OSPAR COMMISSION

Assessment of the environmental impact of the construction or placement of structures (other than Oil and Gas and Wind-farms)

Biodiversity Series

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The Convention for the Protection of the Marine Environment of the North-East Atlantic (the "OSPAR Convention") was opened for signature at the Ministerial Meeting of the former Oslo and Paris Commissions in Paris on 22 September 1992. The Convention entered into force on 25 March 1998. It has been ratified by Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, Netherlands, Norway, Portugal, Sweden, Switzerland and the United Kingdom and approved by the European Community and Spain.

La Convention pour la protection du milieu marin de l'Atlantique du Nord-Est, dite Convention OSPAR, a été ouverte à la signature à la réunion ministérielle des anciennes Commissions d'Oslo et de Paris, à Paris le 22 septembre 1992. La Convention est entrée en vigueur le 25 mars 1998. La Convention a été ratifiée par l'Allemagne, la Belgique, le Danemark, la Finlande, la France, l'Irlande, l'Islande, le Luxembourg, la Norvège, les Pays-Bas, le Portugal, le Royaume-Uni de Grande Bretagne et d'Irlande du Nord, la Suède et la Suisse et approuvée par la Communauté européenne et l'Espagne.

Assessment of the Environmental Impact of the Construction or Placement of Structures (other than Oil and Gas and Wind-farms)

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Executive summary

This assessment is based on responses that OSPAR Contracting Parties provided to two questionnaires describing the nature of construction or placement of structures within their national boundaries. Not all Contracting Parties provided information so this assessment has extrapolated from the available data. There are a large variety of structures and installations within the OSPAR area and an equally diverse array of construction and placement techniques and equipment. Types of activities covered in this assessment include: harbours and marinas; outfalls; piers and jetties; land reclamation; flood defence and sea walls; coast protection; artificial reefs; cables and pipelines; slipways and causeways; scour protection; beach nourishment and bank stabilisation. Materials used in such construction activities include: timber; iron and steel; concrete; clay, silt, sand, gravel or stone/rock; plastic or other synthetic materials; biocides or other chemical treatments. The methods for placement and construction could have environmental effects, such as: habitat destruction or disturbance; changes to coastal processes (sediment transport, erosion, deposition etc); chemical contamination; barrier effects to migrating, feeding or breeding biota; changes in turbidity; interference to other users, e.g. fishermen etc. All Contracting Parties have robust national controls in place to evaluate and manage the environmental impacts associated the development of such activities. The majority of these activities are in the coastal zone less than 1 mile from the coast. Given the wide range of installations and structures and their associated potential impacts it has not been possible to list and map all potential problems or undertake a quantitative assessment. It would seem that the nature, scale and rate of development of such activities are little changed from that described in the 2000 Quality Status Report. This assessment demonstrates that appropriate measures are already in place for such activities in the OSPAR area and that there is no need for any additional work or guidance on this topic.

Récapitulatif

La présente évaluation se fonde sur les réponses, communiquées par les Parties contractantes OSPAR, à deux questionnaires décrivant la nature de la construction ou de la pose de structures à l'intérieur de leurs limites nationales. Toutes les Parties contractantes n'ont pas communiqué d'informations et la présente évaluation a donc extrapolé à partir des données disponibles. La zone OSPAR comporte une grande variété de structures et d'installations et un déploiement tout aussi varié de techniques et de matériaux de construction et de pose. La présente évaluation couvre notamment les types d'activité suivants : ports et marinas; déversoirs, jetées, récupération des terres sur la mer, barrières de défense contre les crues et digues, protection côtière, récifs artificiels, câbles et pipelines, cales de lancement et chaussées; protection contre l'érosion, réapprovisionnement des plages et stabilisation des berges. Les matériaux utilisés pour ces activités de construction sont notamment: le bois, le fer et l'acier, le béton, l'argile, la vase, le sable, le gravier ou les pierres/rochers, la matière plastique ou autres matériaux synthétiques, les biocides ou autres traitements chimiques. Les méthodes de pose et de construction pourraient avoir des effets sur l'environnement, par exemple: destruction ou perturbation des habitats; modification des processus côtiers (transport des sédiments, érosion, dépôt, etc.); contamination chimique; entraves à la migration, à l'alimentation ou à la reproduction du milieu vivant; modification de la turbidité, interférences pour les autres usagers, par exemple les pêcheurs, etc. Toutes les Parties contractantes ont mis en place des contrôles nationaux solides permettant d'évaluer et de gérer les impacts environnementaux associés au développement de telles activités. La plupart de ces activités ont lieu dans la zone côtière à moins d'un mile de la côte. Il n'a pas été possible d'énumérer ou de cartographier tous les problèmes potentiels ou d'entreprendre une évaluation quantitative du fait de la gamme étendue d'installations et de structures et des impacts potentiels associés. Il semblerait que la nature, l'ampleur et le rythme du développement de ces activités ont peu changé depuis le Bilan de santé 2000. La présente évaluation démontre que des mesures pertinentes sont déjà en place pour ces activités dans la zone OSPAR et que des travaux et orientations supplémentaires ne sont pas nécessaires dans ce domaine.

1. Introduction

This assessment is a contribution to the assessment of human activities under the OSPAR Strategy on a Joint Assessment and Monitoring Programme (JAMP). It has been prepared as contribution to the Quality Status Report 2010 and complements the QSR assessments on wind-farms, coastal defence, land reclamation and artificial reefs by addressing impacts of other construction activities mainly ongoing in the coastal zone (see box below).

Assessment of human activities in the OSPAR Maritime Area derives from the requirements of Annex V to the 1992 OSPAR Convention, from the strategy adopted for its implementation (the Biodiversity and Ecosystems Strategy), and from the JAMP Strategy. A Background Document on Construction or Placement of Installations and Structures in the OSPAR Area (excluding those for oil and gas and for wind energy)[1] was published by OSPAR in 2003 (OSPAR, 2003), based on information received from the following Contracting Parties:

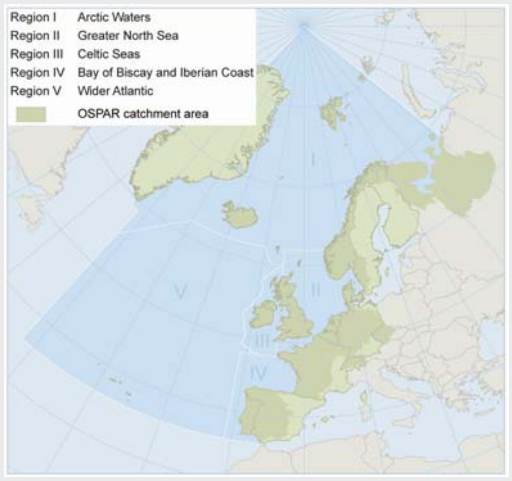
Belgium	Norway
France	Spain
Germany	Sweden
Ireland	United Kingdom
Netherlands	

This JAMP assessment is based on the Background Document, which has been updated in light of the returns from Norway and Denmark in a second round of information collection in 2006. Furthermore, information was collected in 2007 on the type and numbers of construction or placement of installations and structures within the OSPAR region. Such information was received from Germany, the Netherlands, Norway, Spain and the United Kingdom.

In order to aid comparisons between Contracting Parties, the responses to questionnaires received from Contracting Parties are presented in Annex 1. A question by question summary of the responses is presented at Appendix 1 to Annex 1.

Electronic navigator to complementary QSR assessments

- Offshore windfarms (OSPAR, 2008a)
- Coastal defence (OSPAR, 2009a)
- Land reclamation (OSPAR, 2008b)
- Artificial reefs (OSPAR, 2009b)



Map: OSPAR maritime area and its five Regions

[1] These activities are covered by separate JAMP assessments.

2. What are the problems?

There is a large variety of structures and installations within the OSPAR region and an equally diverse array of construction and placement materials, techniques and equipment. Consequently the nature and significance of any environmental impacts are wholly dependant on the:

- relative scale of importance – national, regional, county, local
- degree to which the environment is affected, *e.g.* quality enhanced or impaired
- scale of change – land area, size of population, degree of change
- cumulative impacts
- temporary or permanent effect, and if temporary the duration
- degree of possible mitigation

For the construction or placement of installations and structures in the marine environment issues for consideration include (US Army Corps of Engineers, 2002):

- environmental processes (chemical, biological, ecological)
- hydrodynamic processes (winds, waves, water level fluctuations, currents)
- sediment processes (sources, transport paths, sinks, characteristics)
- seasonal meteorological trends (storms)
- geological processes (soil and strata characteristics, stable and migrating sub-aerial and sub-aqueous features, rebounding or subsiding surfaces)
- long-term environmental trends (sea level rise, climate change)
- social and political conditions (land-use, development trends, regulations, social trends, public safety, economics)

The materials used in a construction or placement activity may on their own or in combination have environmental effects. Common materials used for construction in the marine environment include: timber; iron and steel; concrete; clay, silt, sand, gravel or stone/rock; plastic or other synthetic materials; biocides or other chemical treatments.

It is not just the location and presence of the finished structure or installation that is of concern, how and when it is constructed is also important. The potential equipment used in construction and placement activities includes: pile-driving rigs; jack-up barges; bunds and cofferdams; dredgers; trucks, excavators and diggers; cranes; drilling rigs; welding equipment; rock placement vessels; cement mixers/pipelines; cutting equipment etc.

The use of all of this equipment has associated environmental impacts that should be considered. These pressures and impacts include: noise, release of contaminants, increased turbidity, smothering, habitat loss/disturbance, displacement, visual intrusion etc. Table 2.1 lists some of the key impacts on biota from construction and placement activities. The nature, temporal and spatial extent of the impacts listed in Table 2.1 will be dependant on the location, installation techniques, size and materials of the individual development.

Table 2.1 Potential impacts associated with construction or placement activities (not exhaustive).

