Towards sustainability in the Celtic Sea

PISCES

Supporting Sustainable Seas

A guide to implementing the ecosystem approach through the Marine Strategy Framework Directive

Life

About PISCES

PISCES (Partnerships Involving Stakeholders in the Celtic Sea Ecosystem) has brought together stakeholders from the Celtic Sea to develop this practical guide on implementing the ecosystem approach in the context of the European Union (EU) Marine Strategy Framework Directive (MSFD). Co-funded by LIFE+, the project ran from 2009 to 2012. It was led by WWF-UK in partnership with WWF-Spain and The Environment Council, with country technical support from the Coastal and Marine Research Centre in Ireland and SeaWeb in France.

The Celtic Sea

The Celtic Sea, in the north-east Atlantic Ocean (see Figure 1), has a long maritime heritage and supports many economically significant industries and activities. It is an extraordinarily productive sea, hosting varied habitats and a wealth of biodiversity (including many commercially important species). However, the growing demand for finite marine space and resources is causing increasing conflict between stakeholders, and threatening the health of marine environment on which so many depend. PISCES stakeholders have an alternative vision for the Celtic Sea: one in which marine industries flourish, communities prosper and the environment is healthy.

The ecosystem approach and the Marine Strategy Framework Directive

The ecosystem approach is a way of making decisions in order to manage our activities sustainably. The MSFD requires EU countries to develop marine strategies based on the ecosystem approach. Implemented in the right way, the ecosystem approach could help to ensure we have viable marine industries, prosperous coastal communities and a healthy marine environment for generations to come. PISCES stakeholders want to ensure this happens in the Celtic Sea, and play a vital role in the process.

How the guide was developed

This guide is the result of a unique partnership involving stakeholders from the Celtic Sea. With a focus on sea users, a committed multinational, cross-sectoral group of volunteers was directly involved in determining the objectives, scope and content. It reflects their views, needs, aspirations and vision for the area.

We held five stakeholder workshops across the region (in England, Wales, Ireland, France and Spain) with 46 participants (see Section 10). We collected additional information through literature research, interviews, questionnaires and other sources. This guide also benefited from the contributions of an advisory group of international experts (working in the fields of marine policy, management, the ecosystem approach and stakeholder engagement – see Section 10) and from comments from a range of other individuals across Europe (representing government, sea-users, non-governmental organisations (NGOs), universities and others).

An innovative approach

PISCES has been the first opportunity for people who use, work, live by or enjoy the Celtic Sea to translate policy into practical recommendations. The approach has helped to increase knowledge, build trust between sectors and create a powerful voice for Celtic Sea stakeholders.

Further information:
www.projectpisces.eu

PISCES declaration

We, the PISCES stakeholders, declare that we have fully participated in the development of this guide to implementation of the ecosystem approach in the Celtic Sea.

The guide reflects our views on what we believe are the key priorities for action. Our focus is the EU Marine Strategy Framework Directive, which in our view has the potential to help deliver real environmental improvements while bringing prosperity to our communities.

The PISCES process has been carried out in a spirit of knowledge sharing and mutual respect between different sea-users with a determination to produce a comprehensive guide. We believe our unique partnership can play a beneficial role in the future management of the Celtic Sea.

As committed stakeholders and developers of the PISCES guide, we expect to participate in every step of the implementation of the Marine Strategy Framework Directive.

PISCES stakeholders

The PISCES Celtic Sea project area boundaries are based on the International Council for the Exploration of the Seas (ICES) areas and include the Celtic Seas and Western Channel.

The PISCES Celtic Sea project area broadly coincides with the southern component of the Marine Strategy Framework Directive Celtic Seas sub-region (i.e. not including water off western Scotland, western Ireland or the Irish Sea).

Note that in practice the boundaries are considered as 'fuzzy' because PISCES is primarily concerned with exploring broad principles and issues associated with a transnational, high-use sea area, rather than issues associated with specific boundaries.

Figure 1. The PISCES Celtic Sea project area

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Section 1
About this guide

The PISCES guide was developed collaboratively with a multi-sector, multinational group of stakeholders from the Celtic Sea project area to explore what is needed to implement the ecosystem approach in the context of the MSFD. It uses the example of the Celtic Sea to explain in practical and non-technical terms what it means, why it is relevant and what we can all do to help.

Note: For the purpose of this guide, the term 'stakeholder' refers primarily to sea-users, including marine industry operators, infrastructure developers and recreational user groups.

"You need to read this guide – whether you use, work, live by or enjoy the sea – or are in any way responsible for managing our activities in it."

(Statutory agency)

Who is the guide for?

This guide is aimed primarily at stakeholders operating in and around the Celtic Sea, and government decision-makers responsible for implementing the MSFD in it.

The guide is also relevant to:

- **Implementation of other marine policies**, including marine spatial planning, the EU Common Fisheries Policy and EU Habitats Directive, which are essential to meeting MSFD targets and themselves require and/or would benefit from the use of the ecosystem approach and effective stakeholder participation.
- **Other stakeholders**, including those undertaking coastal and terrestrial activities and industries, environmental NGOs and scientists/academics.
- **Other locations**. The issues and challenges surrounding the ecosystem approach, implementation of the MSFD and the vital role of stakeholders in the Celtic Sea are likely to be relevant to other areas.
- **All types of stakeholder participation**. The PISCES process and recommendations are relevant to any process or initiative involving stakeholders in decision-making.
- **Future implementation of the MSFD**. While it focuses on the initial implementation cycle of the MSFD, this guide will also apply to the MSFD's continuing six-year review cycles. The role of stakeholders will be at least as important in the future.

"Although focused on the Celtic Sea, this guide is eminently transferable across other sea areas around Europe, especially because it has been driven by stakeholders"

(Fisheries sector)

Why should you read this guide?

- We must all act in order for the ecosystem approach to become a reality – this guide will help to show you how. It aims to de-mystify terminology and makes practical recommendations for stakeholders and governments. Many recommendations will also interest researchers, the public and others.
- Uniquely, it presents the voice of a cross-sectoral group of Celtic Sea stakeholders. It sets out their views, needs and aspirations for the development and implementation of marine policy.
- It explores what is needed to implement the ecosystem approach in the context of the MSFD, following statutory commitments and good practice. Recommendations are relevant to other marine policy areas and contexts.

"We are looking forward to the results of the PISCES project, particularly the stakeholder engagement methods, in order to explore the possibilities to replicate them in Spain"

(Spanish government representative)

Section 2
Key messages

- **The ecosystem approach should be used to help manage our marine activities in a more sustainable way.** We are part of the ecosystem: we affect it and depend on the goods and services it provides. The ecosystem approach aims to ensure that these services are maintained so that our industries, jobs and economies, as well as the natural world, continue to thrive. It matters to us all.

- **The MSFD should be implemented using the ecosystem approach** This is a legal requirement of the MSFD, which acts as a strong driver for implementation of the ecosystem approach especially: integrated management of human activities at a regional scale, maintenance of ecosystem goods and services and stakeholder participation. European countries must identify how these aspects of the ecosystem approach are achieved.

- **A range of new governance mechanisms are required to fully implement the ecosystem approach in the marine environment, particularly marine spatial planning,** which is urgently required across our seas as a process for achieving integrated management of all marine activities. In the meantime, many reinforcing actions can be taken to help align implementation of the MSFD as closely as possible with the ecosystem approach, particularly improving stakeholder participation.

- **Collaborative, effective stakeholder participation is essential and should begin as early as possible during MSFD implementation.** Formal consultation at the end of each step is not enough. Involving stakeholders early on can save governments money and is more likely to result in measures that are effective, equitable, affordable and supported. This will benefit everybody.

- **Stakeholders can play an important role in MSFD implementation,** for example, by providing and collecting data; identifying and evaluating measures; supporting monitoring and compliance; and evaluating marine strategies. Achieving this sort of input will require greater collaboration and communication between stakeholders and between stakeholders and government, at national and transboundary levels.

- **Governments should engage proactively with stakeholders early in the MSFD implementation process.** Developing clear and transparent stakeholder engagement strategies should be a priority in the future, recognising the longer-term benefits of a fully inclusive approach that balances stakeholder participation requirements across a range of closely related policy areas.

- **Stakeholders need to be assertive and organised to maximise participation opportunities.** Stakeholders should seek opportunities to guide and influence decision-making themselves. They should engage proactively with other sectors, make contact with government, and advocate and participate in multi-sector forums and discussions where possible.

- **Multi-sector, regional stakeholder forums should be established** as a mechanism for engagement in policy implementation and sharing knowledge and experience across sectors and borders. Forums can enable stakeholders to explore interactions and conflicts, understand different perspectives and gain knowledge and information about other sectors' activities. Such forums need to be impartially-led, representative, adequately funded and formally recognised through statutory measures.

- **Stakeholders should continue to seek new ways to implement voluntary measures to improve the sustainability of their own activities,** and encourage others to do so. Implementing voluntary measures may help to reduce the regulatory burden and help meet policy targets. It also increasingly makes commercial sense as sustainability becomes more important to shareholders and consumers. Collaborating and partnering with others can help to identify win-win outcomes.

> *"When we work with other stakeholders we find a lot of common ground and have many of the same issues. By working together, we have a more powerful voice to influence decision-makers at national and EU level to take notice of us."*
>
> (Marine leisure sector)

Section 3

Implementing the ecosystem approach

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Section 3
Implementing the ecosystem approach

Why should the ecosystem approach matter to you?

Many people, from policy-makers to businesses to the general public, are unclear what the ecosystem approach is or why it is relevant to them (see Box 1). While the term 'ecosystem' may suggest it concerns ecology and conservation, it is in fact as much about ensuring the future economic prosperity and viability of human communities. In short it matters to all of us, and to our future generations.

Box 1: Examples of stakeholder perceptions regarding the ecosystem approach:

"Given all of the other legislation that we are already complying with, it's just not clear what the ecosystem approach means in my sector – we need simple, clear, practical guidelines."

(Ports sector)

"It means all things to all people, and there is therefore the potential threat of individual interpretations of the ecosystem approach being used as a stick to beat us with."

(Fisheries sector)

"Ecosystem approach is just another way of packaging 'sustainability' which we're doing already through numerous existing tools and processes."

(Marine management professional)

"We are already following the ecosystem approach, for example, by considering ecosystem services and values in marine plan development."

(National government marine planner)

"The ecosystem approach has become all the more relevant given proposals for reform of the Common Fisheries Policy."

(Fisheries sector)

Despite its importance, there is little practical guidance to help people translate the principles of the ecosystem approach into practical actions. This guides aims to help address this.

What is the ecosystem approach?

The ecosystem approach is a way of making decisions in order to manage our activities sustainably. It recognises that humans are part of the ecosystem and that our activities both affect the ecosystem and depend on it (see Box 2).

The ecosystem approach requires:

- An integrated approach that considers all ecosystem components (e.g. human activities, habitats and species, and physical processes).
- Consideration of ecosystem functions and resulting ecosystem services (see Box 3).
- Strong participation of stakeholders

Previous work on the ecosystem approach has tended to focus on the first two elements; this guide focuses on stakeholder participation.

Box 2: Definitions of the ecosystem approach:

The Convention on Biological Diversity (CBD) defines the ecosystem approach as

"a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way" [1].

In the marine environment, ICES defines it as *"the comprehensive integrated management of human activities based on best available scientific knowledge about the ecosystem and its dynamics, in order to identify and take action on influences which are critical to the health of the marine ecosystems, thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity"* [2].

Traditional management approaches have tended to be sectoral; considering individual ecosystem components in isolation. This has often led to poor decisions, conflict over space and resources, environmental degradation and economic losses. In contrast, the ecosystem approach considers our activities as part of a single system where all sectors are integrated, allowing the wider consequences of decisions to be determined and managed.

Section 3

Implementing the ecosystem approach

Box 3: Concept and definition of ecosystem services

Ecosystem services are the means by which ecosystems provide benefits to people. In 2005, the Millennium Ecosystem Assessment[3] undertook the largest ever scientific appraisal of the condition and trends in the world's ecosystems and the services they provide. In the UK, a National Ecosystem Assessment[4] was completed in 2011 providing a comprehensive appraisal of the ecosystem services in UK waters.

In marine environments (such as the Celtic Sea), ecosystem services can be separated into four main types: 'provisioning services' (e.g. harvesting of fish, shellfish and algae); 'regulating services' (e.g. regulation of climate, wastes and water quality); 'cultural services' (e.g. recreational, cultural and spiritual benefits); and 'supporting services' (e.g. nutrient cycling, marine habitats that support fisheries).

