

Public Participation in MSP; Testing the Waters

Identifying opportunities and barriers to enhance public engagement in the multi-use of off-shore wind farms in the Dutch North Sea



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Abstract

A growing amount of human activities at sea leads towards increasing numbers of conflict about the use of sea space. In the case of the North Sea, especially off-shore wind farms start to take over the available sea space. An important reason for the increasing number of wind farms is the pressure to meet sustainability goals. However, the North Sea is being used for more activities requiring space, activities like fishing, shipping and recreation. Multi-functional use of available sea space forms a promising solution to create added value for all these uses. Whereas stakeholders such as energy producers and commercial shipping often have a great financial or national interest, these interests are limited in the case of public users (referred to as recreational users). This study aims to identify the opportunities and barriers regarding the involvement of public users in the multi-use of off-shore wind farms along the Dutch coast. Hereby exploring the possibilities to enhance the engagement of recreational users in the marine spatial planning process. A qualitative policy document analysis showed that the Dutch government presents limited details about the way recreational use of the sea is integrated in their marine spatial plan and how users are involved, thereby dealing reactively with the input provided by recreational users. However, conducting a user survey showed that the willingness to be involved is widely present among recreational users and their ideas on how multi-use could look like are abundant. Still, recreational users' chances to be involved should be improved.

Key concepts: Marine Spatial Planning; multi-use; off-shore wind farms, collaborative planning; public participation; stakeholder involvement

List of abbreviations

BCV	Beroepschartervaart (Professional Charters)
EC	European Commission
EEZ	Exclusive Economic Zone
Ministry of ANFQ	Ministry of Agriculture, Nature and Food Quality
Ministry of EA	Ministry of Economic Affairs
Ministry of EAC	Ministry of Economic Affairs and Climate
Ministry of IAKR	Ministry of Internal Affairs and Kingdom Relations
Ministry of IE	Ministry of Infrastructure and Environment
Ministry of IWM	Ministry of Infrastructure and Water Management
MSP	Marine Spatial Planning
MU	Multi-Use
NIMBY	Not In My BackYard
OFL	Overlegorgaan Fysieke Leefomgeving (Consultation Body Physical Living Environment)
PBL	Planbureau voor de Leefomgeving (Planning Office for the Living Environment)
PWR	Platform WaterRecreatie (Platform Water Recreation)
TSP	Terrestrial Spatial Planning
WSV	Watersportverbond (Water Sports Association)

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1. Introduction

1.1 Increasing use of the sea

Before the 21st century, the space the sea has to offer was being used for two main societal purposes; one concerned shipping with a transport function, the other concerned fishing. Nowadays, the space and resources offered by the sea are being used for more purposes. Besides the increased oil and gas extraction, the development of off-shore energy is growing rapidly. Each of these uses were managed separately, and where the sea in the beginning offered enough space to not get in each other's way, the additional uses were increasingly leading to conflicts between the different parties managing these uses (Ehler et al., 2019). Next to these commercial uses of the sea space (energy, fishing, transport), the North sea is also home to a great biodiversity and in addition does the sea function as a recreational area.

The growing number of encounters between sectors and the increasing amount of conflicts due to the sectoral management of the different uses, asked for an integrated approach to manage the space and resources of the sea. Marine spatial planning (MSP) is considered the leading instrument when it comes to the management of human activities at sea (Platjouw, 2018). Smith & Jentoft state that MSP *"is designed to assist in decision making for marine resource access and use by considering the actions of those using the resources, interactions between these groups, and their cumulative impact on the natural environment"* (2017, p.33). Part of an integrated MSP approach is to enable multi-use of available sea space (Schupp et al., 2019).

Managing human activities by the use of an integrated approach requests interaction between the stakeholder groups involved. According to Flannery et al. (2018), the integral approach of MSP offers potential to become a democratized planning strategy for the management of the seas including meaningful participation. Smith & Jentoft (2017) add to this that this is particularly important as MSP still tends to be a top-down form of governance, driven by the opportunities the sea has to offer. This seems curious as during the last decades integrated stakeholder engagement has proven to lead towards longer lasting solutions and greater satisfaction amongst participants in the field of planning.

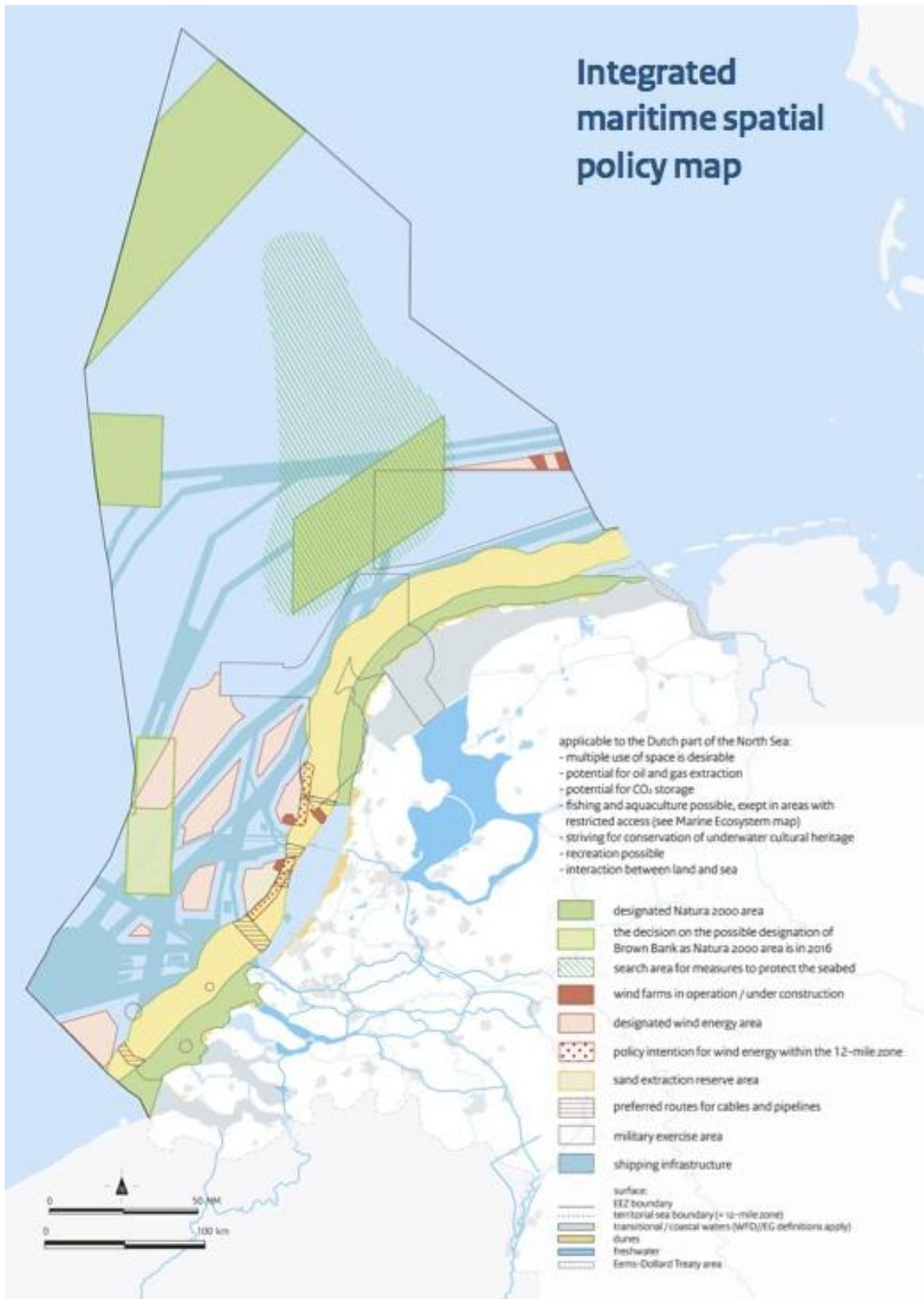
Zooming in on the field of Dutch MSP, the national Policy Document on the North Sea 2016-2021 shows a long-term *'Strategic vision for the North Sea 2050'*, which also concerns the aim for public participation within Dutch MSP. The vision addresses multiple uses of the Dutch North Sea and the importance of an integrated use, which is in line with the increasing pressure on the use of the North Sea. However, the document seems to prioritize fast and cost-beneficial development of wind farms, Spijkerboer et al. (2020) notes that co-use of these areas is not just deliberately avoided, but also becomes hard to pursue. In addition, Spijkerboer et al. (2020) found that developments of wind farms outside the 12 nautical mile zone from the coast are considered to be of limited interest for public participation according to the policy document. With the amount of off-shore wind parks currently developed on the North Sea, it is understandable why the interest for public participation may be indeed limited. However, the vision described in the policy document

shows a future with an increasing number of wind parks and other designated areas on the map of the Dutch North Sea (*figure 1*). This raises questions about future public participation in MSP.

1.2 Public use off-shore wind farms

MSP in practice should, according to Flannery et al. (2018), encompass meaningful participation when it comes to making decisions and should recognize the complexities which come along with spatial planning and governance. An ongoing dialogue between the different marine sectors and the inclusion of all concerned stakeholders within this meaningful participation is key (Gusatu et al., 2020). A lot of research on public participation has been done in the context of spatial planning on land. Gopnik et al. (2012) mentions the increasing efforts to apply similar principles of public participation to ocean management. Flannery et al. (2018) adds to this that MSP has to be further developed engaging social science research that goes beyond a facilitative or informational role. This suggests there is a knowledge gap concerning the appliance of public participation in MSP.

In this research, public participation within MSP will be studied by examining the inclusion of recreational users of the sea within the planning process of off-shore wind farms on the Dutch territory of the North Sea. The focus lies within the shared use of off-shore wind farm space. Off-shore wind farms are selected for this case study as the energy industry is one of the strongest growing maritime sectors in the Netherlands, which makes this study relevant for future use. Another reason to select off-shore wind farms in this case study is its relationship with use of public space. The development of off-shore wind farms is accompanied by a significant impact on the ocean's surface and therefore directly affecting its public users. This research therefore forms a response to the demand by Flannery et al. (2018) and Gopnik et al. (2012) for more research on public participation in MSP and does this study aims to elaborate on the notion by Spijkerboer et al. (2020) that public participation regarding the development of wind farms is of limited interest according to Dutch National government agencies.



(Figure 1 - A map of the Dutch Integrated maritime spatial policy plan (Source: Ministry of IE & EA, 2015, p. 2)

1.3 Research outline

This study aims to make a contribution to public participation in Dutch MSP by evaluating public inclusion in the multi-use of off-shore wind farms and exploring the opportunities to enhance the engagement of public users. To evaluate public inclusion in the development of wind farms, both institutions responsible for Dutch MSP as well as public users of the North Sea should be examined. First, a closer look should be taken on the institutions responsible for the designation of wind energy areas. This will be done by analyzing policy documents. Second, information will be gathered among the (possible) public users of the north sea, specifically recreational users, using a survey. Their participation in the recent past will be explored, as well as the need for future participation in off-shore wind farms development projects and MSP in general.

Results of this North Sea case study can be valuable for Dutch spatial planners to get a better understanding of the current role of public participants in Dutch MSP and the formulation of public participation opportunities in the development of off-shore wind farms can be valuable to improve public participation in Dutch MSP. In addition, this research in general adds to the understanding of the appliance of public participation in the complex integrated MSP process.

The primary research question and its accompanied secondary research questions to be answered are as follows:

Primary research question (= main research question)

What opportunities and barriers can be identified regarding public engagement in the multi-use of off-shore wind farms along the Dutch coast?

Secondary research questions

- What is Marine Spatial Planning (MSP) and why is MSP being used?
- How does (Dutch) MSP address stakeholder engagement?
- To what extent are public users of the Dutch North Sea engaged in the development of off-shore wind farms on the North Sea and to what extent do they want to be involved in the MSP process?
- What could multi-use (of off-shore wind farms and recreational boating) look like?

In close connection to the societal relevance of this study, the central aim of the research is to identify barriers and opportunities in order to explore possibilities to facilitate better engagement of recreational stakeholders in Marine Spatial Planning. Even though water sport enthusiasts and other marine tourists are just a small group of users of the Dutch North Sea, this group should not be left out of the marine spatial planning process. The barriers and opportunities identified by this research are also intended to show the value of incorporating recreational users within the planning process of the Dutch North Sea. These steps will offer useful suggestions for MSP practitioners to address the public regarding plan-making within the North Sea.

In order to do so, first a closer look will be taken into the definition of MSP and the purpose of MSP. Important publications for this definition are the ones from Ehler & Douvère and the European Commission. Secondly, the definition of multi-use in MSP will be examined using literature. An important theory that will be used throughout this thesis about multi-use will be the typology of multi-use by Schupp et al. (2019). Next, the use of a collaborative approach to planning will be shortly elaborated. Healey, Purbani and Arnstein are important persons in this discussion. The difference between terrestrial and marine spatial planning will be discussed, the publication by Kidd & Ellis (2012) forms the foundation of this discussion. Afterwards, the collaborative approach will be placed in MSP perspective using the ladder of MSP participation by Morf et al. (2019). This ladder of MSP participation together with the typology of Schupp et al. (2019) will form the basis for the empirical part of this study. The results of the document analysis and survey questionnaire will be linked to these theories.

2. Theoretical framework

2.1 Marine spatial planning

Societal demands for goods and services provided by the sea, such as energy and food, are rising, and in addition, the global infrastructure function of the sea requires an increasing amount of space. These various demands are exceeding the capacity of marine environments to meet them simultaneously (Ehler, 2020). These demands in combination with the often free access to marine areas lead to an increasing amount of encounters between sectors. Encounters which are often accompanied by conflicts, strengthened by the sectoral management of the different uses (Olsen et al., 2014). These developments led to the demand for a framework to manage the intensified use of sea space and resources. MSP is believed to offer such an integrated approach to manage ocean use. In this subchapter the definition of MSP and developments in MSP will be discussed.

