BLUE MISSION BANOS

Supporting the Mission Ocean Lighthouse in the Baltic and North Sea Basins

Deliverable 3.1

Report on citizen engagement and concerns in the BANOS area with respect to sustainable blue economy

Grant Agreement number	**101093845**
Project title	BlueMissionBANOS – Supporting the Mission Ocean Lighthouse in the Baltic and North Sea Basin
Deliverable title	Report on state of the art of citizen engagement in the NSR and BSR, with respect to sustainable blue economy
Deliverable number	3.1
Deliverable version	V2.0
Contractual date of delivery	30.11.2023
Actual date of delivery	30.11.2023
Document status	Final
Online access	Yes
Diffusion	Public
Nature of deliverable	Report
Work Package	3
Partner responsible	VLIZ
Contributing Partners	VLIZ, GTK, UT
Author(s)	Mino C., Martens C., Sandra M., Debaveye L., Anseeuw S., Fockedey N., Seys J., Karoliina A. Koho, Liisi Lees, Eero Asmala
Project Officer	Daniele De Bernardi
Editor	Alberto Terenzi (SUB)
Approved by	Alberto Terenzi (SUB)
Keywords	BlueMissionBANOS, Mission Ocean, Citizen Engagement

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Authorship Table		
Authors	**Partner**	**Report Chapter**
Mino C., Martens C., Sandra M., Debaveye L.	VLIZ	Introduction
Debaveye L., Anseeuw S., Fockedey N. & Seys J.	VLIZ	Chapter 2
Karoliina A. Koho[1], Liisi Lees[2], Eero Asmala[1]	[1]GTK, [2]UT	Chapter 3

History of Changes		
Version	**Publication date**	**Changes**
V0.1	28.06.2023	Initial draft and template
V1.0	26.09.2023	Complete Draft
V1.1	09.10.2023	Internal Review
V1.2	01.11.2023	External Review
V2.0	10.11.2023	Final Document

BLUE MISSION BANOS

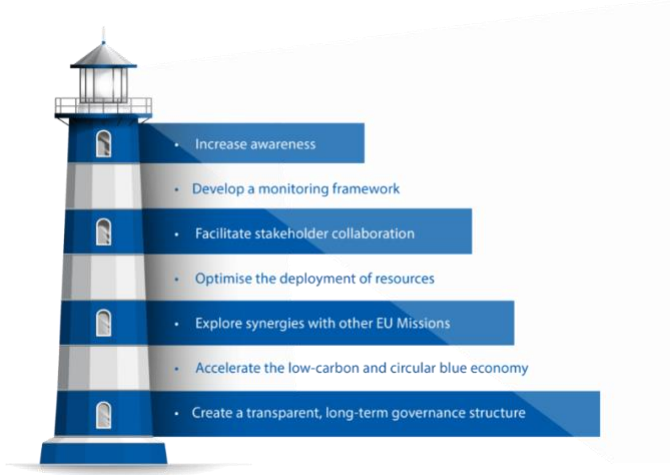
BLUEMISSIONBANOS PROJECT

BlueMissionBANOS (BMB), as a Coordination and Support Action (CSA) for the Baltic and North Sea (BANOS) Mission Ocean Lighthouse, inspires, engages, and supports stakeholders across the BANOS region in taking positive action to reach the Mission Ocean objectives. In particular, we facilitate the uptake of a sustainable, carbon-neutral, and circular blue economy by connecting national, regional, and transnational actors from politics, industry, and science, thereby creating a governance model that is conducive to innovation.

While fostering the transition towards the blue economy, BlueMissionBANOS supports the prevention and elimination of water pollution and the protection and restoration of biodiversity and marine and freshwater ecosystems. The project focus is on reducing governance fragmentation, facilitating evidence-based decision-making and fostering citizen engagement across the BANOS area. These supporting actions raise awareness, showcase opportunities, and inspire stakeholders to actively contribute to the transition and the preservation of oceans, seas and waters to 2030 and beyond.

To accelerate the transition towards an innovative and circular blue economy, in line with regions' strategic priorities, as defined by their Smart Specialisation Strategies (S3), BlueMissionBANOS organises regional pilot demonstration arenas (Mission Arena) involving innovators, business support and training organisations, local stakeholders and any interested parties to accelerate the uptake of innovative solutions in support of Mission Ocean. Furthermore, BlueMissionBANOS develops a consistent monitoring framework to assess progress in achieving carbon neutrality and circularity.

Finally, BlueMissionBANOS facilitates synergies and matchmaking between actors working towards achieving the Mission Ocean objectives in the BANOS area, by providing a catalogue of services, technical expertise and projects that can foster progress, collaboration and knowledge sharing. The BlueMissionBANOS project is funded under the call HORIZON-MISS-2021-OCEAN-04 by the European Union under Grant Agreement ID 101093845 and runs from December 2022 until November 2025.



BLUE MISSION BANOS

TABLE OF CONTENT

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

LIST OF FIGURES

LIST OF TABLES

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

BLUE MISSION BANOS

ACRONYMS

BANOS	Baltic and North Sea
BE	Blue Economy
BMB	BlueMissionBANOS
BSR	Baltic Sea Region
CE	Citizen Engagement
CS	Citizen Science
CSA	Coordination and Support Action
EC	European Commission
EEZ	Exclusive Economic Zone
GTK	Geological Survey of Finland
IMTA	Integrated Multi-Trophic Aquaculture
MSP	Maritime Spatial Planning
MUP	Multi-Use Platform
MUS	Multi-Use of Space
NGO	Non-Governmental Organisation
NSR	North Sea Region
OECD	Organisation for Economic Cooperation and Development
PE	Public Engagement
PP	Project Partners
Prep4Blue	Preparing the Research & Innovation Core for Mission Ocean, Seas & Waters
SBE	Sustainable Blue Economy
UT	University of Tartu
VLIZ	Flanders Marine Institute
WP	Work Package

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

EXECUTIVE SUMMARY

Oceans and the seas create benefits for all, but they risk being overexploited without regard for the consequences. This creates the need for broadly accepted rules and conventions on space planning, citizen engagement, regional cooperation, maritime security, and international policy (COM (2021) 240). Mission Ocean, as part of the EU Horizon Europe set of ambitious Missions, strives to make the sustainable blue economy carbon-neutral and circular by 2030, whilst eliminating pollution and restoring ecosystems and biodiversity. Focused on the Baltic and North Sea Lighthouse, the BlueMissionBANOS project has as its ambition to inspire, engage, and support stakeholders across the region in taking positive action to reach the Mission Ocean objectives.

Strengthening the citizens' emotional connection to the ocean and seas is an important part of the Mission Ocean objectives. It is in this framework that chapter 2 of this report presents a curated catalogue with initiatives across all levels of engagement, illustrating the width of opportunities for citizen engagement (CE) in the BANOS area. This mapping exercise not only considers ocean literacy and citizen science initiatives but also brings light to cultural and social networks. A selection of CE examples is highlighted in informative sheets to show the pros and cons, an estimate of the required budget, and a comprehensive description of these noteworthy projects.

Furthermore, to broaden our understanding of citizen engagement and concerns, Chapter 3 delves into the concerns of stakeholders, including citizens, revealed in the stakeholder consultation regarding Maritime Spatial Planning (MSP). Across the BANOS region, this chapter identifies stakeholder issues on the rapid, ongoing development of the sustainable, carbon-neutral and blue economy. In addition, selected case studies based on recent literature are included to illustrate sector-specific concerns. A schematic overview of the results, including the most common conflicts and concerns experienced by the BANOS MSP stakeholders, is presented.

To wrap up, the final chapter brings together the take-home messages from this report. Building successful public engagement requires adequate inclusion of all sectors as well as trust between stakeholders, making them key steps to boost the sustainable blue economy across the BANOS region. Furthermore, the most common concerns in the MSP process are presented together with key actions to overcome them. We invite you to get submerged into the public engagement sea and explore its role as enabler for bringing the blue economy forward.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

1. INTRODUCTION

1.1. MISSION OCEAN

EU Missions are based on the idea that complex societal challenges require a coordinated effort across Europe to deliver impact. The Missions go beyond the existing instruments and support the priorities of the Commission. Within this context, the Mission Restore our Oceans and Waters, hereinafter Mission Ocean or the Mission, seeks solutions for the greatest challenges related to the health of our ocean, such as the anthropogenic, climate-driven changes, which in turn place our societies at risk (COM (2021) 609).

> *'The Mission is urgent. Preserving and restoring the health of our ocean and waters is about preserving our life and all life on this planet. It is by joining our efforts that we will regenerate marine habitats, bring back fish populations, and make our blue economy more sustainable"*
> ~Virginijus Sinkevičius, Mission Ocean Annual Forum, Brussels 2023.

The Mission Ocean and its ambitious objectives (Figure 1) require dedicated efforts from many areas, such as research and innovation, blue investments, and **citizen engagement**. The Mission engages citizens at various levels across Europe. At a basin level, it aspires an active involvement of citizens to bring forward a transition of healthy oceans (European Commission 2022). Regional engagement and cooperation are supported through area-based 'Lighthouses' in major sea basins such as the Baltic Sea and North Sea, also referred to as the BANOS region (European Commission 2023). Lighthouses are pilot sites (i.e., BANOS) to demonstrate, develop and deploy solutions linked to achieve the Missions' objectives (COM (2021) 609).

Figure 1. Mission Ocean Objectives

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

1.2. SETTING THE SCENE IN CITIZEN ENGAGEMENT

The complex and dynamic nature of the current environmental problems requires flexible and transparent decision-making processes with a diversity of knowledge and values (Huttunen et al. 2022). Engagement of citizens can increase the transparency and creativity of the decision-making process while boosting the awareness of the public about environmental issues and a positive attitude towards sustainable development (Roniotes A et al. 2015). The role of citizens is pivotal in building innovative solutions for development challenges and increasing ocean sustainability (UNESCO 2021; World Bank 2023). Citizen engagement empowers participants to act for sustainability, it can enable decision-making and plays an essential role in increasing adaptation to climate change and its mitigation (Vohland et al. 2021).

Under the premise of *'Anyone affected by a decision has the right to be involved in the decision-making process'*, **public participation** can be defined as a process by which public concerns, needs and values are incorporated into governmental and corporate decision-making, with an overall goal of better decisions supported by the public (Creighton 2005). The adoption of a citizen-centric worldview promotes the democratisation of science, generates action-oriented knowledge and fosters a transition towards sustainability (Holmes 2011; Huttunen et al. 2022).

Citizen engagement refers to the process in which citizens and communities, whether urban or rural, coastal or landlocked, are empowered to make informed and ocean-literate behavioural choices. These can be very broad, ranging from informing and consulting to co-creation and co-design (UNESCO 2021). For the present report, the terms citizen engagement and citizen or public participation will be regarded as synonym terms.

Tackling environmental problems requires diverse knowledge and values, citizen participation, including indigenous communities, is thus regarded as an important element to integrate for environmental planning and decision making (Huttunen et al. 2022). Early mention of citizen engagement as a feature key to response climate change was in 1992 with the Rio Declaration, where Principle 10 included goals in citizen participation and engagement for climate actions (Hügel and Davies 2020). The European Parliament in 2021 highlighted the importance of citizens' participation to enhance legitimacy of the EU and increase of public trust therefore calling for permanent mechanisms to encourage and facilitate citizens participation in EU decision-making processes beyond existing channels such as voting (European Parliament 2021).

The democratisation of the participatory processes brings benefits such as an increased engagement of citizens in policy making which in turn enables them to actively steward the democracy at legislative and administrative level (Alemanno 2022; Holmes 2011; Roniotes A et al. 2015). Another advantage of citizen engagement includes input of expert knowledge (including indigenous and traditional knowledge) that goes beyond the immediate realm of information, expertise, and advice, while it offers opportunities to educate people about policy alternatives (Holmes 2011). Furthermore, in the context of the EU Missions the people is regarded as the heart of the European Agenda and engagement is recognised as a potential for mobilisation of citizens around common goals and instrumental to build change (European Commission 2022).

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

In science, including the public can seem as complex as the environmental problem at stake, yet, with the right format and set-up, citizen engagement can bring many benefits (see Table 1). Incorporating or even starting out a project from the public is contrary to the traditional scientific approach where scientists do the experiments and communicate their findings afterwards. Nonetheless, to solve complex and ambiguous environmental problems, citizens are essential to include in the journey. If citizens might be affected by a certain problem or a possible solution for an environmental problem, then they should be considered as stakeholders and be included in the project. With these complex challenges, special attention must be given to social inclusion, making sure specific affected groups are not overlooked, are included and heard (McHugh 2023a). Especially, in the light of Mission Ocean, on equal inclusion of all genders, races, indigenous groups, and people living in non-coastal areas possibly affected by these complex problems.

Table 1. Opportunities for citizens (bottom-up) and scientists (top-down) to include public engagement in a research strategy (West 2017).

Opportunities for citizens (bottom-up)	Opportunities for scientists (top-down)
Having a voice	Raising awareness on a topic, improving ocean literacy
Getting insight into science	More balanced research (More data or more included perspectives)
Aid in solving complex problems	Behavioural change

Although public participation encompasses several benefits, it also conveys challenges, e.g., who should participate, how should citizens participate, and how to measure an effective participation, what is the best level of the engagement for each purpose, etc. There are no doubts that CE is complex and contesting in itself (Wiarda et al. 2023), for instance there is no consensus on a methodology for measuring public participation (Rowe and Frewer 2004). However, unpacking all the challenges will change with the goal of the engagement or the format chosen (Wiarda et al. 2023). With more attention placed into the citizen engagement, tools are becoming available to tackle such challenges (e.g., Toolbox for Citizen Engagement – Prep4Blue), simultaneously, sharing examples of good practices can inspire actors to transpose new formats into different applications or adapt towards expected outcomes.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

1.3. BLUEMISSIONBANOS WP3 – CITIZEN ENGAGEMENT

BLUEMISSIONBANOS PROJECT

The EU-funded project BlueMissionBANOS is a Coordination and Support Action (CSA) for the Mission Ocean, which aims to inspire, engage, and support stakeholders in politics, industry, and science across the BANOS basin. Hence, it channels resources effectively towards the Mission Ocean objectives to take the necessary actions to make the blue economy carbon-neutral and circular by 2030, whilst eliminating pollution and restoring ecosystems and biodiversity. Furthermore, BMB emphasises the importance to increase awareness across citizens in all age groups in the BANOS area by strengthening collaborations with and among existing and emerging citizen engagement networks, approaches, and activities with the Mission, providing insights, tools, and support to them for increased involvement of citizens.

The connection of citizens with the ocean is complex and diverse, and many citizens are unaware of the importance of the ocean in their lives. This discrepancy represents a barrier to catalyse the scale of change required to revert the degradation of our ocean and waters (Lamy et al. 2020). As mentioned above, citizen engagement is at the core of EU projects. Thus, BMB maximizes citizen engagement by supporting those who are already active **while stimulating new players to act more effectively.** The activities under this goal contribute to an increased awareness of citizens of all ages in the BANOS area by creating added value for existing and emerging citizen engagement networks, approaches, and activities, strengthening their collaboration with the Mission, and providing insights, tools, and support to increase involvement of citizens. To this end, it supports the following specific objectives:

- SO3.1: Contribute towards a stronger emotional connection between the public/society and aquatic ecosystems.
- SO3.2: Contribute towards a deepened engagement and empowerment of citizens and youth in the preservation and restoration of oceans and waters.
- SO3.3: Support a heightened interaction and dialogue regarding themes related to a sustainable, carbon-neutral, and circular blue economy between citizens, students, industry, and policy makers.
- SO6.1: Develop and curate an open catalogue of public and privately funded projects and initiatives (including citizen initiatives), funded at EU, national and regional level related to the Mission Ocean objectives – with emphasis on showcasing transferable results both inside as well as outside the BANOS region.