Ecosystem services are the foundation for our economic prosperity and well-being – yet human activities are degrading ecosystems at such a rate that their ability to continue to provide these services is in jeopardy. Globally, the degradation of our planet's ecosystems could be costing us €50 billion each year[5].

In the past, important ecosystem services have been undervalued: they may be hard to measure, or fall outside conventional economic markets. However, there is growing recognition that we need to factor the multiple services natural systems provide into our decision-making – to get the most economic and social benefit and avoid the costly consequences of damaging them.

The ecosystem approach calls for strong stakeholder participation – involving all those who have an interest in, or could be affected by, decision-making. This is crucial, not least because the ecosystem approach is about managing human activities. People are much more likely to act upon a decision and change their behaviour if they understand and accept the basis on which it was made. This is far more likely with full and active participation.

How can the ecosystem approach be implemented?

The ecosystem approach can apply in all decision-making processes that affect the natural world – from those concerned with how we manage our seas, through to the day-to-day decisions of businesses, sea-users and consumers.

To help guide implementation, the CBD adopted a set of 12 principles known as the Malawi principles[6], designed to be adaptable in different contexts[7]. Early on in the project, PISCES stakeholders developed their own interpretation; comprising 11 principles for the Celtic Sea (see Box 4). These have informed the development of this guide.

Box 4: PISCES stakeholder interpretation of ecosystem approach principles

The 11 PISCES principles are shown below. Symbols corresponding to principle numbers 1 to 11 are used to highlight linkages between the contents of this guide and each of the principles.

The final agreed PISCES principles are:

1. **Stakeholder role:** stakeholders should adopt an active and committed role to achieve the common goal of the ecosystem approach; stakeholders should be involved in all aspects of management leading to a shared understanding of objectives.
2. **Balance:** there should be a suitable balance between conservation and the sustainable use of resources in the interests of the health of the whole ecosystem.
3. **Evidence:** an evidence-based system should be used to integrate social, environmental and economic interests.
4. **Adaptive:** management should use an iterative and flexible approach.
5. **Timescales:** management should be set for the long-term with short- and medium-term objectives and milestones and should enable involvement of future stakeholders.
6. **Economic sensitivity:** involvement in implementing the ecosystem approach should not create an economic disadvantage but should promote responsible and sustainable behaviour.
7. **Subsidiarity:** management should be undertaken by the smallest, lowest, or least-centralised competent authority.
8. **Connecting international through to local:** local and sectoral strategies, plans and policies should be harmonised and priorities established to reflect national and international goals and objectives for conservation and sustainable use.
9. **Review and monitoring:** an effective and targeted performance monitoring and review regime should be used to inform management.
10. **Adjacent impacts:** consideration should be given to how events or actions in the Celtic Sea can influence or be influenced by events or actions on the land, in the air or in different parts of the ocean.
11. **Involve and inform:** management should involve and inform all relevant sectors of society and scientific disciplines.

The PISCES principles reflect many of the same elements as the Malawi principles but with a more explicit emphasis on stakeholder involvement (Principle 1) and the need to connect strategies and management across multiple scales (Principle 8).

Section 3

Implementing the ecosystem approach

The ecosystem approach can be seen in action in a wide variety of contexts and a range of scales. Examples at a large scale include:

- Ecosystem-based management. A fully integrated management framework based on ecological boundaries (see case study 1).
- Marine spatial planning uses the ecosystem approach to make integrated, forward-looking and consistent decisions on human uses of the sea. Many countries are developing marine spatial plans to combat crowded and conflicting sea use.
- River basin management plans, developed under the EU Water Framework Directive, use a 'catchment approach' to tackle multiple interconnected water bodies (rivers, lakes, groundwater and coastal waters).

Examples at a smaller scale include:

- Project, scheme, activity and site-level planning: at this scale, the ecosystem approach provides a framework for considering and managing ecosystem impacts and functions, including links between environmental and socio-economic aspects. This could apply to environmental impact assessment, master planning and protected area management.
- Single sector policies, such as fishery management, to help evaluate the activity alongside other potential uses of marine space/resources in the context of an overarching, integrated framework.
- Design of economic instruments for correcting market distortions that negatively effect biodiversity. For example, it can help set prices, incentives and penalties that incorporate the costs to ecosystem services (e.g. habitat loss and pollution).

Who should be involved in implementing the ecosystem approach?

> *"We all have a role to play in implementing the ecosystem approach."*
>
> (Regional government)

Governments have a duty to implement fully integrated management (in accordance with ecosystem approach principles), in order to guide decision-making on use of sea-space/resources. They must also identify and implement appropriate measures to meet targets (e.g. regulations, strategies, plans, economic instruments, public infrastructure and education) and provide funding and support. Governments must also engage with stakeholders in policy implementation.

Stakeholders can take steps to ensure their activities comply with government policy and targets. They are often ideally placed to understand the issues and potential solutions, and can implement measures on a voluntary basis, and encourage others to do so. The banking and insurance industries can also exert an influence on others, for example, by issuing specific sustainability conditions for loans and insurance policies. Civil society can play an important role too, for example through lobbying, advocacy, research and innovation.

The general public can make a difference, for example, by making more sustainable day-to-day decisions regarding their consumption, resource use and leisure activities. They may also be able to positively influence others (including industry and government) through advocacy, petitioning, reporting of non-compliance and legal action.

Case study 1:

Port Orford ecosystem-based management plan, Oregon, USA

In the late 1990s, local fishermen in Port Orford, Oregon felt disenfranchised from the federal fishery management system (analogous to EU directives) and formed a non-profit organisation, Port Orford Ocean Resource Team (POORT), to produce an ecosystem-based management plan.

They identified a Community Stewardship Area That incorporated the traditional fishing grounds of the Port Orford fishing fleet, and consulted with local scientists to develop a science and access plan based on ecosystem-based management principles and goals. This plan considered the entire local ocean environment and the surrounding watersheds that drain into the near-shore ecosystem.

POORT's structure includes a fishermen's board, a community advisory board and government. POORT has gained widespread recognition and support from policymakers, management agencies and NGOs as a model for how community-based ocean management can and should work.

Further information: www.oceanresourceteam.org

Section 4

The Marine Strategy Framework Directive and the ecosystem approach

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Section 4

The Marine Strategy Framework Directive and the ecosystem approach

The Marine Strategy Framework Directive (MSFD)[8] is the environmental pillar of the EU's Integrated Maritime Policy. Its overall aim is to promote sustainable use of the seas and conserve marine ecosystems. The main objective of the MSFD is to put in place measures to reach or maintain Good Environmental Status (GES) in Europe's seas by 2020, using the ecosystem approach.

The MSFD lists 11 descriptors to guide evaluation of GES (Box 5). GES is not necessarily a pristine state; it allows for the sustainable use of marine resources.

Box 5: Marine Strategy Framework Directive descriptors

- 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

Further detail on descriptors should be included in reports produced by EU countries on the determination of Good Environmental Status (see Step 1)

The MSFD requires EU countries to develop marine strategies following a specific timeline (Figure 2). The process follows a logical sequence of target-setting, identification of measures, monitoring and ongoing evaluation and adaptation. 4 5 9

Figure 2: Process and timeline for implementation of the Marine Strategy Framework Directive

Section 4

The Marine Strategy Framework Directive and the ecosystem approach

In order to achieve GES in a coherent and strategic manner, the MSFD establishes four marine regions, which are themselves divided into sub-regions (see Figure 3). Each EU country is required to produce a marine strategy for the waters under its jurisdiction, in cooperation with other countries that share the same sub-region. The Regional Seas Conventions will support this coordination. 1 8

Existing policies, agreements and legislation address many of the human activities in the marine environment that will influence the achievement of GES (see Box 6). The MSFD requires these to integrate environmental concerns. Other policies also include requirements for implementing the ecosystem approach. 10

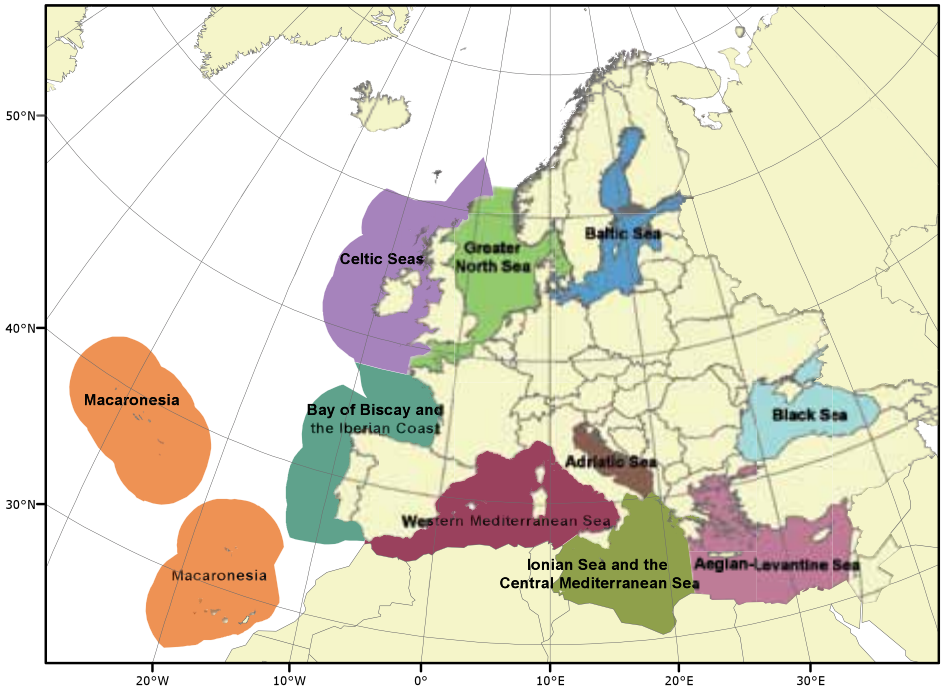


Figure 3: Map showing the MSFD sub-regions.

Note: This map was a draft at the time of publication and may be revised. For the north-east Atlantic region, outer boundaries are indicated for the sub-regions listed in the MSFD, without addressing the remaining parts of the overall marine region (e.g. waters in the Iceland Sea, Norwegian Sea and Barents Sea).

Implementing the ecosystem approach through the MSFD 8 10

The MSFD's focus is on meeting environmental objectives: it is not a mechanism for integrated management of human activities. Additional governance tools, such as marine spatial planning, are needed to make the ecosystem approach a reality in coastal and marine environments. The economic, social and environmental benefits of marine spatial planning are well documented[9]. However, marine plans are not yet in place across Europe: creating the enabling conditions for integrated marine spatial planning is a top priority.

Implementation of the MSFD will require a coordinated, coherent approach within each sub-region. This will be challenging since each country is developing its own strategy. Marine spatial planning is likely to help, as it provides a means for neighbouring countries to understand and work with adjacent demands on marine space and resources.

Stakeholder participation in implementing the MSFD 1 2 3 6 7 11

Early and effective stakeholder participation is a legal requirement of the MSFD, and a key principle of the ecosystem approach. In the context of the MSFD, consultation must be undertaken at the end of each step during the development of marine strategies, and is one of several ways in which stakeholders can participate in decision-making (see Box 7).

> *"The ecosystem approach is nothing without stakeholders."*
>
> (Renewables sector)

Section 4

The Marine Strategy Framework Directive and the ecosystem approach

Box 6: Other relevant environmental policies, agreements and legislative measures

- Marine spatial planning is being advocated by the EC, and implemented to varying degrees by individual countries across Europe. It has no statutory basis at the European level, though the EC is considering this.
- European fisheries are managed through the EU's Common Fisheries Policy (CFP), which is administered centrally by the EC. The CFP is undergoing a reform that is likely to result in requirements for fishery-based multi-annual plans with an emphasis on the ecosystem approach.
- Shipping-related issues are addressed through a number of international conventions administered by the International Maritime Organisation. MARPOL 73/78 (the International Convention for the Prevention of Pollution from Ships) is the main convention covering pollution of the marine environment by ships.
- The Water Framework Directive (WFD) overlaps with the MSFD in coastal waters. The MSFD states that coastal waters should be considered under the MSFD unless already addressed by the WFD or other EC legislation (likely to be the case for impacts of noise and litter, commercial fisheries and certain aspects of biodiversity).
- The EU Habitats and Birds Directives require EU countries to introduce measures (including protected areas) to maintain or restore vulnerable habitats and species. These Directives were developed before the ecosystem approach became a driver in European legislation, and make no allowance for human activities within sites.
- Other important policies include the EU Bathing Waters Directive, EU Shellfish Waters Directive, EU Urban Waste Water Treatment Directive and EU Nitrates Directive.

