Analysis of the Existing International Maritime Spatial Planning Instruments Affecting the Deployment of Offshore Renewable Energies

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<td>S. Jacques, B. Adigiliou, P. Joseph (3E)</td>
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<tr>
<td>AA</td>
<td>Appropriate Assessment</td>
</tr>
<tr>
<td>APM</td>
<td>Associated protective measures</td>
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<tr>
<td>Barcelona Convention</td>
<td>Convention for the Protection Of The Mediterranean Sea Against Pollution, 1976</td>
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<tr>
<td>Bonn Agreement</td>
<td>Agreement for Cooperation in dealing with pollution of the North Sea by oil and other harmful substances, 1983</td>
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<tr>
<td>BSPAs</td>
<td>Baltic Sea Protected areas</td>
</tr>
<tr>
<td>CBD</td>
<td>Convention on Biological Diversity, 1992</td>
</tr>
<tr>
<td>CFP</td>
<td>Common Fisheries Policy</td>
</tr>
<tr>
<td>CFP Framework Regulation</td>
<td>Council Regulation (EC) No 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy</td>
</tr>
<tr>
<td>COLREGs</td>
<td>Convention on the International Regulations for Preventing Collisions at Sea, 1972</td>
</tr>
<tr>
<td>EEZ</td>
<td>Exclusive Economic Zone</td>
</tr>
<tr>
<td>EIA</td>
<td>Environmental impact assessment</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EC</td>
<td>European Community</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
</tr>
<tr>
<td>GFCM</td>
<td>General Fisheries Commission for the Mediterranean</td>
</tr>
<tr>
<td>Helsinki Convention</td>
<td>Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992</td>
</tr>
<tr>
<td>HELCOM</td>
<td>Helsinki Commission</td>
</tr>
<tr>
<td>ICCAT</td>
<td>International Convention for the Conservation of Atlantic Tunas</td>
</tr>
<tr>
<td>ICZM</td>
<td>Integrated Coastal Zone Management</td>
</tr>
<tr>
<td>IMO</td>
<td>International Maritime Organization</td>
</tr>
<tr>
<td>MAP</td>
<td>Mediterranean Action Plan, management plan under the United Nations Environment Programme</td>
</tr>
<tr>
<td>MARPOL</td>
<td>The International Convention for the Prevention of Pollution from Ships, 1973</td>
</tr>
<tr>
<td>MEPC</td>
<td>IMO’s Marine Environment Protection Committee</td>
</tr>
<tr>
<td>MPA</td>
<td>Marine Protected Area</td>
</tr>
<tr>
<td>MSFD</td>
<td>Marine Strategy Framework Directive,</td>
</tr>
<tr>
<td>MSP</td>
<td>Maritime Spatial Planning</td>
</tr>
<tr>
<td>MSC</td>
<td>IMO’s Maritime Safety Committee</td>
</tr>
<tr>
<td>Acronym</td>
<td>Definition</td>
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</tr>
<tr>
<td>NAV</td>
<td>IMO’s Sub-Committee on Safety of Navigation</td>
</tr>
<tr>
<td>NEAFC</td>
<td>Convention on Future Multilateral Cooperation in North-East Atlantic Fisheries</td>
</tr>
<tr>
<td>NM</td>
<td>nautical mile</td>
</tr>
<tr>
<td>OSPAR</td>
<td>Convention for the Protection of the Marine Environment of the North-East Atlantic, 1992</td>
</tr>
<tr>
<td>PSSA</td>
<td>Particularly Sensitive Sea Area</td>
</tr>
<tr>
<td>RE</td>
<td>Renewable Energy</td>
</tr>
<tr>
<td>RFMO</td>
<td>Regional Fisheries Management Organisation</td>
</tr>
<tr>
<td>SAC</td>
<td>Special Areas of Conservation</td>
</tr>
<tr>
<td>SCI</td>
<td>Sites of Community Importance</td>
</tr>
<tr>
<td>SEA</td>
<td>Strategic Environmental Assessment</td>
</tr>
<tr>
<td>SEA Protocol</td>
<td>Protocol on Strategic Environmental Assessment, 2003</td>
</tr>
<tr>
<td>SOLAS</td>
<td>International Convention for the Safety of Life at Sea, 1974</td>
</tr>
<tr>
<td>SPA</td>
<td>Special Protection Area</td>
</tr>
<tr>
<td>SPAMI</td>
<td>Specially Protected Areas of Mediterranean Interest</td>
</tr>
<tr>
<td>TSS</td>
<td>Traffic Separation Scheme</td>
</tr>
<tr>
<td>UN Fish Stocks</td>
<td>United Nations Convention relating to the Conservation and Agreement (UNFSA) Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 1995</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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1 SUMMARY

The EU project Seanergy 2020 evaluates in this report the existing international maritime spatial planning instruments. The objective is to identify those international maritime spatial planning (MSP) instruments that impact the development of offshore renewable energy and to qualify their effect on siting for offshore renewable power generation and cable routing for a pan-European grid at sea.

Some international Maritime Spatial Planning instruments have been developed over the years but they do not necessarily take into consideration the specific features of offshore renewable energies. Identifying the barriers to achieve a more integrated approach to MSP, that foster the deployment of offshore power generation from wind and marine power sources, is necessary and contributes to the implementation of the 20% Renewable Directive.

The report is providing an overview of the existing instruments (laws, conventions, agreements) at the international, European and regional level. The aim of each instrument is interpreted and its consequences analysed. Furthermore, for each of the different instruments, the elements influencing offshore renewable energies deployment and related electricity infrastructure are identified.

In addition to this, the type of influence has been linked to stages in the development and implementation of offshore renewable energy activity. An offshore renewable energy project has a life cycle going through the following phases:

Table 1: Summary table of the influence of the international instruments on the life cycle of offshore renewable energy projects

<table>
<thead>
<tr>
<th>Phase of project development</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>UNCLOS, IMO, RFMOs, CBD, Birds and Habitat Directive, CFP, GFCM, NEAFC, Barcelona Convention</td>
</tr>
<tr>
<td>Monitoring</td>
<td>UNCLOS, OSPAR</td>
</tr>
<tr>
<td>Construction &amp; Operation</td>
<td>UNCLOS, CFP, GFCM, NEAFC, Bonn Agreement</td>
</tr>
<tr>
<td>Removal/ Decommissioning</td>
<td>UNCLOS, IMO, CFP, GFCM, NEAFC, OSPAR</td>
</tr>
</tbody>
</table>

The table which provides a complete overview of all measures and their impact on offshore renewable energy projects can be found in Annex 1. The table shall serve as knowledge base for both Member state policy making and offshore renewable energy developers in the guidance towards future projects.

Furthermore the results of this report will act as input to the evaluation and identification of inconsistencies with the offshore renewable energy plans. In a next step the project will make proposals for an internationally coordinated approach to MSP favouring the deployment of offshore renewable power; taking into consideration the Member States national renewable plans and other national and EU initiatives in terms of MSP and the offshore electricity grid.
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3 INTRODUCTION

The expansion of all kinds of offshore activities and the increasing need to coordinate these in an economically and ecologically-friendly way led to an enhanced interest in maritime spatial planning (MSP) as a tool for sea use management. The main drivers for the implementation of MSP come from the demand for new ocean uses, such as offshore renewable power generation, and international requirements for the protection and conservation of ecologically and biologically valuable areas.

Maritime Spatial Planning is a practical tool to create and establish a more rational organisation of the use of marine space and the interactions between its uses, to balance demands for development with the need to protect marine ecosystems, and to achieve social and economic objectives in an open and planned way¹.

The need for MSP is introduced in various documents at the international, European and regional level, and is presented as a cross-sectoral and integrated approach aiming to reduce conflicts between the multiple users of the sea. Several European countries (Belgium, Germany, Norway, Sweden, The Netherlands, United Kingdom, Denmark,), on their own initiative or driven by European legislation and policy, have taken global leadership in implementing MSP.

This report provides an overview of existing instruments (laws, conventions, agreements) at International, European and regional level and identifies elements influencing offshore renewable energies deployment and related electricity grid.

As a conclusion, the influence of these instruments is linked to the different stages of the offshore renewable energy activity. The considered stages of the life history of an offshore renewable energy project are:

- Location
- Permitting and Licensing
- Monitoring
- Construction and Operation
- Removal/Decommissioning

Wind farms, wave parks, tidal current energy converters can be considered as offshore renewable energy projects. Amongst these, offshore wind energy proved, through the strong development of the sector, its potential and concrete contribution to clean and secure power generation. Ambitious goals for wind energy at sea were set up at European level. The Second Strategic Energy Review suggests some 31 GW by 2020 and 250 GW by 2030².

In this way the report creates an added value towards offshore renewable energy projects and for policy making as a guide during the development of the project an overview of the current situation.

¹ MARINE SPATIAL PLANNING A Step-by-Step Approach toward Ecosystem-based Management – UNESCO, Intergovernmental Oceanographic Commission
4 INTERNATIONAL INSTRUMENTS


The 1982 United Nations Convention on the Law of the Sea (UNCLOS) provides the framework within which States exercise their rights and obligations relating to maritime affairs.

UNCLOS defines the different maritime zones at sea and the legal status of these zones. The Convention lays down a comprehensive regime of law and order in the world's oceans and seas and establishes rules governing all uses of the oceans and their resources. The maritime zones defined by the Convention are shown in table 1 and underline the elements influencing MSP and renewable offshore deployment.