Issue	Source of potential impacts	Examples of potential impacts
Birds	- construction activities - physical presence - light emission	- bird collision - attraction of birds due to illumination by navigational lights and subsequent increase in the risk of collision - temporary or permanent habitat loss or change, including exclusion of habitat, *e.g.* sandbanks - water surface/water body due to disturbance - fragmentation of feeding, breeding and roosting areas, as well as migratory routes due to barrier effect - change of food species availability - stress and reduction of biological fitness - temporary or permanent exclusion from habitat
Marine mammals	- construction noise (including pile driving) - boat traffic during construction and maintenance - physical presence	- habitat loss due to avoidance - fragmentation of migratory routes and of sites for foraging and reproduction - induced permanent or temporary threshold shift in hearing (PTS/TTS), reduced perception of biologically significant sounds (masking) - changed behaviour, stress
Fish	- clouding and sedimentation during construction - introduction of hard substrate - construction noise (including pile driving)	- impediment of foraging activity - physical barrier - habitat loss as fish may leave area - disturbance of behaviour and stress - damage to fish eggs - damage and or disturbance to spawning grounds - alteration of food species availability and abundance, which in turn may alter community composition and abundance of fish - induced permanent or temporary threshold shift in hearing (PTS/TTS), reduced perception of biologically significant sounds (masking)
Zoobenthos	- local destruction and sediment plumes during construction - permanent covering of the sea floor - introduction of artificial hard substrate - changes in hydrodynamics	- temporary and permanent habitat loss - alteration in the benthic community composition - indirect habitat loss through small-scale changes in sediment structure and/or changes of large-scale sediment dynamics - alteration in the endobenthic community including colonisation by 'alien' species - increased degradation of the organic content resulting in a release of heavy metals (depending on the total organic matter - content and metal content of the sediment)
Macrophytes	- local destruction and sediment plumes during the construction - permanent covering of the seafloor - change of current dynamics and sediment conditions - introduction of artificial hard substrate	- temporary and permanent habitat loss - alteration in the plant community composition
Hydrodynamics and morpho-dynamics	- construction and physical presence	- change of sediment dynamics, for example slowing down of natural erosion and sedimentation processes (at the site and adjacent coastlines) - reduction in wave energy (shadow effects) from - different sized arrays and how/if this influences sediment inputs and exchanges - beach faces and flood defences

3. Scale of development in the OSPAR Region

Little has changed in the type and scale of developments within this sector since the OSPAR 2000 Quality Status Report (OSPAR, 2000). As such, some of the key findings remain true today. Discussions in the OSPAR framework indicate that construction and placement activities are ongoing but that there are no obvious trends in the nature or scale of development. However, a basic assumption could be that the effects of sea-level rise are increasing pressures for coast protection and flood protection works.

Information on the type and numbers of construction or placement of installations and structures within the OSPAR region was collected in April 2007. The responses to this questionnaire provides an indication of the extent and intensity within those countries that responded, however, it should be noted that no responses were received from Belgium, Denmark, France, Ireland, Iceland, Portugal or Sweden.

Table 3.1 provides a summary of construction and placement activities in the OSPAR area. Only Germany, the Netherlands, Norway, Spain and the United Kingdom provided information on activities within their national boundaries. Activities in the remainder of the OSPAR area are unconfirmed although the overall conclusions and trends reported in this assessment are thought to be reasonable, based on available knowledge.

From the notes appended to Table 3.1 and from discussions in the OSPAR framework it is apparent that the reporting and collation of data on the majority of construction and placement activities does not readily lend itself to assessment of impacts and trends. Information on these activities is collated by individual Contracting Parties at the national level, not at an OSPAR regional scale. Table 3.1 shows the returns from 5 Contracting Parties and includes over 5000 individual construction or placement activities. If the average of these figures is applied to all OSPAR Contracting Parties this equates to over 13 000 individual construction or placement activities.

The scale of the activities in Table 3.1 varies considerably. Measuring poles will have a footprint of only a few square centimetres; scour protection, piers and jetties, slipways and causeways will have footprints of tens of square metres, whereas harbours and marinas, land reclamation and coast protection could be measured in tens to hundreds of square kilometres. Some of the activities will be described by a single coordinate, some described as lines and others as areas.

Table 3.1 Overview of types of structures and numbers of installations within national boundaries.

	Germany	Netherlands[11]	Norway[9]	Spain	UK[10]
Harbours and marinas	202	34	[5]	207	407
Outfalls	>15	27	[6]	17	95
Piers and jetties	>3	82	[5]	163	137
Land reclamation	1	3	0	467	74
Flood defence and sea walls	>4[1]	17	0	144	24
Coast protection	>1700[2]	22	0	0	309
Artificial reefs	0	0	28	23	1
Cables and pipelines	>29[3]	67	163[7]	ND	133
Slipways and causeways	>4	11	[8]	ND	53
Scour protection	unknown	13	0	ND	77
Beach nourishment	>1[4]	13	0	86	68
Bank stabilisation	7	14	0	155	39
Measuring poles	0	9	0	0	0

(1) in addition to the number given:
- Schleswig-Holstein: 364 km of primary seawalls, 44 km of secondary seawalls
- Niedersachsen: 610 km primary sea wall length

(2) including fascines and scour protection, 8 km of revetments, 1.3 km of walls

(3) Schleswig-Holstein: variety of cables and some pipelines between Holms/Islands and mainland including telecommunication, water supply and a total of 11 operational power cables

(4) In addition to number given Schleswig-Holstein – about 1 million m^3 per year

(5) Norway has around 800 public fishery harbours (480 out of these have breakwaters), around 60 public/national traffic terminals, 10 large offshore bases, and a countless number of private harbours and marinas, with or without breakwaters. All these on the coast.

(6) all are within the coastal zone.
(7) 3 cables @ 420 kV, 6 cables @ 300 kV, 2 cables @ 220 kV, 40 cables @ 132 kV, 46 cables @ 45 kV, 3 cables @ 33 kV and 39 cables @ 22 kV. Out of these, 5 cables are more than 1 mile off the coast.
(8) along the Norwegian coast there is a countless number of small and large slipways. No national overview. All causeways are within the coastal zone.
(9) the total coastline of Norway is 83281 lm long, and the local governments give permission to the overall amount of structures in the coastal zone. The national overview is therefore very limited.
(10) data for England and Wales between 2000 and 2006 only
(11) data for 2007 only – includes North Sea, Westerschelde and Wadden Sea

All countries that responded stated that the majority of construction and placement of structures and installation occurred in the coastal zone less than 1 mile from the coast. Given this concentration of activity in the near-shore area mapping such activities at an OSPAR regional scale lacks the resolution to provide a useful representation of the spatial extent. Maps are therefore an inappropriate format to present information on construction and placement activities at an OSPAR regional level. Given such variations in the quality and quantity of data on construction and placement activities at the national and OSPAR regional scales, the approach adopted for this JAMP was to review the total impacts on the OSPAR area based on the available data and to review the regulatory controls in place to assess, manage and minimise environmental impacts. The premise behind this approach being that if adequate regulatory controls are in place for the planning, licensing and construction of such activities they will only have proceeded once the impacts at the local and national scales had been determined to be acceptable (minimal). If the impact/quality status at the local and national level is shown to be small by these processes it is reasonable to deduce that the effects on the quality status at the OSPAR regional level will also be small (or if the national effect is high the OSPAR regional effect may also be high).

4. What has been done? Did it work?

4.1 Legislation and regulation

It is clear that placement or construction activities have the potential to have environmental effects. However, if regulatory systems are in place it is possible for the nature and extent of such impacts to be identified, measured, assessed and managed to the extent that they are within acceptable limits. Consequently, to gain a thorough understanding of the effects of construction or placement activities on the quality status of the OSPAR Maritime Area one also needs to review the legislative controls that are in place.

The European Commission Environmental Impact Assessment (EIA) Directive 85/337/EEC as amended by 97/11/EC and 2003/35/EC applies to certain of the activities listed in Table 3.1. An environmental impact assessment is mandatory for projects in Annex 1, which includes: trading ports and also inland waterways and ports for inland waterway traffic which permit the passage of vessels over 1350 tonnes. Projects listed under Annex 2 require and EIA at the discretion of the local/national regulatory authorities and include: reclamation of land from the sea for agriculture; shipyards (for processing of metals); harbours (including fishing harbours); yacht marinas; canalisation and flood relief works; coastal work to combat erosion and maritime works capable of altering the coast through the construction, for example of, dykes, moles, jetties and other sea defence works.

Appropriate mechanisms seem to be in place to control this activity in terms of the location, techniques and environmental effects in all Contracting Parties in all zones (intertidal, 0-12 miles and 12-200 miles) except that Ireland and Norway do not control the construction or placement of installations or structures within the 12 - 200 nautical mile zone. However, Ireland is considering legislation for that zone and Norway says that it has no activity within the zone except oil and gas activities.

4.2 Assessment

All Contracting Parties appear to require environmental impact assessments when considered appropriate and to consider all the important issues identified in the questionnaire. All Contracting Parties require baseline surveys for of these activities, as determined on a case-by-case basis; they can cover a wide range of issues including *e.g.* benthic ecology, fisheries, and sediment transport. All Contracting Parties can require decommissioning of all or some installations and structures after their useful life have been reached. Contracting Parties have very similar views on the issues of concern over methods of working during construction/placement.

4.3 Consultation

All Contracting Parties appear to consult a range of government departments and agencies. Consultation of non-governmental organisations (NGOs) and the public also happens, but may not be required by law. A variety of means are employed to consult with NGOs and the public.

4.4 Monitoring

All Contracting Parties can require monitoring during and/or after construction and it appears that it can cover almost any type of environmental monitoring.

4.5 Mitigation/compensation

All Contracting Parties can require mitigation/compensation measures to be carried out as a condition of licences/permits for the construction or placement of an installation or structure.

4.6 Enforcement

All Contracting Parties regulatory authorities/agencies, except those of Norway, can inspect the construction or placement activities to ensure those licence/permit conditions are being complied with.

5. How does this work affect the overall quality status?

5.1 Preliminary assessment

Appropriate mechanisms seem to be in place to control this activity in all Contracting Parties that responded to the questionnaire. However, protection of the marine environment depends upon the appropriate and effective application of the mechanisms that exist and this cannot be judged from the responses to the questionnaire.

The questionnaire did not explicitly clarify whether all types of construction or placement of installations and structures in the OSPAR Maritime Area were covered by Contracting Parties. However, Contracting Parties considered that all significant types of construction or placement of installations and structures were covered by their national legislation. It appeared from the responses to a question by the United Kingdom that no Contracting Parties exempted small scale construction activities.