BMB WORK PACKAGE 3: CITIZEN ENGAGEMENT

WP3 activities focus on informing and involving the general public, in the BANOS area, on the rationale of Mission Ocean. Since a successful citizen engagement does not rely solely on the citizens themselves, the present work also connects to WP2, which focuses on the policy processes, and WP4, that looks for a fruitful cooperation with industry partners. Although both, policy (WP2) and industry (WP4) embody relevant stakeholders, the existing networks of citizen engagement and its activities (WP3) can contribute and add value by strengthening collaborations for the transition of a

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

sustainable, carbon-neutral and circular blue economy across the BANOS area. The current deliverable reports the activities under task 3.1 – **Mapping Mission Ocean relevant Citizen Engagement actors and initiatives** – which aims to describe the knowledge and information that is available and can be built upon to develop and enhance citizen engagement.

The aim of this report is to provide an overview on the existing citizen engagement actors and initiatives to inspire further engagement with the public in the BANOS region. Additionally, it shares the first insights into the regional trends of the stakeholder consultation for the MSP related to blue economy activities. Building on previous similar mapping exercises (e.g., BANOS, EU4Ocean, Prep4Blue), this report includes a non-exhaustive screening of initiatives in citizen engagement, presented in a **curated catalogue of public engagement activities** connected to the blue economy. Considering the wide range of initiatives that touch upon Mission Ocean topics, it contains not only ocean literacy activities but also relevant citizen science, cultural and social networks.

Additionally, task 3.1 takes a dive into an example from the wide field of citizen engagement formats and focuses on the stakeholder consultation in the framework of the MSP in the BANOS countries. Based on national-level surveys, a schematic overview of concerns and challenges related to sustainable, carbon-neutral and circular blue economy related activities is provided.

By mapping the scene, the current task 3.1 forms a baseline for further engagement with stakeholders at a local level (task 3.3) and liaising with the Reference Group[1] at a regional level (task 3.2). Within WP3, tools, blueprints and guidelines that prompt the involvement of citizens in the implementation of the Mission objectives in the BANOS region will be co-designed with and validated by the Reference Group. Simultaneously, this process is constantly validated and strengthened with the information of the local focus sites in three major but non-exclusive sites: Belgian North Sea Coast, the Danish straits, and the Gulf of Gdansk.

1.4. REPORT STRUCTURE

Considering the previous context, this deliverable includes a first approach to the results of task 3.1. Starting with the current introduction chapter, the report will follow with two thematic chapters and a last one with closing remarks. The thematic chapters present a short introductory part setting the background of their content, a description of their methods and the analysis of the obtained results. The structure can be described as it follows:

Chapter 1 – An Introduction to citizen engagement: sets the scene in the framework of the present project and the realm of the current report.

Chapter 2 – A mapping of public engagement formats: includes a curated catalogue of initiatives related to citizen engagement in the BANOS area; considering not only ocean literacy and citizen

[1] Citizen Engagement Reference Group: a group of stakeholders relevant for citizen engagement in the BANOS area created under BlueMissionBANOS.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

science but also cultural and social networks. In addition, several good practices and barriers for citizen engagement across the region are provided.

Chapter 3 – Example from the field: Rising concerns in the region: focuses on a practical instance of public participation, specifically the stakeholder consultation in Marine Spatial Planning (MSP). This chapter presents a schematic overview based on the most common conflicts experienced in Marine Spatial Planning stakeholder consultation processes within the BANOS region.

Chapter 4 – Take home messages: A recap of the report presents the most relevant messages to keep from the different tasks to summarise take-home messages.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

2. MAPPING OF PUBLIC ENGAGEMENT FORMATS

2.1. SETTING THE SCENE

Decision-making, corporate ventures or scientific research is more and more connected to the general public. Gone are the days when these processes were reserved for experts, safely hidden in their ivory towers.
For example, in the early stages of scientific research, hypotheses were tested by executing empirical research. Experiments founded the stepping stones of scientific laws and brought out environmental concepts that we still use to this day. If certain natural concepts were unsure, more quantitative data had to be gathered to be able to draw a neutral and scientific conclusion (Schumacher and Gortner 1992). In this view, science is seen as neutral, autonomous and 'pure'. Only science can make objective statements about society. Therefore, in this line of thinking, society is indirectly excluded from the scientific narrative. Along similar lines of thought, this narrative emerges not only in science but also in multiple sectors, linked to marketing, policymaking or even the private industry. Citizens or stakeholders were not often included in voicing their opinion on decisions that might affect society.

The toolbox of Bjørkan et al (2023) describes the shift from this traditional view of science to a new perspective, post-normal science. Post-normal science was first introduced by Funtowicz & Ravetz (1993) and depicted as a new train of thought on scientific values and purpose. However, this concept can be applied to many sectors that are slowly interacting more and more with the public space. The idea of post-normal science is that for complex and conflict-bound societal challenges, traditional science does not suffice anymore, and scientific knowledge is uncertain. Challenges such as climate change, plastic pollution or transitioning to clean energy raise many voices and are topics that are under pressure by the public, political agendas and market forces. To be able to navigate these complex problems, in which multiple opinions and ideas are present, a democratic approach to science is needed. Merely informing citizens with 'objective' facts, does not work anymore in finding a solution for these environmental questions. Another approach, involving multiple voices and disciplines, urges itself onto the scene. Decision-making can no longer be separated from society considering the complex environmental challenges we are facing today. The need for active engagement of citizens in societal matters transgresses the scientific boundaries and seeps into the Mission Ocean objectives as well.

The idea of fully autonomous decision-making, disconnected from societal influences, strengthened by data generated by experts, needs to be adapted to fit the current environmental situation. Multifaceted problems call for multifaceted solutions, translating into the inclusion of sensitive and subjective nuances in research where needed. In the goals of BlueMissionBANOS, focus is set on creating a carbon-neutral and circular blue economy in the Baltic and North Sea area. According to the toolbox mentioned earlier, these two objectives classify as complex challenges in dire need of a "post-normal science approach".

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

EXPLORING THE PUBLIC ENGAGEMENT SPECTRUM

But how can the ambitious Mission Ocean objectives be harmonised with the inclusion of public opinion and, ultimately, with society? The Prep4Blue project highlights the importance of public consultation and mobilisation for complex environmental challenges for the success of Mission Ocean (Bjørkan et al 2023). Citizens' support of Mission Ocean can be effectively achieved through various forms of public engagement (PE).

Here PE is defined, according to Prep4Blue, as 'when individuals from diverse backgrounds and expertise engage with knowledge-production and/or decision-making in a collective endeavour'. Public engagement is not a one-size-fits-all approach and entails many different engagement types, all with their own purpose. Depending on which goals your organisation, company or research group envisions and which resources are available, various engagement strategies can be employed to engage the public in your specific topic.

Rowe & Frewer (2005) delve into the ways in which PE can be efficient in conveying information to and enacting change from the public. In the study, they identify three aspects of engaging the public (Figure 2).

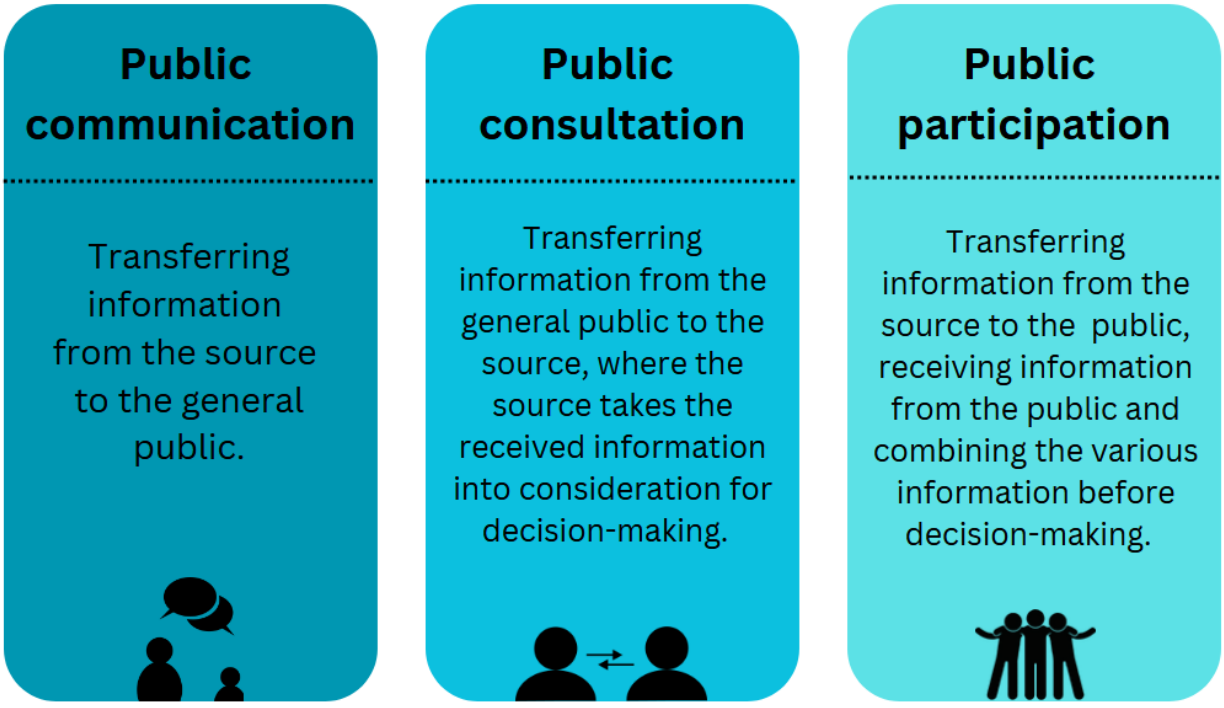


Figure 2. Three general aspects of public engagement. (Based on information from (Rowe and Frewer 2005b)

In the toolbox of Bjørkan et al (2023), a ladder of public engagement (Figure 3) is proposed to further determine which engagement type suits your environmental challenge and which actors and input type needs to be included in your problem-solving strategy.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

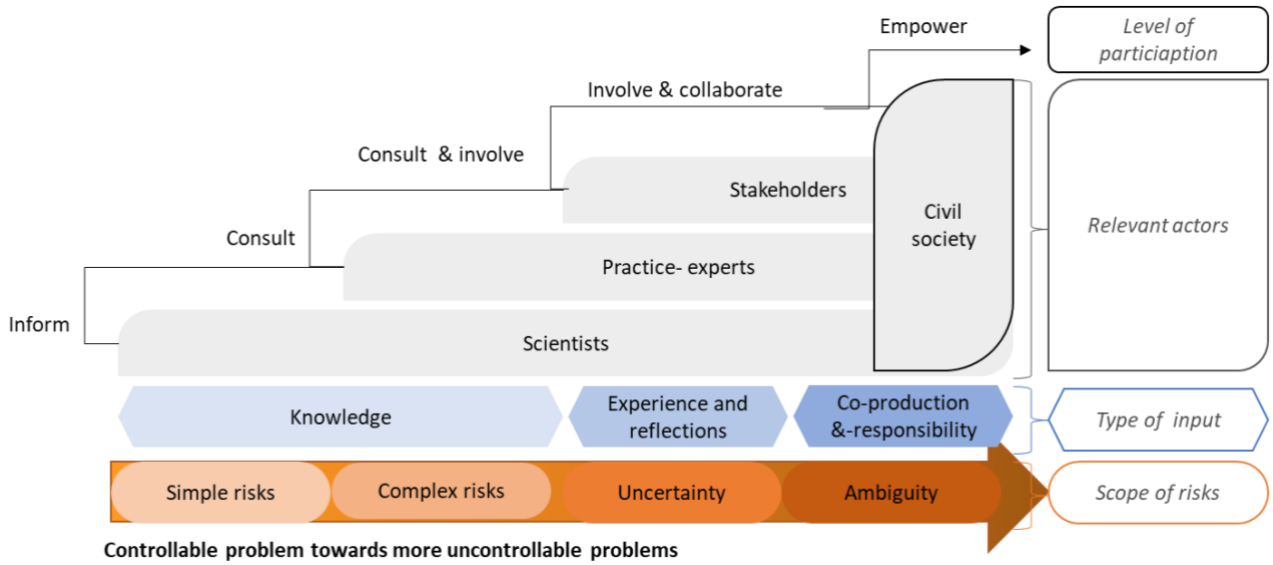


Figure 3. Recommended ladder of actor engagement according to the scope of risks and expectations for participation. Note that it is always possible to open up for citizen participation at all levels of risk (Bjørkan et al 2023).

If your project deals with the level of harmful blue algae in a lake with a swimming area for tourists, then setting up a baseline, determining a safety threshold and informing the public about it (whether it is safe to swim) can suffice. Knowledge transfer to the broader public can solve this simple risk. However, if you aim to conserve a part of the Amazon used by local communities and farmers, which and is eyed by possibly interested mining companies, setting up an operation strategy might not be so straightforward. In the latter, many opposing views might make the negotiating process very challenging, especially when having to come to a decision consensus at the end. On the engagement ladder, it is indicated that merely informing the public (left side of the ladder) will not be enough for such an intricate problem.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

We move further up the ladder to complex or even uncertain or ambiguous problems or risks. Here, different groups of people need to be involved in the project to make a thought-out and balanced conservation plan. Involving various stakeholders, experts, scientists and even citizens (civil society) is essential in creating support and confidence in future environmental decisions.

Note that every engagement strategy (e.g.: informing, consulting, etc.) comes with an associated participation level citizens experience and the project needs for it to work. For example, to empower citizens, high participation from their side is needed as well as high time investments from the project's side (Figure 4).

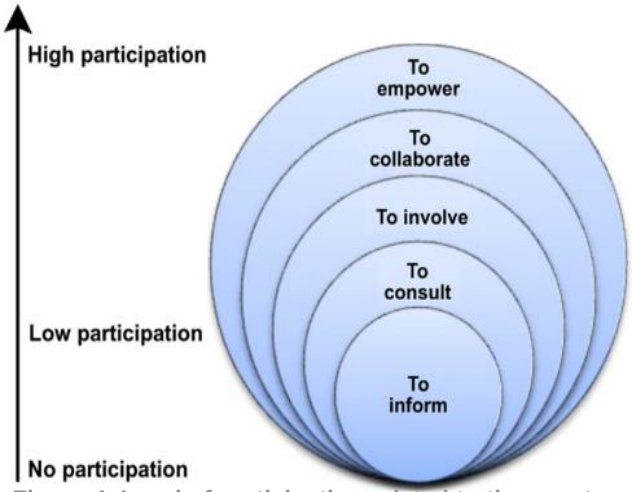


Figure 4. Level of participation related to the spectrum of participation (adapted from International Association for Public Participation, 2007) (Disterheft et al. 2012)

CHANGING THE TIDE BY CHANGING BEHAVIOURS

When working with citizens or (professional) stakeholders, you are indirectly working with human behaviours. By including them in the Mission Ocean ambitions, you hope to spark awareness, emotional connection and ultimately, a behavioural change that can solve the complex environmental challenges our ocean and waters are facing today. For example, if your project aims to improve the sustainable fishing practices of a local community, you hope that the fishermen will change their fishing behaviour towards a more sustainable one. It is not enough to inform them of the best fishing practices they should use without consulting them. You might have an idea of which fishing methods they use and how the fishermen operate, but if you do not include them, these are mere assumptions.

What drives them? What are their motivations, their values? Why do they do what they do? The local community's way of life is 'at stake'; hence, they should be an essential stakeholder group in your project. Their behavioural change is your end goal. Getting to know them and fostering an open discussion on which new methods might work and which wouldn't is the key to solving this aquatic equation.

