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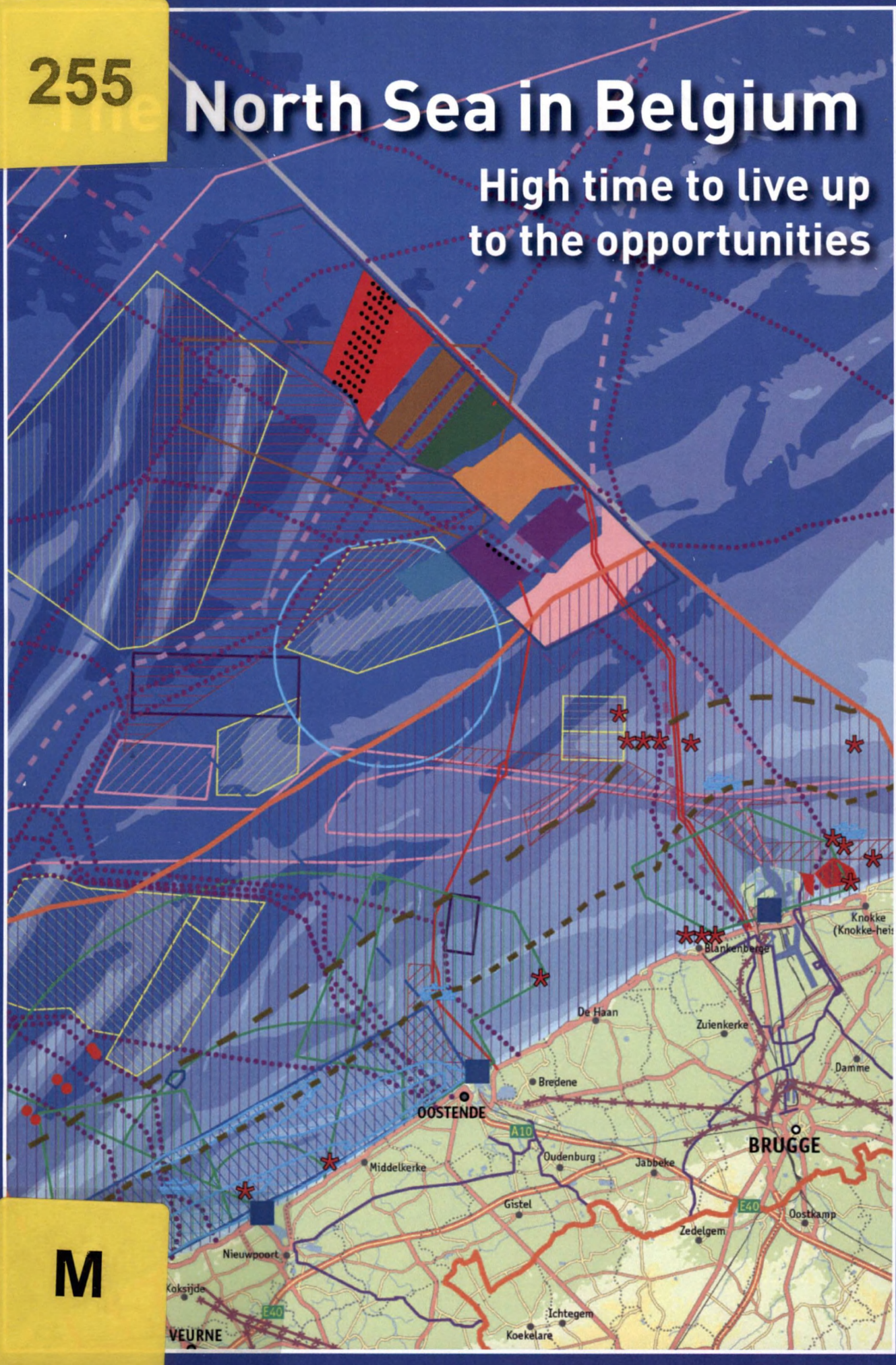
North Sea in Belgium

High time to live up to the opportunities



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Maritime Spatial Planning (MSP) in Belgium

Analyse of the period 2000-2011

Contents

Introduction

Purpose of this document

Maritime Spatial Planning is a process that never ends, it is a process where continuous improvement is possible. In Europe but also in individual member countries MSP was set high on the agenda. In recent years there have already been various developments in Belgium in spatial planning at sea and at the coast. Various processes ran parallel to or followed on from each other. This reports gives a summary of what has happened so far concerning spatial planning at sea and on the coast in Belgium at both policy and project level.

Report structure

The report is created within the framework of the European project 'Combining Sea and Coastal Planning in Europe' (C-Scope) and is structured in analogy with the UNESCO Manual for Marine Spatial Planning[1]. This handbook outlines an approach in ten steps that demonstrates how MSP can become operational. For each measure the desired result is defined as well as the various tasks associated with the step. The steps represented in this guide are largely based on the analysis of various current MSP initiatives across the whole world.

A maritime spatial planning process does not result in a one-off plan. It is a continue process that has to be adapted and evaluated over time. Ten elementary steps must be taken for successful implementation. These ten steps do not entail a simple, linear or demarcated process, but a cyclical process whereby the next steps and last steps must also be considered together. For example, the purpose and the objectives set early in the process will probably be adapted when the costs and benefits of various management measures are determined later. The involvement of stakeholders will also influence the planning process over time. Planning is by nature a dynamic process, and adjustments will be required as the process evolves over time.

This report is structured on the basis of these ten steps, but with the associated action attuned to the Belgian situation. The purpose and the content of each measure are briefly described for each section. More information on each measure can be found in the UNESCO Manual on MSP. For each step the report offers a diagrammatical summary of the situation of the main processes in Belgium with respect to spatial planning on the coast and at sea.

With the application of the UNESCO Guide to the Belgian situation, an overview of how far the process has progressed in Belgium, is given. Where possible, gaps are defined and further coordination is required. The ten steps set out the direction for the future.

Criteria for integrating information in the report

This report doesn't want to limit MSP just to the seaside, but also includes the harbours and land components in the discussion. It is important to fine-tune planning on land and at sea. Geographically the area is demarcated as the ten coastal municipalities and the whole Belgian part of the North Sea (BPNS). The geographic demarcation is also used in the Belgian report on the implementation of Recommendation 2002/413/EC concerning Integrated Coastal Zone Management.

A lot of information is available on the BPNS and the Belgian coast. The focus of this report is to only include the information, processes or research related to the coast or the whole BPNS, and that show a clear link with the development of spatial planning on land or at sea. Sectoral approaches, processes or legislation that can be of importance for various sectors or users of the BPNS are not considered.

If it is nevertheless decided to include a specific project, such a project often entails an important case study or constituent aspect from which lessons can be drawn for the future.

The information related to spatial planning on land and at sea, which has been integrated in this report, is limited. Only the principal information, which makes it possible to draw parallels to planning at sea has been considered.

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[1] *Ehler, Charles, and Fanny Douvere. Marine Spatial Planning: a step-by-step approach toward ecosystem-based management. Intergovernmental Oceanographic Commission and Man and the Biosphere Programme. IOC Manual and Guides No. 53, ICAM Dossier No. 6. Paris: UNESCO. 2009 (English).*

Step 1:
Identifying need and establishing authority

The goal of this step

Two points in particular need to be considered before starting an MSP (Maritime Spatial Planning) process. Firstly, it has to be clearly defined why a MSP process needs to be developed. This will ensure that the process stays on track. Secondly, it should also be clear whether the appropriate authority to develop and implement an MSP is present. If not, the effort might be wasted if implementation is not possible later on.

What outputs should be delivered

- Preliminary list of specific problems needed to be solve through maritime spatial planning
- Decision about what kind of authority is needed for developing maritime spatial planning

What are the tasks in this step

Task 1: Identifying why maritime spatial planning is needed
Task 2: Establishing appropriate authority for maritime spatial planning

SPATIAL PLANNING PROCESS AT SEA

Task 1
Identifying why you need maritime spatial planning

The best way to start the process is to identify the need of a Maritime Spatial Planning. Most countries that have successfully embarked on MSP have done so out of a need to tackle particular conflicts or problems, either existing or anticipated.

The need for a more comprehensive approach towards spatial planning for the BPNS (Belgian Part of the North Sea) became particularly urgent in light of new objectives and associated targets, such as the need for offshore energy production and the development of a European network of protected areas[2].
In 2003, a Federal 'North Sea' minister responsible for the integrated management of the BNPS was appointed. The core issues of his policy framework included the development of an offshore wind farm, the delimitation of marine protected areas, a policy plan for sustainable sand and gravel extraction, enhanced financial resources for the prevention of oil pollution, the mapping of marine habitats, protection of wrecks valuable for biodiversity, and the management of land-based activities that have an impact on the marine environment. Together, these objectives provide the basis for a 'Master Plan' that was implemented in two phases[3].

After elections in 2007, a new Minister for the Marine Environment was appointed and in his federal policy note presented in 2008, there are references to the sustainable management of the North Sea and the development of a marine register[4].

'The carrying out of most human activities at sea takes place within a system of environmental permits and authorisations based on the scientific evaluation of their impact on the marine environment.

Furthermore, endeavours for space at sea, including space for nature conservation, have significantly increased in recent years. Today, research into each (new) activity from the perspective of sustainable development has become even more indispensable than before in both a national and international context. Hence the impact on the environment must be integrated in a total assessment along with the economic and social impact. This new phase must be developed, guided and integrated at federal administration level with the stakeholders to evolve to become a true «marine register»'.

In November 2009, a new State Secretary (elected in 2008) presented a federal policy note 'Marine Environment' to the Belgian chamber of representatives[5]. In this policy document, the sustainable management and protection of the sea focuses on 4 policy pillars:
- Sustainable Management of the human activities at sea
- The protection and conservation of the marine biodiversity
- Following up the quality of the marine environment
- Environmental surveillance and prevention of marine pollution

[2] *E. Douvere, F.; Maes, F. (2007). The role of marine spatial planning in sea use management: The Belgian case, in: Marine Policy, 31: pp. 182-191*
[3] *Bossu, P.; Plasman, C. (2004). Een doorbraak in het Belgische Noordzeebeleid?. Argus Milieumagazine 2(1): 4-8*
[4] *Algemene Beleidsnota van de eerste minister inzake marien milieu - 52 0995/ (2007/2008): http://www.dekamer.be/FLWB/PDF/52/0995/52K0995015.pdf*
[5] *DOC 52 2225/024 - 25 november 2009 - Algemene Beleidsnota Marien Milieu*

The document clearly refers to the implementation of the European Marine strategy[6] as milestone for the further coordination and implementation of a Maritime Spatial Planning (MSP). The policy note Marine Environment can be seen as an commitment to work towards an MSP in 2010 and 2011. The clear objectives given in the text for such an MSP are the determination of 'conservation objectives for species and habitats' and to deal with the European Commission assigning marine protected areas (within the framework of Natura 2000) in the Exclusive Economic Zone. The further phases of these processes will provide input for the environmental part of the maritime spatial plan[7].

The federal policy note 'Transport', also presented by the State Secretary who has the authority on Marine Environment and Transport, describes the development of the first marine Master plan in 2003, but also suggests expanding this first plan with the further development of sustainable maritime transport within the Belgian EEZ (Exclusive Economic Zone) . It also mentions that the area for the development of offshore energy needs to be revised on the based on an integrated vision that takes into account the marine environment, the reduction of CO2, the economic development of the harbours, the safety of marine transport and the development of Short Sea Shipping.

Task 2
Establishing appropriate authority for maritime spatial planning

The most important thing when creating authority to plan for MSP is to make sure that the output - the maritime spatial management plan - will be enforceable. One way to establish authority for a MSP is through the creation of new legislation. Another way is to depart from existing legislation - either by re-interpreting it or by slightly modifying it. A third possible way to establish authority for an MSP is to work it into provisions that can be added to legislation that is either already in development or which is under consideration for development in the near future.

Within the government of the BNPS there are different authorities involved (table 1).

Table 1. Multi-level government in the BPNS and the coastal zone	
International obligations: conventions and commitments (2010 Target...)	
EU obligations: EU-directives (Habitats Directive...)	
Federal state	
Federal competences at sea: nature conservation, protection of the marine environment, offshore windmill parks, shipping, military, etc.	Federal competences on land: contingency planning, etc.
Flemish Region	
Flemish competences at sea: fishing, dredging, etc.	Flemish competences on land: nature conservation, tourism, ports, etc.
1 Province (West-Flanders)	
10 coastal municipalities	

Table: Multi-level government in the BPNS and the coastal zone[9]

Before 2003, the various agencies dealing with different aspects of the North Sea had their own authorities. In 2003, with the coming to power of the new federal government a specific paragraph on the North Sea was included in the governmental agreement.

"[7] The protection of the North Sea For the North Sea, one of the richest and largest natural areas of our country, the government will develop a long-term vision whereby the sustainable management of fishing, sand extraction, shipping and ecological values of the sea will be the starting points.[10]"

For its implementation, new resources (people and means) were provided, for example by the creation of a Minister for the North Sea. This Minister would have the right to take initiative in the coordination of all matters relating to the North Sea policy at Ministerial level. For the first time Belgium got a Minister for the North Sea. His function was to co-ordinate these authorities within the framework of North Sea Management, with the development of a sustainable vision for the North Sea as the priority. It was this Federal Minister who had the authority to plan for maritime spatial planning.

[6] *DIRECTIVE 2008/56/EC of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:164:0019:0040:EN:PDF*
[7] *DOC 52 2225/024 - 25 November 2009 – Algemene Beleidsnota Marien Milieu*
[8] *DOC 52 2225/023 - 25 November 2009 – Algemene Beleidsnota Transport*
[9] *Rabaut, M.; Degraer, S.; Schrijvers, J.; Derous, S.; Bogaert, D.; Maes, F.; Vincx, M.; Cliquet, A. (2009). Policy analysis of the MPA-process in temperate continental shelf areas. Aquatic Conserv: Mar. Freshw. Ecosyst. 19: 596-608*
[10] *http://mobielvlaanderen.be/pdf/beleidsnota-brieven/federaalregeerakkoord2003.pdf*

SPATIAL PLANNING PROCESS ON LAND

Task 1
Identifying why you need maritime spatial planning

Space in Flanders is scarce, finite and losing its quality. When looking for solutions to a number of structural problems more and more is being expected of spatial planning (traffic safety, public transport, urban decline, social segregation, lack of space for economic activities, affordable housing, environmental protection etc.)