2.1.1 Marine or maritime?

Over the last two decades, MSP as a leading approach to manage the use of marine space made its rise. During these decades, an increasing number of literature on the topic has been written (Ehler & Douvère, 2007; Santos et al., 2018; Spijkerboer et al., 2020). Even though it cannot be deduced from the abbreviation MSP, both the terms '*marine spatial planning*' and '*maritime spatial planning*' are being used throughout literature. When to use the terminology marine spatial planning or maritime spatial planning is not always obvious as both differences as well as similarities within the use of these terminologies are apparent.

A clear difference in definition between the adjectives '*maritime*' and '*marine*' can be found in the Cambridge Dictionary; where the adjective '*marine*' means '*related to the sea*', the definition of the adjective '*maritime*' means '*connected with human activity at sea*'. When talking about MSP as a means to manage human activity at sea, the use of the adjective maritime instead of marine seems more appropriate. Ehler (2020) points out the term maritime spatial planning is mostly used in countries of the European Union. Looking at the concept definition of the European Commission (EC), Maritime Spatial Planning is defined as a planning process about '*when and where human uses take place at sea to ensure these are as efficient, safe and sustainable as possible*' (EC, 2015, p.2), in this definition the link with human activity at sea is clear.

At the same time, when conducting a search in world's biggest academic literature database Google Scholar, it becomes evident that the prefix *marine* is more often being used in articles than *maritime* (respectively 867,000 results vs. 135,000 results on february 23th 2021). Ehler (2020) his search of the Institute for Scientific Information affirms the

more common use of the term marine spatial planning. A reason for this can be the generality of the definition of the adjective 'marine', justifying therefore the use of the term 'marine spatial planning' as an all-encompassing definition.

Often, the two terms are being used interchangeably within MSP literature. Even though the EC (2014) talks about a *Maritime Spatial Planning Directive*, they also refer to marine spatial planning, and so do Zaucha & Gee (2019) in their book titled 'Maritime Spatial Planning' in the first sentence of their foreword already indicate that the terms maritime as well as marine spatial planning will be used interchangeably.

2.1.2 Defining MSP

More important than defining the right terminology of MSP, is the definition of the concept itself. The European Directive on establishing a framework for maritime spatial planning defines maritime spatial planning as “*a process by which the relevant Member State’s authorities analyse and organise human activities in marine areas to achieve ecological, economic and social objectives*” (EC, 2014). This definition already differs from the one used in the MSP directive for sustainable growth of Europe’s blue economy cited at the beginning of this chapter. In this 2015 definition, the EC defined MSP as a process of maximizing efficiency, safety and sustainability regarding human use of the sea, whilst the definition of the EC provided in 2014 talks about MSP as a process to achieve ecological, economic and social objectives when analyzing and organizing human activities.

Another widely used definition of marine spatial planning is the one from Ehler & Douvere who define MSP as “*a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that usually have been specified through a political process*” (2009, p.18). Comparing this definition with the one from the EC, it becomes evident that the achievement of ecological, economic, and social objectives is an important aspect in both defining marine and maritime spatial planning. However, Ehler & Douvere (2007; 2009) added two specifications to their definition; first they specify the distribution of human activities on sea as being both spatial as well as temporal, secondly, they add the role of political processes to come to these objectives and refer to MSP as being a public process. The process-orientedness of this definition makes the remainder of this research using the concept of marine spatial planning as defined by Ehler & Douvere (2009).

2.2 Multi-use in MSP

The demand for ocean resources has increased even further over the past years, this resulted in the available ocean space to become highly contested. Conflicts between different uses and users of the space are therefore inevitable (Przedzimirska et al., 2018). Gusatu et al. (2020) emphasize that there is a need to evaluate the possibilities for multiple use of the space. Besides distributing human activities at sea as defined by MSP, there is a need for greater spatial efficiency by combining different uses of marine resources. This idea of multi-use (MU) can be seen as “a *guiding concept for efficient allocation of compatible activities in the same marine space*” (Przedzimirska et al., 2018, p.1). Where Przedzimirska et al. define MU as a guiding concept, Schupp et al. (2019) state that MU is a possible outcome of a structured MSP process. However, they both agree that MU can be regarded as an umbrella term comprising all various use combinations in a marine environment. In this sense, MSP can be seen as the more general process of managing marine space, whereas MU can be regarded as a purposeful tool to achieve spatial efficiency in MSP. A purposeful tool that is needed in order to meet the increasing demand for the use of ocean space and resources. MU is therefore particularly useful in a marine focussed country with limited space as the Netherlands.

2.2.1 Typologizing multi-use

The typology of ocean multi-use presented by Schupp et al. (2019) is a clearly defined and comprehensive typology for existing multi-use combinations of ocean space based on four dimensions; spatial, temporal, provisional, and functional (*table 1*). This table helps to determine the type of multi-use of the combination of recreational boating and off-shore wind farms. To determine the type of multi-use, first the characteristics of the existing multi-use should be distinguished before connecting them to the typology. Off-shore wind farms in the Netherlands were never accessible for ships, but since May the first 2018, ships are allowed to sail through off-shore wind farms (Ministry of IWM, 2018). Appendix 1 shows an overview of the rules applicable when sailing through off-shore wind farms. The purpose of these rules is to enable ships to make use of the space designated and used for off-shore wind farms, which shows that there can be made use of the same space at the same time. This overlap in spatial and temporal use points towards a type 3 multi-use; co-existence / co-location. In addition, the rules clearly prohibit ships and their crew from any contact with the infrastructure network of the off-shore wind farm (Ministry of IW, 2018), which rules out type 1 and 2 of the typology that are characterized by the share of infrastructure and services.

Table 1 - Typology of ocean multi-use with descriptions (source: Schupp et al., 2019, p.5)

Type	Dimension				Description
	Spatial	Temporal	Provisioning	Functional	
1. Multi-purpose/ multi-functional	√	√	√	√	Takes place in the same area, at the same time, with shared services and core infrastructure
2. Symbiotic use	√	√	√		Takes place in the same area, at the same time, and peripheral infrastructure or services on sea or land are shared
3. Co-existence/ co-location	√	√			Takes place at the same place and at the same time
4. Subsequent use/repurposing	√				Takes place in the same ocean space but subsequently

The use of sea space for recreational boating and wind farms therefore can be seen as co-existence. However, Przedzimirska et al. (2018) state that it is difficult to differentiate between genuine multi-use and mere co-existence of several uses. This statement suggests that type 3 and 4 of Schupp et al. should not be considered a type of multi-use. Besides, Przedzimirska et al. (2018) distinguish just two types of multi-use; (1) multi-use of geographical, human, biological resources, and (2) multi-use of technical resources.

Both typologies take into account the existing multi-use situations but the typology suggested by Przedzimirska et al. (2018) neglects the origination of the multi-use. For example, one can see the co-existence of recreational boating and off-shore wind farms as a form of multi-using ocean space, but it can be questioned whether this combination of uses can be defined as co-existence if one use directly affects the other use. Or if the uses do not have any effect at all on each other. In this case, the rules set up by the Dutch ministry of Infrastructure and Water management (2018) clearly show that recreational boating has to adjust to the function of the area as a wind farm. This can also be connected to type 3 multi-use as the lack of connectedness on the provisional and functional dimension suggests, according to Schupp et al. (2019) an incidental overlap and a degree

of involuntary combination of the marine uses. At the same time, the combination of recreational use with off-shore wind farms can be seen as the repurposing of the 'left over' water areas between the windmills, making this type of multi-use more of a type 4 as described by Schupp et al. On the contrary, before there was any wind farm, these parts of the North Sea were open for any passer-by and in that case, the construction of the wind farms can also be considered a repurposing of the area. However, as type 4 multi-use does not mention any direct interaction or possible influence on the functioning of the multiple uses, combining recreational boating with off-shore wind farms will be considered as a co-existence throughout this study.

2.2.2 Managing multi-use

The reason to typologize an ocean multi-use is to connect a management approach to the kind of multi-use (Prezedrzymirsk et al., 2018; Schupp et al., 2019). It is therefore less important to *exactly* determine the type of multi-use the combination of recreational boating and off-shore wind farms is, but more important to see which recommendations are made to manage these types of use. Schupp et al. (2019) recommend several key actions that are intended to help create an encouraging regulatory environment for ocean multi-use. In the face of co-existence Schupp et al. (2019) recommend clarity of rights and responsibilities of different users of the ocean, effective cooperation and mediation mechanisms between all parties concerned, the gathering and communication of data concerning the compatibility of uses, and the facilitation of capacity building regarding opportunities and operations. These recommendations witness a cooperative management approach. This is in line with the statement of Olsen et al. (2014) that MSP is by definition multi-sectoral including a potentially large number of stakeholders, managers and policy-makers with each its own reason to operate. Different sectors, such as commercial fishing, tourism, energy generation, maritime transport and marine environmental protection are present in the marine realm. The governance of these sectors happens often in separate tracks (Harte et al., 2010). Even though MSP ought to be an integrated approach, Schupp et al. (2019) argue that planning decisions are many times made from a sectoral point of view, whilst numerous studies emphasize the urge for a collaborative approach (Olsen et al., 2014; Gusatu et al., 2020).

2.3 Collaborative MSP

The urge for a collaborative approach in planning is not a new phenomenon. Since the 1980s, extensive research has been conducted into the application of a communicative turn in spatial planning as a response to the rational planning practices in the 1960s and 1970s. A powerful influence on this communicative turn are the contributions of Habermas (1984), a philosopher and sociologist who constructs a concept of reasoning which is grounded in

an emancipatory communicative act, rather than grounded in rationalistic and objectivistic terms. Habermas' theories on communicative action were applied to the spatial planning domain by urban planner Patsy Healey. By the belief that the ideas we as humans have about ourselves, our values, and our interests are socially shaped by communicating with each other, Healey (1996) proposes a process of facilitating collaboration in spatial planning. This collaborative approach in planning has made its rise the past few decades and Purbani (2017) defines such collaborative planning as a "*new paradigm of planning for a complex contemporary society which usually mediates conflicts between parties through consensus-building processes*" (2017, p.137).

When going through the literature, various definitions and varying terminology on the topic can be found. In the above paragraph already both the term 'communicative' and 'collaborative' are being used. This raises questions about the use of the right terminology and the differences between the definitions. Purbani (2017) states that within the different definitions of the collaborative approach, a few common characteristics can be identified. According to Purbani (2017) these characteristics are policy consensus, community visioning, collaborative network structures, and consensus rule-making. Healey (1996), like other authors in the field (Burby, 2003; Quick & Feldman, 2011), stresses the importance of consensus-building and community involvement in collaborative planning.

The question why consensus-building and community involvement is useful in the spatial planning domain has already been partially answered. In line with the idea of Habermas that our reasoning is grounded in communicating with each other, Healey states that facilitating collaboration in the planning process contributes to the formation of an *inclusionary argumentation*, a form of public reasoning that accepts the contributions of all actors involved (Healey, 1996). The use of such argumentation in spatial planning and spatial problem-solving consequently will lead to better plans. This subchapter will look further into the applicability of the collaborative approach to MSP, including an elaboration on the resemblance between spatial planning on land and an elaboration on defining MSP stakeholders.

[2.3.1 Terrestrial vs. marine spatial planning](#)

The development of the communicative approach described in the previous section concerned spatial planning on land, in this research referred to as terrestrial spatial planning (TSP). The communicative approach to TSP was elaborated and investigated by spatial planners such as Healey. MSP, originally not developed by planners, shows strong resemblances with TSP and it is therefore important to look at the major differences as well as similarities between TSP and MSP in order to determine to what extent the collaborative approach used in TSP is applicable in MSP. Examples of similarities can be found in the way

both MSP and TSP are displayed as being a public process, the way both concern the efficient use of (limited) space, and the way they both address multiple users of the space. However, even though TSP takes place within varying contexts, the context in which MSP takes place differs significantly from TSP context which raises the question to what extent the communicative approach is applicable to the field of MSP as MSP takes place in a highly dynamic and ecologically vulnerable context.

Kidd & Ellis (2012) highlight three key differences between MSP and TSP contexts that constrain the transfer of TSP policy and practices to MSP. First, the bio-physical characteristics of a marine environment are radically different from those on land. Secondly, the way property rights in marine environments are organized limits the extent to which TSP policy and practice can be transferred as boundaries are invisible and ownership is less clear. An example can be found when comparing farmers with fishermen. A farmer lets his cattle graze on his own land and, in consultation, on the land of a fellow farmer, whilst a fisherman can fish on the same piece of sea a concurring fisherman does without any consultation. In addition, MSP has to deal with transboundary issues and international law (Platjouw, 2018) more often than TSP does. Finally, Kidd & Ellis (2012) argue that the sense of place that is strongly developed in terrestrial environments, is less developed in marine areas. This lacking sense of place, accompanied by great uncertainty concerning the consequences of human actions, presumably causes a sense of distance to the developments at sea and their impacts. Whereas TSP often has to deal with the 'not-in-my-backyard' (NIMBY) syndrome, the areas addressed by MSP are far less likely to be seen as 'backyard'. Overlooking these key differences, particularly the last two raise questions about the application of a collaborative process, especially concerning *who* to involve. The issue regarding the organization of property rights raises the question *who should* be involved and the issue regarding the sense of distance raises the question *who wants* to be involved.