"Stakeholders have a right to participate."

(Statutory agency)

Box 7: Types of stakeholder participation[10]

- Consultation: to provide feedback to government decision-makers on analysis, alternatives and/or decisions.
- Involvement: to work directly with government throughout the process to ensure that stakeholder concerns and aspirations are understood and considered in decision-making processes.
- Collaboration: to partner with government in each aspect of the decision including the development of alternatives and the identification of the preferred solution.
- Empowerment: to have decision-making placed in the hands of stakeholders.

However, the Directive clearly requires more than just consultation at the end of the process. In reality, 'involvement' and 'collaboration' are likely to be important elements in the future, particularly as the value of stakeholder knowledge is increasingly being recognised. There is also growing interest in the role of 'empowerment' under which responsibility for identifying and implementing measures is delegated to stakeholders (e.g. through voluntary agreements and co-management arrangements).

Effective participation requires input from a representative range of stakeholders, and over-representation of any particular sector is not in line with the MSFD. 'Equality of arms' also needs to be considered: this is a cornerstone of EU law which means that, for example, either all stakeholders or none should be accompanied by legal counsel where required.

A range of factors influence the potential for this to happen in reality, including resource constraints, attitudes and competing demands for participation, among others. The design and strict timeframes of the MSFD also impose constraints. For example, decisions resulting from cost-benefit analysis of the programmes of measures will need to be made towards the end of the process, leaving relatively few opportunities for stakeholder input.

Stakeholder participation will also be required in the development of plans under other authorities (e.g. marine plans, marine protected area and fishery management plans). Participation across all these closely related policy areas will need to be organised in a strategic and coherent way. Stakeholder 'fatigue' is a real and growing risk.

Section 5

Implementing the ecosystem approach through the MSFD in the Celtic Sea project area

Container ship © dan_prat / istock

Section 5

Implementing the ecosystem approach through the MSFD in the Celtic Sea project area

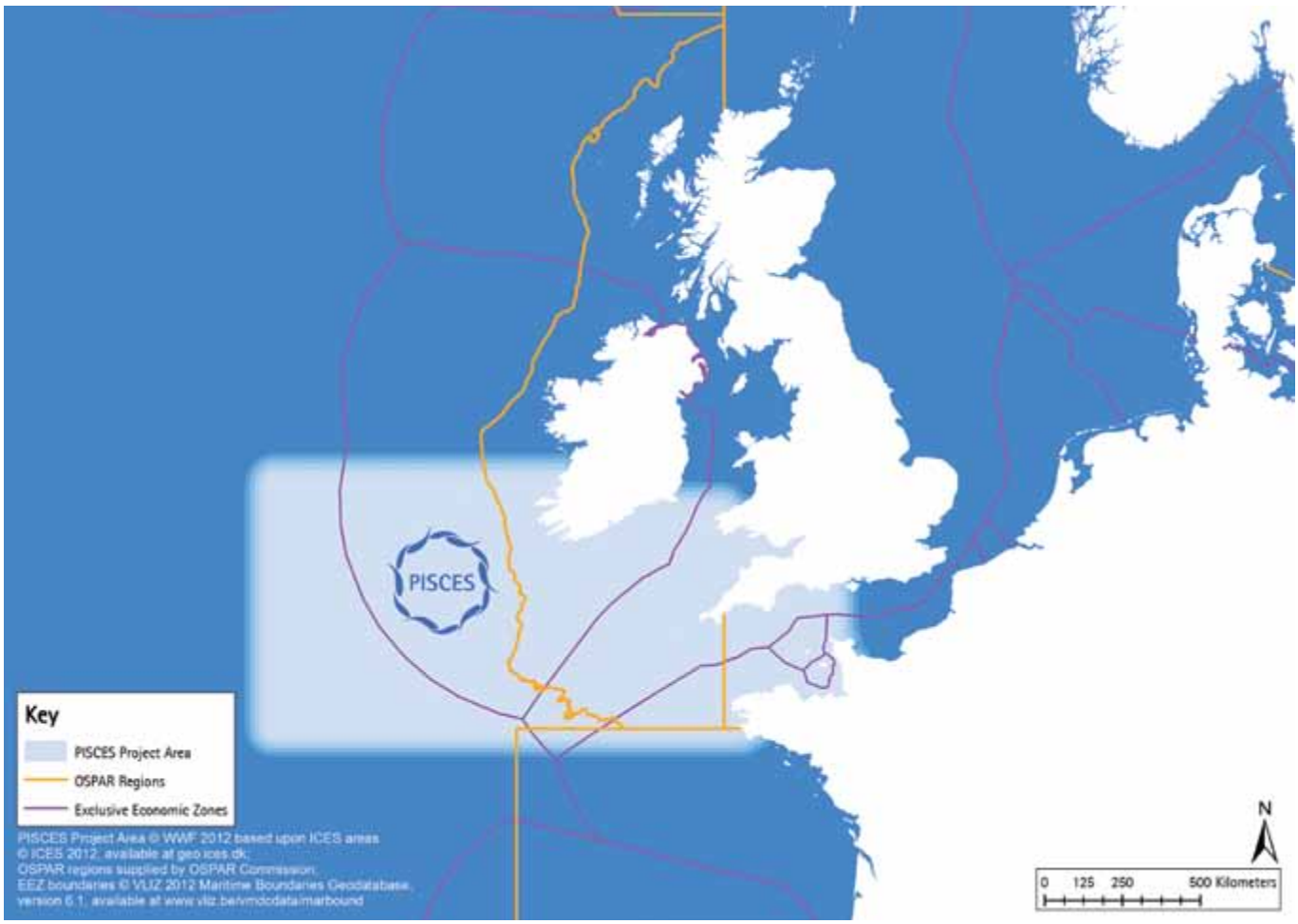


Figure 4: Map showing the geographic scope of the PISCES Celtic Sea project area, in relation to OSPAR regions and national waters (Exclusive Economic Zones).

The Celtic Sea project area

The Celtic Sea project area includes waters off the coasts of south-west England, south-west Wales, southern Ireland, and Brittany in north-west France (see Figure 4). The boundaries are based on the International Council for the Exploration of the Seas (ICES) areas and broadly coincide with the southern portion of the MSFD Celtic Seas sub-region (it does not include waters off western Scotland, western Ireland and the Irish Sea). The Celtic Seas sub-region does not include Brittany, though at the time of publication the boundaries were still being finalised.

Section 5

Implementing the ecosystem approach through the MSFD in the Celtic Sea project area

Implementation of the MSFD 1 6 8 11 8

Implementation of the MSFD in the project area will be part of the wider Celtic Seas sub-region and will be shared by the UK, France and Ireland, each of which will need to produce marine strategies for the waters under their jurisdiction in coordination with each other. For the purposes of PISCES, the relevant government agencies (competent authorities) for the project area are:

- Department for the Environment, Food & Rural Affairs (Defra) and the Welsh Government (UK)
- Department of the Environment, Community and Local Government (Ireland)
- Ministry of Ecology, Sustainable Development and Energy (France)

A number of other countries have commercial interests in the project area, including international fishing fleets (Spain, Denmark, Germany, Netherlands and others). These and other important stakeholders will need to be involved in the development of marine strategies by the UK, Ireland and France.

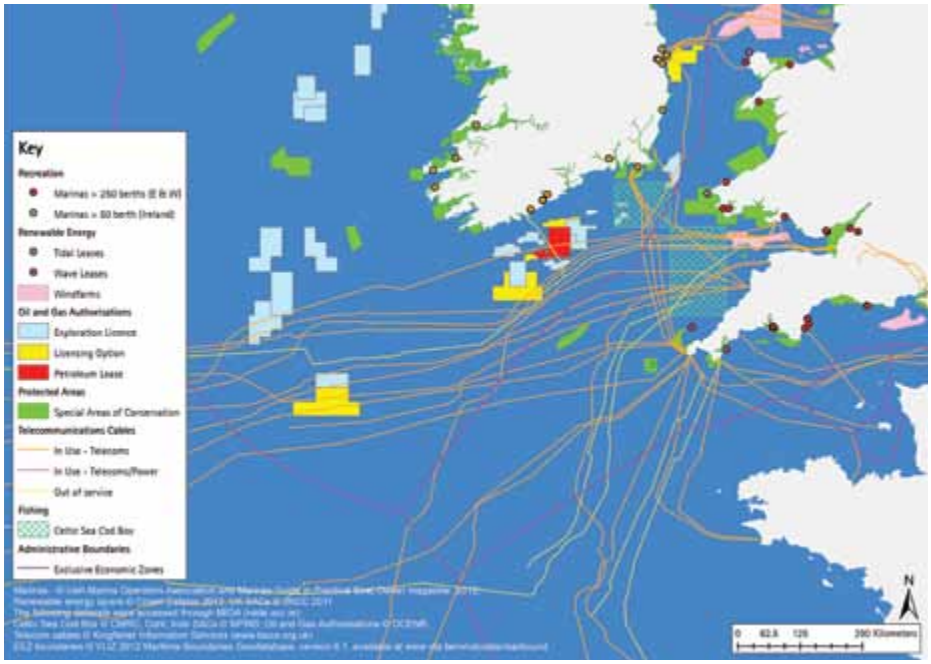
The OSPAR Convention (OSPAR), the regional sea convention guiding international cooperation on the protection of the marine environment of the north-east Atlantic, is the legal instrument through which the MSFD will be coordinated in the project area. Work under OSPAR is managed by the OSPAR Commission, made up of representatives of the governments of 15 contracting parties and the EC.

> ***"The main concern is that the way planning varies across jurisdictions and between actors may result in variant approaches across borders. At an EU scale this is a challenge."***
>
> (Aggregates sector)

Key issues in the Celtic Sea project area 2 5 6 10 3

The project area is under increasing demand for finite marine resources and space (see Figure 5), and there is a growing necessity to balance the needs of different sectors and conservation. Emerging activities, such as offshore wind farm development, alongside increased demands for marine sand and gravel, and growing marine transport, tourism and leisure activity, mariculture (cultivation of marine organisms) and fishing are the main forces driving these demands. There is also potential for oil and gas extraction to expand significantly.

The growing demand for marine resources and space is placing increasing pressure on the ecosystem. The impact of this is not yet fully understood. In 2010, OSPAR produced a comprehensive overview of the environmental status across the north-east Atlantic, including the project area[11]. It recommended three priorities in the region: coordinated marine spatial planning, reduction of marine litter, and sustainable fishing.



Note: This map is for illustrative purposes only and does not represent a comprehensive depiction of all marine activities in the Celtic Sea. It was produced as part of the PISCES project as a means to collate information on geographical features of relevance (e.g. administrative borders and marine activities) to help inform discussion on implications for the ecosystem approach.

Figure 5: Map of part of the Celtic Sea showing some of the marine activities taking place.

Section 5

Implementing the ecosystem approach through the MSFD in the Celtic Sea project area

Challenges for implementation of the ecosystem approach

There are a number of challenges for the implementation of the ecosystem approach through the MSFD in the project area, many of which are applicable elsewhere:

- The project area includes multiple jurisdictions with a complex range of political, administrative and management boundaries (see Figure 4). 7 8
- Marine governance arrangements are ambiguous, with considerable legal uncertainties and uncertainty regarding institutional responsibilities leading to policies and regulations having unclear boundaries[12]. 7
- Fisheries are currently managed separately on a sectoral-basis under the CFP (and are often excluded from national marine spatial planning regimes), creating challenges for policy coordination with national marine strategy measures. 2 6
- Regionally coordinated marine spatial planning is not in place, although it is becoming established through various national and EC-led initiatives. The UK is developing a series of fully integrated marine plans[13]. In France, marine spatial planning is moving forward on a more sectoral basis, including the delineation of marine energy zones and spatial protection measures for biodiversity (marine parks). 8 10
- Stakeholders are widely distributed, covering multiple countries, languages and cultures. Despite clear cultural links, the Celtic Sea does not have as strong an identity as other areas such as the Baltic or North seas. 1 11
- The only transnational stakeholder forum for the whole Celtic Sea project area is the PISCES group, which is not statutory and has no formal management role. 4
- The commercial fishing sector is disparate with many individual operators, making organised participation challenging. 1
- Some sectors can be more challenging to communicate with than others. For example, anglers often act independently, while tourism and marine leisure can have multiple associations (e.g. marine federations, yachting associations and marina operators). These sectors are subject to minimal central regulation, making it harder to fully understand levels of involvement and interaction. 11
- The delivery of the MSFD depends on appropriate funding for the necessary scientific research, observation and monitoring to deliver each element. 3 9

Salcombe Estuary © B3UK / istock

"Cultural and linguistic barriers are a fundamental barrier to implementing the ecosystem approach."