With the adoption of the 1982 United Nations Convention on the Law of the Sea (UNCLOS), and mainly with the entry into force of this Convention on 16 November 1994, coastal states were given new legal opportunities by defining the different maritime zones and their legal status.

Table 2: Maritime zones of the United Nations Law of the Sea Convention (UNCLOS)

<table>
<thead>
<tr>
<th>Maritime Zone</th>
<th>Definition</th>
<th>Relevant Elements for MSP and RE Deployment</th>
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<tr>
<td>The internal waters</td>
<td>The waters of a coastal state on the landward side of the baseline, including bays, estuaries, rivers, coastal harbours and inland waters.</td>
<td>Coastal state has full sovereignty over its internal waters and enjoys the widest margin to submit its internal waters (including ports) to maritime spatial planning, even as regards shipping and navigation (Art 8 (2)).</td>
</tr>
<tr>
<td>The territorial sea</td>
<td>Territorial seas extend from the straight baselines out to 12 nautical miles (NM). (&quot;The twelve miles zone&quot;) (Art 3)</td>
<td>The UNCLOS recognizes a coastal State’s sovereignty within its territorial sea. (Art 2) Coastal states may adopt laws and can impose the use of specified sea lanes and traffic separation schemes, taking into account recommendations of the competent international organisation, the International Maritime Organisation (IMO), customary practices and the nature and density of the traffic. (Art 21)</td>
</tr>
<tr>
<td>The contiguous zone</td>
<td>Contiguous zone extend from the straight baselines out to 24 NM (Art 33)</td>
<td>Articles related to the contiguous zone have little impact if any on MSP. It stipulates that the coastal State has limited crime prevention and enforcement powers for the purpose of customs, fiscal, immigration and sanitary matters.</td>
</tr>
<tr>
<td>The continental shelf</td>
<td>The continental shelf of a coastal state comprises the sea-bed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin or to a distance of 200 nautical miles from the baselines. The outer limits of the Continental Shelf shall not exceed the 350 NM distance from the baselines or to a distance that shall not exceed 100 NM from the 2500 metres isobaths, which is a line connecting the depth of 2,500 metres.</td>
<td>Coastal State has a limited set of sovereign rights regarding the continental shelf. It includes the exploitation of living organisms belonging to sedentary species, drilling, tunnelling, and the use of artificial islands, installations, and structures. It follows that coastal States may also take the appropriate planning measures to regulate these activities.</td>
</tr>
</tbody>
</table>
| The exclusive economic zone (EEZ) | States may declare (Article 57) an exclusive economic zone (EEZ) for the area beyond their territorial seas but it shall not extend beyond 200 NM from the baseline. The EEZ includes, besides the sea-bed and its subsoil, the waters superjacent to the sea-bed. Not all UNCLOS Contracting Parties have formally declared an EEZ. It is the case for the Mediterranean coastal Member States, none of them have claimed an EEZ in the Mediterranean Sea. France has declared a 200nm « Ecology Protection Zone » in the Mediterranean Sea. Spain has claimed a fishery zone beyond its territorial sea and out to lines of equidistance between the latter and adjacent and opposite States. QUID Itlay, Cyprus etc???

A more limited set of “sovereign rights” are conferred by the UNCLOS on coastal States in respect of their EEZs (Article 56 (2)). Within its EEZ a coastal State has sovereign rights relating to living and non-living resources and with regard to other activities for the economic exploitation and exploration of its EEZ, such as the production of energy (Article 56 (1)). Within the framework of the limited sovereign rights that are conferred by the relevant provisions of the UNCLOS, coastal States have the right to undertake MSP.

In respect of offshore installations, UNCLOS confers exclusive rights to construct, authorise and regulate the construction, operation and use of artificial islands, installations and structures. States may establish safety zones of 500 metres or less around artificial islands, installations and structures. Within EEZs the freedom of navigation, the laying of cables and pipelines and other lawful uses of the sea are protected.

| The high seas | All parts of the sea that are not included in the EEZ, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State. Coastal State has no rights with regard to the waters which have the status of high seas. States are excluded from making any area of the high seas subject to MSP as such, though they may regulate the activities of their own nationals there (which include vessels flying their flag).

| The Area | The seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction. |
Impact of UNCLOS on Offshore RE deployment

UNCLOS lays down a comprehensive regime of law for the world’s oceans and seas; but in many fields it only provides the general rules, while assuming that detailed regulation is organised through other specialised international bodies and specific international agreements on particular aspects of the law of the sea.

Apart from the zoning provisions described above, the UNCLOS does not contain any explicit provisions on renewable offshore development. This is due to the fact that offshore renewable energy is a recent user of the sea space, and did not compete for space in maritime areas at the time UNCLOS was produced.

The analysis of coastal States’ scope for engaging in RE offshore activities has to start with the constraints set by the UNCLOS and mostly concern the legal rights allocated to coastal States in each maritime area.

UNCLOS recognizes the sovereignty of the coast and over its territorial sea and has the right to set laws and regulate the use of any natural resources. Within the EEZ coastal state has sole exploitation rights over natural resources, including the production of energy from the Sea.

Thus, in accordance with UNCLOS offshore renewable energy projects may be built anywhere within the EEZ and a safety zone of 500m around be established. The possibility to declare safety areas under UNCLOS requires coordination between users and a common interpretation, in order to avoid misuse of these buffer areas and overload the maritime space.

In the Mediterranean Sea, the coastal Member States may in the absence of an EEZ nonetheless undertake MSP within any special zones that they have claimed beyond their territorial seas in connection with the purposes for which those zones were established (which must in any event not go beyond the purposes for which an EEZ may be established).

On the High Sea, coastal States may not claim the sovereignty or sovereign rights that would give the necessary legal effect to MSP activities.
4.2  International Maritime Organisation (IMO)

The International Maritime Organisation (IMO), created in 1958, is a specialised organisation of the United Nations, establishing internationally recognised rules and standards for shipping and maritime transport.

It is now responsible for nearly 50 international conventions and agreements and has adopted numerous protocols and amendments.

The majority of conventions adopted under the auspices of IMO or for which the Organization is otherwise responsible, fall into three main categories:

- Maritime safety (including prevention of collisions, signalling etc);
- Prevention of marine pollution;
- Liability and compensation, especially in relation to damage caused by pollution.

The two main IMO conventions related to shipping routing are COLREG and SOLAS Convention. The SOLAS and the MARPOL Conventions treat prevention of pollution and environmental harm caused by international shipping activities.

4.2.1  Convention on the International Regulations for Preventing Collisions at Sea (COLREG 1972)

The definition of shipping routes is important for ensuring the safety of international maritime traffic. COLREG is the main convention for regulating international maritime traffic. It specifies the "rules of the road" for particular traffic situations and organizes the traffic flow by means of “traffic separation schemes” (TSS) (Rule 10), the aim of which is to separate opposite-going traffic in high traffic density areas.

In the territorial sea a coastal state may, where necessary for the safety of navigation, oblige foreign ships to use particular sea-lanes and traffic separation schemes. In doing so, the coastal state shall take into account the recommendations of the International Maritime Organisation, channels customarily used for international navigation, special characteristics of particular ships and channels, and traffic density.

Such sea lanes and traffic separation schemes have to be clearly indicated on sea charts (Art. 22, UNCLOS). The proposed traffic lanes have to be adopted within the IMO.

Indeed, governments intending to establish a new routeing system, or amend an existing one, must submit proposed routeing measures to IMO's Sub-Committee on Safety of Navigation (NAV), which will then evaluate the proposal and make a recommendation regarding its adoption. The recommendation is then passed to the Maritime Safety Committee (MSC) for adoption\(^3\).

A new or amended IMO-adopted ships’ routeing system or ship reporting system will not come into force earlier than six months after adoption or, if later than six months, on a date proposed by the proposing Member Government(s), after it has communicated such a date to IMO.

4.2.2 International Convention for the Safety of Life at Sea (SOLAS 1974/78)

The main objective of the SOLAS Convention is to specify minimum standards for the construction, equipment and operation of ships, in order to guarantee their safety. States are responsible for ensuring that ships under their flag comply with its requirements, and a number of certificates are prescribed in the Convention as proof that this has been done. The current SOLAS Convention includes Articles setting out general obligations, amendment procedures and so on, followed by an Annex divided into 12 chapters.

The SOLAS Convention introduces (chapter V, regulation 10) the possibility to establish “areas to be avoided” and other routing measures. These ships’ routing systems contribute to the safety of life, safety and efficiency of navigation and/or the protection of the marine environment. Ships’ routing systems are recommended for use by, and may be made mandatory for all ships, certain categories of ships or ships carrying certain cargoes, when adopted and implemented in accordance with the guidelines and criteria developed by the IMO. ‘General Provisions on Ships’ Routeing’ by IMO serves this purpose and introduces procedural and material requirements for a broad range of routing systems.

An “area to be avoided” is a routing measure comprising an area with defined limits in which navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships or certain classes of ships.

The designation of these areas, or the measures related to these, does not affect other uses of the areas such as resource exploitation, marine scientific research, military activities or tourism.

4.2.3 International Convention for the Prevention of Pollution from Ships (1973) MARPOL

A key convention is the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78). The MARPOL Convention is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. It is a combination of two treaties adopted in 1973 and 1978 respectively and updated by amendments through the years.

MARPOL defines certain areas as “Special Areas” in which the adoption of special mandatory methods for the prevention of pollution is required. Under the convention, these Special Areas are provided with a high level of protection compared to other sea areas.