2.3.2 *Who to involve?*

In the first section of this subchapter a few indications about who to involve in a collaborative process are given. So does the quote by Purbani talk about conflicts between parties, which suggests that it is important to include those actors with contradicting interests. Thereby is Healey (1996) convinced of a form of public reasoning that accepts the contributions of *all actors involved*. But what does this mean? Does it concern all actors involved in the plan-making process, or does it mean all actors involved within the issue for which a plan has to be made? And when addressing the engagement of stakeholders in the MSP process, how are these stakeholders defined? If it is anyone who has a stake, does that concern a financial stake or ownership? Freeman (1984) defines a stakeholder not as anyone who has a stake, but defines them rather as anyone or any group who is affected

by, or can affect, achievements of institutions/corporations' goals. This definition excludes the groups or individuals who do not affect, or are affected by, the actual problem/plan, but still are interested to be involved. A more holistic definition of stakeholders is provided by Pomeroy & Rivera-Guieb (2006, in Pomeroy & Douvere, 2008, p.818) "*Individuals, groups or organizations who are, in one way or another, interested, involved or affected (positively or negatively) by a particular project or action towards resource use*". In the case of constructing an off-shore wind farm, this means anyone who is involved in the organization of the designation and construction, but also anyone who is inconvenienced by the construction and existence of the windfarm. Stakeholders regularly defined in MU projects at sea are commercial fishing, commercial shipping, the military, marine/nature protection organizations and energy producers (Pomeroy & Douvere, 2008; Harte et al., 2010; Schupp et al., 2019; Spijkerboer et al., 2020). Recreational users of the sea, like sailors, are often disregarded in MSP studies. Even though it is common for MSP processes to advocate stakeholder management, in many cases these processes fall in a classic top-down pattern with deficient consultation (Flannery et al., 2015). Many academics advocate for a better stakeholder engagement in MSP (Santos et al., 2018) and according to Flannery et al. (2015) there are only a few MSP processes that encourage participation by a two-way exchange of information.

In addition to involving the frequently mentioned stakeholders of MSP, involving smaller stakeholder groups like recreational users of the sea could as well contribute to better plan-making. In the light of engaging those with less power and less financial stakes, Burby (2003) stresses the importance of public participation in order to create better spatial plans. He argues that involving citizens will create opportunities to collect more information, to gain better understanding, and to come to suitable agreements for both problems as well as solutions. In relation to MSP, Jarvis et al. (2015) argue that marine users can be an important source of information. Although Burby's use of the term 'citizens' is questionable in the light of MSP as there are no people living on or near the concerned sites. The key problem here is defining the 'public' stakeholder group. In TSP these are often the people geographically located on or near a planning site, for instance in the case of a neighborhood renewal the neighborhood residents are considered to be a stakeholder community. However, in MSP geographically defining the public community that has or wants to have a stake in the concerning issue is much more of a challenge.

According to Healey (1996) and Pomeroy & Douvere (2008) there are two important types of communities that can be involved in spatial plan-making; geographical communities and social communities. A geographically based community is a community concerning those in one place who are affected by what happens in that place, whilst a social community encompasses those who have common interests. Moreover, one does not exclude the other, people can live in the same place and have the same interests. The example of the

neighborhood residents shows a geographical based community with possible social community aspects. In the case of recreational users of the sea, it is likely that there is a social community of users with the same interests regarding their use of the sea. Looking back at the statement that there is a less developed sense of place in marine environments described by Kidd & Ellis (2012), this community of recreational users of the sea may be the designated group to have developed a sense of place regarding marine environments and therefore are willing to participate in MSP. However, reaching this community is more of a challenge as you cannot put a note through their letterboxes as is possible with neighborhood renewal projects. That is why it is important to not only define who should and wants to be involved, but also how this community should be addressed by responsible authorities.

2.3.3 How to involve?

In this section, different views on the status of stakeholder engagement in MSP will be elaborated on. MSP is promoted as a public and political process that is capable of producing consensus and beneficial outcomes, concerning economic, ecological and social objectives, for all stakeholders involved. Such a participatory planning strategy is rather naive as this ignores that rationality is context dependent and does not take into account existing power relations (Flyvbjerg, 1998). The context in which MSP takes place seems highly vulnerable to power dynamics since little social control is possible. Recent studies advocate for MSP to take a closer look at its engagement and participation processes (Santos et al., 2018; Elher, 2020). This is important as MSP processes using collaborative approaches such as consensus building, negotiation and facilitation, tend to result in more innovative and lasting solutions (Pomeroy & Douvere, 2008; Gopnik et al., 2012). However, research into the MSP plan of the Northeast Ocean Planning initiative in the US by Flannery et al. (2018) shows major issues obstructing a collaborative approach. Amongst these issues were poor communication, lack of transparency, the perception that the process was deliberately exclusionary, issues concerning fragmented governance, and vague specificity regarding benefits and losses for stakeholder groups. Besides these issues, other academics found that engagement in MSP, if there is any engagement already, is limited to simple communication and information sharing (Pomeroy & Douvere, 2008; Gopnik et al., 2012). For MSP practice to gain its theoretical potential to be an integrated and public process, it must capacitate meaningful participation.

To enable meaningful participation of recreational boaters in planning off-shore wind farms a few questions should be asked. The first being the question how they should be engaged in Dutch MSP processes. The second concerns the way they are currently engaged in Dutch MSP processes. A classic example of assessing the degree of participation in TSP is the use of Arnsteins' ladder of citizen participation (*figure 2*). This ladder categorizes the stages

that participants have to go through in order to gain more control (or a greater stake) in a plan or project. The stages vary from non-participation (in which participants are manipulated and educated by the people with more power), to tokenism (in which participants are more or less symbolically involved in the planning process), to citizen power (in which participants actually do have a say) (Arnstein, 1969). When taking a critical look at Arnstein's ladder, one sees that there is not just a gradation regarding the intensity of participation, but even so a gradation in what is considered to be more desirable. Whilst manipulation indeed does not sound as a justifiable way of managing participation, in some cases of some tame problems, informing stakeholders, for instance, will be sufficient. However, the power relations discussed by Flyvbjerg (1998) should not influence this informing process. Flannery et al. (2018) state that a participatory process may be a highly choreographed form of governance, employed by those with power. These power relations make it interesting to look at both sides of the spectrum regarding engagement of recreational ocean space users. MSP plans and reports published by authorities could contain strategies involving the public, but how the community of recreational users perceives their involvement with the MSP processes could be different from how it is intended or ought to be executed. The empirical part of this thesis takes a closer look at this issue.

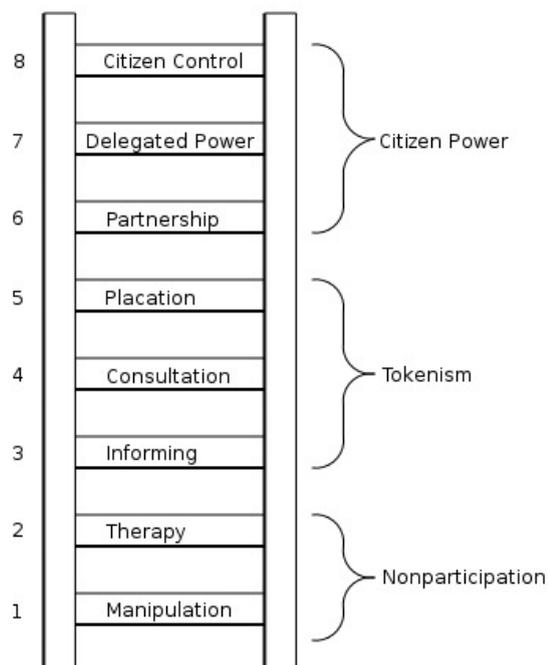


Figure 2 - Arnstein's ladder of citizen participation (Arnstein, 1969)

Following Arnstein's ladder of citizen participation, Morf et al., (2019) composed a combined ladder that could be used to analyze and develop participation in transboundary MSP context, a ladder that does not reflect the gradation of desirability like the one from Arnstein. This framework (table 2) is kept simple by focussing on elements that can easily

2.3.4 When to involve?

Whereas Arnstein and Morf et al. speak of participation gradations, Quick & Feldman (2011) took a different view on public involvement by clearly distinguishing participation from inclusion. Inclusion is hereby seen as a process of creating a community that is continuously involved with the co-production of plans and programs addressing various public plans and issues, whilst participation is seen as a practice to increase public input which is primarily oriented to the content of plans (Quick & Feldman, 2011). Gopnik et al. (2012) argue that active engagement from the beginning throughout the decision-making process, which is described as inclusion by Quick & Feldman, has been recognized as being an essential element of any successful participatory process. Flannery et al. (2018) agree with this as according to them decision-making occurs at all three stages of planning processes (normative, strategic, and operational), whilst public participation is frequently restricted to the operational stage. This is also the case with MSP processes where responsible entities do not engage stakeholders at the earliest moment possible, but only at the final stages of the developed marine spatial plans (Santos et al., 2018). At this point, key decisions are already taken and input is less likely to be used. Participating at this stage limits itself to the bottom steps of Arnstein's ladder.

2.4 Conceptual Model

Figure 3 shows the conceptual model used in this study. The represented conceptual model is based on the theoretical concepts discussed in this chapter that are fundamental to this research. This conceptual model is a visual representation of the used theories in connection with the object of study. It starts by defining MSP and an elaboration on the differences and similarities between MSP and TSP. In order to come to an answer to the main research question, the application of multi-use within MSP and participation of stakeholders in MSP processes are two important concepts to study.

Within these concepts, the ladder of MSP participation by Morf et al. (2019) and the typology by Schupp et al. (2019) were deemed important theories. The ladder of MSP participation shows different levels of involvement, in the conceptual model this is simplified from low to high involvement. To determine the level of participation in Dutch MSP regarding the involvement of recreational users of the sea, three important questions were asked. Who is involved, how are they involved and at what point are they involved are the questions that form an important part of the empirical part of this study. Determining the level of multi-use forms the other important part of this empirical research.

The type of multi-use can be related to the degree of participation and vice versa. In the case of a stronger degree of multi-use, the involvement of more stakeholder groups is

expected. In such cases a higher degree of involvement is necessary to coordinate the multi-use of an area. In addition, a higher level of involvement in MSP at forehand can result in multi-use of available sea space. The interconnectedness of the two theories is visualized by placing a spiral in between the ladder of MSP participation and the typology of multi-use within the conceptual model. On the other hand, this interconnectedness could also work the other way around. Less involvement of recreational users can result in a less higher degree of multi-use or even mono-use of sea space, and in the case of less multi-use, close cooperation of stakeholder groups may not be relevant anymore. Evaluating this interconnectedness between multi-use and participation helps to identify barriers and opportunities when it comes to the involvement of recreational users within the planning of off-shore wind farms. The following chapter presents the methodology used to study the involvement of recreational users in Dutch MSP with a focus on the development of off-shore wind farms.

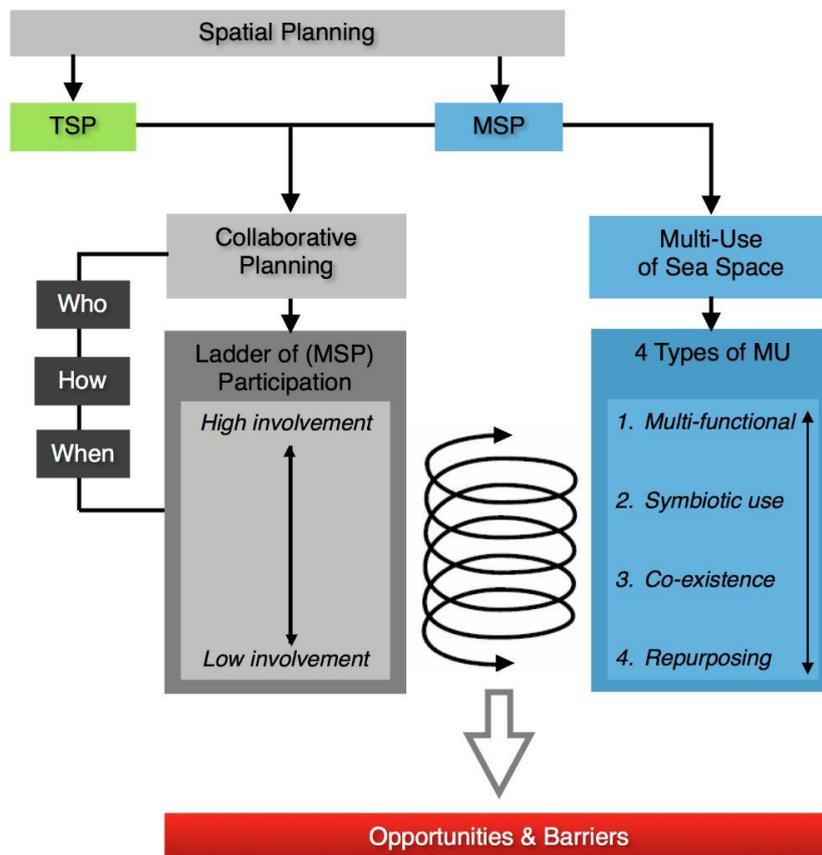


Figure 3 - Conceptual Model (made by author)

3. Methodology

3.1 Research Design

The theoretical background outlined in the previous chapter elaborated on a few important questions when it comes to public participation in MSP. These questions can be partially answered by literature study, but since there is a scientific knowledge gap when it comes to public engagement in MSP (Santos et al., 2018), empirical research is needed. The methodological approach presented in this chapter aims at proposing an organized and systematic strategy in order to answer the main research question.

- What opportunities and barriers can be identified regarding public engagement in the multi-use of off-shore wind farms along the Dutch coast?

In order to arrive at an answer to the main research question, four sub-questions have been formulated:

1. What is Marine Spatial Planning (MSP) and why is MSP being used?
2. How does (Dutch) MSP address stakeholder engagement?
3. To what extent are public users of the Dutch North Sea engaged in the development of off-shore wind farms on the North Sea and to what extent do they want to be involved in the MSP process?
4. What could multi-use (of off-shore wind farms and recreational boating) look like?