(Ports sector)

Section 6

Step-by-step implementation

Toby Roxburgh / 2020VISION / Naturepl.com

Section 6

Step-by-step implementation

The following section takes a step-by-step look at implementation of the MSFD in the Celtic Sea. At each step, compliance with the principles of the ecosystem approach is considered, particularly ensuring effective participation of stakeholders.

Five steps are identified:

Step 1.

Carry out initial assessment of marine waters, determine GES, and define environmental targets and indicators.

Step 2.

Develop and implement monitoring and evaluation programme.

Step 3.

Develop programme of measures.

Step 4.

Implement programme of measures.

Step 5.

Evaluation and adaptation.

Footsteps on beach / © DavidAntoniHands / istock

For each step, the following are provided in this section:

- MSFD requirements relevant to the ecosystem approach.
- Implementation in the Celtic Sea: progress to date and key considerations for future implementation.
- How stakeholders could be affected.
- How stakeholders can participate and influence.
- PISCES recommendations to other stakeholders and policy-makers.

In addition, PISCES has identified two cross-cutting themes:

- Stakeholder participation (Section 7).
- Stakeholder actions (Section 8).

In all the following sections, recommendations are made to stakeholders and governments. Stakeholders range from major industry groups with links to government, to those who operate at a smaller scale with little sectoral coherence. All stakeholders should be involved in implementing the MSFD, with greater cross-sectoral collaboration and government support.

Section 6

Step 1 – Initial assessment, definition of good environmental status and determination of targets and indicators

MSFD requirements 1 5 6 8

By 2012, EU countries were required to report on (i) the results of the initial assessment of their marine waters including an economic and social analysis of the uses and the costs of degradation; (ii) definition of GES; and (iii) targets and indicators. A review of the outputs of this step is required by July 2018 (see Step 5).

There are certain circumstances where it is accepted that GES may not be achieved or a longer timeframe for achievement may be permitted: for example, if measures need international action, the costs of measures is disproportionate, or for reasons of overriding public interest.

Implementation in the Celtic Sea project area 1 3 7 8 9 11

Public consultations on the outputs of this step have been completed in the UK and France. At the time of publication, work on this step is ongoing in Ireland.

In the UK the Marine Monitoring and Assessment Strategy community produced a comprehensive report on the status of UK seas (Charting Progress 2[14]) that fed directly into the initial assessment process. In France and Ireland information has been provided from a range of sources.

National information needs to be analysed, interpreted and disseminated at the sub-regional (and regional) level in order to meet the requirements of the MSFD and provide the large-scale picture required to implement the ecosystem approach. It is assumed this would be coordinated by OSPAR.

Public consultations at the end of this step were mandatory under the Directive (to provide an opportunity for stakeholders to review and comment on national proposals). Prior to consultation, other participation did take place (see Section 4 for more information on types of stakeholder participation); however, because reporting on this aspect varies widely, it is difficult to determine which stakeholders participated, how and when. The general picture suggests limited participation, but with variation between countries (see Box 8). A key issue appears to be a lack of resources within national governments for a more collaborative approach.

Seal © Orsolya Haaberg / Wild Wonders of Europe

Puffin with saltwater fish © Pauline S Mills / istock

Box 8: Stakeholder participation during Step 1 in Celtic Sea countries (in addition to formal consultation).

- In the UK, stakeholders have been engaged through a range of national workshops and meetings over the past two years, mainly focused on specific aspects of the proposals (e.g. targets, GES descriptors) rather than evidence collection. Some of these have been via an informal MSFD-specific stakeholder group which met occasionally. Workshops and meetings have generally been managed by Defra and held in London, which has tended to result in reduced participation from the devolved countries (e.g. Wales).
- In France, a wide range of stakeholders have participated in a series of national and regional meetings to share ideas (held under the auspices of the Maritime Council for the North Atlantic/Western Channel Coastal Zone). An MSFD-specific national stakeholder group with a formal and representative structure was set up. There appears to have been a relatively strong focus on participation to help develop the evidence base.
- In Ireland, there has been limited engagement with stakeholders to date, but workshops are planned for September 2012. No MSFD-specific stakeholder group exists yet.

International stakeholder participation appears to have been limited. For example, international fisheries stakeholders operating in the Celtic Sea have not been directly involved. However, governments are working to ensure consistency across European seas for fisheries targets and indicators.

In general, the impacts of proposals have also been evaluated at the national level[15], so it is unclear where information on the impacts on international stakeholders (e.g. international fishing fleets) will be captured. This raises practical challenges for how transboundary consultation will take place in practice.

Section 6

Step 1 – Initial assessment, definition of good environmental status and determination of targets and indicators

Striped Mackerel © Stephan Kerkhofs / istock

How stakeholders could be affected by this step 1 6 7 8 10

Targets are significant for stakeholders since they will influence what the Celtic Sea might look like in the future, and set the context against which measures will be identified. The economic and social analysis is also a key source of information on which the justification for measures will be made, and is therefore highly relevant to stakeholders.

At present the outputs of this step are summarised at the national level. The extent to which this national information is analysed, interpreted and disseminated at the sub-regional (and regional) scales will affect some stakeholders, particularly those with a transboundary interest (e.g. fisheries, shipping and major offshore infrastructure planning).

> ***"Like so much legislation, if we get the proper involvement of stakeholders at the right time, we replace fear with success. If we fail to create a stakeholder process that's inclusive, effective and provides a real opportunity for input, we do so at our peril."***
>
> (Statutory agency)

How stakeholders can influence this step 1 11

This step has largely been completed in the project area. Although the default targets have been agreed, there is potential for stakeholders to influence national government decision-making on any arguments put forward for not achieving GES or for longer timeframes (which will largely take place in Step 3, as measures are determined). Stakeholders will also have the opportunity to help set targets when the outputs of this step are reviewed in 2018.

PISCES recommendations
Stakeholders should…
Press for greater participation in subsequent steps to ensure their views are represented. Press for involvement early rather than later in the process. 1
Insist information (e.g. on environmental and socio-economic data, targets and indicators) is presented in a way that relates to the whole MSFD Celtic Seas sub-region, recognising that many activities and their effects are transboundary. 8
Work with relevant organisations on sub-regional analyses and reports.
Governments should…
Improve the participation of stakeholders in subsequent steps. Ensure involvement at an early stage. 11
Ensure that analyses and reports (e.g. on environmental and socio-economic data, targets and indicators) are consistent and integrated at a Celtic Seas sub-region scale, while retaining a wider consistency and harmonisation. 8
Support initiatives that develop sub-regional analyses and reports. 7

Section 6

Step 2 – Development and implementation of monitoring programmes

Dunlin © sparks 762 / istock

MSFD requirements 10 11

By 2014, EU countries are required to develop and implement monitoring programmes for the "ongoing assessment of the environmental status of their marine waters". Monitoring programmes must consider transboundary impacts and features, and be compatible with others already in place, including those under other EU legislation (e.g. Natura 2000). Countries must cooperate to ensure programmes are consistent across borders.

Implementation in the Celtic Sea project area 2 9 10

Monitoring programmes are being developed by the UK, Ireland and France for their waters. Initial work suggests that this will involve extending or modifying existing programmes. The primary focus of MSFD monitoring programmes is environmental. However, there is growing interest in a more integrated approach to monitoring that includes other parameters (e.g. related to the performance and impacts of measures).

Monitoring needs coordination at the sub-regional scale, particularly for transboundary issues (e.g. marine pollution and noise, habitat loss and fisheries sustainability). OSPAR is developing a framework by 2013 to coordinate monitoring programmes within sub-regions.

How stakeholders could be affected by this step 1 3 4 9 11

Monitoring provides stakeholders (and governments) with an indication of progress towards objectives and targets, and provides a basis for subsequent evaluation and adaptation of measures (Step 5).

The scope of monitoring affects stakeholders. Monitoring of parameters other than those related to environmental status would potentially require a higher degree of participation from stakeholders.

Marine monitoring is expensive and labour intensive, and requires specific expertise. Stakeholders could support monitoring, for example through involvement in research or leasing vessels for survey work. There is growing interest in the role of stakeholders in monitoring, but also recognition of the need for a robust and scientifically sound evidence base. Stakeholder participation in monitoring fosters greater trust and greater support for subsequent changes in measures.

> ***"There is a need for monitoring to be coordinated. When operating in the Celtic Sea we come across a wide range of different users from different countries, so it is very important that we can operate together in a fair way"***
>
> (Fisheries sector)

Section 6

Step 2 – Development and implementation of monitoring programmes

How stakeholders can participate in and influence this step 19

Case study 2:

Monitoring of marine mammals in the oil and gas sector

The Broadhaven Bay gas project is one of the most significant engineering projects ever undertaken in Ireland. As part of the planning for the development, Enterprise Energy Ireland Ltd (now part of Shell) commissioned a marine mammal monitoring programme in the Broadhaven Bay area.
The area is important for marine mammals and other species, and is a Special Area of Conservation (SAC) under the EU Habitats Directive. The monitoring programme, led by the Coastal and Marine Research Centre since 2008, has built up a valuable dataset on abundance, population and behaviour of marine mammals in the area.

The monitoring programme and mitigation measures (which include having marine mammal observers on board construction vessels and a code of conduct within the SAC) have helped the developer to meet the terms of the required development consents. The data has also contributed to the understanding of these key marine species and helped the state authorities cost-effectively meet their commitments under national and international law (e.g. for determining the distribution of protected species in the SAC).

Further information: http://cmrc.ucc.ie (see publications / reports)

Fishing boat masts © Jiri Rezac / WWF-UK

Wind Turbine © Joe Gough / istock

Stakeholders can add value by participating in this step in a range of ways, for example:

- Providing views and ideas on monitoring programme design, e.g. parameters, methodology, data collection, data analysis and quality assurance.
- Providing/helping to validate monitoring data, including from commercial activities e.g. fisheries catch/effort data, baseline research and EIAs (see case study 2).
- Identifying where data collection can usefully be carried out on platforms other than research vessels (e.g. oil/gas platforms, wind farms, buoys, fishing vessels and other commercial traffic) and collaborating on joint data collection.
- Conducting aspects of monitoring themselves (see case study 3).
- Formally reviewing and commenting on proposed monitoring programmes, and on monitoring data and its interpretation on an ongoing basis.

Section 6

Step 2 – Development and implementation of monitoring programmes

Case study 3:

Fishing for litter

Fishing for Litter (FFL) aims to reduce marine litter by involving one of the key stakeholders, the fishing industry. Fishing boats are given free bags to collect any marine debris they catch during fishing operations and are provided with free disposal facilities in port. As well as removing litter from the water, the scheme helps raise awareness of the problem of marine litter and the need for better waste management. Litter is weighed and, where possible, composition recorded, providing data that may be useful in subsequent policy development and management.

One of the original FFL schemes was set up in the Netherlands in 2000 by KIMO International (an association of local government authorities) and has been replicated since in the UK and beyond. Fishing for Litter South West (UK) launched in 2009 and now operates in six ports in Cornwall and Devon, with around 110 vessels taking part. More ports are expected to join shortly. In the first year of the current scheme (2011–2014), around 16 tonnes of litter was landed.

Similar projects are running in Ireland and Scotland, and there is considerable potential to expand this initiative in the Celtic Sea and elsewhere. KIMO International is working with local stakeholders to explore options for FFL in Ireland, France and Spain. In 2010, OSPAR recommended all member states promote and develop FFL initiatives.

Further information: www.fishingforlitter.org

PISCES recommendations	
Stakeholders should…	
Participate in the design, development and implementation of monitoring programmes.	1
Find mutually beneficial opportunities to participate in government monitoring programmes: add value by being involved rather than consulted.	1
Assist in monitoring the effectiveness of measures and impacts of activities.	1
Seek and support coordinated monitoring for the Celtic Seas sub-region to link countries and ensure a coherent and joined-up approach.	8
Governments should…	
Involve stakeholders throughout the process, to build support, save public resources and meet targets.	11
Identify opportunities for direct stakeholder assistance in monitoring, e.g. training vessel owners to monitor environmental conditions.	11
Monitor the effectiveness of measures and impacts of activities, as well as the environmental condition of the seas.	9
Instigate initiatives and projects to support sub-regional cooperation on monitoring, involving stakeholders.	7 8

Section 6

Step 3 – Development of programmes of measures

MSFD requirements 1 2 3 6 9 10 11

By 2015, each EU country must develop a programme of measures to reach or maintain GES by 2020. By 2013, countries must report on designated spatial protection measures (e.g. marine protected areas); additional spatial protection measures should be included in the programmes of measures.

