



# MASPNOSE

## Preparatory Action on Maritime Spatial Planning in the North Sea

### Report on cross-border Maritime Spatial Planning in two case studies

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## List of abbreviations

DBSG	Dogger Bank Steering Group
EC	European Committee
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EL&I	Dutch Ministry of Economic Affairs, Agriculture and Innovation
EU	European Union
FIMPAS	Fisheries Measures in Protected AreaS
ICES	International Council on Exploration of the Sea
ICZM	Integrated Coastal Zone Management
I&M	Dutch Ministry of Infrastructure and Environment
M&E	Monitoring and Evaluation
MASPNOSE	MAritime Spatial Planning in the NOrthSEa
MSP	Maritime Spatial Planning
NGO	Non Governmental Organisation
NSRAC	North Sea Regional Advisory Council
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
TOR	Terms of Reference
UK	United Kingdom
UNEP	United Nations Environment Programme

## Executive Summary

The MASPNOSE project is a Preparatory Action on Maritime Spatial Planning in the North Sea, funded by the DG MARE under tender 2009/17. The MASPNOSE project has experimented with cross-border maritime spatial planning (MSP) in two case studies: 1) Thornton Bank and 2) Dogger Bank. This was done through the exploration of the possibilities of cooperation among stakeholders and between countries establishing elements for a common agenda for the cross-border cooperation.

The first case study focused on the area of the Thornton Bank, which lies approximately 40 km northwest off the shores of the Belgian city of Zeebrugge. It is located approximately 9 kilometres northwest of the Vlakte van de Raan, a Dutch Natura 2000 area. The Thornton Bank is situated partly in the Belgian exclusive economic zone (EEZ) and partly in the Dutch EEZ. At the start of MASPNOSE Belgium and The Netherlands were already well advanced in MSP. The case study area was already designated in the Belgian MSP as a concession zone for offshore wind energy. Adjacent to this Belgian concession zone, The Netherlands indicated the zone Borssele as a suitable area for Dutch offshore wind energy, in combination with other activities. This means that both countries have the same renewable energy interests in the case study area. At the start of MASPNOSE Belgium and The Netherlands shared a comparable concern for the safety of shipping. Furthermore, Belgian and Dutch fishermen have a long tradition of fisheries on certain species in the case study area, mainly by making use of beam trawling. There was no sand extraction on the Belgian side of the case study area in contrast to The Netherlands. At the start of MASPNOSE, the case study area was not a top priority biodiversity area eligible for a formal nature protection status.

Before MASPNOSE got involved in the area, there were not many cross-border planning activities going on. There was some (formal) communication on specific sectoral issues (i.e. wind energy concessions in Belgium and changes in shipping lanes) by means of information supply in the frame of EIAs before granting environmental permits for wind farms in the zone.

The Thornton Bank case study is essentially a type of pre-planning exercise of what would be needed to develop cross-border maritime spatial planning between Belgium and The Netherlands. The participants in this process were governmental stakeholders from both countries on the domains: MSP, environment, economics and shipping. The methodology used is: 1. desktop study and exchange of relevant material between MASPNOSE partners and governmental stakeholders; 2. interviews with relevant governmental stakeholders from both countries; 3. workshops to exchange ideas and test options for a common vision and the 10 EU key principles on MSP.

The case study resulted in an agreement on common priorities for the area, i.e. an economic scenario for renewable energy with environmental benefits. The MASPNOSE team acted as a

facilitator and platform for parties to establish contacts for future cooperation. Some of the key findings are: 1. there is a need to synchronize planning cycles in this cross border context; 2. there is an overall need for more information exchange on each other's planning policies and exchange of environmental data related to on-going activities; 3. there is a need for frequent MSP consultations; and 4. it is important to invest in the development of a common language.

The Dogger Bank case study is mostly about stakeholder involvement in cross-border maritime spatial planning. The main focus was on fisheries management in relation to nature conservation (Natura2000) and wind farm development. MASPNOSE facilitated the North Sea Regional Advisory Council (NSRAC) input in the international decision-making process led by the Dogger Bank Steering Group (DBSG), which consists of representatives of the different Member States. The stakeholder input can be split up into five different phases that took place between March 2011 and April 2012 (and is still on-going). The relation between the international decision-making process (by the DBSG) and the stakeholder involvement has changed over the course of these phases. There has been a tendency by the DBSG to request from the stakeholder process, solutions for issues where an agreement within the DBSG could not be reached. For example, the NSRAC was requested to make a zoning plan with a closed area between 25 and 55%. The role of the stakeholder process has not been clearly described by the DBSG. Clear roles, responsibilities, timelines, and rules of the game are essential for MSP.

Both case studies created an enabling platform for discussing transboundary MSPs. While the Dogger Bank case study was important to facilitate the process and assess it, the Thornton Bank case study brought governmental stakeholder together that would not have been the case without MASPNOSE. In the Dogger Bank case study private stakeholders (e.g. fisheries) were involved, while this was an already initiated and on-going process. In the Thornton Bank case study, on the other hand, governmental stakeholders came together for the first time and preferred not to involve private stakeholders.



## 1 Introduction

Within the southern North Sea, several EU member states are developing or have already implemented maritime spatial plans for their EEZs. However, maritime spatial planning (MSP) is usually carried out at the national level and largely ignores the possible mutual benefits of cross-border cooperation. MASPNOSE is a preparatory action on MSP in the North Sea with the aim to facilitate and assess concrete cross-border cooperation. The project explores potential opportunities for collaboration among North Sea countries as input for an international strategy and to identify elements for a common agenda for cooperation.

The MASPNOSE project has facilitated two concrete, cross-border MSP initiatives:

- 1) The Thornton Bank area on the border between Belgium and the Netherlands where cross-border coordination could be used to address wind energy development, shipping and fisheries management.
- 2) The Dogger Bank international fisheries management plan developed by the North Sea Regional Advisory Council (NSRAC). Here cross-border MSP was used to develop a stakeholder perspective on spatial management measures.

This report documents the process, outputs and outcome of the two case studies that have been carried out. The document contains detailed results of the activities in the two case studies. In section 2, the selection of the two case studies is described. In section 3 focus is on the Thornton Bank case study. In section 4, the case study on the Dogger Bank is presented. Finally, in section 5 the similarities and differences between the two case studies are discussed and conclusions and recommendations are presented.



## 2 Selection of case studies<sup>1</sup>

The selection of the MASPNOSE case studies was based on a transparent and criteria based process which involved the consultation of the national authorities responsible for the respective MSP process. Within the project five criteria with a cross-boundary dimension were defined to select a final set of cross-border MSP case studies. Those criteria are:

1. Stakeholder involvement: involvement of NGO's, private sector in the case study area, e.g. by trying to influence the spatial planning process
2. Governments involved: at least two governments should be involved in the case study area
3. Multi-sectoral interest: several sectors should be active in the case study area
4. Cross-border opportunities: mutual benefits can be expected as a result of cross-border planning
5. General interest and the willingness to share information: stakeholders have a general interest in a cross-border planning issues and share information to define and assess the defined planning objectives.

A number of cross-border issues and potential case studies have been discussed in the first MASPNOSE workshop and were described in detail in Stelzenmüller et al. (2011, section 3). In Table 1.1 the candidate case studies are mapped towards the five selection criteria.

**Table 1.1: Comparison of the candidate case studies.**

Selection criteria	Belgium-Dutch case study	Dogger Bank case study	German-Danish border	International dimension of German MSP
Stakeholder involvement	yes	yes	partly	partly
Governments involved	Belgium, The Netherlands	UK, The Netherlands, Germany, Denmark	Germany, Denmark	Germany, Netherlands, Denmark
Multi-sectoral interest	Yes: shipping, wind farms, fisheries, aquaculture, nature conservation	Yes: Natura 2000, fisheries, gravel extraction, wind farms	Yes: conservation areas, fisheries, wind farms	Yes: wind farm, fisheries
Cross-border opportunities	yes	yes	yes	partly
General interest and the willingness to share information	yes	yes	partly	partly

This comparison revealed that the Belgium-Dutch and the Dogger Bank case studies fulfill best the selection criteria. Thus those case studies were deemed to be most suitable to

<sup>1</sup>This text was taken from Stelzenmüller et al. (2011).

contribute to the main objectives of MASPNOSE. The first case study is an area on the Dutch-Belgium border called Thornton Bank area. The Dogger Bank was selected as the second case study. The two case studies are described in more detail in section 3 and 4 of this report.

### 3 Case study 1: Thornton Bank

#### 3.1 Introduction: state of the art before the start of MASPNOSE

This case study focuses on the area of the Thornton Bank, which lies approximately 40 km northwest off the shores of the Belgian city of Zeebrugge. It is located approximately 9 kilometres northwest of the Vlakte van de Raan, a Dutch Natura 2000 area. The Thornton Bank lies partly in the Belgian exclusive economic zone (EEZ) and partly in the Dutch EEZ (Figure 3.1.1). The area has no nature conservation status under the Habitat and Birds Directives.

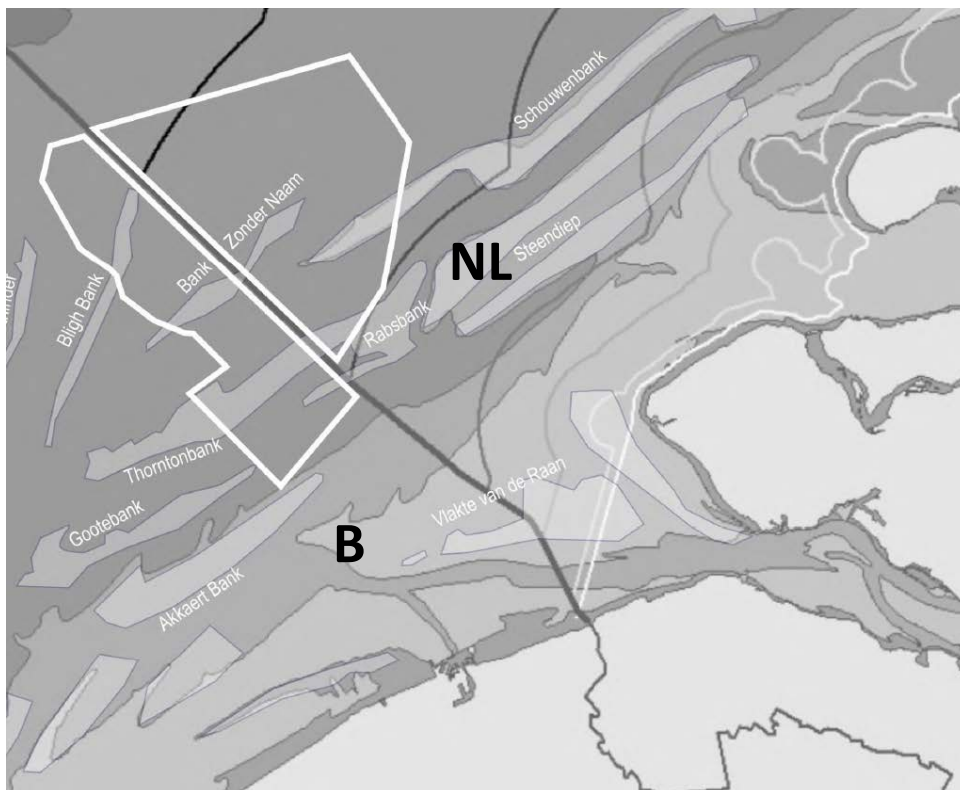


Figure 3.1.1: Location of the Thornton Bank (Maritime Institute, Ghent University)

#### Wind energy

For Belgium offshore wind energy production is a top priority to reduce greenhouse gas emissions: 13% of its energy consumption should be obtained from renewable energy sources by 2020 (Directive 2009/28/EG). Offshore wind energy is an important contribution to achieve this objective.

The Thornton Bank is at the Belgian side part of a broader area designated as an offshore wind energy concession zone, situated between 20 and 60 km from the coastline (fig. 3.1.2) and as such indicated in the Belgian Maritime Spatial Plan of 2004 (Masterplan)(fig. 3.1.3).

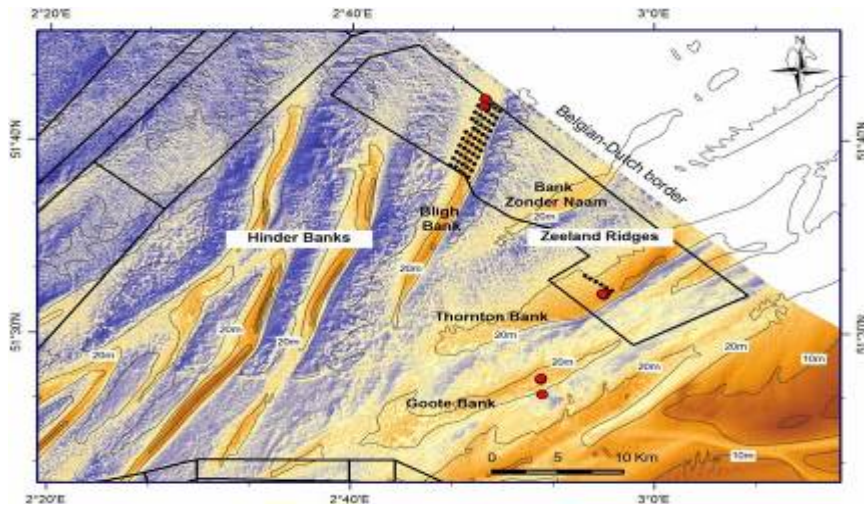


Figure 3.1.2: Thornton Bank, Bligh Bank and Lodewijk Bank (=Bank zonder Naam), called the Thornton Bank area on the Belgian-Dutch border (Management Unit of the North Sea Mathematical Models, MUMM)

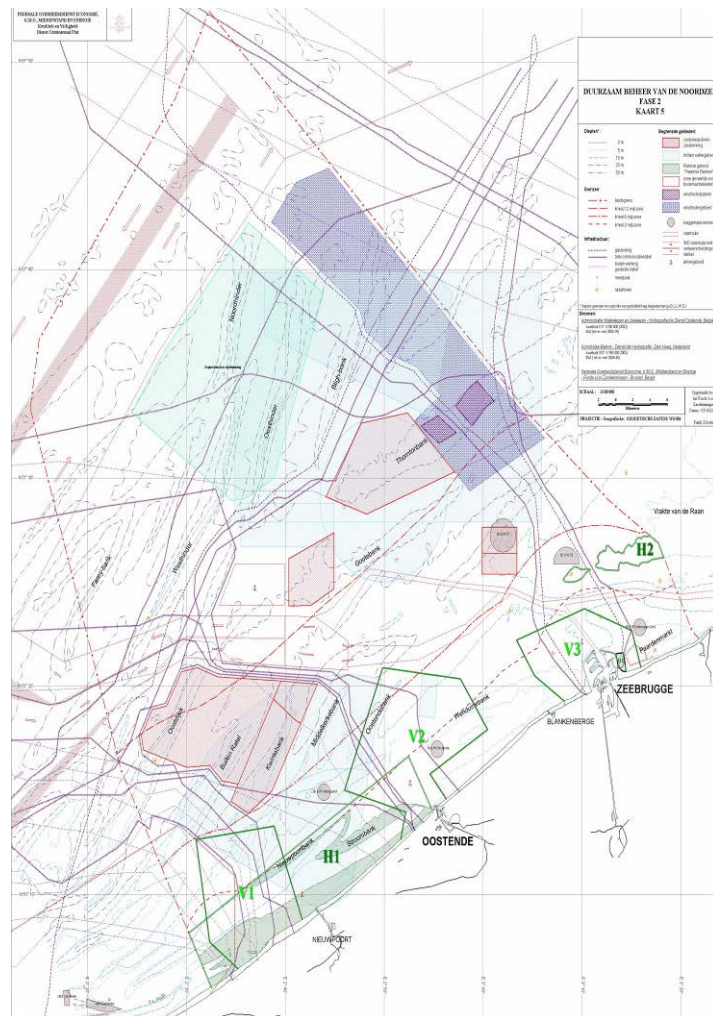
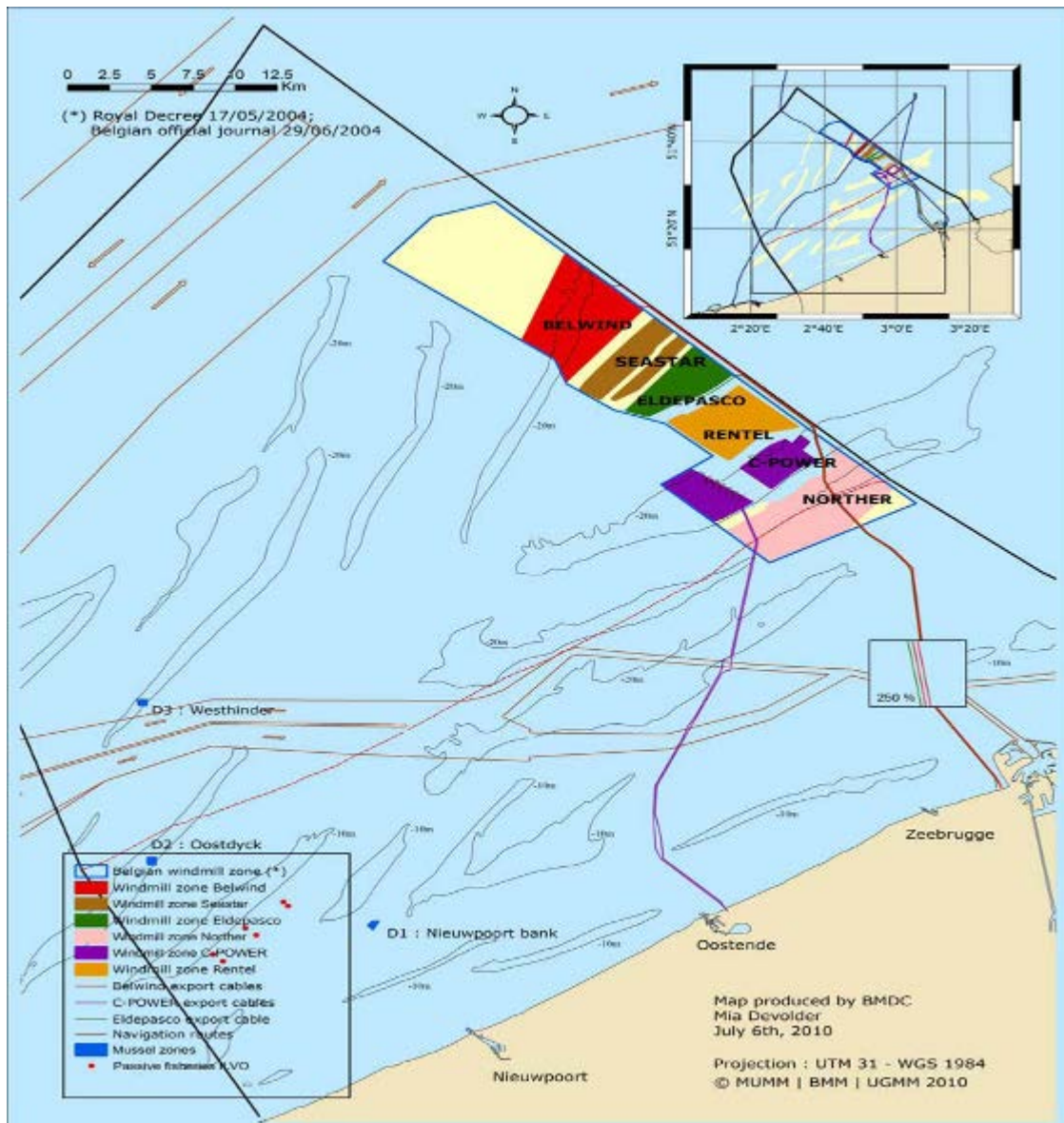


Figure 3.1.3: Initial Belgian Maritime Spatial Plan 2004 (Ministry of Economics)



Construction of offshore wind farms is an on-going activity in the case study area at the Belgian side. Expected production is 2 GW on 270 km<sup>2</sup> (Windspeed), or 6,6 TWh (= CO<sub>2</sub> emission reduction of 7% of gross electricity consumption). Before the start of MASPNOSE three offshore wind projects already received a domain concession and an environmental permit (Appendix A). In total 6 domain concessions have been granted: C-Power in 2003; Northwind (Eldepasco) in 2006; Belwind in 2007; Rentel in 2009; Northern in 2009; Seastar (fig. 3.1.4). Other proposals for offshore wind energy in the Belgian part of the North Sea (BPNS) were rejected (Appendix A). For the latest developments see Website 4C Offshore (2012).