The first question already has been answered for the most part in chapter 2, but the remaining questions ask for more empirical support. When reading the secondary questions one may notice there are questions regarding the current situation of stakeholder engagement in Dutch MSP and questions which focus more on the enabling of public engagement and multi-use of off-shore wind farms. The empirical part of this research is therefore two-fold, consisting of an evaluative stage and an explorative stage.

In the evaluative stage, a policy document analysis was executed to get an insight into how public engagement in Dutch MSP is ought to look like. By means of triangulation, public stakeholders were asked about their experience with being or not being engaged in Dutch MSP and whether they even want to be involved or not. At the end of this stage, an expert in the field of Dutch MSP was interviewed to validate the outcomes of this research.

In the explorative stage, attention will be given to the question about how multi-use of off-shore wind farms could look like according to recreational users. The significance of this stage depends on the outcome of the question whether this group even wants to be involved. The remainder of this chapter will further elaborate on the area of study and on the details of how the evaluative and explorative stage would look like.

3.2 Area of study

According to Yin (1994) the unit of analysis for a research can be defined by determining the theoretical scope, the time frame, and its spatial boundaries. In the previous chapter, the theoretical scope of this study is determined based on a literature study including key concepts as marine spatial planning, multi-use in MSP, stakeholder engagement and public participation.

Defining a time frame is particularly relevant as (Dutch) MSP practices are continuously evolving. For instance, since the start of this study a new design program for the Dutch North Sea has been published. However, most of the time frame of this research is March 2021 until July 2021, in this period primary data was collected. On the other hand, the time frame of the analyzed documents and literature has a longer span as most of the used documents and articles are written earlier on. The time span of the written documents together with the primary data collection define the time frame of the case.

Lastly, to identify the opportunities and barriers regarding public engagement in Dutch MSP, the spatial boundaries of this research should be defined. It is useful for this research to focus on areas in which interaction between public sea users and other planned marine functions is likely. In this study, the recreational use of the North Sea in combination with off-shore wind farms is chosen. The reason for this is the publication of the rules on sailing through off-shore wind farms (Kustwacht, 2018). These rules apply when sailing through Offshore Wind farm Egmond aan Zee, the Prinses Amalia Wind farm for the coast of IJmuiden, and Wind farm Luchterduinen for the coast of Noordwijk, three major wind farms in front of the Dutch west coast (Noordzeeloket, 2018). The publication of these rules indicate a necessity to manage the multiple use of these sea spaces. In addition, the newly published North Sea design program shows an increased number of off-shore wind farms compared to the one published in 2015, which makes interaction with recreational users even more likely.

3.3 Methods of Data Collection

In this research a mixed method approach was used as the use of different methods as means of triangulation strengthens confirmation of the result (Cope, 2010). Both qualitative and quantitative methods were used. The qualitative methods used consisted of a qualitative document analysis, the conducting of a user survey with a qualitative focus, and conducting an expert interview. Quantitative methods were applied in the form of quantitative data analysis, including the use of descriptive statistics and quantitative tests. The following paragraphs further elaborate on the used methods.

3.3.1 Policy document analysis

Document analysis is a qualitative form of research consisting of a systematic procedure in order to review or evaluate documents, a method that is often used in combination with other qualitative forms of research as a means of triangulation (Bowen, 2009). Analyzing documents helps create a better understanding of a topic, in this case the MSP process in the Netherlands. Where document analysis could entail all kinds of documents, this study will mainly focus on governmental documents as the Dutch national government is responsible for Dutch MSP. These documents can give better insight in the context of Dutch MSP and its background. Thereby do these documents form an additional source of research data that can verify findings from both literature study as well as empirical research. In addition, information in these documents may be helpful in suggesting questions for interviews and questionnaires (Bowen, 2009).

Whilst document analysis has many benefits, a few limitations should be kept in mind when conducting document analysis. Table 3 shows an overview of the advantages and limitations of document analysis. According to Bowen (2009) the procedure of document analysis entails finding, selecting, appraising (making sense of), and synthesising data within relevant documents. The following paragraphs describe how the document analysis process of this thesis looks like, concerning both collection and selection of documents, as well as analysis and interpretation of the documents whilst keeping in mind the mentioned limits of document analysis.

Document Analysis as Research Method	
<i>Advantages</i>	<i>Limits</i>
<p>Efficient method - less time-consuming and clear strategy</p> <p>Availability - governmental documents are often part of the public domain</p> <p>Cost-effectiveness - data already has been gathered</p> <p>Lack of obtrusiveness and reactivity - unaffected by research process</p> <p>Stability - researchers presence does not alter the data</p> <p>Exactness - specific details about location, names, etc.</p> <p>Coverage - broad span of events, settings, and time</p>	<p>Insufficient detail - documents are produced for something else than research purposes</p> <p>Low retrievability - access to specific documents can be blocked</p> <p>Biased selectivity - document reflects the author's bias</p>

Table 3 - Overview of the advantages and limits of document analysis (Based on Yin, 1994; Bowen, 2009)

3.3.2 Document Collection & Selection

As the document analysis consists mainly of governmental documents, databases from the Dutch government are used to find relevant documents. It is important to have a complete collection of documents in order to establish the meaning of the documents in relation to the topic explored (Bowen, 2009). When selecting the relevant documents, the following criteria were leading. First, the documents discuss Dutch MSP processes and/or off-shore windpark developments within the Dutch EEZ, and mention public participation, stakeholder engagement, and possible multi-use of off-shore windpark space. Secondly, references in previously selected documents to other possible relevant documents were looked at. Thirdly, in case a not yet selected document may be mentioned during the expert interview, this document can be added to the list of relevant documents. However, this was not the case. Lastly, a closer look was taken at the accuracy and relevance of the documents regarding the date of publication, most recent versions, completeness, and whether they are in operation or not. Table 4 provides an overview of the selected documents, entailing English title, reference/author, and year of publication.

Year	Document title	Author/Reference
2014, February	<i>Joint Position of Recreational Shipping with regard to wind energy parks in the Dutch part of the North Sea</i>	Koomen & Paternotte, on behalf of BCV, PWR, WSV
2014, March	<i>Feasibility study wind energy at sea within the 12 mile zone</i>	Ministries of IE & EA
2014, Juli	<i>North Sea 2050 Spatial Agenda</i>	Ministries of IE & EA
2014, September	<i>Governmental Structural Vision Offshore Wind Energy</i>	Ministries of IE & EA
2015, December	<i>Elaboration of decision on passage and joint use of offshore wind farms</i>	Ministry of IE
2015, December	<i>National Waterplan 2016-2021</i>	Ministries of IE & EA
2015, December	<i>Policy Document on the North Sea 2016 - 2021</i>	Ministries of IE & EA
2018, January	<i>The future of the North Sea</i>	Matthijssen et al. PBL
2018, February	<i>Code of conduct for safe sailing through wind farms</i>	Ministry of IWM
2020, January	<i>Offshore Wind Energy Act</i>	Rijksoverheid (National Government)
2020, March	<i>Evaluation Report Passage & Shared Use</i>	Ministry of IWM
2020, June	<i>North Sea agreement</i>	OFL
2021, March	<i>National water program design 2022 - 2027</i>	Ministries of IWM, ANFQ & IAKR

2021, March	<i>North Sea program design 2022 - 2027</i>	Ministries of IWM, ANFQ, EAC & IAKR
2021, March	<i>Participation Plan National Water Program 2022 - 2027</i>	Ministry of IWM
2021, March	<i>50 years North Sea Management</i>	Ministry of IWM

Table 4 - Brief overview of by researcher selected documents

3.3.3 Document Analysis & Interpretation

After selecting the suitable documents, selecting the relevant sections within the documents will be done by briefly reviewing the documents. Selecting these specific sections is essential to stick to the research topic without receiving an overload of information. Next to the careful selection of relevant content, it is important to keep in mind the original purpose and target audience of the documents (Bowen, 2009). The governmental documents are not written for or by researchers, therefore it is plausible that the documents do not provide a sufficient level of detail for research purposes. In addition, government documents are frequently a product of collaboration between multiple parties and therefore context dependent. These are all aspects that will be taken into account when interpreting the collected data in the next chapter.

3.3.4 User survey

In order to get an answer to the third and fourth sub-question (“*To what extent are public users of the Dutch North Sea engaged in the development of off-shore wind farms on the North Sea and to what extent do they want to be involved in the MSP process?*” and “*What could multi-use (of off-shore wind farms and recreational boating) look like?*”) a survey amongst the recreational users of the North Sea was conducted. The aim of this survey is threefold. First, the aim was to examine how the users' (sense of) participation relates to the participation intentions of the Dutch government. Secondly, the survey investigated to which extent the recreational users would like to be involved in the North Sea MSP process. Lastly, the survey focused on exploring users' ideas about possible multi-use of off-shore wind farm space, thereby making use of so called user knowledge. According to McLafferty (2010), conducting survey research is a process consisting of three common steps; 1) survey design, 2) strategy for conducting surveys, and 3) sampling. Survey design is about the development of the questions and survey instrument that will be used during research, sampling is about identifying the group of people from whom you want to receive responses, and the strategy for conducting surveys encompasses how the survey will be administered (McLafferty, 2010). These steps will be elaborated in the following sections. Yet, step 2 and 3 will be swapped as the way of reaching a certain part of a population in this case also depends on the chosen target group.

3.3.5 Survey design

A survey with both closed- and open-ended questions was composed for this study. Closed questions are used for factual data such as license possession or activity patterns, but also

as a means to guide respondents, making it easier to answer the questions (McLafferty, 2010). However, the sub-questions not just ask for factual data, but also concerns experiences and visions of recreational users. Thereby are, according to Woltjer et al. (2014), government institutions responsible for meeting public interest. As public interest is subjective, experience and appreciation plays an important role in this part of the study. Such a degree of subjectivity is difficult to cover with solely closed-ended questions and therefore open-ended questions are added to the user survey to get an insight into their ideas and reasoning. When creating a mixed question survey, a qualitative layer is added to the research making it a useful research method in geography and spatial planning (McLafferty, 2010). The survey used in this study, together with the raw data, can be found in appendix 2.

3.3.6 The sample

The target-group of the survey was limited to recreational users of the North Sea. These recreational users will be mainly sailors, the reason for this is the availability of information concerning the involvement of this group in MSP and the addressation of this population by current regulation about entering off-shore wind farms. The table below (table 5) shows an overview of the respondents with some general information about the respondents.

Respondents	157
(Intentional) Users of the North Sea	146
Male/Female/Unknown rate	71.3%/26.8%/1.9%
Boat owners	79.6% sailing boat 15.3% rents boats 3.8% motor boat 1.3% does not sail
In possession of any kind of sailing license	136
Respondents open for more discussion	37

Table 5 - General statistics of the respondents

3.3.7 Survey conducting strategy

As earlier mentioned, defining and reaching such a group of stakeholders was expected to be less easy than defining and reaching stakeholders in, for example, a neighborhood revitalization project. The (potential) users of the North sea space do not live at or near the concerned spot like is the case with neighborhood residents. However, the sense of community within this population is significant. This can be seen in the amount of existing facebook groups, online forums, associations and unions of which these people are a member. These associations and online communities were the starting point for the

distribution of the survey. Within 2 days, 157 people had completed, this showed that reaching the group of potential stakeholders went easier than anticipated.

Where at first hand this study adopted a mixed method approach consisting mostly of qualitative research methods (qualitative document analysis and a survey with a qualitative focus), the unexpectedly high number of respondents asked for an adapted research strategy. Whereas the intention was to contact those respondents who left their contact details to have a more in depth discussion about the topic, with 37 respondents leaving their contact details this was not feasible within the time frame of this research. Instead, quantitative methods were used to analyze the survey data. This included the use of descriptive statistics and quantitative tests on the extent to which recreational users would like to be involved in the Dutch MSP process. The quantitative tests are carried out in statistical computer program SPSS, the test results can be found in appendix 3.

3.3.8 Expert interview

As short interviews with interested respondents were not feasible anymore within the time frame, there was chosen to conduct an additional interview with an expert in the field of Dutch MSP. The aim of this interview was threefold; first, to minimize the influence of an author's bias as the author herself is a user of the sea. Secondly, to replace the in depth interviews with recreational users by interviewing an independent expert in the field of Dutch MSP and multi-use within Dutch MSP (table 6). Third and lastly, to validate the findings of this research. There was chosen for a semi-structured interview to give guidance to the interview without steering the interview in a certain direction as semi-structured interviews allow for an open response of the interviewee (Longhurst, 2010). The interview guide can be found in appendix 4.

Organization	Function	Field of Expertise	Date & Duration	Medium
University of Groningen - Faculty of Spatial Sciences	Researcher	Spatial Integration of Renewable Energy - MU of off-shore wind farms	6-7-2021, 21:07	Skype

Table 6 - Overview conducted interview

4. Results

After elaborating on the theoretical approach and methodology, the following chapter presents the findings of the document analysis and survey data collection. This chapter consists of two major sections. In line with the conceptual model, section 4.1 addresses multi-use in Dutch MSP with an emphasis on multi-use of off-shore wind farms, followed by an investigation of the relations with the multi-use typology of Schupp et al., 2019. Section 4.2 elaborates on stakeholder identification and engagement in Dutch MSP with a focus on the involvement of public users, followed by an exploration of the connections with the ladder of MSP participation by Morf et al., 2019. Section 4.3 discusses the results in relation to the theory referring to the conceptual model, this includes the relations between the two main theories.

