be undertaken.

### 2: MSP Data Management & Information Services

Projects under the MSP Data Management & Information Services Programme will ensure a coordinated approach to data management and that high quality marine data will be available for MSP, complying with relevant licence conditions, INSPIRE metadata requirements and data governance procedures.

### 3. Research Initiatives

The aim of the research initiatives is to understand a specific research gap linked to MSP. Initial projects include an investigation into marine invasive species and their relevance to MSP.

### 1. Spatial Data and Evidence Projects

#### Project 1: Data Discovery, Collation and Gap Analysis for Spatial Representation

Project 1 aims to identify and map datasets of relevance to the MSP process and review their validity. It will provide up-to-date spatial and temporal information on marine ecosystems and human activities taking place within Ireland's maritime domain to support marine spatial planning. This will advance marine data and knowledge in Ireland and is a fundamental exercise for successful implementation of MSP. It is the first step in the process and delivers enhanced spatial evidence to support ecosystem based advice and planning. This project will improve existing marine data and knowledge programmes such as Ireland's Marine Atlas, Digital Ocean and delivery of Irish Data to EMODnet, the European marine data portal. As part of this project, a gap analysis is being undertaken. This will inform future data collection and mapping priorities.

**Project Partners:** ABPMer (Lead), Plymouth Marine Laboratory, LUC, MacCabe Durney Barnes, Matt Rayment, IWDG Consulting, MERC Environmental, Birdwatch Ireland, Liverpool University, Exeter University

**Duration:** 2 years (2018-2019)

**Project Outputs:**

- Catalogue of spatial, environmental, socio-economic data
- Data gap analysis
- Delivery of spatial data required for MSP Directive, e.g. marine activities, distribution of key species and ecosystems

**Estimated Project Cost:** €300,000

## Project 2: Data Prioritisation and Collection for Spatial Representation

This project will build on Project 1 Data Discovery, Collation and Gap Analysis for Spatial Representation. Specifically Project 2 aims to provide up-to-date spatial and temporal information by filling in gaps in knowledge required to support MSP, regarding human activities, pressures, resource distribution etc. This will advance marine data and knowledge in Ireland and is a fundamental exercise for successful implementation of MSP.

**Project Partners:** ABPMer (Lead), Plymouth Marine Laboratory, LUC, MacCabe Durney Barnes, Matt Rayment, IWDG Consulting, MERC Environmental, Birdwatch Ireland, Liverpool University, Exeter University

**Duration:** 2 years (2018-2019)

### Project Outputs:

- Prioritisation of additional data and information requirements
- Continued delivery of spatial data required under the MSP Directive: marine activities, resource maps, maps of pressures

**Estimated Project Cost:** €125,000

### Project 3: Ecosystems Services in Marine Spatial Planning

This project involves data collection, collation and analytical studies to identify, characterise and map Ireland's marine provisioning, regulating / maintenance and cultural services. There is currently a lack of information available about marine ecosystem services in Ireland. This project will contribute to improved marine data and knowledge to inform the MSP process. Maps of existing and potential ecosystem service that are produced will be useful to inform the costs/benefit analyses (i.e., trade-offs) of potential marine spatial planning options and sectoral growth opportunities.

**Project Partners:** ABPMer (Lead), Plymouth Marine Laboratory, LUC, MacCabe Durney Barnes, Matt Rayment, IWDG Consulting, MERC Environmental, Birdwatch Ireland, Liverpool University, Exeter University

**Duration:** 2 years (2018-2019)

**Project Outputs:**

- Characterisation of Ireland's marine ecosystem services
- Evidence base and report on the value of natural capital that is providing these ecosystem services
- Maps of Ireland's marine Ecosystem Services and Natural Capital
- Identification and mapping of threats and opportunities linked to ecosystem services

**Estimated Project Cost:** €250,000

## Project 4: MSP and the Impacts of Climate Change

This project will explore and develop the evidence on climate change implications for MSP. A review of existing MSP will summarise best practice approaches for incorporating climate change in marine spatial plans.

The project will collect, collate, model and map potential spatial changes to the distribution of Ireland's marine provisioning, regulating / maintenance and cultural services as a result of climate change. In addition, the project will also look to model and map potential spatial changes to the distribution of activities in Ireland's marine environment, including potential for new economic activity as a result of climate change. This could include changes in fish communities and fishing activities, changes in species suitable for aquaculture etc. Finally, based on existing data and information, implications of sea level rise on coastal infrastructure e.g. roads, rails, buildings, utility networks, will be mapped and/or modelled.