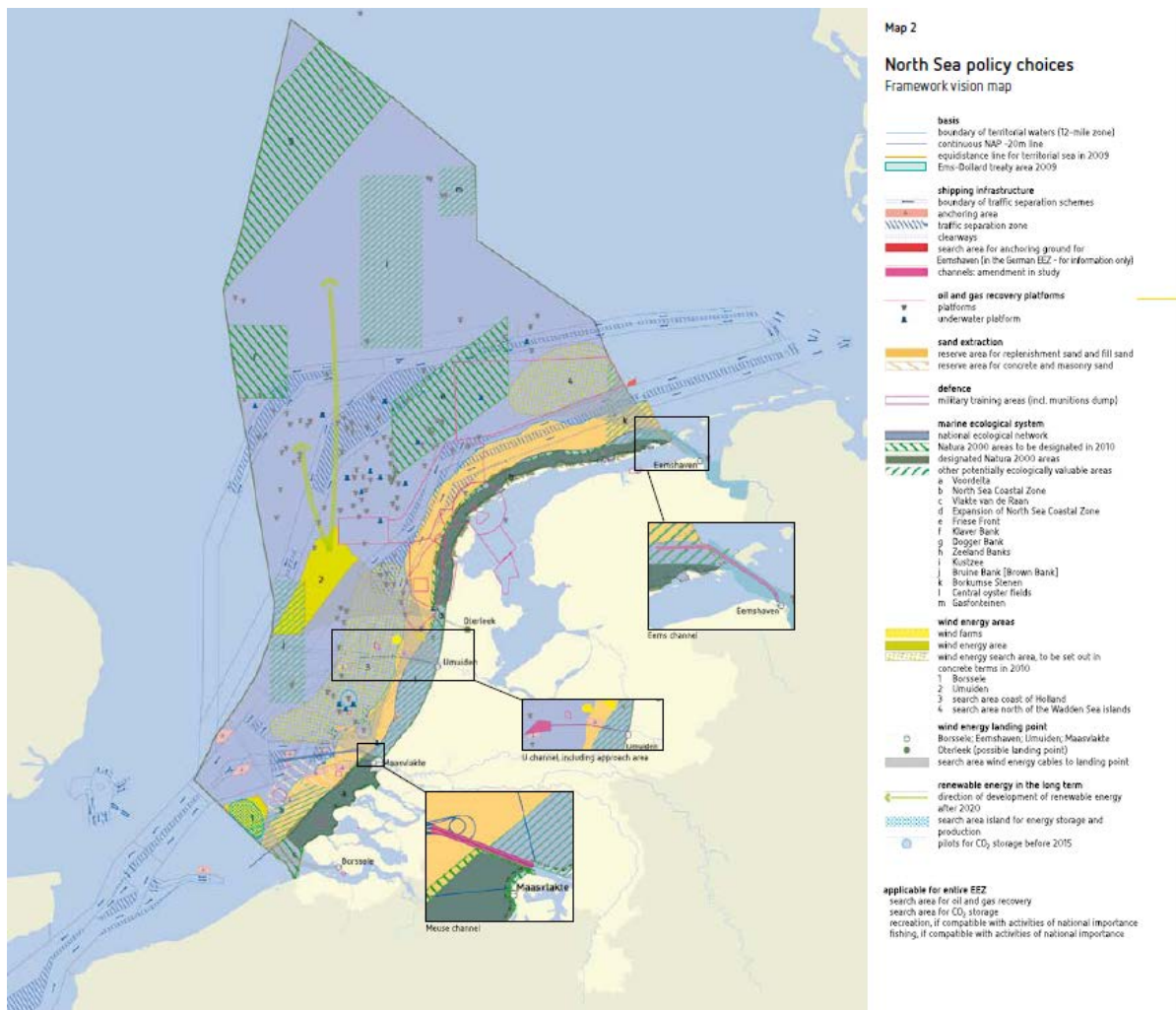


**Figure 3.1.4: Approved offshore wind concessions before and during MASPNOSE (Management Unit of the North Sea Mathematical Models, MUMM)**

For the installation and operation of offshore wind farms in the Belgian concession zone, an individual domain concession and an environmental permit is required, as well as for the laying of the cables. Requests for a domain concession are submitted to the Commission for

the Regulation of Electricity and Gas (CREG), which advises the Minister of Energy. Concessions are given for a period of 20 years with a maximum of 30 years, after prolongation with 10 years. The obligations of the concession holders are extensively mentioned in the Royal Decree of 20 December 2000. Although a domain concession can be attributed before the environmental permit is obtained, the concession will not be valid until the environmental permit is granted. Every application goes through an Environmental Impact Assessment (EIA) procedure prescribed in the relevant royal decrees of 1 September 2004 (the so-called procedural decree and the environmental impact decree). The applicant has to submit an EIA report on the basis of which the federal Management Unit for the North Sea Mathematical Models shall assess the environmental impact, followed by a public consultation. In the case of potential cross border effects, neighbouring states are informed in accordance with the Directive on the assessment of the effects of certain public and private projects (EIA Directive 85/337/EC as amended) and the Espoo Convention, followed by consultation with the concerned country. Based on this EIA and on the results of the public consultation, the federal Minister responsible for the marine environment is advised on the decision to be made. The Minister decides by Ministerial Decree whether the environmental permit (and the construction permit) should be granted or not. Finally a permit is required for the installation of the electricity cables (Somers and Maes, 2011) .

At the Dutch side of the zone there were no offshore wind activities yet. Sand extraction, fishing and shipping were the main activities before the start of the MASPNOSE project. The Dutch “Policy Document on the North Sea: 2009-2015” of 22 December 2009 (Ministry of Infrastructure & Environment 2009) aims to provide the government’s policy choices in the National Water Plan. The Dutch Cabinet programme ‘Clean and Efficient’ aims for 20% renewable energy in 2020 and an installed offshore wind energy capacity of 6 GW in the North Sea. This 6 GW can be produced by either 1,200 5 MW turbines or 2,000 3 MW turbines, translated in a spatial claim of 1,000 km<sup>2</sup>. Policy priorities are: 1) economic development of national important activities at sea (shipping, oil and gas, renewable energy, sand extraction and defence); 2) efficient and safe use in balance with the marine ecosystems. For offshore wind energy this is translated in the following starting points: 1) cost-effectiveness; 2) as close as possible to the coast and near landing points ashore for electricity transport; 3) a minimum size of 4-5 MW (+/- 80 km<sup>2</sup>); and 4) an optimal benefit from the wind front (Ministry of Infrastructure & Environment 2009, p. 41). Several potential offshore wind energy areas have been identified. One of them is the area called “Borsele”. This area is adjacent to the Belgian offshore wind energy zone (see fig. 3.1.5 light green on map).



**Figure 3.1.5: Dutch MSP 2009-2015 from a policy perspective  
(Ministry of Infrastructure & Environment 2009, p. 50)**

The area “Borssele” adjacent to the Belgian “area of the Thornton Bank” is considered a middle coast category wind energy zone, further offshore than the ones closer to the coast. Borssele has a potential of at least 1 GW offshore wind energy between 2014-2018 on a surface area of 344 km<sup>2</sup>, as well as the potential for other renewable energy production activities (search area for an energy island). Borssele is designated as a wind energy area in the National Water Plan. Options for shared use are open, such as leisure activities, sustainable non-trawl fishing and marine aquaculture (Ministry of Infrastructure & Environment 2009, p. 44-46). The area is called “Borssele” because there are electricity landing possibilities in Borssele, a town on the river banks of the Western Scheldt (see fig. 3.1.5). Points of attention for this area are: 1) overlap with a potential ecological valuable area (Zeeland Banks); 2) already a high cable and pipe density; 3) far distance from the electricity grid resulting in high investments in grid infrastructure for landing points; and 4) already a search area for a multifunctional island for energy storage and production (Ministry of Infrastructure & Environment 2009, p. 46).



## Shipping

One of the major concerns of both countries is the safety of shipping, inter alia due to the large economic importance of their port activities. Rotterdam is the largest port in the EU, while Antwerp is the second. Besides that, other ports in The Netherlands (e.g. Amsterdam, Terneuzen) and Belgium (Zeebrugge, Gent, Oostende) generate lots of shipping traffic. Appendix B (Figure B.1) provides an overview of the traffic density in the southern part of the North Sea. Potential conflicts between shipping and offshore wind farms can be expected, since three routes frequently used by shipping are situated either in or nearby certain offshore wind energy concession zones in the Belgian area of the Thornton Bank. This potential conflict is indicated in Appendix B (Figure B.2 and B.3).

Shipping is subject to international regulations adopted in the International Maritime Organization (IMO). IMO has competence for the safety and security of shipping and the prevention of marine pollution by ships. When designating offshore wind energy areas in The Netherlands, shipping is considered safe at a distance of 2 nautical miles from IMO traffic separation schemes, anchoring areas and national designated clearways (Ministry of Infrastructure & Environment, 2009, p. 41). The Netherlands considers a safe distance of 2 nautical miles between large-scale wind farms and shipping routes necessary to avoid accidents due to certain manoeuvres (Ministry of Infrastructure & Environment 2009, p. 43). Risk assessment is one of the elements that have to be taken into account in providing an environmental permit for offshore wind farms in the Belgian concession zone. During the MASPNOSE project the risk assessment of the most southern situated permit application (Northern) in the Belgian concession zone became available. This risk assessment for ship collisions with offshore wind farms apply a safety distance of 1 nautical mile (Marin 2011). Furthermore, there were also conflicts between shipping and the most northern part of the Belgian offshore wind concession zone.

The safety of shipping in and around the Belgian offshore wind farm concession area can be dealt with in the framework of a Treaty on common nautical management between Flanders and The Netherlands (Treaty on common nautical management in the river Scheldt area, 2005 – Tractatenblad 2005, nr. 312). Although focus of the Treaty is the river Scheldt, the Treaty also applies to the territorial sea of both countries and the IMO shipping lanes. Vessel traffic services (VTS) is a competence of the Flemish Region. A critical observation is that the Belgian Federal Ministry responsible for safety regulations of shipping (FOD Mobility) is not represented in this Treaty since Belgium is not a party to this Treaty. Besides, the shipping routes in the offshore concession zone are not all IMO recognized shipping lanes, while more than 90% of the concession zone is situated outside the Belgian territorial sea.

## Fisheries and aquaculture

At the start of MASPNOSE it was the assumption that the Belgian wind energy concession area could be an good location for aquaculture, since the area might be closed for shipping and beam trawling fisheries. Loss of fishing area could be compensated by for e.g. aquaculture. ILVO investigated the options for cultivating mussels in the Thornton Bank area (Website ILVO 2012) and other forms of mariculture (Verhaeghe, D.*et al*, 2011).

From a historical point of view, the maps in Appendix C (Figure C.1 and C.2) indicate past locations for sole and shrimps fisheries in the Belgian part of the North Sea. Both are partly transboundary and in or nearby the case study area. The area is frequently used by beam trawling (Figure C.3).

### **Sand extraction**

There is no sand extraction in the Belgian part of the Thornton Bank area. In the Dutch part of the Thornton Bank area there is a sand extraction zone (Figure 3.1.5, orange parts).

### **Nature conservation**

The Thornton Bank area itself is an important ecological area but has no protective status. It is however close to the Vlakte van de Raan, a Dutch Natura 2000 area. The Thornton Bank area is characterized by relatively shallow water with varying depths due to the sand banks. The Thornton Bank is situated about 27 km from the Belgian coast in depths of 12 to 27 meter. The Bligh Bank is situated about 42 km from the coast in water depths between 20 to 35 meters. The Lodewijk Bank is situated 38 km from the coast. From a sedimentary perspective, the monitoring areas at the Bligh Bank and Thornton Bank (i.e. impact areas) and the Groote Bank (i.e. reference area) are highly similar, with a domination of medium sand (median grain size: 250-500  $\mu\text{m}$ ) in absence or with a very low mud content (max. 1 %) and a low organic matter content (0.3-1.8%). The macrobenthic community structure shows quite some natural spatio-temporal variability, with macrobenthic densities, ranging from 10 – 1930 ind./ $\text{m}^2$ , being significantly lower in 2009 compared to 2008 at the Bligh Bank and to 2005 at the western part of the concession area at the Thornton Bank. Species richness (NO), ranging from 1 to 24 spp./0.1  $\text{m}^2$ , was however comparable to 2005 and 2008, as well as biomass, ranging from < 0.001 to 37 g/ $\text{m}^2$ . Dominant hard substrate species are *Nephtys cirrosa*, *Bathyporeia guilliamsoniana* and *Spiophanes bombyx*, although local variation exists. From the 46 prey types collected from the guts and stomachs of line fished pouting, the amphipod *Jassa herdmani* and its tube mats, crabs, such as *Pisidia longicornis* and detritus were most frequently (11-67 %) encountered. Especially *J. herdmani* (84 % of numerical prey abundance) and *P. longicornis* (10 %), two of the most common hard substratum macrofaunal species, tended to dominate the food composition of pouting at the Thornton Bank GBFs (Degraer *et al* 2010).

### **Recreation**

Recreational shipping is taking place in the Thornton Bank area, but this is not subject to a license or permit system. There is no information on the density of pleasure vessels in the area. The wind mill park already became a tourist attraction. Several companies started with touristic tours to the wind mills.

### **Cross-border planning**

Before MASPNOSE got involved in the area, there were not many cross-border planning activities going on. There was some (formal) communication on specific sectoral issues (i.e. wind energy concessions in Belgium and changes in shipping lanes) by means of information supply in the frame of an EIA for wind farms for which environmental permits were under way to be granted.

### **Conclusions on state of the art**

At the start of MASPNOSE Belgium and The Netherlands were already well advanced in MSP. The case study area was already designated in the Belgian MSP as a concession zone for offshore wind energy. Adjacent to the Belgian offshore wind energy concession zone, The Netherlands had indicated the zone Borssele as a suitable area for Dutch offshore wind energy, in combination with other activities. This means that both countries had the same renewable energy interests. At the start of MASPNOSE Belgium and The Netherlands shared a comparable concern for the safety of shipping and both countries were of the opinion that the area does not qualify as a top priority biodiversity area. However one needs to take into account that this latter assessment is based on limited scientific data.

## **3.2 Key challenges for the case study during the initial stages**

The key challenge in the initial stage was to identify who are the governmental stakeholders relevant to deal with transboundary MSP in the case study area and what is their mandate. Also, it was challenging to find out through what channels they have been in contact with each other and how well they know each other (formal – informal).

The next step after identifying the key governmental stakeholders was to get them involved into the case study and to find out how they envision a transboundary cooperation. Also, it was important to know what their opinion was on the involvement of private stakeholders in the MASPNOSE project (offshore wind operators, shipping industry representative, port industry representative, fishermen, nature protection NGOs, etc.). Furthermore, we needed to know their opinion on the 10 EU key principles of MSP.

Another key challenge of the case study was to assess the potential to agree on a common MSP vision and in case of conflicts, how to best resolve these.

## **3.3 General approach to the case study**

In this case study we aimed to develop a vision and define a set of common objectives for MSP in a cross-border area; to develop and visualize different agenda options and solutions for cross-border issues; and to develop a model test case of the function and usefulness of MSP in a cross-border area. These objectives have been slightly adapted in the Action Plan for the MASPNOSE case study, Belgium-The Netherlands (component 1.2 – June 2011), in:

- a) to develop a strategy and define a set of common objectives for MSP in a cross-border area;

- b) to explore and visualize different opportunities and constraints for further development of the case study area;
- c) to develop a test case of the function and usefulness of MSP and its 10 key principles in this particular cross-border area; and
- d) to encourage & facilitate cross-border cooperation.

In the Thornton Bank case study we were able to deal with the first two steps in the MSP cycle (see figure 7.1.2 in D1.1, 76), which is step 1. vision and objectives and partly step 2. initial assessment. The initial assessment used existing data since MASPNOSE did not foresee core marine scientific research. From a national perspective, Belgium and The Netherlands had gone through most of the five MSP steps since both countries have already a Maritime Spatial Plan (see supra 3.1). A final assessment and reporting (step 5) of those existing national MSPs (supra 3.1) can be seen as a start for potential adaptations to the initial national MSP plans, taking into account transboundary interests.

Starting from the initial assessment (see D1.1), we were able to compare the national MSP plans of Belgium and The Netherlands in the Thornton Bank area. This comparison took place in close consultation with governmental stakeholders from both countries in various workshops (see infra) and by interviews, as foreseen in the Thornton Bank Action Plan. This allowed us to understand and visualize different agenda options and solutions for cross-border issues such as shipping, fisheries, offshore wind energy and nature conservation and to test opportunities and constraints for MSP in this cross-border area. As a result a vision is developed for a set of common MSP objectives in the case study area.

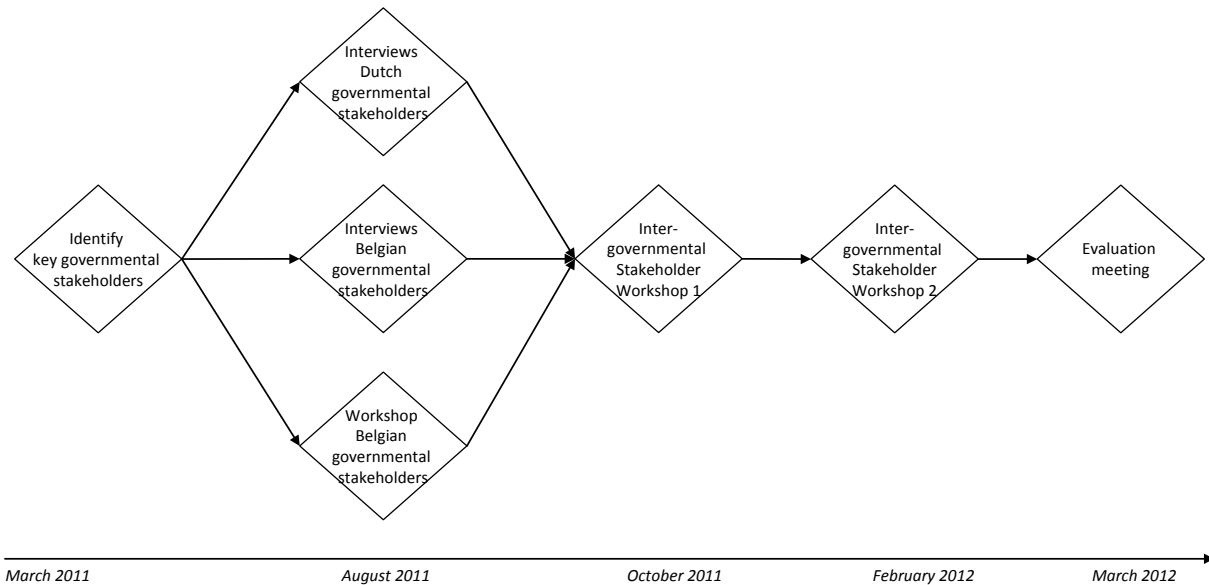
The methodology used is: 1. desktop study and exchange of relevant material between MASPNOSE partners and governmental stakeholders; 2. interviews with relevant governmental stakeholders from both countries; 3. workshops to exchange ideas and test options for a common vision and the 10 EU key principles on MSP.

### **3.4 Process description and results**

In this case study several formal meetings and informal communications took place between the partners and the governmental stakeholders. Bilateral meetings will not be reported. Relevant meetings open for all governmental stakeholders were: 1. the kick off meeting in Rotterdam (03.04.2011); 2. a workshop with Belgian stakeholders in Ghent (30.08.2011); 3. interviews with governmental stakeholders in Belgium and The Netherlands; 4. stakeholder workshop 1 in The Hague (13.10.2011); 5. stakeholder workshop 2 in Ghent (07.02.2012); and 6. stakeholder workshop 3 in Hamburg (19.03.2012). During the kick off meeting and workshop 3, representatives of DG Mare and DG Environment were present.

Representatives of the governmental stakeholders varied from workshop to workshop, but at least all stakeholders were invited and equally informed. Governmental stakeholders representing fisheries from both countries were most absent during the workshops, although invited.

The stakeholder process in the Thornton Bank case study consisted of several rounds of interactions (Figure 3.4.1). Each round of interaction is described in this section and participants are identified.



**Figure 3.4.1: Stakeholder process Thornton bank case study**

A first step in the case study was to identify the key governmental stakeholders. These stakeholders were identified based on the activities that are on-going or planned in the area of the Thornton Bank. In the case study, there were governmental stakeholder involved representing the departments of environment, economics, shipping and fisheries. Government representatives for fisheries were invited, but did not participate in the workshops (they were only interviewed). One of the potential reasons for this absence seem to be the on-going negotiations towards a new EU Common Fisheries Policy, which is a core business for fisheries administrations and on a higher priority level.

During these stakeholder processes governmental stakeholders preferred not to involve private stakeholders (offshore wind energy, fishermen, shipping, etc.) since they themselves were not familiar with each other and they feared that private stakeholder interaction would prevent them to freely express and exchange ideas. The MASPNOSE team respected this demand and reference to “stakeholders” from now on means “governmental stakeholders”.

## Interviews

After the identification of key stakeholders the case study started by conducting interviews with Belgian and Dutch authorities responsible for policy, management and administration of this marine area. The objectives of the interviews were to:

- familiarize interviewees with MASPNOSE and its aims and objectives
- capture perceptions and opinions of interviewees on MASPNOSE objectives
- verify previously collected information on process and procedure of MSP (e.g. initial assessment) with a special focus on the Thornton Bank
- understand how current interaction on MSP between both countries take place, and how this interaction could be improved
- gain insight into the perception of government officials on the 10 key principles of MSP
- understand, which challenges both governments are facing and which possibilities they see with respect to furthering the Dutch-Belgian cooperation in the development of cross-boundary MSP in the case study area.

A series of six interviews with contact persons from the Dutch administration and five interviews with contact persons from five different Belgian administrations were conducted. In addition, a workshop was held with five participants from the Belgian administration in Ghent on 30 August 2011. In this small workshop in Ghent it became clear that: 1. there were several sectoral contacts with Dutch colleagues at various levels of competences (shipping, nature, ...), mostly formal (EIA, SEA, EU, ...) and sometimes informal, often ad hoc; 2. existing contacts were *not* related to the MSP process; 3. there was an overall *lack of an integrated approach* on MSP relevant in a transboundary context for the case study area (data, plans, process, ...). These overall statements were affirmed in the interviews. The government and administrative entities which were interviewed are presented in table 3.4.1 and table 3.4.2.

**Table 3.4.1: Dutch stakeholder interviewed**

Dutch name	English name
Ministerie van Economische Zaken, Landbouw en Innovatie, DG Milieu	Ministry of Economic Affairs, Agriculture and Innovation, DG Environment
Ministerie van Infrastructuur en Milieu, DG Water	Ministry of Infrastructure and the Environment, DG Water
Rijkswaterstaat, Waterdienst	Rijkswaterstaat (executive division of Ministry of Infrastructure and Environment), Center for Water Management
Rijkswaterstaat, Dienst Noordzee	Rijkswaterstaat (executive division of Ministry of Infrastructure and Environment), Regional Department North Sea

**Table 3.4.2: Belgian stakeholders interviewed**

Flemish name	English name
Vlaamse overheid: Zeevisserij	Flemish public service fisheries
Vlaamse overheid: Verkeer en Infrastructuur	Flemish public service traffic and infrastructure
Federale Overheidsdienst Milieu	Federal public services environment
Federale Overheidsdienst Mobiliteit	Federal public services mobility
Federale Overheidsdienst Vloot	Federal public services fleet at sea

The interviews were semi-structured and all data obtained was of qualitative nature. The aim was to capture the individual interviewees' perception on the prepared questions and not to make a representative survey among the different government entities. Interview reports were translated in English and returned to the interviewees for verification. Subsequently, interview reports from Dutch and Belgian interviewees were compared and evaluated by assigning statements in a table of analysis. An aggregated version of this table was presented to interviewees on a poster in a "market stall" setup during stakeholder Workshop 1, with a request for additional comments/input.

### *Joint synthesis of interview results*

#### 1. Thornton Bank

NL: No official procedure and limited coordination; No common development; Limited interest of NL in area (no N2K area), however, fear for shipping routes and cross-border effects of BE developments on NL waters; Different stages of development BE-NL.

BE: Informal information; Insufficient stakeholder participation (e.g. involvement of fisheries); Rumours of NL plans to create N2K area; Mixed awareness on MSP for the area.

#### 2. MSP cross border process

NL: Relation MSFD-MSP; Common obligation to meet good ecological status; No government commitment for int. coordination & cooperation on MSP; Cross border issues NL-GE and NL-BE: conflicting use-interests; Issues discussed informally; No official channels for int. interaction on MSP (only thematic interaction through EIA, Scheldt Commission, N2K); BE MSP procedure not integrated; Danger of fragmentation of use zones in NS.

BE: Mixed awareness of NL MSP (awareness through meetings/ SEA 2009); Regular meetings/study days with NL, UK, GE; Meetings are not integrated, no structural coordination; "There is no BE MSP"; NL has more space & simpler governance structure. More easy to satisfy claims; Differences in zones NL-BE.

#### 3. MSP principles

NL: Official position NL: no operationalization; States already follow good practice; Data & knowledge base important.