4.1 Multi-use in Dutch MSP

The various documents analyzed have different purposes. The national water programs, policy documents on the North Sea and the North Sea spatial agenda are the documents that present a vision of the direction the Netherlands wants to go with its water management, of which MSP of the North Sea is an important aspect, rather than a detailed elaboration of this vision. These documents therefore have no legal status, but are used in this study to get a better understanding of the line of thinking of the Dutch government. In the light of the Dutch North Sea, these documents are based on the task to find the right social balance in order to achieve an efficient and safe development of the sea that fits within the preconditions of a healthy ecosystem in the forthcoming years (Ministries of IE & EA, 2015; Ministries of IWM, ANFQ, EAC, IAKR, 2021).

4.1.1 Multi-use as starting-point

With regard to multi-use, the spatial frameworks set up by the Dutch national government aim at an efficient and sustainable use of sea space, in which multi-use of sea space is fundamental. Applying multi-use where possible can be seen as a starting point in Dutch MSP. However, the words 'where possible' suggest a disclaimer. Even though the aim is to combine functions as much as possible, functions can be kept separate due to, for example, safety aspects or possible negative effects on vulnerable ecosystems (Ministries of IE & EA, 2014). In such cases, an assessment framework should reveal which interest outweighs the other (Ministries of IE & EA, 2015; Ministries of IWM, ANFQ, EAC, IAKR, 2021). A distinction herein is made between interests of national importance and interests that are not labeled as of national importance. A further elaboration on interests and stakeholders will be discussed in section 4.2.

Next to the function separation due to possible conflicts of interest, another aspect of the Dutch multi-use policy stands out. According to the Planning Office for the Living Environment (PBL, 2018) policy is aimed at first developing off-shore wind farms and then looking at opportunities for shared use. The Dutch ambition to switch to sustainable energy and the accompanied cost-effective realization between 38 and 72 gigawatt installed capacity of wind farms before 2050 (Ministries of IWM, ANFQ, EAC, IAKR, 2021) at the Dutch EEZ of the North Sea reaffirms this prioritization of the development of off-shore wind farms. Furthermore, this energy transition ambition is labeled as being of national importance and therefore outweighs some other uses of the Dutch North sea (Ministries of IE & EA, 2015). However, the same ministries acknowledge that in order to arrive at well integrated multi-use solutions for the use of sea space it is expedient to work this out together with stakeholders from the start of the design phase (Ministries of IE & EA, 2014). This seems contradictory to the policy of first developing off-shore wind farms before exploring opportunities for multi-use. Besides there is no sign of multi-use when looking at the Offshore Wind energy Act, the act with the purpose to guide the off-shore wind farms planning process. This demonstrates a lack of legal obligation to apply multi-use where possible, as envisioned by the concerned ministries. The next paragraph therefore elaborates more on how multi-use of off-shore wind farms is addressed and developed by studied policy documents.

4.1.2 Sharing off-shore wind farm space

Besides the general ambition of the Dutch government to apply multi-use as much as possible, the various policy documents elaborate on the effects wind farms have on different uses and how these uses can be combined with the presence of a wind farm. Next to elaboration on combining wind farms with blue energy, ecology, and fishery, the policy documents on the north sea pay attention to the relationship between off-shore wind farms and shipping (Ministries of IE & EA, 2015; Ministries of IWM, ANFQ, EAC, IAKR, 2021). At the beginning of the concerned sections within these policy documents (respectively 3.8 and 6.1.1), shipping is defined as being a comprehensive term which, in addition to commercial shipping, also includes fishing boats, tugboats, off-shore supply, and passenger- and pleasure-crafts. However, when looking at the measures to facilitate shared use of wind farms or minimize negative effects on each other, the measures proposed are commercial shipping oriented. An example can be found in the design criterion of 'safe distance between shipping routes and wind farms' which is meant for ships between 300 and 400 meters. Even though it is acknowledged by the policy makers that wind farms will lead to a higher concentration of vessels on sea space outside wind farms and the potential hazard this can cause to other small ships (Ministries of IE & EA, 2014; Ministries of IE & EA, 2015; Ministries of IWM, ANFQ, EAC, IAKR, 2021), it is not clear what explicit measures will be taken to ensure safety of the smaller ships.

That there was a lack of attention to smaller ships also became clear after the policy document on the North Sea 2016-2021 was made available for inspection. Recreational users responded by publishing a 'Joint Position of Recreational Shipping with regard to Wind Energy Parks in the Dutch Part of the North Sea' on behalf of the BBZ association for professional charters (Beroepschartervaart), platform water recreation (Platform Waterrecreatie), and the Dutch water sports association (Watersportverbond). In this joint position the recreational associations propose a series of measures to accommodate recreational users, hereby emphasizing their support towards the objectives related to the development of renewable energy sources (Koomen & Paternotte, 2014). After receiving the joint position of these associations, it was decided to add a 'Detailing of the project for passage and multiple use of off-shore wind farms' (Ministries of IE & EA, 2015).

4.1.3 Opening up wind farms

In the detailing of the project for passage and multi-use of wind farm space it is pronounced that from 2017 onwards, passage and joint use will be made possible in all operational wind farms (Ministry of IWM, 2015). Safety aspects appear to be leading when forming the conditions for multi-use. Since May 2018 it is possible to enter three off-shore wind farms along the Dutch west coast. The distributed survey on shared use of off-shore wind farms and involvement with the Dutch MSP process shows some interesting results regarding the passage of off-shore wind farms. Figure 4 shows that 20.8% of the respondents have entered an off-shore wind farm, but more than half of the respondents (50.6%) consciously avoid wind farms when sailing at the North Sea. Respondents wrote down their experiences with passing wind farms which can be categorized in three main themes. First, there are the recreational users who do/did not have any problems with entering a wind farm.

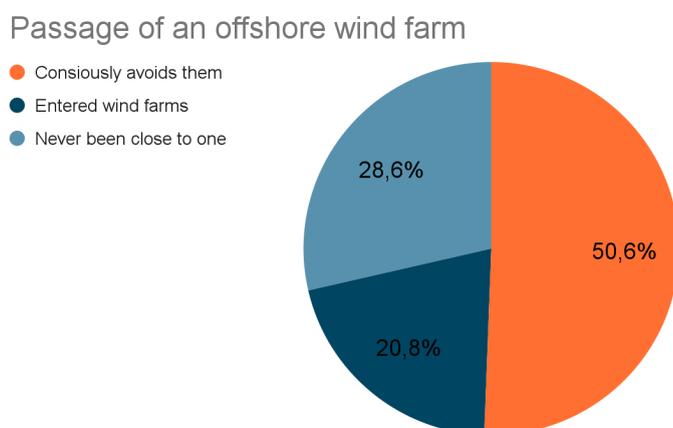


Figure 4 - Passage of an off-shore wind farm

Secondly, there are the recreational users who experienced entering or passing wind farms as being terrifying or dangerous. Causes for this were mostly the presence of currents and/or foggy or rough weather, but also the amount of impulses the sailors receive compared to an 'open' sea were mentioned often. The density of the windmills, the sound they make and in the evening the blinking lights they show are defined as being annoying and distracting. These are also likely reasons to avoid the wind farms. A linkage can be made to the case of England regarding the experience of passing off-shore wind farms. In their experience there are no significant bottlenecks when entering wind farms and they found that skippers take their responsibility in deciding whether they are experienced enough to either enter a wind farm or avoid them (Ministry of IW, 2015). This is in line with the fundamental rule of 'good seamanship', the first rule all skippers learn which emphasizes the importance of taking responsibility for your own actions. Even though the policy documents seem to focus on the financial consequences for wind farms in the case of collision, a sailor knows that he himself will have the biggest problem at that moment.

Third and lastly, there are the recreational users who experienced a lot of ambiguity. According to the rules of passage and shared use, entering a wind farm is only allowed when the concerned wind farm is in the exploitation phase. However, according to some respondents it is not always clear whether a wind farm is under construction, or when maintenance work is carried out. In these cases, passage is not allowed, but the parks are so big that it is not always possible to see at first glance that there are activities on the other side of the park. Additionally, the respondents mention that it is hard to keep track of newly realized wind farms and to maintain an overview of which parks are open for entrance. This last barrier is not experienced by the respondents as being an obstacle for the Dutch North Sea only. With the rise of similar sustainable developments in other countries, travellers by boat are missing a certain degree of uniformity of the rules regarding entering off-shore wind farms. Building on the lack of clarity regarding the shared use of off-shore wind farm space, the survey responses show that less than half of the respondents know the regulations regarding shared use of off-shore wind farms (*figure 5*).

Familiarity with regulations

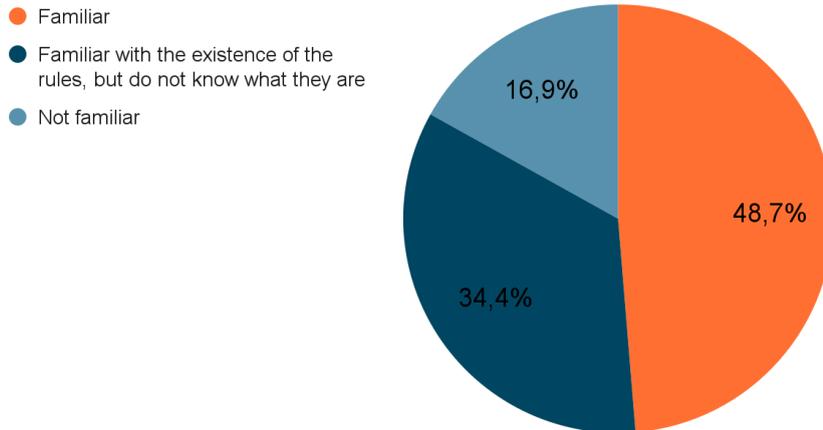


Figure 5 - Familiarity with regulations

Besides sharing their experiences with sailing through off-shore wind farms, the recreational users who responded to the survey also made suggestions on how shared use could look like. These suggestions are visualized and can be found in appendix 5, the suggestions can be seen both as solutions to the obstacles encountered as described in the previous paragraphs, as well as visualizations of where respondents think there are opportunities for multi-use.

4.1.4 Connecting results to the MU typology

Multi-use of sea space is one of the pillars in Dutch policy on planning of the North Sea. In this the Dutch government is in agreement with Gusatu et al. (2020) that multi-use offers balanced opportunities for all types of ocean use. In order to find out the type of multi-use of the combination of off-shore wind farms and recreational use, the above described results of the document analysis and survey are compared with the multi-use typology by Schupp et al. (2019). When the same space is being used at the same time, but there is no overlap in provisional or functional dimensions (there is no sign of sharing facilities of the wind farms with recreational boating or vice versa), this type of multi-use could be identified as being co-existent based on the typology by Schupp et al. (2019). However, Schupp et al. (2019) argue that in such cases there is a possibility of incidental overlap and a degree of involuntary combination between the marine uses. Based on the 'Joint Position of Recreational Shipping with regard to Wind Energy Parks in the Dutch Part of the North Sea' and the reactions on the survey, it can be determined with certainty that in this case there is indeed a degree of involuntary combination of marine uses. Despite this involuntariness, Schupp et al. (2019) stresses the need to work together and actively facilitate the presence of one another, in which clarity about rights and responsibilities of each user is necessary. The survey outcome already showed that at least amongst the

recreational users there is a lack of clarity about their rights to use the area within off-shore wind farms. This raises questions about the engagement of recreational users in planning off-shore wind farms on the Dutch part of the North Sea.

4.2 Participation in Dutch MSP

Another starting point of the policy documents on the North Sea and the national water programs encompasses the importance of creating added value for all stakeholders involved. That cooperation is a required factor when it comes to managing water and creating added value for all stakeholders, is being emphasized in the National Water Programs (Ministries of IE & EA, 2015; Ministries of IWM, ANFQ, EAC, IAKR, 2021). The following section will discuss the way Dutch policy on MSP addresses participation based on the document analysis and the extent to which recreational users are/were involved and want to be involved based on the survey. The section is subdivided by three topics, referring to the ones proposed in chapter two about stakeholder engagement (who to involve, how to involve them, and when to involve them). The three topics are then followed by an overview and discussion about the survey results concerning involvement in the Dutch MSP process. Finally, the outcomes will be linked to the ladder of MSP participation of Morf et al. (2019).

4.2.1 Stakeholders of Dutch MSP

Even though one of the starting points includes the importance of creating added value for all stakeholders, a few stakeholder groups stand out when looking at the policy documents on Dutch MSP. Energy producers, nature organizations, the military, commercial shipping, and commercial fishing seem to have a permanent place at the table (Ministries of IE & EA, 2015; OFL, 2020; Ministries of IWM, ANFQ, EAC, IAKR, 2021). Multiple reasons for the attention for these particular stakeholders could be identified by reading the documents. A few main reasons can be distinguished out of the various reasons why the focus is on these stakeholder groups. One of the main reasons is the economic value of some of these activities of which the share in the Dutch GDP is an important aspect. Commercial shipping, commercial fishing, and coastal tourism are such activities (Ministries of IE & EA, 2015; Ministries of IWM, ANFQ, EAC, IAKR, 2021). The reason coastal tourism does not have a solid place in the policy documents on the North Sea, is because their interaction with land is much greater and therefore are often represented by the concerned municipality, province or local water authority (Ministries of IWM, ANFQ, IAKR, 2021). In the case of nature protection organizations, it is often their lobbying and size of their constituency that makes them have a regular spot at the table (OFL, 2020).