In the work of Patricia McHugh (2023), the concepts of social inclusion and a focus on behavioural change for challenging societal problems are at the forefront. Four other aspects must be met to inspire behavioural change – and, ultimately, create impact (Figure 5). A more detailed description of this process can be found below.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

A first step in this journey to behavioural change via public engagement is including citizens or stakeholders in your project. Earlier in this report, the benefits of doing so have been discussed widely. The second step is knowing that these citizens or stakeholders have the choice to participate. They are free to do and behave (in the legal framework) as they please. If someone is not interested in joining your project or shifting their behaviour (even when given the opportunity), they are free to do so. A third aspect in inducing change is 'the collective'. This concept stresses that our behaviours do not take place in isolation. They are intrinsic and linked to many different aspects of our lives. How we grew up, in which community we live, and which chances we've gotten along the way are all aspects that influence how we behave today. In terms of inclusivity, it is important to respect, acknowledge and identify that behaviour is happening through collective influences. The fourth aspect of sparking change is having a creative component to your project that stands out from the crowd and will make people curious. Creativity can be located at any project stage, whether this is in the methodology, the communication or whatever the output of the project will be.

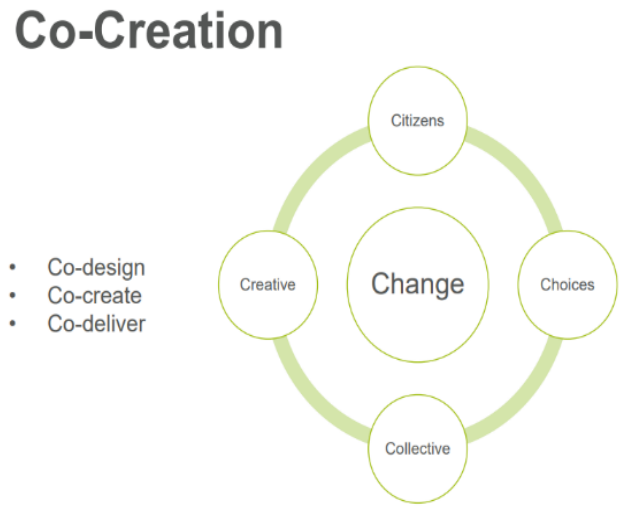


Figure 5. Prep4Blue webinar "Increasing social inclusion through Mission Ocean projects" by Dr. Patricia McHugh (2023).

2.2. MAPPING THE PUBLIC ENGAGEMENT SCENE

METHODOLOGY

To increase awareness of the various types of public engagement that can be done in the marine and freshwater world and to spark inspiration for possible future projects, we created a database that compiles PE format examples from the BANOS area.

The aquatic citizen science database, previously created for the Prep4Blue project, was taken as the framework foundation, where minor alterations were applied to the researched parameters (for the exact parameters see Annex I). As mentioned, the main focus of this search was set on the BANOS area, although interesting PE projects from elsewhere that could be applied to the area were considered as well and added to the database. Note that creating a complete overview of all the examples of certain PE formats (e.g.: inventorying all the examples of local science fairs, online courses, books, etc.) in the BANOS area was outside of our research aims.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

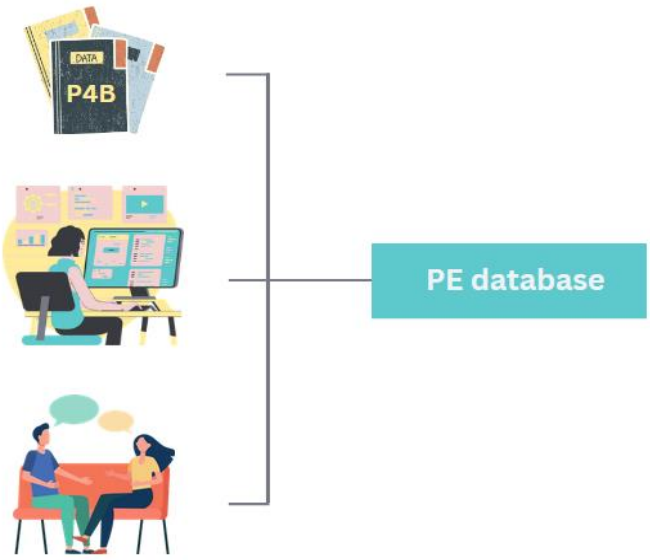


Figure 6. Creation strategy (combination of Prep4Blue database, web and social media search and personal correspondence) to map out inspiring public PE formats in the BANOS area.

First, projects from the Prep4Blue database that dealt with the decarbonisation and circularity of the blue economy acted as a starting point for the new PE format database. For the term decarbonisation, we follow the definition proposed by the energy company ENGIE (2021) since it is most complete and comprehensive. Decarbonisation encompasses all actions taken by a business sector or an entity, such as an organisation or government, to diminish its carbon footprint. Primarily by curbing its emissions of greenhouse gases, specifically carbon dioxide (CO2) and methane (CH4), to mitigate its impact on the climate.

Second, an online search for PE examples in the BANOS area was conducted using Google and Google Scholar. The search terms 'public/citizen engagement', 'public/citizen involvement', and 'public participation' were used along terms such as 'blue economy', 'decarbonisation', 'circular economy', 'Baltic Sea', 'North Sea', and countries in those regions (complete list see Appendix III).

Parallel to the search terms, companies, research institutes, government agencies and databases in BANOS countries were investigated to look for PE examples (e.g., looking in the project and/or events tabs on their websites).

Global organisations such as the UN Ocean Decade, IOC-UNESCO, and JPI Oceans were used to search for endorsed actions. On both occasions, a snowball research strategy was employed. Lastly, PE examples were found through personal insights/correspondence from VLIZ employees who came across PE examples or had discussed PE in meetings (Figure 6).

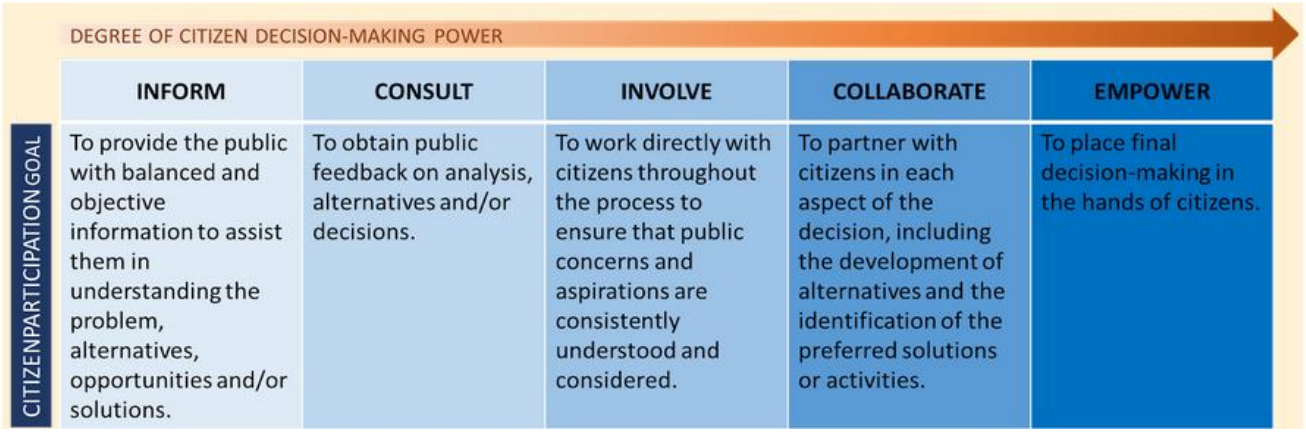
In total, 297 public engagement projects/events/set-ups were found during the mapping process. The projects can be categorised according to 39 different PE formats, covering all levels of citizen engagement across all the sectors of the blue economy. All PE formats can be found in their corresponding engagement level in Figure 3. The setup of this database was never to be complete or collect all the examples within a particular PE format (e.g.: map out all the documentaries linked

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

to marine research or topics). Hence, incorporating quantitative numbers would be inappropriate in this context. As creativity and inspiration have no boundaries, public engagement formats are invented every day. Therefore, this document will always be a work in progress, evolving over time as public engagement evolves in the scientific field. However, we do offer a nice sample of PE formats in this report to inspire new activities to engage the public in the Mission Ocean objectives in general and in the specific context of creating a sustainable blue economy.

FINDING YOUR FORMAT

When engaging the public in your project, the multitude of PE formats can be quite overwhelming. We grouped the found PE formats according to their main purpose to give an overview. The classification of the main purposes in PE was made based on the 'Citizen participation spectrum' from the AP2 Internatederation (2004 – adapted by Bjørkan et al 2023). The distinction to put a certain PE format in a specific column is made subjectively. Various PE formats can fit into multiple categories and can be altered according to your goal. For example, you can have a movie night with a movie that underlines the need for a circular economy, which would inform the public. But when adding an open panel discussion at the end, citizens can discuss their thoughts and opinions on the topic. However, providing this overview can give you an idea of the options and possibilities available. A more detailed description of the formats listed below can be found in Appendix IV.



Mapped public engagement formats				
Inform	**Consult**	**Involve**	**Collaborate**	**Empower**
Book	Adopt an animal/plant/ area	(Beach) clean action	Citizen science project	Extreme citizen science
Film	Conference/ webinar	Debate/panel discussion	Excursion/ guided trip	Co-creation workshops

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Documentary	Sustainable eating event	Quiz	Hackathon	(Future) Scenario workshops
Podcast	Science café	VR/AR experience	Workshop/ Fab lab	
Social media campaign	Charity event	Escape room	Citizen assemblies	
Gaming	Surveys	Competition/Award /Challenge	Participatory mapping	
Museum/ Expo - visit	Walking interview/ 'go-along'	Science festival/ fair		
Animation movie	Semi-structured interviews	Conservation action		
Aquarium visit		Educational training/material		
All visual arts		Science centre activity		
All performing arts		Summer school/camp		
Massive online open course				

Figure 7. Citizen participation spectrum. (Adapted from Bjørkan et al 2023).

2.3. GET INSPIRED!

To provide further inspiration, we will be highlighting a selection of noteworthy PE examples in a more tangible format through informative sheets. These documents will delve into projects that successfully implement a specific PE format. Within these sheets, you will find detailed insights on the pros and cons, an estimate of the required budget, and a comprehensive description of the project (and the used PE format). In Annex II, further description of the information sheets can be found. For each engagement level, some projects will be discussed more broadly to give you a deeper understanding of how certain PE formats work or can be applied.

INFORM

If providing the public with objective and balanced information to let them understand certain problems, alternatives, opportunities and/or solutions is your main goal, then a public engagement strategy that focuses on 'informing' might do the trick. Easily accessible formats such as a **social media campaign** or showing the public a **movie** or **podcast** (echoing the objective or theme of your project) can be the first steps into public engagement, especially if time and resources are limited.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

An informative engagement strategy ensures that accurate and up-to-date information on your activities reaches a wide audience. It serves to educate citizens or stakeholders about important topics and developments in organisations, companies or science. Next to this, having easily accessible information can help conquer misconceptions and help mitigate the spread of misinformation on a sensitive topic (such as climate change). If people are well informed on important scientific matters, they are better equipped to make important environmental choices in their daily lives (e.g.: taking public transport or cycling to work). Informing the public about a new finding or activity in your project can spark curiosity and interest in a particular topic or even in science as a whole, serving as a basis to engage in more active forms of public engagement in the future. It's important to note that while an informative approach has its merits, it should ideally be supplemented with interactive elements that encourage dialogue, address questions and concerns, and foster a sense of active participation. This can often be easily done by providing a small verbal introduction to the informative formats or by adding an interactive facet to it, such as a panel discussion on a certain book or film. A balanced engagement strategy that combines information-sharing with opportunities for discussion and collaboration can lead to more effective and meaningful interactions between the scientific community and the public.

Besides presenting a book or releasing a podcast to the wider public, ideas can flourish from another creative field as well, the visual arts. Showing people what is at stake (e.g.: the lives of charismatic species such as dolphins and whales) gives your audience a chance to build an emotional connection to the subject, resulting in possibly more action or behavioural change (e.g.: deciding to stop eating shrimps due to its many ‘casualties’ when fished).

Two projects that go beyond the traditional informative engagement format (**pictures**, movie, **documentary**, **informative book**, etc.) are showcased below.

The first project, ‘Danceroom Spectroscopy,’ combines science with strong (interactive) visuals, exploring new languages and crossovers on the interface of physics research, interactive art, education, performance, and technology. It interprets people as energy fields, allowing them to influence both graphics and sound using their own movement. The concept of this format could be applied to various fields related to Mission Ocean. For example, these immersive visual spectacles can be deployed to highlight the rich variety of plankton species, that are essential oxygen sources. In this way, people can see plankton with their own eyes and (minimally) interact with them, installing wonder and curiosity for this micro-world vividly present in our ocean.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

ALL

ADAPTABLE TO ALL BLUE ECONOMY FIELDS

DANCEROOM SPECTROSCOPY

UK

DANCEROOM SPECTROCOPY

INTERACTIVE VISUAL SPECTACLE

dS dancerоom Spectroscopy

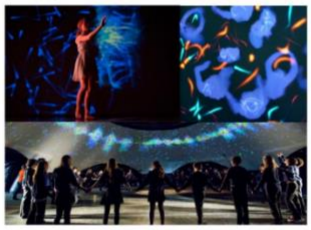
ACTIVITY DESCRIPTION

Project that fuses 3d imaging and rigorous molecular physics, dS transforms people into energy fields and lets them wander through the nano-quantum world, where they trigger sounds and images. There's no limit on the number of "players", and the more they cooperate, the more engrossing it becomes

BUDGET ★★★☆

Danceroom Spectroscopy (dS) is a new attempt at visualizing the nano-world, but with a twist.

It puts us in the picture. People can literally step into, wander through, and interact with the nano-world. dS invites you to move, observe, play, and even dance.



ADVANTAGES

Can open portals to a world normally never seen by the wider public

Can be applied to many different themes (e.g.: plankton or plastic pollution research)

Can be down scaled to only showcasing projections but can also be up scaled to have an immersive experience

All ages can participate

DISADVANTAGES

Quite some space needed + ability to black-out the room

Extra guidance and information is needed to highlight importance of subject

Expensive equipment (e.g.: projector) required.

Adaptation to other topics will need creative thinking

HTTPS://WWW.DANCEROOM-SPEC.COM/

Another creative approach to inform the wider public about environmental challenges is 'The Nature Based Solutions Comics' project, which is funded by the European Commission under NetworkNature and led by The Nature of Cities—Europe together with multiple partners and individuals from diverse backgrounds and disciplines. Here environmental problems, and their solutions, are made understandable to the wider public using comic books.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

ALL

ADAPTABLE TO ALL BLUE ECONOMY FIELDS

NATURE BASED SOLUTIONS COMICS

COMBINED

NATURE BASED SOLUTIONS COMICS

COMIC BOOKS

ACTIVITY DESCRIPTION

NBS Comics is an interdisciplinary project that works together with artists, scientists, and NBS experts to commission and empower comic creators to tell their stories of nature and people.

BUDGET ★★☆☆

The NBS Comics project invites comic creators (through open calls and commissions), to imagine comics about nature and her benefits. Creators can use any comic style, various approaches to storytelling, and many languages.

ADVANTAGES

- Hard topics can be made understandable
- Can be applied to many different themes (e.g.: impact of climate change, promoting renewable energy)
- Visually aesthetic to read, makes you want to engage with the material
- The curiosity of children and teenagers might be sparked with the visuals

DISADVANTAGES

- Some budget is needed to print or provide the comics to the public
- Creative thinking essential to create a comic book
- Format might not appeal to everyone (can be seen as childish by some people)

HTTPS://NBSCOMICS.COM/

Besides the realm of visual arts, **music** offers yet another avenue to educate the broader audience about particular environmental issues. By immersing citizens in unfamiliar environments through the evocative sounds of those habitats, a meaningful connection with ecosystems previously unknown can be forged. The project ‘The voice of the North Sea’ does exactly this:

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

ALL

ADAPTABLE TO ALL BLUE ECONOMY FIELDS EMITTING SPECIFIC SOUNDS

VOICE OF THE NORTH SEA

THE NETHERLANDS

VOICE OF THE NORTH SEA

LUNCH/LECTURE/CONCERT

ACTIVITY DESCRIPTION

'The voice of the North Sea' is a joint effort of scientists and sound artists exporing the sounds of a healthy and biodiverse reef. Music, composed with sound recordings from scientists, blends with lecture and inspiring storytelling. But then anthropogenic North Sea voices like shipping noise and pole hammering for wind turbines enter the music to turn it into "next door house party chaos" and worse.