**Project Partners:** ABP Mer (Lead), Plymouth Marine Laboratory, LUC, MacCabe Durney Barnes, Matt Rayment, IWDG Consulting, MERC Environmental, Birdwatch Ireland, Liverpool University, Exeter University

**Duration:** 2 years (2018-2019)

### Project Outputs:

- Best practice on the approaches taken to deal with climate change in marine spatial planning
- Vulnerabilities and opportunities for Ireland's marine ecosystem services under climate change
- Vulnerabilities and opportunities for Ireland's marine-based activities under climate change
- Assess implications of sea level rise for coastal infrastructure

**Estimated Project Cost:** €250,000

## Project 5: Integrating Marine Spatial Data: Best Practice in Modelling and Decision Support Tools

Project 5 will review the available modelling and decision support tools for MSP. These may relate to data provision, pressures and impacts of human activities. This project will identify best practice technical tools in the Irish context.

The project will deliver focused studies to identify and evaluate best practice models used in, or of relevance to, spatial data management and integration. The project will also provide technical advice as to how to add value to the spatially represented data

**Project Partners:** ABPMer (Lead), Plymouth Marine Laboratory, LUC, MacCabe Durney Barnes, Matt Rayment, IWDG Consulting, MERC Environmental, Birdwatch Ireland, Liverpool University, Exeter University

**Duration:** 2 years (2018-2019)

### **Project Outputs:**

- Evaluation of best practice models for spatial data management and integration
- Analysis on existing products that can add value to spatially represented data collected in this operation
- Model/tool development and model parameterisation for use in the Irish context;

**Estimated Project Cost:** €200,000

## 2. MSP Data Management & Information Services

### Projects 6: Data Integration for Improved Spatial Analysis and Representation

Project 6 will improve understanding of what marine data are available to form a basis for improved MSP-related products and decision support tools. It will leverage current and future operational programmes through reuse of data collected, without incurring the otherwise substantial data acquisition costs, meaning that data can be more easily integrated and reused. It will lead to better definition and greater clarity as to the origin and quality of underlying data and information being used in decision making.

Improvements to data processes are needed to underpin new MSP-related products and services.

**Project Partners:** Marine Institute, Compass Informatics

**Duration:** 2 years (2018-2019)

**Project Outputs:**

- Data usage agreements for MSP relevant datasets
- Report detailing data standards to allow the integration / reuse of MSP data
- Metadata to describe data availability, ownership and licensing, lineage, and quality
- Data process flows required for MSP
- Procedures documented for handling of prioritised datasets

**Estimated Project Cost:** €537,000

## Projects 7: MSP Data Governance

The aim of Project 7 is to ensure reliable data storage and management systems. This will provide assurance of the availability and versioning of data. Improved data archiving will support legislative compliance and reduce costs by only retaining data which are required. This project will mean that access to data and information is controlled to meet legislative and data owner requirements, necessary to assure ongoing availability of these data. The data catalogue will provide clarity as to what data are available and their usage suitability. More consistent data storage and access will provide easier integration and reuse.

**Project Partners:** Marine Institute, Compass Informatics

**Duration:** 2 years (2018-2019)

**Project Outputs:**

- Data Management framework
- Data Management Plans
- Data Governance Policy to define how data can be used for MSP services
- MSP Data Catalogue system in place
- MSP Data Storage and Management Systems in place

**Estimated Project Cost:** €439,000

### 3. Research Initiatives

#### **Projects 8-9: Invasive Species Surveillance and Spatial Mapping for Decision Making Support**

The aim of the Research Initiatives is to understand a specific research gap linked to MSP. It is proposed to initiate an investigation into marine invasive species and their relevance to MSP. Nationally, there is an acknowledged gap in the availability of Marine Invasive Species Surveillance and Mapping. Projects 8&9 are due to commence in 2018.

## 6. Providing an Integrated Approach

The Marine Institute uses an integrated approach to the collection of marine knowledge and data under EMFF. The Institute is implementing three schemes: Marine Biodiversity, Data Collection and Blue Growth & Marine Spatial Planning. The collection and use of biological, ecological and socioeconomic data is maximised by integrating across the three schemes, adding value to existing sampling programmes and developing multiple data products for different end-user and policy needs.

Further details available on [www.emff.marine.ie](http://www.emff.marine.ie)

Managing Authority EMFF 2014-2020	Specified Public Beneficiary Body
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