BE: Principles 5,6,8,9 not feasible; Juridical embedment of MSP not desirable due to loss of flexibility.



#### 4. Desired MSP process

NL: Information + consultation at early stage; Joint data gathering & analysis, chance to “grow together”; Joint EIA; Joint development of projects; Walk through policy cycle together, regular bilateral and multi-lateral meetings; Cooperation on management; Formalization of procedures desirable (yes & no).

BE: Sharing knowledge & early involvement Member States, and also on operationalization of plans; Desire for more knowledge on interaction between & effects of uses; Cooperation; Common cross border vision; Shared decision; Desire to be involved more in NL and BE MSP process (fisheries sector); More structural cross border interaction (regular meetings).

#### 5. Wind Parks

NL: NL authorities only partly informed on BE wind park plans; Lack of cooperation & fragmentation; Possibilities for joint development?; NL objected BE licensing procedure; Fear of (future) cumulative & cross-border effects; Should not be dealt with on sectoral base only; “Current issues NL-BE on wind are solvable”; BE turbines could impact NL turbines (turbulence).

BE: Fear of effects on fishery --> need for compensation & mitigation; Not clear how to deal with conflicts of wind parks with other uses (e.g. Scheldt Commission); Combination possible? ; Necessary legal adaptations for combination of uses; Possibility for minor adjustments of wind parks.

#### 6. Sharing of information

NL: Reluctance to share (sometimes only informal if at all); Insufficient (about plans and procedures); Alertness of government crucial in consultation process (insufficient in NL); Room for improvement on participation; No information of NL stakeholders on BE MSP.

BE: Earlier sharing of information desirable; Sharing on meetings/ study days.

#### 7. EU Directive

NL: Not necessary, not wanted. Sovereignty of Member States; Logical step, but now not feasible; Increased commitment for cross-border MSP necessary; No directive, but procedural obligations for cross-border MSP?

BE: no responses.

#### **Conclusion:**

***There are several sectoral contacts (shipping, nature, ...), sometimes in a formal process (EIA, SEA, EU, ...) and sometimes informal. However most of these contacts are ad hoc and not related to a MSP process. Since in Belgium there is not yet an established MSP process (see Bogaert & Maes, 2008, 81-103) and because during the MASPNOSE project until December 2011 there was no new government in Belgium, there was not yet a formal body responsible for MSP. MSP contacts in Belgium between various governmental stakeholders were rather informal.<sup>2</sup>***

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<sup>2</sup>The Belgium government was under resignation. It took until 6 December 2011 for a new government to come into office after 541 days of negotiations. Although Belgium was still governed by a government of running affairs, no fundamental decisions on MSP that needed a legal intervention by either a Minister or by Parliament could be taken. So any initiative on the introduction of a MSP process was blocked. In the mean time a few Belgian officials led by the federal department of

***There is no overall cross border integrated MSP approach at both sides. There is a clear demand for more information on each other's MSP plans, to share this information and to consult in order to avoid misunderstandings and to resolve them in an early stage.***

### **Stakeholder workshop 1, 30 October 2011, The Hague (The Netherlands)**

Besides explaining the MASPNOSE project and the importance of the project for DG Mare, the aim of the first intergovernmental workshop was to:

1. validate interview results;
2. discuss the initial assessment of the 10 key principles for MSP;
3. compare the status of MSP in Belgium and The Netherlands in the area of the Thornton Bank and brainstorm on future visions for the area, from a cross-border perspective.

#### *Validating the interview results*

The interview results were validated and following conclusions can be drawn:

The interviewees' knowledge on the MSP process and the national MSPs for the Thornton Bank area varies strongly. Informal meetings and phone calls are the main channel of interaction between Dutch and Belgian authorities with respect to elements of their MSP plans. Exceptions are the notification by the Belgian authorities to their Dutch counterparts of the national MSP in 2008/2009 and information exchange required in an Environmental Impact Assessment procedure following the EU EIA Directive and the ESPOO convention. The latter interaction takes place in a formalized way.

Furthermore, it can be stated from the interview results, that there are strong procedural differences between the Dutch and the Belgian MSP approach. While the Dutch have already published their first MSP (which has the status of a structural vision) and have a clear process, the Belgians have not yet completed the full policy cycle to come to a national MSP, although they is a maritime spatial plan approved in 2003-2005.

Another interesting point is the interviewees' perception of cooperation between NL and BE. The current level of cooperation between the countries seem appropriate for some interviewees, others had many suggestions for improvements ranging from a more regular, formally specified meeting schedule over harmonizing the planning cycles in both countries to conducting joint research and joint development of projects.

Information on national MSP is not equally spread between different governmental departments within both countries. Similarly, Belgian, as well as Dutch government officials

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environment were trying to form a group of governmental experts and representatives of federal and Flemish administrations to bring MSP on the political agenda. The objective was to advocate for a MSP process when the new government would be in office. With the new government since 6 December 2011, Belgian has once again a high level minister (Minister of Economic and Consumer Affairs, including Energy), who is besides Vice prime Minister, also Minister competent for the North Sea. It is the same minister who was Minister of the North Sea during the development and approval of the Belgian Masterplan on MSP in 2004.

perceived a lack of information on MSP flowing across the border between both countries. On plan-level, there is no such official channel for the exchange of information, as it exists on project level, where information exchange is regulated through the EU EIA Directive and the ESPOO convention. The latter is effective when it comes to sharing information on project level regarding the licensing procedure and environmental effects of the activity to be licensed, however, often governments fail to distribute that information beyond their own organization.

Thus, currently, interaction usually takes place on project level, or informally on plan level, and at a relatively late stage when plans are already approved or in their final stage. The need for a better flow of information was acknowledged by almost all interviewees. Furthermore, all interviewees voiced commitments to further promote international cooperation about MSP between The Netherlands and Belgium, although their visions on how this cooperation should be enhanced differ.

As a conclusion, we can state that there is a shared demand for closer international cooperation on MSP between Belgium and The Netherlands, and a need for a better flow of information within and between countries. One can conclude that stakeholders who are fully involved in MSP rather opted for an informal approach or by making use of existing channels (SEA, EI), while Belgian sectoral representatives (e.g. shipping; offshore renewable energy) were more in favour of a formal solution for transboundary co-operation on MSP. A Memorandum of Understanding (MoU) is suggested by one stakeholder.

#### *Validating the initial assessment of the 10 key principles for MSP and usefulness of the principles for the future*

During the workshop the participants were asked to correct or validate the initial assessment of the 10 key principles as reported in the draft “Initial assessment report” (Stelzenmüller et al. 2011). Since the initial assessment was applied to past MSP processes, participants were also asked to reflect on the future use of the 10 key principles. From the Belgian side there were no corrections to the initial assessment report since the principles were considered to apply mainly to the MSP process, which was lacking in Belgium. From the Dutch side some principles needed to be reassessed in a sense that orange colours were changed into green.

In terms of future application, the 10 key principles for MSP were judged with mixed feelings by participants. While for some they are useful, others warned that an operationalization and a legal embedment of these principles would slow down national policy on MSP by adding excessive and unwanted requirements for reporting by their country and argued for the application of the subsidiarity principle. Dutch participants prefer to adopt those principles freely based on their usefulness for their country. Some principles are applied anyway. Dutch participants questioned the role of the EU in the scope of international and national efforts for MSP, and consequently showed a reluctant position towards the EU 10 key principles and the possibility of an EU directive for MSP. In short, there is no need for the EU to make them mandatory. Belgian participants were more favourable about the

principles and a potential mandatory nature in a national context. However, in a cross border context Belgians and Dutch agree that the principles should not be made mandatory.

*Comparison of the status of MSP in Belgium and The Netherlands in the area of the Thornton Bank and first brainstorm on future visions for the area*

Participants explained and discussed their national MSPs. They exchanged ideas on items for future cross border cooperation in the case study area. Major issues of attention were:

- offshore wind energy at the Dutch side of the Belgian offshore wind energy concession zone;
- sharing of electricity cables connected to the land grid and energy contact points at sea;
- multi-use in the offshore wind energy parks or exclusion of other uses;
- potential effects of offshore wind energy for nature protection/conservation;
- reflection on a common MSP policy cycle for the case study area from 2015 on;
- distance of wind mills and wake effect;
- safety of shipping in the area;
- involvement of private stakeholders in MASPNOSE.

For the latter topic it was again decided not to involve private stakeholders in the context of this MASPNOSE case study.



Figure 3.4.3 - Map of current uses on the Thornton Bank, drawn by facilitators and participants during workshop 1

### **Conclusions:**

- Opportunities for cooperation between the Dutch and Belgians on common offshore electricity connections at sea.
- A bottleneck in cross border development of wind farms and electricity connections are the energy goals and renewable energy that is “charged” on national level.
- The tension between participation of stakeholders and transparency of the process could be helped by a shared database/information tool.
- It is important to know with whom you can discuss MSP policies in an integrated manner. Clear need to identify national MSP contacts with a mandate.

### **Stakeholder workshop 2, 7 February 2012, Ghent (Belgium)**

The second intergovernmental workshop consisted of the following parts:

1. brainstorm on priorities of activities in the area, based on ‘decision rules’;
2. drawing priority zones for activities on a map, in group per country;
3. develop a common vision (see 3.5).

The aim was to develop common objectives and to explore and visualize different opportunities and constraints for transboundary cooperation. The methods used were thematic maps, scenario’s and decision rules to prioritize common activities in the area and to drawing on maps.

#### *Decision rules and priorities*

To identify the priorities in the case study area, decision rules were prepared and participants were asked to rank them individually in accordance to their importance for the area under consideration. After individual ranking participants were asked to discuss their ranking in two groups, one Belgian and one Dutch group. The result of the latter discussion is a ranking from a country perspective as can be found in table 3.4.3.1.

**Table 3.4.1. Priorities for actual policy considerations (1= low; 3 = mediate; 5 = high)**

Function	Country	The Netherlands	Belgium
Wind energy		Search area renewable energy – future plans (3-4)	Actual plans (5)
Shipping		Intense (5)	Intense (5)
Fisheries <sup>3</sup>		3-4	2-3
Aquaculture		Future plans (3-4)	Future plans (1-2)
Nature conservation		Natura 2000 (1-2)	Natura 2000 (1-2)
Sand extraction		X (3)	None (1)
Military exercises		None (1)	X (1-2)

### Conclusions on decision rules and priorities

- Wind energy production and shipping are viewed as the most important activities in the Thornton Bank area. Belgian participants stress the wind energy production more than the Dutch participants. This is due to the fact that the Belgian part of the study area is already reserved by law for wind energy production. The Dutch vision states that wind energy production is possible in the area, but other activities are also possible. The Netherlands have more space at sea for renewable energy compared to the Belgians, who have limited space at sea.
- The cables related to the wind parks should be bundled as much as possible, and most of the participants see great possibilities for international collaboration on energy super grids. The participants also see opportunities for alternative energy production and aquaculture in the Thornton Bank area. The Dutch participants see more opportunities for these activities than the Belgian participants. This is mainly due to the fact that the Belgian participants put more stress on wind energy production and related safety and security measures.
- Although every participant acknowledges shipping as an important activity, not in the least for the viability of their national ports, it should be weighed against the other activities in the Thornton Bank. For instance, in the Belgian part of the area, wind energy production slightly overrides shipping.
- All participants agree that fisheries should be further regulated in the area, either by a total ban or by restricting fisheries by quota, alternative techniques, etc. The Belgian governments intends not to allow fishing activities in wind parks. Wind parks could have a positive effect on fisheries by acting as refuges for fish stocks.<sup>4</sup>
- Tourism and recreation are viewed as activities with a lower priority in the Thornton Bank area. They can be allowed, but only outside the wind parks and under conditions

<sup>3</sup>It should be noted that these priorities were set without involvement of a (governmental) representative from the fisheries sector.

<sup>4</sup>It should be noted that these priorities were set without involvement of a (governmental) representative from the fisheries sector.

regarding ecological protection. Military activities (in the sense of exercises) are mostly viewed as less important in regard to other activities.

- Most participants agree on the need for marine protection in the area, but not in the sense of ‘protection by law’ (Natura 2000, or under the Habitat Directive). Participants stress that wind parks can act as nature reserves if activities that might affect the ecosystem components are banned.
- Each participant was given the chance to define extra decision rules. These extra decision rules stress the importance of mobility in the study area (short sea shipping, search & rescue activities, dredging, durable mobility and others). Additional decision rules were:
  - Full implementation of the Marine Strategy Framework Directive;
  - Porpoise protection plan;
  - Future research on alternative forms of energy production (salt-freshwater transition areas);
  - Future research on the possibilities of CO<sub>2</sub>-storage;
  - Sand extraction;
  - Air transport.

#### *Priority zones for transboundary activities*

Another objective of this workshop was to develop a common map indicating a transboundary consensus on priority activities in the case study area, and under what conditions. The GAUFRE methodology was used to reflect on potential choices that can be made (Maes et al 2005). It was already clear from past meetings and existing MSPs in both countries that high priority in the case study area was given to renewable energy exploitation and safety of shipping. Prior to the workshop four maps were created by the University of Gent indicating four different scenarios (see Appendix D).

Scenario 1 (Figure D.1) gives only priority to renewable energy exploitation and excludes all other activities, shipping is partly taking into account.

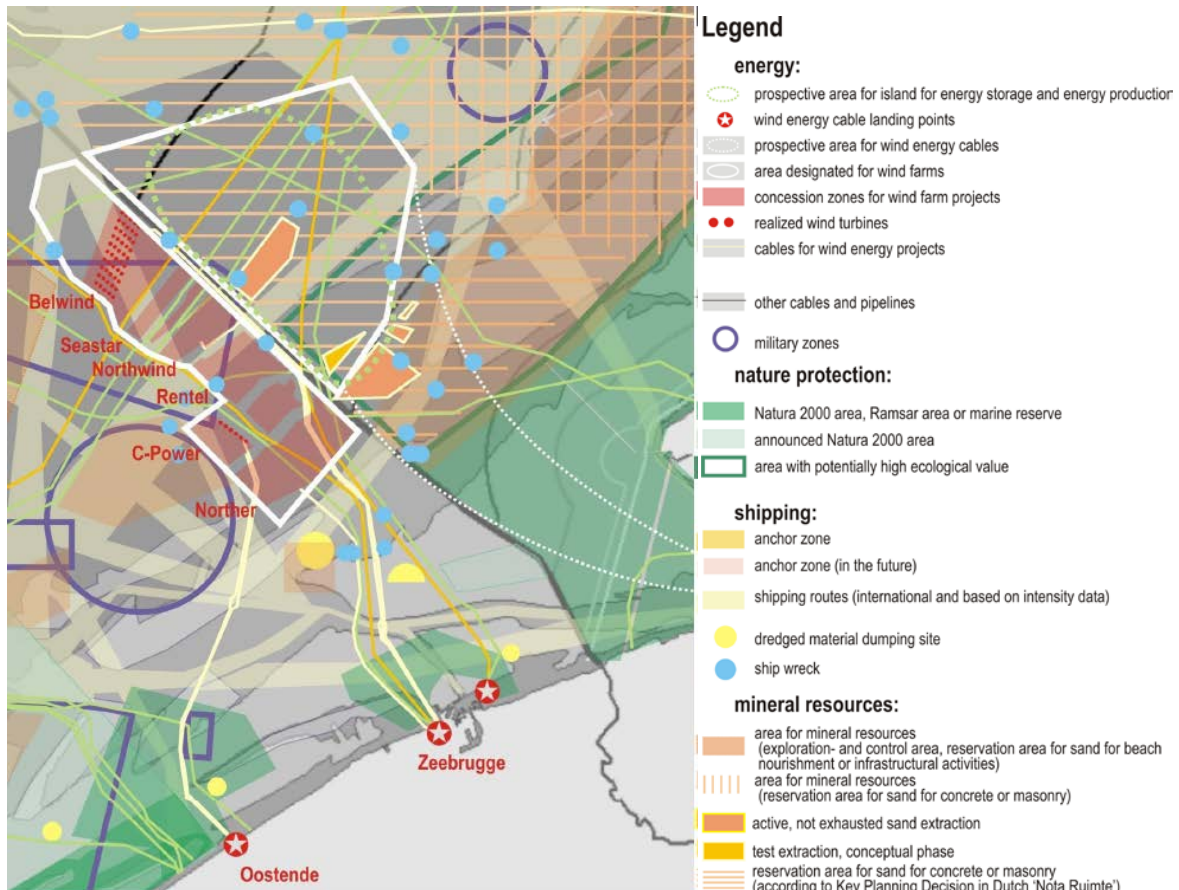
Scenario 2 (Figure D.2) is the nature protection scenario. This scenario gives priority to nature protection in the territorial sea and sand banks of both states. As a result this scenario reduces the concession zone for renewable energy exploitation on the basis of the precautionary principle: since the effects of offshore wind farms on habitats and species are not well known, benefit of doubt should be given to nature.

Scenario 3 (Figure D.3) departs from priority given to shipping routes in the case study area. This results in renewable energy sites spread outside the case study area and shipping traffic allowed between and in the offshore wind energy parks (light grey). The main driver for the construction of offshore wind mills are the sand banks (blue).

Scenario 4 (Figure D.4) combines nature protection interest and shipping interest, resulting in a reduction of the area available for offshore renewable energy production.



Departing from these scenarios, while other were possible, a basic map was drawn that reflected the current situation of all uses in the case study area. This map (Fig. 3.4.4) was used as a layer for map suggestions drawn and explained by participants. The result of this exercise is reported in section 3.6.



**Fig. 3.4.4: Transboundary map of the current uses in the case study area**

(Maritime Institute, Ghent University)

### Conclusions:

- Opportunities for transboundary cooperation are the creation of communal offshore electricity connections which can be used by both countries, the safety of shipping and the determination of shipping routes.
- The cooperation should not be regulated in a formal way, because this would restrict national authorities too much. It is more important to know who to contact for which issues. The current way in which information is shared is through informal channels and personal relations. This can be stabilized and improved.
- In order to improve cooperation, it is suggested that both countries could at least start their planning process at the same time, discuss the process and how to involve stakeholders together.

### 3.5 Vision and common objectives

The MASPNOSE project created a basis for a better common understanding between Dutch and Belgian governmental stakeholders. Due to potential interference with some major shipping routes, adjustments have been made to the boundary of the Belgian offshore wind energy concession zone. One can conclude that the MASPNOSE project contributed to the consultation to resolve potential interferences between wind mills in the concession zone and shipping. The Belgian offshore wind energy concession zone has been adapted mainly based on a shipping risk assessment in the environmental permit procedure for the Northern concession zone, and an assessment for the other offshore wind concessions (MARIN 2011). Dutch governmental stakeholders have informed the Belgian governmental stakeholders of their concern through MASPNOSE. If we compare the Belgian MSP 2004 with the MSP 2012, the concession zone has been reduced in the north and adapted in the south for safety of shipping reasons (Figure 3.5.1 and 3.5.2 and arrows). Part of the east zone was compensated west of the concession zone. However, this new southwest border of the Belgian concession zone caused shipping concerns for the Dutch stakeholders. This has been indicated on a map (Fig 3.6.1 and arrow) during workshop 2, followed by an official protest (personal communication from Dutch and Belgian stakeholders).

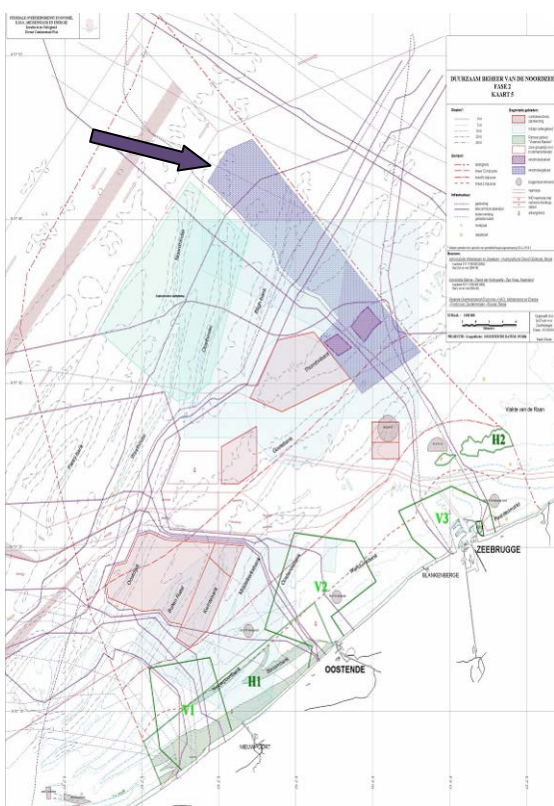


Figure 3.5.1: Marine spatial plan 2004 (Ministry of Economics)

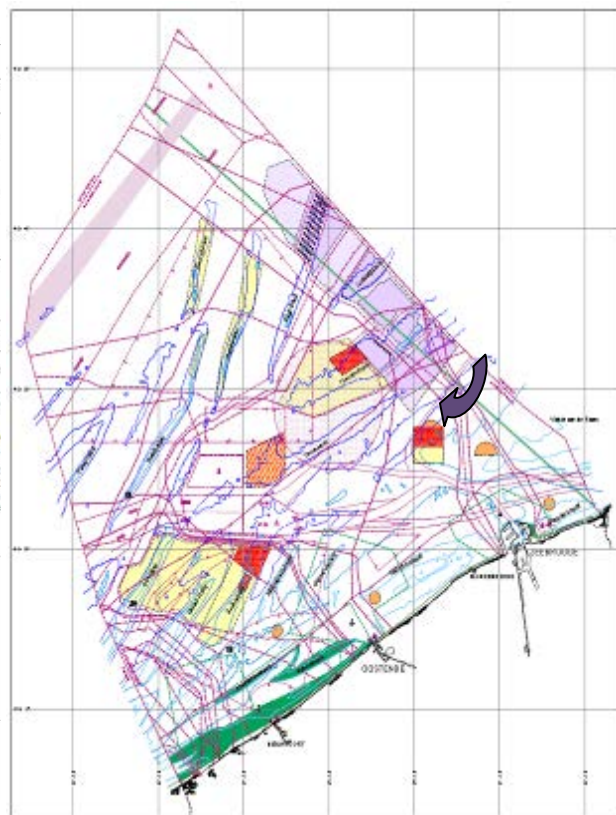


Figure 3.5.2: Marine spatial plan 2012 (Ministry of Economics)

Initially the offshore wind concession zone was indicated as a potential aquaculture area in the Belgian marine spatial plan. This is not the case anymore in recent marine spatial plans

(e.g. Figure 3.5.2). At the second MASPNOSE workshop (2012), governmental stakeholders from Belgium and The Netherlands indicated that the Thornton Bank area could be an area for a particular form of nature conservation, but not as a Habitat Directive area nor as a Natura 2000 area. This designation of the area could jeopardise the economic development, while it was not clear if the area would be better protected if it would be a Natura 2000 area.