BUDGET ★☆☆☆

Could there be a more benign, symbiogenic music in the near future? Will we start listening to the voice of the North Sea and respect the biodiversity of the natural musicians?

Come and listen to the beauty, the problems and promises!

ADVANTAGES

- Immerse citizens in unknown environments
- Accessible for a wide audience, even appealing to children and teenagers
- Creative approach to uncover hidden environmental problems
- Can be transformed into various formats (e.g.: dance workshops, creative expression, lunchtalks etc.)

DISADVANTAGES

- A short introduction will be needed to signify the importance of a biodiverse ecosystem
- Soundscapes needed of various sounds present in the North Sea
- Musiscions needed to make a uniform sound composition

HTTPS://CULTUURINWAGENINGEN.NL/VOICE-OF-THE-NORTH-SEA-LUNCH-LECTURE-CONCERT-MONDAY-19TH-JUNE-1230/

CONSULT

To gain public feedback on decision-making, analysis of certain information, alternatives and/or decisions, 'consulting' the public is a feasible option to explore. Here, citizens can get involved in the work of an organisation, company or even a research institute by giving their opinions on proposed solutions to certain problems.

Consulting the public brings a wider range of perspectives, including those of non-experts, into decision-making. Having different perspectives on the same situation can enrich discussions and

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

lead to a more holistic, well-rounded and balanced approach to certain environmental problems. Opting for a consulting engagement style can give a signal to the public that you are willing to work transparently and inclusively in your project, which fosters trust and enhances the legitimacy of decisions, especially if they might impact the public (Rodrigo and Amo n.d.). A consulting engagement strategy can help to identify potential problems or unintended consequences earlier in the project process, allowing to make corrections or alterations where needed. Giving citizens the opportunity to share their opinion on a scientific, policy or industry topic can also spark novel ideas, create accountability and induce a shared responsibility amongst citizens for a certain environmental challenge, which in the end can lead to a more long-term sustainable solution. A suitable format for this engagement strategy can be '**walking interviews**' or 'go-alongs'. Here, researchers and citizens go around a particular location (usually on foot) and discuss a certain topic. In this way, power imbalance in reduced and spontaneous conversation is encouraged (Kinney 2017). Other formats where the public can be consulted on particular topics can be **science cafés and fairs**, **conferences** or **surveys** (complete list can be found in Figure 7). In these formats, there is space for questions and sharing the opinion of citizens on a certain topic.

Implementing a consulting engagement strategy in your approach or activity holds promise, yet pitfalls can be present if not applied correctly. One significant challenge is the risk of superficial public involvement, where contributions are not valued and are merely made for appearances. Next to this, a consulting strategy may inadvertently exclude certain demographic groups or perspectives, leading to a skewed representation that does not capture the diversity of the public's viewpoints and neglects crucial perspectives. Having attention to diversity is essential in making well-balanced decisions. Furthermore, the resource-intensive nature of consulting strategies can strain both public and expert resources, leading to fatigue and limited engagement.

Acknowledging these pitfalls is essential for designing a consulting engagement strategy that truly harnesses the potential of public input, fosters authentic collaboration and ensures meaningful outcomes. To mitigate these challenges, it is important to approach a consulting public engagement strategy with careful planning, transparency, clear communication, and a commitment to genuinely incorporating public input into decision-making processes. Including diverse voices, providing opportunities for collaboration, and demonstrating tangible outcomes resulting from public contributions can enhance the effectiveness and legitimacy of consulting engagement strategies in policy, private industry and science.

The first project we wish to focus on is 'Focus on the positive'. At this event, researchers can share how they would tackle a global issue in their field of expertise. The audience present gets the chance to mingle and ask the researchers questions about their proposed solution. In the end, the audience votes for the solution that they want to support. The winning researcher gets the price money to spend on rolling out the idea they proposed.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

ALL

ADAPTABLE TO ALL BLUE ECONOMY FIELDS

FOCUS ON THE POSITIVE

UK

FOCUS ON THE POSITIVE

INTERACTIVE PANEL CONTEST

ACTIVITY DESCRIPTION

'Focus on the positive' is a public event where the audience chooses how to change the world. At each event, a handful of inspiring researchers explain exactly how they want to tackle the big issues in our world.

The audience grills the speakers on stage and face-to-face before voting for what they would like to support. The winning researcher gets £2000 to spend on the idea they have proposed. A runner-up receives £1000.

BUDGET ★★☆☆

The world is full of problems, but it's also full of brilliant people, chipping away at those seemingly insurmountable problems with their ideas and expertise.

ADVANTAGES

- Hard topics can be made discusable
- Can be applied to many different themes (e.g.: solutions for more renewable energy or coastal erosion)
- Gives the public the opportunity to pose all their questions and voice their opinion
- For lower budgets: price money can be eliminated

DISADVANTAGES

- Public should be open to voice their perspective
- Experts on the topic needed to develop this
- Format might not appeal to everyone (due to involvement of public speaking)

HTTPS://WWW.PUBLICENGAGEMENT.AC.UK/CASE-STUDIES/FOCUS-POSITIVE

Another potential PE format that lends itself well to a sustainable fishing or aquaculture theme is the Belgian shrimp croquettes festival (e.g. **sustainable eating event**). Annually, citizens are invited to savour delectable shrimp croquettes from participating restaurants and cast their votes for their preferred shrimp croquette creation. To add an educational twist and to include the Mission objectives in this culinary competition, a sustainable aspect can be introduced. For instance, restaurants can be tasked with incorporating sustainably sourced shrimp or provide alternatives for these shrimp croquettes that are just as good.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

ADAPTABLE TO (SUSTAINABLE) FISHERIES AND AQUACULTURE

THE SHRIMP CROQUETTES FESTIVAL

BELGIUM

THE SHRIMP CROQUETTES FESTIVAL

COOKING CONTEST

ACTIVITY DESCRIPTION

On this festival, the restaurants of Ostend will be presenting their own traditional shrimp croquette. The audience will be able to taste the shrimp croquettes and bringout their vote to the restaurant with the best croquettes. Next to the public jury, a professional jury will add their vote as well. The winner of the contest gets the honor of having the best shrimp croquette of Ostend.

The famous shrimp croquette, loved by many Belgian citizens, can get the public moving to an aquatic public engagement event.

To include an educational aspect to the festival, at the site, sustainable shrimp fishing might be highlighted or alternatives for the shrimp croquette could be presented and voted for.

BUDGET ★★★☆

ADVANTAGES

Humorous concept might attract many interested citizens (accessible for a wide audience)

Can be altered to fit many food-related sectors

Including restaurants can create more bottom-up support

Can be transformed into various formats (e.g.: dance workshops, creative expression, lunchtalks etc.)

DISADVANTAGES

Interested restaurants need to be willing to participate or to be challenged to work sustainably

Participants need to be open to trying sustainable alternatives

Quite some budget might be needed to facilitate this PE format (e.g.: cooking space, space to eat for participants)

HTTPS://WWW.VISITOOSTENDE.BE/EN/SHRIMP-CROQUETTES-FESTIVAL-2023

INVOLVE

In an involving public engagement strategy, the focus is set on directly working with citizens or stakeholders throughout the process to ensure that public concerns and aspirations are consistently understood and considered. Here, space is made for two-way interaction and discussion. The public can give their ideas and input which will be used later in the project.

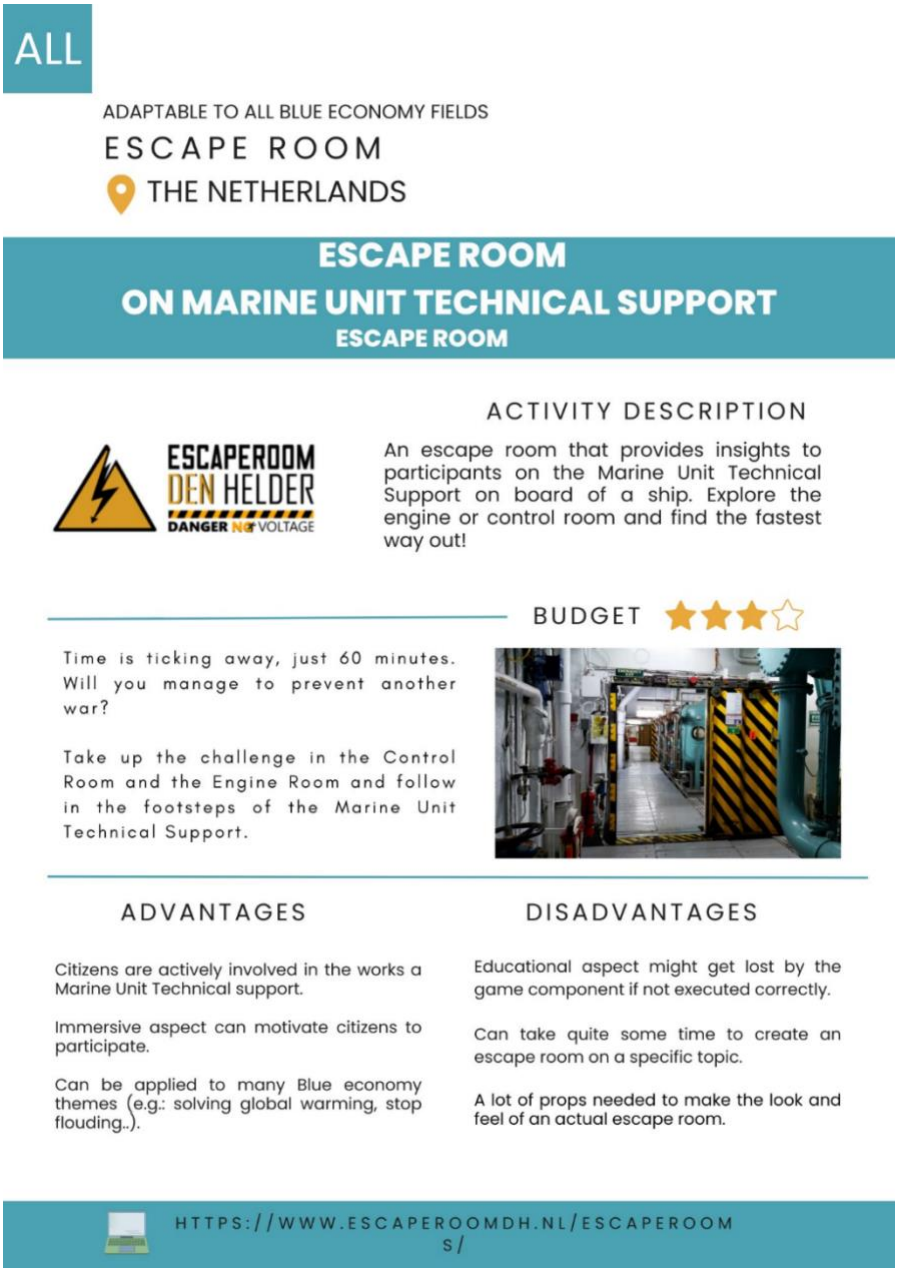
There is quite some grey zone between consulting and involving engagement strategies in which they flow over into each other. A clear separation is therefore often hard to make. However, involving engagement strategies emphasizes active collaboration and shared decision-making and

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

encourages continuous dialogue. Formats suiting these characteristics are **panel discussions**, **science festivals** or **game challenges**. Consulting engagement strategies involve seeking public input but maintain a more defined distinction between the roles of experts and the public, with experts typically retaining greater decision-making authority. The choice between these strategies depends on the goals of the engagement, available resources, and the desired level of public involvement in the decision-making process. Involving citizens in science has many forms. A first PE format that suits this engagement strategy is a **beach clean-up action**. A project specifically focusing on this is '5 - Minute Beach Clean-up'. Here, interested citizens are challenged to collect as much coastal litter as possible. In the end, they are encouraged to make a before and after picture to post on social media, raising awareness for the topic.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

A recently emerging PE format involves the development of **escape rooms**, a trend that has gained traction in recent years. Escape rooms seamlessly blend educational elements and competitive gaming, drawing a wider audience to engage with potentially challenging subjects. As participants navigate the intricacies of the escape room, they become fully immersed in an unknown world, connecting them with topics that might otherwise be unexplored.



One concept worth touching upon is the involvement of **social** and **cultural networks** when working with the public. Especially organisations, groups or associations with an innate interest in nature, the ocean and all its facets can be a good starting point to involve citizens in your work. For example,

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

contacting a Sea Scout association might be a good idea to reach young children and involve them in your work. When including the 'younger generation' in essential topics such as creating a circular economy, they will be much more aware of certain challenges when reaching adulthood. With a more informed and involved perspective, these young adults will be more equipped to make mindful decisions concerning current societal challenges. Another example found in our mapping exercise is the Nature Guide Network. This network helps increase the share of skilled labour forces in the Green Economy sector, therefore stimulating the job sector. A similar approach could be undertaken in the Blue Economy, raising awareness of the diverse facets of the field. Setting up a partnership with a social or cultural network can therefore create win-win situations on both sides of the partnership and is a path worth exploring.

COLLABORATE

Another approach to engage citizens in a decision-making process can be to partner up with them in multiple aspects of a decision or project, including the development of alternatives and the identification of the preferred solutions or activities. Here, citizens are included in almost every step of the project process except for making the final decision or delivering the end product (which is still mainly driven by experts in the field).

From the perspective of science and research, citizen science (CS) is one of the most frequently used PE formats to include collaboration with citizens in science. Hence, we would like to delve deeper into this subject and zoom in on the PE format as a case study:

But what exactly is citizen science? To define it, we refer to the ten principles of CS from the European Citizen Science Association (Gold 2022). CS is an overarching term that illustrates a variety of ways in which the public can participate in science. Some of the main characteristics of CS are: (1) citizens are actively involved in one or several research steps of the project, in a collaboration or partnership with scientists or professionals; and (2) there is a legit scientific outcome, such as new scientific knowledge, new data, conservation actions or policy changes.

In general, citizen science has four regularly described levels of the degree of participation to which citizens can contribute to a project. These different degrees of contribution can be located on a scale ranging from intense participation (co-creation) to superficial participation, with the citizens putting more or less effort into the project process (Figure 8). Depending on the aim of your project, a different level of citizen science might be needed (Buckingham Shum et al. 2012; Haklay 2013).

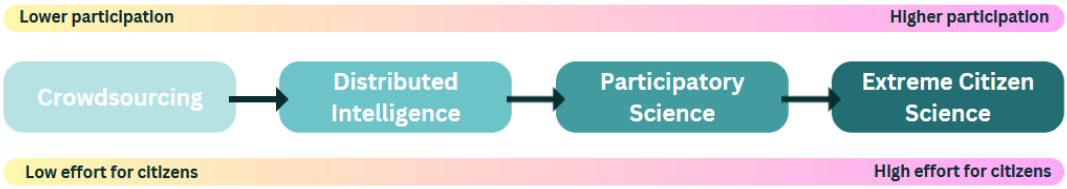


Figure 8. Four levels of citizen science, ranging from low effort and lower participation to high effort and higher participation.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

On this scale, '**crowdsourcing**' is labelled as the lowest degree of participation of a citizen in a project. On this level, every citizen interested in the project topic can participate since no (prior) knowledge of the subject is needed. In these types of projects, citizens often act as 'sensors' that collect data. One step up the ladder of citizen participation in a project, '**distributed intelligence**', requires more effort from the citizen scientist. A certain knowledge level is required from the participant to be able to collect data or interpret certain steps in the project's methodology. Here, citizens often need a specific skill set or knowledge level before participation is possible. Providing training for interested citizens can bridge this gap if certain needed skills or knowledge are lacking.