Given the wide range of installations and structures and their associated potential impacts it is not possible to list all potential problems or undertake a quantitative assessment. This qualitative assessment demonstrates that all Contracting Parties have functional planning and legislative controls to identify, assess and manage the environmental impacts associated with the placement of structures at the national level. As such appropriate measures appear to be in place to protect the marine environment in terms of the placement of structures other than oil and gas and other than wind farms (which are addressed in separate JAMP assessments). Adequate systems are also in place to prevent (or at least minimise) impairment of the quality status at the national and in turn the OSPAR level.

6. What do we do next? / Lessons learnt

Given the wide range of installations and structures covered by this topic, it would seem problematic to consider developing very detailed assessment guidelines. This is since no single guidance document could cover all types of placement/construction in detail and conversely that detailed guidance for a particular type of placement or construction would have significant overlaps with that for many other types. However, it may be worth considering whether broad guidelines dealing with generic issues that apply to all or most placements or constructions would be useful *e.g.* assessment of changes in wave energy, currents, sediment transport, etc. and their implications.

There is only very limited support for development of specific guidelines with most Contracting Parties tending to support the development of generic guidelines if they were considered necessary (OSPAR, 2003). In addition, there was general support for:

- The case-by-case environment assessment approach to dealing with proposed placements or constructions in the OSPAR Maritime Area.
- A requirement for the removal of installations and structures from the OSPAR Maritime Area at the end of their lives where appropriate.

While installations and structures for oil/gas and wind energy have been excluded from consideration under this topic, there is little doubt that most of the issues affecting the placement/construction of parts of those structures below the water surface overlap to a very large degree with those dealt with in this topic.

Further discussions in the OSPAR framework in 2006 and 2007 confirmed the above conclusions and recommendations of the 2003 assessment. Based on this it can be concluded that national measures are sufficient and no generic guidance is needed, particularly given the large variety of different structures considered.

7. References

OSPAR, 2000. Quality status report 2000. OSPAR Commission, London. Publication 111/2000, 108 + vii pp.

OSPAR, 2003. Construction or Placement of Installations and Structures in the OSPAR Area (excluding those for oil and gas and for wind energy). OSPAR Commission, London. Publication 183/2002. 41 pp.

OSPAR, 2008a. Environmental impact of offshore wind-farms. OSPAR Commission, London. Publication 385/2008.

OSPAR, 2008b. Environmental impact of land reclamation. OSPAR Commission, London. Publication 368/2008.

OSPAR, 2009a. Environmental impact of coastal defence structures. OSPAR Commission, London. Publication 435/2009.

OSPAR, 2009b. Environmental impact of construction or placement of artificial reefs. OSPAR Commission, London. Publication 438/2009.

US Army Corps of Engineers, 2002. Coastal Engineering Manual, EM 1110-2-1100, 30 April 2002.

Annex 1. Summary of Responses to the Questionnaire on the Construction or Placement of Installations and Structures in the OSPAR Area (excluding those for oil and gas and for wind energy)

Section A - Legislation and Regulation

Question A1 - Does your country control the construction or placement of installations or structures within the following zones?

Q. No.	Question	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
A1(a)	Intertidal zone i.e. between High Water and Low Water	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
A1(b)	0 - 12 nautical miles	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
A1(c)	12 - 200 nautical miles	Y	Y	Y	N	Y	-	Y	Y	Y	Y

Question A2 - If your country does exert such controls, please provide information on the legislation, including spatial planning, that applies within the zones:

(a)Intertidal zone i.e. between High Water and Low Water

Country	Response
BE	A building permit, and a permit from the authority responsible for coastal protection are required.
FR	Remark: Territorial sea the State Public Area (domaine public maritime). It is inalienable. Only temporary granting can be given for any installation. 1) Code de l'environnement, partie législative, livre II Milieux physiques, Titre Ier Eau et milieux aquatiques : le chapitre IV Activités, installations et usages, Section 1 Régimes d'autorisation ou de déclaration, articles L. 214-1 à L.214-8. 2) Code de l'urbanisme, partie législative, livre I, Règles générales d'aménagement et d'urbanisme, Titre IV Dispositions particulières à certaines parties du territoires, dont pour le littoral les articles L. 146-1 à L. 146-9. 3) Code des Ports Maritimes Further information on the website : http://www.legifrance.gouv.fr
DE	State Planning Act (Landesnaturschutzgesetz), Federal Planning Code (Baugesetzbuch) and Act on Federal Waterways (Bundeswasserstraßengesetz)
IE	Foreshore Acts 1933 - 1998, Planning and Development Act 2000
NL	Wbr (Law for placing of structures on seabed) + Wro (Law on spatial planning) + Wmb (Law on protection of the environment)
NO	Spatial planning, plan and building act, Act relating to harbours and fairways. [The Harbour Act] – The Planning and Building Act was revised on 1 April 2005 to include the demand for assessing plans as required by the EU EIA Directive
ES	Law 22/1988 of Coasts Royal Decree 1471/1989, 1-12-1989, Regulations about Law 22/1988 Law 27/1992 of State Harbours and Merchant Navy Regional legislation

SE	The Planning and Building Act and the Swedish Environmental Code
UK	Food and Environmental Protection Act (1985) Coast Protection Act (1949) Electricity Act (1989) Telecommunications Act (1984) Transport and Works Act (1992) Town and Country Planning Act (1990) Water Resources Act (1991)
DK	Bekendtgøreise af lov om kystbeskytteise (Act No. 243/1994. Coastal protection measures). - Lov om havne (Act No 326/1998. Placement/enlargement of harbours) - Bekendtgøreise om bade og båderbroer (Government Order 489/1989. Placement of bridges for bathing and yachting). - Planloven (Act No. 883/2004. The Danish Planning Act concerning the placement of fish farms). Miljøbeskyttelsesloven (Act No. 753/2001. Environmental Protection Act. Permits for fish farming). Fiskeriloven (Act No. 372/2006. Act on Fisheries. Permits for fish farming).

(b) 0 - 12 nautical miles

Country	Response
BE	An area concession and an environmental permit/licence are required.
FR	As above, and 1) Le Code minier, section 1 Octroi de l'autorisation pour l'exploration et l'exploitation des ressources offshore et les constructions correspondantes 2) Le Code du domaine de l'Etat (partie législative), section 1 Délivrance des autorisations, article 28 et suivants. Also available on http://www.legifrance.gouv.fr
DE	State Planning Act (Landesnaturschutzgesetz), Federal Planning Code (Baugesetzbuch) and Act on Federal Waterways (Bundeswasserstraßengesetz)
IE	Foreshore Acts 1933 - 1998, Planning and Development Act 2000
NL	Wbr (Law for placing of structures on seabed) + Wro (Law on spatial planning) + Wmb (Law on protection of the environment)
NO	The plan and building act, (valid out until the baseline, work is going on to expand the area util 1nm outside the baseline), Act relating to harbours and fairways – The Planning and Building Act was revised on 1 April 2005 to include the demand for assessing plans as required by the EU EIA Directive
ES	Law 22/1988 of Coasts Royal Decree 1471/1989, 1-12-1989, Regulations about Law 22/1988 Law 27/1992 of State Harbours and Merchant Navy Regional legislation
SE	The Planning and Building Act and the Swedish Environmental Code
UK	As with A2(a) above except Town and Country Planning Act (1990)

DK	"Statens højhedsret" (The supremecy of the State. A pre-constitutional practice stipulating that i.e. installations and structures are depending on a permit from the state) Lov om elforsyning (Act No. 286/2005. Installations with regards to power supply) Lov om beskyttelse af havmiljøet (Act No. 925/2005. Dumping and installations with regards to oil spilling) Råstofloven (Law No. 886/2004 on the exploitation on sand etc. Which does not fall under the scope of Act No. 526/2002) Miljøbeskyttelsesloven (Act No. 753/2001. Certain permits for fish farming) Planloven (Act No. 883/2004. The Danish Planning Act concerning the placement of fish farms). Fiskeriloven (Act No. 372/2006. Permits for fish farming)

(c) 12 - 200 nautical miles

Country	Response
BE	An area concession and an environmental permit/licence are required.
FR	Code de l'environnement, partie législative, livre II Milieux physiques, Titre Ier Eau et milieux aquatiques, chapitre VIII, section 2 Pollution due aux opérations d'exploration ou d'exploitation du fond de la mer ou de son sous-sol. http://www.legifrance.gouv.fr Loi n°76-655 du 16 Juillet 1976 relative à la zone économique au large des côtes du territoire de la République Décret n°71-360 du 6 Mai 1971 portant application de la loi n° 68-1181 du 30 décembre 1968 relative à l'exploration du plateau continental et à l'exploitation de ses ressources naturelles Loi n°68-1181 du 30 Décembre 1968 relative à l'exploration du plateau continental et à l'exploitation de ses ressources naturelles
DE	• Act on the Revision of the Federal Nature Conservation Act – in force since April 2002 (BnatSchGNeuregG) • Ordinance Related to Installations Seaward the Boundary of the German Coastal Sea (Marine Facilities Ordinance, Seeanlagenverordnung) • Act on the Environmental Impact Assessment of September 2001 (Gesetz über die Umweltverträglichkeitsprüfung) • ESPOO Convention (transboundary co-operation)
IE	-
NL	Wbr (Law for placing of structures on seabed)
NO	-
ES	Law 22/1988 of Coasts Royal Decree 1471/1989, 1-12-1989, Regulations about Law 22/1988
SE	The Swedish Environmental Code, Act of the Swedish Economical Zone and the Act of the Continental Shelf.
UK	As with A2(a) above except Town and Country Planning Act (1990)
DK	Lov om elforsyning (Act No. 286/2005. Installations with regards to power supply) Lov om beskyttelse af havmiljøet (Act No. 925/2005. Dumping and installations with regards to oil spilling) Miljøbeskyttelsesloven (Act No. 753/2001. Certain permits for fish farming) Fiskeriloven (Act No. 372/2006. Permits for fish farming) Lov om anvendelse af Danmarks undergrund (Act No. 526/2002 concerning the exploitation/investigation of natural underground resources) Lov om kontinentalsoklen (Act No. 1101/2005. Certain Permits for submarine electricity cables and oil or gas pipelines)