A final important reason to own a spot at the table is the national importance of the concerned activity. Besides the activities with an added economic value to the country, the military and the sustainable energy producers are seen as parties of national interest (Ministries of IE & EA, 2015; Ministries of IWM, ANFQ, EAC, IAKR, 2021). The national interest of the military lies with ensuring the security of the country. The importance of including the producers of sustainable energy lies with the aim to achieve Dutch sustainability goals. Development of off-shore wind farms is therefore an activity of national interest. Even though the NOVI entitles the recreational use of the coast and the North Sea as of national interest (Ministries of IWM, ANFQ, EAC, IAKR, 2021). The details of this national interest are lacking as 'recreational' use has a variety of interpretations. In addition, if two or more national interests are in each other's way, the use of an assessment framework has to show which national interest should be given priority (Ministries of IWM, ANFQ, EAC, IAKR, 2021). With regard to the passage of off-shore wind farms, the policy document on the North Sea 2022-2027 (which is still open for inspection) shows that there will be made specially designated pathways for boats under 46 meter to pass the wind farms (Ministries of IWM, ANFQ, EAC, IAKR, 2021). This type of multi-use differs from the one where free passage of wind farms was possible since May 2018, as described in the 'detailing of the project for passage and multiple use of off-shore wind farms' (Ministries of IE & EA, 2015). This also conflicts with the wishes of the recreational users as described in the 'Joint Position of Recreational Shipping with regard to Wind Energy Parks in the Dutch Part of the North Sea'.

4.2.2 Participation plan

The documents analyzed show an increase of attention to participation over the course of time. The national water program and policy document on the North Sea published in 2015 mainly stresses the importance of cooperation between governments and stakeholders, with regard to public participation the general use of a strategy of 'informing-stimulating-acting' was mentioned (Ministries of IE & EA, 2015). The national water program design of 2021 gives increased attention to participation by presenting an additional participation plan (Ministry of IWM, 2021). A translated quotation from this plan reads as follows: "... *informal themed sessions and area sessions are organised for societal organizations, interest groups, and other authorities*" (Ministry of IWM, 2021, p.1). However, what the exact form of participation is and who specifically will be involved, is not clear from the plan. Rather, the participation plan displays a general strategy of shaping a participatory process. The generic description of how participation should look like, together with the changed elaboration of combining off-shore wind farms with recreational sea users, raises questions about the involvement of the recreational users. Was the decision to change the form of multi-use made in consultation with the recreational parties or was this a top-down decision, solely made by the relevant ministries? Evaluating the

content of the policy documents shows minimal details about the way recreational users were involved and at what point in the process they were involved.

4.2.3 Perspective of time

In the following paragraph the involvement of recreational users will be placed in perspective of time. Looking at what has been said by recreational stakeholders and how it is dealt with this information may give an insight into the degree of participation and when participation took place.

After the North Sea program design 2016-2021 was made available for inspection, a group of recreational stakeholders wrote a joint position regarding the shared use of off-shore wind farms. This gave rise to the addition of a detailing of the project for passage and multiple use of off-shore wind farms to the policy document on the North Sea 2016-2021. Hereafter, on May the first 2018, opening of the off-shore wind farms for passage took place. The regulations and code of conduct concerning the passage of off-shore wind farms was composed together with the earlier mentioned recreational stakeholder parties (Ministry of IWM, 2018). Even so in the year 2018, the Agreement on the North Sea was established. What stands out is the absence of the recreational parties at the establishment of the North Sea Agreement. Even though this agreement should present the conventions between the central government and stakeholders, the recreational parties are not a part of the agreement, despite previous attempts to have a stake by writing a detailed position. In this agreement free passage of wind farm space was replaced by the assignment of specially designated pathways. Even though the evaluation report on the shared use and passage of the off-shore wind farms that was published in 2020 did not show any objections towards shared use of off-shore wind farm space (Ministry of IWM, 2020). The North Sea program design 2022-2027, which used the Agreement on the North Sea as a starting point, adopted this proposed form of shared use of off-shore wind farms space. The bewilderment of the parties who wrote the joint position is apparent from various media channels.

4.2.4 Recreational users point of view

Part of the survey were the questions regarding the involvement of recreational users of the North Sea in the plan- and decision making within Dutch MSP. Of the 157 respondents, 9 indicated that they had been involved in the plan- and/or decision-making process regarding the planning of activities at the North Sea. Three of them filled in the survey of Rijkswaterstaat concerning their experience with sailing through off-shore wind farms, a survey that is part of the mentioned evaluation report by the Ministry of IWM. Two reported to have attended an information meeting about the subject and four people said they talked

about the topic with government officials. 148 respondents were not involved in the plan-and/or decision-making process regarding the planning of activities at the North Sea. However, to the question whether or not respondents would like to participate in the planning process and to what extent, 82.5% of the respondents indicated they would like to be involved to some degree (left diagram *figure 6*). In a future scenario, in which the number and size of offshore wind farms on the North Sea will increase, the will to be involved even rises to 89% (right diagram *figure 6*). In addition, there appeared to be a significant difference in the degree of involvement in the current situation of the Dutch North Sea compared to a future situation in which the number of off-shore wind farms increases (*figure 6*). Comparing the current situation with the future scenario, 22 respondents indicated that they would like to be more strongly involved in a future scenario with an increased number of wind farms. This for example means they would like to be 'passively involved' in the current scenario, but would like to be 'medium involved' in the future.

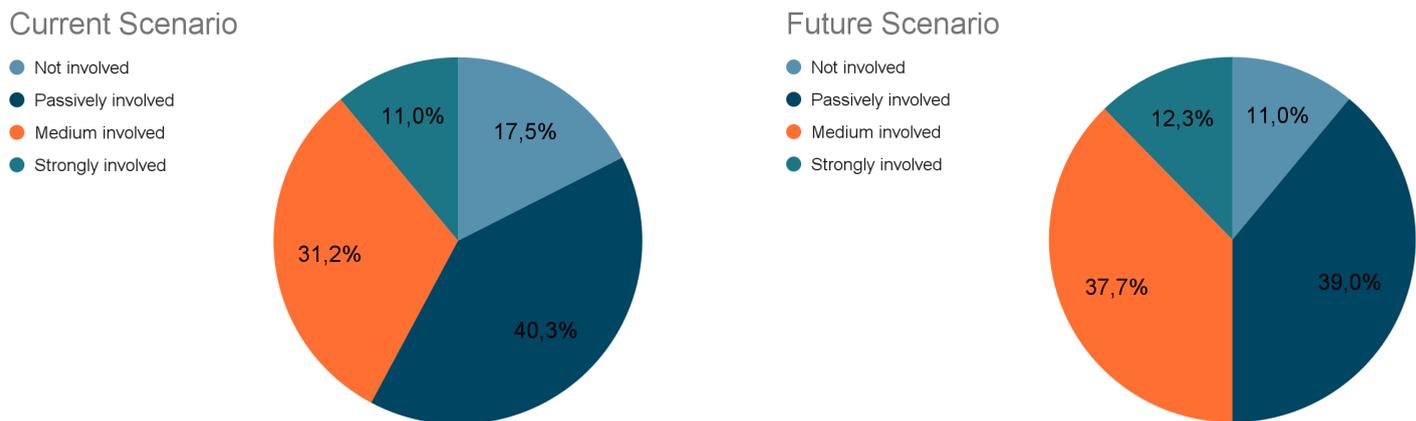


Figure 6 - To what extent do recreational users want to be involved

4.2.5 Placing results on the participation ladder

As creating added value and implementing multi-use are starting points of Dutch MSP, a certain degree of cooperation with stakeholders is expected. In order to achieve beneficial outcomes for the concerned stakeholders, meaningful engagement of these stakeholders including clear communication between them is necessary (Flannery et al., 2018). Who these stakeholders are, raises questions. The focus seems to be on stakeholders with a financial and/or national interest such as commercial shipping, energy producers, nature organizations, the military, and commercial fishing. This is in line with the findings in theory about stakeholder engagement in MSP and MU (Pomeroy & Douvere, 2008; Schupp et al., 2019).

The possibilities for inspection of the different policy documents and the fact that the ministries took into account the joint position written by recreational stakeholders, proves that the participation of recreational ladders has at least entered the second step from the bottom of the ladder (table 2). The recreational users are exercising their right to be listened to. Moving up to the next step of the ladder, evidence for entering this step can be found in the participation of different stakeholder groups regarding the drafting of the rules and code of conduct for entering off-shore wind farms. User knowledge is being used to set up these regulations and there was mutual exchange of knowledge. However, the concerning ministries were not obligated to accommodate all wishes of the recreational users. The reason the degree of participation of recreational users should not be placed on the fourth step of the ladder is that there is missing evidence for a consensus and needs-based collaboration. The absence of the recreational stakeholder groups at the table of the agreement on the North Sea strengthens the decision to not place the engagement on this step.

Following the expectation of the level of participation discussed above, the moment at which recreational users become involved in the planning process is food for discussion. Based on the time-line as described in paragraph 4.2.3, a lot of initiative of the recreational stakeholders themselves is necessary to gain a seat at the table. Regarding the attitude the concerned ministries take towards involvement of these parties, the attitude shows to be rather reactive than proactive. Additionally, in the face of developing off-shore wind farms, multi-use of the wind farm area is described as being of later concern (Matthijssen et al., 2018). However, both Pomeroy & Douvere (2008) and Gopnik et al. (2012) stress the importance of bringing stakeholders to the table at the beginning of the planning phase to come to innovative and longer lasting solutions. Even though the ministries themselves agree with these statements by declaring that “anticipating the possibility of shared use in a wind farm at an early stage will generally be more cost-effective than adding functions to a wind farm afterwards” (Ministries of IWM, ANFQ, EAC & IAKR, 2021, p.112). Adding to the cost-efficiency, it can be beneficial for the proper integration of shared-use activities in a wind farm to consult with the wind farm operator early in the process (Ministries of IWM, ANFQ, EAC & IAKR, 2021). However, recreational users seem to gain attention for involvement only after expressing their objections to proposed plans.

4.3 Discussing the results

In the case of the Dutch North Sea, it was determined that multi-use of off-shore wind farms in combination with free passage by recreational users can be typologized as being co-existent. In case of co-existence of multiple ocean uses, communication, exchange of information and knowledge, and clarification of rights and responsibilities are deemed necessary. In order to achieve a cooperation in which this can be established, the ladder of

MSP participation by Morf et al. (2019) was used to see what degree of participation this concerns. However, when future plans in which passage of off-shore wind farms is only allowed in designated corridors, it can be questioned whether there is a case of multi-use at all. And whereas Schupp et al. (2019) made several recommendations for managing the types of multi-use, no recommendations were given to manage (involuntary) non-multi-use. Does this mean no involvement of stakeholders is needed if there is no case of multi-use?

The answer to that question brings us to the spiral of the conceptual model. Going downwards in the spiral may indicate that a lesser extent of combining uses at sea asks for less stakeholder involvement, which may lead to a lack of ideas to apply multi-use. On the other hand, going upwards indicates that a higher degree of involvement may lead to more integrated plans of different ocean uses, which then leads to stronger cooperation. Connecting this to combining off-shore wind farms with recreational use, it can be concluded that the case of the Dutch North Sea took the way downwards. The lack of active involvement of recreational users may have led to the decision to shift from multi-using off-shore wind farms by means of free passage, to explicitly separating the uses. Reflecting on the ideas that MU can be either an outcome of a MSP process (Schupp et al., 2019) or a guiding concept (Przedzimirska et al., 2018), Dutch MSP concerning the development of off-shore wind farms shows a contradiction in how they see MU and how they use MU. Whereas the policy documents on the North Sea state that multi-use of sea space is being employed as guiding principle, in line with the idea of Przedzimirska et al. (2018), practice shows that the development of the wind farms is seen as starting point and any possibilities for shared use are only considered after realization of the wind farms. In the latter case, MU is seen as a possible outcome.

A possible reason why MU is not being used as a guiding concept is the top-down pressure by the Dutch government to develop enough sustainable energy sources to meet the Dutch sustainability goals. It was discussed earlier that activities with a great national importance outweigh other interests, this was confirmed by the interviewed expert. The interviewed expert added to this that there are too many different interests to involve at once in for example the North Sea Agreement. This indicates that Dutch MSP rather has a sectoral point of view than an integrated one, which can also be seen in how different parties make different attempts to gain a seat at the table. The top-down decisions together with the sectoral involvement of various interest groups and the reactively dealing with the input from recreational users indicates that there is a lack of collaborative planning. However, as it is believed that better involvement of stakeholders leads to more innovative and longer lasting plans, going upwards in the spiral of the conceptual model (*figure 3*), in which more participation leads to better integration of sea uses, is desired. The next chapter therefore

discusses the barriers that cause the case of the Dutch North Sea to go downwards in the spiral and the opportunities to go upwards.

5. Conclusion & reflection

The following chapter discusses the findings, reflects upon these findings, and implicates questions for further research in the field of collaborative MSP. First, in order to give an answer to the main research question the barriers and opportunities to involve recreational users are discussed. Secondly, implications of this study for both planning theory and practice are elaborated. Thirdly, a reflection upon the research will be presented. Finally, suggestions for further research will be given.

5.1 Barriers & opportunities

To give an answer to the main research question “*What opportunities and barriers can be identified regarding public engagement in the multi-use of off-shore wind farms along the Dutch coast?*”, the following sub-chapter discusses the identified barriers and opportunities.

A major barrier in public involvement within Dutch MSP is the position of recreational users at the stakeholder table. Even though the existence of this stakeholder group and their use of the sea is acknowledged by the governmental authorities, the questions about how and when they are involved by governmental authorities remain largely unanswered. Repeated attempts by recreational stakeholder groups to get a fixed spot at the table failed. Besides, in the cases these stakeholder groups were part of the planning process, this was mainly a matter of reactive involvement rather than proactive inclusion. Important reasons for the absence of recreational stakeholder groups at the earliest stages of the planning process are the lack of a financial and/or national interest. In addition, based on both the policy documents and the expert interview, the government seems to focus on the risks shared use of sea space entails. The Dutch government itself makes the choice whether or not to take the risk, but the other parties (such as recreational users) do not seem to play a role in making this choice. However, the survey outcome showed that users themselves make a conscious choice whether or not to enter an off-shore wind farm (*figure 4*), thereby weighing the risks themselves.