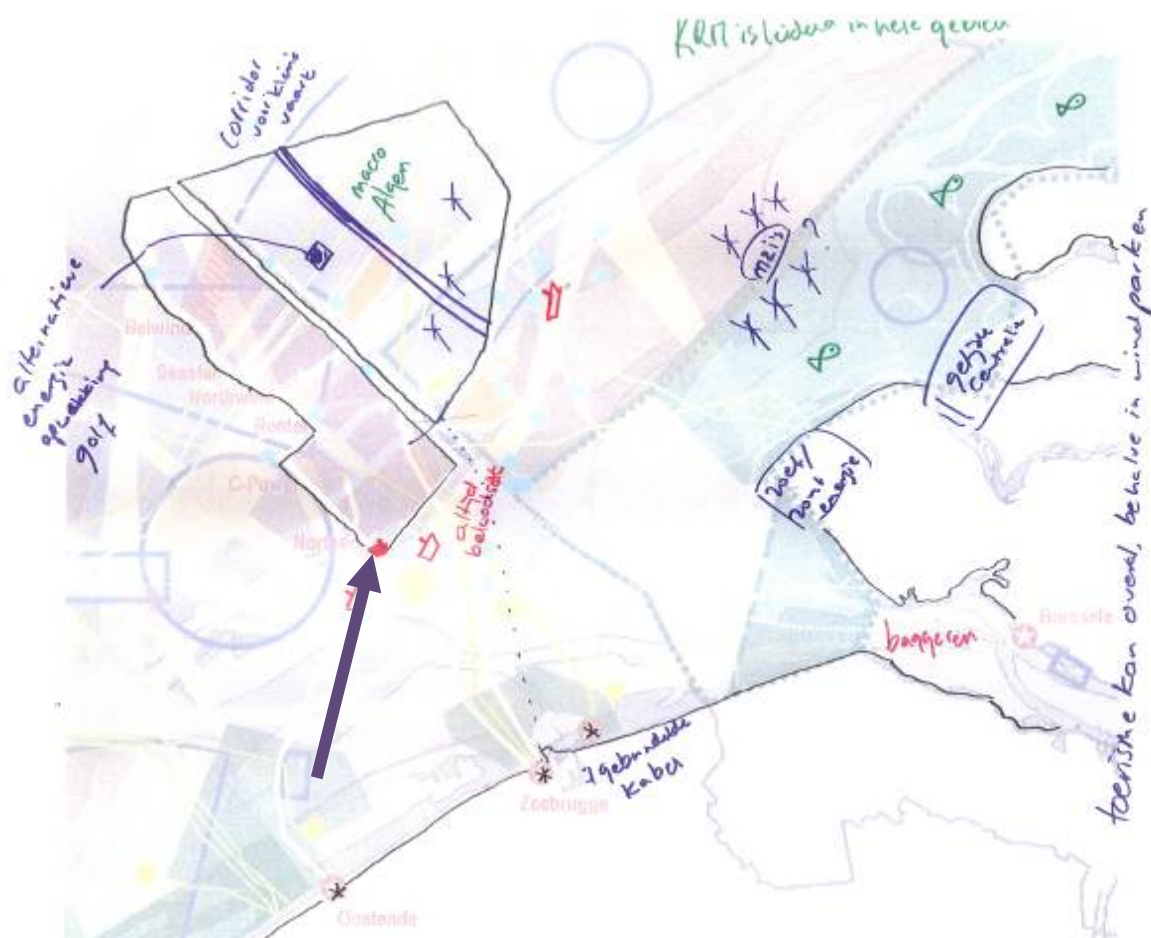
The following common objectives for the Thornton Bank were formulated by governmental participants involved:

1. Economic scenario with environmental benefits: renewable energy – wind farms in combination with indirect nature protection. Priorities are:
  - a. Other forms of renewable energy
  - b. Communal offshore electricity connections
  - c. Refuge area for fish stocks, but no nature protection in sense of Natura 2000;
2. Due regard to safety of shipping: shared interests;
3. Make full use of already existing formal ways of information exchange and consultations on project level (EIA) and plan/program level (SEA);
4. Besides existing formal consultations, preference at this time in the MSP policy cycle is given to less formal ways of consultation to avoid restricting national authorities in setting up their MSP process;
5. In order to improve cooperation, both countries could at least start their planning process at the same time, discuss the process and how to involve stakeholders in a transboundary context. This can include a formal transboundary information and consultation process.

### **3.6 Maps, scenarios and visualizations**

For the second stakeholder workshop an overall map (Figure 3.4.4) combining activities and uses on the Belgian and Dutch side of the Thornton bank area was produced by Ghent University to serve as a layer to draw on. During the workshop Belgian and Dutch participants were asked to draw their priorities on this map. The group was split into Dutch and Belgian government stakeholders, each providing their own input (Figure 3.6.1 and 3.6.2). Afterwards the results were discussed in a plenary session. The drawings reflect very closely on-going policy developments in both countries but do not have an official status and are presented for information only.

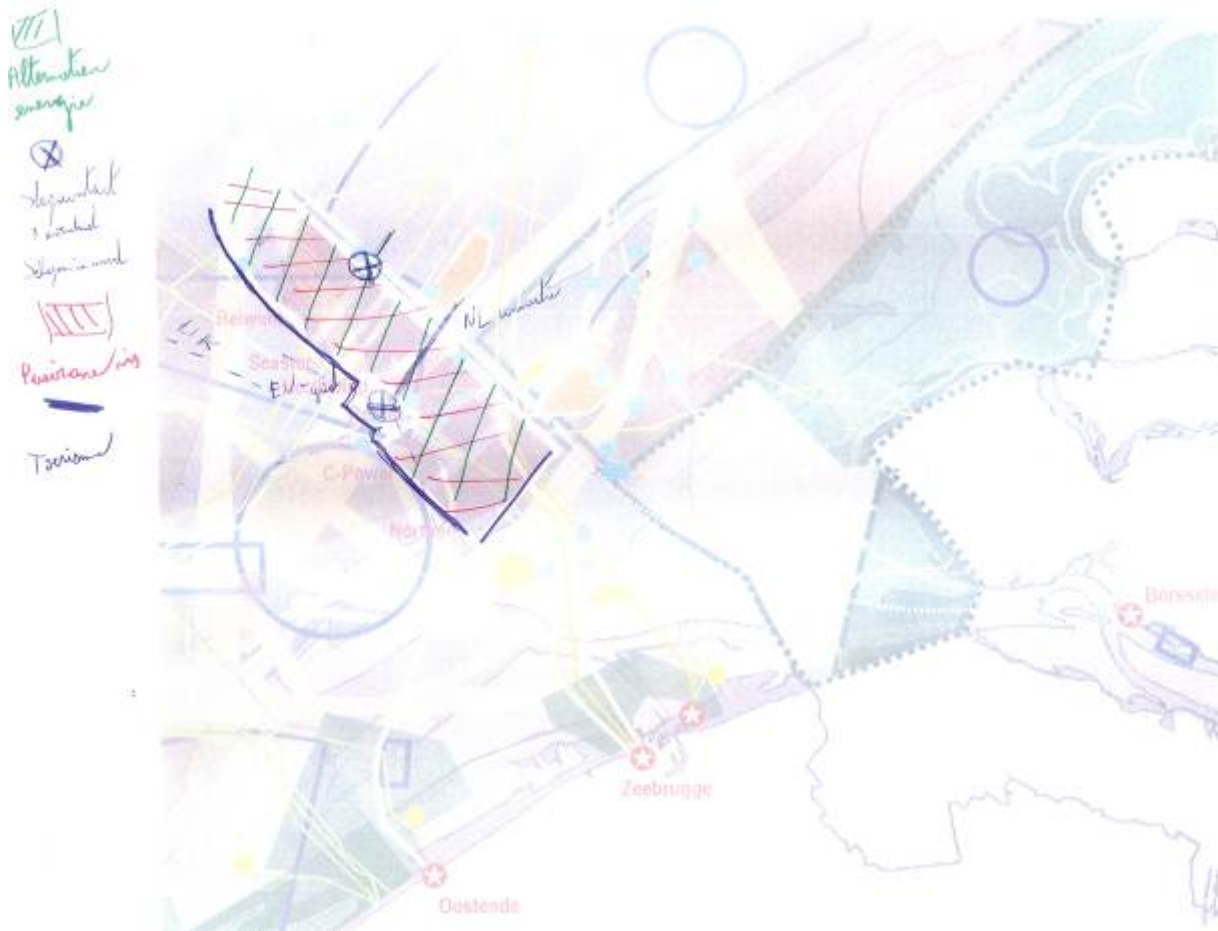




**Fig 3.6.1.** Map drawn by Dutch governmental representatives. Arrow = Indication of a potential conflict in the most southern part of the Belgian offshore wind concession zone with shipping.

Description of the Dutch map:

- Priority for alternative forms of energy production. There are possibilities for wind energy, but not as the only activity in the case study area. There are also possibilities for alternative renewable energy production. This can increase the profitability of electricity generated in the wind parks.
- The distance between the Dutch part of the area and Zeebrugge is less than between this area and Borssele, so it seems logic to reflect on international collaboration in a common landing of electricity cables in Zeebrugge.
- Possibilities for aquaculture (possibly as multiple use in the wind parks) and for sustainable fishing techniques.
- Large ships should be banned inside the area, but a shipping corridor for small en medium-sized ships could be foreseen in the centre of the study area (northwest-southeast oriented).
- Tourism is possible in the area, but not in the wind parks.



**Fig 3.6.2. Map drawn by Belgian governmental representatives**

Description of the Belgian map:

- The area is designated for wind energy production, but several activities could be shared (multiple use):
- Priority for alternative forms of energy production;
- No beam trawling fisheries;
- Refuge area for fish stocks, but no nature protection in the sense of Natura 2000;
- Tourism and recreation is allowed but only outside the wind parks;
- No commercial shipping allowed in the wind parks;
- The Belgian participants stress international collaboration towards a European energy super grid.

### **3.7 The 10 key principles for MSP**

Main conclusions from the case study: not all principles are equally important, while some are already part of binding instruments. The 10 key principles should not be made legally binding, but considered as important policy principles. For some of the principles specific findings and conclusions are formulated:

- Principles 1 'Using MSP according to area and type of activity' and principle 2 'Defining objectives to guide MSP' are closely interlinked. These principles are important ones. For principle 2 it was stated that one needs to define common objectives which fall within the frame of nationally set objectives.
- Principle 3 'Developing MSP in a transparent manner' and principle 4 'Stakeholder participation' are also considered important principles. Focus on the mandate and the role of decision makers is crucial. The tension between participation of stakeholders and transparency of the process could be helped by a shared database/information tool.
- In relation to principle 7 'Cross-border cooperation and consultation' the issue of a cross-border coordinating body came up. (Who should in the end decide on the cross-border cooperation?) The terminology "coordinating body" needs better reflection: on what level (EU, national) should such a body be formed? With what mandate? Etc.
- Principle 9 'Achieving coherence between terrestrial and maritime spatial planning in relation with ICZM' did not play a role in this case study. The only issue that was discussed in relation to the principle is the landing of electricity cables.
- In relation to principle 10 'A strong data and knowledge base' there is a need to agree what knowledge base to be used. Also quality assurance on data and knowledge should be arranged.

### 3.8 Lessons learned

The most important successes of the case study were:

- There is a willingness and need to share information: scientific information and information on national MSP policy
- Agreement on common priorities: renewable energy, shipping, nature conservation
- MASPNOSE : successful as a facilitator and platform for parties to establish contacts for future cooperation and to resolve potential conflicts

The most important constraints:

- MSP was not a top political priority during the project time
- Time constraints participants
- No fisheries representatives, although invited. Fisheries are not fully taken into account
- No private stakeholder participation in the process

General conclusions:

- Common objectives for the Thornton Bank area: economic scenario for renewable energy with environmental benefits;
- Setup a coordination body for MSP at national level;
- Cross-border consultations requires the synchronizing of planning cycles;
- Make full use of existing consultation opportunities of Strategic Environmental Assessments (SEA);
- Informal communication is often more effective than formal structures in a pre-planning phase;
- Invite stakeholders at the appropriate time (when a "stake" will be potentially affected);
- Invest in the development of a common language. For example, the concept 'monitoring' has a very different meaning in Belgium and The Netherlands.



## 4 Case study 2: Dogger Bank

### 4.1 Introduction

The Dogger Bank is the largest sandbank in the North Sea (Figure 4-1) and it is divided among the Exclusive Economic Zones (EEZs) of the United Kingdom (UK), The Netherlands (NL), Germany (GER), and Denmark (DK).

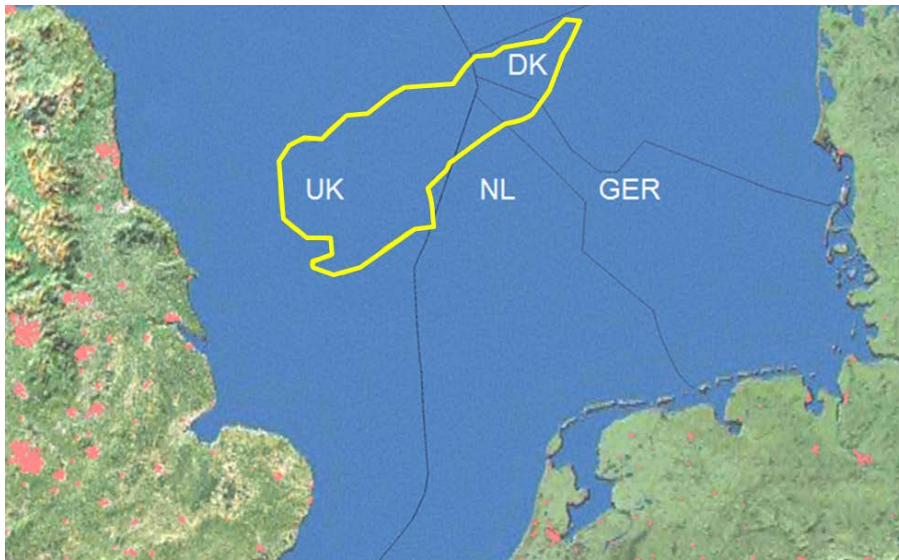


Figure 4-1 Dogger Bank and the EEZ of UK, Netherlands, Germany and Denmark

The shallow flat top is considered to be relatively dynamic in comparison to the surrounding slopes that are more stable. The length of the sandbank feature is 300km in an east-northeast orientation, with a maximum width of a 120 km in a west-southwest orientation, and the nearest land is the UK at a distance of a 100 km.

The focus of this case study is on the whole feature of the Dogger Bank that has been designated or proposed as Special Areas of Conservation (SAC) under the Habitats Directive (EC Directive 92/43/EEC) by the UK, GER and NL. Within the case study three specific sub-areas of the Dogger Bank are identified (Figure 4-2): the German SAC, the Dutch SAC and the United Kingdom considered SAC (cSAC).

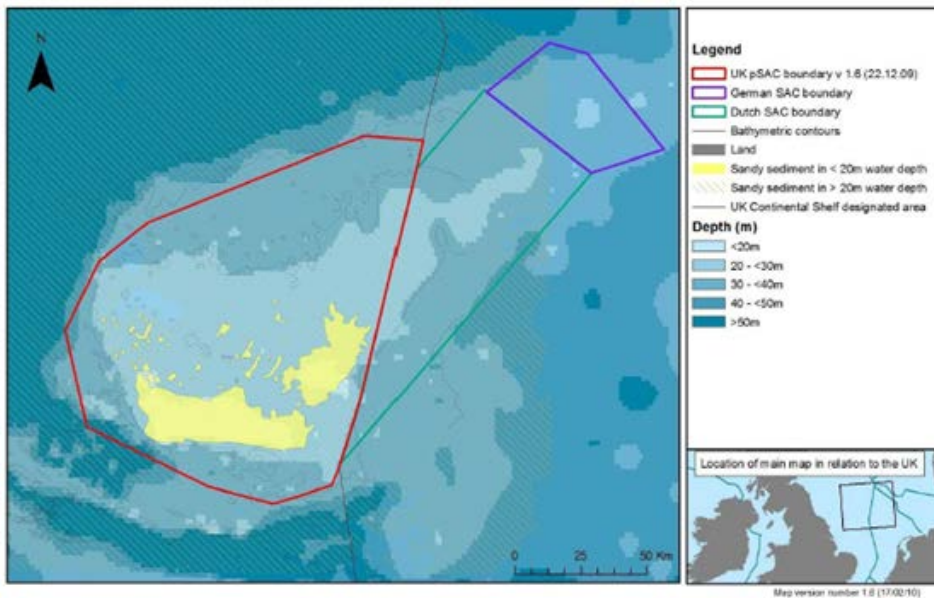


Figure 4-2 Site boundaries of UK cSAC, Dutch SAC and German SAC. (source: JNCC/CEFAS 2010)

To reach the legally binding conservation and restoration objectives for the Dogger Bank, specific spatial measures are required to limit human impacts. The main spatial claim and use of the Dogger Bank comes from fishing, but other claims include oil and gas extraction and wind farm development. The round 3 Forewind Dogger Bank Wind farm Zone is an important wind farm development. There is substantial overlap between the wind farm development area and the UK cSAC site (Figure 4-3).

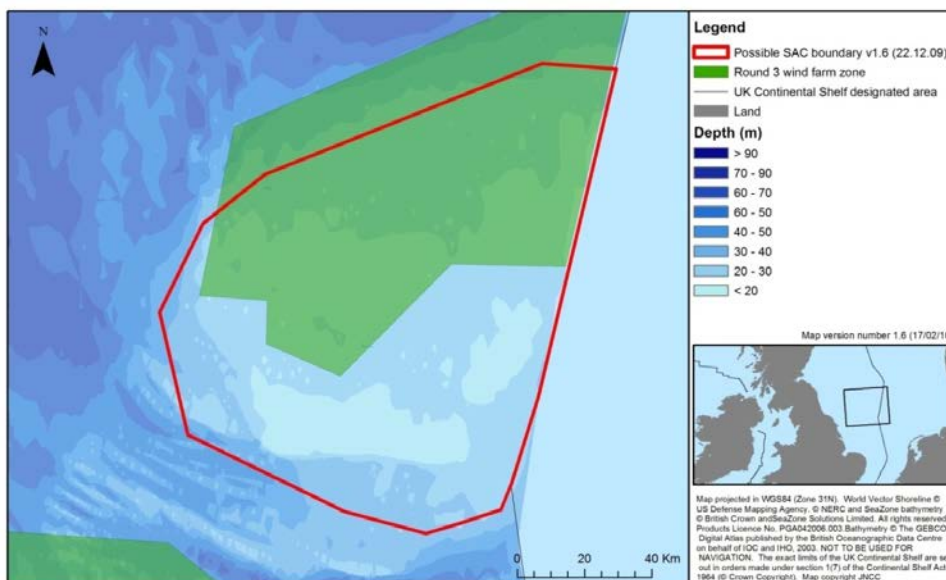


Figure 4-3 Overlap UK cSAC and the round 3 Forewind wind farm development area. (source: Defra, 2011).

The focus of this case study was on the process that should lead to a cross border fisheries management plan in relation to nature conservation for all three designated Natura2000 sites.

## 4.2 Key challenges

This case study was carried out in the context of a real on-going decision process for the Dogger Bank. The process started in January 2011, when the Dutch FIMPAS (Fisheries Measures in Protected Areas) project recognised that the cross boundary nature of the Dogger Bank SACs and their fisheries required an international approach. As a result, an inter-governmental Dogger Bank Steering Group (DBSG) was set up. Members of this DBSG were representatives of the UK, NL, Germany, ICES and the EC, and the chair was taken by Ton IJlstra (Ministry of Economic Affairs, Agriculture and Innovation, The Netherlands). The inter-governmental steering group invited the North Sea Regional Advisory Commission (NSRAC) to produce a stakeholder-led proposal for a fisheries management plan for the combined Dogger Bank SAC area. In the spring of 2011 this led to a request, from the NSRAC to the MASPNOSE project, to facilitate and support this spatial planning process. At the start of this facilitation process, the MASPNOSE consortium was confronted with two key challenges:

1. To ensure that the spatial process was clear, realistic and accepted by all involved stakeholders.
2. To ensure access to required data and information from the responsible authorities, i.e. the Member States represented in the Dogger Bank Steering Group.

In the first MASPNOSE Dogger Bank case study work plan (version 2, May 31st 2011) four objectives were detailed and scheduled in time:

1. Facilitate NSRAC FIMPAS process (May–October 2011)
2. National MSP plans and specific MSP plans including EMPAS and FIMPAS (July–December 2011)
3. Investigation of two selected issues (October 2011-February 2012)
4. Syntheses (March 2012)

As work on the first objective commenced it became apparent that the task at hand was very time consuming and complex. We had envisioned to facilitate, study and follow the process closely until shortly after the scheduled FIMPAS stakeholder meeting in September 2011. With the extra work involved in the first objective and the date of the stakeholder meeting pushed back to November adjustments were made to the work plan.

During the first MASPNOSE Advisory Board meeting (Lisbon November 1<sup>st</sup> 2011) the focus and the objectives of the case study were re-evaluated and matched with the available time and means. The outcome was to focus on the first objective and not further investigate two selected issues in detail.

While continuing work on objective 1 it also became clear that a study of the Forewind wind farm development would not be feasible, given the sensitivity of the on-going licensing process. And in the end work on objective 1 was not completed until mid-April 2012 when the final NSRAC position paper was completed, leaving us little time for syntheses.

Consequently the presented findings do not reflect on all available material that has been obtained in this case study. Detailed analyses of the material requires more time and will be done in the context of the on-going EU funded MESMA project ([www.mesma.org](http://www.mesma.org)), where the Dogger Bank is also one of the case studies. The analysis will be carried out during the remainder of 2012.

### 4.3 General approach to case study

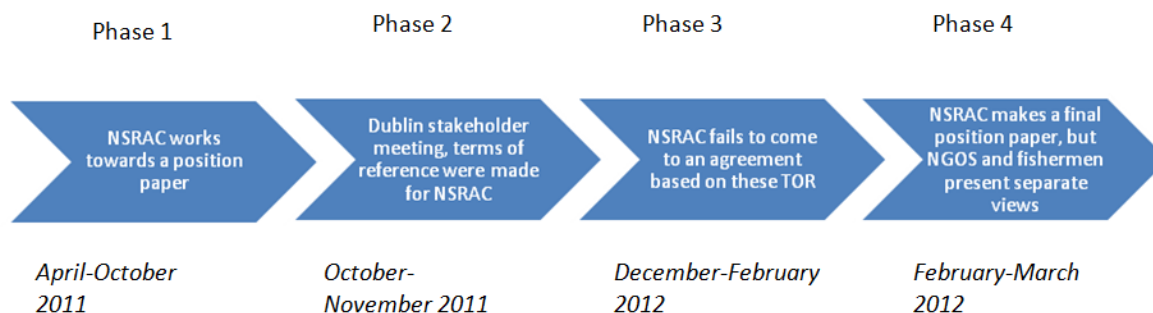
To deal with the key challenge of this case study, i.e. facilitation and support of the NSRAC in the MSP process, a very structured and formal approach was chosen. In close collaboration with a NSRAC appointed focus group (NSRAC FG) Terms of Reference and a script were drafted for the NSRAC FG process (see Appendix E). In a half day scoping meeting in London (June 6<sup>th</sup> 2011) these Terms of Reference and the supporting script were finalized and adopted by the NSRAC FG (NSRAC 2011c). This document defined the objective, the involved parties, the roles and responsibilities, the process, deadlines and deliverables. Additionally, rules of engagement were discussed and agreed on by the NSRAC FG. This formal approach was selected to ensure that the spatial planning process would be transparent and clear to all involved stakeholders. For almost all meetings and workshop MASPNOSE appointed one or in the case of the workshops several reporters to take notes. These notes were combined after the meetings and shared with the participants. The support from MASPNOSE also included gathering and preparing data for the workshops and communicating with all involved stakeholders.