Question A3 - Please specify the regulatory authorities/agencies that apply the legislation within the zones:

(a) Intertidal zone i.e. between High Water and Low Water

Country	Response
BE	Regional Authority for Spatial Planning
FR	State Authorities and Departmental Prefect
DE	depending on site: Community Level (Kreise), Federal State Investigation Authorities (Staatliche Untersuchungsämter), Ministry
IE	Department of the Marine and Natural Resources, The Planning Board
NL	V&W (Ministry of Transport and Public Works) + VROM (Ministry of Environment and Spatial Planning)
NO	Municipalities, Regional governmental authorities
ES	General Directorate of Coasts (Ministry of the Environment) General Directorate of Fisheries (Ministry of Agriculture, Fisheries and Food) Fisheries and Environmental Departments of Regional Governments Institutional Body "Puertos del Estado" (*State Harbours*), Ministry of Public Works
SE	Municipalities and County Administrative Boards
UK	Food and Environmental Protection Act (1985) - DEFRA Coast Protection Act (1949) - DoT Electricity Act (1989) DTi Telecommunications Act (1984) DTi Transport and Works Act (1992) DTi Town and Country Planning Act (1990) Local Authorities Water Resources Act (1991) DEFRA
DK	Transport – og Energiministeriet (Ministry of Transport and Energy). Bekendtgørelse af lov om Kystbeskyttelse, Lov om havne, Bekendtgørelse om bade – og bådebroer, Statens højhedsret, Lov om elforsyning, Lov om anvendelse af Danmarks undergrund, Lov om kontinentalsoklen, Miljøministeriet (Danish Ministry of the Environment. Planloven, Miljøbeskyttelsedloven, Lov om beskyttelse af havmiljøet), Fødevareministeriet (Ministry of Food, Agriculture and Fisheries. Fiskeriloven), Erhvervministeriet (Ministry of Economic and Business Affairs), counties and municipalities.

(b) 0 - 12 nautical miles

Country	Response
BE	Ministry of Economic Affairs (area concession, cables and pipelines), federal ministry dealing with the environment (environmental permit).
FR	State Authorities and Departmental Prefect
DE	depending on site: Community Level (Kreise), Federal State Investigation Authorities (Staatliche Untersuchungsämter), Ministry
IE	Department of the Marine and Natural Resources, The Planning Board

NL	V&W (Ministry of Transport and Public Works) + VROM (Ministry of Environment and Spatial Planning)
NO	Municipalities, Regional governmental authorities
ES	General Directorate of Coasts (Ministry of the Environment) General Directorate of Fisheries (Ministry of Agriculture, Fisheries and Food) Fisheries and Environmental Departments of Regional Governments Institutional Body "Puertos del Estado" (*State Harbours*), Ministry of Public Works
SE	Municipalities and County Administrative Boards
UK	As with A3(a) above except Town and Country Planning Act (1990)
DK	As with A3(a) above

(c) 12 - 200 nautical miles

Country	Response
BE	Ministry of Economic Affairs (area concession, cables and pipelines), federal ministry dealing with the environment (environmental permit).
FR	State authority Ministerial level
DE	• Federal Maritime and Hydrographic Agency • Federal Water and Shipping Administration (Wasser- und Schifffahrtsverwaltung)
IE	-
NL	V&W (Ministry of Transport and Public Works)
NO	-
ES	General Directorate of Coasts (Ministry of the Environment) General Directorate of Fisheries (Ministry of Agriculture, Fisheries and Food)
SE	The Government and concerned central agencies
UK	As with A3(a) above except Town and Country Planning Act (1990)
DK	-

Question A4 - Do you have any additional information you wish to provide on Legislation and Regulation?

Country	Response
BE	Neighbouring countries possibly affected by the construction or placement activity are consulted, according to the Convention on environmental impact assessment in a transboundary context (Espoo Convention)**.**
FR	-
DE	-
IE	Legislation to provide for regulation in the 12 - 200 nautical mile zone is planned.
NL	Although outside 12 nM laws on spatial planning and environment are not applicable, regulations and rules are all the same carried out through incorporation within the Wbr.
NO	In general all installations in Norway (apart from oil and gas installations) are within the baseline.
ES	No

SE	There is a proposal to the Swedish government for a spatial planning system under the Swedish Act of the Economic Zone outside 12 nautical miles.
UK	EC Directives such as Habitats Directive, Birds Directive and Water Framework Directive all have to be considered as well as the above.
DK	-

Section B - Assessment

Question B1 - Are Environmental Impact Assessments (EIAs) required for all or some construction or placement activities in the zones indicated?

Q. No.	Question	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
B1(a)	Intertidal zone i.e. between High Water and Low Water	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B1(b)	0 - 12 nautical miles	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B1(c)	12 - 200 nautical miles	Y	Y	Y	N	Y	-	Y	Y	Y	Y

Question B2 - If so, please indicate the factors determining when an EIA is required in the zones indicated.

(a) Intertidal zone i.e. between High Water and Low Water

Country	Response
BE	Determined by type of construction, impact on Water Balance
FR	Economic costs and alternatives options inland, scientific interest of the ecosystem, pollution of the marine ecosystems, recreational zones, aquaculture and fisheries sites. The operator's ability to dispose material at the end of use (mandatory)
DE	According factors laid down in the Act on the Environmental Impact Assessment of September 2001 (Gesetz über die Umweltverträglichkeitsprüfung) which implements the Council Directive 97/11/EC of March 1997 amending Directive 85/337/EEC on the Assessment on the Effects of Certain Public and Private Projects on the Environment
IE	EU EIA Directive and national legislation
NL	Depends on impact hypotheses. For some activities EIA is mandatory, for others only if authority requires it.
NO	The degree of conflict determines when an EIA is required, measured by area covered, size and costs and for attachment II (EU-directive) the degree of conflicts in relation with certain criteria
ES	Projects including in Annexes of Law 6/2001, regarding Environmental Impact Assessment and appropriate legislation of Regional Governments. In any case, the following activities: -Extraction of maritime deposits -Any activity or construction that may affect a specially sensitive area When the environmental authority in each particular case establishes so, any project that may have significant negative effects on the environment
SE	All constructions in water need a permit under the Swedish Environmental Code. The application should include an EIA.

UK	The EU Environmental Impact Assessment Directive and the size and nature of the proposed works and the sensitivity of the site.
DK	Rules implementing the Environmental Impact Assessment Directive: Samlebekendtgørelsen (Government Order 1006/2006. Bekendtgørelse om miljømæssig vurdering (VVM) i forbindelse med udvidelse af bestående havne (Governmental Order 997/1999 on EIA on the establishment of harbours)

(b) 0 - 12 nautical miles

Country	Response
BE	According to the law on the protection of the marine environment all activities that include building, altering the level of the seabed (excluding dredging for navigational purposes), dumping of wrecks, and industrial activities, require an EIA report.
FR	Economic costs and alternatives options inland, scientific interest of the ecosystem, pollution of the water, fisheries zones.
DE	According factors laid down in the Act on the Environmental Impact Assessment of September 2001 (Gesetz über die Umweltverträglichkeitsprüfung) which implements the Council Directive 97/11/EC of March 1997 amending Directive 85/337/EEC on the Assessment on the Effects of Certain Public and Private Projects on the Environment
IE	EU EIA Directive and national legislation
NL	Depends on impact hypotheses. For some activities EIA is mandatory, for others only if authority requires it.
NO	The degree of conflict determines when an EIA is required, measured by area covered, size and costs and for attachment II (EU-directive) the degree of conflicts in relation with certain criteria
ES	Projects including in Annexes of Law 6/2001, regarding Environmental Impact Assessment and appropriate legislation of Regional Governments. In any case, the following activities: -Extraction of maritime deposits -Sand dredging when volume exceeds 3.000.000 cubic meters / year -Commercial or fishing ports and marinas -Groins and piers connected with shore that allow ships bigger than 1350 T -Erosion preventive coastal constructions and maritime constructions that can alter the shore, with a maximum depth bigger than 12 m -Any activity or construction that may affect a specially sensitive area The following activities, when the environmental authority in each particular case establishes so: -Sand dredging with a total volume per year smaller than 3.000.000 cubic meters -Shipyards -Artificial beach nourishment with a total volume bigger than 500.000 cubic meters or that require the construction of groins or breakwaters -Any project that may have significant negative effects on the environment
SE	All constructions in water needs a permit under the Swedish Environmental Code. The application should include an EIA.
UK	The EU Environmental Impact Assessment Directive and the size and nature of the proposed works and the sensitivity of the site

DK	Rules implementing the Environmental Impact Assessment Directive: Samlebekendtgørelsen (Government Order 1006/2006. Bekendtgørelse om miljømæssig vurdering (VVM) af projekter til indvinding af kulbrinter og til etablering af rørledninger på dansk søterritorium og kontinentalsokkelområde. (Governmental Order 884/2000 on EIA concerning pipelines) Bekendtgørelse om vurdering af på miljøet (VVM) af elproduktionsanlæg på havet (Governmental Order 815/2000 on EIA on power supply) Bekendtgørelse om miljømæssig vurdering af anlæssig vurdering af råstofindvinding på havbunden (VVM)

(c) 12 - 200 nautical miles

Country	Response
BE	According to the law on the protection of the marine environment all activities that include building, altering the level of the seabed (excluding dredging for navigational purposes), dumping of wrecks, and industrial activities, require an EIA report.
FR	Economic costs and alternatives options inland, scientific interest of the ecosystem, pollution of the water, fisheries zones.
DE	According factors laid down in the Act on the Environmental Impact Assessment of September 2001 (Gesetz über die Umweltverträglichkeitsprüfung) which implements the Council Directive 97/11/EC of March 1997 amending Directive 85/337/EEC on the Assessment on the Effects of Certain Public and Private Projects on the Environment
IE	-
NL	Depends on impact hypotheses. For some activities EIA is mandatory, for others only if authority requires it.
NO	-
ES	Projects including in Annexes of Law 6/2001, regarding Environmental Impact Assessment. In any case, the following activities: -Sand dredging when volume exceeds 3.000.000 cubic meters / year -Any activity or construction that may affect a specially sensitive area When the environmental authority in each particular case establishes so, any project that may have significant negative effects on the environment -Any activity or construction that may affect a specially sensitive area
SE	An application under the Act of the Continental Shelf an EIA is mandatory for drilling or blasting or extract natural resources, but so far not for building cables and pipelines. EIA is also mandatory for developments under the Swedish Act of the Economic Zone.
UK	The EU Environmental Impact Assessment Directive and the size and nature of the proposed works and the sensitivity of the site.
DK	Bekendtgørelse om miljømæssig vurdering (VVM) af projekter til indvinding af kulbrinter og til etablering af rørledninger på dansk søterritorium og kontinentalsokkelområde. (Government Order 884/2000 on EIA concerning pipelines) Bekendtgørelse om vurdering af virkninger på miljøet (VVM) af elproduktionsanlæg på havet (Government Order 815/2000 on EIA on power supply)

Question B3 - If EIAs are required, are they formal assessments required under specific legislation (e.g. implementing the EU EIA Directive) or informal assessments required by the regulatory authorities/agencies?