In real terms spatial planning faces the following challenges:
- satisfying a quantitative and qualitative housing need
- satisfying the need for sufficient, well-equipped industrial areas for new economic activities and ensuring development opportunities for existing economic activities
- providing sufficient and high quality space for agriculture
- safeguarding and where possible enhancing undeveloped space and it's landscape qualities (nature, woodland, agriculture)
- accommodation of the significant growth of mobility with good road, waterway, rail and pipeline infrastructures; ensuring ease of access, accessibility to and the liveability of (for instance, economically) important centres in Flanders[11]
- accommodation of highly dynamic tourist and recreational activities and providing a qualitative recreational network

Task 2
Establishing appropriate authority for maritime spatial planning

Belgium, being a federal country, does not have responsibility at national level for spatial planning. The Regions have the competence to put legislation with respect to spatial planning in place. Within the Flemish Region there are three government levels which have competences in spatial planning at their direct disposal: the Region, the province, and the local authority.
These three government levels can all draw up spatial structure plans (ruimtelijke structuurplannen). These are strategic plans; they consist of an indicative, a directive, and a legally binding section. The plans can also contain parts which are binding for other government authorities.
Spatial structure plans drawn up at a lower government level must be approved by the next successive higher government level. The plans must be oriented to conform to the stipulations of the spatial structure plans of the higher government level. In principle, they are fixed for a period of 5 years.
In addition to the spatial structure plans, all three government levels have the competence to make spatial implementation plans (ruimtelijke uitvoeringsplannen). These are binding plans to carry into effect parts of a structure plan.
In Belgium, federal legislation and regulations for spatial planning and urban development began on 29 March 1961[12]. This so-called 'Urban development Act' introduced land use plans. Due to the constitutional reform of 1980, the powers to legislate on spatial planning were transferred from the Belgian State to the Regions. Since then, the Flemish authority has the power to change regional plans on the territory of the Flemish Region. That authority of the Flemish Region reaches to the mean low-tide mark, which serves as the base-line.
In 1996, the Planning Decree[13] introduced the structure plans. Structure plans are not land use plans but 'only' policy plans that indicate the desired spatial development of the area. The Decree provided for structure plans at three levels: The Flemish region, the provinces and the municipalities.
The planning decree:
- gives a description of the term 'spatial structure plan'
- states that spatial structure plans must be drawn up on three levels: Flemish Region, the provinces and municipalities
- regulates the content and the legal status of the spatial structure plans
- regulates the procedure for the origination of the spatial structure plans
- regulates the carrying out of the spatial structure plans

By the Decree of 18 May 1999[14] regarding the organisation of spatial planning, the former 'Urban development Act' and the Planning Decree were replaced. This Decree introduced a new system of spatial implementation plans: from the moment that a public body has a structure plan, that authority does not make zoning plans any longer, but instead makes spatial implementation plans (RUPs) in implementation of the structure plans.

[11] *Spatial Structure Plan for Flanders, Ministry of the Flemish Community, Environment and Infrastructure Department, Administration for Zoning, Housing and Monuments and Landscapes, Spatial Planning Division, Brussels, 1998*
[12] *Act of 29 March 1962 with regard to the organisation of spatial planning and urban development*
[13] *Decree of 24 July 1996 with regard to the spatial planning, Belgian Law Gazette, 27 July 1996*
[14] *Decree of 18 May 1999 with regard to the organisation of spatial planning,*

Conclusions regarding identifying need and establishing authority for maritime spatial planning

- In the past, the need for MSP was determined by the delimitation process related to Natura 2000 areas and the determinations of the areas at sea for development of wind energy
- Based on different policy documents, it is shown that there exists a clear need from the policy sectors to proceed with a maritime spatial planning process. This need has also been encouraged by the European Policy and Legislation.
- A clear legal framework for organising spatial planning at sea doesn't exist. On the other hand, such framework is present for planning on land. Because of the lack of a legal framework for spatial planning at sea, delimitations and spatial restrictions are often on an ad hoc basis, not always initiated by a policy question. There exists only sectoral legislation, an integral approach is missing.
- It is not clear which principles will be applied, which final dates will be proposed, how choices will be made, ... For the new maritime spatial planning process that is about to begin, it is unclear who has the authority to start a MSP process.
- Flanders plays a primary rol in land and coastal spatial planning. Marine spatial planning, however, remains a federal competence

Step 2
Obtaining financial support

The goal of this step

An MSP is not possible without adequate financial resources. Identifying financing mechanisms are most likely being done in conjunction with the task of setting goals and objectives.

What outputs should be delivered

- A financial plan that estimates the costs of MSP activities and
- Identifies alternative means to obtain financing for those MSP activities.

What are the tasks in this step

Task 1: Identifying alternative financing mechanisms
Task 2: Defining the feasibility of alternative funding mechanisms

SPATIAL PLANNING PROCESS AT SEA

The different governments that undertake parts of the MSP process rely on direct allocations to their budgets from general tax revenues. In Belgium, agencies are often given responsibilities to undertake MSP activities without receiving additional funds. In the past but also now, no budget is allocated for the follow-up of an MSP. There was also no general overview available of the estimated costs of an MSP plan[15]. Partnerships such as the coordination centre and the coast guard are funded by the different partners representing the provincial, Flemish and federal governments.

A budget for research on MSP was available via The North Sea Research Programme of the Belgian Science Policy (BELSPO) and the 'Science for a sustainable Development program' as well as via other European programs. There are still funding opportunities within the Seventh Framework Programme for Research and Technological Development or the INTERREG programs, financed through the European Regional Development Fund (ERDF) or. Several INTERREG projects had MSP as topic of their project plan: exp COREPOINT, IMCORE, C-SCOPE,...Projects such as MESMA are funded by the Seventh Framework Programme for Research and Technological Development, EU's main instrument for funding research in Europe. This programme runs from 2007-2013. Other financing procedures are possible, for example, grants or donations, partnerships with NGOs, funds from the private sector, users fees,...[16] But none of them are for the moment used for setting up an MSP planning in Belgium.

SPATIAL PLANNING PROCESS ON LAND

The Flemish agency competent for spatial planning on land receives a working budget and personnel from general public finances. Also municipal or provincial spatial planning departments receive finance from the general budget. The government also finances the spatial planning process within the harbours.

A subsidy may be requested for strategic projects. Such a project must result in a spatial planning process exceeding local level. Public parties who are contributing to the spatial quality of Flanders, can apply for these subsidies. They must have an importance at Flemish level, departing from existing visions and stimulating the cooperation of spatial bodies in an strategic area, such as a development area around a public transport node or a inner city revitalisation area.

Conclusions regarding obtaining financial support

- A sustainable financing strategy for MSP should be tailored to the specific financial, legal, administrative, social and political conditions. This is not yet developed for Belgium.
- Funding for monitoring and research on MSP was available by scientific funding sponsored by the Federal and Flemish government. Also through EU funding, there are possibilities to receive funding.
- There is no specific budget allocated to MSP within the different governmental bodies in Belgium.

[15] *Oral information Ulrike Van Hessche*
[16] *Ehler, Charles, and Fanny Douvere. Marine Spatial Planning: a step-by-step approach toward ecosystem-based management. Intergovernmental Oceanographic Commission and Man and the Biosphere Programme. IOC Manual and Guides No. 53, ICAM Dossier No. 6. Paris: UNESCO. 2009 (English).*

Step 3
Organizing the process through pre-planning

The goal of this step

Spatial planning is likely to be most successful in achieving expected or desired outcomes/results when conducted on the basis of an 'objective-based approach'. An objective based approach is organized around a hierarchy of goals, objectives and indicators that evaluate the performance of management measures in achieving those goals and objectives. An objective-based approach implies that analysis conducted during the planning phases is related to the goals and objectives. Also the identification of management measures, and the strategy for implementing such measures, are all carried out to achieve the goals and objectives.

What outputs should be delivered

- Organization of a maritime spatial planning team with the desired skills
- A work plan that identifies key work products and resources required to complete the outputs of planning on time
- Defined boundaries & time frame for analysis and management
- A set of principles to guide development of the maritime spatial management plan
- A set of goals and objectives for the management area.

What are the tasks in this step

Task 1: Creating the maritime spatial planning team
Task 2: Developing a work plan
Task 3: Defining boundaries and timeframe
Task 4: Defining principles
Task 5: Defining goals and objectives
Task 6: Identifying risks and developing contingency plans

Overview

Tasks	1st MSP Cycle (2003-2006)	Spatial Structure Plan Flanders
Task 1: Creating a spatial planning team	?	√
Task 2: Developing a work plan	√	?
Task 3: Defining boundaries and timeframe	?	√
Task 4: Defining principles	?	√
Task 5: Defining goals and objective	√	√
ask 6: Identifying risks and developing contingency plans	?	?

SPATIAL PLANNING PROCESS AT SEA

Task 1
Creating the maritime spatial planning team

A key task is to organize a maritime spatial planning team. In Belgium there is no such team. Different skills and competencies are available within the governmental agencies or ministries, the scientific community and non-governmental organizations or consultants.

Competences needed in a spatial planning team	Present in Belgium
Program management: Strategic thinking about space and time	√
Authority: Knowledge of spatial implications of legislation	√
Analysis: Analytical thinking about Space and Time	√
Planning: Conceptualization Spatial Systems Thinking	√
Implementation: Conflict Resolution	√
Monitoring and Evaluation: Cause-and-Effect Thinking	√
Communications: Strategic Communications	√

All key tasks are covered by agencies or organisations present in the Belgian governmental structure. All the expertise it here but has to be brought together. A non-limited list of institutes that has to be involved in a formal or informal way within a maritime spatial planning process:

- FPS Marine Environment - FPS economy
- Fisheries department
- Researchers in the context of scientific projects and PhDs.
- Scientific Institutes: MUMM, VLIZ, Ugent -the Maritime Institute,...
- Working groups on MSP as result of projects such as GAUFFRE, C-SCOPE, MESMA...
- Individual initiatives - Planners collective
- Economically driven initiatives: Consultant companies or Consortium of dredging companies: Vlaamse Baaien
- Coastguard - Sea extraction funds

Task 2
Developing a work plan

Resources for MSP - including time - are usually limited. Therefore it is essential to develop a work plan that specifies what parts of the process should be done by whom, in what time frame, at what costs and how the various parts relate to each other. At present, in Belgium there is no MSP work plan developed, with clear tasks, timing,.. developed by the governmental agency responsible for MSP.

Several existing plans, developed by different agencies can jointly create a work plan for MSP. For example: the Flemish government developed an integrated coastal strategy, which deals with the protection of the coast against coastal flooding until 2050. This plan is also the result of a clear process with defined tasks, timings and responsibilities.

Task 3
Defining Maritime Spatial Planning Boundaries and Timeframe

From a management perspective, the boundaries are formed by the different policy aspects. Different studies define different boundaries depending on the theme being studied.

Task 4
Defining Principles

MSP should be guided by a set of principles that determine the nature and characteristics of the MSP process and reflect the results wanted to achieve through MSP. During the first MSP process in Belgium, there was no defining of a set of principles. In 2010, the federal policy note Marine Environment clearly refers to the implementation of the European Marine strategy as keystone for the further coordination and realisation of a Maritime Spatial Planning[17].

There are other processes (EU Roadmap, ICZM principles, OSPAR, GAUFRE project,...) for which a set of principles have been developed that can be easily adapted to a current MSP process. At EU level, a 'Roadmap for Maritime Spatial Planning: Achieving common principles in the EU' was adopted by the Commission on 25 November 2008. It provides information on current maritime spatial planning practices in EU Member States and in third countries, outlines the instruments which impact upon it and sets out key principles underpinning it[18].

The 10 key-principles on MSP in the EU[19]:
Overarching principle: ecosystem approach

- Using MSP according to area and type of activity
- Defining objectives to guide MSP
- Developing MSP in a transparent manner
- Stakeholder participation
- Coordination within Member States –simplifying decision processes
- Ensuring the legal effect of national MSP
- Cross-border cooperation and consultation
- Incorporating monitoring and evaluation in the planning process
- Achieving coherence between terrestrial and maritime spatial planning
- Strong data and knowledge base

Within the GAUFRE project, the core values of the North Sea determine each use within the coastal and marine area. The three core values are the value of well-being or social value, ecological and landscape value, and economic value. In addition to the three core values, the GAUFRE project identified three general principles influence the management of the BPNS (Belgian Part of the North Sea). These include the precautionary principles, sustainable management and sustainability, and security.

[17] *DOC 52 2225/024 - 25 november 2009 – Algemene Beleidsnota Marien Milieu*
[18] *Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU, COM(2008) 791 final*
[19] *Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU, COM(2008) 791 final*

The European Recommendation on Integrated Coastal Zone Management[20] (COM/00/545 of 8 Sept. 2000) was adopted on 30 May 2002. The Recommendation contained eight principles to guide coastal management in Member States. Since the publication of the Recommendation in 2002, the principles have quickly become the standard against which progress in ICZM in Europe is measured[21]. These principles are also relevant for MSP.

Task 5
Defining Goals and Objectives

Specifying MSP goals and objectives are essential to help to focus and tailor the MSP effort towards achieving results. A goal is a statement of general direction or intent. They are high level statements of desired outcome. An objective is a statement of desired outcomes or observable behavioural changes that represent the achievement of a goal.

In 2003, a Federal minister responsible for the management of the BNPS was appointed. The core issues of his policy framework provided the basis for a 'Master Plan' that was implemented in two phases[22].