Building upon MARPOL, the IMO adopted Guidelines for the Designation of Special Areas and the Identification of Particularly Sensitive Sea Areas. A “Particularly Sensitive Sea Area” (PSSA) may lie within a broader “special area” designated under one of the Annexes to MARPOL 73/78. If this is the case, the relevant vessel discharge restrictions will also apply within the particularly sensitive sea area.

A PSSA is defined as an “area which needs special protection through action by IMO because of its significance for recognized ecological or socio-economic or scientific reasons and which may be vulnerable to environmental damage by maritime activities”.

Designation as a PSSA does not in itself carry any legal significance, but is rather a framework for the adoption of particular measures available under pre-existing instruments (IMO Resolution A.982 (24)). Measures for PSSAs lying beyond the territorial sea have to be international in character, and based on an existing treaty.

The PSSA concept is a unique concept devised by the IMO to provide protection for environmentally sensitive sea areas, both within and beyond national jurisdiction (including EEZ), from the harmful effects of international shipping activities. PSSA give the possibilities to designate high seas marine protected areas through IMO.

An application for a PSSA may only be submitted by an IMO Member Government or Governments. PSSA designation is not a “stand alone” regime – it can only be achieved in association with associated protective measures (APMs) within the purview of IMO and with an identified legal basis in IMO regulations or other international law. These APMs should be addressed as part of the PSSA submission.
The IMO’s Marine Environment Protection Committee (MEPC) will consider each application on a case-by-case basis to determine whether identification of the area as a PSSA and the adoption of any associated protective measures are warranted. MEPC may then designate in principle the PSSA, and refer the application, with its APMs, to the appropriate Sub-Committee or Committee (most commonly, this is the Sub-Committee on the Safety of Navigation). MEPC will make no final endorsement to designate the PSSA until this process is completed.

While PSSA designation might serve as a useful tool in conjunction with a Marine Protected Area (MPA), it is neither appropriate nor necessary that it be applied to all MPAs. Many Marine Protected Areas will have minimal pressures from international maritime activities. The value of PSSA designation will be undermined if the process is used everywhere – a PSSA should be seen as a unique designation and a management tool to be used in certain circumstances.

The following PSSAs have been designated in the European sea basin:
- the Wadden Sea, Denmark, Germany, Netherlands (2002)
- Western European Waters (2004)
- Canary Islands, Spain (2005)
- the Baltic Sea area, Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden (2005)

Impact of IMO on Offshore RE deployment

Sea-lanes and traffic separation schemes regulated by IMO are considered as exclusion zones. These zones are reserved for navigation and shipping. Therefore these cannot be considered as compatible with offshore energy generation, mainly for the sake of safety of shipping. However, the expansion of offshore activities and the development of new uses of the sea need to be taken into account. The possibility of moving shipping lanes in areas presenting economically and technical advantages for the deployment of offshore renewable activities needs to be considered.

The establishment of a new routeing system is possible and guidance are published, explaining the proposal and reporting procedure for submission to the IMO’s Sub-Committee on Safety of Navigation (NAV), which will evaluate the proposal and make a recommendation regarding its adoption. The recommendation is passed to the Maritime Safety Committee (MSC) for adoption.

PSSA boundaries appear on international navigational charts and the designation carries with it the associated protective measures recognized by the IMO. PSSA appears as an instrument to pursue spatial planning objectives, doesn’t mention any particular provisions for specific offshore renewable activities. Based on the general procedure existing for offshore wind park, can be assumed that the deployment of offshore renewable activities in such area requires an impact assessment on the marine environment which has to be taken into account in the approvals procedure.

4.3 Agreements establishing regional fisheries management organisations (RFMOs)

Regional Fisheries Management Organisations (RFMOs) are international organisations, formed by countries with fishing interests in an area, and dedicated to the sustainable management of fishery resources in international waters, or of highly migratory species, such as tuna. The statutes and operational modes of each RFMO are adapted to its specific geographical circumstances and priorities. They typically bring together coastal states with other parties who have an interest in the fisheries concerned.

While a few are purely advisory, most RFMOs have management powers. They tend to take three kinds of regulatory decisions, determining:

- fishing limits (total allowable catches, maximum number of vessels, duration and location of fishing);
- technical measures (definition of how fishing activities must be carried out, permitted gear and technical control of vessels and equipment); and
RFMOs are recognised by UNCLOS (Articles 117, 118) and they are expected to establish conservation and management measures to facilitate joint assessment of stocks and ecosystems, and ensure that the biodiversity of aquatic habitats and ecosystems is conserved and endangered species are protected. Such measures thus qualify the freedom of fishing in the High Sea as envisaged by Article 116 of UNCLOS. One instrument used is the designation of controlled zones, in which conservation and management measures for particular fish stocks are established.

RFMOs can be a powerful tool for environmental protection, as well as for sustainable fisheries management. International community, including stakeholders and civil society, can work together through RFMOs to protect sensitive environments against damage by fishing.

Impact of RFMOs on Offshore RE deployment

RFMO has the competence to establish conservation and management measures for fishery stocks. Such measures may encompass spatial planning elements (for example: controlled zone, in which particular conservation measures are determined by an RFMO), but doesn’t mention any particular provisions for specific offshore renewable activities.

4.4 UN Fish Stocks Agreement (1995) (UNFSA)

The UN Fish Stocks Agreement (UNFSA) establishes the precautionary principle as the basis for the management of fisheries in the high seas, as well as provisions for mutual control by fishing nations. The objective is to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the Convention.

The Agreement elaborates on the fundamental principle, established in the UNCLOS that States should cooperate to ensure conservation and promote the objective of the optimum utilisation of fisheries resources both within and beyond the exclusive economic zone.

The UN Fish Stocks Agreement, which now has 71 parties including the European Community and all 27 Member States, has instituted a number of important substantive and procedural clarifications to the duty of cooperation, which could have a bearing on MSP.

Impact of UNFSA on Offshore RE deployment

This agreement strengthens the co-operation between the Contracting Parties to take measures for the optimisation of the utilisation of fish resources. By setting up procedures to the duty of cooperation, this could have an influence on MSP within EEZ but the agreement doesn’t mention any particular provisions for specific offshore renewable activities.

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4 Many definitions of the precautionary principle exist. Precaution may be defined as “caution in advance,” “caution practised in the context of uncertainty,” or informed prudence. All definitions have two key elements.

- an expression of a need by decision-makers to anticipate harm before it occurs. Under the precautionary principle it is the responsibility of an activity proponent to establish that the proposed activity will not (or is very unlikely to) result in significant harm.

- the establishment of an obligation, if the level of harm may be high, for action to prevent or minimise such harm even when the absence of scientific certainty makes it difficult to predict the likelihood of harm occurring, or the level of harm should it occur. The need for control measures increases with both the level of possible harm and the degree of uncertainty.

One of the primary foundations of the precautionary principle, and globally accepted definitions, results from the work of the Rio Conference, or “Earth Summit” in 1992.
4.5 **International Convention for the Conservation of Atlantic Tunas (ICCAT)**

The International Commission for the Conservation of Atlantic Tunas is an inter-governmental fishery organization responsible for the conservation of tunas and tuna-like species in the Atlantic Ocean and its adjacent seas including the Mediterranean, North, Baltic and Black Seas.

ICCAT compiles fishery statistics from its members and from all entities fishing for these species in the Atlantic Ocean, coordinates research, including stock assessment, on behalf of its members, develops scientific-based management advice, provides a mechanism for Contracting Parties to agree on management measures, and produces relevant publications.

**Impact of ICCAT on Offshore RE deployment**

This agreement is rather advisory for the management of tuna resources and has to be considered as a source of information and has no restrictive elements for renewable energy offshore activities.

4.6 **Convention on Environment Impact Assessment in a Transboundary Context (ESPOO Convention)**

The ESPOO Convention obliges Parties to assess, at an early stage of planning, the environmental impact of certain projects entailing possible transboundary impacts. It also lays down the general obligation of states to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact on a transboundary level.

The protection of the environment is regulated by international conventions\(^5\) and through environmental impact assessments (EIAs).

It is important to note that the Espoo-Convention does not establish an international EIA-procedure but that it outlines specific conditions to be incorporated into national environmental impact assessment procedures (Art 3.5 to 3.8 and Art 4 to 7 of Convention).

The Convention gives a list (Appendix I) of activities likely to have a significant adverse transboundary impact. Any Party to the Convention wishing to undertake an Appendix I activity (“Party of origin”) is required, for the purposes of ensuring adequate and effective consultations under Article 5 of the Convention, to notify as early as possible, any Party which it considers may be an affected Party.

The EIA-procedure only takes place if the Affected Party(ies) respond to the Party of origin within the time specified in the notification, acknowledging receipt of the notification and indicating whether it (they) intend(s) to participate in the EIA-procedure (Article 3).

With regard to activities not listed in Appendix I, the concerned Parties are required, at the initiative of any such Party, to enter into discussions as to whether one or more of the proposed activities are likely to cause a significant adverse transboundary impact, and whether it should thus be treated as if it was listed in Appendix I.

Where the Parties so agree, the activity or activities shall be thus treated. General guidance for identifying criteria to determine significant adverse impact is set forth in Appendix III of the Convention (Article 2.5).