This citizen science level can be beneficial in areas where certain knowledge or skills are uncommon in a certain community (e.g. awareness building, building emotional connection towards a natural environment, capacity building in a coastal community etc.) (Cigliano et al. 2015). The third level, '**participatory science**', involves citizens in more than the data collection. They are engaged in the problem definition, the set-up of the methodology and eventually, the data collection of the project. However, data analysis and result interpretation are still led by scientists. Lastly, '**extreme citizen science**' or 'collaborative science' celebrates the full cooperation of scientists and non-professionals in every step of the research process. This level of citizen science relies completely on co-creation, from problem definition to data analysis, to setting up the suitable methodology, to data collection.

In the Prep4Blue project, research was done to map out in which level of participation, sectors and themes citizen science in research was at the forefront. Here was found that the lowest levels of participation are employed the most in projects (Figure 9). Extreme citizen science is used in the research strategy of only 1% of the mapped-out projects.

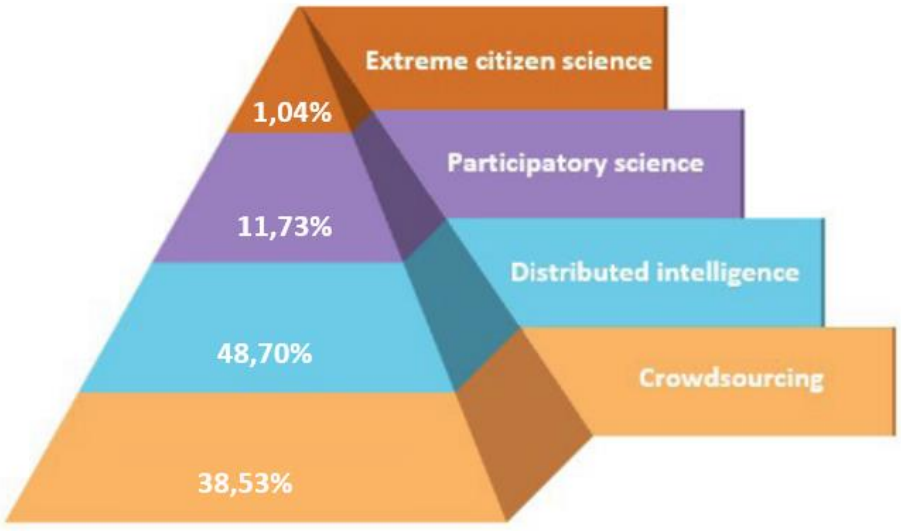


Figure 9. Distribution of aquatic citizen science projects by types of participation in the BANOS area (adapted from van Hee, Seldenrath, and Seys 2020)

When focusing on one of the Baltic and North Sea Mission objectives, the decarbonisation of the blue economy (since these were straightforward to identify), only 8% of the projects have citizen

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

science in their project set-up. Therefore, the possibility for citizens to engage in projects involved in decarbonisation is rather low. Decarbonisation projects often encompass topics such as species (37%), habitat (23%) and abiotic (10%) research (Figure 10).

If decarbonisation projects with citizen science are organised, project leads are often non-profits and universities/college institutions and seldom industry/private sector or aquaria (which can be classified under the blue economy).

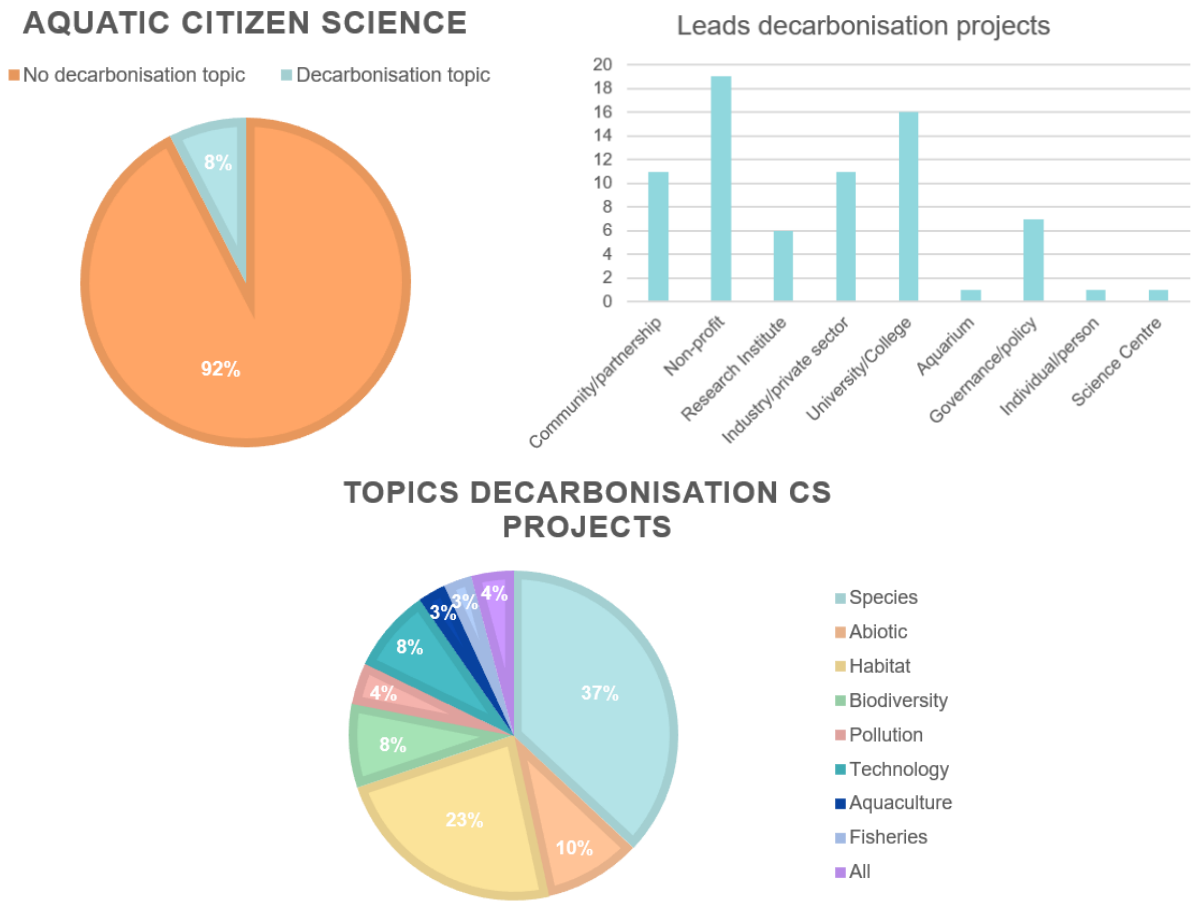


Figure 10. Top left: distribution of aquatic citizen science projects linked to decarbonisation. Top right: Distribution of project lead types in aquatic citizen science projects focused on decarbonisation. Bottom: Topic distribution in aquatic citizen science projects focused on decarbonisation.

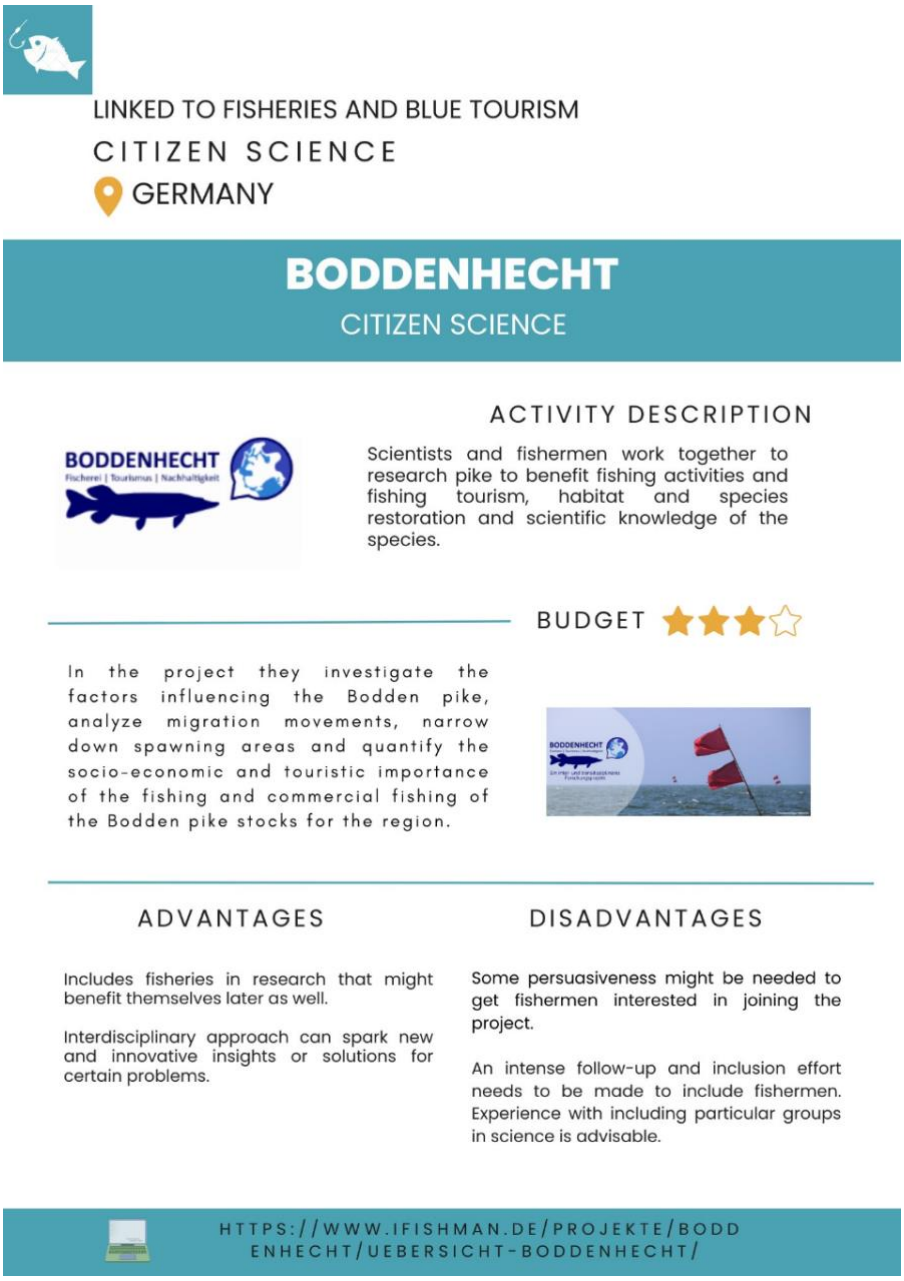
When looking at the combination of citizen science and the blue economy, there is still room for exploration and creativity. Therefore, when aiming for an innovative project it might be useful to keep these underrepresented themes and industries in mind. Having a project idea that stands out from the crowd and goes beyond the commonly researched topics or species might be interesting to possible funding agencies and is worth exploring.

To foster inspiration, we will showcase some **citizen science projects** in different fields that include citizens in their research methodology. The first project, AMBER, is about mapping out river barriers across Europe.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

The mapping is done by citizen scientists in cooperation with hydro-power companies and river managers. Citizens can take pictures or verify places that might have a barrier and decrease river connectivity. In the second project, 'Boddenhecht', scientists and fishermen work together to research the factors influencing the Bodden pike, analyse migration movements, narrow down spawning areas and quantify the socio-economic and touristic importance of the fishing and commercial fishing of the Bodden pike stocks in Germany.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.



Other collaborative PE formats, apart from citizen science, can pave the way to include more citizens in particular Mission Ocean objectives. Some widely used formats are **excursions** or **field trips**, **hackathons**, **citizen assemblies** or **participatory mapping**. In this latter, a visual association exercise (on a general theme, e.g.: safety while swimming in a lake, pollution at the beach) is done between a particular area and the local communities living in that area by creating a map (IFAD, 2009). Various sectors can benefit by letting citizens collaborate on a project in their particular field, especially when that field is lesser known to the wider public.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

EMPOWER

The PE level that is most likely to spark behavioural change in the wider public, is the level of empowerment. Here, citizens are included in every project step along the way. Citizens can even be so invested in the project and its final outcomes that they decide to make a change in their own behaviour, from mapping out a research question to collecting data, to even creating new methodologies and implementation of solutions. Projects or events that focus on empowering citizens, place the final decision-making steps in the hands of the public. They compose solutions, with some guidance, for their own problems. The citizens are at the centre of this level, they form the heart of the project.

To empower citizens in science, decision-making or policy-related topics, the most extreme level of citizen engagement, or co-creation, is most advisable.

In a co-creation approach, the research question or project topic often comes from the citizens, high participation is required and participants are encouraged to engage in all the steps of the participation process (Dillon, Stevenson, and Wals 2016; Jordan, Ballard, and Phillips 2012). A local environmental problem, alarming plastic pollution changes in their neighbourhood or just curiosity about a certain species reappearing in their local parks can all be topics for a co-creation project. Commitment to actively empowering citizens and focusing on community building might lead to more sustainable solutions that address community-specific challenges and needs. Attention can be paid to cultural sensitivity and prevent disregarding local traditions or societal sensitivities in a certain community. Projects are more personal and tailored to the community and the participating citizen since the project starts and ends with them. In the end, this can increase the motivation of citizens to make alterations in their behaviour even if these are major lifestyle changes (Von Gönner et al. 2023).

One of the first projects that focuses on empowering citizens is the Ocean Community Challenge. Here, citizens are encouraged to create innovative ideas for ocean challenges today (**hackathon**). The most interesting solutions are selected and get the chance to be worked out completely with the coaching of the project staff (for 6 months) and financial support of the prize money.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

A second project which is completely steered by citizens is ‘Lalela Ulwandle’ or ‘Listen to the Sea’. Lalela uLwandle is a research-driven **theatrical production** and **public discussion platform** dedicated to examining the possibilities of fostering solidarity in climate change adaptation and resilience. This is achieved through environmentally equitable and inclusive decision-making processes related to our oceans.

Rooted in the South African context, the intergenerational stories of the sea brought to life in Lalela uLwandle resonate strongly with an international audience. The theatre piece has been called upon as evidence in various court cases in South Africa, adding to the defence of ocean supporters. The

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

performing artists, who are non-professionals in ocean science, give a voice to threatened coastal communities and other citizens who are often overlooked in aquatic decision-making processes. The performance is followed by a facilitated public discussion with researchers, performers, decision-makers and the audience. This post-show dialogue provided rich input into ongoing policy, legal, and judicial innovation in ocean decision-making (for more information, see website). This PE format can be applied to various themes in the blue economy and can be entirely driven by the experience of ocean enthusiasts or all people who feel a connection to the blue waters. The piece can be focused on what the ocean or sea means to them to inspire others to act.

ALL

APPLICABLE FOR ALL THEMES

THEATRE PERFORMANCE

USA

THEATRE PERFORMANCE "LALELA ULWANDLE" (LISTEN TO THE SEA) AND A CONVERSATION ON INCLUSIVE OCEAN GOVERNANCE

THEATER PIECE

ACTIVITY DESCRIPTION

Lalela uLwandle is a research-based theatre performance and public dialogue event that explores how we may start to build solidarity in climate change adaptation and resilience through environmentally just and equitable, inclusive ocean decision-making processes.

BUDGET ★★★☆

The performance is followed with a facilitated public-discussion with researchers, performers, decision-makers and the audience.

The post-show dialogue provides rich input into ongoing policy, legal, and judicial innovation in ocean decision-making.

ADVANTAGES

Creative perspectives can be developed in this PE format.

Can be applied to many Blue Economy themes.

The format can be an accessible way to give a voice to people who are often overlooked in ocean policy decisions.

builds solidarity in climate change battle since stories are being shared.

DISADVANTAGES

Takes a lot of follow-up and organisations to create a theatre piece (intense cooperation needed between theatre makers and participating citizens).

Some stories can be quite harrowing, it is essential that the organiser of the PE activity can navigate these stories with respect.