Country	Response
ES	In all cases, they are formal assessments required under the following legislation: -RDL 1302/1986 of Environmental Impact Assessment (implements the EU EIA Directive 85/337) -RDL 9/2000 that modifies RDL 1302/1986 according to the changes that the EU Directive 97/11 does in EU Directive 85/337 -Law 6/2001 that modifies the RDL 1302/1986 in order to fully adopt EU Directive 97/11

(a) Intertidal zone i.e. between High Water and Low Water

Country	Response
BE	Formal
FR	Both, depends on the activities.
DE	EU EIA Directive
IE	EU EIA Directive and Minister's discretion where below EIA threshold
NL	Formal (required by law) as well as informal (advised by authorities in order to support permitting process and decrease public resistance).
NO	Formal assessment
ES	Specific legislation (Law 6/2001, regarding Environmental Impact Assessment or appropriate legislation of Regional Governments).
SE	There is an Appendix 1 to the Ordinance on EIA listing the activities that always need a full EIA. For other activities the County Administrative Boards decide in accordance with the rules in Appendix 2 when a full EIA is needed.
UK	Both scenarios can apply

(b) 0 - 12 nautical miles

Country	Response
BE	Formal
FR	Both, depends on the activities.
DE	EU EIA Directive
IE	EU EIA Directive and Minister's discretion where below EIA threshold
NL	Formal (required by law) as well as informal (advised by authorities in order to support permitting process and decrease public resistance).
NO	Formal assessment
ES	Specific legislation (Law 6/2001, regarding Environmental Impact Assessment or appropriate legislation of Regional Governments).
SE	There is an Appendix 1 to the Ordinance on EIA listing the activities that always need a full EIA. For other activities the County Administrative Boards decide in accordance with the rules in Appendix 2 when a full EIA is needed.
UK	Both scenarios can apply

(c) 12 - 200 nautical miles

Country	Response
BE	Formal
FR	Both, depends on the activities.
DE	EU EIA Directive
IE	There are no developments outside the 12 mile limit in these categories
NL	Formal (required by law) as well as informal (advised by authorities in order to support permitting process and decrease public resistance).
NO	Formal assessment
ES	Specific legislation (Law 6/2001, regarding Environmental Impact Assessment).
SE	There is a reference to the EIA-rules in the Environmental Code (Chapter 6) in the Act of the Continental Shelf and the Act of the Swedish Economic Zone.
UK	Both scenarios can apply

Question B4 - - Which of the following are considered in the impact assessment process?

Question	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
Commercial fisheries		Y	Y	Y	Y	Y	Y	N	Y	Y
Recreational fisheries	Y	Y	?	Y	Y	Y	Y	Y	Y	Y
Aquaculture sites	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fish/shellfish resources such as:										
• Shellfish beds	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• Spawning grounds and nursery areas	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• Overwintering grounds for shellfish	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
• Migration routes of finfish and shellfish	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Migration, roosting and feeding areas for birds	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Haul-out sites etc. for marine mammals	Y	Y	Y		Y	Y	Y	Y	Y	Y
Conservation areas designated/proposed under international agreements e.g. EU Habitats Directive, Ramsar Convention.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Conservation areas designated under national legislation e.g. marine parks, reserves, sanctuaries	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Coastal processes e.g. sediment transport/erosion/deposition, hydrodynamics etc.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Water quality	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Navigation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Areas of significant aesthetic, cultural or historical importance	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Marine archaeological sites	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Recreational beaches	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sites at which sea water is abstracted for cooling purpose, desalination, ocean thermal energy conversion, aquaculture etc.		Y	?	Y	Y	Y	Y	Y	Y	Y
Any other issues - please specify						Y	Y	Y	Y	Y

Country	Response
BE	ALL boxes could receive a YES. Those left blank are in reality not applicable.
FR	All these factors are available for screening, depends on each case
DE	-
IE	-
NL	Method of installment e.g. dredging/trenching/fluidised bed
NO	An EIA process shall enlighten impacts of the activity on the environment, the resources and the society, this could include all the above mentioned areas.
ES	Quality of sediments, socio-economic factors.
SE	Anything that may provide a threat to the marine environment. It depends on the activity and where the activity is planned to be established.
UK	Cumulative impacts and/or 'in-combination effects are considered
DK	-

Question B5 - Are impacts relating to the above issues assessed on the basis of:

(a) Existing knowledge?

Country	Response
BE	Yes
FR	Yes
DE	Yes
IE	Yes
NL	Yes if available
NO	Impacts should be assessed based on a sufficient basis of knowledge. That could be existing knowledge if that is sufficient, if not field surveys are necessary.
ES	Yes
SE	Yes, if available
UK	Existing knowledge provides a background to the assessment
DK	Yes

(b) A screening procedure based on pre-existing criteria?

Country	Response
BE	Yes (e.g. pollution criteria)
FR	Sometimes
DE	Yes
IE	-
NL	Yes
NO	-
ES	Yes
SE	No
UK	Although a generic approach to the assessment procedure is used, assessments are very site specific
DK	Yes

(c) Baseline studies/field surveys?

Country	Response
BE	Yes
FR	Yes
DE	If necessary
IE	Yes
NL	Yes in case of route surveys for cables for example
NO	Impacts should be assessed based on a sufficient basis of knowledge. That could be existing knowledge if that is sufficient, if not field surveys are necessary.
ES	Yes
SE	Yes, in most cases
UK	These are used when required.
DK	Yes

Question B6 - If you have specific criteria relating to any of the issues in B4 (above) for judging the acceptability of licence/permit applications for the construction or placement of installations or structures, please give details:

Country	Response
BE	-
FR	1) For dredging: Sediment's composition quality criteria: two levels, N1 and N2, for arsenic, cadmium, chrome, copper, lead…and PCB. (Arrêté du 14 juin 2000, JORF du 10 août 2000). 2) DECRET N° 93 743 DU 29 MARS 1993 RELATIF A LA NOMENCLATURE DES OPERATIONS SOUMISES A AUTORISATION OU A DECLARATION en application de l'article 10 de la loi n°92-3 du 3 janvier 1992 sur l'eau modifié 3) Loi et décret Bouchardeau (Surface, amounts,…)

DE	Criteria are based on case-by-case
IE	Each on a case-by-case basis
NL	All issues in B4 apply but the focus is on environmental hazards (oil spill, electric or magnetic radiance) and nature preservation such as birds and habitats directive. For beach nourishment and sand and gravel extractions one overall EIA is performed, for cable instalments every initiative is subject to individual EIA.
NO	-
ES	Criteria included in specific legislation for every type of project (for example Recommendations for the Management of Dredged Material in Spanish Harbours; Recommendations for Maritime Works).
SE	Special Criteria for areas under the EU Habitats Directive
UK	Specific criteria are not used, although there is a generic approach. Acceptability of applications is assessed on a case by case basis.
DK	-

Question B7 - Are baseline environmental surveys required for all or some construction or placement activities in the zones indicated? Such surveys might cover the benthos, protected species and habitats, fisheries etc.

Q. No.	Question	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
B7(a)	Intertidal zone i.e. between High Water and Low Water	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B7(b)	0 - 12 nautical miles	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B7(c)	12 - 200 nautical miles	Y	Y	Y	N	Y	Y	Y	Y	Y	Y

Question B8 - Are baseline coastal process studies required for all or some construction or placement activities in the zones indicated? Such studies might cover:

- Sediments e.g. composition, particle size.
- Hydrodynamics e.g. waves, tidal.
- Sedimentary environment e.g. sediment transport pathways, sediment re-suspension, sediment deposition.
- Sedimentary structures e.g. channels, banks.
- Suspended sediment concentrations.

Y/N

Q. No.	Question	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
B8(a)	Intertidal zone i.e. between High Water and Low Water	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B8(b)	0 - 12 nautical miles	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B8(c)	12 - 200 nautical miles	Y	Y	?	-	Y	Y	Y	Y	Y	Y

Question B9 - Do you have any further comments you wish to provide on baseline studies?

Country	Response
BE	With regard to B7: baseline environmental studies may not formally be required in the intertidal zone, but their execution may become necessary to be able to determine the environmental impact
FR	A good example is the "Port 2000" operation. A public debate was organised about the extension and modernisation of Le Havre. To succeed to start the construction works require or less a year of discussion and studies/surveys with environment associations, months with the EC Commission (Natura 2000), acute negotiations with fishermen and other stakeholders.
DE	Zones a) and b): B8 not applicable because of scale of constructions built since the introduction of the UVP Zone c) if applicable in the EEZ: whether or not the factors (all or parts) listed above will be studied is depending on the kind and scale of the project
IE	-
NL	Most studies are required by the operators themselves and not specifically required by permitting authority.
NO	See B5(c)
ES	These activities are specified in the Spanish Law 22/1988 of Coasts.
SE	Such studies include what is considered necessary by the responsible authorities and they are paid by the constructor
UK	Clear rationale's have to be established before baseline studies are carried out. This includes the rationale behind any survey design and incorporates sample numbers and placement. Licensees are generally responsible for paying the costs of baseline studies.
DK	-

Question B10 - Can you impose licence/permit conditions to require decommissioning of the installation/structure after its useful life?