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\(^5\) The five main biodiversity conventions are:
- CITES (1975), Convention on International Trade in Endangered Species of Wild Flora and Fauna
- Ramsar Convention (1971) Convention on Wetlands of International Importance especially as Waterfowl Habitat
- World Heritage Convention (1972),
- Bonn Convention (1979), The Convention on the Conservation of Migratory Species of Wild Animals
- Convention on Biological Diversity (1992)
Impact of Espoo Convention on Offshore RE deployment

In the context of offshore renewable energy and grid infrastructure projects, neither building nor exploitation activities are featured in the list of Appendix I. These activities would therefore only be subject to the procedure where the concerned parties agree on the adverse transboundary impact of the project.

The Convention promotes consultation and cross-border cooperation in the planning process of activities. The Convention does not establish an international EIA-procedure but outlines specific conditions to be incorporated into national environmental impact assessment procedures (Articles 3.5 to 3.8 and Arts. 4 to 7 of Convention).


This protocol was prepared bearing in mind the ESPOO Convention on Environmental Impact Assessment in a Transboundary Context and the decision II/9 of its Parties. Decision II/9 decided to prepare a legally binding protocol on strategic environmental assessment.

The objective of this Protocol is to provide a high level of protection of the environment.

In Article 4, the field of application concerning plans and programmes on Strategic Environmental Assessment is defined. It is stated that each party shall ensure the realisation of an environmental assessment for plans and programmes which are likely to have significant environmental and health effects. The main titles for these programmes are agriculture, forestry, fisheries, energy, industry including mining, transport, regional development, waste management, water management, telecommunications, tourism, town and country planning or land use.

Additionally, Annex I and Annex II give a list of the projects that require an environmental impact assessment under national legislation. “Installations for the harnessing of wind power for energy production (wind farms)” are classified as one of these projects in Annex II. Other offshore renewable energy installations, such as wave parks and tidal energy convertors are not mentioned in the Annex.

For plans and programmes subject to strategic environmental assessment, each Party shall ensure that an environmental report is prepared (Article 7).

Each Party shall designate the authorities to be consulted which are likely to be concerned by the environmental, including health, effects of the implementation of the plan or programme (Article 9).

Article 12: Each Party shall monitor the significant environmental, including health, effects of the implementation of the plans and programmes, in order to identify, at an early stage, unforeseen adverse effects and to be able to undertake appropriate remedial action.

Impact of SEA Protocol on Offshore RE deployment

The objective of a strategic environmental assessment is to encourage a more integrated and efficient approach to planning where environment, including biodiversity considerations, are taken into account much earlier on in the planning process and at a more strategic level. A SEA give an information base for determining the consequences that a project might have for the environment. These impacts have to be considered during the approval process (licensing and permitting process) by the competent planning authority. Wind farms have been classified in this protocol as one of the projects that require a strategic environmental assessment under national legislation. Both, the Espoo-Convention and SEA-Protocol have a direct impact on the licensing process for offshore renewable energy projects. Planning of activities is covered by legal rules and procedures allowing or rejecting a license or concession for the planned activity. The conduct of activities in the marine environment requires several authorizations, such as concession allowance, building permit, Environmental Impact Assessment (EIA) and exploitation agreement. The planning of offshore renewable energy projects has to pass through a permitting process.

European Commission, or the majority of the Member States, ratifies the SEA protocol. At European level, the SEA-and EIA-Directive (section 5.3) follows the general approach taken by the
SEA-Protocol, establishing similar requirements on strategic environmental assessment that should be incorporated into existing procedures at national level. The European Community will as a signatory be required to align the SEA Directive to the requirements introduced by the SEA Protocol.

4.8 Convention on Biological Diversity

The Convention on Biological Diversity (CBD) is an international legally-binding treaty with three main goals: conservation of biodiversity; sustainable use of biodiversity; fair and equitable sharing of the benefits arising from the use of genetic resources. Its overall objective is to encourage actions which will lead to a sustainable future. The CBD widened the scope of biodiversity conservation from species and habitats to the sustainable use of biological resources to the benefit for mankind.

UNCLOS obliges its Contracting Parties in principle to protect the marine environment – including in the EEZ and on the continental shelf. The Convention on Biological Diversity (CBD), to which the European Community and European Union Member States are party, strengthens this obligation. Article 3 expresses the general responsibility of all Parties to ensure that activities within their jurisdiction or control do not cause damage to the environment of areas beyond national jurisdiction. In this manner, the CBD’s jurisdictional scope is not limited to areas under national jurisdiction.

Although it is clearly understood that any measures beyond the limits of national jurisdiction must be carried out within the framework of the UNCLOS legal regime.

The CBD obliges its parties to develop national strategies for the conservation and sustainable use of biological diversity, including the establishment of protected areas. It requires the Contracting Parties to integrate the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.

In 2004 the Parties to the CBD committed themselves to designating a system of representative, comprehensive and effectively managed Marine Protected Areas (MPAs) by 2012, including the establishment of MPAs outside national jurisdiction. For the latter MPAs the current international legal framework is unclear and incomplete, especially for the high seas. An appropriate level for the designation of integrated MPAs that would include the regulation of all human activities for the purpose of the conservation and sustainable use of marine biodiversity has to be clarified.

Impact of CBD on Offshore RE deployment

CBD has emphasized the importance of ecosystems, habitats (and "areas") in the marine environment. Under CBD, Parties can establish MPAs in- and outside national jurisdiction, even if the procedural and regulatory details are not clear at this stage.

Identified areas in need of protection, have to be designated in accordance with international law, including UNCLOS. These MPAs should be taken into account in MSP and may influence the location of offshore renewable activities and related grid infrastructure.

As a matter of fact, CBD do not provide for direct constraints for MSP but plays an important role as drivers for the designation of protected areas. These MPAs may influence the location of offshore renewable energies activities, but compatibilities and interactions need to be further studied and clarified.
## EU INSTRUMENTS

### 5.1 The Marine Strategy Framework Directive (MSFD)

The Marine Strategy Framework Directive establishes a framework for community action in the field of marine environmental policy and is intended to “constitute the environmental pillar of the future maritime policy” of the European Community.

MSFD requires Member States to achieve good marine environmental status by 2020 (Article 1-1), to apply an ecosystem approach, and to ensure that pressure from human activities is compatible with good environmental status. The definition of “good environmental status” is based on a list of qualitative descriptors of the marine environment and specified in Annex I to the Directive.

Member States are required to develop marine strategies and draw up national action plans, specifying the adopted approach to assess and monitor the environmental status of the waters, and the development of a programme of measures designed to achieve or maintain good environmental status. The MSFD clearly states that Marine Protected Areas (MPAs) must be part of the national programmes of measures (Article 13 (4)).

Apart from Marine Protected Areas (MPAs), the Directive gives only general indications as to what type of measures must be taken to achieve a good environmental status.

Member States are also required to cooperate where they share a marine region or sub-region and use existing regional structures for coordination proposes, including with third countries.

**Impact of MSFD on Offshore RE deployment**

The MSFD does not directly regulate maritime activities, but points out that their impact must be taken into account for the determination of good environmental status. Annex VI of the Directive lists examples of possible measures, including spatial and temporal distribution controls and tools for coordinated management.

The MSFD requires Member States to incorporate environmental issues into their national programmes and draw up national action plans, which influence the revision or reshaping of marine spatial planning system.

### 5.2 The Habitats Directive and the Birds Directive

In May 1992, European Union governments adopted legislation designed to protect the most seriously threatened habitats and species across Europe. This legislation is called the Habitats Directive and complements the Birds Directive adopted in 1979. The Habitats Directive and the Birds Directive require Member States to identify and protect areas for the conservation of species or habitats they host. The Birds Directive requires the establishment of Special Protection Areas (SPAs) for birds. The Habitats Directive similarly requires Special Areas of Conservation (SACs) to be designated for other species, and for habitats. Together, SPAs and SACs make up Natura 2000.

The Habitats and Birds Directives, with regards to the establishment of the Natura 2000 network, have been applied to the offshore marine environment of the European Union.

By December 2008, 1300 Sites of Community Importance (SCIs) and 533 SPAs have been designated in marine waters but this component of the Network is not yet complete and further sites will need to be protected to complete the marine component of the network. This should be achieved by 2012.

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9 “offshore marine environment” is that which occurs in marine zones extending beyond territorial sea limits where Member States exercise some type of sovereignty rights. Guidelines for the establishment of the Natura 2000 network in the marine environment. Application of the Habitats and Birds Directive, May 2007,
The Natura 2000 Barometer gives an evaluation on the progress made in establishing the Natura 2000 network, both under the Birds and the Habitats Directives. It is based on information on number of sites and areas covered, as indicated by Member States and is published in the Natura 2000 Newsletter10.

It is the responsibility of Member States to designate protected areas in the marine area under national jurisdiction and to establish conservation measures in order to protect vulnerable and endangered habitats and species.

There is a political agreement11 at EU level that the Directives apply to the EEZ of EU Member States. For Member States not having declared an EEZ, the Directives applies up to a limit of 200 nautical miles.

It is important to note that the Natura 2000 Network is not a system of strict nature reserves where all human activities are excluded. Instead, the two Directives provide a common legislative framework, applicable in all EU countries which ensures that human activities – inter alia wind energy activities – are undertaken in a way that does not adversely affect the integrity of Natura 2000 sites.

Article 6 of the Habitats Directive lays down procedural safeguards to be followed in the case of new developments. Article 6 is one of the most important articles in the Habitats Directive as it defines how Natura 2000 sites are managed and protected.

Paragraphs 6(1) and 6(2) require that, within Natura 2000, Member States:

- Take appropriate conservation measures to maintain and restore the habitats and species for which the site has been designated to a favourable conservation status;
- Avoid damaging activities that could significantly disturb these species or deteriorate the habitats of the protected species or habitat types.