### 4.4 Process description

In 2009, the first objectives were set for the management of fisheries within Dutch Natura 2000 areas including the Dutch part of the Dogger Bank. The Dutch project Fisheries Measures in Protected Areas (FIMPAS) aimed at the introduction of fisheries measures in marine protected areas in the Exclusive Economic Zone of the Dutch North Sea by the end of 2011. The environmental NGO's and the fishing industry cooperated within this project to develop the necessary fisheries measures and thus achieve the conservation objectives in the Dutch marine protected areas of the North Sea.

Germany, UK and The Netherlands have all designated Natura 2000 Special Areas of Conservation (SAC) in their respective parts of the Dogger Bank, mainly to protect the habitat type 1110 of the Habitats Directive. This habitat type refers to *Sandbanks which are slightly covered by sea water all the time*. The Dogger Bank is an important fishing ground for fishers of several Member States (e.g. Denmark). Therefore, an intergovernmental Dogger Bank Steering Group (DBSG) emerged out of the Dutch FIMPAS process, with the objective to develop an international management plan for nature and fisheries within the Natura 2000 framework. The DBSG consisted of government representatives from the UK, Germany, Netherlands and Denmark and representatives from ICES. The DBSG invited the North Sea Regional Advisory Council (NSRAC) to write a position paper with recommendations for a fisheries management plan for these combined Dogger Bank Natura 2000 sites. MASPNOSE

was invited to facilitate this private stakeholder process. Therefore, MASPNOSE was part of an on-going cross-border spatial planning process, involving four Member States, ICES and the EC. Involvement of the NSRAC in the DBSG process can be categorized in four individual phases (Figure 4-4), which were all initiated by the DBSG.



**Figure 4-4 Dogger Bank: schematic layout of MSP process Dogger Bank (for NSRAC involvement)**

The DBSG process continued with a fifth phase (April 2012 and ongoing) but this is beyond the scope of the MASPNOSE project. Processes 1 and 4 were facilitated by MASPNOSE, Process 2 was facilitated by ICES and process 3 was facilitated by Centre for Marine Policy (David Goldsborough) and observed by MASPNOSE.

*First phase (March-October 2011)*

Participants	NSRAC Focus Group
Terms of Reference	NSRAC Focus Group
Facilitation	MASPNOSE including GIS support
Budget	MASPNOSE
Objective	To develop a position paper on fisheries management in relation to nature conservation, including a zoning proposal, for the combined area covered by the 3 national Natura 2000 sites (SACs) of the Dogger Bank
Result	NSRAC Position Paper submitted to DBSG (October 2011)

MASPNOSE facilitated several meetings and workshops in which members of the established NSRAC focus group (and sometimes additional experts) worked towards a position paper. In these meetings the main issue was to build trust between the environmental NGOs and the fishermen that together make up the NSRAC. The outcome of this first phase was a position paper (October 2011) with three management scenarios, based on an agreement by the fishermen and the NGOs and approved by the Executive Committee of the NSRAC. The Dogger Bank Steering Group provided Terms of Reference (TOR) to which the NSRAC could adhere in the development of their position paper. MASPNOSE provided facilitation, GIS support (through so-called map-table sessions) and budget for the workshops.

During this first phase, the NSRAC requested to be an observer in the DBSG process. This request was granted and since that time, the NSRAC has been an observer at DBSG meetings. Early on in the first process it became clear that it would not be possible for the NSRAC FG to meet the DBSG deadline for the first week of September. The DBSG granted a limited extension was granted to the NSRAC FG until October. Consequently, the scheduled



September Dublin stakeholder meeting was postponed until the beginning of November, and all further steps in the DBSG process were pushed back in time.

#### Meeting and workshops

23/03/2011, Brussels	NSRAC Spatial Planning Working Group was invited by Ton IJlstra (DBSG) to develop a management proposal for the Dogger Bank. Martin Pastoors presented the possibility for MASPNOSE to facilitate this process.
04/05/2011, London (I)	NSRAC SPWG meeting. Presentation by Forewind consortium on wind farm development on the Dogger Bank . MASPNOSE explanation on the facilitation of the NSRAC process. NSRAC focus established. Martin Pastoors (Wageningen University) and Lisa Faber (Centre for Marine Policy) participated.
06/06/2011, London (II)	MASPNOSE facilitated a scoping meeting for the NSRAC Focus Group (NSRAC FG) to define and agree on the terms of reference (TOR) for developing a fisheries management proposal for the Dogger Bank.
14/06/2011, WWF Zeist	Preparation meeting for NGO partners of the NSRAC focus group. David Goldsborough explained the MASPNOSE approach.
21-22/-6/2011, Schiphol	First MASPNOSE NSRAC Dogger Bank workshop . The emphasis of this workshop was defining the required building blocks for the management proposal. A key issue was discussing available and required knowledge and data for such an exercise. The table of contents for the management proposal was defined and agreed upon.
30-31/08/2011, Schiphol	Second MASPNOSE NSRAC Dogger Bank workshop. The main objective of this workshop was to define the ingredients for a NSRAC management proposal, including a zoning plan, for the Dogger Bank. Twenty invited stakeholders carried out four assignments: Examination of the data, first classification of the Dogger Bank, zoning proposals and detailing the position paper. Map-tables were used as an effective way to present the underlying information and to get input from the participants (Figure 4-5)
12/09/2012, 19/9/2011 and 28/9/2011, Skype	Several skype meetings; working towards final position paper.
03/10/2011, Amsterdam	NSRAC Dogger Bank workshop . Purpose: to agree on the text of the position paper. This half day session was only for the NSRAC FG. Three agreed scenarios were worked out using GIS (Arjan Koekoek, GEODAN).
07/10/2011	Submitted NSRAC position paper to NSRAC ExCom.

#### Relevant documents for phase 1:

- NSRAC May 2011. Terms of Reference NSRAC spatial planning focus group's Management position paper for the Dogger Bank.
- NSRAC May 2011. Script NSRAC Dogger Bank Management Plan.
- NSRAC, October 2011. Position paper on fisheries management in relation to nature conservation for the combined area of 3 national Natura 2000 sites (SACs) on the Dogger Bank.



- Van Moorsel, G., 2011. Species and habitat of the international Dogger Bank, assignment of WWF.



Figure 4-5 Impressions from the map-table sessions, 30-31 August 2011

*Second phase (October-November 2011)*

Participants	DBSG, NSRAC FG and other invited stakeholders
Terms of Reference	Not applicable
Facilitation	ICES
Budget	DBSG (Appendix H)
Objective	To reflect on a proposal including three scenarios, developed with the assistance of ICES (led by Hans Lassen), drawing on some of the NSRAC's elements but also including new elements, and –if required- provide input for a scenario four.
Result	New request to NSRAC to develop a zoning proposal within strict terms of reference set by the DBSG. NSRAC FG to include DBSG observers (= NSRAC FG+)

In this phase, MASPNOSE was mainly observing the process. During a focused stakeholder meeting facilitated by ICES in Dublin the DBSG presented a modification to the NSRAC proposal. The NSRAC was not satisfied with this proposal and the united position of NGOs and fishermen of the NSRAC Focus Group became more divided after this presentation. MASPNOSE actively attempted to bring together these members of the NSRAC Focus Group during intermissions.

The main outcome of this second phase was that the DBSG requested the NSRAC to develop a new spatial plan (phase 3) based on the new terms of reference that were developed after the Dublin meeting. The new terms of reference stipulated that the zoning allocation for

nature conservation should be between 25 and 55% of the total area . The wide range of 25-55% reflected the divided positions of the Member States on the issue (e.g. Germany wanted a minimum of 50% strict protection while the UK wanted less).

#### Meeting and workshops

7-8/11/2011, Dublin	DBSG stakeholder workshop Dogger Bank
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#### Relevant documents for phase 2:

- Invitation to Stakeholders Workshop 7 – 8 November 2011 in Dublin, Ireland, October 2011.
- Agenda, Stakeholder Meeting Dublin, 7-8 November 2011.
- Hans Lassen- ICES Secretariat, 2011. Dogger Bank Fisheries Regime. DBSG-Stakeholder Meeting Dublin, 7-8 November 2011, Paper 2.
- Minutes of the DBSG-Stakeholder Meeting Dublin, 7-8 November 2011 (including the summary by the chair)

#### *Third phase (December 2011-February 2012)*

Participants	NSRAC FG and observers from Member States
Terms of Reference	DBSG
Facilitation	David Goldsborough (Centre for Marine Policy, Wageningen UR) including GIS support GEODAN
Budget	DBSG Member States and fishing sector (50:50). (appendix H)
Objective	To develop a draft proposal, including a joint zoning proposal, for a fisheries management regime for the Dogger Bank
Result	NSRAC report 7 February 2012. NSRAC could not agree on a joint zoning proposal.

In the third phase, MASPNOSE was an observer of the process. The NSRAC decided to work on a new proposal based on the terms of reference provided by the DBSG. Observers from the DBSG were present at these meetings. However, the RAC did not come to an agreement on the location and the percentage of strict nature conservation zones, and they returned the assignment to the DBSG based on the position that the NSRAC would only submit a proposal if there was internal agreement on all points.

#### Meetings

December 9 <sup>th</sup> 2011 Scoping meeting NSRAC Focus Group, Amsterdam	To develop a draft proposal, including a joint zoning proposal, for a fisheries management regime for the Dogger Bank
January 9 <sup>th</sup> 2012 Workshop 1, Amsterdam	To develop a draft proposal, including a joint zoning proposal, for a fisheries management regime for the Dogger Bank
January 23 <sup>rd</sup> 2012 Workshop 2, Amsterdam	The result was that the NSRAC could not agree on joint zoning proposal

#### Relevant documents for phase 3:

- NSRAC FG December 2012. Script NSRAC FG+ Dogger Bank Management proposal.

- Hans Lassen & Jacob S. Hansen- ICES Secretariat December 8th 2011. Size of Zones: Dogger Bank SAC. Note.
- Hans Lassen-ICES Secretariat December 21st 2011. Benthic Habitats on the Dogger Bank, Note.
- NSRAC SPWG, 2012. NSRAC Report of the Spatial Planning Working Group by the Chair. NSRAC ExCom, London, 7 Feb 2012.

*Fourth phase (February-March 2012)*

Participants	NSRAC FG and chair NSRAC
Terms of Reference	DBSG (Appendix H) plus additional requirements (letter chair DBSG, see references)
Facilitation	MASPNOSE
Budget	MASPNOSE
Objective	To develop a draft proposal for a fisheries management regime for the Dogger Bank.
Result	Position paper on fisheries management in relation to nature conservation for the combined area of 3 national Natura 2000 sites (SACs) on the Dogger Bank, including two annexes explaining the rationale behind the NGO and industry zoning proposals.

The fourth phase was facilitated by MASPNOSE. The DBSG had again asked the NSRAC to make their proposal and submit it by March 2012. The NSRAC had several meetings, this time without the presence of the DBSG observers. Participants were the NSRAC Focus Group members and the chair of NSRAC. Ultimately, the stakeholders of the NSRAC decided "to agree to disagree" and delivered a report with two different points of view. The Terms of Reference were set by the DBSG plus additional requirements.

*Meetings*

12/03/2012, Amsterdam	Scoping meeting NSRAC Focus Group, Amsterdam. To develop a draft proposal for a fisheries management regime for the Dogger Bank. This was a continuation of the objective of the third process.
22/03/2012, Amsterdam	Workshop NSRAC Focus Group, Amsterdam. Writing a final position paper on fisheries management in relation to nature conservation in the Dogger Bank, including two annexes explaining the rationale behind the NGO and industry zoning proposals.
29/03/2012, Hamburg.	MASPNOSE stakeholder workshop, Hamburg. Two goals: (1.) Evaluation: To share and discuss the outcome of the two case studies, (2.) Draw preliminary conclusions on what this outcome means for the EU 10 key principles on MSP.

Relevant documents for phase 4:

- Letter chair DBSG to NSRAC FG and NSRAC chair detailing terms and requirements of continuation, March 5 2012.
- NSRAC 2012 Final position paper on fisheries management in relation to nature conservation for the combined area of 3 national Natura 2000 sites (SACs) on the Dogger Bank. 9 April 2012

*Fifth phase (April 2012 and beyond)*

This phase extends beyond the lifetime of the MASPNOSE project and does not form part of the Dogger Bank case study. This phase is part of the overall DBSG process that was initiated by the Dogger Bank Steering Group in January of 2011 and aims for conclusions on the international management plan for the Dogger Bank.

#### **4.5 Vision and common objectives**

The Dogger Bank Steering Group has outlined the vision and common objectives of the Member States in their terms of reference set for the NSRAC. The main objective was that the (habitat) conservation objectives for the Dogger Bank were going to be met.

With their two position papers (October 2011 and April 2012) the NSRAC has expressed their vision on fisheries management in relation to nature conservation for the Dogger Bank SAC areas. The NSRAC agreed on general management approaches and objectives (adaptive management, gear adaptation and co-management) but did not reach a common vision on how to achieve the conservation objectives with specific zoning measures.

#### **4.6 Maps, scenarios and visualizations**

For the studied processes the main maps, scenarios and visualizations per process are shown.

##### *Phase 1 (May – October 2011)*

During the first phase most of the time was spent on understanding the available data and the conservation objectives and sharing knowledge and opinions with each other during the workshops. At the 30-31 August 2011 workshop, two map-tables were used for viewing, analysing, combining and adding new information. The participants were provided with the following data:

- Basic data: administrative borders, depth, bathymetry
- Economic data (not on the map-table)
- Fisheries data (made available by ICES, Productschap vis and the fishermen)
- Ecological classification (made available by the North sea foundation and WWF)

In the mapping process, an important role was granted to the ecological classification presented by Van Moorsel (2011) which was commissioned by the North Sea foundation and WWF (Figure F.1). This provided the backbone for many subsequent discussions.

There was not enough time for the NSRAC FG to work on a detailed zoning proposal. The NSRAC limited themselves to presenting an agreed first experimental approach with three demonstration scenario's. The main elements of this experimental approach are:

- a. The whole Dogger Bank is subdivided into five benthic communities (areas) as described by van Moorsel 2011 and based on long-term monitoring by Wieking and Kröncke (2003 and 2005, Figure F.2).

- b. A possible scenario is that each community (area) could be protected by designating a percentage as a no-take zone, a percentage open to only low impact fishing gear, and a cap on fishing effort in the remaining area.
- c. Due to the more naturally occurring dynamic disturbance of the central part of the Dogger Bank, the fishing constraints can be somewhat lower for this central benthic community than on the edges which support higher biodiversity value.

To see how this experimental approach would apply to the Dogger Bank, the NSRAC carried out three zoning scenarios for different management measures (Table 4.1 and Figure 4-6).

The Fishing effort was derived from an ICES data set of fisheries data for the period 2007-2009. This data was compiled as a result of a data call to Member States on fisheries data. GIS-referenced maps were produced showing fishing effort for: Otter Trawl, Beam Trawl, Sandeel and the combination of the three (shown as the background in Figure 4-6).

**Table 4.1** Three scenarios for the zoning experiment

	No-take area (%)	Low impact gear area (%) around No-take area	Effort cap fisheries in the remaining area (%)
<b>Scenario 1</b>	10	10	80
<b>Scenario 2</b>	30	10	60
<b>Scenario 3</b>	50	10	40

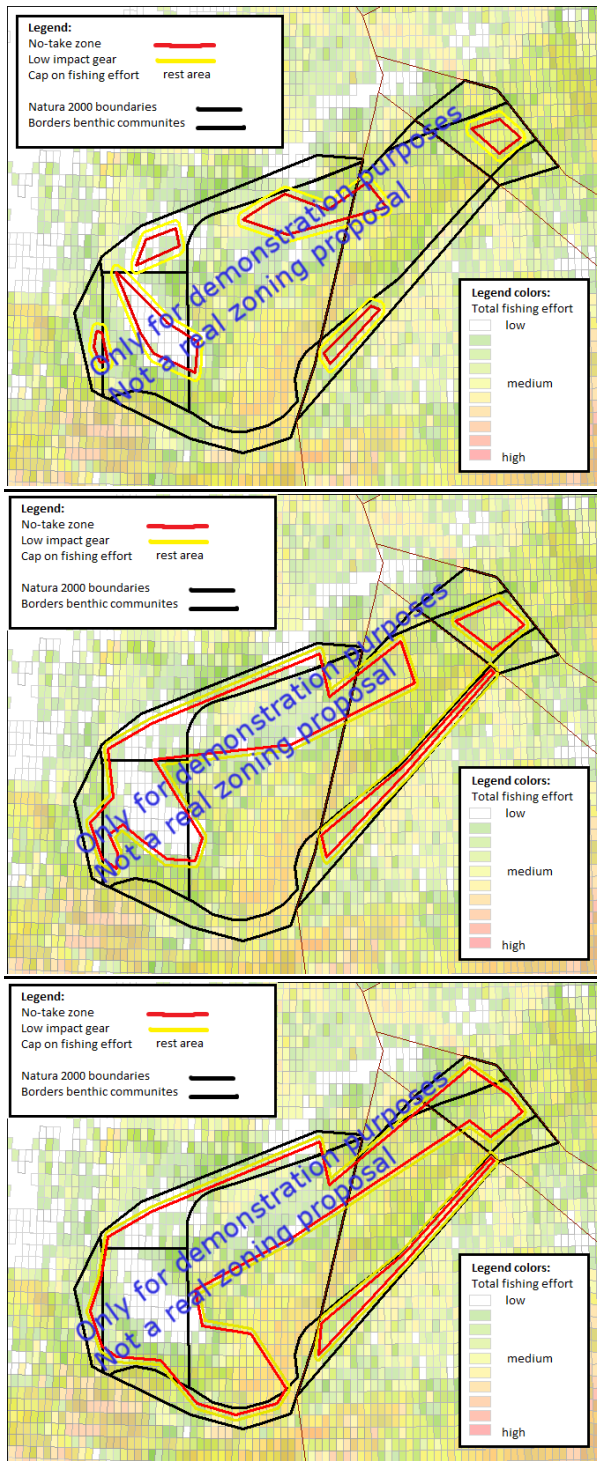


Figure 4-6 Top: Scenario 1 (10-10-80). Middle: Scenario 2 (30-10-60). Bottom: Scenario 3 (50-10-40) (Source: Position paper NSRAC, October 2011)



*Phase 2 ( October – November 2011)*

In preparation for the Dublin stakeholder meeting, ICES used a number of maps. Starting point was the habitat description which was largely based on the Van Moorsel (2011) report (Figure F.2).

The gross value of the landings 2007-2009 shows high and low value of the landings in different areas (Figure G.1). Three fisheries distribution maps were generated with data covering the period 2007-2009 (Figure G.2). Different combinations of the communities map and the fisheries maps led to three scenarios that were presented by ICES and discussed at the meeting in Dublin (Figure 4-7).

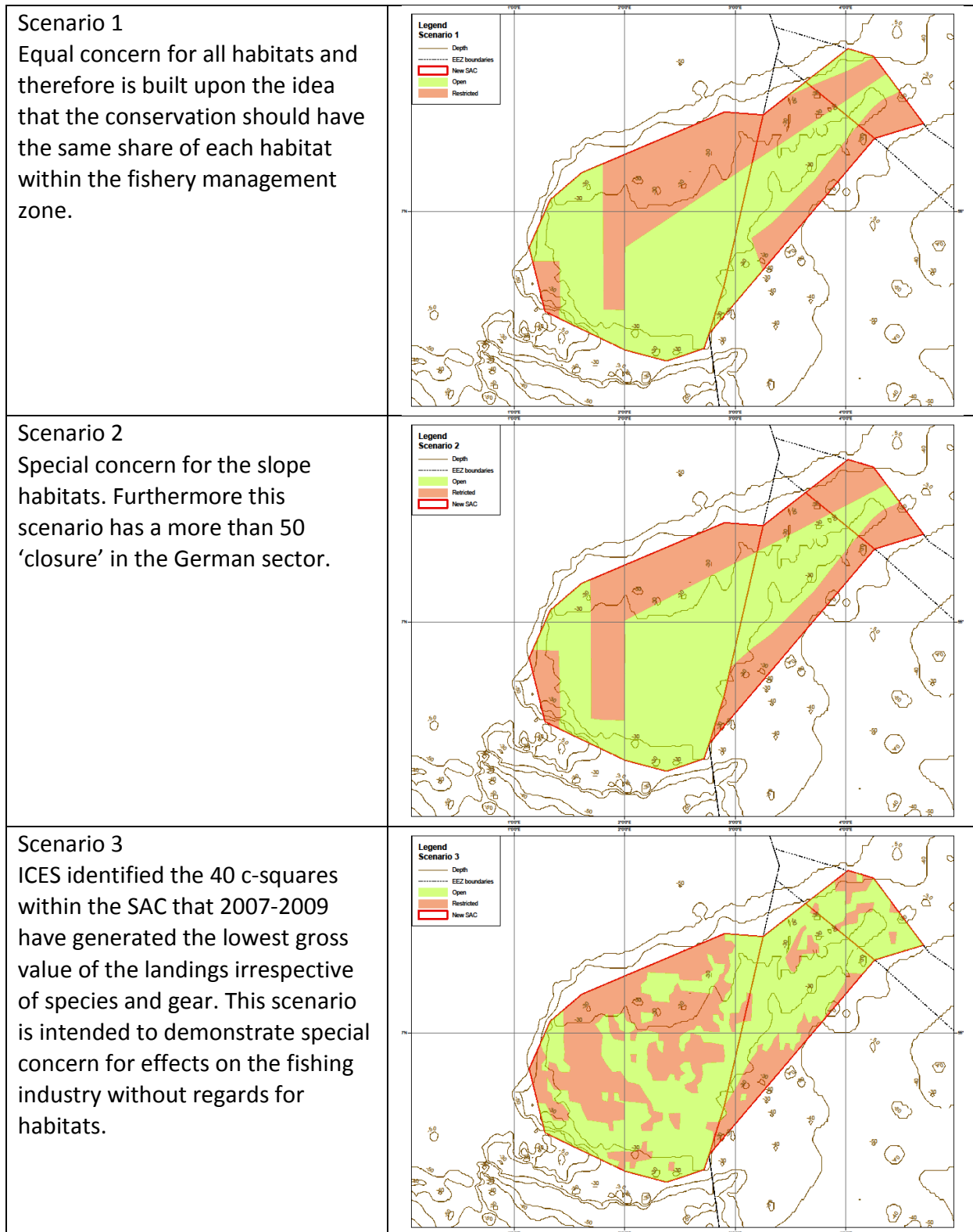
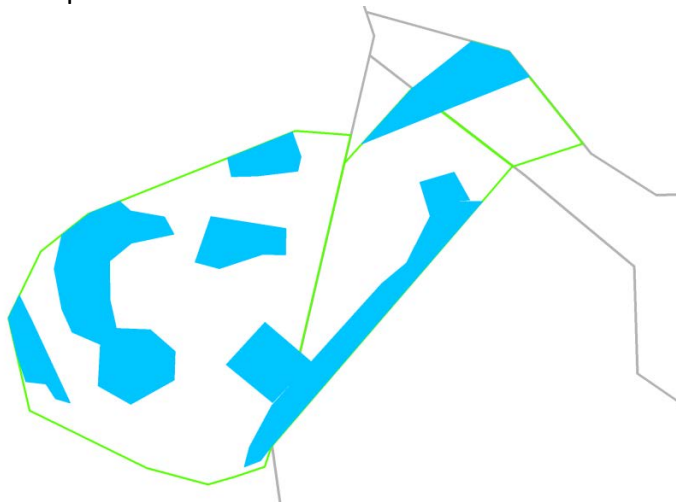


Figure 4-7 Three different scenarios for Dogger Bank closures, presented by ICES at the Dublin stakeholder meeting, 7-8 November 2011.