The core issues were:
- Development of an offshore wind farm
- Delimitation of marine protected areas
- Policy plan for sustainable sand and gravel extraction
- Enhance financial resources for the prevention of oil pollution
- Mapping of marine habitats
- Protection of wrecks valuable for biodiversity
- Management of land-based activities that have an impact on the marine environment.

The federal policy note 'Transport' refers to the process of 2003, with the development of the first spatial plan, but also suggests expanding this first plan with the conservation and development of sustainable maritime transport within the Belgian EEZ (Exclusive Economic Zone)[23].

The clear objectives for the realisation of such an MSP, as stated in the federal policy note Marine Environment 2010, are the determination of the 'conservation objectives for species and habitats' and the question of the European commission for delimitation of the marine protected areas in the Exclusive Economic Zone within the framework of Natura 2000[24].

Task 6
Identifying risks and developing contingency plans

A pre-planning should include an assessment of the risks of what could go wrong during the planning process. SEA and RIA procedures identify risks from an environmental point of view and are imbedded in diverse planning processes, such as the extraction of gravel, sand, the building of wind farms and integrated master plan for Flanders future coastal safety. Other risks or contingency plans are absent.

SPATIAL PLANNING PROCESS ON LAND

Task 1
Creating a spatial planning team

A team of specialists and experts is put together in the Flemish Government to create the Spatial Structure Plan Flanders. Within the different local authorities, there are civil servants responsible for spatial planning.

Task 2
Developing a work plan

It is not clear if there was a work plan developed.

Task 3
Defining Spatial Planning Boundaries and Timeframe

The plan horizon for the Spatial Structure Plan for Flanders ran to 2007. The plan is evaluated every five years and is now due a second review. This second review ensures the updating and partial review of the Spatial Structure Plan for Flanders for the period to 2012. The Spatial Structure Plan for Flanders has demarcation at regional level.

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[20] *Recommendation of the European Parliament and of the Council of 30 May 2002 concerning the implementation of Integrated Coastal Zone Management in Europe (2002/413/EC)*
[21] *Communication from the Commission - Report to the European Parliament and the Council: an evaluation of Integrated Coastal Zone Management (ICZM) in Europe /* COM/2007/0308 final */*
[22] *Bossu, P.; Plasman, C. (2004). Een doorbraak in het Belgische Noordzeebeleid?. Argus Milieumagazine 2(1): 4-8*
[23] *DOC 52 2225/023 - 25 november 2009 – Algemene Beleidsnota Mobiliteit*
[24] *DOC 52 2225/024 - 25 November 2009 – Algemene Beleidsnota Marien Milieu*

Task 4
Defining Principles

The Spatial Structure Plan for Flanders has been an important foundation of spatial policy since 1997. It is not so much a plan as a vision. A vision that indicates how the space in Flanders is best managed. Four spatial principles are defined within the context of the SSPF. These four spatial principles concretise the vision of the spatial development of Flanders[25].

- Devolvement
- 'Gates' (harbours and international airports and train stations) as engines for development
- Infrastructures as a bond and basis for the location of activities
- Physical system as the basis for spatial structuring.

These four spatial principles must always be considered in coherence.

Task 5
Defining Goals and Objectives

The vision of the spatial development of Flanders leads to four basic objectives. These are:

1. the selective development of urban areas, the targeted interweaving and integration of functions and provisions, including the economic activities in the urban areas; the absolute priority here is the best possible use and management of the existing urban structure;
2. the conservation and where possible the enhancement of the rural zone and the combination of housing and work in the nuclei of the rural zone;
3. the concentration of economic activities in the places forming part of the existing economic structure of Flanders;
4. the optimisation of the existing traffic and transport infrastructure, whereby the spatial conditions are created for the improvement of collective transport and the organisation of traffic-generating activities at points opened up by public transport.

These four basic objectives refer to the spatial aspects of social functioning. They entail a powerful reference to the ecological, the economic and the social-cultural aspects of social functioning[26].

Task 6
Identifying risks and developing contingency plans

The Spatial Structure Plan Flanders was not subject to an Strategic Environmental Assessments (SEAs) or an Environmental Impact Assessment (EIA). However, an Environmental Impact Assessment can be carried out for spatial implementation plans.

Conclusions regarding organizing the process through pre-planning

- There is no maritime planning team in place in Belgium for an update or the organisation of a second MSP cycli (dd 21/06/2011)
- Within the first MSP cylci there was no clear work plan available that outlines the goals, principles and boundaries for Belgium. The goals and objectives should be related with the particular problems and conflicts that are present in the area.
- As distinct from planning at sea, for planning on land there is a clear vision with a number of principles and policy guidelines
- An assessment of the risk is conducted in several sectoral planning processes but not from an integrated perspective.

[25] *Ruimtelijk Structuurplan Vlaanderen-http://www.rsv.vlaanderen.be/export/sites/rsv/uploads/documenten/overRSV/rsv_w.pdf*
[26] *Ruimtelijk Structuurplan Vlaanderen-http://www.rsv.vlaanderen.be/export/sites/rsv/uploads/documenten/overRSV/rsv_w.pdf*

Step 4
Organizing stakeholder participation

The goal of this step

The most important reason to organize stakeholder engagement is because an MSP aims to achieve multiple objectives and should therefore reflect the expectations, opportunities or conflicts arising in the MSP area. Which stakeholders should be involved, when they should be involved and what form this involvement should take will ultimately be closely linked to and influenced by two questions:

- Who decides what during the planning and implementing steps of the MSP process?
- Who is responsible for MSP planning and development?

What outputs should be delivered

- A plan indicating when and how to involve which stakeholders throughout the maritime spatial planning process.

What are the tasks in this step

Task 1: Defining who should be involved in MSP
Task 2: Defining when to involve stakeholders
Task 3: Defining how to involve stakeholders

Overview

Project	Land/ Sea/ Harbour	Task 1: Who is involved?	Task 2: When involved?	Task 3: How to involve?
Designation of MPA	Sea	√	√	√
Provincial Spatial Implementation Plans for Beaches and Dykes	Land	√	√	√
Integrated Master Plan for Flanders future Coastal Safety	Land	√	√	√
User Agreements for MPAs	Sea	√	√	√
Spatial Structure Plan	Land	√	√	√
Strategic Planning Process harbours	Harbour	√	√	√

SPATIAL PLANNING PROCESS AT SEA

There are several examples of stakeholder participations that occurred during the first MSP process[27]. These include the designation of Marine Protected Areas (MPAs) in the Belgian part of the North Sea and the Provincial Spatial Implementation Plans for Beaches and Dykes (PRUP).

Designation of Marine Protected Areas (FPS Marine Environment)[28]

- What: On the basis of scientific insights and international legal obligations, the nature conservations movement and the federal government felt the need to designate MPAs in Belgium.
- Who is involved: The authorities (Minister of the North Sea, Federal administration, Local authorities (civil servants),the academic world, Nature conservation movement, North sea users (water sports, fishermen, ship owners,...) and local politicians.
- When are they involved: During the consultation process
- How are they involved: Through bilateral consultation

Provincial Spatial Implementation Plans for Beaches and Dykes (The province of West-Flanders)[29]

- What: to create legal certainty and a comprehensive policy framework for beaches and dykes along the whole Belgian coast.
- Who is involved: Civil servants of the province, local politicians, civil society and the market, Westtoer, Toerisme Vlaanderen , the Flemish Agency for Spatial Planning and Heritage Properties, PROCORO.
- When are they involved: During the informal preparatory study stage and the official consultation round.
- How are they involved: Through informal preliminary consultations, official consultation through plenary meetings.

[27] *Bogaert, D.; Cliquet, A.; Maes, F. (Ed.) (2008). Kustzonebeleid: samen in zee? Beleidsprocessen voor Belgische mariene beschermde gebieden en het Provinciaal Ruimtelijk Uitvoeringsplan Strand en Dijk. pp. 9-10*
[28] *Bogaert, D.; Cliquet, A., Maes, F. (2009). Designation of marine protected areas in Belgium: a legal and ecological success?. Mar. Policy 33(6): 878-886*
[29] *Bogaert, D.; Cliquet, A.; Maes, F. (Ed.) (2008). Kustzonebeleid: samen in zee? Beleidsprocessen voor Belgische mariene beschermde gebieden en het Provinciaal Ruimtelijk Uitvoeringsplan Strand en Dijk. pp. 9-10*

Integrated master plan for Flanders future coastal safety+ MER procedure (Flemish Agency for Coastal Services)

- What: The integrated master plan for Flanders future coastal safety developed by the coastal division of the Flemish government will form a baseline for further coastal developments concerning coastal safety.
- Who is involved: The Flemish Agency for Coastal Services, civil servants of the province and the Flemish government, local politicians, the broader public.
- When are they involved: During the informal preparatory study stage and the official consultation round.
- How are they involved: The coast division has developed a communication strategy, including public consultation, exhibitions and information sessions for a wide public. Participation was an integral part of the strategy developed by the Steering committee.

User agreements for MPAs (FPS Marine Environment)

- What: Within the framework of the designation of MPA's, user agreements have to be developed.
- Who is involved: The Federal government, North sea users (water sports, fisherman,...), the Flemish Agency for Coastal Services.
- When are they involved: During consultation meeting to develop the agreements.
- How are they involved: Through consultation meetings.

The first steps towards the establishment of a socio-economical advisory body has been made. In this advisory body it will be possible to request for structural advice on the North Sea to diverse social and economical stakeholders. In 2010, the Maritime Institute implemented a study on this topic following to a request of FPS Marine Environment[29]. There is already a environment advisory body in place in Flanders[30].

SPATIAL PLANNING PROCESS ON LAND

Spatial Structure Plan

- What: The Spatial Structure Plan Flanders represents the policy framework for future spatial developments.
- Who is involved: Flemish Government and Strategic Advisory Committees
- When are they involved: The consultation rounds form part of the approval process.
- How are they involved: prior consultation, advice formation, public enquiry.

Conclusions regarding organizing stakeholder participation:

- There is no framework for participation in Belgium regarding MSP. The sectors were involved ad hoc and there is no continuity in participation or feedback to the stakeholders.
- Depending on the target group, different forms of participation are used, although the right instruments are not always used for the right groups, which can lead to miscommunication[31].

[29] *Lin Van Poucke en An Cliquet (2010). Evaluatie van de socoa-economische adviesstructuren met betrekking tot het mariene milieu. een studie in opdracht van FOD Leefmilieu, uitgevoerd door het Maritiem Instituut, Universiteit Gent.*
[30] *http://www.minaraad.be*
[31] *Bogaert, D.; Cliquet, A., Maes, F. (2009). Designation of marine protected areas in Belgium: a legal and ecological success?. Mar. Policy 33(6): 878-886*

Step 5
Defining and analyzing existing conditions

The goal of this step

The goal of this step to get a good overview of the existing conditions, by means of an inventory. Its purpose is to bring together a wide range of baseline information. An inventory should also take account any obvious trends and developments in order to be able to assess spatial pressures at a later stage of the planning process.

At least three general categories of spatial information are relevant (1) biological and ecological distributions including areas of known importance for a particular species or biological community, (2) spatial information about human activities; and (3) oceanographic and other physical environmental features (bathymetry, currents, sediments). The mapping of jurisdictional and administrative boundaries will also be relevant when institution arrangements are considered. In conducting a review of available data, it is important to look for spatial information that covers most of the marine area.

In this step the projects that cover the whole BPNS and that have a direct link with spatial data regarding ecological, environmental, oceanographic or human activities are considered.

What outputs should be delivered

- An inventory and maps of important biological and ecological areas in the marine management area
- An inventory and maps of current human activities (and pressures) in the marine management area
- An assessment of possible conflicts and compatibilities among existing human uses
- An assessment of possible conflicts and compatibilities between existing human uses and the environment

What are the tasks in this step

Task 1: Collecting and mapping information about the ecological, environmental and oceanographic conditions
Task 2: Collecting and mapping information about human activities
Task 3: Identifying current conflicts and compatibilities

Overview

This is a list of courant referred projects within the context of maritime spatial planning. The projects in the list are mostly integrated projects or monitoring projects. The list is not limitative.

Project	Land/Sea	T1: Ecological, environmental and oceanographic conditions	T2: Human activities	T3: Conflicts and compatibilities
GAUFRE (2003-2005)	Sea	√	√	√
BWZee (2004-2006)	Sea	√		
MAREBASS (2002-2006)	Sea	√		
MARE-DASM (1998-2002)	Sea		√	
BALANS (2002-2006)	Sea		√	√
BEWREMABI (2003-2006)	Sea			√
COASTAL ATLAS	Land/Sea		√	
MESMA	Sea	√	√	√
RSV	Land	√	√	√

Monitoringprojects	Land/Sea	T1: Ecological, environmental and oceanographic conditions	T2: Human activities	T3: Conflicts and compatibilities
TROPHOS (2002-2006)	Sea	√		
MACROBEL (2001-2003)	Sea	√		
WESTBANKS (2006-2011)	Sea	√		
MEETNET VLAAMSE BANKEN	Sea	√		
WFD MONITORING	Sea	√		
VESSEL MONITORING SYSTEMS	Sea		√	

GAUFRE – project (2003-2005)[32]

In the analyse section of the GAUFRE project, the focus is on available data of the BPNS suitable for the spatial planning project. This section is divided into three specific domains. First, the environment is described by providing a simple analysis of how homogeneous zones link and integrate with a whole array of environmental factors. The focus is on legal, geophysical and ecological zoning. Secondly, the infrastructure within the BPNS (Belgian Part of the North Sea) is studied and described. The actual uses – both historic current and future - are described in detail in a third domain. The data collected was entered into a GIS system to create a database of layered marine environmental information. The resulting images of spatial delimitation and intensity form the basis of the studied carried out in the second and third section of the project.