In the field of terrestrial spatial planning the lack of financial or national interest does not form a reason to exclude public users of a certain place from participating in the planning process. Localizing and reaching the concerned stakeholders may form a (mental) barrier for governmental institutions to include them. Or the ‘emptiness’ of the sea could create the idea that there is no significant stakeholder group. Despite the challenge to geographically locate the stakeholders, the conducted survey clearly demonstrated the interest of recreational users in the topic and showed that they are easily accessible when they are reached through the right channels. This can be linked to the so-called social community that can be involved in spatial plan-making (Healey, 1996; Pomeroy & Douvere, 2008).

The sense of community which is fundamental to social communities is based on common interests (Pomeroy & Douvere, 2008). Both the *'joint position of recreational shipping with regard to wind energy parks in the Dutch part of the North Sea'* (Koomen & Patternotte, 2014) and user survey show the interest of the recreational boating community in the use of off-shore wind farm space and above all their willingness to be involved in the plan- and decision-making regarding the development of off-shore wind farms. The survey showed ample suggestions on how multi-use could look like and what obstacles are encountered when sailing through or near off-shore wind farms. The suggestions made and obstacles identified by the users demonstrate that there is user knowledge and inspiration to create innovative solutions, according to Burby and Gopnik et al. (2003; 2012) reason enough to include public users in (marine) spatial planning.

But before taking a deeper dive into the precise application of these shared use suggestions, greater opportunities currently lie in involving stakeholders proactively in the planning process. According to the interviewed expert the demonstrated options for multi-use (appendix ...) show that the integration of these ideas should be done at the design table, a consequent first step to improve the inclusion of recreational users should be at that point. Listening to the ideas of recreational users before the off-shore wind farms are actually developed could increase the integration of multiple activities at sea.

After the integration of different activities at sea, clearly defining the rights and responsibilities of recreational users, improving communication and information provision regarding the quickly changing regulations concerning shared use, shifting accessibility of wind farms, and the development of new off-shore wind farms are at the top of the wish list of the recreational users. When adopting a more collaborative approach in which public users are part of the planning process, such wishes should be surmountable. If these desires are met, perhaps greater support to develop off-shore wind farms closer to the shore can be achieved. Increased participation then offers opportunities for both recreational users and the Dutch government in realizing sustainable energy sources.

5.2 Implications for planning theory & practice

In the first chapter of this research a knowledge gap regarding the appliance of public participation in MSP was determined. Flannery et al. (2018) suggested that MSP has to be further developed by engaging social science research that goes beyond a facilitative or informational role. Next to defining barriers and opportunities regarding public engagement in developing off-shore wind farms along the Dutch coast, this study tries to explore what barriers and opportunities regarding applying public participation in MSP in general can be identified.

The ladder in MSP participation by Morf et al. (2019) offers a step towards applying social sciences to MSP. However, who initiates participation is not taken into account in this model. Where does participation of public users in MSP start? Whoever initiates and creates the participation process, largely determines the degree of involvement (Daniels et al. 1996). This study showed that there is a difference in the degree of involvement between stakeholder groups which were part of the policy at forehand and the stakeholder groups that were handled reactively.

In the face of multi-use, the typology by Schupp et al. (2019) misses a distinction between voluntary and involuntary multi-use of ocean space. The recommendations made by Schupp et al. (2019) about how to manage multi-use imply that all concerned stakeholder groups already have a seat at the table and are part of the planning process. This study showed that the involvement of public users is not as common as in terrestrial spatial planning. When planning multi-use of ocean space, it is therefore important for planners to have reached out to public users at forehand of the application of multi-use. Thereby, this study shows that the role planners have in TSP should be translated to MSP to overcome the same challenges TSP had decades ago, challenges in which sectoral planning and a top-down approach were leading. MSP has to actively take into account the lessons learned from TSP.

5.3 Reflection

As this research mainly focused on the case of the Dutch part of the North Sea, the generalizability of the findings are limited. The empirical part of this study was derived from Dutch policy documents on the North Sea and therefore does not form a valid basis to draw lessons for other jurisdictions. This does not mean that the findings are not useful. Next to identifying barriers and opportunities regarding public engagement in Dutch MSP, the aim was to evaluate and expand current knowledge on public engagement in MSP. In addition does this study provide ample empirical data to make a contribution to the Dutch case alone.

Regarding the data collection and interpretation, it must be mentioned that the researcher herself is a recreational user of the sea. The possible author's bias mentioned in chapter 3 concerning the authors of the various documents analyzed, applies as well to the author of this research. Even though the author is even so in favor of the development of off-shore wind farms, the validation interview with an expert in the field of Dutch MSP minimizes eventual biased interpretations of the results. On the other hand, a researcher with an insider's view may offer refreshing insights to the researchers in the field without one.

Finally, this research has only made use of policy documents in outlining the attitude of the Dutch government towards public involvement in MSP as it is challenging to reach the authors. This means that no employees of the relevant institutions had the chance to elaborate on certain aspects and statements within the documents. However, as these

documents were aimed to be readable by the public and are part of transparent policy-making, extensive elaboration on the content should not be necessary.

5.4 Suggestions for further research

The limitations presented in the previous sections suggest that there is room for further research. First, additional research regarding differences between public users of sea space and public users of land provides a good starting point. In-depth exploration of the differences in localization, addressation, size, and sense of community are a few suggestions to gain better understanding about the way involvement of public users of the sea can be compared to public users of land.

Secondly, as this study focused on the case of the Dutch North Sea, similar research in other jurisdictions can offer enrichment on how participation should be applied in MSP. Such cross-case comparisons give insights into the differences and similarities regarding the appliance of participatory planning in MSP between countries and thereby create better understanding of what does or does not work.

Thirdly, this study investigated policy documents over a timespan of seven years in which multiple plans for multi-use of off-shore wind farm space were discussed. However, as the recently published plans are not final yet, change of plans and thereby change in the involvement of stakeholders is not excluded. In addition, the design of the North Sea is rapidly changing and the number of off-shore wind farms keeps growing. A longitudinal perspective on the involvement of recreational users in developing wind farms could possibly identify factors that contribute to this involvement.

Finally, the willingness of the survey respondents to discuss the research topic (37 respondents who left their contact details) shows that there is ample food for discussion and opportunities to execute a more in depth research about the involvement of recreational users in developing off-shore wind farms.

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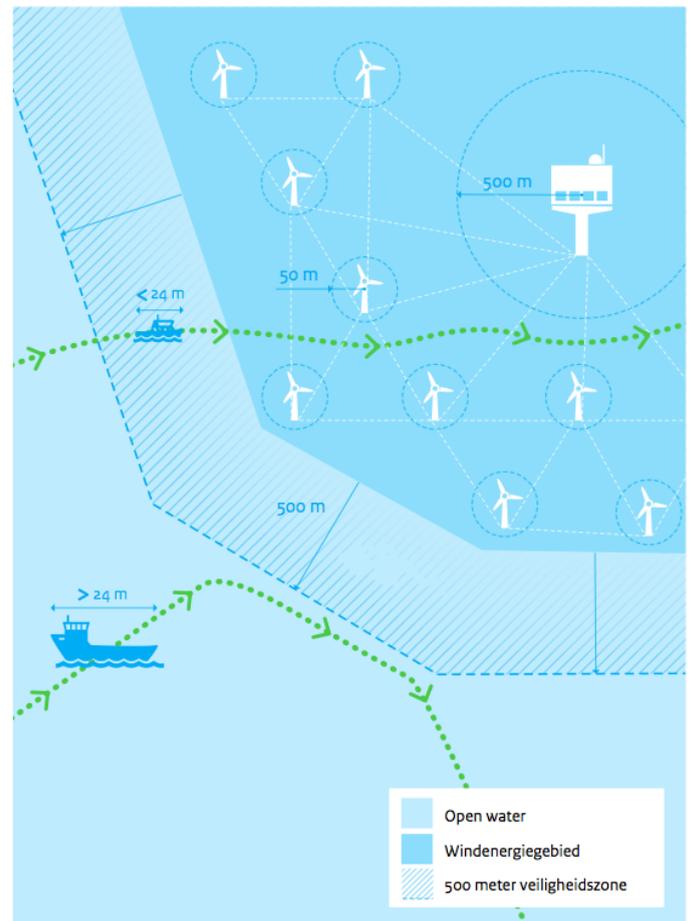
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Appendix 1 - Rules on entering offshore wind farms (Dutch)

De regels voor varen in windparken

	Het is verplicht een AIS transponder (minimaal klasse B) aan te hebben staan en VHF-kanaal 16 op de marifoon uit te luisteren en te reageren wanneer u wordt opgeroepen.
	De parken zijn alleen overdag toegankelijk (na zonsondergang is toegang verboden en strafbaar). De exacte tijden van zonsopgang en -ondergang van het KNMI zijn hierin bepalend.
	De windparken zijn alleen toegankelijk voor schepen met een lengte over alles (LOA) tot 24 meter.
	Het is niet toegestaan om de constructies in een windpark te betreden. Houd minimaal 50 meter afstand tot turbinepalen en 500 meter tot een transformatorstation. Dit geldt ook voor voorwerpen vanaf het vaartuig, zoals lijnen, dobbers en haken.
	Het is in de windparken niet toegestaan contact met de bodem te maken; bijvoorbeeld door voor anker te gaan of door met sleepnetten over de bodem te slepen.
	Alleen vissen met hengels is toegestaan, met inachtneming van bovenstaande afstandsregels.
	Overig vistuig wordt zo vastgemaakt dat het niet onmiddellijk kan worden gebruikt. Het vistuig moet zich in zijn geheel zichtbaar op het dek bevinden; zo is altijd duidelijk dat er niets over de bodem sleept.
	Activiteiten die binnen een windpark tot gevaarlijke situaties en hinder kunnen leiden, zijn verboden. Hieronder verstaan we onder meer duiken, kitesurfen en roekeloos vaargedrag. Verder is ook het overboord zetten van (vis)afval verboden.



Code of conduct for safe sailing through wind farms (Ministry of IWM, 2018)

Appendix 2 - Survey and raw data

Respondents: 157

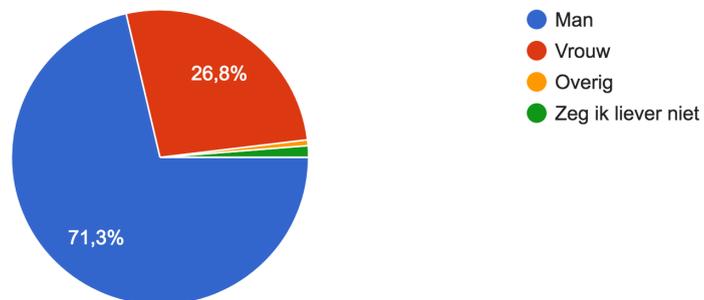
Questions concerning personal information

What is your gender?

- Male
- Female
- Other
- I'd rather don't say that

Wat is je geslacht?

157 antwoorden



What is your age?

- Drop down menu
 - 16-25 22 respondents
 - 26-35 23 respondents
 - 36-45 13 respondents
 - 46-55 40 respondents
 - 56-65 37 respondents
 - 66-75 18 respondents
 - 77-85 4 respondents

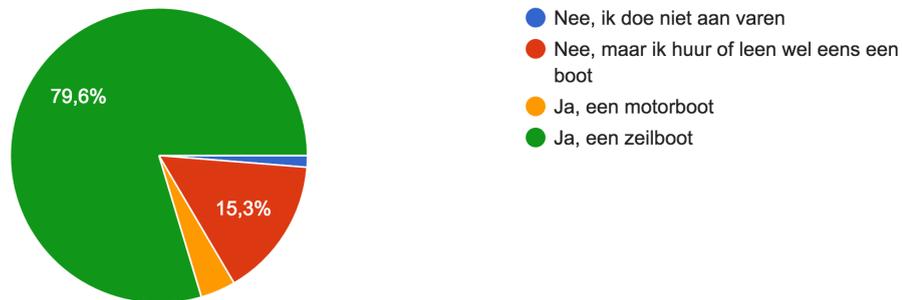
Questions about boat possession and sailing habits

Do you own a boat?

- No, I don't sail at all
- No, but I rent or borrow one sometimes
- Yes, a motorboat
- Yes, a sailing boat

Heb je zelf een boot?

157 antwoorden

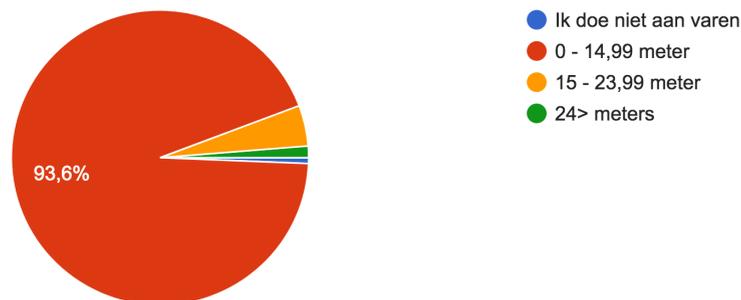


If you rent/borrow or have a boat, how tall is this boat?

- I don't sail at all
- 0 - 14,99 meter
- 15 - 23,99 meter
- 24> meters

In welke lengte categorie valt je boot of de boten die je huurt/leent?

157 antwoorden



Are you in possession of any sailing license?