### *Phase 3 (December 2011-February 2012)*

At the 23 January 2012 workshop, the fisheries organizations presented a new map, with a total protected area of 23%. The NGOs, who are seeking protection over 40-55% of the area, but not less than 35%, presented a map with a total coverage of the protected areas about 43% (prepared in cooperation with Godfried van Moorsel). The gap between the industry and NGO positions was not closed during the workshop.

In an attempt to find common ground, the Dutch Government observer worked with the fisheries organizations to create the so-called 'blue-map' (Figure 4-8) based on the areas indicated by the NGOs. The blue map had 33% of the area covered for protection. The Dutch fisheries organizations agreed to take this map to their constituencies (28 Jan 2012) for evaluation. The NGOs indicated they would like to see additions to the blue-map in the northern slope area.



**Figure 4-8 NSRAC produced 'blue-map' with about 33% of the area covered for protection (blue areas), proposed to bridge the gap between stakeholders (Report of the Spatial Planning Working Group by the Chair, NSRAC ExCom, London, 7 Feb 2012)**

In February 2012, the NSRAC concluded that they could not deliver the consensus statement in the time that was required. In their report to the NSRAC Executive Committee, the Focus Group reported that *"The NSRAC is well aware of the significance of the precedent it will set if it can make a stakeholder led proposal, and equally of the consequences of defaulting to the Member States. The Commission has impressed on the NSRAC the importance it attaches to receiving a stakeholder-led management plan. As such, considerable effort is being put into finding a solution so that the NSRAC can retain ownership of this benchmark spatial planning opportunity."*(NSRAC, 2012a)

### *Phase 4 (February-March 2012)*

During the whole NSRAC Dogger Bank process, the stakeholders worked jointly on mapping exercises, but the construction of a final joint zoning map has not been achieved, mainly due to the differences in criteria and stakes in the SAC area. While the main driver of the industry was considering the locations of fishing grounds and implications of zones for fishing activity, both socio-economic and ecological, the NGOs mainly focused on ecological considerations.

In the third phase of the NSRAC process, the stakeholders were explicitly asked to translate their considerations into a zoning map, showing specifics on locations and sizes of areas. The stakeholder groups did not manage to draw up one joint map. Instead they worked with their constituencies and presented their findings, with the intention to work towards similar maps (Figure 4-9 and Figure 4-10)

Several sessions were devoted to creating a joint zoning map, but at the latest meetings it became clear that the gap between the fishing sector and the NGOs was too large to bridge. Not only the sizes of areas, but also the locations of areas were disputed. Actual management constraints of the Fisheries Management Zones had not been jointly agreed at that stage.

The NSRAC Focus Group decided to work on separate stakeholder input papers to advise the DBSG in their decision-making process on the zoning of the Dogger Bank SAC complex.

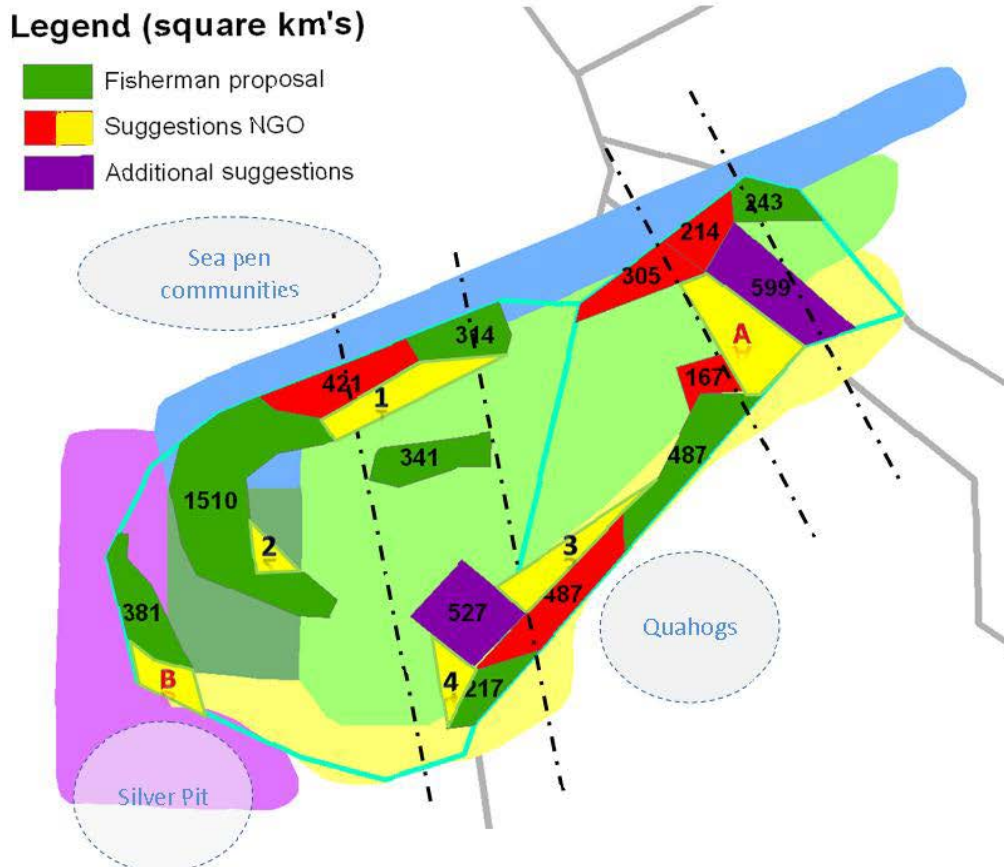


Figure 4-9 NGO proposed areas, January 23rd 2012. The map includes the suggestions by the fisheries (green) and the Member States (purple). The numbers and letters are only used as identifiers of different areas.

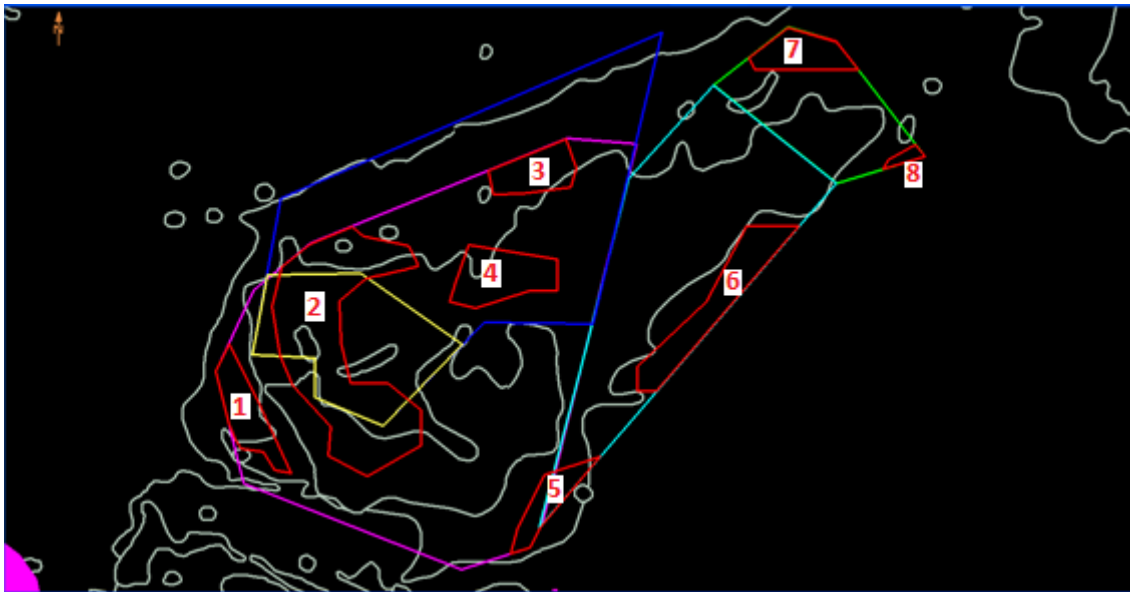


Figure 4-10 Fishing industry proposed zonation. Boundary key: red = fisheries management zones; pink = SAC UK sector; turquoise = SAC Dutch sector; Green = SAC German Sector; Blue/yellow = Dogger Bank Round 3 planning zone and tranche 1 projects area.

#### 4.7 Description of Maritime Spatial Plan

The Dogger Bank spatial planning process aims for an international management plan that is submitted by the DBSG to the European Commission (DG MARE). The final position paper by the NSRAC (2012) provided input into that joint international management plan.

The NSRAC achieved consensus on a number of issues:

- the need for a zoning approach to management of the Dogger Bank (NSRAC 2012).
- that a management plan should actively stimulate gear innovation because "development and use of less bottom-impacting gears leads to less impact and also reduced costs (lower fuel consumption) for fishermen".
- that the zoning measures applied could result in potentially harmful displacement of effort (but the different stakeholders had divergent views on how this could be mitigated)
- that the development of windfarms on the Dogger Bank should be taken into account. Due to differing timeframes, this was not feasible during the NSRAC Dogger Bank process.
- that current knowledge concerning the conservation status of the Dogger Bank is limited and requires adaptive management
- that the Dogger Bank fisheries zoning plan should be subject to co-management. Co-management is a process in which Member States share information and decision-making with resource users and other key stakeholders, with each given specific rights and responsibilities.

During the NSRAC Dogger Bank process, the stakeholders worked jointly during several mapping sessions. In the third phase of this Dogger Bank stakeholder process, the

stakeholders were explicitly asked to translate their considerations into a zoning map, showing specifics on locations and sizes of areas. The stakeholder groups did not achieve a joint final map. The gap between the visions of the fishing sector and the NGOs was too large: not only on size of areas but also on locations. The NSRAC Focus Group decided to present two separate stakeholder papers to inform the DBSG in their decision-making process on the zoning of the Dogger Bank. Figure 4-9 and Figure 4-10 are the final versions of the maps made by the NGOs and by the fishing industry.

The final position paper by the NSRAC provided input into that joint international management plan that is currently negotiated in the DBSG. As of June 2012, it is not yet clear how the DBSG and the Member States plan to use the NSRAC position paper and what will be the final outcome regarding the zoning of the Dogger Bank area.



#### 4.8 10 key principles for MSP

The conclusions on the applicability of the 10 key principles to the Dogger Bank case study were discussed in the Hamburg stakeholder workshop (29 March 2012) and are summarized below.

Key Principle	Dogger Bank
1 MSP by area and type of activity	In this case study, the area only referred to seabed (sea mammals were excluded) because of Habitat Directive. Activity was limited to nature conservation and fisheries.
2 Define objectives	The general objective was restoration of habitat. Initially there were different objectives for different member states. During the MSP process, shared objectives were developed. There is a distinction between objectives for the <b>input</b> (how the process is to be organized) and for the <b>outcome</b> (what the system should be like).
3 Develop MSP in a transparent manner	In the NSRAC process, back-stage transparency was needed to create trust (on the content). Front-stage transparency was needed to show outsiders the process: who is in it, what the process is etc. The DBSG process had limited front-stage transparency.
4 Stakeholder participation	DBSG organized stakeholder participation through NSRAC process. Stakeholder were initially not invited to decision-making meetings in DBSG. In the NSRAC process all relevant stakeholder organizations participated (with a fixed membership).
5 Coordinate within Member States	There are sometimes issues with coordination within member states. If this is the case the different ministries can act as different types of stakeholders.
6 Ensuring the legal effect of national MSP	Not explicitly covered in the case study.
7 Cross border cooperation	The case study is a good example of cross-border cooperation. There are three countries which have designated Natura 2000 areas, and one country who fishes inside these areas. However, the lack of clarity in mandate of the DBSG had lead to an unclear workplan and a lack of alignment of national processes.
8 Monitoring and Evaluation	Monitoring and evaluation (of the system) has been raised as an important element of adaptive management but not (yet) incorporated in the plans. Monitoring and evaluation of the NSRAC process has only been done at the end of the process.
9 Coherence between terrestrial and maritime spatial planning	Not considered in this case study.
10 Strong data and knowledge base	A data and knowledge base was developed during the NSRAC process, due to development of trust and willingness to share data and knowledge. It is important to agree on what knowledge base to use. Quality assurance on data and knowledge is also essential. Joint fact finding and agreeing on the research agenda are important (process) tools for MSP.

## 4.9 Lessons learned

The Dogger Bank case study has provided us with detailed insight into a complex stakeholder participation process in maritime spatial planning. The Dogger Bank case study is essentially a situation where three different EU Member States are faced with the task of selecting sites for several large-scale, representative nature protection zones within a shared feature in their respective EEZ's. The zoning can be contested by multiple stakeholders from various different sectors and countries, including neighbouring Member States with substantial economic interests located within the area. In this case, the fishing sector and the environmental NGOs are certainly two very central stakeholders due to the ubiquitous nature of these sectors.

The analysis of the three Member States' strategies for handling the transboundary planning process, combined with the facilitation and analysis of the NSRAC development of a zoning proposal, is highly representative of many future challenges that transboundary MSP processes would face. Many observations were made during the course of the different phases and these observations were shared and discussed with involved stakeholders. MASPNOSE draws seven important lessons from this case study.

### 1. Process guidelines and mandate

Before a MSP process is initiated formal, and if possible legal, documents should be available detailing the entire process. These documents should detail for example who takes decisions, when decisions are taken (deadlines), what the outcome of a process will be (milestones and deliverables), who can be involved in the process (stakeholders) and what will happen with the outcome of the process. In the Dogger Bank case study these documents were not available for evaluation by all involved stakeholders. This led to several communications from the NSRAC to the DBSG requesting clarification of the process and linked procedures. Without these process guidelines, it is difficult to operationalize a planning process in a clear way.

### 2. Stakeholder involvement

The first NSRAC process clearly illustrated that all involved stakeholders were willing and able to claim ownership of the process they were involved in. This concept of ownership is closely linked to the issue of taking responsibility. Furthermore for a MSP process to be effective, it is important that all key stakeholders are involved from the start of the process. In the Dogger Bank case study this was clearly not the case. Initially the FIMPAS process was an open process that lacked a clear agenda. With the Dogger Bank Steering Group the process on the Dogger Bank received more focus but a clear agenda and timeline was still missing. The DBSG opted to consult the NSRAC regarding their views on a fisheries management plan in relation to nature conservation for the Dogger Bank instead of involving the NSRAC directly in their member state driven process.

In their own process, the NSRAC involved the Forewind renewable energy (wind) consortium even though the development of a wind farm in the UK EEZ was still in the planning phase; the NSRAC recognized the need for early involvement of this important stakeholder. Based

on these findings it is clear that those responsible for a spatial planning process should be involved in all steps of the process and that a stand-alone stakeholder driven process is undesirable. In the Dogger Bank case study, debated issues such as displacement, capping of fisheries effort, a preferred method for socio-economic impact assessment, and gear innovation should not have been handed down to the NSRAC to discuss alone but should have been discussed jointly (DBSG and NSRAC). In this respect, it is important to also note that there are different views on who qualify as stakeholders. Stakeholders are often seen as those who only have a social or an economic interest (e.g. the fishing sector or NGOs) but applying a broader definition means that research and authorities are also labelled as stakeholders.

### **3. Transparency and trust**

Transparency and trust are important for an effective stakeholder processes. However, a distinction should be made between front-stage and back-stage transparency. Front-stage transparency refers to communicating the contours of the process to everyone who would like to know (interested parties and general public). From the Dogger Bank process, we learned that sharing the contours of the process with external parties is essential.

Back-stage transparency refers to all stakeholders who are actively involved in the maritime spatial planning process. All available process and content information should be available to all participants in the process. The back-stage transparency diminished during the later phases of the NSRAC process and as a consequence, the quality of the process deteriorated. For back-stage and front-stage transparency to work, it is important that those involved in the back-stage process have a mandate to discuss and negotiate issues with other stakeholders.

### **4. Terms of reference and scripts**

The quality of the NSRAC phases can to a large extent also be attributed to having clear roles, responsibilities, timelines, and rules of the game. These were formulated in Terms of Reference (TORs) and agreed on by all involved stakeholders in the initial phase of the first NSRAC process. Additionally a script was produced for this process detailing roles, responsibilities and deadlines. In the later phases of the NSRAC process the Terms of Reference were set by the Dogger Bank Steering Group (DBSG). These prescribed TORs were initially not accepted by the NSRAC and only after negotiation were they accepted.

### **5. Required preconditions for (cross-border) MSP**

An essential precondition for (cross-border) MSP is knowing who is responsible for taking a decision and when this decision will be taken. The required preconditions should be covered by the Terms of Reference and the script. To ensure that a maritime spatial process can be carried out it is important that a number of practical issues are guaranteed, such as sufficient budget, sufficient time (participants) and access to data. In the first NSRAC stakeholder participation phase, budget (covered by MASPNOSE) and time were not an issue, but access to data was problematic. In the later phases of the process the budget was known but individual roles were not clearly established. This led to long discussions that shortened the time available for content discussions. During that phase, it also became apparent that

participants had difficulties finding the required time and resources to properly engage in the process. Regarding the required data for a planning process, it is not essential that all obtainable data is available. However, it is essential that the selected data is accepted and agreed on by all stakeholders.

### **6. Dialogue versus negotiation**

If the relationship between stakeholders is dominated by negotiation instead of dialogue this can frustrate a joint process. In the Dogger Bank case study, it was essential that the involved stakeholders established a relationship based on discussing the content of the case study. In the later phases of the process a transition took place from contents and dialogue towards negotiation. This was not very constructive in identifying a joint agenda.

### **7. Geo-spatial support**

During the process of facilitating and supporting this MSP process on the Dogger Bank the added value of geo-spatial support became evident. In a two day workshop in August 2011, two digital mapping tables were used to discuss available and new data. These large digital tables enabled participants to view, combine and add data. Comments that were made during these sessions were documented in mind maps enabling later evaluation and review. By reviewing and discussing available data in a spatial context, but also identifying missing data, the participants were able to focus on content discussions on nature conservation, fisheries and renewable energy on the Dogger Bank. Maps highlighting areas of interest were used for further discussions and MASPNOSE concludes that this two day session was essential in getting all stakeholders on the same page regarding available and missing spatial data. In addition, the digital mapping tables enabled both stakeholder groups to clearly illustrate their vision on fisheries and nature conservation of the Dogger Bank. Working with these tables reviewing spatial data, and discussing fishermen knowledge enhanced mutual learning and understanding.

Based on our experience we are convinced that geo-spatial support is a prerequisite for MSP processes and that it should be incorporated in the project design. Geo-spatial support plays a key role in understanding the current spatial values and uses of an area, and in the predicting and examining future impacts of human activities. In the phases that we facilitated, the latter two elements were identified (e.g. effects of displacement of fisheries and the use of less impacting gears) but no spatial analyses were carried out.

## 5 Discussion, conclusions & recommendations

### 5.1 Comparison of case studies

The two case studies in the MASPNOSE project have been selected to explore the potential for cross-border coordination in Maritime Spatial Planning (MSP). By design, the case studies were taking place in very different contexts and showed very different properties. This allows us to learn from the different phases of MSP.

The main similarity between the two case studies is that they both created an enabling platform for discussing transboundary MSP. In the Dogger Bank case study it was important to facilitate the process and assess the outcome. The Thornton Bank case study brought governmental stakeholders together and created an "open space", where different ideas could be explored.

Important differences between the two case studies are the following:

- The Dogger Bank case study focussed on private stakeholder involvement in MSP (fisheries, NGOs and to a lesser extent offshore wind energy). In the Thornton Bank case study governmental stakeholders came together for the first time to discuss MSP and preferred not to involve other stakeholders in the initial explorations of cross-border MSP. Belgium had just started to initiate a formal MSP process in 2012 and several procedures on environmental impacts assessments for offshore project investments were pending. Therefore, stakeholder involvement in the exploratory MASPNOSE case study could have been detrimental for the official decision-making processes.
- In the Dogger Bank case study, MASPNOSE facilitated in a real on-going decision-making process which is aimed at developing an international (fisheries) management plan for an international Natura2000 area. In the Thornton Bank case study, there was no real cross-border MSP process on-going, so MASPNOSE initiated this exploration with the help of the two Member States. Key policy developers from both countries got to know each other, to respect their stakes and to build confidence towards each other's activities and plans (informing and consulting). Some of the themes in the MASPNOSE discussions: rerouting shipping lanes and redrafting offshore wind farm concession zones.
- In the Dogger Bank case study new information was compiled on spatial fishing patterns on the Dogger Bank. The knowledge of fisheries stakeholders was actively used in the map-table sessions. In the Thornton Bank case study, partners used existing information in both countries and used GIS to display different data layers. It was not possible to perform a full socio-economic assessment of the consequences of different scenarios during the duration of the MASPNOSE project.

## 5.2 Conclusions and recommendations

### **1. MSP requires a transparent process with identified steps, deliverables and quality assurance.**

The procedural steps need to be clear to all participants and need to be linked to a legal framework and a decision-making process. In a cross-border context, these requirements are even more pronounced than in a national context and require special attention.