Programmes of measures could include input/output controls, spatial/temporal distribution controls, management coordination measures, economic incentives, communication, stakeholder involvement and raising public awareness[16].

Countries must identify existing measures (e.g. EU Water Framework, Birds & Habitats, Urban Waste Water Treatment and Bathing Water Directives) and, if these are not enough to meet targets, identify and analyse additional measures. Cost-effectiveness analysis, cost-benefit analysis, impact assessment and disproportionate cost analysis will help determine a final shortlist of measures. The Commission will then assess whether the programme of measures will meet the requirements of the MSFD and will provide guidance on any modifications it considers necessary.

EU countries must consider sustainable development and socio-economic factors. No detail is given as to how this might be achieved, except through the possible establishment of "administrative frameworks" to help them "pursue their objectives in an integrated manner". Marine strategies will also require Strategic Environmental Assessment (SEA) under the EU Strategic Environmental Assessment Directive.

Implementation in the Celtic Sea project area 1 2 3 4 5 6 7 8 9 10 11

A wide range of measures will need to be identified by UK, Ireland and France. Those responsible for implementing measures will need to be identified. Targets across a range of descriptors, including biodiversity, litter and noise, give an indication of the areas where measures are most likely to be required by stakeholders. Governments will need to implement measures, including marine protected area networks and upgrading public infrastructure (e.g. sewage and water treatment facilities and coast defences). Legislation, regulations, incentives and education programmes will also be required. The reformed CFP will be particularly significant for fisheries and habitat protection, and marine spatial planning is also likely to become an important process.

Integrating the various policy options and the timing of their implementation pose significant challenges. Progress on marine spatial planning is slow in the Celtic Sea, limiting the extent to which meaningful transboundary cooperation can take place. It is also unlikely that multiannual plans for fisheries (to be developed under the CFP) will be sufficiently developed by 2015 to inform the programmes of measures.

EU countries will need to consider sustainable development and socio-economic implications. They need a process that provides a transparent and objective means for justifying decisions on, for example, whether the environmental benefits of measures (e.g. relocating or adapting marine activities) justify their economic and social costs, and the case for any derogations (e.g. due to disproportionate costs or overriding public interest).

In developing programmes of measures, transboundary coordination will be vital, and challenging. OSPAR is expected to play a vital role in supporting coordination, as is the EU Marine Strategy Coordination Group (which brings together civil servants from EU countries working on MSFD implementation) and the informal trilateral meetings between the UK, Ireland and France, initiated in 2012 by Ireland.

Issues that are likely to require transboundary cooperation in the Celtic Sea include: measures that cannot be addressed through national legislation alone (e.g. related to noise, litter and fishing impacts), effective marine spatial planning, fishery management plans, and assessment of cumulative impacts of measures and development proposals (e.g. supporting infrastructure for offshore wind farms, underwater cables etc).

The changing demands on marine space and resources from different industries and uses are driven by the demands and requirements of wider society. In order to determine appropriate measures in the context of sustainable development, a wider view needs to be taken to identify how resource demands can be met in the most sustainable way (e.g. what would be the impact of sourcing materials from elsewhere if not from the sea).

Section 6

Step 3 – Development of programmes of measures

How stakeholders could be affected by this step 1 4 11

Some stakeholders could be subject to regulation through additional measures (see Box 9). The extent to which voluntary measures may be considered as a means of meeting targets will strongly influence how stakeholders are affected; discussions continue on this.

To ensure that all activities are more sustainable in the longer term, there is also likely to be greater emphasis on effective mitigation and remediation of impacts in general (because of new indicators introduced by the MSFD, and because some activities not currently subject to such stringent processes may be in future).

Box 9: Examples of possible measures

- Fisheries – technical measures to reduce fishing impact, spatial management, effort and capacity management, rights-based mechanisms, and eco-labelling.
- Litter – improved waste disposal facilities in ports, improved screening for litter by water companies, legislation on micro-plastics, public litter campaigns, litter collection, fishing for litter, beach cleans.
- Coastal water quality – upgrading of combined sewerage outfalls, upgrades in advanced methods of waste treatment (e.g. UV treatment).
- Protecting especially important biological and ecological areas.
- Reducing marine noise – restriction on noise sources when threatened or endangered species are in the areas. Major sources of noise are from oil and gas, shipping and marine construction (e.g. piling, blasting, seismic arrays, sonar etc.).
- Restoration and after-care provisions for oil and gas, and offshore wind developments.
- Shipping – use of non-toxic coatings, ballast water management measures.
- Voluntary codes of practice (e.g. dealing with the operation of leisure craft in wildlife areas).

Source: PISCES stakeholders/Defra[17]

Case study 4:

Stakeholder involvement in implementation of the Water Framework Directive in Northern Ireland

The Water Framework Directive (WFD)[18] established a legal framework to protect and restore clean water across Europe and ensure its sustainable use. Involving all interested parties is critical to achieving this objective. Under the Directive, River Basin Management Plans have been developed for catchments (December 2009); including estuaries and coastal waters out to 1nm. As part of the plan preparation, government authorities are required to work with relevant stakeholders to establish the specific water quality issues for their locality.

In Northern Ireland, a WFD Stakeholder Forum was established in 2005 which covered a diverse range of interests; additional engagement of stakeholders at the local level culminated in the: development of 26 local river management plans (covering smaller areas within the three statutory River Basin Management Plans); formation of nine catchment stakeholder groups (each River Basin District contained three sub-catchment areas); and appointment of catchment officers to facilitate stakeholder involvement, act as a link between communities and authorities, and provide the public with updates on progress.

This locally-focused approach provided communities with the opportunity to actively participate in the development and implementation of plans for their water resources; and make their contribution to the overall protection of Northern Ireland waters. The approach used in Northern Ireland illustrates the value of active participation at the local level and using locally specific actions (e.g. training on monitoring and removal of invasive species) as a means of supporting the implementation of national and EU legislation.

Further information: www.doeni.gov.uk/index/protect_the_environment/water/water_framework_directive_.htm

Section 6

Step 3 – Development of programmes of measures

Aquaculture © thegreekphotoholic / istock

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Participation in the process will require resources (and generate costs), but will create opportunity for stakeholders to influence what measures are selected, and potentially minimise adverse impacts on them. Early participation may also help businesses plan future investments more effectively. Stakeholders may be able to access funding to help implement measures (see Step 4).

Participation will generate benefits for society as a whole, by enhancing the effectiveness, efficiency and equity of programmes of measures, as well as their perceived relevance. Participation by stakeholders will increase knowledge of the condition of ecosystems, their impact on it and the steps needed to ensure sustainable use in the future. It will also foster greater subsequent support and compliance, meaning GES is more likely to be achieved.

"I think it's really important that legislators recognise the essential role that stakeholders need to play in developing programmes of measures at any scale. Without knowing how the measures could affect their activities then stakeholders will be unable to effectively engage with any process to develop the MSFD."

(Marine recreation sector)

Case study 5:

The Green Blue

The Green Blue is a stakeholder-led environmental awareness programme set up by the British Marine Federation and the Royal Yachting Association, the major industry associations representing the UK marine recreational boating sector. It aims to promote the sustainable use of coastal and inland waters by boating and water sports participants, as well as the sustainable operation and development of the recreational boating industry.

The programme consists of practical projects, free advice and academic research focused on six themes:

- Oil and fuel, including fuel efficiency and dealing with spills
- Cleaning and maintenance of boats
- Anti-fouling and marine paints, including reducing impacts of non-native species
- Waste management on shore and on the water
- Resource efficiency on board, at clubs and in marinas
- Effects on wildlife, including avoiding disturbance.

The project has led to tangible changes in behaviour in the leisure boating sector in the UK. According to a recent survey, some 60% of boaters are aware of the initiative, and 20% have reduced their waste as a result of the information and support it provides.

Further information: www.thegreenblue.org.uk

Section 6

Step 3 – Development of programmes of measures

How stakeholders can participate in and influence this step 1 6 9

Stakeholders have a significant role to play in identifying measures and should be involved from the outset. They can contribute in a range of ways, such as:

- Highlighting existing voluntary measures that are already helping to meet MSFD targets, and implementing new ones (see case study 4), potentially reducing the need for additional statutory intervention under the Directive.
- Where additional measures are required to achieve MSFD targets, making a case for the use of voluntary measures as a means of doing so, and for the inclusion of measures to encourage and support voluntary action (e.g. information, training, incentives and funding).
- Suggesting feasible and realistic additional measures that will be supported by others, drawing on existing successful examples in their sector (including measures developed under other policy areas) or through collaborating with other stakeholders.
- Helping to evaluate and test measures, and estimate their effectiveness and costs.
- Providing information to help determine social/economic impacts, including on business performance (e.g. on revenues, profitability, jobs etc.) and different interest groups.
- Providing evidence to support over-riding public interest and disproportionate cost arguments, and on how to ensure sustainable development requirements are met.
- Formally commenting on draft programmes of measures, when published.

All of the above should include relevant stakeholders from the Celtic Sea and elsewhere, including relevant terrestrial stakeholders. Care needs to be taken to ensure balance of representation in order to be in line with the requirements of the Directive.

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PISCES recommendations	
Stakeholders should…	
Actively participate in identifying and developing measures to ensure they are relevant, adequate, fair, enforceable and supported.	1
Push for a coordinated approach to the development of programmes of measures for the Celtic Seas sub-region. Information exchange through regional stakeholder forums can help.	1
Governments should…	
Involve stakeholders fully in the process to help deliver well-supported outcomes, avoid compliance issues, save public resources and meet targets.	11
Develop and support sub-regional cooperation on thedevelopment of programmes of measures. Involve stakeholders in these and make use of existing regional stakeholder forums.	11
Recognise the role of current and future sustainable practices by sea users and integrate into programmes of measures.	11

Section 6

Step 4 – Implementation of programmes of measures

MSFD requirements

Competent authorities must ensure that programmes of measures are fully operational by 2016. Where justification exists for not achieving GES within the timetable (because measures need international action, result in disproportionate costs or for reasons of overriding public interest) countries must still take measures to prevent further deterioration and must ensure GES is not permanently compromised.

Implementation in the Celtic Sea project area 7 9

Some measures that contribute to the targets identified in Step 1 are already in place, or are planned, under existing policy mechanisms; any additional actions should be included in the programmes of measures and implemented by 2016. Implementation is a critically important step requiring clear identification of the actions required, as well as mechanisms to ensure compliance. It is also important to clarify who is responsible for implementing measures. Enforcement processes usually include inspections, compliance monitoring, negotiations and legal action, where necessary.

"The public sector these days hasn't got the sort of financial resources needed to implement these sorts of measures. It leaves us, the stakeholders, to develop and deliver them. This ensures that we get buy-in of all stakeholders into this process and means we can evaluate that measures are actually feasible to deliver in the first place."

(Marine leisure sector)

How stakeholders could be affected by this step 1 2 3 4 6 11

Many stakeholders will need to implement measures. A general trend towards enhanced monitoring, mitigation and remediation requirements is also likely in all sectors. Stakeholders who implement measures will incur costs, through expenditures on measures and through impacts on business activity. Stakeholders may also gain benefits from implementing measures from reduced operating costs and enhanced business performance and market-share.

Stakeholders might be affected by the implementation of measures and other policy mechanisms by government, particularly marine protected areas, changes proposed under the reformed CFP, and any marine spatial planning initiatives, all of which have the potential to influence when, where and how they operate.

If stakeholders feel that the measures are not fair or affordable, they may not comply with them. Non-compliance could result in fines and/or other sanctions being imposed. Involving stakeholders in the development, evaluation and implementation of measures may help to avoid this situation, which is undesirable for stakeholders and government.

Communication and education are needed to raise awareness of the value of the ecosystem approach and the importance of sustainable marine practices among government, marine industry and the general public.

Stakeholders may be able to obtain funding to help offset the costs of measures (see Box 10).

Box 10: Funding to help implement measures

The new European Marine and Fisheries Fund (EMFF) 2014-2020 is an EU financial mechanism to contribute to the implementation of the reformed CFP and the Integrated Maritime Policy (IMP). There is no European funding stream specifically for MSFD implementation since delivery is the responsibility of member States. However, the EMFF can be used for co-financing MSFD measures. This fund is particularly devoted to pre-agreed measures in the operational programmes (to improve fishing boats, to compensate for fishing boats' dismantling, subsidies to support familiar inshore fishing, etc.) and to manage fisheries' marine reserves.