Paragraphs 6(3) and 6(4) lay down the procedure to be followed when planning new developments that might affect a Natura 2000 site:

- Any plan or project likely to have a significant effect on a Natura 2000, either individually or in combination with other plans or projects, shall undergo an Appropriate Assessment(AA) to determine its implications for the site. The competent authorities can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned (Article 6.3)
- In exceptional circumstances, a plan or project may still be allowed to go ahead, in spite of a negative assessment, provided there are no alternative solutions and the plan or project is considered to be of overriding public interest. In such cases the Member State must take appropriate compensatory measures to ensure that the overall coherence of the N2000 Network is protected. (Article 6.4)

**Impact of Birds and Habitat Directives on Offshore RE deployment**

These directives do not exclude offshore renewable energy installations within protected areas, however if this would occur the developer must show that the activity will not harm the conservation goals set out for the particular area. Indeed, the Habitats Directive requires an appropriate assessment of plans or projects that may significantly impact a NATURA 2000 site. The purpose of the Appropriate Assessment (AA) is to assess the implications of the plan or project in respect of the site’s conservation objectives, individually or in combination with other plans or projects. The conclusions of the AA should enable the competent authorities to ascertain

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whether or not the plan or project would adversely affect the integrity of the site concerned. The outcome of the AA is legally binding.

5.3 The Strategic Environment Assessment (SEA) Directive and Environment Impact Assessment (EIA) Directive

The SEA Directive is a directive at European level, following the general approach taken by the SEA Protocol (Section 4.6.1)

The SEA Directive\(^{12}\) requires an environmental assessment of certain plans and programmes (which are likely to have significant effects on the environment), consultation provisions (including cross-border), assessment of alternatives, and measures to prevent and/or mitigate adverse effects.

The EIA Directive\(^{13}\) establishes similar requirements but for projects.

For SEA Directive, the plans and programmes that are subject to strategic environmental assessment are defined in Article 2 (a). Authorities which prepare and/or adopt such a plan or programme must prepare a report on its likely significant environmental effects and alternatives, propose mitigation measures, consult environmental authorities and the public, and take the report and the results of the consultation into account during the preparation process and before the plan or programme is adopted. They must also make information available on the plan or programme as adopted and how the environmental assessment was taken into account.

The SEA Directive applies to plans and programmes which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, and which set the framework or future development consent of projects listed in Annexes I and II to the EIA Directive (including wind farms). SEA are carried out by the competent planning authorities, while EIA are carried out by project developers?

The EIA Directive requires that projects which are likely to have a significant effect on the environment undertake an Environmental Impact Assessment (EIA).

The EIA Directive distinguishes between projects requiring a mandatory EIA (so-called Annex I projects) and those where Member State authorities must determine, in a procedure called “screening”, if projects are likely to have significant effects, taking into account criteria in Annex III of the Directive (so-called Annex II projects). Wind power developments are listed in Annex II.3.i of the EIA Directive.

The typical EIA procedure includes the following stages:

- **Screening** (Article 4 and Annex III of the EIA Directive): to determine whether an EIA is required. Screening is required for any type of project listed in Annex II (including wind farms). The screening decision of the competent national authority is made available to the public.

- **Scoping** (Article 5): is the stage of the EIA process that determines the content and extent of the matters to be covered in the environmental information to be submitted by the developer(?) to a competent authority.. The scoping stage is an important feature of an adequate EIA regime, mainly because it improves the quality of the EIA.

- **Preparation of an Environmental Statement or report** (Article 5), presenting the following necessary environmental information: description of project, description of measures to avoid or reduce significant adverse effects, data required to identify and assess the main effects on the environment, an outline of the main alternatives studied by the developer, and an indication of the reasons for the preferred choice, taking into account the environmental effects identified. This should be made publicly available.

- **Consultation**: (Articles 6, 7 & 8) The public, the environmental authorities and Member States concerned must be informed and consulted before the decision on

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the request for development consent is taken. The results of consultations and the information gathered must be taken into consideration in the development consent procedure.

Impact of SEA and EIA Directives on Offshore RE deployment

The preparation of maritime spatial plans requires a Strategic Environmental Assessment according to the SEA Directive. Offshore renewable activities such as wind parks require an Environmental Impact Assessment according to the EIA Directive. The results of the EIA are presented in an Environmental Statement (ES) and are submitted together with licence and consent applications.

5.4 Fishery Policies and Agreements

5.4.1 The Common Fisheries Policy (CFP)

Within the EC, fisheries and aquaculture are governed by the CFP. The Treaty establishing the European Community, and in particular Article 37, determines that the European Community exercises its exclusive competence in conservation, management and exploitation of living aquatic resources, the aquaculture, and the processing and marketing of fishery and aquaculture products.

The CFP Framework Regulation provides a legal basis for the adoption of measures concerning conservation, management of resources and limitation of the environmental impact of fishing. The general objective of the CFP is to ensure the exploitation of living aquatic resources that provides sustainable economic, environmental and social conditions (Article 2 (1)).

The core principles on which the CFP currently rests are clearly stated in the legal text commonly known as the ‘Basic Regulation’, adopted in 2002.

One of the key changes introduced by the reforms to the CFP in 2002 was the adoption of an ecosystem based approach to fisheries management. The Community is required to apply the precautionary approach\(^\text{14}\) (asking for prudent foresight to avoid unacceptable or undesirable situations) in taking measures designed to protect and conserve living aquatic resources, to provide for their sustainable exploitation and to minimise the impact of fishing activities in marine eco-systems (Article 2 (2)). Pursuant to the CFP Framework Regulation, the Council can establish Community measures governing access to waters and resources and the sustainable pursuit of fishing activities (Article 4 (1)). Article 4 (2) (g) (ii) authorizes the Council to introduce measures for each stock or group of stocks by adopting technical measures, including zones in which fishing activities are prohibited or restricted including for the protection of spawning and nursery areas. Furthermore, Article 4 (2) (g) (iv) allows for “specific measures to reduce the impact of fishing activities on marine eco-systems and non target species.

As the EU level, further regional instruments are in place. These include the Convention on Future Multilateral Co-Operation in North-East Atlantic Fisheries, which creates the North-East Atlantic Fisheries Commission (NEAFC), and the Agreement for the Establishment of a General Fisheries Commission for the Mediterranean (GFCM).

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\(^{14}\) One of the primary foundations of the precautionary principle, and globally accepted definitions, results from the work of the Rio Conference, or “Earth Summit” in 1992. Principle #15 of the Rio Declaration notes:

“(...) In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”
5.4.2 Convention on Future Multilateral Cooperation in North-East Atlantic Fisheries (NEAFC)

The objective of this Convention is to ensure the long-term conservation and optimum utilisation of the fishery resources in the North-East-Atlantic Area\(^{15}\), providing sustainable economic, environmental and social benefits (Article 2).

For the purposes of this Convention the Contracting Parties (European Union, Denmark, Norway, Iceland, Russian Federation) agree to establish and maintain a North-East Atlantic Fisheries Commission. The Commission shall perform its functions in order to fulfil the objective set out in Article 2. The Commission shall in particular take due account of the impact of fisheries on other species and marine ecosystems, and in doing so adopt, where necessary, conservation and management measures that address the need to minimise harmful impacts on living marine resources and marine ecosystems; and take due account of the need to conserve marine biological diversity.

5.4.3 Agreement for the Establishment of a General Fisheries Commission for the Mediterranean (GFCM)

The establishment of a General Fisheries Commission for the Mediterranean is the result of a mutual interest in the development and proper utilisation of the living marine resources in the Mediterranean and the Black Sea and connecting waters.

The Agreement recognizes the importance of fisheries conservation and management in Mediterranean and the Black Sea, and promotes cooperation to that effect.

The agreement is based on

- the relevant provisions of the United Nations Convention on the Law of the Sea, requiring all members of the international community to cooperate in the conservation and management of the living marine resources;

The purpose of the Commission (Article 3: Functions) shall be to promote the development, conservation, rational management and best utilisation of living marine resources, as well as the sustainable development of aquaculture in the Mediterranean and Black Sea Region, Impact on the Deployment of Renewable Energies

GFCM establishes open and closed fishing seasons and areas, which may have an impact on spatial planning but do not constitute a constraint to offshore development.

Impact of Fishery Policies and Agreements on the Deployment of Renewable Energies

Fisheries are a well-known and widespread sea use function in European waters. The European Commission is aiming to ensure sustainable exploitation of fish resources. The main measures

\(^{15}\) Article 1: "The Convention Area" means the areas:

1. within those parts of the Atlantic and Arctic Oceans and their dependent seas which lie north of 36° north latitude and between 42° west longitude and 51° east longitude, but excluding:
   - (i) the Baltic Sea and the Belts lying to the south and east of lines drawn from Hasenøre Head to Grniben Point, from Korshage to Spodsbjerg and from Gilbjerg Head to the Kullen.
   - (ii) the Mediterranean Sea and its dependent seas as far as the point of intersection of the parallel of 36° latitude and the meridian of 36° west longitude
   - (iii) the Mediterranean Sea and its dependent seas as far as the point of intersection of the parallel of 36° latitude and the meridian of 36° west longitude

2. within that part of the Atlantic Ocean north of 59° north latitude and between 44° west longitude and 42° west longitude.
used in the management of fisheries are: reduction of fishing efforts, together with limitation of catches and technical measures for reduction of by-catch and discards. This means reducing the number of fishing vessels and the duration of fishing period, the establishment of open and closed fishing seasons and areas. These scenarios have to be taken into account in MSP and influence the development phase of renewable offshore activities (location, construction, maintenance, removal/decommissioning). Presently, there are no EU regulatory restrictions on the establishment of RE offshore activities in fishery areas, but incompatibilities exist between RE offshore activities and fisheries, knowing for example that trawling activities are prohibited in the vicinity of offshore wind areas.
6 REGIONAL INSTRUMENTS

North Sea and North-East Atlantic

6.1 OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic (Paris-1992)

OSPAR is the mechanism by which fifteen Governments of the Western coasts of Europe, together with the European Community, cooperate to protect the marine environment of the North-East Atlantic. It started in 1972 with the Oslo Convention against dumping. It was broadened to cover land-based sources and the offshore industry by the Paris Convention of 1974. These two conventions were unified, updated and extended by the 1992 OSPAR Convention.