Specific challenges that were identified:

- I. the organisation of cross-border stakeholder involvement due to a different stakeholder practice, legal constraints and policy constraints;
- II. quality assurance through scientific advisory boards and legal frameworks, and
- III. the requirement of a coherent planning and permitting system in the respective member states.

In the Thornton Bank case study, governmental stakeholders came together for the first time and entered into a pre-planning mode where confidence between government participants was developed and an outline for a potential cross-border planning activity was discussed. MASPNOSE contributed to the improved informal and formal contacts between key policy developers

The Dogger Bank case study was largely built on the involvement of private stakeholders (fisheries organizations, NGOs) but within a setting of international decision-making by Member States. The decision-making process did not involve a clear process with steps, deliverables and quality assurance. The informal phase between representatives of Member States appeared to have remained important during the course of the decision-making process. However, the case study is also an example of how an effective stakeholder involvement process could be organized by working with a process script that specifies the objectives, roles and responsibilities.

Quality assurance of the MSP process through scientific advisory boards (to quality-check the scientific basis) and the process steps (e.g. legal frameworks) are important.

A practical cross-border issue that could directly be addressed and that could facilitate the development of cross-border MSP, is the development of a coherent planning and permitting system in the Member States where this does not already exist.

### **2. Effective stakeholder involvement in MSP requires a differentiation between front-stage and back-stage transparency. Front-stage transparency to the general public on the objectives of the process, who are involved and what stage it is in. Back-stage transparency is limited to the directly involved stakeholder groups and is used to share information for building trust and joint learning among stakeholders.**

Transparency is needed for all documents and procedures related to MSP. The different steps need to be easily understandable to the general public. This will allow full information to all parties concerned and therefore improve predictability and increase acceptance.



In the Thornton Bank case study, member states' policy makers preferred to come to agreement on a pre-planning phase without involving (private) stakeholders. Thus the overall (front-stage) transparency of the process was low. However, the internal (back-stage) transparency was much higher.

In the Dogger Bank case study, the NSRAC stakeholders were fully transparent over the process (front-stage) and internally transparent between the participants (back-stage) in developing alternative scenarios.

Trust plays an important role in the cross-border cooperation and in the cooperation between national stakeholders with different interests. Transparency can have a negative effect on the trust-building process when information is shared that should not have been shared. Therefore it is important to distinguish between front-stage transparency (to the entire public) and back-stage transparency (to a selected group of stakeholders).

**3. Geo-spatial analyses have an important role in MSP. The Dogger Bank case study has shown that geo-spatial analyses have an important role in MSP. This refers to analysing current conditions, future scenarios and the analysis of potential effects of measures (including cumulative effects). The use of interactive geo-spatial tools has proved very productive for stakeholder involvement in MSP (joint fact finding). Procedures for when and how geo-spatial tools will be used should be clear to all participants.**

The MASPNOSE facilitators of the NSRAC stakeholder process have used geo-spatial tools to develop a common understanding of the current situation and the potential future directions. The use of "map-tables" that allow for interactive sharing and developing of information has been very instrumental in reaching common positions and highlighting the key areas of agreement and disagreement. By focussing on the geo-spatial tools, the discussions between stakeholders were largely confined to data and knowledge issues instead of value and interest issues.

**4. The EU 10 key principles on MSP are already being applied, but some principles are lacking. Most of the EC 10 key principles on MSP have already been included in the spatial plans of those Member States involved in MASPNOSE that have MSP in place. The principles have been used in a rather general sense and not as a specific guideline. The principle on the connection between MSP and ICZM has not been used so far. Further challenges for cross-border MSP that are not addressed in the 10 key principles are:**

- I. establishing mandate and accountability**
- II. financing of stakeholder involvement, and**
- III. adaptive management.**

The EC 10 key principles for MSP have been developed in 2008 and have been useful for generating debate about the needs and opportunities for MSP in Europe. In practice, experts in MSP use the principles in a rather general sense and where needed make specific

reinterpretations of the principles. The 10 key principles are more like common-sense guidelines for MSP than specific procedures that can be followed.

Not all principles were found equally important and some are already part of the binding instruments (e.g. stakeholder consultation in Strategic Environmental Assessment, SEA).

Participants in MASPNOSE were not in favour of binding instruments for MSP and considered it counterproductive to translate some of the key principles into legislation.

Establishing mandate and accountability for the (cross-border) MSP process is currently lacking from the EU principles. The Dogger Bank case study has shown the importance of establishing mandate and accountability for the spatial planning process. An absence of a clear mandate could lead to a non-transparent planning process.

The stakeholder involvement in the Dogger Bank case study has been facilitated (also financially) by the MASPNOSE project. In cross-border processes it is important to agree how to facilitate the stakeholder process (national or international).

Adaptive management is not mentioned as a principle in the EU 10 key principles but it is an important element for an iterative spatial planning process.

**5. Monitoring and Evaluation of a MSP process needs to be defined at the beginning of the process as part of a Quality Assurance programme. The monitoring should ideally be carried out by experts who are not involved in the content of the MSP process. The MASPNOSE Initial Assessment has shown that Monitoring and Evaluation is currently not always an explicit part of MSP processes in the Member States involved in this preparatory action. Cross-border MSP processes poses specific challenges because of the potentially different phases in the policy cycle in different Member States.**

Monitoring and evaluation in the context of MSP has two distinct meanings. In one meaning this refers to the monitoring and evaluation of the "system" developments after a maritime spatial plan and associated measures have been agreed and implemented. So this means trying to keep an eye to the developments in e.g. the habitats, specific species, economic or social aspects. In the second meaning, monitoring and evaluation refers to the quality control of the process of planning. In this meaning the key focus is on the different steps in the planning process and how they have been completed: e.g. has the legal basis been established, have stakeholders been involved in the initial planning phase etc.

The MASPNOSE initial assessment has shown that monitoring and evaluation is not necessarily a part of the MSP process in the different Member States. In cross-border MSP processes, monitoring and evaluation is further complicated by the potentially different phases in the policy cycle in different Member States.

**6. MSP with cross-border implications has three potential levels of engagement: coordinating, consulting or informing.**

The EC 10 key principles for MSP stipulate that "Cross-border cooperation and consultation" is one of the key principles. We have found in the MASPNOSE project that there is often a misunderstanding about what is actually meant with the cross-border implications of MSP.

The highest level of engagement is when multiple Member States **coordinate** an international maritime spatial plan (e.g. as the attempts in the MASPNOSE Dogger Bank case study). A medium level of engagement is when neighbouring Member States **consult** each other on the development of their national maritime spatial plans and where possible adapt these national plans to the concerns of the neighbouring states. The lowest level of engagement is when neighbouring Member States **inform** each other of spatial plans that have been developed without the possibility to change plans.

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## Appendix A: Offshore wind concessions in Belgium

**Table A.1: Approved concessions and environmental permits (Management Unit of the North Sea Mathematical Models, MUMM)**

CURRENT APPROVED PROJECTS								
Project developers	Location	Number of windmills	Total capacity (MW)	Total area (without surrounding safety area) (km <sup>2</sup> )	Water depth (m)	Shortest distance to the coast (km)	Status of the project concerning domain concession	Status of the project concerning environmental permit
C-Power II	Thornton Bank	60	216-300	13.7-18.1	6-25	27	Concession granted 27.06.03 by the State Secretary of Energy	Environmental permit granted by the Minister responsible for the marine environment on 14.04.04.
Belwind	Bligh bank	66-110	330	35.6	15-37	42	Concession granted 05.06.07 by the State Secretary of Energy	Environmental permit granted by the Minister responsible for the marine environment on 20.02.08.
Northwind	Lodewijk Bank	36	180-252	9	20	38	Concession granted 15.06.06 by the State Secretary of Energy	Environmental permit granted by the Minister responsible for the marine environment on 19.11.09.
Norther	South of Thornton Bank	72-84	310-470	38	14-30	25	Concession granted 05.10.09 by the State Secretary of Energy	Environmental permit granted by the Minister responsible for the marine environment on 18.01.12.

**Table A.2: Rejected offshore wind concessions/permits before MASPNOSE (Management Unit of the North Sea Mathematical Models, MUMM)**

PAST PROPOSALS: CONCESSION OR PERMIT REJECTED/ANNULATED								
Project developer	Location	Number of windmills	Total capacity (MW)	Total area (without surrounding safety area) (km <sup>2</sup> )	Water depth (m)	Shortest distance to the coast (km)	Status of the project concerning domain concession	Status of the project concerning environmental permit
Electrabel-Jan De Nul I	Vlakte van de Raan	50	100	5.8	5-10	12.5	Concession granted by the State Secretary of Energy 27.03.02	Environmental permit abrogated on 25.07.05 by the Minister responsible for the marine environment
SPE-Shell	Thornton Bank	110	275-300	20	6-25	27	Concession denied end of June 2003 by the State Secretary of Energy	/
Fina-Eolia II	north of Vlakte van de Raan	36	108-129	8.7	6-20	16.5	Concession denied end of June 2003 by the State Secretary of Energy	Environmental permit request procedure stopped 27.06.03
C-Power I	Wenduine Bank	50	115	12.5	5-10	5.1	Concession granted by the State Secretary of Energy 05.07.02	Environmental permit denied by the Minister of Environment 05.08.02.  Annulation. Pcedure Council of State
Fina-Eolia I	Vlakte van de Raan	33-40	100	7.3	5-10	8	Concession denied by the State Secretary of Energy, June 2002.	/
Electrabel-Jan De Nul II	Vlakte van de Raan	50*2 MW and 80*2.5 MW	300	18	5-10	11	Concession denied by the State Secretary of Energy, 05.07.02	/

## Appendix B: Maps on shipping in southern North Sea



Figure B.1: traffic density in number of ships/1000 km<sup>2</sup> (Ministry of Infrastructure & Environment, 2009, p. 12)

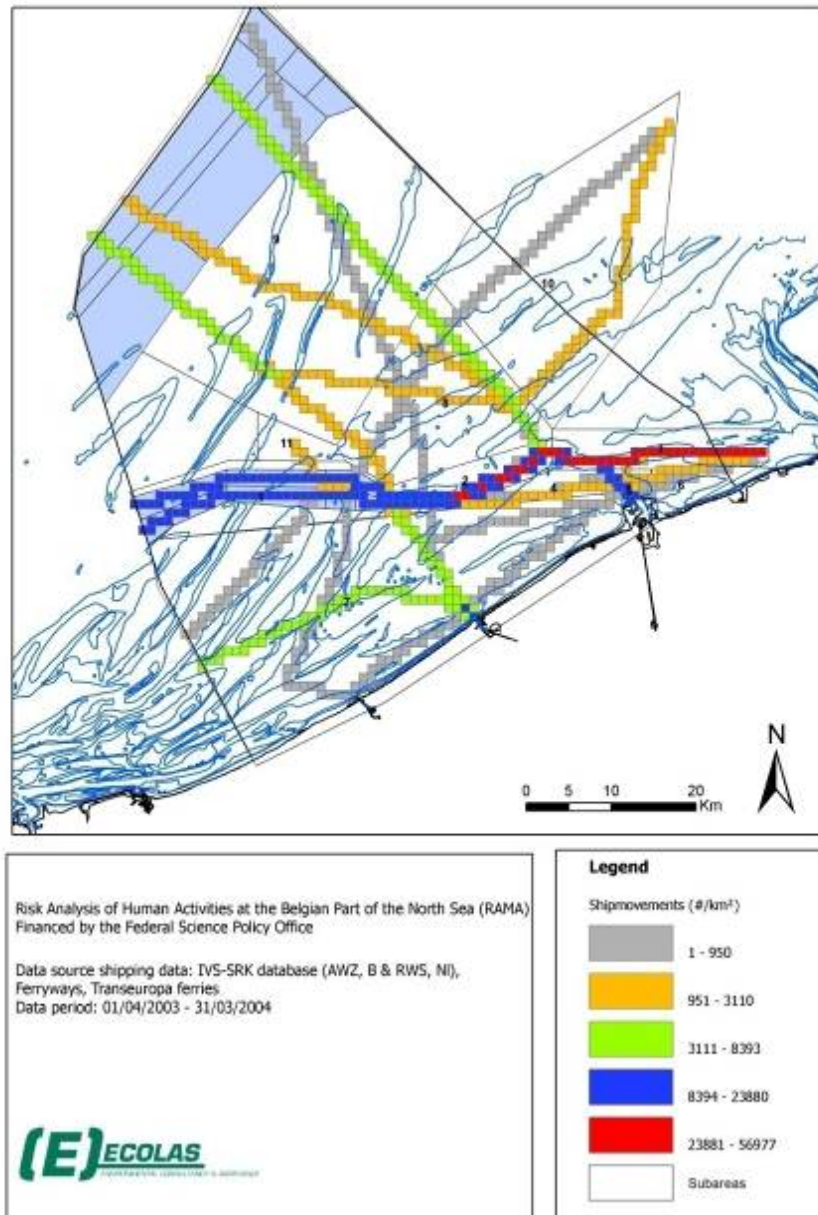
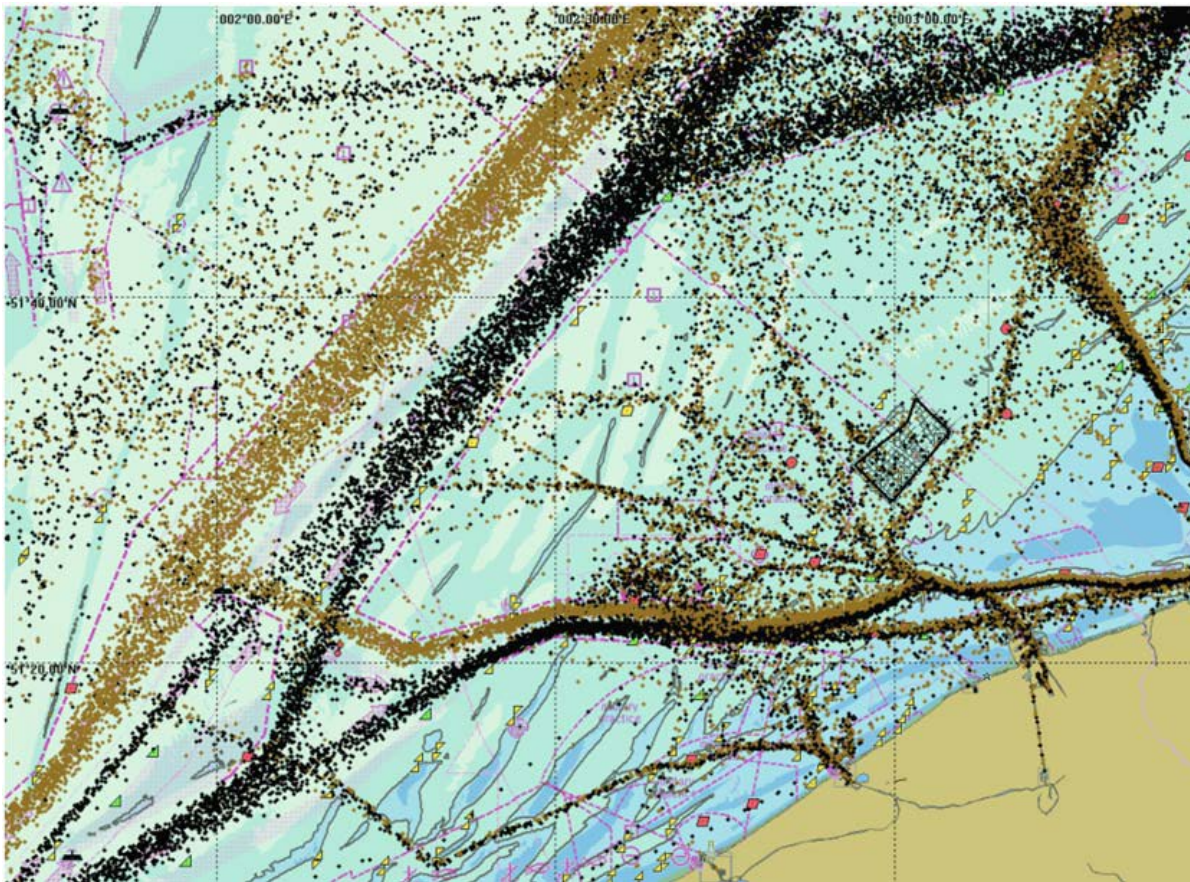


Figure B.2: Shipping traffic situation (commercial vessels only: no fisheries or governmental vessels) in the Belgian part of the North Sea (Leroy et al. 2006)





**Figure B.3: Shipping traffic situation in the Belgian part of the North Sea: ship movements during one week in July 2008 (MARIN 2011)**

## Appendix C: Maps on fishing in the southern North Sea

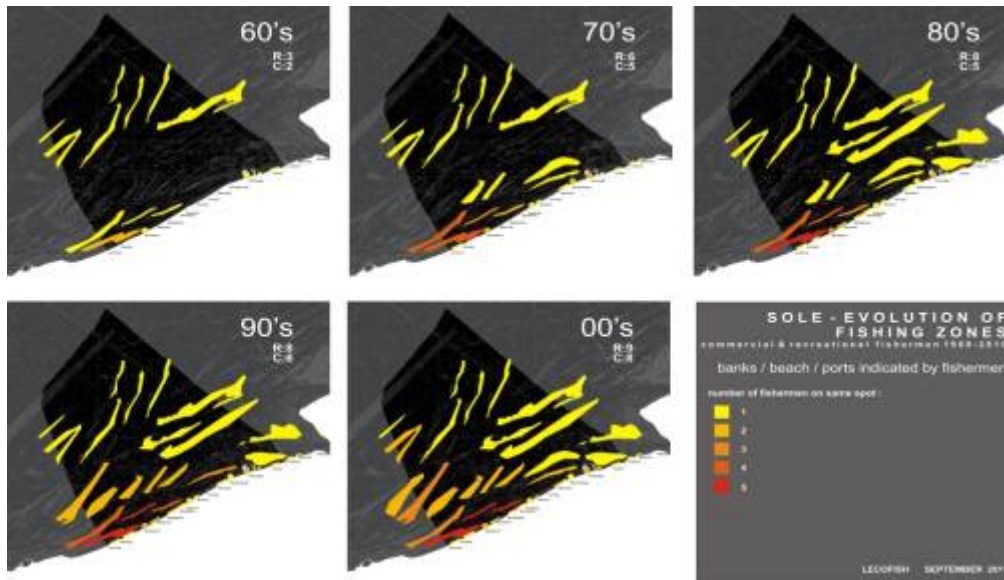


Figure C.1: Sole fisheries by Belgian fishermen (vessels up to 300 hp) during the past 50 years (Maes, F. *et al* , 2012)

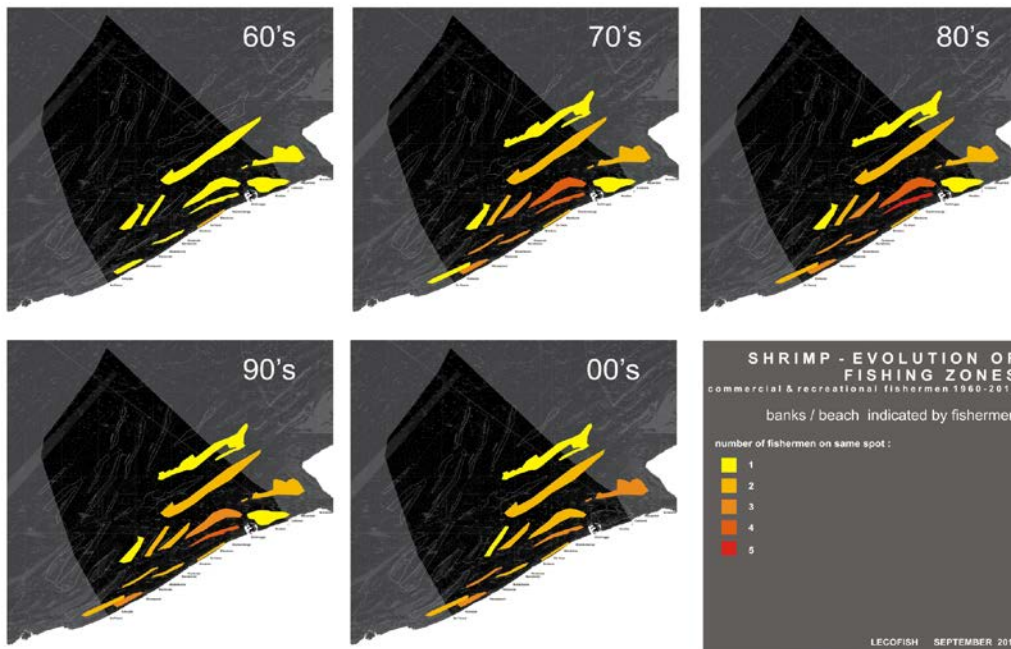


Figure C.2: Shrimp fisheries by Belgian fishermen (vessels up to 300 hp) during the past 50 years (Maes, F. *et al* 2012)



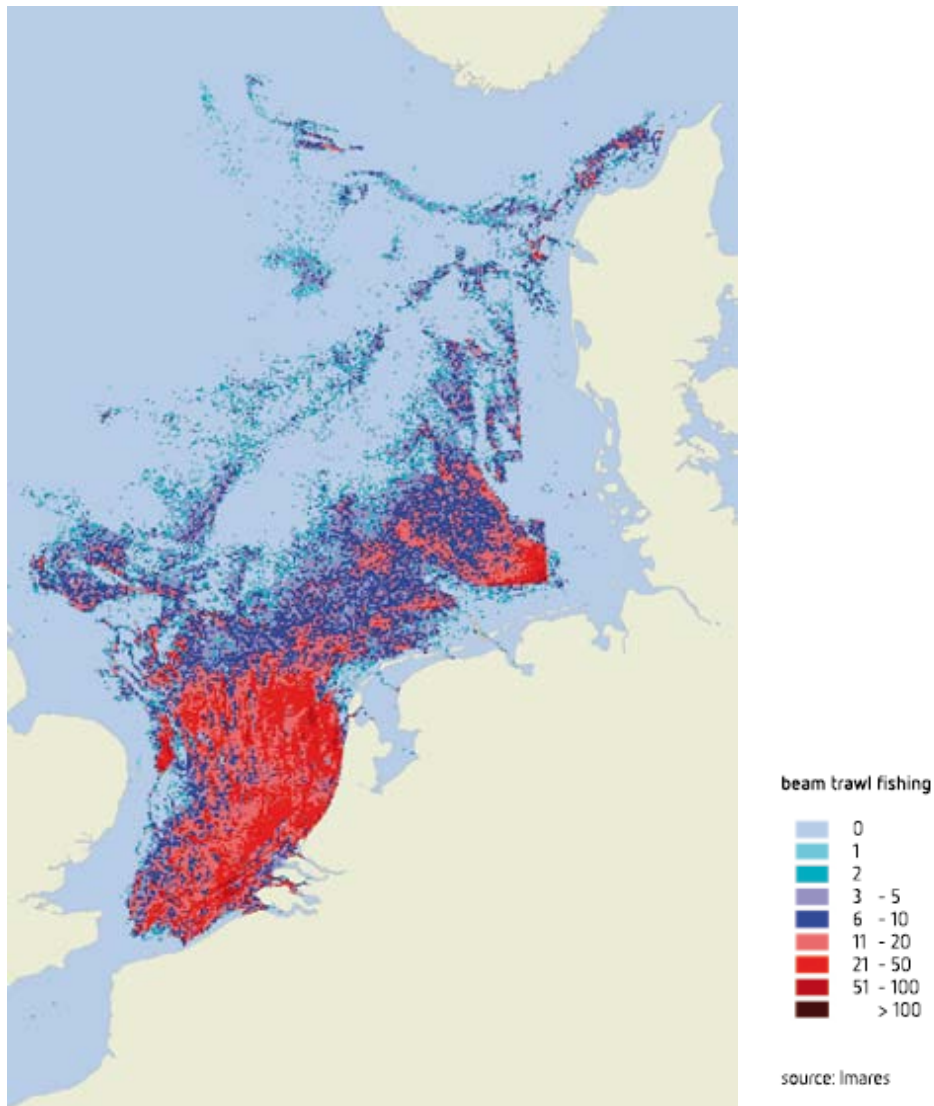


Figure C.3: Beam trawling: fishing frequency, number of ships each year (average 2006-2009)  
(Ministry of Infrastructure & Environment 2009, p. 16)