Depending on how each country decides to implement it, there are possibilities to co-finance small local initiatives for the sustainable development of fisheries grounds. For example, in Spain the national government decided to allow for the establishment of fishery local action groups. Each group has a participatory committee composed of local stakeholders that define the measures to be co-financed, according to the local needs and requests.

Other EU funds available to NGOs, research bodies and private companies to implement MSFD measures are the INTERREG and LIFE+. INTERREG, for transnational projects, includes a priority objective to 'Protect and promote natural spaces, water resources and coastal zones' (see www.coop-atlantico.com). LIFE+ has a long tradition of supporting nature, biodiversity and environmental projects relevant to coast, seas and fisheries (ec.europa.eu/environment/life/themes/seas/thematic.htm).

In addition, other kinds of financial sources such as national and local government grants, corporate social responsibilities of large companies, private foundations, trusts and charities are also available.

Section 6

Step 4 – Implementation of programmes of measures

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How stakeholders can participate in and influence this step 1 11

As in Step 3, stakeholders are likely to need to implement measures to help meet the targets of the MSFD. They can enhance the sustainability of their activities and help meet targets by proactively developing and implementing measures in their own sector.

Stakeholders can also help to encourage sustainable practices and compliance with measures in other sectors, e.g. through education, providing information, developing codes of conduct and self-regulation. Information-sharing through collaborative working can help this process (e.g. through participation in multi-sector forums).

Stakeholders may also become involved in enforcement by detecting non-compliance within their sector, identifying and negotiating with violators, commenting on government enforcement actions or initiating legal action themselves.

In addition, certain industries (such as the banking and insurance industries) might be indirectly involved in enforcement – e.g. by requiring compliance with certain environmental requirements before issuing a loan or insurance policy to a marine business.

PISCES recommendations	
Stakeholders should…	
Continue to develop and implement voluntary measures, and encourage others to do the same, in order to help meet targets sooner and alleviate the need for further regulation.	
Ensure sharing of information on relevant technological advances and initiatives through appropriate channels, e.g. newsletters, websites, stakeholder forums.	
Identify ways to assist in ensuring compliance.	7
Secure opportunities for financing/co-financing measures in order to offset costs to industry.	6
Governments should…	
Ensure marine strategies identify actions required to implement and enforce measures and ensure compliance. Communicate clearly, with genuine opportunities for two-way exchanges, in order to increase compliance and support.	11
Raise awareness of the benefits of the ecosystem approach and sustainable marine practices among government, marine industry and the general public.	11
Recognise the role and benefits of stakeholders assisting in ensuring compliance and support delivery.	1
Help stakeholders secure financing/co-financing options and support proposals.	6

Section 6

Step 5 – Evaluation and adaptation

MSFD requirements 5 9

The MSFD implementation process is cyclical and the key components of marine strategies will be reviewed and adapted as necessary every six years. As part of this, the MSFD requires EU countries to submit an interim review of the outputs of Step 1 by July 2018.

Implementation in the Celtic Sea 3 4 9

This step has not yet been started. If reaching or maintaining GES by 2020 will not be possible, additional measures will be put in place to achieve GES within the next cycle.

Success will be influenced by a range of factors, including the quality of performance indicators. Meaningful evaluations can be conducted only if the objectives were stated in unambiguous terms and if indicators for assessing progress were identified in the planning phase, and monitored effectively afterwards. Baseline data is essential.

Adaptation is likely to be a case of trial and error in the Celtic Sea, as elsewhere. Few examples exist of adaptive management in practice (the concept is still relatively new).

How stakeholders could be affected by this step 1 2 3 6 9 11

This step depends on earlier progress, but it is likely stakeholder participation will be required. As in previous steps, care needs to be taken to ensure balance of representation. Stakeholders may need some support and training to help them play a role. The process could result in changes to measures previously agreed and implemented. If measures have been ineffective, the EC may take more of an active role and determine measures to achieve targets at a regional scale.

> *"All stakeholders should feel that the evaluation regime is current and that their inputs are valued. Evaluation should be open, transparent and available to all stakeholders."*
>
> (Renewables sector)

How stakeholders can participate in and influence this step 4 5 7 8 9 10 11

Stakeholders will be invaluable in helping with evaluation through highlighting the benefits and costs (and their distribution), compliance with measures and any problems and challenges, e.g. on data collection, monitoring and co-ordination.

Sharing information with stakeholders helps bring them into the process of government and generate trust. Evaluations should be open, transparent and available to all.

Participation could positively influence outcomes. Stakeholders could submit their own evaluations of how effective the measures have been, and on the appropriateness of indicators, targets and thresholds. Coupled with suggested improvements, and rationales for these, this could be very effective in influencing the next cycle.

PISCES recommendations	
Stakeholders should…	
Get involved in evaluation and adaptation, highlighting issues, challenges, gaps and benefits to ensure appropriate improvements are made.	1
Make recommendations for future adaptations to measures.	4
Governments should…	
Actively involve stakeholders in the evaluation and adaptation process, learning from their first-hand experiences of implementing measures.	11

Section 7
Stakeholder participation

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Section 7
Stakeholder participation

Why should stakeholders participate?

Early and effective stakeholder participation is a fundamental aspect of the ecosystem approach and is a legal requirement under the MSFD, as well as the CBD, Aarhus Convention and OSPAR's North-East Atlantic Environment Strategy.

Under each step, this guide has identified examples of how stakeholders can support implementation of the MSFD in the Celtic Sea project area, including:

- Supporting assessment and monitoring: for example, contributing to the programme design; collecting, providing and validating data; supporting data analysis and interpretation; and collaborating on joint-data collection. 3 5 9
- Implementing voluntary measures in sectors to help meet policy targets, encouraging others to do so, and highlighting these efforts to government. 4 11
- Helping to identify, develop, test and evaluate measures, improving the quality of marine strategies, and helping government meet targets while minimising costs. 6 7 8
- Providing evidence to support over-riding public interest and disproportionate cost arguments (e.g. the distribution of costs and benefits), and on how to ensure sustainable development requirements are met. 2 3 6 9 10

The benefits of participation to stakeholders are likely to include a reduced regulatory burden, more certainty for investment, fairer and more affordable measures, and increased commercial opportunities. In turn, this will reduce costs for governments and benefit wider society by increasing the likelihood of achieving environmental targets.

How can stakeholder participation be achieved? 1

Moving towards greater stakeholder participation will require fresh thinking and new approaches. It will also need effort and commitment from all parties.

Stakeholders can contact relevant government departments and agencies directly and communicate their views and needs. They can also join national government meetings and workshops (e.g. various MSFD stakeholder groups), and other international meetings (e.g. EC Marine Strategy Coordination and Expert Groups, OSPAR Intersessional Correspondance Groups, ICES and the North Western Waters Regional Advisory Council), many of which can be attended by 'observers'. Attending conferences and workshops about the marine environment and marine policy will also be useful, as will working with related European projects.

Governments in the UK, Ireland and France need a more proactive, strategic and effective process for stakeholder participation. Although not a legal requirement under the MSFD, governments and stakeholders alike would benefit from the publication of stakeholder engagement strategies.

Among other aspects, stakeholder engagement strategies should identify and formalise the 'entry points' for stakeholder input, clarify timings and detail what information is required (e.g. technical solutions, socio-economic data). The roles, responsibilities and the approach to participation should be clearly defined at the beginning of the process. They should link to stakeholder processes for other policy areas, which may be proceeding in tandem, often with the same stakeholders (see case study 6).

Case study 6:

Multiple stakeholder engagement processes in the UK

In the UK, the Marine and Coastal Access Act (2009) introduced several separate policy areas that require input and involvement of stakeholders, including: the identification of areas to be designated as English Marine Conservation Zones (MCZs) and the development of English marine plans. The MCZ process has involved 2,500 stakeholder interviews, a million representations and 165 workshops for all English waters. The marine spatial planning process is being developed one area at a time, and is currently focusing on the east and South of England: there have been three workshops attended by 145 stakeholders and 12 drop-in sessions attended by 600 stakeholders.

The two processes require a great deal of input, often from the same stakeholders. Much of the information gathered overlaps. There is a need for clarity on all of the engagement processes and the role of stakeholders both as individuals and as groups. There is also a need to manage expectations. In the MCZ process there has been a perception among some stakeholders that the consensus formed by the stakeholder groups will be overruled by a government process that doesn't involve them. Being clear on the ways that stakeholder opinion will be taken into account from the outset can help to address these concerns.

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Stakeholder engagement strategies should set out practical actions to provide opportunities for early and effective participation. This is likely to involve multiple approaches (see case study 7), ranging from focused dialogue with individual stakeholders through to multi-sector forums. Achieving such levels of participation will be challenging, particularly at the multinational level, as suitable stakeholder forums do not exist at this scale. Concern over the use of finite government funds is also a critical barrier, particularly given the tight timeframes of the MSFD and stakeholder engagement requirements in other policy areas.

Case study 7:
UK Statement of Public Participation

In the UK, a Statement of Public Participation (SPP) is a legal document developed by the planning authority that sets out the mechanisms and methods for stakeholder engagement. SPPs set out the key stages of development, milestones and how stakeholders can be involved. An SPP has been developed for the marine spatial planning process and clarifies how stakeholder input will be incorporated into marine plans.

Although the exact nature of participation is not specified (the focus is on the process and key stages), a range of potentially relevant approaches are highlighted: e.g. geographic or sector-based working groups, workshops, web portals, one-to-one meetings, exhibitions and drop-in sessions, and stakeholder meetings.

Further information:
www.marinemanagement.org.uk/marineplanning/documents/final_spp_revised.pdf

www.scotland.gov.uk/Topics/marine/seamanagement/national/spp

PISCES stakeholders believe the MSFD represents an opportunity for a broader rethink about participation in marine policy and management. There is a general perception among marine stakeholders that they lack coherent and transparent processes through which they can have a meaningful input to policy and management. Stakeholders also feel participation processes need to be integrated and rationalised to reduce the competing and growing demands on their time.

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New mechanisms for stakeholder participation: lessons from PISCES 1

There is an urgent need for a more strategic approach to participation in the MSFD and wider marine policy and management. PISCES stakeholders believe a transnational, multi-sector forum is needed to foster greater communication, cohesion and integration across borders and sectors. If established at the scale of the Celtic Seas sub-region (as identified in the MSFD), a forum could form an integral part of the implementation strategy and, potentially, longer-term management of the area.

> ***"There is a need for an integrated multi-sector stakeholder platform to represent marine sectors that may be affected."***
>
> (Marine leisure sector)

PISCES has already made progress in bringing together a multi-sector, transnational group of stakeholders (over the southern portion of the Celtic Seas sub-region). PISCES stakeholders consider that a strong case exists for ensuring the continued existence and further development of this group on a sub-regional basis.

Similar stakeholder forums have been proposed for the Greater North Sea sub-region (see case study 8) and the Irish Sea, and there are other examples of regional forums elsewhere in Europe, including the Baltic Sea.

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Case study 8:

North Sea maritime forum

A multi-stakeholder consortium, led by the Scottish government (Marine Scotland), has proposed a stakeholder forum for the North Sea, building on work by the North Sea Fisheries Partnership and the North Sea Regional Advisory Council. The North Sea Maritime Forum would be a long-lasting stakeholder platform to identify opportunities and develop a common perspective for the North Sea and its coastal areas.

The forum would bring together all stakeholders engaged in, on and around the North Sea by establishing a transnational partnership working to support coordinated marine spatial planning and use of the resources. All partners, small or large, would share equal responsibility. National administrations and the EC would have an observer status on the forum and sectors operating in the North Sea would be offered membership.

Marine Scotland is expected to provide the financial and administrative management of the project, but at the time of writing the forum is awaiting funding.