HTTPS://UNWORLDOCEANSDAY.ORG/EVENTS/THEATRE-PERFORMANCE-LALELA-ULWANDLE-LISTEN-TO-THE-SEA-AND-A-CONVERSATION-ON-INCLUSIVE-OCEAN-GOVERNANCE/

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

CONCLUSION

To deal with complex and multifaceted environmental problems, a holistic approach that includes the wider public and is rooted in society is needed (Bjørkan et al 2023). Decision-making in various sectors can no longer be isolated from societal influences when navigating uncertain and ambiguous issues such as climate change or environmental pollution since, ultimately, a change in behaviour is needed to solve these problems. When dealing with simple risks, informing the citizen will still suffice. However, to include society in the private industry, policy and science, various engagement strategies can be applied when dealing with uncertain and complex problems. From informing citizens to involving them, to even empowering them to indulge entirely in certain projects. Tailored to the project's aspirations and objectives, you will undoubtedly find a PE format that aligns with the project's needs. However, when considering the integration of a specific PE format into your project, it is essential to allocate the necessary resources and time for its implementation.

From the mapping exercise, we learned that a wide range of public engagement formats is available. However, the use of it on decarbonisation topics is rather limited. Especially when zooming in on the PE formats that are most likely to induce behavioural change in the wider public, such as co-creation or citizen science. According to the Prep4Blue citizen science database, only 8% of the projects are linked to the decarbonisation theme. The main topics of the citizen science projects that are present, focus on species, abiotic and habitat research, leaving out other important research fields and industries.

Since several years, various industries and sectors have been increasingly operating within the environment and the public domain, becoming more aware of their responsibilities towards society (Disterheft et al. 2012). For instance, offshore wind farms might extend their reach towards the shoreline, or more and more aquaculture farms occupy shallow sea bays. Moreover, while bringing these activities closer to communities and neighbourhoods can have its advantages, it can also lead to tensions if the concerns of the public are not addressed properly. More active forms of public engagement should be stimulated and encouraged to directly include citizens in the decision-making process to prevent such issues. When citizens are given a platform to voice their opinions, contribute their viewpoints, and play an integral role, a broader foundation of support can be cultivated, even for significant measures. Being transparent in scientific research towards the broader public cultivates trust and can mitigate scepticism or doubt that might be present. Placing citizens at the heart of your project can act as a catalyst for societal behaviour change, eventually making the sustainable transitions we need today to solve the environmental problems of the future.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

3. BLUE ECONOMY IN THE BANOS AREA – AN OVERVIEW OF COMMON STAKEHOLDER CONCERNS AND CONFLICTS

3.1. INTRODUCTION

The expansion of the new and old sectors is making the already busy European seas even more crowded. To ensure that the marine space is well managed while taking into account the ecosystem functioning and needs, all the European Member States have formulated Maritime Spatial Plans (MSP) by the end of 2021. The MSPs represent an integrated approach to planning of the sea space, taking into account various sectors as well as societal needs, values and goals. Expansion of new, and old sectors alike, at the sea must be done sustainably. For this purpose, the Commission has also put forward a new approach to support the sustainable blue economy in the EU, while transforming the EU's blue economy for sustainable future (European Commission 2021a).

One of the aims of the MSP process is reduction of conflicts between sectors and creation of synergies between different sea-based activities (Gee et al. 2019). With this in aim, the MSP process included extensive stakeholder consultations and engagement activities. The consultation approach varied considerably among different Member States, with countries able to develop their own communication and stakeholder consultation activities. Examination of MSP stakeholder engagement activities and the outcomes of the national consultations enables recognising stakeholder views about the MSP and blue economy activities in general, as well as identification of possible conflicts and concerns of different stakeholder groups. Additionally, it provides an understanding of which stakeholder engagement methods were more effective than others.

This chapter aims to provide an overview of the most common conflicts and concerns experienced by various stakeholder groups in the BANOS area in respect to rapidly developing blue economy sector. The chapter is primarily based on the national MSP stakeholder consultations that were conducted by each Member State during the development of the national MSP. In addition, examples are drawn from recent literature to illustrate different case studies involving various sectors.

3.2. THE CURRENT STATUS OF MSP IN BANOS COUNTRIES

General information on MSP is given in this chapter as it is providing context and a foundational understanding of the current MSP landscape in BANOS area. As of the end of 2021, EU coastal Member States were expected to have their initial MSP in place, but the specifics of these plans vary across countries. To facilitate a comprehensive discussion on the common concerns and conflicts in the BANOS area, a brief overview of the MSP plans in the BANOS countries is presented. This overview serves as a baseline, allowing us to navigate the subsequent analysis with a holistic

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

perspective, taking into account the diverse statuses and details of MSP plans in the region. The information is primarily based on country files in the European MSP platform[2].

Belgium: Belgium adopted its first legally binding MSP for the Belgian part of the North Sea in 2014 and was thus a pioneer in Europe and even globally. Belgium's second MSP, covering the period 2020-2026, was adopted in 2019. The current plan lays out principles, goals, objectives, a long-term vision, and spatial policy choices for the management of the Belgian territorial sea and Exclusive Economic Zone (EEZ). The MSP will be reviewed every 6 years.

Denmark: Denmark launched its MSP in March 2021. Prior to 2021, a range of sectoral plans have been in use. Danish MSP applies to the marine internal waters, the territorial sea and the EEZ, and it is a single holistic plan for the Danish Sea area. The Danish MSP represents the country's first legally binding digital map, covering both Denmark and its waters. The initial MSP plan introduced in 2021 faced rejection by the majority of the Danish parliament. Subsequently, a new round of MSP planning was initiated to address concerns and gain broader consensus. The upcoming second round of consultations is anticipated upon the release of the draft, expected by the end of 2023. This iterative process reflects Denmark's commitment to refining and optimising its MSP to align with the diverse interests and perspectives of stakeholders.

Estonia: The first Estonian MSP process was initiated in 2015 and the government adopted its Plan in 2022. It covers EEZ, territorial sea, and inland waters and is legally binding. The plan is to be reviewed every five years from their adoption. The plan is available online: https://mereala.hendrikson.ee/kaardirakendus-en.html.

Finland: The first Finnish MSP was approved in December 2020. It was prepared in three parts covering both territorial waters and the EEZ. Maritime spatial plans are strategic and general, non-binding plans that have indirect steering impacts. The Regional Councils will monitor the progress of the plan. The 2nd planning and consultation cycle has just been initiated and the updated MSP is expected to be ready in 2026. The MSP is accessible to everyone via Online platform https://meriskenaariot.info/merialuesuunnitelma/en/suunnitelma-johdanto-eng/.

France: In France, four sea-basin strategies ("Documents Stratégiques de Façade – DSF) make up the country's MSP. France applies the EC regulations and in coastal areas (<12 miles) the French MSP is legally binding.

Germany (EEZ): Germany adopted its first MSP in 2009 for the German EEZ of the North Sea and the Baltic Sea. Germany's second MSP entered into force in 2021 and covers the German EEZ of the North Sea and the Baltic Sea, and the territorial sea areas under jurisdiction if the three coastal federal States: Lower Saxony, Schleswig-Holstein, and Mecklenburg-Vorpommern. Plans are legally binding.

[2] MSP European Platform – Countries is available in https://maritime-spatial-planning.ec.europa.eu/msp-practice/countries

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Sweden: Sweden adopted its MSP in 2022. Three national plans covering the territorial sea and the EEZ have been prepared. The plans cover Sweden's EEZ and all areas in Swedish territorial waters, from one nautical mile of the baseline seawards that do not constitute private property. The plan is guiding, but not legally binding.

Latvia: Latvia adopted its legally binding the MSP for Internal Waters, Territorial Waters and Exclusive Economic Zone of the Republic of Latvia (MSP 2030) in 2019.

Lithuania: Lithuania first MSP was elaborated as a part of the Comprehensive Plan for the Republic of Lithuania by including a section on “Maritime territories“. The “Maritime territories” section, which complements the terrestrial spatial plan, was adopted in 2015. This plan expired in 2020, a new Comprehensive Plan for the Republic of Lithuania was prepared. Lithuania adopted the new Comprehensive Plan integrating components of MSP in 2021. MSP applies to the entire marine area of Lithuania including territorial waters and the EEZ. The plan is a legally binding document.

The Netherlands: The Netherlands adopted a first MSP, the North Sea Policy Document in 2009, second in 2015, and a third plan (2021-2027) in 2022. The North Sea Programme 2022-2027 applies to the area of the territorial seas and the Dutch EEZ without municipal division. There is no municipal or provincial division of the North Sea from 1 km from the low water line on the coast. The Policy Document on the North Sea is not itself a legal document.

Norway: First generation plans in place Barents Sea 2006, Norwegian Sea 2009 and North Sea–Skagerrak 2013. Thereafter updates, now scheduled every four years. Last update for all areas endorsed by Parliament June 2020. New updates scheduled for 2024. It is a political framework.

Poland: Poland adopted its MSP for the internal marine waters, the territorial sea and the Exclusive Economic Zone in 2021. The plan is a legally binding document.

3.3. METHODS

A questionnaire (appendix I) was developed to collect data on national MSP processes among BANOS countries. The questionnaire was sent to BANOS national contact points who were responsible for collecting the national data. Due to lack of Lithuanian national contact point, an online interview was carried out with a policy group advisor who provided input for the country profile. The data reported in the questionnaire was collected from national level MSP documents and other associated referenceable sources or via direct interviews or other contacts with national MSP representatives. Additional information on the MPS process in the countries was collected from European MSP Platform from country profiles, and for Baltic Sea countries from VASAB report by (Veidemane 2021).

The quality of the collected data, including coverage and level of detail, varied strongly between countries. Therefore, in-depth analyses and comparison of country profiles was not feasible. However, the data can be qualitatively used to identify most common concerns and conflicts in the BANOS area.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

In addition, a desktop study was conducted to search for additional examples of case studies with a focus on the blue economy in the BANOS area and stakeholder concerns and conflicts. Here, focus was given to peer-reviewed literature as well as other relevant and reputable literature. The literature search was carried out with SCOPUS and Google Scholar search engines.

3.4. RESULTS AND DISCUSSION

QUESTIONNAIRE: SUMMARY OF THE RESULTS

The overview of the results per question and the general trends are presented below. For raw results, see annex V.

Q1. How many stakeholders were actively engaged in the national MSP consultation process in total?

Stakeholder engagement in the national MSP consultation processes varied across countries. Belgium received extensive input, with 35,830 written contributions, including petitions and emails. Denmark collaborated with a working group of 7 ministries and 10 public agencies, resulting in 251 consultation responses. Estonia engaged around 100 stakeholders. Finland involved 87 invited statements, 54 general feedback responses, and 370 representatives from diverse stakeholder groups. France included at least 2 ministries, 2 inter-governmental organisations, 5 research institutes, and 4 main user organisations. Germany secured broad public participation, while Sweden engaged over 160 stakeholders during formal consultations and involved various sectors and neighbouring countries. Latvia established a stakeholder database of over 440 individuals and engaged different segments, including economic sectors and the general public. Lithuania organised forums with 20 main stakeholder organisations. The Netherlands engaged at least 100 stakeholders on governmental and broader levels. Poland had diverse participation, including more than 230 written proposals and remarks, about 700 participants in open consultations, about 400 participants in targeted workshops, and more than 35 stakeholders in international meetings. However, exact participant numbers for specific formats were not publicly available. In addition to the stakeholder engagement, the level of detail and format of the MSP varied greatly.

Q2. What were the formats of the consultations? e.g., online questionnaire/ workshop/ webmap/other

Table 2. The overview of the MSP consultation formats in BANOS area.

	Information supply		Consultation			Active participation	
Country	Newsletter/leaflets/ mailing lists	Website	Public hearing	Seminars, workshop, forums	Written input, comments	Working groups/ Advisory Committees (invitations based)	Scenario/vision development/ modelling

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Belgium	x	x	x	x	x	x	x
Denmark		x	x	x	x		x
Estonia	x	x	x	x	x	x	x
Finland	x	x	x	x	x	x	x
France	x	x	x	x	x	x	x
Germany, EEZ	x	x	x	x	x	x	
Sweden	x	x	x	x	x	x	x
Latvia		x	x	x	x	x	x
Lithuania	x	x	x	x	x	x	
The Netherlands		x	x	x	x		
Norway			x	x		x	
Poland		x	x	x	x	x	

Q3. What was the most successful stakeholder consultation format? What was the unsuccessful?

In the context of MSP processes, various stakeholder consultation formats have been employed, each with its own strengths and weaknesses.

Successful formats often include stakeholder workshops that facilitate discussions between sectors with opposing views. These workshops enable MSP authorities to mediate and reach compromises, contributing to effective decision-making. Informal consultations are also valuable as they can prepare stakeholders for formal processes, enhancing their engagement and understanding.

Online presentations and meetings are effective in reaching a wide audience, while physical regional meetings provide citizens with opportunities to express concerns and reactions to MSP plans. Digital consultation modules can be clear and impactful but may pose challenges for some users.

Thematic stakeholder engagement events, particularly those involving motivated members in small focus groups, encourage topical discussions and valuable input. Collaborative learning and consultation during vision phases have proven effective in creating shared MSP visions.

Workshops and meetings in general are successful consultation formats, fostering dialogue and cooperation among stakeholders. Combining multiple formats, including small-scale workshops, has shown promise, involving a diverse range of stakeholders and intensifying discussions on plan-related solutions.

However, challenges persist, including timely stakeholder engagement and ensuring stakeholders are well informed to minimize discrepancies. Effective MSP consultation should prioritize interactivity, dialogue, and cooperation, involve target groups, and provide clear communication and documentation throughout the process.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Q4. What were the main stakeholder groups represented/engaged in the consultation process?

In MSP, diverse stakeholder groups are engaged to ensure comprehensive consultation and representation of interests. Key stakeholders include government agencies, maritime industries (shipping, fisheries, energy, etc.), research institutes, environmental NGOs, local communities, non-profit organisations, private businesses, defence, cultural heritage entities, tourism associations, and international collaborators. Public engagement is vital for transparency and wider acceptance and ownership of the results. Engaging these diverse stakeholders is crucial for developing inclusive MSP that balances environmental, economic, social, and cultural aspects while promoting sustainability.

Q5. What stakeholder concerns were identified in the MSP process?

The following conflicts and concerns reflect the challenges and complexities faced in MSP process in the Baltic Sea and North Sea region (Figure 11).

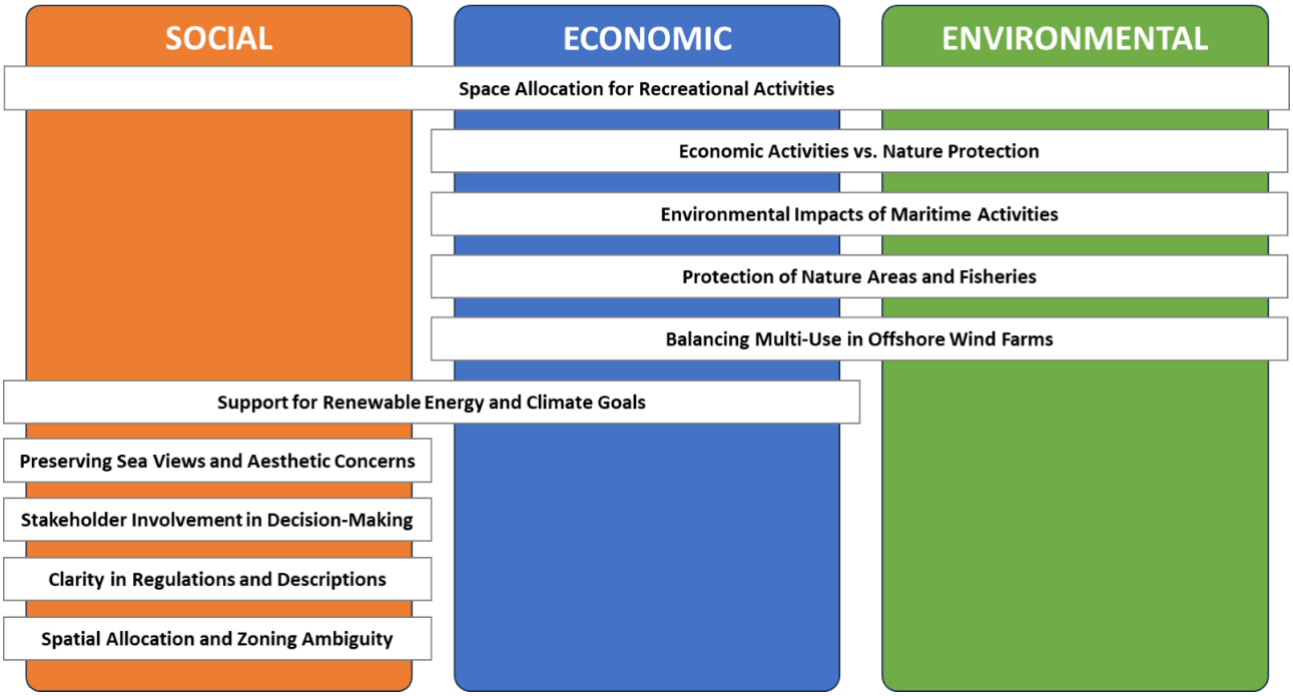


Figure 11. Schematic overview of most common conflicts experienced in MSP stakeholder consultation processes within the BANOS region. Linkages between the concerns and social, economic and environmental sustainability are also identified.