## Appendix D: Scenarios for the Thornton Bank area



Figure D.1: Full renewable energy scenario



Figure D.2: Nature protection scenario

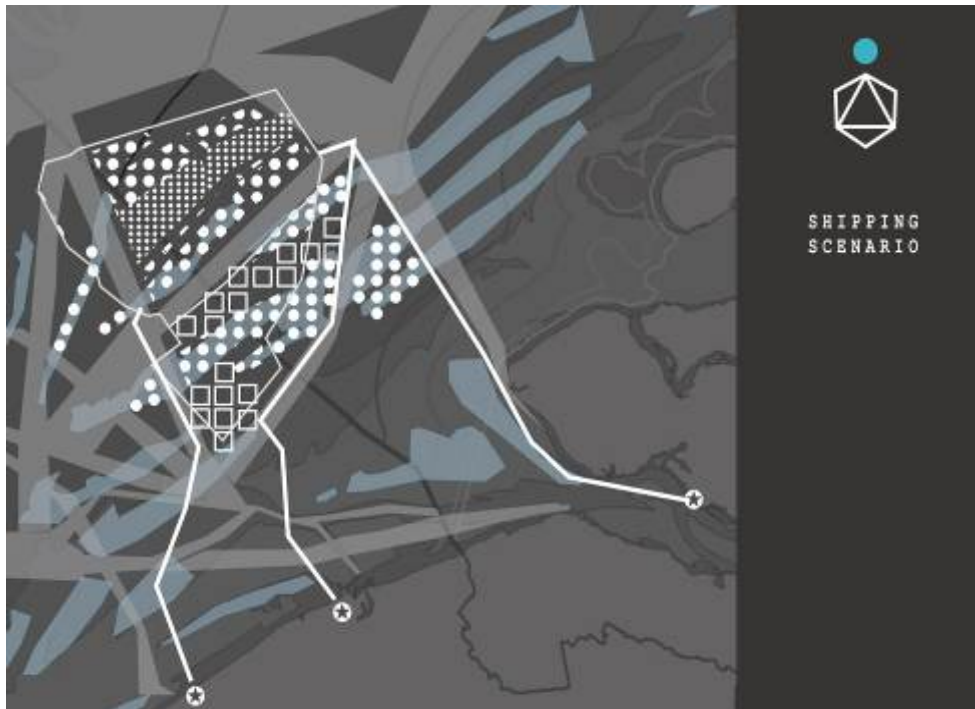


Figure D.3: Shipping scenario



Figure D.4: Offshore wind exploitation combined with nature protection and respecting majors shipping routes.

## **Appendix E: Terms of Reference NSRAC spatial planning focus group**

### *Management position paper for the Dogger Bank.*

Version 10 June 2011

#### **1. Introduction**

The project Fisheries Measures in Marine Protected Area's (FIMPAS) aims to introduce fisheries measures in marine protected areas (MPA's) within the Dutch Exclusive Economic Zone (EEZ) by the end of 2011. This is to meet the European Birds and Habitat Directives. The project is carried out in cooperation between the Dutch fisheries Industry, Dutch environmental Non-Governmental Organisations (NGO's) and the former Dutch ministry of Agriculture, Nature and Food Quality (now the ministry of Economics, Agriculture and Innovation).

For this project three test cases were selected: the Frisian Front, the Cleaver Bank and the Dogger Bank. For the Dogger Bank case it was agreed to include Germany and the United Kingdom within the process, to achieve international coherence, with an integrated advice from ICES as end result.

The NSRAC was asked by the FIMPAS project at the third FIMPAS workshop (January 2011) to produce a NSRAC position paper proposing a fisheries management plan in relation to nature conservation on the Dogger Bank. The NSRAC aims to present their management plan at the FIMPAS4 meeting September 26<sup>th</sup>, 2011.

#### **2. Objective**

To develop a NSRAC position paper on fisheries management in relation to nature conservation, including a zoning proposal, for the combined area covered by the 3 national Natura 2000 sites (Special Areas of Conservation under the Habitats Directive) of the Dogger Bank. This paper will be submitted to the FIMPAS process and will also be sent to the European Commission as the NSRAC advice for a fisheries management plan on the Dogger Bank.

#### **3. Expected output**

A NSRAC position paper on fisheries management in relation to nature conservation, including a zoning proposal, for the combined area covered by the 3 national Natura 2000 sites (Special Areas of Conservation under the Habitats Directive) of the Dogger Bank.

#### **4. Roles**

There are three main groups involved in producing the Position paper. The NSRAC SPWG focus group, the NSRAC Executive Committee (ExCom) and the MASPNOSE Dogger Bank case study team. The roles that these groups will have are described below.

#### **NSRAC Focus group: Owner of the project**

1. Content control
2. Contribute to the project in the preparation, execution and evaluation
3. Contact with the parties represented by the NSRAC
4. Providing information
5. Coordinate with the members of the NSRAC and especial the members of ExCom
6. Writing the Position Paper

#### **NSRAC ExCom: Decision making body**

- For the 29<sup>th</sup> of June
  1. Consensus on format and approach for the position Paper
  2. Reviewing and if necessary fine-tuning of the approach and format for the position Paper
  3. Indicating first preferences on management options
- Mid-September
  4. Final decision on the position paper

#### **MASPNOSE: Support**

1. Support process management
2. Support preparatory actions
3. Support knowledge issues
4. Support reporting
5. Supporting by organising two workshops.
  - a. Preparations
  - b. Organisation
  - c. Hosting
  - d. Finances

#### **5. Composition of the Focus group**

- Euan Dunn                      Birdlife International (Chairman)
- Pim Visser                      Stichting van de Nederlandse Visserij
- Chris van Assen              WWF
- Dale Rodmell                 NFFO
- Henrik Lund                  Danish Fishermen's Association
- Monique van de Water      Seas at Risk
- Nigel Proctor                 PMSL - Forewind
- David Goldsborough        Centre for Marine Policy, Wageningen

#### **6. Tasks and responsibilities**

##### **Euan Dunn (Birdlife International)**

Role/Task      To be decided

Responsibility To be decided

##### **Pim Visser (Stichting van de Nederlandse Visserij)**

Role/Task To be decided

Responsibility To be decided

**Chris van Assen (WWF)**

Role/Task To be decided

Responsibility To be decided

**Dale Rodmell (NFFO)**

Role/Task To be decided

Responsibility To be decided

**Henrik Lund (Danish Fishermen's Association)**

Role/Task To be decided

Responsibility To be decided

**Monique van de Water (Seas at Risk)**

Role/Task To be decided

Responsibility To be decided

**Nigel Proctor (PMSL - Forewind)**

Role/Task To be decided

Responsibility To be decided

**David Goldsbrough (Centre for Marine Policy, Wageningen)**

Role/Task To be decided

Responsibility To be decided

## 7. Methodology

- Two workshops will be organised to process information on different aspects of the position paper
- External expertise will be invited if required to provide views and information
- The position paper will be based on existing documents, data and stakeholder knowledge

## 8. Work plan

1. Scope      What is the focus group going to do and under what rules of engagement?  
Description of the project definitions  
Product description  
Resources available (money, time people, etc.)  
Time line with milestones and who does what and when
2. Finalization and agreement on the project plan
3. Execution:
  - 3.1 Preparation format position paper and management options
  - 3.2 Workshop
  - 3.3 Concept/Position paper



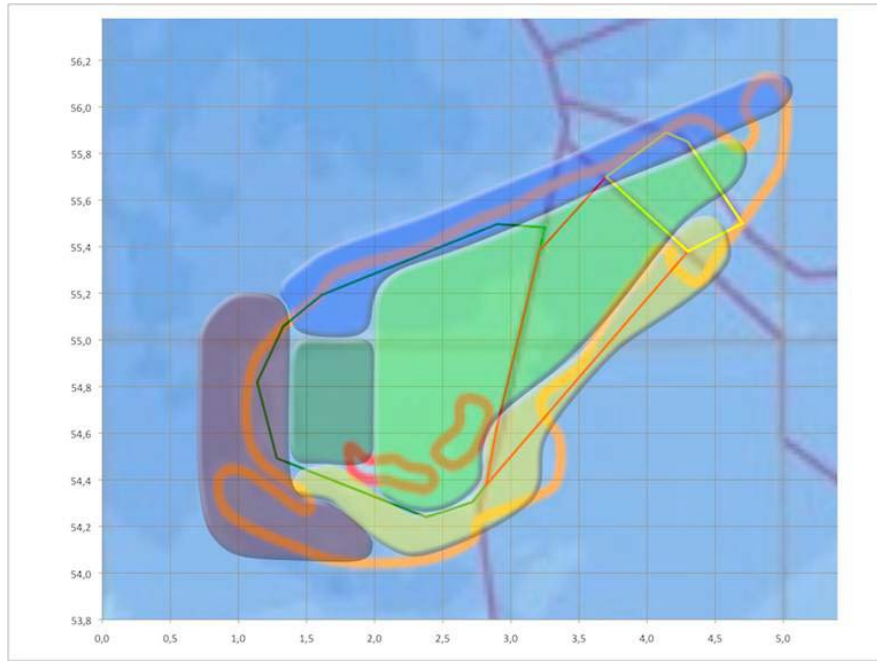
**9. Means of communication and Proposed timeline:**

To be determined in collaboration with the focus group. Available means are e.g. a specific share point, Skype, video conferencing, email, phone, etc.

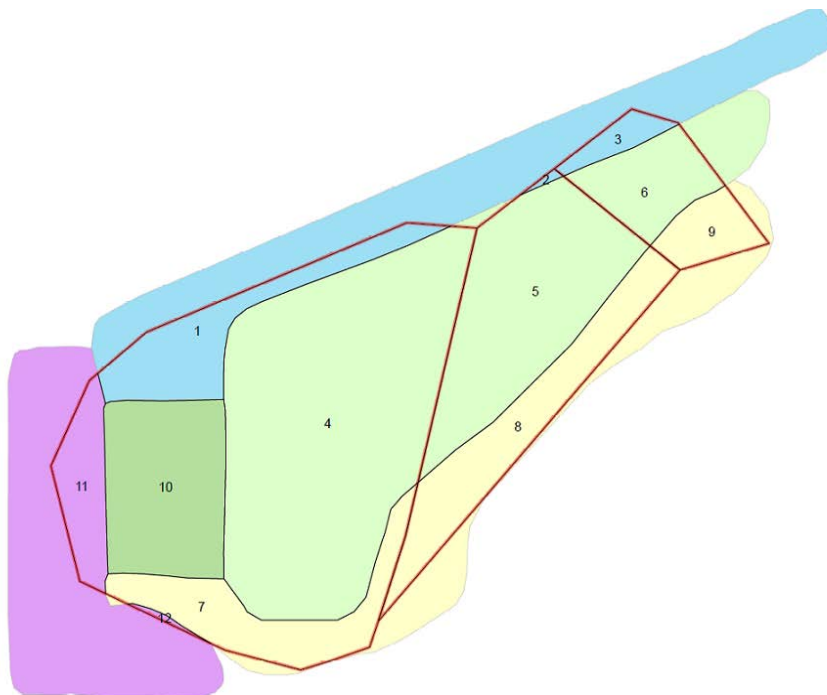
**Proposed timeframe**

Week	Date	Action	Overlapping Focus Group actions
19	09-15 May	Scope of the project (meeting of focus group, ideally face to face)	Writing the Position Paper Providing information Coordination with ExCom
20	16-22 May		
21	23-29 May		
22	30 May -05 June		
23	06-12 June	Scope meeting(6-6-11) +	
24	13-19 June	preparations for the workshop	
25	20-26 June	1 <sup>st</sup> Workshop(20/21-6-11) + Outline draft of a Position paper, sent to ExCom before the 23th of June	
26	27 June – 03 July	ExCom meeting (27-6-11)	
27	04-10 July	Updating the project proposal	
28	11-17 July	Continuation of the project plan	
29	18-24 July		
30	25-31 July		
31	01-07 Aug		
32	08-14 Aug		
33	15-21 Aug		Preparation of 2 <sup>nd</sup> workshop
34	22-28 Aug		
35	29 Aug -04 Sept	Second Workshop (30/31-08-2011)	
36	05-11 Sept	Supporting choices and management options	
37	12-18 Sept	Finalizing the position paper based on the second workshop	
38	19-25 Sept	Consensus ExCom on Position Paper	
39	26 Sept	FIMPAS 4 meeting	

## Appendix F: Ecological classification of the Dogger Bank



**Figure F.1** The five benthic communities of the Dogger Bank (source: van Moorsel 2011). Endobenthic communities on the Dogger Bank. Green: Bank community; dark green: Southwest patch; yellow: Southern community; purple: Western community; blue: Northeastern community



**Figure F.2** Habitats at the Dogger Bank, based on the map of the endobenthic communities at the Dogger Bank from Wieking & Kröncke (2003), see also report by van Moorsel (2011) to WWF. The red line indicates the SAC by EEZ.

## Appendix G: Fishing data on the Dogger Bank

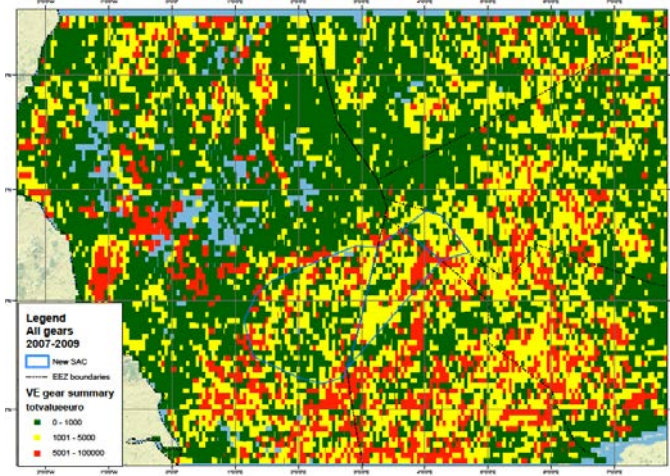


Figure G.1 Distribution of total gross value of landings for Division IVb (Central North Sea) 2007-2009.

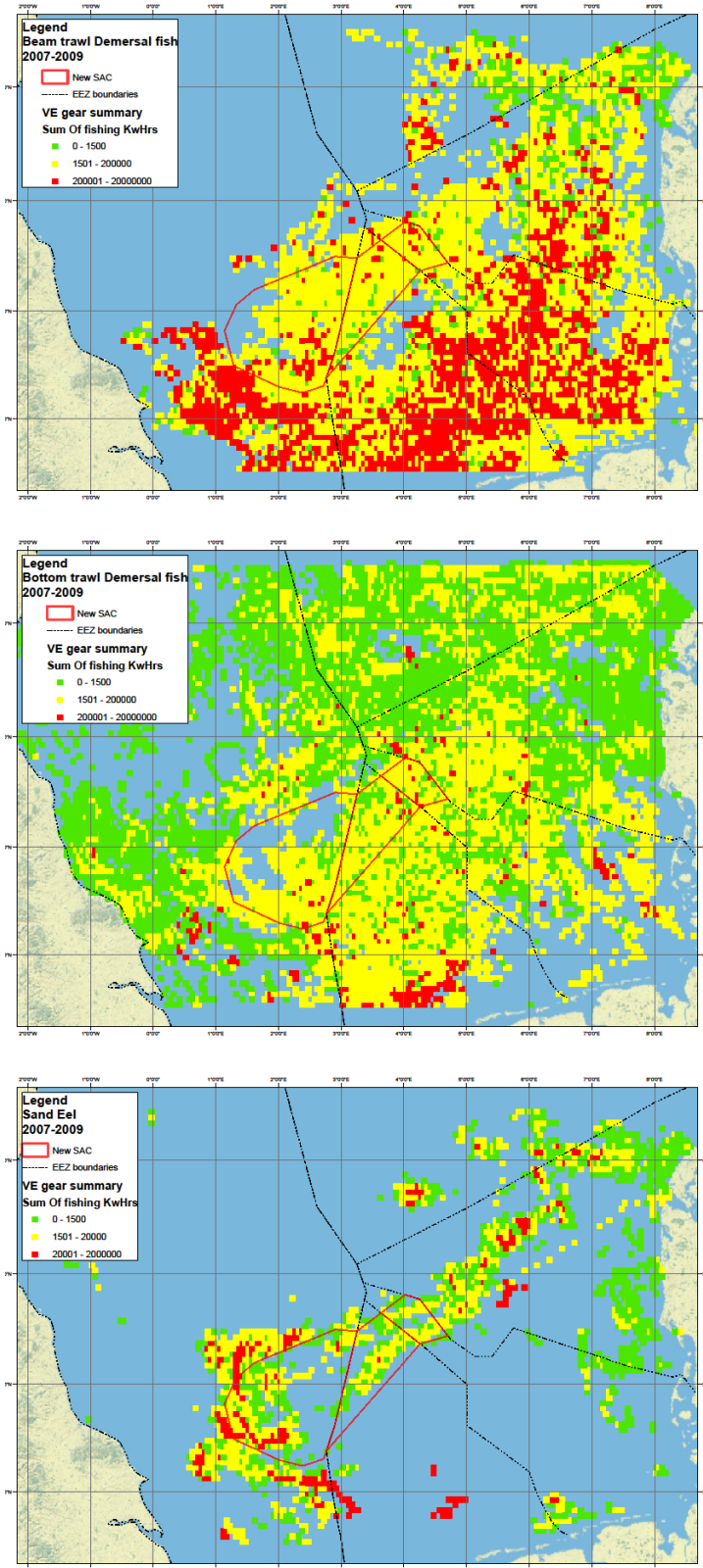


Figure G.2 Effort distribution for the three major gear groups in Division IVb (Central North Sea) in 2007-2009. Top: beam trawl. Middle: bottom trawl. Bottom: sandeel.

## Appendix H: Terms of Reference set by DBSG

### **DBSG's invitation (TOR) to NSRAC for developing a draft proposal for a fisheries management regime for the Dogger Bank**

The Dogger Bank Steering Group (DBSG) invites the NS RAC Focus group to develop a draft proposal for a fisheries regime on the Dogger Bank – implementing the Natura 2000 programme - within the following parameters:

- The aim of the draft proposal is that the conservation objectives<sup>5</sup> will be delivered;
- Use a zoning concept with two zones :
  - Free Zone: all legal gears within the CFP are allowed;
  - Management Zone: Fishing is limited to fishing gears that do not cause deterioration of the natural habitats for which the site has been designated;
- Develop a fisheries management zone covering 25%-55% of the total SAC area;<sup>6</sup>
- Ensure representation of all (five) benthic communities;<sup>7</sup>
- Take a perspective of the entire Dogger Bank, rather than the portions belonging to individual member states;<sup>8</sup>
- Take into account the German proposal;<sup>9</sup>
- Take into account the Chair's conclusions of the Dublin stakeholders meeting;<sup>10</sup>
- Avoid a patchy pattern of the fisheries management zones in light of enforceability;
- Use the existing data;<sup>11</sup>
- Develop a preferred method for weighing economic and socio economic considerations.

#### **Timeline**

DBSG invites the NS RAC Focus group to provide its proposal to the DBSG by 7 February 2012 at the latest.

#### **Responsibilities**

DBSG invites NS RAC Focus Group to develop the proposal within the parameters outlined above. DBSG requests the NS RAC Focus Group to explicitly communicate its acceptance of this invitation. Representatives of the 4 member states of the DBSG will attend the NS RAC Focus Group meetings as observers. This constitutes the NS RAC Focus Plus Group. DBSG will, after receiving the proposal, take a decision on the NS RAC proposal (accept, amend or reject).

<sup>5</sup> as described in the Dublin discussion document by ICES.

<sup>6</sup> ICES will develop further scientific information for this range

<sup>7</sup> as described in the Dublin discussion document by ICES.

<sup>8</sup> this is conditional on clarity to be provided by the EC on member states' legal obligations in this respect

<sup>9</sup> as contained in the document "Proposed measures for fisheries management in the Natura 2000 sites in the German EEZ of the North Sea and Baltic Sea", d.d. 20 april 2011.

<sup>10</sup> See the conclusions by the chair at the end of the session.

<sup>11</sup> do not wait to incorporate forthcoming data

## About MASPNOSE

MASPNOSE is a Preparatory Action on Maritime Spatial Planning in the North Sea, funded by the DG MARE under tender 2009/17. MASPNOSE aims to facilitate concrete, cross-border cooperation among European countries on ecosystem-based maritime spatial planning (MSP). Building on previous and ongoing initiatives, the project explores opportunities for collaboration among North Sea countries and for an international strategy for the Southern North Sea, establishing elements for a common agenda for cooperation of countries in the region.

MASPNOSE gathers information and analyse the current conditions, including ecological and biological features as well human use and its impact. This information will be used to design a process for cross-border MSP and to develop a concept for monitoring and evaluation of these processes. MASPNOSE acknowledges the overarching importance of national authorities in MSP development and the very important role of other stakeholders.

MASPNOSE focuses on two case studies:

1. Thornton Bank. The case study comprises an area between Belgium and The Netherlands, partly on sand banks located on both sites of the border. Cross-border MSP could aid to address the issue of wind energy, shipping, fisheries management, aquaculture and nature conservation.
2. Dogger Bank. The case study comprises an area between the United Kingdom, the Netherlands, Germany and Denmark. Cross-border MSP could aid to address the issue of fisheries management, nature conservation and sustainable energy production.

MASPNOSE started on 1 December 2010 and will finish on 31 May 2011.

[www.cmp.wur.nl/maspnose](http://www.cmp.wur.nl/maspnose)