The OSPAR convention of 1992 is based on an ecosystem approach and is organised around six strategies. Under the Biodiversity and Ecosystems Strategy, OSPAR reviewed the main human activities that might impact the marine environment: sand and gravel extraction; dredging for navigation; exploration for oil, gas and solid minerals; constructions in the sea (especially offshore wind-farms); cables and pipelines; introduction of alien species; land reclamation; and tourism and recreational activities.

In the context of its Biological Diversity and Ecosystem Strategy, OSPAR serves as a platform for exchange of information on MSP following the Fifth North Sea Conference.

Regarding offshore renewable energy activities, one of OSPAR’s important initiatives is the guidance on wind-farms, whose objective is to assist Contracting Parties, developers, consultants, regulators or any other interested parties in the identification and consideration of the environmental effects of offshore wind farm development.

Impact of OSPAR Convention on Offshore RE deployment

The OSPAR Commission is a legally binding regulation requiring Contracting Parties to adopt procedures and actions related to Marine Environment Protection. These influence the development of offshore renewable projects, namely in terms of licensing, permitting, monitoring and decommissioning. Under OSPAR, Parties have the obligation to realise regular marine environmental monitoring campaigns, and to foresee the disposal of disused offshore installations.

The OSPAR Commission sets up several guidance documents, amongst them one is dedicated to offshore wind. As guidance, it has not legal force but it contains useful information on the environmental considerations for offshore wind farm development.

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16 The fifteen Governments are: Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom. Finland is not on the western coasts of Europe, but some of its rivers flow to the Barents Sea, and historically it was involved in the efforts to control the dumping of hazardous waste in the Atlantic and the North Sea. Luxembourg and Switzerland are Contracting Parties due to their location within the catchments of the River Rhine.

17 The OSPAR Maritime Area is defined as the internal waters and the territorial seas of the Contracting Parties, the sea beyond and adjacent to the territorial sea under the jurisdiction of the coastal state to the extent recognised by international law, and the high seas, including the bed of all those waters and its sub-soil, situated within the following limits:
1. Those parts of the Atlantic and Arctic Oceans and their dependent seas which lie north of 36º north latitude and between 42º west longitude and 51º east longitude, but excluding: the Baltic Sea and the Belts lying to the south and east of lines drawn from Hasenore Head to Griben Point, from Korshage to Spodsbjerg and from Gilbjerg to Kullen; and the Mediterranean Sea and its dependent seas as far as the point of intersection of the parallel of 36º north latitude and the meridian of 5º 36’ west longitude;
2. That part of the Atlantic Ocean north of 59º north latitude and between 44º west longitude and 42º west longitude.

18 OSPAR Guidance on Environmental Considerations for Offshore Wind Farm Development, Reference number: 2008-3
6.2 Bonn Agreement for Cooperation in Dealing with Pollution of the North Sea by Oil and Other Harmful Substances (1983)

The Bonn Agreement is the mechanism by which the North Sea States, and the European Community (the Contracting Parties), work together:

- to help each other in combating pollution in the North Sea Area from maritime disasters and chronic pollution from ships and offshore installations;
- to carry out surveillance as an aid to detecting and combating pollution at sea.

The North Sea States are Belgium, Denmark, France, Germany, Ireland, the Netherlands, Norway, Sweden, and the United Kingdom.

The Bonn Agreement has developed common approaches to all the main issues that are involved inremedying and preventing maritime pollution. Conclusions are consolidated in the Bonn Agreement Counter-Pollution Manual. Chapter 8 of the Manual sets out the considerations that need to be taken into account if any problem appears related with wind farms.

With regard to the legal situation, windfarms are dealt with in similar way as offshore installations (oil and gas production installations. The owner is responsible for taking appropriate measures to avoid leakage of hazardous and noxious substances, including oil, from his property. In the event of a leakage from a construction, the owner is held liable and will be asked to recover the spilt oil and clean up the pollution. If as a result of another incident e.g. a collision between two ships, oil is discharged that drifts into the sea area where the windfarm is located, the owner of the windfarm may hold the ship-owner liable and require him to clean up or claim reimbursement for costs should the ship-owner (the polluter) not follow-up. This is in accordance with the “polluter pays” principle.

Impact of Bonn Agreement on Offshore RE deployment

Chapter 8 of the Bonn Agreement Counter-Pollution Manual sets out the considerations that need to be taken into account if any pollution appears related to offshore wind farms and is based on the “polluter-pays” principle. In environmental law, the polluter pays principle is enacted to make the party responsible for producing pollution responsible for paying for the damage done to the natural environment.

6.3 International Conferences on The Protection Of The North Sea

The International Conferences on the Protection of the North Sea provides a political framework for a broad and comprehensive assessment of the measures needed to protect the North Sea. These has been set up in response to the growing concern of the North Sea countries on the irreversible damage of pollution to the North Sea ecosystems and the lack of focus at North Sea level made by the competent international organizations charged with protecting the marine environment.

The Parties in the North Sea cooperation are: Belgium, Denmark, France, Germany, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom and the European Commission. In addition, neighbouring countries, intergovernmental organizations and NGOs take part as observers.

Until 1995, pollution was the main issue at the North Sea conferences. Over the last decade, however, there has been an increasing awareness that other impacts of human activities on the North Sea ecosystems are also very important and that the combined effect could be detrimental to biological diversity and biological production capacity. This led to increasing concern about the development and status of the North Sea fish stocks, as well as the impact of fisheries on the ecosystems.

Impact of International Conferences of the North Sea on Offshore RE deployment

As these international conferences involve co-operation between different parties related to the use of sea, they can play an important role in starting discussions on new issues and influencing management decisions at national level. Presently, offshore renewable energy deployment has not been specifically taken into consideration in the framework of these discussions.
Baltic Sea

6.4 The Helsinki Commission (HELCOM)

Since 1974 the Helsinki Commission, or HELCOM, works to protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental co-operation between Denmark, Estonia, the European Community, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden.

HELCOM is the governing body of the "Convention on the Protection of the Marine Environment of the Baltic Sea Area" - more usually known as the Helsinki Convention.

HELCOM’s vision for the future is a healthy Baltic Sea environment with diverse biological components functioning in balance, resulting in a good ecological status and supporting a wide range of sustainable economic and social activities.

Impact of HELCOM on Offshore RE deployment

HELCOM Baltic Sea Action Plan adopted in 2007 includes the recommendations on the development of MSP principles for the Baltic Sea region. It targets the development of common standards and processes, through cooperation across borders to ensure coherence of plans across ecosystems. Management plans are suggested to make the establishment of a system of coastal and marine Baltic Sea Protected Areas (BSPAs) operational. HELCOM points out the appropriate measures to be taken by parties to establish a system of BPSA.

6.5 Visions and Strategy around the Baltic Sea 2010 (VASAB 2010)

VASAB 2010 is an intergovernmental forum made up of the countries around the Baltic Sea, including Norway, Russia and Germany that participates also through representatives from the regions which are adjacent to the Baltic Sea Region (Lander in Germany, Oblasts and Republics in Russia). It promotes a physical planning perspective in the area of the Baltic Sea and proposes guidelines and recommendations for work on greater international consensus. The forum aims amongst others to demonstrate the benefit and necessity of employing physical planning principles in sea areas, in the coastal zones and around islands.

The co-operation started in 1992. In 1994, a report ‘VASAB2010 – Vision and Strategies around the Baltic Sea 2010’ was presented, being the first transnational vision for spatial development world-wide. It was adopted at a Ministerial Conference in Tallinn (Dec-1994) and laid the foundation for joint action of the participating countries and regions.

A new report, VASAB2010 Plus, reflects the experience made during 8 years of co-operation. It considers changed conditions after a first decade of transition, new knowledge on spatial trends in the Baltic Sea Region, and a diversity of transnational co-operation projects on spatial development.

As a result, a policy entitled “Common Recommendations for Spatial Planning of the Coastal Zone in the Baltic Sea Region” has been adopted and advisers to the European Commission are also working on issues of physical planning in the Baltic Sea area. These recommendations demonstrate possible ways how to make the principles of sustainable development operational. Specific attention is paid to the south-eastern parts of the BSR where transition and EU accession lead to particular challenges for sustainable development19.

19 More information on VASAB 2010 and its current and future activities and event are available under http://www.vasab.org
6.6 ICZM Protocol: Protocol on Integrated Coastal Zone Management on the Mediterranean

Integrated Coastal Zone Management (ICZM) is a continuous process with the general aim of implementing sustainable development in coastal zones and maintaining their diversity. To this end, it aims, by more effective management, to establish and maintain optimum (sustainable) levels of use, development and activity in coastal zones, and eventually to improve the state of the coastal environment.