Economic Activities vs. Nature Protection: Conflicts arise over the coexistence of economic activities within protected areas, particularly Natura 2000 sites, which may compromise nature conservation goals.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Space Allocation for Recreational Activities: Stakeholders, including recreational fishermen and water sports enthusiasts, express concerns about limited space due to strict regulations, impacting their activities.

Environmental Impacts of Maritime Activities: Concerns revolve around the environmental consequences of various activities, such as shipping emissions, pollution, dredging, and bottom trawling.

Protection of Nature Areas and Fisheries: There is a demand for increased protection of nature areas without exceptions for fishing, dredging, or other potentially harmful activities.

Balancing Multi-Use in Offshore Wind Farms: Stakeholders emphasise the importance of balancing multiple uses within offshore wind farms, including aquaculture, fishing practices that minimise seafloor impact, non-motorised water sports, and shipping.

Preserving Sea Views and Aesthetic Concerns: Concerns are raised about preserving sea views and aesthetics, particularly when planning offshore wind energy projects or other infrastructure.

Support for Renewable Energy and Climate Goals: Stakeholders generally support the development of renewable energy, such as offshore wind farms, as a means of achieving climate and sustainability goals.

Stakeholder Involvement in Decision-Making: Some stakeholders advocate for increased involvement in the MSP process, particularly industries like fishing, to ensure their interests are considered.

Clarity in Regulations and Descriptions: Stakeholders seek clear and understandable information on regulations and planning descriptions to avoid confusion.

Spatial Allocation and Zoning Ambiguity: Confusion and tensions may arise due to ambiguities in spatial allocation, particularly in zones designated for commercial and industrial activities.

3.5. LITERATURE CASE STUDY EXAMPLES

In this section, we examine some of the stakeholder conflicts encountered in the BANOS area during the MSP process, as documented in the literature.

PERSPECTIVES AND CONCERNS OF FINNISH AND POLISH COASTAL FISHERIES ON THE MSP PROCESS

The attitude of Finnish and Polish fisheries to MSP process seems to have been very different. Where the Finnish coastal fishers felt trust and inclusion towards the authorities in MSP-process (Erkkilä-Välimäki et al. 2022), the Polish fisheries considered themselves to be less privileged than other stakeholder groups, with little or no power on MSP (Ciołek et al. 2018; Piwowarczyk et al. 2019). The higher trust among the Finnish fishers may be related to generally high level of institutional trust among the public in Finland (OECD 2021), thus being reflected also in the MSP

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

process. Previous bad experiences of Polish fishers with water management authorities, in regarding Natura sites, for example, were likely to contribute to mistrust and lack of participation in MSP-process (Piwowarczyk et al. 2019). In contrast, the intrinsic motivation of Finnish fishers to participate in the MSP was also reflected in their perceptions of the importance of participating in the process and feeling ownership of important knowledge that is relevant to the process Field (Erkkilä-Välimäki et al. 2022). To ensure Polish fisheries participation in MSP-process in future, more time should be allowed for stakeholder engagement and this should be conducted early, in the pre-planning phase (Piwowarczyk et al. 2019). Erkkilä-Välimäki et al. (2022) also highlighted the need for MSP authorities to earn the coastal fishery stakeholders' trust and maintain their motivation throughout the MSP process to better realise the ideas of collaborative planning. Respecting and adapting to the coastal fishery stakeholders' timetables and resources was also seen to be necessary to enable their participation (Erkkilä-Välimäki et al. 2022; Psuty, Kulikowski, and Szymanek 2020).

Despite the differences in stakeholder perspectives on the MSP process, some similar concerns and conflicts were identified among the Polish and Finnish fisheries in respect to use of marine space. Both highlighted conflicts with the environment and nature conservation (Erkkilä-Välimäki et al. 2022; Psuty et al. 2020). Protection of seals and the great cormorants was seen problematic as they eat and expel the catch, and seals also destroy valuable equipment. Porpoises and Natura2000-sites were also mentioned by the Polish fishers whereas Finnish fishers highlighted the nuisance regarding severe restrictions and complicated permitting processes.

The concerns over the expansion of the offshore energy sector were clearly communicated by the Polish fishers, who were strongly of the opinion that the MSP is a mechanism used to introduce offshore wind energy into the marine realm, overriding the rights of traditional users (Ciołek et al. 2018; Piwowarczyk et al. 2019). Finnish fishers were less concerned over the offshore wind development; however, some stakeholder did communicate concerns over maritime transport and test beds for automated shipping that had been implemented without proper consultation. In addition, pollution from maritime transport and general poor health of the Baltic Sea were concerns clearly articulated by the Finnish fishers.

Both Polish and Finnish fishers were somewhat reluctant to develop collaboration with other sea-users primarily due to lack of time or resources. Although, Finnish fishers admitted that co-creation and co-development with other local businesses could have a positive impact on their business. Marine tourism was seen especially promising with opportunities in sightseeing at fish farms, supplying seasonal fish to local restaurants, or joint marketing of fishing tourism. The activities should be done at relatively low-scale, however, due to the high uncertainty of catches, as the availability and predictability of quality fish catches is variable in time and space. It was also noted that these types of activities could cause a potential conflict between commercial fishers and recreational fishers.

3.6. CHALLENGES IN MULTI-USE STAKEHOLDER ENGAGEMENT

Multi-use platform (MUP) and multiple-use of space (MUS) are seen as a solution to alleviate environmental effects of increasing human activity in seas and a driver of blue growth. However,

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

successful integration of maritime activities requires coordination, investment, and risk-taking, with business models tailored to each case (Legorburu, Johnson, and Kerr 2018). Sustainability varies spatially, depending on resource availability, environmental impacts, and socio-economic factors, necessitating careful spatial analysis. Case studies of MUPs in wave energy, offshore wind energy, aquaculture and desalination, highlight the need for financial support to prioritize small-scale technology initiatives initially for these niche markets (Dalton et al. 2019).

Common stakeholder concerns and conflicts regarding multi-use (MU) can be divided into two categories: framing and application (Onyango et al. 2020). Framing issues arise when policy documents are not clearly defined and the principles of synergy and efficiency are not well elaborated. There are no coordinated attempts to mainstream MU, with varied terminologies used across different countries. Application on the other hand relates to physical boundaries of the environment, involving “hard MU” combinations, such as renewable energy and aquaculture. These combinations often emerge informally, with established first users granted exclusive rights in an area, followed by second users to enhance compatibility and synergy. Overall, challenges in the governance of the marine sector contribute to limited MU application, as stakeholders perceive barriers to MU hindering their potential. To promote MU, policymakers should focus on creating an environment with low risks and significant incentives, backed by successful trials. Lessons from case studies in the North Sea indicate that each MU is context-specific, making direct transfer of experiences challenging (Onyango et al. 2020). Recommendations include defining economic incentives, inserting MU-friendly regulations into MSPs, capacity building, common standards for transboundary issues, and increased collaboration between maritime clusters.

Developing large-scale offshore wind farms often results in conflicts over marine resource use, necessitating the resolution of these conflicts and ensuring access for diverse stakeholders. This can be achieved through MSP, which focuses on multi-use scenarios. However, MSP should not solely be treated as a design issue to solve but rather as a social process. Achieving a balance among competing interests requires meaningful participation from all parties, which can be challenging in MSP processes. Overcoming these challenges requires stakeholder collaboration and fostering meaningful participation in planning processes. As an example, in the Dutch process “*Communities of Practice*” (CoP) was used to balance different interests. *'Community of Practice North Sea'* (CoPNS) brought stakeholders together to share knowledge and experiences in the context of changing demands, such as offshore wind, conservation, and seafood production. By separating policy from practice and creating a supportive learning environment, CoPs can encourage collaboration among stakeholders informally, focus on working on practical ideas and solutions and facilitate the move toward the multi-use of marine resources (Steins et al. 2021).

A case study from Gulf of Bothnia, Baltic Sea, suggests that co-location of offshore wind power and aquaculture is possible, with investment costs primarily associated with wind power and platform construction (Mikkola et al. 2018). Importantly, these costs are relatively lower compared to other multi-use concepts using more advanced technology. However, further analysis is needed to estimate the potential revenues from this co-location. While certain factors, such as windmill structural solutions for ice loads and submersible fish cages, increase costs, they are considered within the realm of existing technology and economically viable for further detailed examination. The large-scale nature of this investment, along with potential opposition to wind energy and fish farming,

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

underscores the importance of streamlining the permission process for co-locating offshore activities. This can be achieved through improved zoning and national MSP development efforts, ultimately facilitating the growth of the blue economy in the North Sea area (Mikkola et al. 2018).

STAKEHOLDER VIEWS OVER MULTI-TROPHIC, LOW-IMPACT AQUACULTURE

As part of the European Green Deal, in 2021 the European Commission published new guidelines for more sustainable and competitive EU aquaculture for the period 2021 to 2030 (European Commission 2021b). The guidelines highlight the need for the development of aquaculture with a relatively low environmental impact, as well as the need to enhance the social acceptability of aquaculture. The objectives of EU Mission: Restore our Ocean and Waters also emphasises the need to develop low-trophic, low-impact aquaculture practices.

Low-trophic aquaculture, including e.g., bivalve and macroalgae cultivation, have been proposed as more environmentally friendly forms of mariculture than traditional finfish farming. Such approaches have also been suggested to appeal to public reducing stakeholder concerns due to the reduced environmental impacts, thus providing a greater support and positive image for local aquaculture enterprises and fostering political support for the sector in general (Ahrendt et al. 2018). These observations were also generally supported by a recent study on community perspectives on mussel farming in the Baltic Sea (Petersen and Stybel 2022). The outcomes show that the mussel farming was relatively well accepted by various stakeholder groups and did not provoke large open protest; however, local residents did express some concerns regarding disruption of the waterscape, competition for space, and generation of waste.

To alleviate environmental pressures of traditional aquaculture, algae and mussels have been proposed to be used in combination with carnivorous finfish farming as they filter feed on particulate and dissolved organic matter excreted by the fish. The recycling of nutrients and organic matter makes the concept of integrated multi-trophic aquaculture (IMTA) very appealing, leading to increase in circularity, reduction of waste and environmental impacts e.g., associated with eutrophication.

The perception of IMTA among European stakeholders, including North Sea stakeholders from Norway and Scotland, was assessed by Alexander et al. (2016). Shared concerns focused on spatial issues, food safety and disease control. In addition, concerns on the environment, governance, and the industry itself were raised, yet solutions to these were identified, including environmental impact studies, education, and changes to legislation. Furthermore, new forms of income streams were also perceived very positive together with waste utilisation.

The spatial concern to include low-trophic aquaculture into the formal MSP process in the Baltic Sea were addressed in the study of Armoškaitė et al. (2021). The results highlight the need to involve and engage with the macroalgae cultivation sector actively during the planning process to support the political and technical development of the sector. In addition, the development of the low-trophic aquaculture is challenged in the Baltic Sea by its unique environmental conditions including low salinities that restricts the number of potentially cultivated species. Difficulties are also imposed by lack of suitable cultivation techniques as the widely used approaches seem to be inappropriate for

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

native species. Industry is also posed by regulatory barriers (Armoškaitė et al. 2021 and references there in).

CONCLUSIONS

Effective MSPs aim to manage marine space while considering ecosystem needs and societal goals, including the reduction of conflicts between different sea-based activities and the stakeholder involved. Understanding these common concerns and conflicts is crucial for achieving a sustainable and carbon-neutral blue economy in the BANOS area.

Comprehensive stakeholder consultation requires that various forms of consultations are used, e.g. workshops, online presentations, and regional meetings. The diversity of activities also enables consultations with different stakeholder groups, yet focus on timely engagement, clear communication, and collaboration to create shared visions and solutions add value to consultations. In other words, engaging diverse stakeholder groups, including government, industries, research, environmental NGOs, local communities, and more, creates comprehensive and sustainable maritime plans that considers various interests and perspectives.

Trust building between MSP authorities and stakeholders is critical for avoiding conflicts. Efforts should be made to ensure that all sectors, including smaller ones that may have fewer resources and opportunities to engage in the process than economically more powerful ones, are included equally in the consultation process.

General BANOS area stakeholder concerns in the MSP process included conflicts over economic activities in protected areas, limited space for recreation, environmental impacts, nature protection, multi-use in offshore wind farms, sea view preservation, support for renewable energy, stakeholder involvement, and clarity in regulations and zoning. In addition, sector specific common stakeholder concerns and conflicts were identified.

Multi-use integration: Stakeholders in multi-use scenarios face issues related to policy definition and terminology, hindering mainstream adoption, and physical boundaries of resource use. These stakeholder concerns and conflicts in multi-use scenarios are twofold: framing issues arising from unclear policies and application challenges related to resource boundaries. Collaboration and clear incentives are needed to overcome these barriers.

Coastal fisheries: Stakeholders in the MSP process may have varying levels of trust and engagement, highlighting the importance of trust-building and early engagement. Common concerns among these stakeholders include conflicts related to environmental conservation, such as wildlife issues and offshore energy expansion, as well as challenges associated with maritime transport and the overall health of the marine environment. Additionally, stakeholders may be reluctant to collaborate with others due to resource constraints, even though there is potential for beneficial partnerships in areas like marine tourism, albeit with considerations related to unpredictable catches and potential conflicts with other user groups.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Low-trophic aquaculture: Stakeholder concerns over limitation of available space were clear outcomes of multiple case studies. Multi-use and co-use are viable options to incorporate low-trophic aquaculture into future MSP in the BANOS area, however, for this to happen the sector should be represented in the planning process from the very beginning. Some environmental concerns were also expressed, so educating public over different types of aquacultures and their varying degree of environmental impacts may be important to ensure the social acceptability. For the sector to succeed, licensing and regulatory barriers also need to be addressed.

ACKNOWLEDGMENTS

The authors would like to thank Paulius Kliučininkas for his help with details regarding Lithuanian MSP process. In addition, we would like to thank national MSP experts regarding their input for the questionnaire.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

4. TAKE HOME MESSAGES

Plenty more fish in the Public Engagement Sea: The diverse formats of PE can be tailor-made for your project's needs in terms of time, resources, or expected outcome. PE tide is rising across the Mission Ocean topics, with plenty of room to get inspired and transfer examples into the blue economy landscape.

Swim together or sink: Cooperation with public engagement specialists (NGOs, Research Institutions, etc.) and blue economy sectors can boost an efficient process with win-win partnerships.