A Celtic Seas forum

1 2 3 4 5 6 7 8 9 10 11

The precise objectives, structure and functioning of a Celtic Seas forum need to be determined. Experiences gained in PISCES have helped to identify key considerations:

- **Geographic scale.** There are advantages to mirroring existing boundaries. The Celtic Seas sub-region would be the most practical for the purposes of the MSFD and provide strong synergy with OSPAR Celtic Seas Region III. This could build upon the existing stakeholder group formed as part of the PISCES project.
- **Objectives.** The objectives of the forum would need to be determined and set out clearly in a terms of reference. This is likely to include providing an impartially-led platform for dialogue between stakeholders, and between stakeholders and government. The forum could be established with a focus on the MSFD, after which it could be broadened out to wider marine policy and management.
- **Legal status.** Evidence suggests that a statutory basis aids formal recognition, funding and effectiveness, and increases stakeholder buy-in. Demonstrating the effectiveness of such a forum through projects like PISCES could support this.
- **Representation.** The forum must be representative, and perceived as such. At a minimum it would need to include key industry/sea-user sectors in the Celtic Seas sub-region, NGOs and the research/scientific community. Government could either join as another stakeholder, or take part as observers.
- **Management.** The management structure would need to be formally defined, including considerations such as the establishment of a secretariat, membership process, working groups and a meeting programme. Management could be supported (at least initially) directly by government.
- **Funding.** Securing long-term funding will be vital. Given the transnational context, this could be from the EC, perhaps in combination with national governments. However, interim funding may be needed. Membership fees are a possibility, but would need to be carefully considered to avoid disadvantaging any individual interest groups.
- **Managing expectations.** Members need to understand the group's role in management decisions and the role and level of influence for each sector. This should be communicated to stakeholders at the outset.
- **Relationship to other mechanisms.** Sub-regional stakeholder forums could be part of a hierarchy of stakeholder mechanisms, complementing other governance mechanisms (e.g. regional sea conventions, fisheries regional advisory councils and national/sub-national stakeholder forums). Links should be made between all relevant stakeholder participation processes.

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Case study 9:

European fisheries Regional Advisory Councils

The growing international recognition of the need for stakeholder participation in decision-making was given a legal basis in European fisheries management through the creation of Regional Advisory Councils (RACs) during the 2002 reform of the Common Fisheries Policy (CFP)'. RACs bring together different interests and different member states at a regional level and are the principal means for providing stakeholder advice to the EC on European fisheries management. RACs were hailed by many as the most positive development of the 2002 reform.

The RACs cover seven geographical areas, pelagic stocks and the high-seas/long-distance fleet. They include representatives from the fishing sector (catch, processing, producers etc.) and one-third representation from 'other interests', which includes environmental organisations, anglers and aquaculture.

The establishment of the RACs has improved access to information, understanding between stakeholders (including scientists and policy-makers), and understanding of the decisions made by the EC. Although RACs are clearly involved in fisheries management, their mandate is restricted to giving advice which the Commission may or may not take into account. However, the emphasis on regionalisation in the 2012 reform of the CFP suggests RACs will have an increasingly prominent role in future fisheries management[19].

What are the potential benefits of a Celtic Seas forum? 11

For stakeholders, a Celtic Seas forum would be an opportunity to engage directly with other stakeholders from a range of sectors and countries. During the PISCES project, stakeholders recognised the benefits of working with others to explore interactions and conflicts, understand different perspectives, and gain knowledge about other sectors' activities (see Box 11). Involvement in PISCES also strengthened networks both within and between sectors. It became clear that it is possible to move beyond preconceptions about competing or opposing activities to identifying shared objectives and aims. In this way, a forum could help to forge a stronger Celtic Sea identity.

Box 11: Example stakeholder perceptions of the benefits of participating in PISCES

"PISCES enabled us to understand how each activity impacts each other and the sea. It helped to establish trust between the many different groups involved and I found the whole process a rewarding experience."

"PISCES was a great chance for Celtic Sea users to get together and discuss their sector's needs and concerns."

"PISCES allows us to meet people and organisations we do not necessarily always meet."

"It was a unique opportunity to interact with other stakeholders in a free environment where you can really express your views, and there is nothing at stake but just to try and work better together."

"It's great to be with stakeholders who have a lot of information and knowledge of what's going on, and we're all coming here to share the objective that there are real advantages to us all if we can get ecosystem-based management right."

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Beach huts © Barney boogles / istock

A Celtic Seas forum would also provide a conduit through which stakeholders could communicate views and concerns to governments on implementation of the MSFD as well as other policy areas. Views based on multi-sector discussion and agreements are likely to be far more powerful than those coming from a single sector.

Governments (particularly competent authorities) would benefit from engaging a broad and representative spectrum of marine sectors easily and efficiently. The complexity of marine systems creates numerous relationship structures and networks at different scales. Working through a single organised structure would save time and money. A multi-sector forum will help identify and negotiate conflicts and solutions, which will help governments to implement the MSFD and other marine policy.

Importantly, a Celtic Seas forum could perform a valuable role in supporting regional coordination as required under the MSFD. This will be especially useful where interests and activities span national boundaries, as is expected to be the case for fishing, litter and noise. It could also support the development of fishery and marine protected area management plans, and other marine policy processes.

The forum could be an ideal platform from which to promote marine issues. With adequate funding and support, it could raise awareness of the importance of participation, cooperation and the ecosystem approach (e.g. workshops, branding and marketing campaigns, and competitions to reward innovative thinking and actions).

Over the longer term, input to all relevant marine policy issues could be channelled through the forum: a 'consult once, use the response many times' approach. This would help to reduce the real and growing issue of stakeholder fatigue, which will only be exacerbated in the future with the anticipated expansion in marine plans, marine protected area networks and fishery management plans.

PISCES recommendations

Stakeholders should…

Actively participate in the implementation of the MSFD to ensure that measures are relevant, adequate, enforceable and supported.	1
Monitor governments' commitment to stakeholder participation, advocating national stakeholder engagement strategies that set out how and when stakeholders can participate.	1
Develop and participate in a Celtic Seas stakeholder forum to influence and participate in policy implementation.	1

Governments should…

Engage stakeholders fully in the process, at an early stage, to deliver well-supported outcomes, use public resources efficiently and meet targets.	1
Develop comprehensive national stakeholder engagement strategies to maximise opportunities for stakeholder participation throughout the policy implementation process.	1
Support development of and participate in a Celtic Seas stakeholder forum, as well as other sub-regional forums.	1

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Types of stakeholder action 1 2 8 11

Implementing the ecosystem approach will require a shift towards fully integrated management of human activities in the Celtic Sea. This will take time and cannot necessarily be achieved through the MSFD alone. In the meantime, Celtic Sea stakeholders can proactively identify issues and implement their own solutions, and encourage others to do so. Voluntary action could bring substantial benefits, and negate the need for regulation.

Stakeholders can take voluntary action either independently or in collaboration with others, although action across whole sectors or more than one sector will carry greater weight. Actions need not necessarily be radical or costly. Even minor changes can be beneficial, especially if they are taken up across a sector, with other sectors, or within an entire region.

It is vital that stakeholders communicate their plans, activities, needs and concerns, so that learning is shared, developed and expanded, and governments recognise the role of stakeholders' actions. A regional stakeholder forum could help with this. Stakeholders can also advocate action by others, including other stakeholders and government.

Exploring practical actions for stakeholders

The PISCES project explored potential practical actions through:

- Structured interviews with PISCES core stakeholders to identify examples of existing initiatives that have led to sustainability benefits and have the potential to be replicated or adopted more widely.
- Presentations at workshops by core stakeholders to provide more detail on the initiatives, benefits and challenges involved in implementation.
- Group discussions to explore the potential for replicating or expanding the use and/or application of identified examples within the Celtic Sea.
- Literature review by the PISCES team to identify further relevant examples.
- Ideas and comments from advisory group members.

Deep Sea Fishing © ImagineGolf / istock

"Using the ecosystem approach to manage what people do in the sea should result in there being more and bigger fish for sports anglers to target. But what will also happen is that as anglers see that happening, they will be more open to looking at their impacts on the environment. Where they fish, how they fish, what they fish for. It will make them more open to considering changes that will be better for the environment, whilst still allowing them to do what they like, which is fishing."

(Recreational angling sector)

A wide range of potential stakeholder actions were identified. The following were considered to be most relevant.

Participating in and supporting stakeholder forums 1

Stakeholder forums exist in numerous forms, from small-scale, issue-specific arrangements to larger integrated coastal management partnerships. Participating in and supporting them (e.g. financially or in kind) can provide many benefits, including reduced costs and resource use (see case study 10); access to marine stakeholder contacts; opportunities to attend events; advice and guidance; dissemination of information; engagement with government; marketing opportunities; and exchange of knowledge, data and ideas.

As detailed in the previous section, PISCES recommends the creation of a transnational multi-sectoral forum (building on PISCES) for the Celtic Seas sub-region. Industry, government and civil society (e.g. NGOs) must be involved and ensure that is well supported, accessible and inclusive.

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Case study 10:
Financial benefits of coastal partnerships in the UK

E.ON began construction work on the Robin Rigg wind farm in the Solway Firth, UK, in 2007. The company became a funding member of the Solway Firth Partnership for two years (2007-2008), recognising that it could use some of the core services offered to help raise public awareness of its wind farm activities. Providing £10,600 over the two years, E.ON was able to publish information in the Partnership's quarterly newsletter, as well as present at a number of partnership events – opportunities calculated to be worth around £40,000-£60,000 over the two years. Making contacts at events also saved time, valued at up to £4,500 per year. E.ON also gained useful knowledge through the Partnership, especially in relation to conservation issues.

Further information:
archive.defra.gov.uk/environment/marine/documents/protected/iczm/coastal-partnership-report-july08.pdf

www.solwayfirthpartnership.co.uk

Developing new solutions to sharing marine space 2 6 8 10

Finding space for the rapidly growing range of marine activities is becoming increasingly difficult. Physical or temporal sharing of space can reduce costs as well as footprints if done successfully. While this is commonplace on land, it is seldom seen at sea. Stakeholders know where the opportunities lie and have the technical knowledge to work out ways of accommodating other activities in the same space. Sectors should work together to explore and proactively implement practical solutions.

Exploring innovative ways of working together 2 6 8 10 11

Partnerships that deliver environmental improvements include those between industry and government, business and NGO coalitions, and public-private partnerships (see case study 11). They can be a cost-effective way of meeting government targets and making environmental responsibility an integral part of business decision-making. Partnerships are often structured around specific initiatives, such as technical improvement programmes, certification schemes, environmental agreements and codes of conduct.

Case study 11:
Sustainable Shipping Initiative

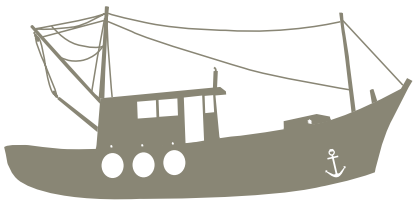
The Sustainable Shipping Initiative (SSI) is a partnership between leading companies from around the world and the NGOs Forum for the Future and WWF. The cross-industry group represents ship owners and charterers, shipbuilders, engineers and service providers, banking, insurance, and classification societies. Initiated in 2001, SSI aims to tackle some of the systemic challenges in modern shipping: navigating a changing economic context, increased scrutiny and high expectations in terms of environmental performance, and the future of energy and climate change.

Four work streams will develop new knowledge, tools and processes for the industry (up until 2013):

- Developing systems and practices for closed-loop management of ship-building materials.
- Developing new approaches for the financing of sustainable ships.
- Leading efforts to make low-energy technologies more affordable and available.
- Improved beyond-compliance sustainability rating schemes in shipping.

After 2013, the project will seek wider implementation, helping the industry make long-term plans for future success. An industry with long-lived assets needs long-term thinking. The SSI aims to help members think beyond the next regulation or design tweak.

Further information: www.forumforthefuture.org/project/sustainable-shipping-initiative/overview



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© Toby Roxburgh

Modifying marine activities 1 2 4 5 6 7 11

Individual operators and businesses can make a number of relatively small changes to their activities to improve sustainability. The location and timing of activities can be altered to limit environmental impacts (e.g. to avoid wildlife breeding seasons), the intensity of extracting resources can be reduced (e.g. through voluntary bag limits on recreational fisheries), and areas can be closed to activities through voluntary agreements (e.g. voluntary no-take zones). Stakeholders are often best placed to identify suitable actions and modifications. They will need to communicate these to governments and share learning with other stakeholders to increase take-up across their sector or area.

> *"We try to get there ahead of the legislation so we're not always reacting and so we're conducting ourselves responsibly"*
>
> (Recreational angling sector)

Incorporating ecosystem services into business decision-making 2 4 6 11

Many businesses depend on ecosystem goods and services, and many also affect them. The risks and opportunities posed by business interaction with the ecosystem can be directly integrated into internal management systems, including EIAs, corporate strategy development, environmental management systems, contingency plans, biodiversity action plans, sustainability reporting procedures and stakeholder engagement strategies. Guidance on many of these has been produced (see case study 11).

Managing activities for the provision of ecosystem services is increasingly being encouraged by industry associations (e.g. IPIECA: a global oil and gas industry association for environmental and social issues) and other bodies (e.g. the Global Reporting Initiative and International Organization for Standardization (ISO))[20].