A biological valuation map for the Belgian part of the North Sea project (2004-2006)[33]

The BWZee project aimed to develop a scientifically acceptable and widely applicable valuation strategy for marine areas and to apply this strategy to the Belgian Continental Shelf (BCS). The end-product was an integrated, full-coverage biological valuation map representing the biological and ecological value of all subareas within the Belgian BCS. The marine biological valuation map of the BPNS integrates the valuation of different ecosystem components such as the seabirds, macro- en epibenthos and demersal fish. Other ecosystem components (phytoplankton, sea mammals, zooplankton, meiobenthos...) are not included in the assessment because the data availability for these ecosystem components was not very high at the time of the project.

MAREBASS (2002-2006)[34]

The MAREBASS project aimed at the developing of a framework for the assessment and management of marine sediments. This required a significant increase in the knowledge regarding the spatial variability of the seafloor, both on a broad, regional and on a site-specific scale. The main outcome of the useful for future maritime spatial planning were a series of thematic maps covering the entire Belgian part of the North Sea. These maps were made using GIS tools, sometimes in combination with more powerful geostatistical software packages.

The mapping of the seabed sediments has resulted in a highly detailed distribution map of the median grain-size of the sand fraction in the Belgian part of the North Sea. This deliverable product was very important because of the increasing demand for knowledge on the nature and distribution of marine aggregates, the need to evaluate the impact of anthropogenic activities on the physical seabed and its potential to link up different ecosystem components that are substrate-bound. In addition to the median grain size map, a map with the sampling density was produced to provide insight into the map's reliability.

[32] *Maes, F.; De Batist, M. et al. (Ed.) (2005). Towards a Spatial Structure Plan for Sustainable Management of the Sea: Mixed actions - Final report: SPSD II (MA/02/006). Belgian Science Policy: Brussels, Belgium. XIII, 384 + maps (2 volumes) pp*

[33] *Derous, S.; Vincx, M. et al. (2007). A biological valuation map for the Belgian part of the North Sea (BWZEE). Belgian Science Policy: Brussels, Belgium. 161 pp.,*

[34] *Van Lancker, V.R.M.; Du Four, I. et al. (2007). Management, Research and Budgeting of Aggregates in Shelf Seas related to End-users (Marebasse). Belgian Science Policy: Brussel, Belgium. 139 pp.,*

Vessel monitoring systems

Data gathered form vessel monitoring systems are saved and processed by "shipping assistance" and can be of used for a view of the traffic on the BNCP.

MARE-DASM (1998-2002)[35]

Marine Resource Damage Assessment and sustainable management of the North Sea was one of the first interdisciplinary projects in Belgium in which natural and social scientists cooperated on a North Sea topic. The experience gained in MAREDASM proved to be highly valuable for the management of GAUFRE.

BALANS (2002-2006)[36]

The main goal of BALANS is to gain experience in correlating and balancing relevant social, economic and ecological data, through the elaboration of indicators and weighing these indicators for shrimp fisheries and sand and gravel extraction. Its developed model can serve as an example for sustainable management of the North Sea.

COASTAL ATLAS[37]

The Coastal Atlas gives an overview of the different aspects of the coast. The atlas contains a limited set of aggregated data, but by linking the atlas to the databases of the sustainability indicators for the coast, a rich dataset was added. All the data used in the atlas is 'open source', mostly provided by public authorities and their administrations. The final product will be a policy supporting tool that will back the ICZM process for a wide range of coastal actors, planners and managers.

BEWERMABI (2003-2006)[38]

Studies to the biodiversity on shipwrecks, showed that shipwrecks have an increased habitat complexity and host more species that the soft substrates in the nearby area. They are important to as model for artificial hard substrates and can be classified as marine protected areas.

MESMA (2009-2013)[39]

The EU FP7 project MESMA focuses on marine spatial planning and aims to produce integrated management tools (concepts, models and guidelines) for Monitoring, Evaluation and implementation of Spatially Managed marine Areas, based on European collaboration. MESMA is expected to supply innovative methods and integrated strategies for governments, local authorities, stakeholders, and other managerial bodies for planning and decision making at different local, national, and European scales, for sustainable development of European seas.

Monitoring projects

TROPHOS[40] (2002-2006): TROPHOS was designed as a fundamental research project to understand the causal relationship between patterns and functioning of the higher tropic levels in the BCS (Belgian Continental Shelf), with special attention to food web interactions, dispersion mechanisms and distribution patterns of benthic communities. The output, a large database capturing highly valuable data on the benthos, birds and fishes of the BCS, is very valuable for a MSP-process as it gives vital information on the marine environment.

MACROBEL[41] (2001-2003): The monitoring of long-term biodiversity trends for the macrobenthos has resulted in an atlas on the medium-term evolution of the occurrence of selected macrobenthic species on the BCS[42]. This atlas gives an overview of the distribution and biological characteristics of the 53 dominant macro benthic species actually encountered on the BCS.

Flemish Banks Monitoring Network[43]: The Flemish Banks Monitoring Network consists of a nautical Monitoring Network made up of measuring pillars and wave data buoys, weather forecasting centres on the shore and a computer network in Ostend. The data collected gives baseline information on the oceanographic states of the BPNS.

Monitoring within the water directive framework[44]: The EU Water framework directive (KRW 2000/60/EU) has as its main purpose the protection and improvement of the surface and groundwater, but is also applied to the coastal waters (out to 1 nautical mile) for environment status (biological, chemical) and the territorial waters (12 nautical miles) for chemical conditions.

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[35] *Maes, F. (Ed.) (2003). Assessment of marine degradation in the North Sea and proposals for sustainable management: final report November 2002 (Ministerial Order BA3673, Contract nr. MN/02/71). Scientific Support Plan for a Sustainable Development Policy (SPSD I): Programme 'Sustainable Management of the North Sea'. SSTC/DWTC: Brussel, Belgium. 3 vol. + summary + annexes pp.*

[36] *Maes, F., Polet, H. et al. (2007). Balancing impacts of human activities in the Belgian part of the North Sea (BALANS). Belgian Science Policy: Brussel, Belgium. 200 + annexes, cd-rom pp.*

[37] *Maelfait, H.; Belpaeme, K. (2010). The Belgian Coastal Atlas: moving from the classic static atlas to an interactive data-driven atlas. J. Coast. Conserv. 14(1): 13-19*

[38] *Mallefet, J.; Zintzen, V. et al. (2008). Belgian shipwreck: hotspots for marine biodiversity BEWREMABI: final report. Belgian Science Policy: Brussels, Belgium. 151 pp.*

[39] *http://www.mesma.org/ consulted on 05/10/2011*

[40] *Anon. (2004). Hogere trofische niveaus in de Zuidelijke Noordzee 'TROPHOS': wetenschappelijk verslag voor de periode van 01/02/2003-31/01/2004. Brussel, Belgium. 23 pp*

[41] *Wittoeck J., Degraer S., et al.(2005) Long term trends of the macrobenthos of the Belgian Continental Shelf (MACROBEL): final report. Belgian Federal Science Policy Office, 66p.*

[42] *Degraer S., Wittoeck J., et al. (2006). De macrobenthosatlas van het Belgisch deel van de Noordzee. Federaal Wetenschapsbeleid D/2005/1191/5, 164 pp. ISBN 90-810081-5-3*

[43] *http://www.meetnetvlaamsebanken.be/ consulted on 02/08/2010*

[44] *Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32000L0060:EN:NOT*

WESTBANKS[45] *(2006-2011):* The project wants to understand benthic, pelagic and airborne ecosystem interactions in shallow coastal seas. The project focussed on structuring processes and interactions on the species and population level situated at the sediment, water and air interface of the marine ecosystem.

SPATIAL PLANNING PROCESS ON LAND

Spatial Structure Plan for Flanders

The Spatial Structure Plan for Flanders contains an analysis of the existing spatial structure of Flanders, the trends, the spatial problems and the potentials, and this again for the four structure-determining components: the urban space, the open space, the space for economic development and the linear infrastructure. In the trends the actual (spatial) developments of the previous years are analysed, and it is shown how these today help shape the existing spatial structure in Flanders.

Conclusions regarding defining and analyzing existing conditions

- There is a lot of information available on the important biological and ecological areas and the current human activities, collected within the framework of scientific projects and programs. It is difficult to keep the data obtained from the research projects up to date.
- A assessment of the possible conflicts and compatibilities among existing human uses, and between existing human uses and the environment has been worked out by the GAUFRE project.
- There are significant investments in scientific research. However, it is important to strive as much as possible to a better integration of all these informations and investigation results in policy. In that way, development, management and protection of the North Sea will profit.

[45] *Westbanks - http://www.vliz.be/imis/imis.php?module=project&proid=2051*

Step 6
Defining and analyzing future conditions

The goal of this step

The purpose of this phase of the planning process is to answer the question: 'Where do we want to be?' A spatial sea use scenario can provide the answer. A spatial sea use scenario provides a vision that projects the future use of marine space based on a set of goals, objectives and assumptions about the future.

What outputs should be delivered

- A trend scenario illustrating how the MSP area will look if present conditions continue without new management interventions
- Alternative spatial sea use scenarios illustrating how the management area might look when human activities are redistributed based on new goals and objectives
- A preferred scenario that provides the basis for identifying and selecting management measures in the spatial management plan (Step 7)

What are the tasks in this step

Task 1: Projecting current trends in the spatial and temporal needs of existing human activities
Task 2: Estimating spatial and temporal requirements for new demands of ocean space
Task 3: Identify possible alternative futures for the planning area
Task 4: Selecting the preferred spatial sea use scenario

SPATIAL PLANNING PROCESS AT SEA

GAUFRE[46]

In the project, there was a projection for each of the human uses, so that spatial and temporal implications were visualized to the maximum extent possible. These maps clearly indicated where, when and how the projected human uses or non-uses occurred. The maps also showed spatial and temporal requirements for new demands for ocean space.

Six scenarios have been developed for the future of the BPNS (Belgian Part of the North Sea), based upon the previous mentioned core values. Three of the scenarios focus strongly on one of the core values. The other three scenarios are based on crossovers between two of the core values. These extreme scenarios provide an opportunity to consider a larger and less obvious picture. They reveal new possibilities and are designed to encourage the development of a policy that not only reflects present trends, but also anticipates future changes within the North Sea environment. A spatial structure plan for the BNPS should, in fact, aim at balancing the core values.

The six scenarios have been translated into separate structure maps to visualise their management options. Structure maps are normally used in spatial planning on land.

[46] *GAUFRE: Maes, F., De Batist, M. et al. (Ed.) (2005). Towards a Spatial Structure Plan for Sustainable Management of the Sea: Mixed actions - Final report: SPSD II (MA/02/006). Belgian Science Policy: Brussels, Belgium. XIII, 384 + maps (2 volumes) pp*

Overview

	LAND/SEA	T1: Projecting Current Trends	T2: Estimating new demands	T3: Alternative futures	T4: Selecting Scenario
1ste MSP cycle	SEA				
MIRA	LAND	√	√	√	
GAUFRE	SEA	√	√	√	
VLAAMSE BAAIEN	LAND/SEA	√	√	√	
MAGNIFICENT SURROUNDINGS #*	LAND/SEA			√	
M .U.D.	LAND/SEA			√	
RSV	LAND	√	√	√	√

* ongoing

The six structure maps of GAUFRE can be used as a basis for the development of a spatial plan for the BPNS and neighbouring zones. Those structure plans facilitate discussion of spatial planning at sea, including the discussion to designate certain areas to certain activities or the exclusion of activities in certain areas.

There was no single vision formulated on the different scenarios. Such a vision would form the foundation for the future management of the BPNS. This step is seen by the GAUFRE team as a task for the government.

VLAAMSE BAAIEN 2100[47]

A consortium of Flemish dredging companies and consultancies worked on a vision for a sustainable future for the coast. They presented a long term vision, based on estimations and put forward future projects/scenarios. Ten projects are presented that can be developed in the short and long term. Vlaamse Baaien isn't a blueprint but only gives ideas of how the coast could look and which only could be developed in coalition with all the stakeholders and people involved.

Ruimtelijk manifest M.U.D.[48]

In 2004 the Flemish Architecture Institute (VAi) gave the assignment to FLCextended to carry out design-oriented research around the Belgian coast. This was the 'ruimtelijk manifest M.U.D.' with the ruimtelijk manifest M.U.D FLCextended has developed a framework to open the debate as regards content for planning on sea/land and initiate vision-forming. Through design-oriented research a vision of the future or scenario was obtained for the coastline between Calais and Antwerp, partly on the Belgian part of the North Sea and partly in the coastal area and its polders. M.U.D. comprises ideas on possible planning at sea, but particularly focuses on the meeting between sea and land as a future conflict zone ('flood') as an area with an enormous spatial potential.

The research project Magnificent Surroundings # North Sea and coastline[49]

The design-oriented research process 'Magnificent Surroundings # North Sea and coastline' studies the particulars of simultaneous and holistic plans on land and at sea. The project builds further on the earlier project M.U.D. The aim is to develop a vision of the future for the Belgian part of the North Sea and its coastline, and check it using various designs (combined in a design atlas) and various promenades according to the art of the promenadology of L. Burckhardt. In the research it is suggested that the sea and coastline are a form of magnificent surroundings urgently requiring spatial design to anticipate and consider the changes in the long term as a result of climate change, increasing coastal migration and the energy issue.

SPATIAL PLANNING PROCESS ON LAND

Spatial Structure Plan for Flanders

The Spatial Structure Plan for Flanders contains a set of forecasts. In the forecasts developments of existing evolutions in the future are projected.
First it is looked at the demographic developments, and the developments for the sectors housing, employment, traffic and transport, tourism and recreation, agriculture and other sectors. Then for all sectoral developments the spatial consequences are shown in figures so the future demand for space is made clear[50].

The Spatial Structure Plan for Flanders also discusses the desired spatial structure. Based on the spatial options for each component, development perspectives are drawn up in coherent way for the land and space use for sectoral developments (home building, economic activities, tourism and recreational infrastructure, retailers, agricultural function, etc.).