Country	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
Yes/No	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Question B11 - If so, please give examples of the types of conditions imposed:

Country	Response
BE	For offshore constructions, a bank guarantee can be imposed for decommissioning purposes; a complete restoration of the seabed after decommissioning can be a condition in the permit/licence.
FR	See Environment code, for example: article L. 516-1 imposes financial guaranties to restore the site after installation decommissioning.
DE	zones a) and b): possible, but as yet not applicable zone c): according to the above mentioned „Marine Facilities Ordinance"installations shall be removed if they constitute an obstacle for traffic or fishery or it is required from the perspective of marine environment protection. According to the „Act Implementing the 1996 Protocol to the Convention of Marine Pollution by Dumping of Waste or Other Matter (London Convention 1972) of August 1998, the dumping of waste or other matter and items on the high seas is prohibited, with the exception of dredged material and water soluble urns for funerals at sea.

IE	Decommissioning in accordance with a plan approved by the Minister
NL	Within 12 nM abandoned cables (telecom + power) must be taken out of the seabed.
NO	In principle yes, but there is non or very little experience
ES	Environmental restoration for land or intertidal deposit areas of dredged material and places with old structures.
SE	Windmills and cables at sea have to be taken away when they are not used any longer.
UK	A few regulations can impose such conditions. For example, under the Electricity Act 1989 such conditions can be imposed that could affect constructions or placements above the Low Water Mark and under the Transport and Works Act 1992 such conditions can be imposed within territorial waters. Such a condition could be along the lines: "Within six months of the site ceasing to produce electricity the Company shall submit for approval in writing, a scheme for the demolition and removal of the development from the site and the restoration of the site." Similarly, the Crown Estate, as the landowner, may be able to impose conditions in its lease agreements for constructions or placements within UK waters.
DK	-

Question B12 - Do you have concerns over the working methods which might be used for construction/placement activities (e.g. effects of machinery on the foreshore/seabed, deposits of paints and chemicals, debris etc.) such that you impose licence/permit conditions to require certain methods of working?

Country	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
Yes/No	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Question B13 - If so, please give examples of the common areas of concern and the licence/permit conditions used to minimise and mitigate them:

Country	Response
BE	In the permit to build, or the licence for exploitation, any condition can be set concerning the mitigation of adverse impacts on the marine environment, such as noise pollution, discharge of debris or waste, use of chemicals, etc.
FR	See Environment code, article L. 211-2: sale or distribution of products noxious for water quality are restricted (for example TBT use under EC regulation).
DE	e.g. construction methods (e.g. noise during construction; sediment resuspension), timeframe, substances/materials may be released, danger for shipping.
IE	Conditions tend to be site and project specific but common ones would be: • To use only methods and locations approved by the Minister; • To comply with instructions from the Heritage Service relating to SAC, SPA, marine archaeology, etc. • To prevent the deposit of waste, spoil, etc. on the seabed • To keep the area safe for navigation, fishing, etc.
NL	Do not allow dredging for cable instalment near existing cables and pipelines in order to prevent damages, for example.
NO	In principle yes, but there is non or very little experience
ES	Effects of working methods in atmosphere, quality of water and benthic area, working time (biologic period...)

SE	Special permit is required for dumping
UK	Conditions are imposed on a case-by-case basis and could include for example: 1. Any debris/temporary works to be removed upon completion of the project 2. Wet concrete must not come into contact with the marine environment 3. Any paints, preservatives or treatments used must be suitable for application in the marine environment 4. Piling must be undertaken so as to minimise sediment disturbance 5. Precautions should be adopted to ensure that the impact of plant (machinery) below MHWS is kept to an absolute minimum, including protection against releases of fuel and oil. 6. The chosen methodology for the project must be submitted to the licensing authority and approved prior to works proceeding. 7. Application and removal of paints to be done in accordance with best practice guidelines. 8. Suspended solids not to exceed agreed threshold values during the project. 9. Dissolved oxygen levels not to drop below agreed threshold values during the project.
DK	Conditions are imposed on a case-by-case basis

Question B14 - Do you have any additional information you wish to provide on Assessment?

Country	Response
BE	-
FR	No
DE	-
IE	-
NL	-
NO	-
ES	-
SE	No
UK	No
DK	-

Section C Consultation

Question C1 - Do the regulatory authorities/agencies consult other governmental authorities/agencies about each application for a licence/permit for the construction or placement of an installation or structure in the zones indicated?

Q. No.	Question	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
C1(a)	Intertidal zone i.e. between High Water and Low Water	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C1(b)	0 - 12 nautical miles	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C1(c)	12 - 200 nautical miles	Y	Y	Y	N	Y	-	Y	Y	Y	Y

Question C2 - If so, please indicate the organisations consulted:

Country	Response
BE	Regional authorities responsible for nature, for monuments and landscapes, for coastal protection, for archaeological sites (intertidal zone). In the offshore area, all authorities with responsibilities at sea are consulted before granting a concession; also the phase in which the EIA-report is being assessed by the administration responsible for the marine environment, a phase of wide consultation is included.
FR	For example the consultation of the different ministries (industry, harbour, environment at national and local levels), IFREMER quite systematically consulted as advisor…
DE	zones a) and b): Authorities for tourism, commerce (including shipping), nature and water protection, fisheries zone c): e.g. Water and Shipping Administration, Environmental Agency, Nature Conservation Agency, Federal Research Board for Fisheries
IE	Marine Institute, Fisheries Boards and the Heritage Service
NL	See C4
NO	All relevant authorities/agencies should be consulted
ES	General Directorate of Nature Conservation (Ministry of Environment) General Directorate of Coasts (Ministry of Environment) Environmental Departments of Regional Governments Spanish Oceanographic Institute (Ministry of Science and Technology) Spanish Research Council (Ministry of Science and Technology) Local Bodies
SE	Those responsible for marine archaeology, fishery, shipping, defence, surveillance (coast guard), energy etc.
UK	English Nature/ Countryside Council for Wales, Environment Agency, Local Authorities, DEFRA Sea Fisheries Inspectorate, Sea Fisheries Committees, Joint Nature Conservation Committee, Crown Estate and Maritime and Coastguard Agency.
DK	See response to Question A3

Question C3 - Do the regulatory authorities/agencies consult Non-Governmental Organisations (NGOs) or the public about each application for a licence/permit for the construction or placement of an installation or structure?

Q. No.	Question	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
C3(a)	Intertidal zone i.e. between High Water and Low Water	N	N	Y	Y	Y	Y	Y	Y	Y	Y
C3(b)	0 - 12 nautical miles	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
C3(c)	12 - 200 nautical miles	Y	N	Y	-	Y	-	Y	Y	Y	Y

Question C4 - If so, please indicate the methods used for consultation:

Country	Response
BE	Consultation in principle only if obligatory in the framework of the building permit procedure (intertidal zone). During a fixed period of time during the EIA-procedure for offshore projects, the public, NGO's and GO's can comment on the project (see C.2.).
FR	Depending of the level (financial, foreseen impact) of the project ; from Higher to lower : Formal public national debate Formal Public Enquiry Informal consultation of people, stakeholders and NGO's
DE	Generally yes, e.g. opportunity to give comments on applications or participation in „application conferences"
IE	Public consultation is advertised in local printed news media.
NL	Depends, for power cables other ministries and NGO's are consulted through extensive meetings, for less complicated issues a copy of the draft permit is send out.
NO	All relevant authorities/agencies should be consulted
ES	Sending a Summary of the Project; Public Information in the Official Journal.
SE	There is always an advertisement made by the permitting authority when the EIA and the application is sent fore comments to agencies and organizations. There is information on where the application is available and the public has a possibility to give comments.
UK	Such consultation is not automatic and depends on the legislation concerned. Carried out by letter and local/national newspapers advertisements.
DK	Consultations

Question C5 - If members of the public or any agencies/organisations object or have serious concerns about the issue of a licence/permit, what procedures do the regulatory authorities/agencies have available to deal with the objections or concerns? They could include for example, public enquiries, informal hearings before an appointed assessor, negotiations between developers, regulators and objectors, or judicial proceedings.

Country	Response
BE	Public enquiries and informal hearings; the opinion of the public or any organisations are as much as possible taken into account in the decision making process.
FR	Depends on the case, all ones can be available
DE	Public consultation, hearings, written statements, finally judicial proceedings

IE	All applications for development, including temporary developments, within the 12 nautical mile limit are subject to a public consultation process. Where an Environmental Impact Study (EIS) is not required the period of public consultation is generally 21 days and, where an EIS is required, one month. Any submissions made are copied to the intending developer and the proposal, submissions made in response to the public consultation process and the intending developer's responses to them are considered by experts available to the Minister before the Minister makes any decision in the case. Where the application is for works involving an EIS and being carried out by, for or in conjunction with a Local Authority the proposal must, under the Planning and Development Act, 2000, be submitted to the Planning Board (a statutory independent board to consider such matters). The Minister for the Marine and Natural Resources remains a statutory consultee in such cases and the mechanism is largely the same as applied by the Minister.
NL	All the above if necessary
NO	The objections will be considered. The next step, if objections are not taken into account, is through the political system.
ES	Negotiations between developers and, if necessary, Judicial Stage.
SE	When there is a major concern there is always a public meeting arranged. The Environmental Court often have meetings where the public can give comments. The public can also give written comments to the court. The comments can as a result lead to that the developer has to make complements to the application.
UK	A number of pieces of relevant legislation (e.g. Electricity Act 1989, Coast Protection Act 1949) have provisions for public inquiries to be called where objections from statutory consultees cannot be resolved through negotiations. Other legislation generally does not have explicit provision for dealing with objections from the public etc., although most have appeal procedures for the applicants for permits/consents. Nonetheless, regulators will try to take all views into account whenever possible. Where works are proposed within or adjacent to a European site designated under the Habitats Directive, the competent authorities responsible for granting consents may call set up a hearing or public inquiry to examine concerns over the potential impact upon that site. Ultimately, any party may seek Judicial Review over consent decisions where it is considered that the consenting authority did not reach its decisions in an appropriate manner.
DK	All the mentioned procedures are relevant.