Case study 12:
Nature in performance

The World Resources Institute has recently launched a guide for business managers on how to integrate ecosystem service considerations into their business performance systems. The guide describes:

- **The business value of ecosystem services.**
- **Simple methods to assess how ecosystem services affect corporate performance.**
- **Basic principles for integrating ecosystem service considerations into business performance systems.**
- **Specific guidance on ecosystem services considerations in ISO-14001 compliant environmental management systems, as well as in sustainability reporting procedures conforming to the Global Reporting Initiative.**

Further information:

www.wri.org/publication/nature-in-performance

Considering ecosystem services within EIAs helps to ensure that outcomes are more sustainable, by enhancing the economic, social and environmental performance of projects. Few EIAs address ecosystem services explicitly, but it is increasingly seen as best practice and is now required by some lending agencies and government institutions[21].

The process of integrating environmental, social and economic issues more clearly can also help a business by demonstrating transparency to stakeholders and regulators; enhancing evaluation of alternatives; identifying mitigation/compensation measures; providing opportunities to save costs and raise revenues; and enhancing brand value and reputation.

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Supporting sustainable markets 6

Certification and eco-labelling schemes can provide commercial benefits while helping to meet environmental improvements through the creation of markets for more sustainable products. This also benefits governments by enabling market forces to promote sustainability, reducing the need for regulatory control.

Over the past decade, numerous seafood certification schemes have been developed including the Marine Stewardship Council, South West Handline Fishermen's Association, Responsible Irish Fish (see case study 13) and Seafish's Responsible Fishing scheme.

Marine stakeholders should identify the relevant labels and certification schemes for their products and attempt to gain accreditation. The financial cost of the accreditation process can act as barrier to achieving certification. However, efforts are under way to help address this (e.g. UK Seafish's Project Inshore).

Developing and following codes of conduct 8

Codes of conduct and other so-called 'soft law' approaches (principles, guidelines etc.) are increasingly used to encourage certain behaviour (see case study 14). While not statutory, codes of conduct can help those following them to ensure they comply with environmental legislation. They can also highlight ways of avoiding or reducing environmental impacts, improving and benchmarking environmental performance, and improving business credentials.

Some sectors have developed codes of conduct in the Celtic Sea project area, including the boating, angling and port sectors (e.g. the Pembrokeshire Marine Code, the British Marine Federation's Environmental Code of Practice, and the UK Port Marine Safety Code). There is scope for wider development.

Case study 13:
Responsible Irish fish

Responsible Irish Fish (RIF) is a certification scheme that encourages and rewards responsible fishing by Irish vessels. The primary objectives of the scheme are to help vessel owners achieve certification for their fish/shellfish, develop a brand to allow Irish fishermen to differentiate their products in the marketplace and promote Irish fish caught in a responsible manner.

RIF has been developed by the fishing industry, with the backing of state bodies such as Bord Iascaigh Mhara (Irish Sea Fisheries Board). Vessel owners work with both regulatory bodies and those based in the industry to meet the label criteria which are based on three main pillars of quality (ensuring good practice during handling and storage of the catch), provenance (the fish/shellfish sold under the label is fully traceable back to an Irish vessel) and responsibility (environmental responsibility).

The RIF label is helping retain jobs in a sector of significant value to coastal communities, opening up new market demand, and ensuring the environmental cost of fisheries is kept to a minimum.

Further information: www.responsibleirishfish.ie

Case study 14:
Marine leisure codes of conduct in Wales, UK

The Pembrokeshire Marine Code exists in addition to legislation as a recommendation for good practice. The code has had input from conservationists, and also from all major local wildlife tour boat operators, diving organisations, jet ski organisations, sailors and sea kayakers to make it accurate and reasonable to follow. Wildlife habitats which are particularly sensitive to disturbance, at particular times of year or all year round, are clearly marked on maps.

The Irish Sea Marine Leisure Knowledge Network, in association with Wildlife Trusts Wales, the Marine Conservation Society, The Green Blue and Visit Wales, has also produced nine Marine Wildlife Appreciation sheets for the Welsh coast. These laminated A4 sheets have a map showing the best locations to view the local wildlife on one side, and the codes of conduct for engaging with the various species on the reverse. Some 14,000 sheets have been distributed to every yacht club and marina in Wales.

Further information: www.pembrokeshiremarinecode.org.uk and www.irish-sea.org/wales-marine-wildlife-appreciation

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Voluntary agreements 1

Voluntary agreements can be effective if the incentives are right. Typically these are agreements between sea users and government, in which responsibility for identifying solutions is delegated to the sea user. The government is usually only involved in compliance monitoring and enforcement. Sea users avoid additional regulation and have greater flexibility to choose measures that are cost-effective and commercially advantageous, while still improving sustainability. For governments, voluntary agreements can be a cost-effective way of achieving targets. There is ongoing debate about the potential for voluntary agreements within the MSFD programmes of measures.

> *"As the number of marine uses increases, there are likely to be more conflicts to be resolved between interested parties and more focus towards sustainable coexistence."*
>
> (Statutory agency)

Sharing information and data 3 10 11

Sharing data across the Celtic Sea could improve understanding and avoid duplication of effort. Data sharing can be challenging due to the variation in format, unwillingness to share potentially sensitive information, and the need for accuracy and current information. A regional data portal and agreements on how data is shared could improve data sharing in the Celtic Sea. The EU Water Information System for Europe (WISE) – Marine should facilitate this. This system will include publicly available information reported by member states and submitted to the EC on delivery of the MSFD.

Promoting responsible individual behaviour 1 6 11

Personal actions can benefit marine conservation at little cost – and responsible behaviour can be contagious. Examples include using fewer plastic bottles and bags; reusing shopping bags, cups, and other containers; participating in beach clean-ups; eating only sustainable seafood; reducing chemical runoff; disposing of hazardous materials responsibly.

Benefits of stakeholder action 1

- Reduced environmental impacts result in a healthier marine environment that provides long-term social and economic benefits.
- Voluntary actions that improve sustainability could bring commercial benefits through reduced risks, liabilities and costs, improved reputation among customers and shareholders, and possible environmental accreditation.
- Proactive stakeholders are more informed and more able to influence MSFD measures.
- Collaborative actions will improve stakeholders' negotiating position and enhance opportunities to voice their interests through participation.
- Individual and collaborative actions could help achieve targets such as GES, and in a more cost-effective and acceptable way.
- Voluntary action may reduce the likelihood and need for regulation. Stakeholders have the knowledge and experience to identify issues and solutions.

There are of course risks of inaction when activities are managed on a voluntary basis. Voluntary initiatives can fail if even one or two individuals choose not to adhere to agreements. For any voluntary initiative, it will be vital to get support from all concerned. Some initiatives that begin on a voluntary basis eventually become statutory.

The need for communication 11

It is important that stakeholders communicate with others, for example, about their concerns, needs and plans. This can help to minimise or mitigate conflicts and impacts, or avoid them all together, particularly if undertaken early on (see case study 15). Communication between stakeholders can also lead to new opportunities. This might be through identifying mutually beneficial collaborations, or identifying successful initiatives that could be replicated and adopted more widely. Highlighting the benefits (financial, economic or otherwise) can help considerably in encouraging action in others.

> *"Communication through initiatives such as PISCES helps bring different stakeholders together that would never normally have an opportunity to engage in dialogue."*
>
> (Renewables sector)

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Case study 15:

Minimising conflict between yachting and offshore windfarm development

When development of offshore wind farms first began in UK waters, recreational boat users were concerned about the potential impacts on navigation and safety. The Royal Yachting Association (RYA) took the proactive step of producing a position paper to outline these potential impacts and what steps could be taken in mitigation. The position paper is given to offshore wind developers in the early stages of the consent process and supports active communication between developers and boaters, through the RYA. It has since become a primary source of information when considering the impact of wind farms on recreational boating, and has resulted in changes to the Maritime and Coastguard Agency advice on offshore renewable energy installations.

Further information:
www.rya.org.uk/infoadvice/planningenvironment/Pages/OffshoreEnergyDevelopments.aspx

It is also important that stakeholders communicate with governments. In general, governments prefer stakeholders to develop their own solutions rather than having to regulate. The key issue is to demonstrate that these voluntary actions are effective and show how they can help government to meet policy objectives (see Box 12).

Box 12: Communicating stakeholder actions in the Celtic Sea

During the PISCES project, stakeholders identified a wide range of existing initiatives and actions with potential to be replicated more widely. Examples included modifications to activities; environmental plans and strategies, codes of conduct, voluntary agreements; stakeholder forums; and data sharing.

PISCES stakeholders recognised the benefits of developing a better understanding of how sustainable practices can help deliver the MSFD. They suggested using a matrix to compare the initiatives in a given area against the 11 GES descriptors, demonstrating the role of different activities and identifying gaps and cross-over (see the PISCES project website for more information www.projectpisces.eu). This approach could help governments and stakeholders identify which initiatives are helping deliver GES and what else needs to be done.

There is potential for voluntary measures to be directly incorporated into the MSFD programmes of measures. This may help attract long-term funding for implementation. Voluntary measures are not a quick fix; they take considerable resources and a long-term commitment. Practical experience has shown that voluntary measures are most effective when the potential exists for government action if objectives are not achieved.

PISCES recommendations	
Stakeholders should…	
Take individual actions in their sector or area to improve sustainability and reduce the need for new regulations.	1 2 11
Incorporate ecosystem services into management practice, e.g. through EIAs.	3
Take collaborative action with other sectors to improve sustainability and share data and information.	3 10 11
Participate actively in a stakeholder forum.	1
Communicate what actions are being taken, what they are achieving and what their benefits are.	11
Governments should…	
Provide incentives to private sector sustainability efforts – but be clear that if voluntary approaches don't work, then government will step in.	8
Support research and development of valuation of ecosystem services and promote the concept.	3
Create incentives for sectors to collaborate and support sharing of data, including government data.	11
Support development of a stakeholder forum.	1
Support voluntary actions in the programmes of measures.	1 7 8

Section 9

Recommendations

Recommendations for stakeholders and government

This section summarises the key recommendations on implementation of the ecosystem approach in the context of the MSFD. Recommendations were developed for stakeholders (primarily sea-users) and government (including national competent authorities, the EC, OSPAR and other international government agencies) and can be applied to the Celtic Sea and other regions.

Recommendations for stakeholders:

- Be assertive and organised in order to maximise participation opportunities – don't assume opportunities will automatically be offered.
- Participate actively in the process of identifying and evaluating measures, to help ensure they are appropriate, cost effective, affordable and enforceable.
- Advocate and support the development of mechanisms to support stakeholder participation (e.g. national and regional-seas forums).
- Continue to identify and implement voluntary measures that address environmental issues and consider ecosystem services. Encourage others to do the same.
- Seek opportunities to work with others, including government, marine industries, NGOs and the scientific community, to identify and implement voluntary solutions.
- Make government aware of how voluntary actions are helping to meet policy targets, to reduce the need for regulation and enhance the case for a voluntary approach.
- Share information on technological advances and initiatives through appropriate channels (e.g. newsletters, websites, stakeholder forums).
- Seek opportunities associated with the MSFD (e.g. undertaking research and monitoring, diversifying activities, obtaining finance).

Recommendations for government:

- Implement marine spatial planning – to provide the overarching framework for integrated management of human activities required by the ecosystem approach.
- Engage proactively with stakeholders and involve them throughout the implementation process (not just consultation), to help meet statutory requirements, deliver well-supported outcomes and conserve public resources.
- Develop clear and transparent stakeholder engagement strategies, setting out how stakeholders can participate in the implementation process.
- Use stakeholder knowledge and experience during the identification and evaluation of measures (e.g. to help determine feasibility, effectiveness, costs, benefits and impacts).
- Advocate and support the development of mechanisms to support stakeholder participation (e.g. local, national and regional-seas forums).
- Support and encourage voluntary measures that address environmental issues and consider ecosystem services (e.g. through funding, incentives, partnership-working and education).
- Explore the potential for voluntary measures to help meet MSFD targets, and to advocate their inclusion directly into the statutory programmes of measures.
- Explore ways of enhancing opportunities associated with the MSFD (e.g. awarding research and monitoring contracts to stakeholders, supporting the diversification of activities, providing finance for measures, etc.).
- Support regional-seas cooperation by, for example, advocating the collation of information at the sub-region level (e.g. by Regional Seas Conventions) and supporting transboundary cooperation initiatives and projects (e.g. by the EC).

Section 10

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Section 11

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