The first regional ICZM Protocol covered the Mediterranean Sea, but is not yet in force. The ICZM Protocol requires contracting parties to establish a common framework for integrated management of the Mediterranean coastal zones. Coastal areas contribute to key economic activities of coastal regions such as tourism, fishing, agriculture, but do also contribute to the development of renewable energy.

Since 1996, the European Commission has intensively worked to promote Integrated Coastal Zone Management (ICZM) as an approach to integrated planning and management, in which all policies, sectors and interests are properly taken into account to achieve sustainable coastal development.

The European Commission adopted a Recommendation on integrated coastal zone management (ICZM) in 2002 and has been promoting intensively this cross-cutting instrument of the EU’s Integrated Maritime Policy. The EU ICZM Recommendation requested the EU coastal Member States to set up strategies to promote ICZM along their shorelines. ICZM integrates all policies, sectors and interests into the planning and management of human activities to achieve sustainable coastal development. The 2009 Commission White Paper on adapting to climate change provides for European countries guidelines on adaptation in coastal and marine areas.

Impact of ICZM protocol on Offshore RE deployment

The EU ICZM Recommendation (2002/413/EC, OJ L148) sets out common principles (including coherence of spatial planning across the land-sea boundary) and calls on Member States to develop ICZM strategies. It encourages Member States to cooperate with neighbouring third countries. As MSP takes into account all the activities in the sea, the ICZM protocol indirectly influences offshore renewable energy deployment including the transboundary issues.

6.7 Barcelona Convention: Convention for the Protection of the Mediterranean Sea against Pollution

The Barcelona Convention and its protocols form part of the United Nations Environment Programme (UNEP) Regional Seas Programme. The Regional Seas Programme of UNEP is intended to foster regional co-operation for the benefit of the marine and coastal environment.

The 1976 Barcelona Convention for Protection against Pollution in the Mediterranean Sea is a regional convention to prevent and abate pollution from ships, aircraft and land based sources in the Mediterranean Sea. The convention was last amended in 1995.

The key goal of the convention is to 'reduce pollution in the Mediterranean Sea and protect and improve the marine environment in the area, thereby contributing to its sustainable development' and to cooperate in pollution incidents giving rise to situations of emergency.

The Barcelona Convention has given rise to seven Protocols addressing specific aspects of Mediterranean environmental conservation. One of these is the Specially Protected Areas and Biological Diversity Protocol, which recommend the establishment of MPAs (Maritime Protected Areas).

The Protocol places a general obligation on parties “to protect, preserve and manage in a sustainable and environmentally sound way areas of particular natural or cultural value, notably
by the establishment of specially protected areas (Article 3(1)(a) – called “Specially Protected Area of Mediterranean Interest” (SPAMI) and provides for a set of protective measures to use in case such an area is established, including the regulation of the passage of ships or the regulation or prohibition of any activity involving the exploration or modification of the soil or the exploitation of the subsoil.

The Protocol is applicable to all marine waters beyond their legal status as well as to the seabed and subsoil and to coastal terrestrial areas designated by each party but enforcement must be in accordance with international law.

Impact of Barcelona Convention on Offshore RE deployment

The protection measures for SPAMI should be taken into account in MSP and may influence the location of offshore renewable activities, by regulating or prohibit some activities within SPAMI area.

6.8 Management Plan (Mediterranean Action Plan — Map) Under the UN Environment Programme

In 1975, 16 Mediterranean countries and the European Community adopted the Mediterranean Action Plan (MAP). The MAP was the first-ever plan adopted as a Regional Seas Programme under UNEP's umbrella.

The main objectives of the MAP were to assist the Mediterranean countries to assess and control marine pollution, to formulate their national environment policies, to improve the ability of governments to identify better options for alternative patterns of development, and to optimize the choices for allocation of resources.

Although the initial focus of the MAP was on marine pollution control, experience confirmed that socio-economic trends, combined with inadequate development planning and management are the root of most environmental problems. Consequently, the focus of MAP gradually shifted to include integrated coastal zone planning and management as the key tool through which solutions are being sought.

Twenty years later, the Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean (MAP Phase II) was designed, taking into account the achievements and shortcomings of the MAP in the context of recent developments.

Today MAP involves 21 countries bordering the Mediterranean as well as the European Community. Together, they are determined to meet the challenges of environmental degradation in the sea, coastal areas and inland, and to link sustainable resource management with development, in order to protect the Mediterranean region and contribute to an improved Mediterranean quality of life.

The MAP is to be implemented through the Barcelona Convention.

Impact of MAP on Offshore RE deployment

It is stated in the MAP that through the use of fossil fuels the pollution and environmental damage in the Mediterranean is increasing. This context plays an influential role to enhance actions to improve the quality of Mediterranean marine environment. There are no restrictive elements for renewable energy offshore activities in MAP.
7 CONCLUSION

Offshore renewable energy activities compete for space with traditional users of the sea, which have very strong historical claims on the use of the sea space and are regulated by several conventions and agreements. The legal framework related to maritime issues and offshore exploitation is quite extensive. Indeed, many documents of different types and with different legal forces and jurisdictional value exist and regulate maritime activities. This multiplicity of documents is a source of uncertainty and confusions to project developers.

Within the existing international MSP instruments, the elements affecting and having an impact on offshore renewable energies and cable routing have been identified.

All maritime legislation comes under the ‘umbrella’ of the United Nations Convention on the Law of the Sea (UNCLOS). This convention defines the system governing the seas and the oceans at world level, and is supplemented by specific instruments such as sector specific or geographical agreements. Based on and limited by the provisions of UNCLOS, contracting parties may make coastal and maritime spatial plans covering their sea use under their jurisdiction to the outer limit of their established EEZ and/or Continental Shelf. In practice, offshore renewable energy infrastructure can be planned by coastal states within their EEZ (or equivalent rights claimed) in respect with UNCLOS provisions. If no EEZ or equivalent zone (such as Ecology Protection Zone, in France) has been declared, the outer limit corresponds to the Continental Shelf.

Shipping and navigation legislation

Amongst the economic activities to deal with as a result of introducing new uses in the marine area, shipping takes an important place. The existing shipping lanes are regulated by the International Maritime Organization (IMO). Based on economical considerations, navigation and shipping routes are considered as fixed and reserved areas, benefiting from priority on space at sea. A basic assumption is to treat the existing international system as fixed. In some way, this should be opened and subject to a change if necessary. As an example, it has been proven that in a particular case, it is more cost-effective to divert shipping along new routes then placing wind arrays further out at sea. In this sense, SOLAS and MARPOL introduced the possibility to define “special areas” requiring a higher level of protection of marine pollution: Particularly Sensitive Area (PSSA) and initiate the principle to deviate shipping routes according to PSSA.

Fisheries legislation

Fisheries are regulated at international, European and regional level and include provisions to protect and conserve living aquatic resources. At European level, the CFP (Common Fisheries Policy) provides a legal basis for the adoption of measures to achieve a sustainable exploitation of the fishery resources. In the context of the CFP the EC has not taken advantage of the possibility to designate no-take zones. Presently, there are no EU regulatory restrictions on the establishment of RE offshore activities in fishery areas, but incompatibilities exist between RE offshore activities and fisheries, knowing for example that trawling activities are prohibited in the vicinity of offshore wind areas.

Environmental legislation

Additionally, a wide range of matters related to the protection of the marine environment are settled by means of international and regional cooperation and enforce specific environmental programs. Specific environmental programmes at national level have led to the delineation of protected areas wherein activities could be allowed under conditions and a number of criteria, such as the assessment of the impact of the planned activity in the protected area. Under the Convention on Biological Diversity (CBD) parties can establish Marine Protected Areas (MPAs) in-

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20 Marine Pollution Bulletin, 2010. Planners to the rescue: Spatial planning facilitating the development of offshore wind energy, Stephen Jay, Faculty of Development and Society, Sheffield Hallam University, Howard Street, Sheffield S1 1WB, United Kingdom
and outside their national jurisdiction. CBD has stimulated the perception of ecosystems, habitats (and "areas") in the marine environment. European legislation on nature conservation is part of the EU contribution to implement the 1992 Convention on Biological Diversity (CBD).

The most significant instruments related to environmental protection at the European level are the Birds Directive, providing a framework for the identification and classification of Special Protection Areas (SPAs), and the Habitats Directive requiring Member States to select, designate and protect sites that support certain natural habitats or species of plants or animals as Special Areas of Conservation (SACs). SACs and SPAs create a network of protected areas across the EU, known as Natura 2000.

The table below lists, according to the sector covered, the instruments related to maritime affairs, and object of this part of the study.