Question C6 - Do you have any additional information you wish to provide on Consultation?

Country	Response
BE	-
FR	No
DE	-
IE	-
NL	Permits are always made public. Every party interested are all welcome to inquire or object. Known objecting parties receive a copy of the draft permit by mail.
NO	-
ES	No

SE	The developer has to consult agencies, municipalities, organizations and the public already in the EIA-process.
UK	Consultation process tends to be iterative, rather than simple approval or disapproval of a proposed scheme
DK	-

Section D - Monitoring

Question D1 - Can monitoring be required during construction or placement as a condition of licences/permits?

Country	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
Yes/No	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Question D2 - If so, please give examples of the types of monitoring required:

Country	Response
BE	Ecological monitoring, physical monitoring of the seabed, currents, suspended matter, noise, monitoring of discharges; any monitoring which is relevant for the project.
FR	See Environment code, article L. 211-2: inspections are planed and conformity with the rules of implementation can be checked by of inspectors of the special administrative police.
DE	e.g. impacts on benthos, mammals, birds, landscape
IE	Once again, monitoring requirements are site specific. In respect of a wind farm the Lessee is required to undertake an' ongoing monitoring programme to verify the integrity 'of the structure and of the seabed at foundation level, to monitor for scour, impacts on bird life, annual reporting on the presence of any vulnerable species at the site, etc. In the case of outfall pipes, monitoring of water quality at the receiving waters is generally required. Where, following development, an unexpected impact arises appropriate mitigation measures are put in place where necessary and the developer is required to monitor to ensure that the mitigation measures are successful.
NL	Spilling (and effects of prevention of that) of paint and scales during conservation-activities.
NO	Monitoring of impacts of the construction or placement activities
ES	Control of the water quality, littoral solid transportation, cloudy water… All these questions shall be included in the short time monitoring Programme.
SE	Hydrography, chemistry, geology, biology etc. depending on the situation. They can be demanded before, during and after the construction
UK	Suspended sediment, Dissolved oxygen, siltation rate
DK	Monitoring of impacts of the construction or placement activities. Compliance with licence permits.

Question D3 - Can monitoring be required after construction or placement is completed as a condition of licences/permits?

Country	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
Yes/No	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Question D4 - If so, please give examples of the types of monitoring required:

Country	Response
BE	Ecological monitoring, physical monitoring of the seabed, currents, suspended matter, noise, monitoring of discharges; any monitoring which is relevant for the project.
FR	As D2 above
DE	in general • compliance with permit requirements • condition and changes in condition of the area
IE	As D.2 above
NL	Fishing counts near a structure or platform.
NO	Monitoring of the of the situation after the construction or placement activities
ES	Evolution of affected beaches, verification of natural recolonisation process… All these questions shall be included in the long time monitoring Programme.
SE	See above
UK	Benthic, Bathymetric, Beach profiling, Fisheries
DK	See answer to D2

Question D5 - Do you have any additional information you wish to provide on Monitoring?

Country	Response
BE	Monitoring, according to the law at the cost of the developer, can be required within the permit to build, and the licence for exploitation.
FR	No
DE	-
IE	-
NL	Usually a t(0) and t(end) survey of the seabed is performed and compared.
NO	-
ES	No
SE	It is the constructor/developer that has to pay for the monitoring demanded.
UK	Monitoring requirements are reviewed when monitoring reports are produced. The review can result in no change to the monitoring, an increase in monitoring, a decrease in monitoring or cessation of monitoring. Licensees are generally responsible for paying the costs of monitoring.

DK	-

Section E - Mitigation/Compensation

Question E1 - Can you require mitigation/compensation measures to be carried out as a condition of licences/permits for the construction or placement of an installation or structure?

Country	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
Yes/No	Y	Y	Y	Y	N	Y	Y	Y	Y	Y

Question E2 - If so, please provide some examples of the type of conditions imposed:

Country	Response
BE	Compensation of nature values, compensation for an additional risk of pollution or damage to the environment, etc.
FR	- Permit is granted under obligations (e.g. limit values discharge for each determinant, or any type of impact) during building and functioning of the installation (mitigation). - When installation (harbour installation, land reclamation,…) need to break up a high ecological interest area, the petitioner could have to purchase and to fit out an as equivalent as possible area.
DE	mitigation: e.g. avoidance of obstacles for shipping (collision-friendly foundations; trenching of cables), avoidance of magnetic fields in case of cables
IE	Again the mitigation measure is specific to the type of development. Lighting under bridges could be required to facilitate the passage of fish upriver for spawning, traps to prevent oil, etc. entering rivers could be required at outfalls, UV treatment or equivalent would be required for waste water discharges in certain areas, etc. Compensation is generally applied only in the case of proven loss of income in, say, the temporary removal of mussel beds to allow for development with subsequent re- seeding following.
NL	(for windparks we can)
NO	-
ES	Sand to mitigate the effects of coastal erosion due to public or private works in harbours (restoration measures).
SE	For lost fishing possibilities, in dredging operations the sediment spill can be set not to exceed e.g. 5%.
UK	Timing restrictions which can be daily, tidal, lunar, seasonal or annual. Habitat creation or enhancement Working practices over and above timing restrictions can be restricted for example placement of silt curtains and restricted corridors of working
DK	Case-by-case decisions

Section F - Enforcement

Question F1 - Do any of the regulatory authorities/agencies inspect the construction or placement activities to ensure those licence/permit conditions are being complied with?

Country	BE	FR	DE	IE	NL	NO	ES	SE	UK	DK
Yes/No	Y	Y	Y	Y	Y	N	Y	Y	Y	Y

Question F2 - Do you have any additional information you wish to provide on Enforcement?

Country	Response
BE	-
FR	Because permit is a legal obligation, its fully implementation is supervised by special administrative police. Penalties (fine, provisional suspension of the activity indeed) could also be pronounced against the offenders
DE	-
IE	Developments approved must, within 3 months of completion of work, provide a certificate from a qualified chartered engineer that the works have been completed in accordance with best engineering practice and the approved design. Otherwise inspection only follows on receipt of a complaint.
NL	Enforcement is both on paper (administrative procedures / reports) as in field (out at sea)
NO	Developer is responsible to ensure permit conditions are complied with. Authorities may ask for reports from the activity
ES	No.
SE	No
UK	Enforcement undertaken by Sea Fisheries Inspectorate (DEFRA) for constructions/placements licensed under Part II of the Food and Environment Protection Act 1985 often includes inspections of the licensed installations or structures.
DK	-

Section G - Research

Is any research being undertaken in your country on the impacts of construction or placement of installations or structures? If so, please provide details including publications or websites where available:

Country	Response
BE	Study (to be started) on the impact of beach nourishment; study (in execution) on the impact/ecological value of new/existing hard coastal protection structures (intertidal zone). Offshore: at this moment only studies concerning windmill farms (http://www.mumm.ac.be)

FR	"Port 2000" documentation is available at http://www.havre-port.fr The website of the ministry of Environment is : http://environnement.gouv.fr The website du Conservatoire du Littoral is : http://conservatoire-du-littoral.fr The IFREMER website is : http://ifremer.fr
DE	In zone c) Research/investigations are currently carried out only for offshore wind farms which are excluded from the questionnaire - as this are the only placement activities for the time being
IE	-
NL	-
NO	-
ES	"Instituto Español de Oceanografía" (*Spanish Oceanographic Institute*) www.ieo.es "Centro de Estudios y Experimentación de Obras Públicas" (*Public Works Applied Research Centre*) www.cedex.es Several Universities.
SE	Environmental effects of electromagnetism and sound induced by windmills. "Acoustic and electromagnetic noise induced by windmills – implications for underwater surveillance systems." Pilot study FOI-R-0233-SE, ISSN 1650-1943. Such studies are planned also for effects on fishes and invertebrates.
UK	Current research undertaken by licence applicants for example: Harwich Haven Authority, Associated British Ports Marine Environmental Research and the Port of Dover.
DK	-

Appendix 1

A Question By Question Summary of Responses to the Questionnaire on the Construction or Placement of Installations and Structures in the OSPAR Area (excluding those for oil and gas and for wind energy)

Section A - Legislation and Regulation

Question A1 - Does your country control the construction or placement of installations or structures within the following zones?

All Contracting Parties who responded control the construction or placement of installations or structures within both the intertidal and the 0 - 12 nautical mile zones. All Contracting Parties who responded, except Ireland and Norway, control the construction or placement of installations or structures within the 12 - 200 nautical mile zone.

Question A2 - If your country does exert such controls, please provide information on the legislation, including spatial planning, that applies within the zones:

A wide variety of types of legislation apply to the control of the construction or placement of installations or structures within all 3 zones. Regional or planning legislation covers the intertidal and the 0 - 12 nautical mile zones, as well as national legislation. The 12 - 200 nautical mile zone is almost exclusively covered by national legislation as one might expect.

Question A3 - Please specify the regulatory authorities/agencies that apply the legislation within the zones:

Local, regional and national regulatory authorities/agencies cover the intertidal and the 0 - 12 nautical mile zones. However, in the 0 - 12 nautical mile zone there are 2 different approaches with some countries involving local/regional regulatory authorities/agencies while others just involve national authorities/agencies. As one might expect from the responses to question A2, the 12 - 200 nautical mile zone is almost exclusively covered by national authorities/agencies.

Question A4 - Do you have any additional information you wish to provide on Legislation and Regulation?

Belgium mentioned the need to consult neighbouring countries under the Espoo Convention. Ireland stated that legislation to provide for regulation in the 12 - 200 nautical mile zone is planned. Norway indicated that, apart from oil and gas installations, all installations and structures were placed with the baselines. Sweden stated that there is a government proposal for a spatial planning system outside 12 nautical miles. The UK stated the need to consider European Union Directives in the regulatory process.

Section B - Assessment

Question B1 - Are Environmental Impact Assessments (EIAs) required for all or some construction or placement activities in the zones indicated?

All Contracting Parties who responded require EIAs for some or all of the construction or placement of installations or structures within both the intertidal and the 0 - 12 nautical mile zones. All Contracting Parties who responded, except Ireland and Norway, control the construction or placement of installations or structures within the 12 - 200 nautical mile zone. Ireland does not currently regulate construction or placement activities within the 12 - 200 nautical mile zone and Norway has no construction or placement activities within that zone except oil and gas installations.