- Multiple answers with open box

136 respondents were in possession of a license, the most common ones are listed below:

- Small boat license 1 67
- Small boat license 2 90
- VHF Radio certificate 109
- Large boat license 10
- Large pleasure boat certificate 11

(it is possible to have multiple licenses)

Sailing at the North Sea

Do you ever sail on the North Sea or are you planning to sail on the North Sea?

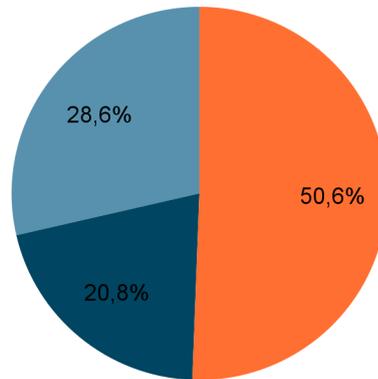
- No 93%
- Yes 7%

Have you ever entered an offshore wind farm with your boat?

- No, I've never been close to one
- Nee, I consciously avoid them
- Yes, I've sailed through offshore wind farms

Passage of an offshore wind farm

- Consciously avoids them
- Entered wind farms
- Never been close to one



If your answer to the previous question is yes, would you briefly share your experience below?

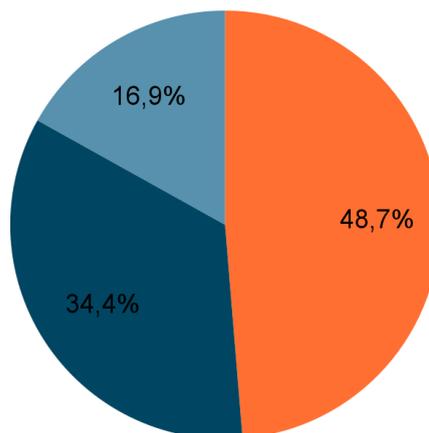
- Open question
 - 37 responses

Are you familiar with the regulations about sailing through off-shore wind farms at sea?

- No
- If heard of them, but don't know exactly what they are or how to find them
- Yes

Familiarity with regulations

- Familiar
- Familiar with the existence of the rules, but do not know what they are
- Not familiar



Questions about involvement

Have you ever been involved in the planning and/or decision making process of activities, such as the development of offshore wind farms, at the North sea?

- No 94.3%
- Yes 5.7%

If yes, how?

- I've filled in the survey of the ministry of IWM about my experiences with passing offshore wind farms (3 respondents)
- I've spoken to government officials (4 respondents)
- I've visited information meetings (2 respondents)

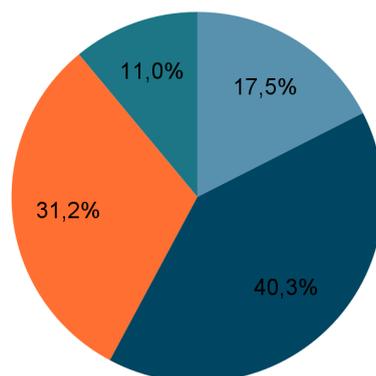
*Do you want to be involved in the decisions the government makes concerning the use of North Sea space?**

- No
- Yes, passively involved
- Yes, medium involved
- Yes, strongly involved

**Passively involved: such as receiving information about changes in use, project progress, regulations, etc. Medium involved: such as attending information meetings, brainstorm sessions, or providing input on the use of space at sea. Strongly involved: such as meeting other stakeholder groups, setting up information meetings, etc., entering into discussions with governmental authorities.*

Current Scenario

- Not involved
- Passively involved
- Medium involved
- Strongly involved

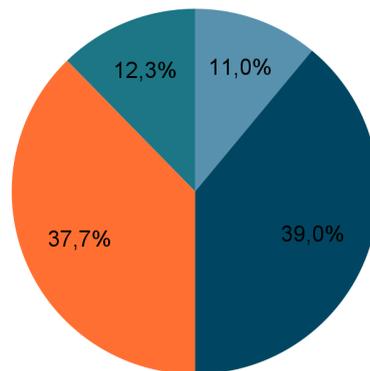


In a future scenario with an increased number of offshore wind farms at the North Sea, to what extent do you want to be involved in the decisions the government makes concerning the use of North Sea space?

- I still don't want to be involved in
- Passively involved
- Medium involved
- Strongly involved

Future Scenario

- Not involved
- Passively involved
- Medium involved
- Strongly involved



Do you have any ideas about how to combine offshore wind farms with recreational use?

- Open question
 - 85 responses

If you want to say more about the topic, you can leave your contact details below

- 37 respondents who left their contact details

Appendix 3 - Output SPSS

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
Betrokkenheid toekomst - Betrokkenheid nu	Negative Ranks	0 ^a	,00	,00
	Positive Ranks	22 ^b	11,50	253,00
	Ties	132 ^c		
	Total	154		

a. Betrokkenheid toekomst < Betrokkenheid nu

b. Betrokkenheid toekomst > Betrokkenheid nu

c. Betrokkenheid toekomst = Betrokkenheid nu

Test Statistics^a

	Betrokkenheid toekomst - Betrokkenheid nu
Z	-4,523 ^b
Asymp. Sig. (2-tailed)	,000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Betrokkenheid nu	1,36	154	,898	,072
	Betrokkenheid toekomst	1,51	154	,850	,068

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Betrokkenheid nu & Betrokkenheid toekomst	154	,898	,000

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Betrokkenheid nu - Betrokkenheid toekomst	-,156	,398	,032	-,219	-,092	-4,857	153	,000

Appendix 4 - Interview guide

Dutch version

Start interview

- Een korte introductie over dit onderzoek en de rol die dit interview daarin speelt
- Goedkeuring voor het opnemen van het interview vragen

Introductie

- Je bent onderzoeker op het gebied van MSP en energietransitie, waar hou je je op dit moment mee bezig binnen die vakgebieden?
- Beschouw je jezelf als een gebruiker van de zee en zo ja, wat voor gebruiker?

Vragen en mogelijk volgende vragen

- Wie zou jij identificeren als stakeholders van het Nederlandse beleid over de Noordzee?
- Welke van deze stakeholders worden volgens jou het meeste gehoord/worden het belangrijkste gevonden door de overheid en waarom?
- In welke mate is de pleziervaart betrokken bij de ontwikkeling van offshore windparken volgens jou?
- Zou de pleziervaart moeten worden betrokken en zo ja, op welk punt in het planning process zouden deze publieke gebruikers volgens jou moeten worden betrokken?
- Zie je verandering in de manier waarop pleziervaart of andere publieke gebruikers van de Noordzee worden betrokken bij de planvorming voor offshore windparken?

English version

Start interview

- A brief introduction to this research and the role this interview plays in the research
- Requesting approval to record the interview

Introduction

- You are a researcher in the field of MSP and energy transition, what are you currently doing in those fields?
- Do you consider yourself a user of the sea and if so, what kind of user?

Questions and possible follow-up questions

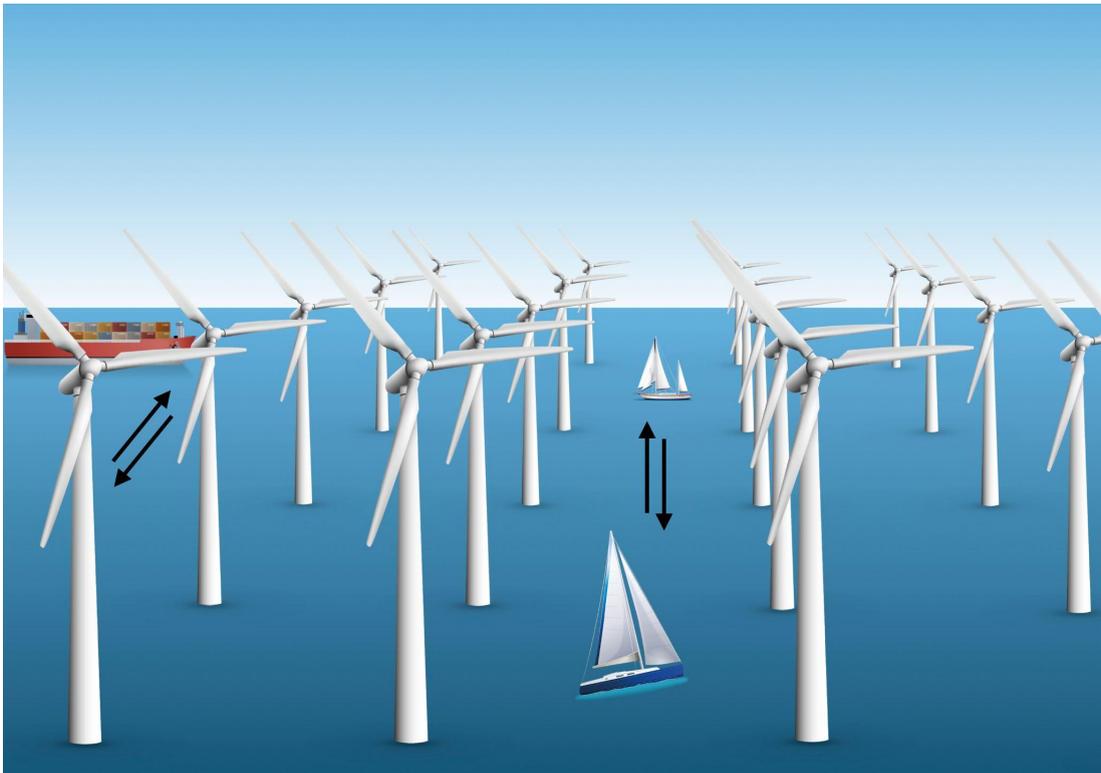
- Who would you identify as stakeholders of Dutch policy on the North Sea?
- Which of these stakeholders do you think are heard the most / are considered the most important by the government and why?
- To what extent do you think recreational users are involved in the development of offshore wind farms?
- Should recreational users be involved and if so, at what point in the planning process do you think these public users should be involved?
- Do you see a change in the way recreational users or other public users of the North Sea are involved in planning for offshore wind farms?

Appendix 5 - Visualizations of possible multi-use

Combining offshore wind farms with recreational use

Separate big and small ships

Clearly separating shipping lanes for transport vessels from pathways for small vessels. The idea originated from the fear to encounter large ships more often.



Marking routes

Making use of the placed windmills by giving them a color and in this way creating routes through the wind farms. This helps to make it clear what your position is within a wind farm or which way to get out.



Mooring Buoys

As anchoring is not allowed due to capables on the sea bottom, substitute 'resting' spots are requested. Sailing through wind farms can be quite overwhelming, places to take a break are therefore desired.



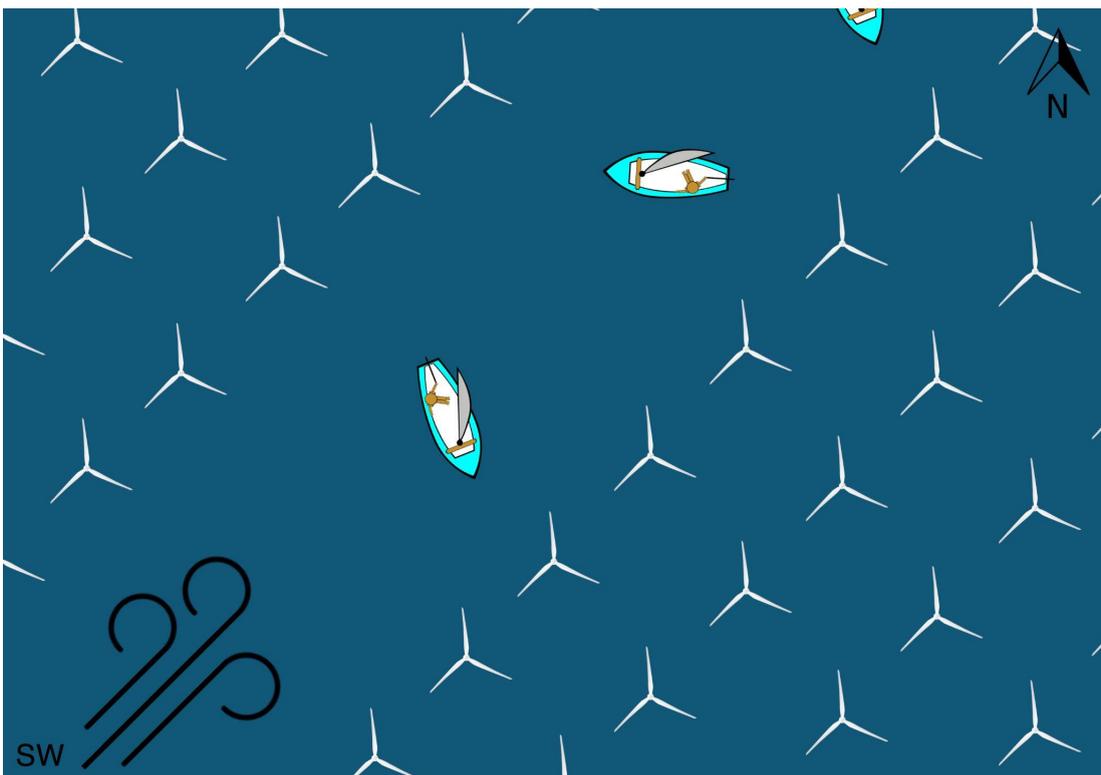
Corridors

Leaving broader pathways, specially designated for small sailing vessels who have to tack through wind farms.



Taking wind currents into account

In close relation to the previous suggestion; the shortest route is not always the fastest way for a sailing vessel. When implementing designated pathways, wind currents and tacking ships should be taken into account.



Multi-functional islands

In a future with artificial islands on the North Sea, for instance energy islands or islands for employees of energy producers, room should be reserved for recreational users. In this way they gain a resting spot, but also recreational users can be used to watch over the wind farms giving the recreational users a task of citizen control.