Conclusions regarding defining and analyzing future conditions

- The GAUFRE project had already completed the various preparatory steps (projecting current trends, estimating new demands and developing alternative scenarios), and has limited itself in the last steps because it is clearly a task of the authorities to take the lead in selecting the scenarios.
- Trends are analysed until a certain level in the CAUFRE project, but further analyse for all sectors is needed.
- New demands are not mapped for BPNS.
- Within the first MSP cycle, there was no scenario building.

[47] *Vlaamse Baaien 2100 – THV Noordzee en Kust (2009) - http://www.imdc.be/html/ned/18050/html/home.html*
[48] *Goossens, C. (2007), 'M.U.D', in: Achtergrond 03 -Architect/Ontwerper/Onderzoeker? Casus Mare Meum: een oefening op de zee, uitgave Vlaams architectuur Instituut, Antwerpen p 37-51, zie ook http ://www.flcextended.be /MAREMEUM/MAREMEUM.html*
[49] *Geldof, C, (2009), 'Ruimtelijke planning op zee !?? Met de zee mee? over het hoe en waarom', in Tussen droom en werkelijkheid, gebundelde papers en ontwerpopgaven, Bouma,G., Filius, F., Leinfelder, H., Waterhout, B. (red), uitgave Plandag 2009 (PDD ,BNSP en VRP), p483-496, http://www.plandag.org/content.php?page=home*
[50] *Ruimtelijk Structuurplan Vlaanderen-http://www.rsv.vlaanderen.be/export/sites/rsv/uploads/documenten/overRSV/rsv_w.pdf*

Step 7
Preparing and approving the spatial management plan

The goal of this step

This final phase of planning answers the question: How do we get there? A maritime spatial management plan should be developed to identify specific management measures that will produce the desired future through explicit decisions about the location and timing of human activities.
The maritime spatial management plan should be a statement of policy from the responsible management authority or authorities, in partnership with other key agencies and authorities that are responsible for single sectors. It should present an integrated vision of the spatial aspects of their sectoral policies in the areas of economic development, maritime transport, environmental protection, energy, fisheries, and tourism. The maritime spatial management plan should be closely integrated with public investment programs, should highlight the spatial dimension of integrated management, and should show where maritime policies fit together and where they do not.

What outputs should be delivered

- An identification and evaluation of alterative management measures for the spatial management plan
- Identification of criteria for selecting alternative management measures
- A comprehensive management plan, including if needed, a zoning plan.

What are the tasks in this step

Task 1: Identifying alternative spatial and temporal management measures
Task 2: Specifying criteria for selecting maritime spatial management measures
Task 3: Developing the zoning plan
Task 4: Evaluating the spatial management plan
Task 5: Approving the spatial management plan

Overview

Project	T1: Identify spatial and temporal measures and institutional arrangements	T2: Specify criteria for selecting management measures	T3: Developing the zoning plan	T4: Evaluating the spatial management plan	T5: Approving the spatial management plan
GAUFRE	√	√			
1st MSP cycle	√	?	√	?	?
Spatial Structure Plan Flanders	√	√	√	?	√

SPATIAL PLANNING PROCESS AT SEA

Task 1: Identifying alternative spatial and temporal management measures

The first task of Step 7 is to identify alternative spatial and temporal management measures. The GAUFRE report gives detailed information about the different Infrastructure in the Belgian Part of the North Sea. Further it also gives an overview of the users of the BPNS, with attention to the legislative framework and the existing situation. The work forms an important basis, but the GAUFRE inventory should be updated with current developments.

Task 2: Specifying criteria for selecting maritime spatial management measures

The GAUFRE project describes the relationships between uses and infrastructures in terms of legislation, their existing situation in terms of spatial delimitation and intensity and their interaction with inter alia the environment. For each user of infrastructure on the BPNS the suitability, the impact on other users, the impact on environment and the impact on socio-economy was discussed using scientific data.

It is not clear which criteria were used for the selection of activity related areas or maritime spatial management measures that were implemented in the first MSP Cycles.

Task 3: Developing the zoning plan

The current zoning plan consists of a collection of the sectoral uses and areas. In 2006, a map of the BNSP was produced by the FPS economy and indicated the main areas of the Masterplan. Together with the new legislation, which gives more input on permits, licences, and user rules, this is the current zoning plan.

Task 4: Evaluating the spatial management plan

There is no tool or evalutionsystem in place that can be used to evaluate MSP.

Task 5: Approving the spatial management plan

For the implementation of the first step in the Belgian MSP in 2003, there was clearly chosen to establish authority for MSP departing from existing legislation, either by re-interpreting it or by slightly modifying it to provide a basis for MSP. At present, no such procedures are in place.

SPATIAL PLANNING PROCESS ON LAND

In the Spatial Structure Plan for Flanders, after the selection of the desired spatial structure, for each structure-determining component objectives, development perspectives and instruments were drawn up. In addition the Spatial Structure Plan for Flanders contains a set of measures and instruments to support the desired spatial structure. The compulsory provisions that form a separate part of the plan, form the link between the developed desired spatial structure and its realisation. The plan was subjected to an extensive public enquiry and was approved in the Flemish Government on 19 November 1997[51].

Conclusions regarding preparing and approving the spatial management plan

- An update of the spatial and temporal management measures is needed.
- There is a need for criteria for designation of areas and making choices
- There is a zoning plan available, but this plan is no more than a collection of zones for different sectors.
- There is no evaluation tools for MSP available
- There is no procedure of approving in place.

[51] *http://rsv.vlaanderen.be/export/sites/rsv/uploads/documenten/overRSV/Krijtlijnen_folder_rsv_w.pdf*

Step 8
Implementing and enforcing the spatial management plan

The goal of this step

This step is the start of the next phase - the implementation phase. Implementation is the process of converting MSP plans into actual operating programs. It is the action phase. As part of the implementation process, designated governmental institutions or newly created bodies will begin the new management actions set out in the approved management plan.

What outputs should be delivered

- Clear identification of actions required to implement, ensure compliance with, and enforce the spatial management plan.

What are the tasks in this step

Task 1: Implementing the spatial management plan
Task 2: Ensuring compliance with the spatial management plan
Task 3: Enforcing the spatial management plan

SPATIAL PLANNING PROCESS AT SEA

The implementation of the first phase was carried out through the existing authorities and institutes. There was clearly chosen to establish authority for MSP departing *from existing legislation, either by re-interpreting it or by* slightly modifying it to provide a basis for MSP.

During the period leading to the ratification and parliamentary approval of the UNCLOS III in 1998, two important implementing laws were prepared and finally adopted in 1999: the Act concerning the Belgian EEZ in the North Sea (EEZ Act of 22 April 1999) and the Act on the protection of the marine environment under Belgian Jurisdiction (Marine Protection Act of 20 January 1999). The Marine Protection Act (1999) introduced a licence requirement and an environmental impact assessment for activities in the maritime areas under Belgian jurisdiction:
- Civil engineering works
- The digging of trenches and raising of the seabed
- The use of explosives and high power acoustic devices
- The abandonment and destruction of wrecks and sunken cargoes
- Industrial activities
- The activities of advertising and trading companies.

The following activities are not subject to licensing or authorization under this law:
- Commercial fishing
- Scientific marine research
- Shipping, (exception of the activities referred to in article 25, section 1).
- The activities referred to in the Continental Shelf Act of 13 June 1969
- Non-profit individual activities
- Activities necessary for exercising the authority of the Flemish Region

Concessions granted under the Continental Shelf Act of 13 June 1969, such as those for sand and gravel extraction, are excluded from the prior licensing or authorization system and the environmental impact assessment procedure of the Marine Protection Act (1999).

These concessions are regulated by a Royal Decree of 1 September 2004 that introduces conditions, a new geographical delimitation, and the procedure for granting concessions for the exploration and exploitation of mineral resources and other non-living resources in the TS and on the continental shelf. Another Royal Decree of 1 September 2004 introduced the environmental impact assessment rules for the exploration and exploitation of non-living resources in the TS and on the continental shelf under the Continental Shelf Act (1969)[52] .

In addition to the environmental permit procedure, there is a procedure for granting a domain concession (Royal Decree 20 December 2000, published in the Belgian Official Journal 30 December 2000, changed by the royal decree of 28 Septem-

[52] *Douvere, F.; Maes, F. (2007). The role of marine spatial planning in sea use management: The Belgian case, in: Marine Policy, 31: pp. 182-191*

ber 2008, Belgian Official Journal of October 30th, 2008) for the proposed project area. Requests are submitted to the CREG (Commission for the Regulation of the Electricity and the Gas), which advises the Minister for Energy[53].

There is also a permit procedure for the installation of the cables (Royal Decree 12 March 2002, published in the Belgian Official Journal 9 May 2002). Requests are submitted to the FPS for Economic Affairs, who advises the Minister for Energy[54].

At International and European level maritime activities are regulated through a range of sectoral laws, plans and licences/permits. An examination of the constraints imposed on MSP by international and European Community (EC) law relating to a range of specific activities is conducted by the European Commission[55].

In Belgium, during the first MSP cycle, existing single-sector management institutions carried out most implementation activities. These institutions (as mentioned in Step 1) can use the zoning plan and legislation as guides for granting permissions as well for the other actions for which they are responsible. The general requirements in the legislation, such as the permits and licences, are ensuring that there is compliance and that the MSP can be enforced.

Accordingly, for example each dredging vessel operating in Belgium must have a register supplied by the Continental Shelf department of the FPS Economy in which the relevant information about each reclamation must be noted. In addition, a black box must be present on board that carries out measurements. There is also the programme for air observation above the North Sea that supervises, assistants, controls and observes various users of the BNPS.

SPATIAL PLANNING PROCESS ON LAND

A spatial implementation plan is a plan with which the authorities establish land use in a certain area. For all parcels in a certain area it is set out very clearly what is and is not allowed. Various types of spatial implementation plans exist for implementing visions relating to spatial planning on land. Spatial implementation plans (RUPs) are always based on the vision of a spatial structure plan. A regional RUP always contributes to the carrying out of the Spatial Structure Plan for Flanders, in which the authorities generally indicate how they want to see Flanders evolve spatially.

Spatial implementation plans contain town and country planning conditions (stedenbouwkundige voorschriften) relating to the use, the organisation and the management of a piece of land. Based on the town and country planning conditions included in the RUP, once the RUP is approved town and country planning licences can be issued. Building inspections ensure that the development is built in conformity with the licence. Compiling a RUP takes place through a whole procedure where there is again space for a public enquiry. The environmental impact of each RUP is also screened. When the impact is expected to be significant, the RUP must be accompanied by a environmental impact assessment. This assessment process has it's own procedures with separate public enquiry.

There are many instruments and tools to implement the Spatial Structure Plan for Flanders, including:

- Strategic urban projects (eg major station areas, ...)
- Delineation of areas of natural and agricultural structure;
- Delineation of urban areas
- Spatial implementation plans for the development of new golf courts
- Spatial implementation plans for the zoning for wind turbines
- Spatial implementation plans for regional industrial areas
- ...

In addition, the implementation of the Spatial Structure Plan for Flanders also happens through various planning initiatives at lower levels (provincial and municipal), including through provincial and municipal spatial structure plans and the provincial and municipal spatial implementation plans. Spatial structure plans drawn up at a lower government level must be approved by the next successive higher government level. The plans must be oriented to conform to the stipulations of the spatial structure plans of the higher government level.

Harbours: an example of the implementation of the Spatial Structure Plan for Flanders

The harbours and airports are important engines of economic development in Flanders and of great strategic importance[56]. The development of the sea harbours and ease of access to them must be guaranteed by their demarcation in spatial implementation plans, and by the improvement of the existing and the construction of missing infrastructure.

[53] *http://www.mumm.ac.be/NL/Management/Sea-based/windmills.php - consulted on 4 august*
[54] *http://www.mumm.ac.be/NL/Management/Sea-based/windmills.php - consulted on 4 august*
[55] *European Commission - LEGAL ASPECTS OF MARITIME SPATIAL PLANNING -Octt 2008*
[56] *Spatial Structure Plan for Flanders, Ministry of the Flemish Community, Environment and Infrastructure Department, Administration for Zoning, Housing and Monuments and Landscapes, Spatial Planning Division, Brussels, 1998*

The harbours have a separate strategic plan. Drawing up a strategic plan for the harbours fits in the coalition agreement of the Flemish Government of 13 July 1999[57], in which it is determined that a strategic plan is to be developed for each harbour area in Flanders. This decision in turn fits on the one hand in the Spatial Structure Plan for Flanders, and on the other hand in the Port decree.
In the Spatial Structure Plan for Flanders it is determined that the harbours of Ostend and Bruges[58], must be developed as gateways at Flemish level. Hence, at Flemish level a spatial vision must be developed for each harbour and its surrounding area, on the basis of which a regional spatial implementation plan (RUP) must be drawn up together with the government sectors concerned.
The decree of 2 March on policy and management for harbours[59] (the Port decree) sets out the basis for the new harbour policy, in which based on the development of a general vision, the totality of marine resources in Flanders is maximally utilised. Art. 3 of the Port decree indeed determines that "in accordance with the legislation on spatial planning, the Flemish Government establishes the boundaries of the seaport areas. For the harbours the implementation plans in the land-use plan or in regional spatial plans apply for land demarcated as seaport area." In other words, the administrative authority of the harbour is (spatially) limited to the perimeter of the seaport area.

Within the framework of the spatial structure several strategic development schemes and plans have been worked out, for urban areas, economic networks and especially the strategic plans for harbours:
- What: The strategic plans lay the basis for future developments in the harbour.
- Who is involved: involved administrations, users of the harbour, residents of the village and town districts around the harbours
- When are they involved: consultation rounds form part of the process
- how are they involved: through a plan group, steering committee, sounding board group, technical working parties, information days, study day/forum, newsletters.