Question B2 - If so, please indicate the factors determining when an EIA is required in the zones indicated.

Contracting Parties indicated a number of factors determining when an EIA is required in all 3 zones. These were principally national legislation, the EU EIA Directive or a case-by-case basis determination in the absence of any legislative requirement. Spain sets thresholds for certain activities that when exceeded trigger the requirement for an EIA.

Question B3 - If EIAs are required, are they formal assessments required under specific legislation (e.g. implementing the EU EIA Directive) or informal assessments required by the regulatory authorities/agencies?

In some Contracting Parties EIAs are always formal assessments under specific legislation while in others informal assessments can also take place at the discretion of the regulatory authorities/agencies. There does not appear to be any systematic difference in the approaches used between the intertidal, the 0 - 12 nautical mile and the 12 - 200 nautical mile zones.

Question B4 - Which of the following are considered in the impact assessment process?

Nearly all countries considered all of the uses of the sea listed under this question. Belgium and Sweden did not appear to consider commercial fisheries and Germany did not appear to consider recreational fisheries or sites for seawater abstraction. Additional issues raised by Contracting Parties were methods of construction (Netherlands), sediment quality and economic factors (Spain), anything that may threaten the marine environment (Sweden) and cumulative impacts and/or in combination effects (UK).

Question B5 - Are impacts relating to the above issues assessed on the basis of:
(a) Existing knowledge?
(b) A screening procedure based on pre-existing criteria?
(c) Baseline studies/field surveys?

All Contracting Parties use existing knowledge where available and appropriate and nearly all of them use baseline studies/field surveys if necessary. Only about half of the Contracting Parties that responded use screening criteria in assessing impacts.

Question B6 - If you have specific criteria relating to any of the issues in B4 (above) for judging the acceptability of licence/permit applications for the construction or placement of installations or structures, please give details:

A few countries have specific criteria, some use them on a case-by-case basis and others do not use them at all.

Question B7 - Are baseline environmental surveys required for all or some construction or placement activities in the zones indicated? Such surveys might cover the benthos, protected species and habitats, fisheries etc.

All Contracting Parties who responded require baseline environmental surveys for all or some construction or placement activities within both the intertidal and the 0 - 12 nautical mile zones. All Contracting Parties who responded, except Ireland, require baseline environmental surveys for all or some construction or placement activities within the 12 - 200 nautical mile zone. Ireland does not regulate construction or placement activities within the 12 - 200 nautical mile zone - see response to question A1 and A4 above.

Question B8 - Are baseline coastal process studies required for all or some construction or placement activities in the zones indicated? Such studies might cover:

- **Sediments e.g. composition, particle size.**
- **Hydrodynamics e.g. waves, tidal.**
- **Sedimentary environment e.g. sediment transport pathways, sediment re-suspension, sediment deposition.**
- **Sedimentary structures e.g. channels, banks.**
- **Suspended sediment concentrations**

All Contracting Parties who responded require baseline coastal process studies for all or some construction or placement activities within both the intertidal and the 0 - 12 nautical mile zones. All Contracting Parties who responded, except Ireland, require baseline coastal process studies for all or some construction or placement activities within the 12 - 200 nautical mile zone. Ireland does not regulate construction or placement activities within the 12 - 200 nautical mile zone - see response to question A1 and A4 above. Germany put a question mark against the latter zone.

Question B9 - Do you have any further comments you wish to provide on baseline studies?

Most Contracting Parties indicated that the requirement for baseline studies is determined on a case-by-case basis.

Question B10 - Can you impose licence/permit conditions to require decommissioning of the installation/structure after its useful life?

All Contracting Parties can impose licence/permit conditions to require decommissioning of the installation/structure after its useful life. However, see the responses to question B11 below.

Question B11 - If so, please give examples of the types of conditions imposed:

These can include financial guarantees (Belgium and France) and an agreed decommissioning plan (Ireland). The Netherlands requires abandoned cables to be removed from the seabed, as does Sweden, which can also require the removal of windmills. The UK can require the removal of installations or structures under certain legislation to restore the site to its previous state.

Question B12 - Do you have concerns over the working methods which might be used for construction/placement activities (e.g. effects of machinery on the foreshore/seabed, deposits of paints and chemicals, debris etc.) such that you impose licence/permit conditions to require certain methods of working?

All Contracting Parties have concerns over the working methods that might be used for construction/placement activities so that they impose licence/permit conditions to require certain methods of working.

Question B13 - If so, please give examples of the common areas of concern and the licence/permit conditions used to minimise and mitigate them:

Common areas of concern of Contracting Parties that may require licence/permit conditions are:

- Water pollution including oil pollution from machinery, suspended sediments and dissolved oxygen levels
- Sediment resuspension or disturbance
- Impacts on benthic fauna and flora
- Debris/waste left after construction/placement
- Use of chemicals or paints
- Hazards to navigation, fishing or other uses of the sea
- Noise

Some Contracting Parties can require the working methods to be approved as a licence/permit condition.

Question B14 - Do you have any additional information you wish to provide on Assessment?

No additional information provided.

Section C Consultation

Question C1 - Do the regulatory authorities/agencies consult other governmental authorities/agencies about each application for a licence/permit for the construction or placement of an installation or structure in the zones indicated?

All Contracting Parties who responded consult other governmental authorities/agencies about each application for a licence/permit for the construction or placement of an installation or structure within both the intertidal and the 0 - 12 nautical mile zones. All Contracting Parties who responded, except Ireland and Norway, consult other governmental authorities/agencies about each application for a licence/permit for the construction or placement of an installation or structure within the 12 - 200 nautical mile zone. Ireland does not currently regulate construction or placement activities within the 12 - 200 nautical mile zone and Norway has no construction or placement activities within that zone except oil and gas installations - see response to question A1 and A4 above.

Question C2 - If so, please indicate the organisations consulted:

All Contracting Parties consult a wide variety of authorities/agencies dealing with nature conservation, heritage, coastal protection, archaeology, environment, shipping, fisheries, ports, tourism, marine research, defence and energy as well as local and regional governments.

Question C3 - Do the regulatory authorities/agencies consult Non-Governmental Organisations (NGOs) or the public about each application for a licence/permit for the construction or placement of an installation or structure?

Consultation of NGOs or the public by regulatory authorities/agencies about each application for a licence/permit for the construction or placement of an installation or structure is done by all countries, except France, for the zones covered by legislation. France does not formally consult NGOs or the public about each application for a licence/permit for the construction or placement of an installation or structure but this can be done informally.

Question C4 - If so, please indicate the methods used for consultation:

The methods used for consultation include advertising the projects and requesting comments to be submitted, publication in an official journal, public enquiries, meetings and letters to interested parties.

Question C5 - If members of the public or any agencies/organisations object or have serious concerns about the issue of a licence/permit, what procedures do the regulatory authorities/agencies have available to deal with the objections or concerns? They could include for example, public enquiries, informal hearings before an appointed assessor, negotiations between developers, regulators and objectors, or judicial proceedings.

All the above examples are options that available in most Contracting Parties.

Question C6 - Do you have any additional information you wish to provide on Consultation?

In The Netherlands anyone may comment on applications for permits and they would receive copies of the draft permits before they were finalised. Permits are always made public. In the UK consultation tends to be iterative rather than simple approval or disapproval of a proposed scheme.

Section D - Monitoring

Question D1 - Can monitoring be required during construction or placement as a condition of licences/permits?

All Contracting Parties can impose licence/permit conditions requiring monitoring during construction or placement.

Question D2 - If so, please give examples of the types of monitoring required:

It would appear that most Contracting Parties could require almost any type of environmental monitoring likely to be of use in relation to the construction or placement of installations or structures.

Question D3 - Can monitoring be required after construction or placement is completed as a condition of licences/permits?

All Contracting Parties can impose licence/permit conditions requiring monitoring after construction or placement.

Question D4 - If so, please give examples of the types of monitoring required:

Again, it would appear that most Contracting Parties could require almost any type of environmental monitoring likely to be of use in relation to the construction or placement of installations or structures.

Question D5 - Do you have any additional information you wish to provide on Monitoring?

The developer has to pay for the cost of monitoring (Belgium, Sweden and UK). Seabed surveys can be required before and after construction/placement (Netherlands) and monitoring requirements are reviewed when monitoring reports are produced.

Section E - Mitigation/Compensation

Question E1 - Can you require mitigation/compensation measures to be carried out as a condition of licences/permits for the construction or placement of an installation or structure?

All Contracting Parties can require mitigation/compensation measures to be carried out as a condition of licences/permits for the construction or placement of an installation or structure.

Question E2 - If so, please provide some examples of the type of conditions imposed:

Examples given by Contracting Parties include sand deposits to mitigate coastal erosion, limiting the sediment spill from dredgers, timing restrictions on the activity (daily, tidal, seasonal or annual), habitat creation in compensation for other habitat loss, restricted corridors of working and oil spill traps.

Section F - Enforcement

Question F1 - Do any of the regulatory authorities/agencies inspect the construction or placement activities to ensure those licence/permit conditions are being complied with?

All Contracting Parties regulatory authorities/agencies, except those of Norway, can inspect the construction or placement activities to ensure those licence/permit conditions are being complied with.

Question F2 - Do you have any additional information you wish to provide on Enforcement?

In France, implementation is supervised by special administrative police. In Ireland, developers must, within 3 months of completion of work, provide a certificate from a qualified chartered engineer that the works have been completed in accordance with best engineering practice and the approved design. The Netherlands and the UK inspect installations and structures to ensure compliance with licence conditions. In Norway, the developer is responsible for ensuring compliance with permit conditions and regulatory authorities/agencies can request compliance reports to be submitted to them by the developer.

Section G - Research

Is any research being undertaken in your country on the impacts of construction or placement of installations or structures? If so, please provide details including publications or websites where available:

Belgium is planning a study on the impact of beach nourishment and is carrying out a study on the impact/ecological value of new/existing hard coastal protection structures in the intertidal zone. Belgium and Germany are carrying out studies on offshore windmill farms. Sweden is carrying out a study on acoustic and electromagnetic noise induced by windmills.

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