Table 3: Impact of the instruments on the relevant offshore maritime sectors

<table>
<thead>
<tr>
<th>Sector</th>
<th>International</th>
<th>European</th>
<th>Regional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping &amp; Navigation</td>
<td>IMO:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• COLREG</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• SOLAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• MARPOL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fishery</td>
<td>Regional Fisheries Management Organization (RFMOs)</td>
<td>Common Fishery Policy (CFP)</td>
<td>Convention on the future multilateral cooperation in North East Atlantic Fisheries (NEAFC)</td>
</tr>
<tr>
<td></td>
<td>• UN Fish Stock Agreement (UNFSA)</td>
<td></td>
<td>• Agreement for the Establishment of a general Fisheries commission for the Mediterranean (GFCM)</td>
</tr>
<tr>
<td></td>
<td>• International Convention for the Conservation of Atlantic Tunas (ICCAT)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Protocol on Strategic Environnemental assessment</td>
<td>• Habitats and Birds Directive (Natura 2000)</td>
<td>• HELCOM</td>
</tr>
<tr>
<td></td>
<td>• Convention on Biological Diversity (CBD)</td>
<td>• SEA- and EIA-Directive</td>
<td>• International conferences on the protection of the North Sea</td>
</tr>
</tbody>
</table>

7.1 Legislations’ impact on offshore renewables

With regards to the planning and the establishment of RE offshore projects and related grid infrastructure, various elements must be taken into account. The growing awareness on environmental issues led to the establishment of specific administrative and procedural rules (such as Environmental Impact Assessment (EIA) included in the licensing process) to ensure a minimum potential negative environmental impact of human activities. The SEA-Directive and EIA-Directive (following the general approach taken by the International SEA Protocol) require Member States to carry out environmental assessment on the effects certain plans/programmes (SEA-Directive) and projects (EIA-Directive) will have on the environment. The results of the Environmental Impact Assessment are presented in an Environmental Statement (ES) and are submitted together with license and consent applications.
Regional instruments, such as OSPAR, HELCOM, MAP, International Conferences on the protection of the North Sea, among others, foster the cooperation between countries and provide useful guidance to implement tools or concepts related to environmental issues or spatial planning such as MSP, ICZM. Regional bodies can play an important role in starting discussions on new issues and influencing management decisions at national level.

Despite the fact that Regional Sea’s initiatives function through non-binding action plans, some have adopted legally binding conventions, which implemented through protocols address specific issues such as protected areas. For example, under the OSPAR Biological Diversity and Ecosystems Strategy, a network of Marine Protected Areas (MPAs) is identified according to the Birds and Habitats Directive.

Table 4 classifies the different legislation by the different phases of offshore projects.

<table>
<thead>
<tr>
<th>Phase of project development</th>
<th>Instrument</th>
<th>Relevant elements influencing offshore renewable energies deployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>UNCLOS</td>
<td>• With respect to UNCLOS, offshore renewable energy installations may be built anywhere within EEZ and a safety zone of 500m around can be established.</td>
</tr>
</tbody>
</table>
|                             | IMO        | • Sea-lanes and traffic separation schemes regulated by IMO are considered as excluded zones in the sea.  
|                             |            | • PSSA introduced the principle to deviate shipping routes.  |
|                             | RFMOs      | • By establishing fishing limits and controlled zones, with respect to sustainable fisheries, RMFOs may influence the location of renewable offshore activities.  |
|                             | CBD        | • Under CBD, Parties can establish marine protected areas (MPAs) in and outside national jurisdiction (including EEZ). The designation of marine protected areas under CBD (legally binding treaty) may influence the location of offshore renewable energy infrastructure; meanwhile possible synergies need to be clarified.  |
|                             | Birds and Habitat Directive | • The Birds Directive calls for the establishment of Special Protected Areas (SPAs) for birds. The Habitats Directive calls for the establishment of Special Areas of Conservation (SACs) for habitats or species. The protected areas defined by these directives are legally binding and define key number of criteria to be met when developing activities within these protected areas.  
|                             |            | • These directives don’t exclude offshore renewable energy installations within protected areas, however if this would occur the developer must show that the activity will not harm the conservation goals set out for the particular area.  
|                             |            | • The user-environmental synergies needs to be studied further and clarified.  |
|                             | CFP        | • Presently, there are no regulatory restrictions on the development of fishery and the establishment of RE offshore activities such as wind farm. But fisheries are a well-known and wide spread sea use function in European waters. CFP aims to ensure sustainable exploitation of fish resources. This means reducing the number of fishing vessels and the duration of fishing period, the establishment of open and closed fishing seasons and areas. These influence the location and some operational phases of renewable offshore. Meanwhile, the compatibility between fisheries and offshore infrastructure should be clarified such as for example the  |
| Permitting & Licensing |  
|---|---
| Barcelona Convention | • Barcelona Convention encourages the establishment of specially protected areas called “Specially Protected Area of Mediterranean Interest” (SPAMI) and provides protective measures for the Protection of the Mediterranean Sea against Pollution. The protection measures for SPAMI should be taken into account in MSP and may influence the location of offshore renewable activities.  
| Espoo Convention | • The Espoo Convention promotes consultation and cross-border cooperation in the planning process of activities and outlines specific conditions to be incorporated into national environmental impact assessment (EIA) procedures.  
| Birds and Habitat Directive | • The Habitats Directive requires an assessment of plans or projects that may significantly impact a NATURA 2000 sites.  
| EIA-Directive | • Offshore renewable activities require an Environmental Impact Assessment according to the EIA Directive. The results of the EIA are presented in an Environmental Statement (ES) and are submitted together with licence and consent applications.  
| OSPAR | • OSPAR Commission adopts legally binding regulation requiring Member States to adopt procedure and actions related to Marine Environment Protection, which can influence the licensing and permitting procedure for the development phase of offshore renewable energies projects.  
| UNCLOS | • UNCLOS obliges its parties in principle to protect the marine environment and stipulates obligations to environmental monitoring and assessment.  
| OSPAR | • OSPAR Commission adopts legally binding regulation requiring Member States to adopt procedure and actions related to Marine Environment Protection. Under OSPAR, parties have the obligation to realize regular marine environmental monitoring campaigns.  
| Monitoring |  
| UNCLOS | • Related to cable laying: Coastal State cannot control the laying by other States of cables passing through its EEZ (Art68). However, delineation of cables is subject to the consent of the Coastal State (Art 79). Within Territorial Sea, the coastal State has more comprehensive control on cable and pipeline laying, and can impose restrictions to these.  
| CFP GFCM NEAFC | • Construction and maintenance activities could be influenced or restricted during particular fishing (open and closed fishing seasons and areas).  
| Construction & Operation |  
| Bonn Agreement | • Chapter 8 of the Bonn Agreement Counter-Pollution Manual sets out the considerations that need to be taken into account if any problem appears related with wind farms. It states on the payer-pollution principle.  
| UNCLOS | • UNCLOS (Art60) state the principle of the obligation to remove abandoned or disused offshore installations.  
| IMO | • IMO adopted in 1989 guidelines and standards for the Removal of offshore installations and structures on the Continental Shelf and in the EEZ.  

Removal/Decommissioning

<table>
<thead>
<tr>
<th>CFP</th>
<th>GFCM</th>
<th>NEAFC</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Removal planning could be modified or restricted during particular fishing period (open and closed fishing seasons and areas).</td>
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<table>
<thead>
<tr>
<th>OSPAR</th>
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<tr>
<td>• OSPAR Commission adopted in 1998 a legally binding regulation for the disposal of disused offshore installation. Parties have the obligation to foresee the disposal of disused offshore installations.</td>
</tr>
</tbody>
</table>

The multiple activities and functions existing in the marine area require an appropriate cross-sectoral management approach. A single-sector and case-by-case approach can only lead to conflicts: conflicts among human uses (user-user conflicts); and conflicts between human uses and the marine environment (user-environment conflicts). Total demand for ocean space exceeds in some cases the marine area available.

The International, regional and European instruments with focus on particular activity include the need to take into consideration environmental issues, which contribute to reduce/resolve user-environment conflicts. The instruments related to environmental protection are built on an integrated approach for the management of the sea and stimulate the implementation of MSP.

Maritime Spatial Planning is presented as a practical approach to manage potential conflicts and incompatibilities in the marine environment in the face of both increasing development pressures and increasing interest in the conservation of nature.

Through MSP, states can implement the international instruments into their national policies in order to increase the binding effects and to clarify the conditions of multi-use of the sea. National and international regulations need to be more linked with each other and presume more flexibility of internationally adopted regulations. Even if these can be revised, the revision remains a lengthy process. Following this, adaptations are mainly made at national level and within national jurisdictions’ scope, while some decisions need to be enforced by receiving international support (for example for decisions related to safety zone of contiguous uses, such as for example the definition of a safety zone around shipping routes and offshore infrastructure, which are presently drawn separately and thus cumulated, reducing this way considerably the space).

Moreover offshore activities are starting to move further from the coast and far-shore are more and more considered for the future. Therefore, MSPs, should extend their planning beyond their territorial seas and include EEZ.

While location and procedural rules for offshore renewable energy may be influenced by international/regional or European regulations, the finally planning decisions remain subject to national specific administrative and procedural rules, defined through national legal framework.

The table below illustrates the impact of international/regional and European instruments on offshore renewable energy deployment, according to the main stages in the development and implementation of such projects.

The international, European and regional instruments set up provisions influencing the legisatory and procedural requirements for offshore renewable energy deployment and the necessary grid infrastructure. The binding effects of specific issues, enforced through conventions and protocols, needs to be implemented into the national policy and legal framework.

The analysis of the national maritime spatial planning regimes is a question addressed within the project Seanergy 2020. In a next step, the existing national MSP regimes and maritime national action plans will be compared to the conditions set by the current international, European and regional instruments, with the objective to identify recommendations ensuring an efficient deployment of offshore renewable energies and related electricity infrastructure.
ANNEX 1  SUMMARY TABLE
REFERENCES:


18. Overview of the national spatial planning and control system relevant to the OSPAR Maritime area, 2009, 32p

19. OSPAR Guidance on Environmental Considerations for Offshore Wind Farm Development, Reference number: 2008-3


27. UNEPs Regional Seas Programm, [http://www.unep.org/regionalseas/about/default.asp](http://www.unep.org/regionalseas/about/default.asp)