Conclusions regarding Implementing and enforcing the spatial management plan

- There is no holistic spatial management plan at sea to implement
- Enforcement en management happens through existing legislation. The different legislations are not gathered in an integrated maritiem planning process

[57] *Vlaams regeerakkoord van 13 juli 1999 " Een nieuw project voor Vlaanderen" ,www.vlaanderen.be/ned/sites/regeerakkoord, 81.*
[58] *(BVR 23 September 1997)*
[59] *Decree of 2 March with regard to 2 March with regard to policy and management of harbours, Belgian Law Gazette, 4 April 1999*

Step 9
Monitoring and evaluating performance

The goal of this step

Monitoring is particularly important for helping to provide the basic data that should underpin any evaluation. The cost of this should be included from the very beginning. An effective performance monitoring system begins with a clear set of well-specified planning objectives. After the agreement on the monitoring objectives, there also have to be an agreement on the outcomes. In the next step some key performance indicators should be established to measure monitor and report on the progress towards meeting the goals and objectives of MSP.

What outputs should be delivered from this step

- A monitoring system designed to measure indicators of the performance of maritime spatial management measures
- Information on the performance of maritime spatial management measures that will be used for evaluation
- Periodic reports to decision makers, stakeholders, and the public about the performance of the maritime spatial management plan.

What are the tasks in this step

Task 1: Developing the performance monitoring program
Task 2: Evaluating performance monitoring data
Task 3: Reporting results of performance evaluation

Overview

Tasks	**Task 1:** Developing the performance monitoring program	**Task 2:** Evaluating performance monitoring data	**Task 3:** Reporting results of performance evaluation
Energy	√	√	√
Radar and weather masts	/	/	/
Wreck and wreck salvage	√	√	√
Shipping	√	√	√
Commercial fisheries	√	√	√
Military exercises and ammunition	/	/	/
Sand and gravel extraction	√	√	√
Dredging and disposal of dredged material	√	√	√
Recreation and tourism on the beach	√	√	√
Recreation and tourism at sea	/	/	/
Aquaculture	/	/	/
Nature Conservations	√	√	√

SPATIAL PLANNING PROCESS AT SEA

In the first phase of the MSP process, the performance monitoring plan formed a part of the new legislation. The monitoring of the zoning plan is the responsibility of several single-sector authorities.

Radar and Weather Towers

It is known where all measure posts and radar systems are situated, but it is not clear if there is an organisation who is checking if all buoys and towers still have a relevant function or have become redundant.

Military exercises and ammunition

The limitations concerning the marine protected areas, described in the Law of 20 January 1999 on the protection of the marine environment in the marine areas under Belgian jurisdiction, are not valid for military activities. The military authority, in accordance with the Minister of Environmental Affairs, will take all the necessary measures to prevent damage and environmental disturbance, without compromising the effective work of the defence units. There are also exceptions on the prohibition statements concerning the marine nature reserves made for military activities. Exceptions for military activities were also made on the limitations for shipping in marine protected areas: the special routing system does not hold for war ships and marine assistance ships. The report duty for captains involved in a shipping accident also doesn't hold for these ships . In the sea areas certain activities are subject to a preceding license or authorization, but military activities can only be subject to such license or authorization after a joint recommendation by the Minister, with authority on the protection of the marine environment, and Minister of Defense . Furthermore Law also exempts military activities from compliance with environmental effects reporting and the environmental impact assessment.

The legal coordinates of the zones for execution of the different sub-uses are given in Messages to Seafarers (Berichten aan Zeevarenden – BaZ), published by the Department of the Environment and Infrastructure, Administration Waterways and Maritime Affairs, Ministry of the Flemish Community). These coordinates are updated every year and announced before the beginning of a new year.

Shipping

The principal goals of the department for Guidance of Navigation is to guide the navigation to and from Flemish and Zeeuwse harbours as safely and smooth as possible. To ensure this, vessels from the French-Belgian border are followed visually, auditorally and electronically, through Vessel Traffic Services (VTS).

Wreck and wreck salvage

The knowledge and information on maritime-archaeological heritage is not systematically gathered and spread. This the reason for the establishment of a maritime –archaeological heritage in 2006. This databank contains information on archaeological heritance in the Belgian territorial sea, the Belgian continental shelf and the Flemish rivers. The locations of the wrecks are also studied and have been mapped out by the Flemish Government[60].

Sand & Gravel extraction:

From the FPS Economy, K.M.O., The Self-employed and Energy, General Management Quality and Safety Service Continental Shelf there is the continuous study of the consequences of sand and gravel reclamation for the marine environment. This study is conducted by the Continental Shelf Service of the FPS Economy; the Management Unit of the North Sea Mathematical Model and the River Scheldt estuary (BMM-MUMM) and the Institute for Agricultural and Fisheries Research - Fisheries[61]. Here a great diversity of techniques and technology is used to determine the consequences of reclamation as correctly and completely as possible.

A North Sea Exploitation Advisory Commission coordinates the administrations concerned with the management of the exploration and the exploitation of the continental shelf and of the territorial sea.
This commission:
- coordinates the evaluation of the concession applications;
- formulates advice about these applications;
- follows up the various studies concerning the impact of sand reclamation on the Belgian continental shelf;
- evaluates the three-yearly reporting of the results of the controls;
- advises corrective measures if a negative influence is established;
- formulates policy preparation advice about all aspects concerning the sand reclamation.

[60] *(BVR 23 September 1997)*
[61] *http://statbel.fgov.be/nl/ondernemingen/specifieke_domeinen/Zand_grindwinning_zee/index.jsp*

Dredging and disposal of dredged material

Extraction activities have been subjected to a monitoring programme, almost from the commencement of exploitation in 1976. The monitoring undertaken is two-fold: (1) the activity of the extraction vessels is followed (volume dredged, location and time), using extraction registers and, since 1996, Electronic Monitoring Systems (EMS or 'black-boxes'); and (2) the physical impact of the extraction on the environment (since 1999, studied with a multibeam echo-sounder). To measure changes in the bathymetry of the seabed floor, high-resolution acoustic tools such as such as side-scan sonar and multibeam can be used[62].

The quantities of dredged material dumped at sea, has been monitored since 1991, when the first permits for dumping dredged material at sea, were delivered. In addition to the research and monitoring program's imposed in the permits, the quality of dredged material is assessed every 10 years as part of a large-scale monitoring programme, executed by the Flemish region. Such programs were performed in 1990, 2001 and 2007. The results allow to follow up the evolution of the quality of the dredged material.
The sediment quality criteria are used as guidelines whether the dumping of the dredged material is allowed or not. The quality of the dredged material is monitored on heavy metals, TBT, mineral oils, PCB's and PAK. Research conducted by BMM and ILVO showed no clear effect[63].

Commercial fishing

The Fisheries Service (part of the Department of Agriculture and Fisheries, Agriculture and Fisheries) works to support policy, follows up the established measures and inspects them regarding fishery at sea. Fisheries Service imposes quotas and can close fishing areas when necessary. In addition to collecting and analyzing data on the various fisheries, the department brings out several publications, including an annual survey of the fish landings and value of landings (revenue) of the Belgian sea fisheries.

Fishing licenses are also issued by the Fisheries Service. The licenses are linked with to the power and tonnage (size) of the fishing boats. An inspectionservice verifies if the fishing landings are compliance with the law. This is done through a vessel monitoring system (VMS). For assessing the sea, the Fisheries Service works regularly together with other Coast Guard partners. For fisheries protection in the Belgian marine areas, there is a cooperation with the Navy and the aircraft of the BMM, Management Body for the Mathematic Model of the North Sea[64].

Nature Conservation

In the framework of the policy plans, the 'Beheerseenheid Mathematisch Model van de Noordzee (BMM, Management Body for the Mathematic Model of the North Sea) has been assigned to monitore the hydrodynamics, the composition of the benthos and the bird level in marine protected areas (MPA's). Attention has to be drawn to the fact that there is no specific monitoring in the MPA's to evaluate the government policy and to advise the government. However, the inventories of fauna and flora in the North Sea, made by scientific organizations indicate the international importance of the coastal zone for protection of nature[65].

Wind energy

The BMM carries out a monitoring programme as provided for in the environmental permit to estimate the positive and negative effects of wind turbines at sea. The first phase of this monitoring programme started one year prior to the construction of the first wind turbines on the Thorton Bank (i.e. 2005) and will last six years to identify and quantify any effects[66]. The monitoring programme is carried out in cooperation with INBO, ILVO, the Marine Biology Section of the University of Ghent, the Renard Centre of Marine Geology of the University of Ghent. After this first phase the intention is to provide a summary and start a discussion about the monitoring activities and the results, together with the MUMM, the scientific bodies involved and the wind power industry. This will be a first thorough evaluation of the possible impacts of wind turbines at sea in Belgian waters.

Recreation and tourism on the beach

Various information on tourism on the coast is constantly followed by means of the permanent measuring system that was developed within the framework of the Coastal Action Plan III project KITS (Coast Indicators Tourism Statistics). The measuring system was refined in 2008 and for the first time in 2009 provided figures tot coastal municipality level.

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[62] *Degrendele, K.; Roche, M.; Schotte, P.; Van Lancker, V.; Bellec, V., and Bonne, W., this volume. Morphological evolution of the Kwinte Bank central depression before and after cessation of aggregate extraction. Journal of Coastal Research 51.*
[63] *Calewaert J.-B., Lescrauwaet A.-K., Mees J., Seys J., Hostens K., Redant F., Moulaert I., Raemaekers M., Demaré W., Vanhooreweder B., Mergaert K., Maes F., Douvere F., Belpaeme K., Maelfait H., Kyramarios M., Tak P., Overloop S., Peeters B. (2005) MIRA- Milieurapport Vlaanderen, Achtergronddocument 2005, Kust en zee. Vlaamse Milieumaatschappij*
[64] *http://lv.vlaanderen.be/nlapps/docs/default.asp?id=204*
[65] *Beleidsplannen beschermde mariene gebieden in het Belgische deel van de Noordzee. Minister bevoegd inzake het mariene milieu- DG5 Leefmilieu, Dienst Marien Milieu - 25 juli 2009*
[66] *Degraer, S. & Brabant, R. (Eds.) (2009) Offshore wind farms in the Belgian part of the North Sea: State of the art after two years of environmental monitoring. Royal Belgian Institute for Natural Sciences, Management Unit of the North Sea Mathematical Models. Marine ecosystem management unit. 287 pp. + annexes.*

There is no performance monitoring program voor aquacultuur, recreation and tourism at sea and radar and vessel masts.

SPATIAL PLANNING PROCESS ON LAND

The monitoring and evaluations of the Spatial Structure plan, has different levels. This is a non-limitative list of some important monitoring and evaluations processes.

- There are qualitative evaluations, who deliver an input to the short term revisions of Spatial Structure Plan.
- There is a quantitative intern monitoring regarding the spatial implementation plans
- There are elements of monitoring in the publications of the Flemish Government regarding different topics, broader then spatial use only[67]
- A first analysis of the environment is being conducted.
- A draft vision on the spatial development towards 2020 was presented

Conclusions regarding monitoring and evaluating performances:

- There are clear monitoring and evaluation processes for certain activities (sand and gravel extraction, wind energy, MPA's) on the Belgian continental shelf. The monitoring conditions often come from EU legislation.
- The sectoral approach for monitoring and evaluating measures, means the various results are looked at separately.

[67] *The VRIND indicators*

Step 10
Adapting the spatial management process

The goal of this step

The results from monitoring and evaluation should be used to adapt maritime spatial planning and management so that its actions have their intended effects. Most management plans need to be reviewed and updated. An adaptive management is a systematic approach for improving management through learning by monitoring and evaluating management outcomes.

What outputs should be delivered

- Proposals for adapting management goals, objectives, outcomes and strategies for the next round of planning,
- Identification of applied research needs.

What are the tasks in this step

Task 1: Reconsidering and redesigning the maritime spatial planning program
Task 2: Identifying applied research needs
Task 3: Starting the next round of maritime spatial planning

SPATIAL PLANNING PROCESS AT SEA

The question here is - what has been accomplished through the MSP process and learned from its successes and failure? Different publications show clearly what has been accomplished through the MSP process and make an evaluation of the process:

- State of the sea after 4 years North Sea Policy– Peter Bossu: ARGUS Milieumagazine, Volume 5 No. 4
- Who rules the coast- Policy Processes in Belgian MPAs and Beach Spatial Planning - Dirk Bogaert & Frank Maes (eds.)

For the next years, based on personal communication[68] from FPS Marine Environment, a new process on maritime spatial planning will start soon.

Over the following years the federal government will also be working to set up an advice structure for a federal marine environmental policy. The task of this structure will be the management of the human activities at sea in consultation with the socio-economical actors and stakeholders[69].

SPATIAL PLANNING PROCESS ON LAND

The Spatial Structure Plan for Flanders was revised for the first time in 2003. The first review was incorporated in the original text and re-issued[70]. The Flemish Government provisionally ratified the review on 18 December 2009. Each citizen could respond during a public enquiry that ran from 10 February to 11 May 2010. This second review ensures the updating and partial review of the Spatial Structure Plan for Flanders for the period to 2012. The new proposals for texts changes are put together in an 'addendum'. The addendum is not an independent text. It must be read together with the last edition of the Spatial Structure Plan for Flanders.
There is also a vision paper on spatial use and taking up space 2020-2050. At the end of May 2009, on the request of the Minister of Spatial Planning, the 'Steunpunt Ruimte en Wonen' and the RWO department wrote a preparatory 'Vision paper on spatial use and taking up space 2020-2050' for the thorough review of the SSPF. It is not a document already with policy guidelines for a new SSPF. It looks at the context, challenges, lines of thinking and the possible approach to a thorough review of the SSPF.
The Flemish government stated in their governmental agreement the ambition of working towards a new Spatial Structure Plan for Flanders. In the policy note 2009-2014, the Minister of Spatial Planning stated the engagement to sketch a working plan, timing and process[71]. In July 2010 the Flemish government accepted the work plan for this new spatial structure plan, 'Beleidsplan Ruimte Vlaanderen'[72].

Conclusions regarding adapting the spatial management process:

- For the moment there is no maritime spatial planning process, but when this is established, adaptive management is needed.

[68] *Personal communication – Steven Van den Borre – FOD Marien Milieu*
[69] *Algemene Beleidsnota Marien Milieu – Staatsecretaris Schouppe – 25 november 2009*
[70] *'Ruimtelijk Structuurplan Vlaanderen, gecoördineerde druk (april 2004)'*
[71] *Beleidsnota Ruimtelijke Ordening 2009-2014, Een ruimtelijk beleid voor en op ritme van de maatschappij. Philippe Muyters*
[72] *Parl. St. Vl. Parl. 2009-10, nr. 198/6*

Colofon

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De Noordzee in België

Tijd om de opportuniteiten waar te maken

De Noordzee in België

1. Een wedloop om ruimte

Ongeveer een tiende van het Belgisch grondgebied, 3457 km², ligt op zee. De Belgische Noordzee levert **een belangrijke bijdrage tot de nationale economische welvaart** met een omzet van bijna 15 miljard euro in de mariene/maritieme sector[1]. Daarnaast wordt de Noordzee gewaardeerd voor **zijn natuurlijke schoonheid** en trekt ze jaarlijks meer dan 20 miljoen dagjestoeristen aan[2].

Snelle technologische vooruitgang, wijzigende sociale prioriteiten en nieuwe economische opportuniteiten maken de druk op de vrije ruimte steeds hoger en de beschikbare ruimte op zee steeds beperkter. Dit vereist van onze regering **een toekomstgericht en pro-actief Noordzeebeleid** dat afgestemd is op de aangrenzende dichtbevolkte kustgebieden, de Westerschelde, en de omringende zeegebieden van onze buurlanden.

Geïntegreerde maritieme ruimtelijke planning wordt wereldwijd erkend als een concrete manier om dit visionair beleid te bewerkstelligen. Deze positiepaper toont aan waarom ook België hieraan dringend nood heeft en welke stappen een eerste aanzet kunnen geven.

> ***Een geïntegreerde maritieme ruimtelijke planning*** *is een publiek proces waarbij de ruimtelijke en temporele distributie van menselijke activiteiten op zee worden geanalyseerd en georganiseerd met het oog op het bereiken van zowel de economische, ecologische als sociale doelstellingen die doorgaans bepaald zijn via beleidsbeslissingen.*

2. Actie noodzakelijk, nu!

Maritieme ruimtelijke planning wordt beschouwd als één van de hoekstenen bij de realisatie van het Europese Geïntegreerde Maritiem Beleid[3]. In tegenstelling tot de buurlanden en andere lidstaten, is er **in België momenteel geen aandacht** voor maritieme ruimtelijke planning. Vele kansen worden hierdoor gemist.

Geïntegreerde maritieme ruimtelijke planning is een concrete manier waarop vooropgestelde doelstellingen op **economisch, sociaal en ecologisch vlak** voor de Belgische Noordzee kunnen bereikt worden. Het brengt daarnaast **unieke opportuniteiten** met zich mee:

1. Het opstellen van **een langetermijnvisie** zorgt ervoor dat kerngebruikers (havens, ontginning, toerisme, hernieuwbare energie) maximaal kunnen bijdragen aan een competitieve economie zonder het natuurlijk kapitaal in gevaar te brengen.
2. Een **ruimtelijke en temporele afstemming** en het in beeld brengen van alle gebruikers zorgt voor een transparante afweging van de behoeften op een open, sectoroverschrijdende manier en **respecteert de draagkracht** van het ecosysteem.
3. Het biedt een **efficiënt kader** voor de **integratie** van de rijke bron aan **wetenschappelijke en andere informatie** in het beleids- en beslissingsproces.
4. Een geïntegreerd plan met afbakeningen voor bepaalde gebruiksfuncties leidt tot een verhoogde **rechtszekerheid, duidelijkheid en transparantie**, wat kostenverlagend werkt voor overheid, investeerders en exploitanten.
5. Omwille van de focus op lacunes en opportuniteiten biedt het **een platform voor de afstemming** tussen verschillende **bevoegdheidsinstanties** en hun geassocieerde wetgeving, vergunning- en concessie procedures.
6. Een geïntegreerde maritieme ruimtelijke planning leidt tot: het op korte termijn **uitklaren van onzekerheden** waarmee sectoren, actoren en lokale overheden vandaag worstelen en het creëren van **een aantrekkelijker investeringsklimaat** voor binnen- en buitenlandse investeerders.
7. Door in **een monitoring- en evaluatiesysteem** te voorzien, kan het beleid **flexibel en adaptief** te werk gaan en bijstellen waar en wanneer nodig.
8. Een dergelijk proces maakt een afstemming mogelijk van het ruimtegebruik en het beheer ervan **over de land- en zeegrenzen** heen, vermijdt conflicterende beleidsopties in grensgebieden en bewerkstelligt synergie.
9. Een geïntegreerd maritiem ruimtelijk plan ondersteunt een **beheer vanuit een ecosysteemgerichte aanpak**. Het leidt tot het bevorderen van een duurzaam beheer van de zee, een bescherming van het gemeenschappelijke goed en een groei van diverse maritieme sectoren.

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[1] *Haalbaarheidstudie Flanders Marine – State of the art (2010), studie uitgevoerd door WES, in opdracht van RESOC Oostende*
[2] *Kust Indicatoren Toeristisch Statistisch -Westtoer*
[3] *Communication from the Commission "An Integrated Maritime Policy for The European Union", COM(2007) 575 final of 10.10.2007 and SEC(2007) 1278 of 10.10.2007*

Tijd om de opportuniteiten waar te maken

3. De beperkingen van het Masterplan Noordzee 2005

In 2005 was **België één van de eerste landen** in Europa die een aanzet deed voor een ruimtelijk plan voor de Noordzee en startte met de implementatie ervan. Het 'Masterplan Noordzee' bracht duidelijkheid over de zones voor windenergie en bakende zones af voor zandwinning en de Habitat- en Vogelrichtlijngebieden[4].

Het Masterplan is echter:

1. **Een statisch plan**: Het bevat geen procedure tot aanpassing aan de veranderende omgeving of om in te spelen op de toekomstige uitdagingen op sociaal, ecologisch of economisch vlak[5]. Denk bijvoorbeeld aan nieuwe vormen van getijden-en golfslagenergie of biomassa op zee, blauwe biotechnologie, kustverdediging, recreatie en gebieden voor zeewetenschappelijk onderzoek.
2. **Geen garanties voor de bescherming van natuurwaarden**: De afbakening en maatregelen in het kader van Natura 2000 bieden weinig effectieve bescherming voor natuurwaarden. Dit leidt tot grote uitdagingen om de formeel vooropgestelde natuurdoelstellingen te behalen.
3. **Niet afgestemd op de buurlanden**: Het Belgisch deel van de Noordzee maakt integraal deel uit van de regionale Noordzee en activiteiten of nieuwe ontwikkelingen moeten dan ook in een breder perspectief bekeken worden. Zowel Nederland, het Verenigd Koninkrijk als Frankrijk zijn reeds begonnen met de ontwikkelingen van geïntegreerde ruimtelijke planning op zee op basis van prioriteiten[6].
4. **Niet toekomstgericht**: Het huidige plan omvat weinig of geen visie voor de toekomst. Het 'Masterplan Noordzee' biedt onvoldoende basis om te voorkomen dat ruimtelijke afbakeningen en de afweging tussen gebruiksfuncties en bestemmingen op een individuele en ad hoc basis gebeuren.

Deze benadering is niet doelmatig, brengt op langetermijn een verhoogde kost met zich mee door het ontbreken van een visie, van eenduidige procedures en een gecentraliseerd vergunningsbeleid, en een toenemende bezorgdheid over het behoud van de unieke eigenschappen van het mariene milieu[7]. Ook voor de industrie leidt deze situatie tot verhoogde investeringsrisico's, extra planningskosten, en een verlies aan economisch rendement.

Het goedkeuren van een aantal gebruikerszones vormt geen eindpunt in het proces van ruimtelijke planning. Een gebied met een grote diversiteit aan gebruiksfuncties vergt een **permanent proces van verfijning en bijsturing**, en waakzaamheid van het beleid .

Een geïntegreerde maritieme ruimtelijke planning streeft ernaar om **kansen maximaal te benutten**, nieuwe perspectieven binnen economische sectoren te omvatten en prioriteiten te stellen op basis van wetenschappelijke inzichten.

4. Stap voor stap naar een geïntegreerde ruimtelijke planning op zee

Wereldwijd is geïntegreerde ruimtelijke planning op zee in volle opmars. Ook in België benadrukken **diverse belangengroepen** dat een geïntegreerde maritieme ruimtelijke planning dé weg is voor **het toekomstige beheer van de Noordzee**[9].

De vraag is *'hoe?'*. UNESCO identificeert 10 stappen voor het ontwikkelen van geïntegreerde maritieme ruimtelijke planning die, wanneer geïmplementeerd, toelaten om de cruciale vragen rond de huidige situatie, de toekomstige situatie en de weg er naar toe, te beantwoorden[10].

Vier gelijkwaardige voorbereidende stappen zijn cruciaal vooraleer van start te gaan met de implementatie van een geïntegreerd maritiem ruimtelijk-planningsproces (zie figuur).

Gezien **de aanwezigheid van de noodzakelijke kennis** en het baanbrekend werk van de voorbije jaren, vereist een geïntegreerd maritiem ruimtelijk plan voor het Belgisch deel van de Noordzee weinig meer dan een herinterpretatie en actualisatie van bestaande informatie en de organisatie ervan in een planningsproces dat een concrete implementatie toelaat.

Het opstellen van een geïntegreerde visie is niet alleen bepalend in de huidige legislatuur, maar geeft ook **vorm aan de toekomst van de Noordzee**. Zo kan België terug de koploperspositie innemen die het had op het vlak van beleid op zee en bestendigt het onze voorbeeldfunctie in de concrete implementatie van het Geïntegreerd Maritiem Beleid[11] en de Europese kaderrichtlijn Mariene Strategie[12].

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[4] *Plasman C, Van Hessche U. Duurzaam beheer van de Noordzee. Argus Milieumagazine 2004(3):4-7.*
[5] *Douvere F, Maes F, Vanhulle A and Schrijvers J. 2007 The role of marine spatial planning in sea use management: The Belgian case. Marine Policy 31:182-191*
[6] *Integraal Beheerplan Noordzee 2015 , Minister van Verkeer en Waterstaat, 2005 http://www.noordzeeloket.nl/Images/2_1288_tcm14-1575.pdf; Marine and Coastal Access Act 2009 - approved 12.11.2009; Blue Book, A National Strategy for the sea and oceans for France (2009)*
[7] *The Role of Marine Spatial Planning in Implementing Ecosystem-based, Sea Use Management. Fanny Douvere (2008), Marine Policy Vol 32-5,pp762-771*
[8] *State of the sea na 4 jaar Belgisch Noordzeebeleid, ARGUSmilieumagazine, Peter Bossu en Cathy Plasman, jg. 5 - nr.4, 2004.*
[9] *Natuurpunt Kappa plan http://www.natuurpunt.be/uploads/natuurbehoud/natuurbeleid/documenten/syllabus_kappasymposium_kwg.pdf ; Vlaamse Baaien http://www.vlaamsebaaien.com ; DOC 52 2225/024 - 25 November 2009 - Algemene Beleidsnota Marien Milieu*
[10] *Ehler, Charles, and Fanny Douvere. Marine Spatial Planning: a step-by-step approach toward ecosystem-based management. Intergovernmental Oceanographic Commission and Man and the Biosphere Programme. IOC Manual and Guides No. 53, ICAM Dossier No. 6. Paris: UNESCO. 2009 (English).*
[11] *Communication from the Commission "An Integrated Maritime Policy for The European Union", COM(2007) 575 final of 10.10.2007 and SEC(2007) 1278 of 10.10.2007*
[12] *Richtlijn 2008/56/EG van het Europees Parlement en de Raad van 17 juni 2008 tot vaststelling van een kader voor communautaire maatregelen op het gebied van het mariene milieu (Kaderrichtlijn mariene strategie)*

Figuur 1

Schematische weergave van de voorbereidende stappen voor de implementatie van een geïntegreerde maritieme ruimtelijke planning

[A] Geldof,C. Janssens,N. (2010). Maritieme ruimtelijke planning.Kritische visevorming en het belang van de commons. In Ruimte & Maatschappij, jrg 1 nr3, uitg Garant (isnn 2032-8421). pp20-39.

[B] Ehler, Charles, and Fanny Douvere. Marine Spatial Planning: a step-by-step approach toward ecosystem-based management. Intergovernmental Oceanographic Commission and Man and the Biosphere Programme. IOC Manual and Guides No. 53, ICAM Dossier No. 6. Paris: UNESCO. 2009 (English).

[C] F., Douvere, et al. The Role of Spatial Planning in Sea Use Management: The Belgian Case. Marine Policy, 31, 2007, pp. 182-191

[D] Evaluatie van de socio-economische adviesstructuren met betrekking tot het mariene milieu (2010). Lin Van Poucke en An Cliquet. Een studie in opdracht van FOD Leefmilieu, uitgevoerd door het Maritiem Instituut, Universiteit Gent

Deze positiepaper is opgesteld door de ad-hoc werkgroep Maritieme Ruimtelijke Planning in het kader van C-SCOPE (Combining Sea and Coastal Planning in Europe). De ad-hoc werkgroep is samengesteld uit onafhankelijke experts en wetenschappers. Het Coördinatiepunt Duurzaam Kustbeheer neemt het secretariaat van deze werkgroep op zich.*

Kathy Belpaeme, Ann Cliquet, Jessica Coppens, Fanny Douvere, Frank Maes, Hannelore Maelfait, Jan Mees, Marijn Rabaut, Joris Voets, Annemie Volckaert, Ann-Katrien Lescrauwaet, An Vanhulle

* *Alle standpunten in de positiepaper en bijhorende documenten zijn ten persoonlijke titel van de auteurs*

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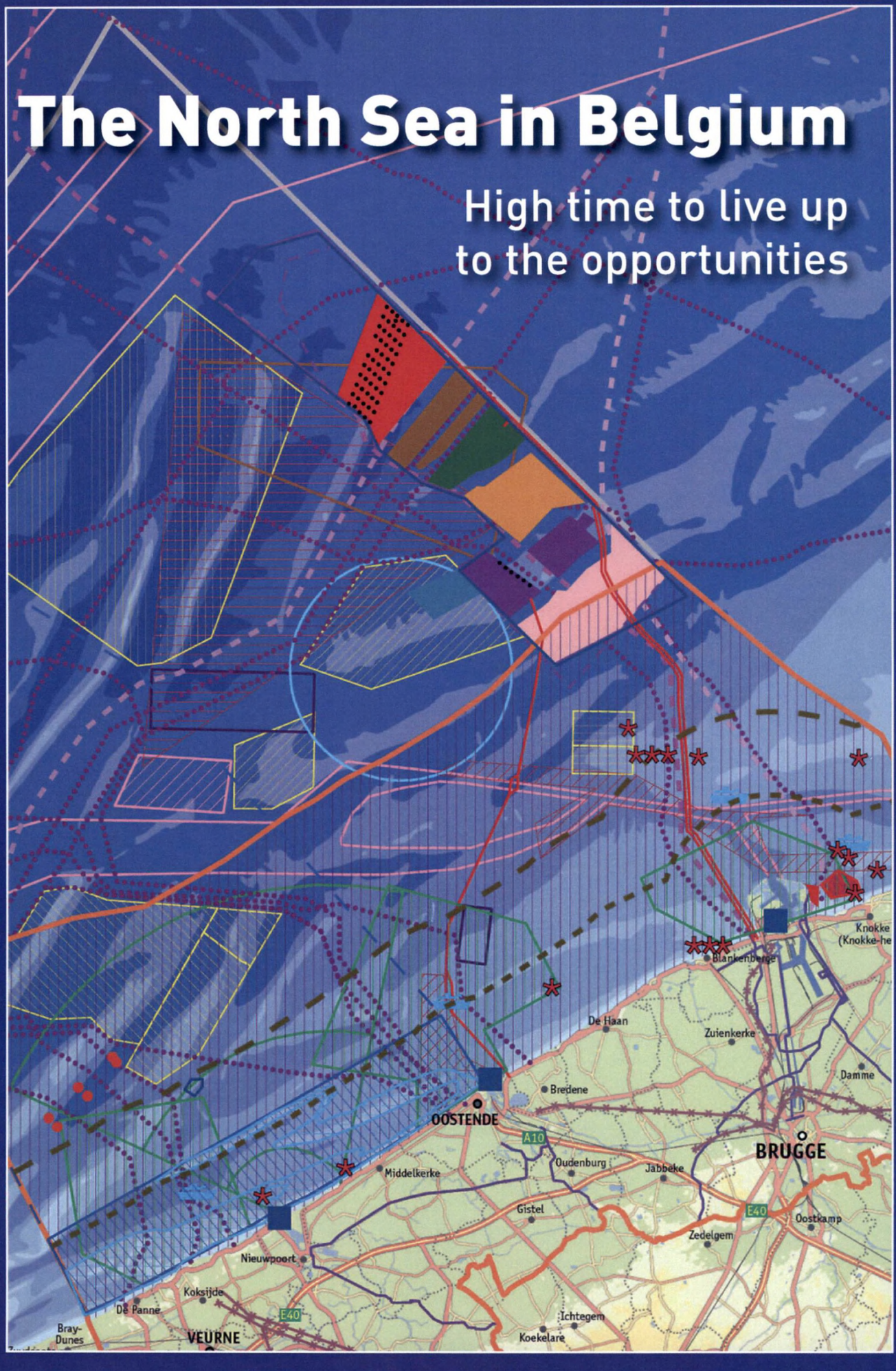
The North Sea in Belgium

High time to live up to the opportunities



The North Sea in Belgium

1. A race for free space

About one tenth of the Belgian territory, i.e. 3457 km², can be found at sea. The Belgian part of the North **Sea plays an important role in national economic prosperity** since the turnover in the marine/maritime sector amounts to nearly 15 billion EUR[1]. The North Sea is also valued for its **natural beauty** and welcomes over 20 million day trippers per year[2].

However, fast technological progress, changing social priorities and new economic opportunities continue to put pressure on the space available. Free space continues to shrink and this calls for a **future-oriented and pro-active North Sea policy** from our government tailored to the adjacent densely populated coastal areas, the Western Scheldt, and the surrounding marine areas of the neighbouring countries.

Throughout the world, **integrated marine spatial planning** is acknowledged as being a concrete way to bring about a visionary policy. This position paper shows why even Belgium is in urgent need hereof and which steps can give the initial impetus.

> ***Integrated marine spatial planning*** *is a public process which analyses and organises the spatial and temporal distribution of human activities at sea in order to comply with the economic, ecological and social objectives stated in policy decisions.*

2. Action is needed, now!

Marine spatial planning is considered to be one of the cornerstones of the European Integrated Marine Policy[3]. Contrary to our neighbouring countries and the other member states, **Belgium does not focus** on marine spatial planning. As a consequence, many opportunities have been lost.

Integrated marine spatial planning is a concrete way to aim at the postulated **economic, social and ecological** objectives laid down for the Belgian part of the North Sea. It furthermore entails some **unique opportunities**:

1. Creating **a long-term** vision results in core users (ports, extraction, tourism, renewable energy) which are fully contributing to a competitive economy without endangering natural resources.
2. A **spatial and temporal harmony** and a reflection of all users result in a transparent assessment of the different needs in an open, cross-sector way while **respecting the strength** of the ecosystem.
3. It offers an **efficient framework** to **integrate** ample **scientific and other available** information in the policy and decision-making processes.
4. An integrated planning which clearly defines a number of functions brings about an increase of **legal certainty, clarity and transparency,** which in turn saves the government, the investors and the operators money.
5. Since it focuses on gaps and opportunities, it is **a way to harmonize** the different competent **bodies** and their legislative, licensing and concession procedures.
6. An integrated marine spatial planning results: in **solving uncertainties** in the short term which sectors, stakeholders and local authorities are confronted with today and in creating **a more attractive investment climate** for national and international investors.
7. By providing **a monitoring and evaluation system**, the policy can be used in **a flexible way** and it can be fine-tuned if necessary.
8. This process enables to harmonize the use of the space available and to manage it **across the borders**. In other words, it avoids conflicting policy options in cross-border territories and brings about synergy.
9. An integrated marine spatial planning supports an **ecosystem-oriented management approach**. It results in promoting sustainable sea management, common good protection and a growth in several marine sectors.

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[1] *Feasability study Flanders Marine – State of the art (2010), study performed by WES, acting upon instructions from RESOC Oostende*
[2] *Kust Indicatoren Toeristisch Statistisch –Westtoer*
[3] *Communication from the Commission "An Integrated Maritime Policy for The European Union", COM(2007) 575 final of 10.10.2007 and SEC(2007) 1278 of 10.10.2007*

High time to live up to the opportunities

3. The restrictions of the 2005 North Sea Master Plan

In 2005, **Belgium was among the first countries** in Europe to set up a spatial planning for the North Sea and to implement it. The 'North Sea Master Plan' threw a light on the zones for wind energy and the delimited areas for sand extraction and the areas for the Habitats and Birds Directives[4].

However, the Master Plan is:

1. **A static plan:** It does not include a procedure to adjust itself to the changing environment or to respond to the future social, ecological or economic challenges[5]. Just think of the new opportunities in tidal power or biomass at sea, blue biotechnology, coastal defences, recreation and areas for scientific research.
2. **No guaranteed protection of natural values:** The measures which are part of Natura 2000 only offer little effective protection of the natural values. This gives rise to important challenges to aim at the formally postulated natural objectives.
3. **Not tailored to the neighbouring countries:** The Belgian part of the North Sea is an integrated part of the regional North Sea which requires that activities or new developments are looked at in a broader perspective. The Netherlands, the UK and France all started to develop an integrated marine spatial planning on the basis of their priorities[6].
4. **Not future-oriented**: The current plan is not or only little future-oriented. The 'North Sea Master Plan' does not offer a sufficient basis to prevent that spatial delimitations and the assessment between user functions and purposes is done on an individual and ad hoc basis.

This approach is not very functional and it entails a cost increase in the long term since it lacks vision, uniform procedures and a centralized licensing policy. It also gives rise to a growing concern about the conservation of the unique qualities of the marine environment[7]. Such a situation also involves an increase of the investment risks, extra planning costs, and a loss of economic profitability for the industry.

Approving a number of user zones is not an outcome as such in the spatial planning process. An area with a wide variety of functions requires **continuous refinements and adjustments**, and policy vigilance.

An integrated marine spatial planning aims at **making the most of the opportunities at hand**, at including new perspectives within economic sectors and at establishing priorities on the basis of scientific insights[8].

4. A step-by-step approach towards an integrated marine spatial planning

Throughout the world, integrated marine spatial planning is growing. In Belgium, **several interest groups** stress that an integrated marine spatial planning is needed for the **future management of the North Sea**[9].

The way how this should be done is open to discussion. UNESCO identifies 10 steps to set up an integrated marine spatial planning which, when implemented, would enable us to answer the most crucial questions on the current situation, the future situation and the way towards the latter[10].

Four preparatory questions are crucial before starting the implementation of an integrated marine spatial planning process (cf. illustration).

Given the **available knowledge** and the pioneering work of the past few years, an integrated marine spatial planning for the Belgian part of the North Sea requires little more than a reinterpretation and an update of the existing information and its organisation in a planning process that enables a concrete implementation.

Setting up an integrated vision is not just determining for the current legislature, it also **determines the future of the North Sea**. That way, Belgium can once again be among the leaders when it comes to marine management and serve as an example for the concrete implementation of the Integrated Marine Policy[11]and the European framework directive on Marine Strategy[12].

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[4] *Plasman C, Van Hessche U. Duurzaam beheer van de Noordzee. Argus Milieumagazine 2004(3):4-7.*
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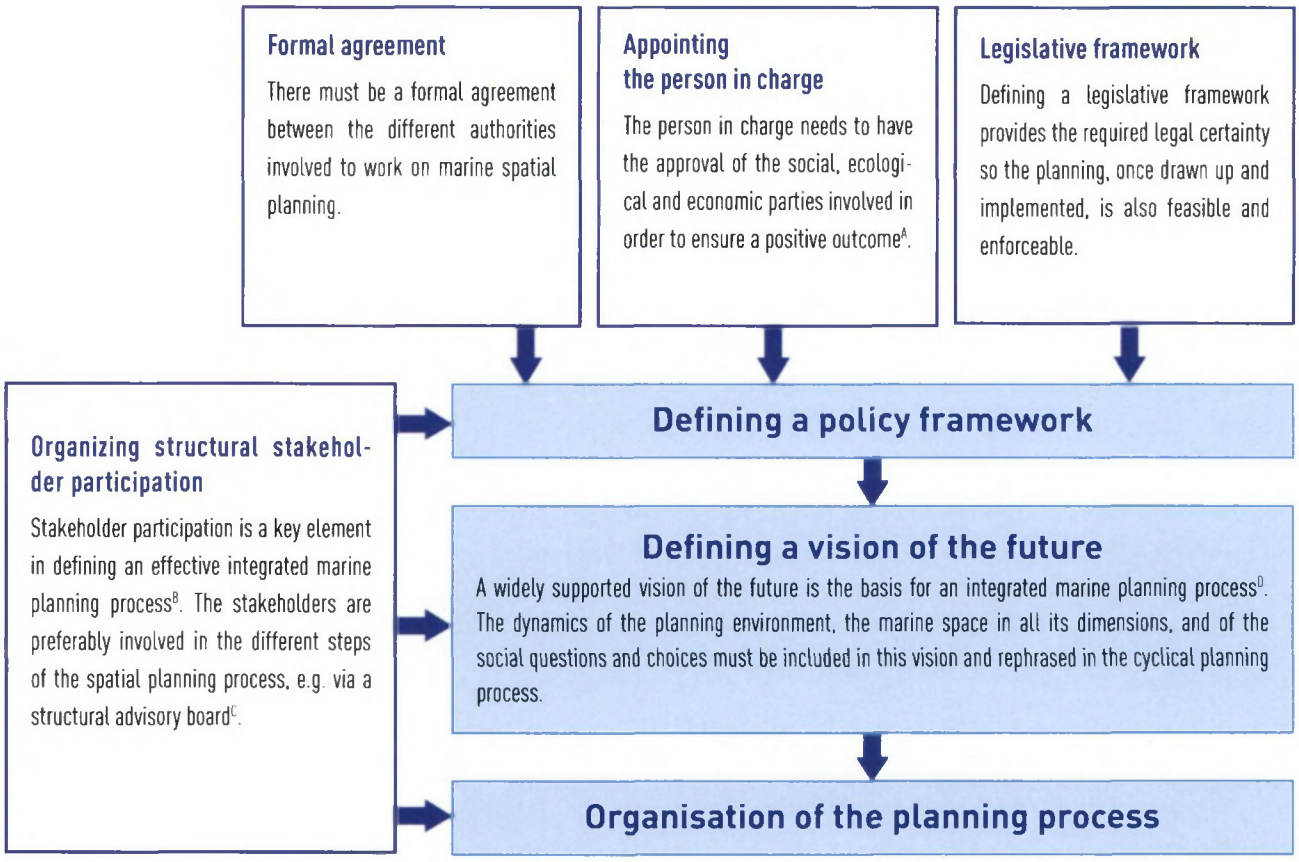
[11] *Communication from the Commission "An Integrated Maritime Policy for The European Union", COM(2007) 575 final of 10.10.2007 and SEC(2007) 1278 of 10.10.2007*
[12] *Directive 2008/56/EG of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)*

Illustration 1

A diagram of the preparatory steps for the implementation of an integrated marine spatial planning



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** All positions in the current position paper and its annexes are the strict personal positions of the authors.*

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