A big ocean is made of big and small fishes: Public engagement success is built upon ensuring participation across all sectors regardless of their size or financial power. Adequate inclusion of all stakeholders, in equal terms remains a challenge partly due to the constant rising of new players. However, ensuring representability promotes negotiations and agreements that benefit all.

The coast is clear: Ensuring trust between authorities, stakeholders and citizens' engagement is pivotal for bringing forward the blue economy in the BANOS region.

Make public engagement waves: Complex challenges require a high level of engagement and sparking behavioural towards the sustainable blue economy demands active forms of engagement with the public empowerment.

Our drop in the MSP Ocean: For the first time (to our knowledge), our results explore the concerns and conflicts in the stakeholder consultation of the MSP in the BANOS region.

Cooperation is your port in the storm: The most common concerns in the BANOS area in the MSP process included conflicts over economic activities in protected areas, limited space for recreation, environmental impacts, nature protection, multi-use in offshore wind farms, sea view preservation, support for renewable energy, stakeholder involvement, and clarity in regulations and zoning. Further collaboration and clear initiatives are required to overcome these barriers.

Plain sailing to come: Best practices and successful examples of the stakeholder consultations in the context of MSP can be transferred for efficient development of the blue economy in the BANOS region.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

REFERENCES

Ahrendt, Kai, Horst Sterr, Peter Krost, Wilhelm Windhorst, and Michael Schultz. 2018. “Potential, Constrains and Solutions for Marine Aquaculture in Kiel Bay & Fjord.” *Journal of Coastal Conservation* 22(1):115–30. doi: 10.1007/s11852-017-0509-5.

Alemanno, Alberto. 2022. “Towards a Permanent Citizens’ Participatory Mechanism in the EU.” *SSRN Electronic Journal*. doi: 10.2139/ssrn.4232168.

Alexander, K. A., D. Angel, S. Freeman, D. Israel, J. Johansen, D. Kletou, M. Meland, D. Pecorino, C. Rebours, M. Rousou, M. Shorten, and T. Potts. 2016. “Improving Sustainability of Aquaculture in Europe: Stakeholder Dialogues on Integrated Multi-Trophic Aquaculture (IMTA).” *Environmental Science & Policy* 55:96–106. doi: 10.1016/j.envsci.2015.09.006.

Armoškaitė, Aurelija, Ieva Bārda, Ingrīda Andersone, Ida Maria Bonnevie, Anda Ikauniece, Jonne Kotta, Anneliis Kõivupuu, Liisi Lees, Iwona Psuty, Solvita Strāķe, Sandra Sprukta, Lena Szymanek, Miriam von Thenen, Lise Schrøder, and Henning Sten Hansen. 2021. “Considerations of Use-Use Interactions between Macroalgae Cultivation and Other Maritime Sectors: An Eastern Baltic MSP Case Study.” *Sustainability* 13(24):13888. doi: 10.3390/su132413888.

Bjørkan et al. 2023. *Engaging Citizens with Mission Ocean and Waters: A Toolbox of Approaches. Milestone 6.* Prep4Blue.

Buckingham Shum, S., K. Aberer, A. Schmidt, S. Bishop, P. Lukowicz, S. Anderson, Y. Charalabidis, J. Domingue, S. De Freitas, I. Dunwell, B. Edmonds, F. Grey, M. Haklay, M. Jelasity, A. Karpištšenko, J. Kohlhammer, J. Lewis, J. Pitt, R. Sumner, and D. Helbing. 2012. “Towards a Global Participatory Platform: Democratising Open Data, Complexity Science and Collective Intelligence.” *The European Physical Journal Special Topics* 214(1):109–52. doi: 10.1140/epjst/e2012-01690-3.

Cigliano, John A., Ryan Meyer, Heidi L. Ballard, Amy Freitag, Tina B. Phillips, and Ann Wasser. 2015. “Making Marine and Coastal Citizen Science Matter.” *Ocean & Coastal Management* 115:77–87. doi: 10.1016/j.ocecoaman.2015.06.012.

Ciołek, Dorota, Magdalena Matczak, Joanna Piwowarczyk, Marcin Rakowski, Kazimierz Szefler, and Jacek Zaucha. 2018. “The Perspective of Polish Fishermen on Maritime Spatial Planning.” *Ocean & Coastal Management* 166. doi: 10.1016/j.ocecoaman.2018.07.001.

Creighton, James L. 2005. *The Public Participation Handbook: Making Better Decisions Through Citizen Involvement*. John Wiley & Sons.

Dalton, Gordon, Tamás Bardócz, Mike Blanch, David Campbell, Kate Johnson, Gareth Lawrence, Theodore Lilas, Erik Friis-Madsen, Frank Neumann, Nikitakos Nikitas, Saul Torres Ortega, Dimitris Pletsas, Pedro Diaz Simal, Hans Christian Sørensen, Afroula Stefanakou, and Ian Masters. 2019. “Feasibility of Investment in Blue Growth Multiple-Use of Space and Multi-Use Platform Projects; Results of a Novel Assessment Approach and Case Studies.” *Renewable and Sustainable Energy Reviews* 107:338–59. doi: 10.1016/j.rser.2019.01.060.

Dillon, Justin, Robert B. Stevenson, and Arjen E. J. Wals. 2016. “Introduction to the Special Section Moving from Citizen to Civic Science to Address Wicked Conservation Problems. Corrected by Erratum 12844.” *Conservation Biology* 30(3):450–55. doi: 10.1111/cobi.12689.

Disterheft, Antje, Sandra Caeiro, Maria Ramos, and Ulisses Azeiteiro. 2012. “Environmental Management Systems (EMS) Implementation Processes and Practices in European Higher Education Institutions-Top down versus Participatory Approaches.” 31:8–90.

ENGIE. 2021. “Decarbonization.” *Engie.Com*. Retrieved October 9, 2023 (https://www.engie.com/en/front-tag/decarbonisation).

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Erkkilä-Välimäki, Anne, Mari Pohja-Mykrä, Jenny Katila, and Riitta Pöntynen. 2022. “Coastal Fishery Stakeholders’ Perceptions, Motivation, and Trust Regarding Maritime Spatial Planning and Regional Development: The Case in the Bothnian Sea of the Northern Baltic Sea.” *Marine Policy* 144:105205. doi: 10.1016/j.marpol.2022.105205.

European Commission. 2021a. *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on a New Approach for a Sustainable Blue Economy in the EU Transforming the EU’s Blue Economy for a Sustainable Future*.

European Commission. 2021b. *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Strategic Guidelines for a More Sustainable and Competitive EU Aquaculture for the Period 2021 to 2030*.

European Commission. 2022. “EU Missions & Citizen Engagement Activities.” Retrieved July 12, 2023 (https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/eu-missions-citizen-engagement-activities_en).

European Commission. 2023. “Restore Our Ocean and Waters.” Retrieved July 13, 2023 (https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/restore-our-ocean-and-waters_en).

European Parliament. 2021. “Citizens’ Dialogues and Citizens’ Participation in the EU Decision-Making - 2020/2201(INI).” Retrieved September 15, 2023 (https://www.europarl.europa.eu/doceo/document/TA-9-2021-0345_EN.html).

Funtowicz, Silvio O., and Jerome R. Ravetz. 1993. “Science for the Post-Normal Age.” *Futures* 25(7):739–55. doi: 10.1016/0016-3287(93)90022-L.

Gee, Kira, Ivana Lukic, Angela Schultz-Zehden, Erik Ooms, Joseph Onwona Ansong, and Cristian Passerello. 2019. *Addressing Conflicting Spatial Demands in MSP: Considerations for MSP Planners : Final Technical Study*. LU: Publications Office of the European Union.

Gold, Margaret. 2022. “ECSA 10 Principles of Citizen Science.” doi: 10.17605/OSF.IO/XPR2N.

Haklay, Muki. 2013. “Citizen Science and Volunteered Geographic Information: Overview and Typology of Participation.” Pp. 105–22 in *Crowdsourcing Geographic Knowledge*, edited by D. Sui, S. Elwood, and M. Goodchild. Dordrecht: Springer Netherlands.

van Hee, F., A. Seldenrath, and J. Seys. 2020. “Policy Informing Brief: Marine Citizen Sciecne in the North Sea Area - and What Policy Makers Can Learn from It.”

Holmes, Brenton. 2011. “Citizens’ Engagement in Policymaking and the Design of Public Services.”

Hügel, Stephan, and Anna R. Davies. 2020. “Public Participation, Engagement, and Climate Change Adaptation: A Review of the Research Literature.” *WIREs Climate Change* 11(4):e645. doi: 10.1002/wcc.645.

Huttunen, Suvi, Maria Ojanen, Anna Ott, and Heli Saarikoski. 2022. “What about Citizens? A Literature Review of Citizen Engagement in Sustainability Transitions Research.” *Energy Research & Social Science* 91:102714. doi: 10.1016/j.erss.2022.102714.

IFAD. 2009. *Good Practices in Participatory Mapping.*

Jordan, Rebecca C., Heidi L. Ballard, and Tina B. Phillips. 2012. “Key Issues and New Approaches for Evaluating Citizen-Science Learning Outcomes.” *Frontiers in Ecology and the Environment* 10(6):307–9. doi: 10.1890/110280.

Kinney, Penelope. 2017. “Social Research (Update) - Walking Interviews.” (67).

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Lamy, P., A. Citores, A. Deidun, L. Evans, F. Galgani, P. Heffernan, A. Karageorgis, L. Kauppi, D. Manakovski, G. Meissner, V. Moldoveanu, K. Ramm, M. Pedicchio, T. Pitta e Cunha, B. Slat, and G. Pons. 2020. “Mission Starfish 2030 : Restore Our Ocean and Waters.”

Legorburu, Irati, Kate R. Johnson, and Sandy A. Kerr. 2018. “Multi-Use Maritime Platforms - North Sea Oil and Offshore Wind: Opportunity and Risk.” *Ocean & Coastal Management* 160:75–85. doi: 10.1016/j.ocecoaman.2018.03.044.

McHugh, Patricia. 2023a.“Increasing Social Inclusion through Mission Ocean Projects.”

McHugh, Patricia. 2023b.“Increasing Social Inclusion through Mission Ocean Projects.”

Mikkola, Eeva, Jaakko Heinonen, Markus Kankainen, Toni Hekkala, and Juha Kurkela. 2018. “Multi-Platform Concepts for Combining Offshore Wind Energy and Fish Farming in Freezing Sea Areas: Case Study in the Gulf of Bothnia.” American Society of Mechanical Engineers Digital Collection.

OECD. 2021. *Drivers of Trust in Public Institutions in Finland*. Paris: Organisation for Economic Co-operation and Development.

Onyango, Vincent, Eva Papaioannou, Maximilian F. Schupp, Jacek Zaucha, Joanna Przedzymirska, Ivana Lukic, Mario Caña Varona, Angela Schultz-Zehden, Ioannis Giannelos, Rianne Läkamp, and Ilse van de Velde. 2020. “Is Demonstrating the Concept of Multi-Use Too Soon for the North Sea? Barriers and Opportunities from a Stakeholder Perspective.” *Coastal Management* 48(2):77–95. doi: 10.1080/08920753.2020.1728206.

Petersen, Lars Kjerulf, and Nardine Stybel. 2022. “Mussel Farm Location in the Baltic Sea – Community Acceptance or Distrust.” *Ocean & Coastal Management* 223:106144. doi: 10.1016/j.ocecoaman.2022.106144.

Piwowarczyk, Joanna, Magdalena Matczak, Marcin Rakowski, and Jacek Zaucha. 2019. “Challenges for Integration of the Polish Fishing Sector into Marine Spatial Planning (MSP): Do Fishers and Planners Tell the Same Story?” *Ocean & Coastal Management* 181:104917. doi: 10.1016/j.ocecoaman.2019.104917.

Psuty, Iwona, Tomasz Kulikowski, and Lena Szymanek. 2020. “Integrating Small-Scale Fisheries into Polish Maritime Spatial Planning.” *Marine Policy* 120:104116. doi: 10.1016/j.marpol.2020.104116.

Rodrigo, Delia, and Pedro Andres Amo. n.d. *Background Document on Public Participation.* Organisation for Economic Cooperation and Development.

Roniotes A, Vicky Malotidi, Hanna Liappis, and Thomais Vlachogianni. 2015. *A Handbook on the Public Participation Process in the Mediterranean.*

Rowe, Gene, and Lynn Frewer. 2004. “Evaluating Public Participation Exercises: A Research Agenda.” *Science, Technology and Human Values 29 (2004) 4* 29. doi: 10.1177/0162243903259197.

Rowe, Gene, and Lynn J. Frewer. 2005a. “A Typology of Public Engagement Mechanisms.” *Science, Technology, & Human Values* 30(2):251–90. doi: 10.1177/0162243904271724.

Rowe, Gene, and Lynn J. Frewer. 2005b. “A Typology of Public Engagement Mechanisms.” *Science, Technology, & Human Values* 30(2):251–90. doi: 10.1177/0162243904271724.

Schumacher, Karen, and Susan Gortner. 1992. “(Mis)Conceptions and Reconceptions about Traditional Science.” *Advances in Nursing Science* 14(1):1–11.

Steins, Nathalie A., Jeroen A. Veraart, Judith E. M. Klostermann, and Marnix Poelman. 2021. “Combining Offshore Wind Farms, Nature Conservation and Seafood: Lessons from a Dutch Community of Practice.” *Marine Policy* 126:104371. doi: 10.1016/j.marpol.2020.104371.

UNESCO, Intergovernmental Oceanographic Commission of. 2021. *Ocean Literacy within the United Nations Decade of Ocean Science for Sustainable Development: A Framework for Action. Report*. IOC of UNESCO.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Veidemane, Kristina. 2021. “Integrated Report on Stakeholder Involvement and Engagement in Maritime Spatial Planning. Capacity4MSP Project Platform Report Commissioned by VASAB.”

Vohland, Katrin, Anne Land-zandstra, Luigi Ceccaroni, Rob Lemmens, Josep Perelló, Marisa Ponti, Roeland Samson, and Katherin Wagenknecht, eds. 2021. *The Science of Citizen Science*. Springer Nature.

Von Gönner, Julia, Thora M. Herrmann, Till Bruckermann, Michael Eichinger, Susanne Hecker, Friederike Klan, Julia Lorke, Anett Richter, Ulrike Sturm, Silke Voigt-Heucke, Wiebke Brink, Christin Liedtke, Matthias Premke-Kraus, Carolin Altmann, Wilhelm Bauhus, Luiza Bengtsson, Andrea Büermann, Peter Dietrich, Daniel Dörler, Regina Eich-Brod, Laura Ferschinger, Linda Freyberg, Agnes Grützner, Gertrud Hammel, Florian Heigl, Nils B. Heyen, Franz Hölker, Carolin Johannsen, Thorsten Kluß, Thekla Kluttig, Jörn Knobloch, Martin Munke, Kim Mortega, Carsten Pathe, Anna Soßdorf, Tiina Stämpfli, Christian Thiel, Susanne Tönsmann, Anke Valentin, Katherin Wagenknecht, Robert Wegener, Silvia Woll, and Aletta Bonn. 2023. “Citizen Science’s Transformative Impact on Science, Citizen Empowerment and Socio-Political Processes.” *Socio-Ecological Practice Research* 5(1):11–33. doi: 10.1007/s42532-022-00136-4.

West, Sarah. 2017. “How Could Citizen Science Support the Sustainable Development Goals?”

Wiarda, Martijn, Vladimir C. M. Sobota, Matthijs J. Janssen, Geerten van de Kaa, Emad Yaghmaei, and Neelke Doorn. 2023. “Public Participation in Mission-Oriented Innovation Projects.” *Technological Forecasting and Social Change* 191:122538. doi: 10.1016/j.techfore.2023.122538.

World Bank. 2023. “Citizen Engagement.” *World Bank*. Retrieved July 7, 2023 (https://www.worldbank.org/en/topic/citizen-engagement).

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

ANNEXES

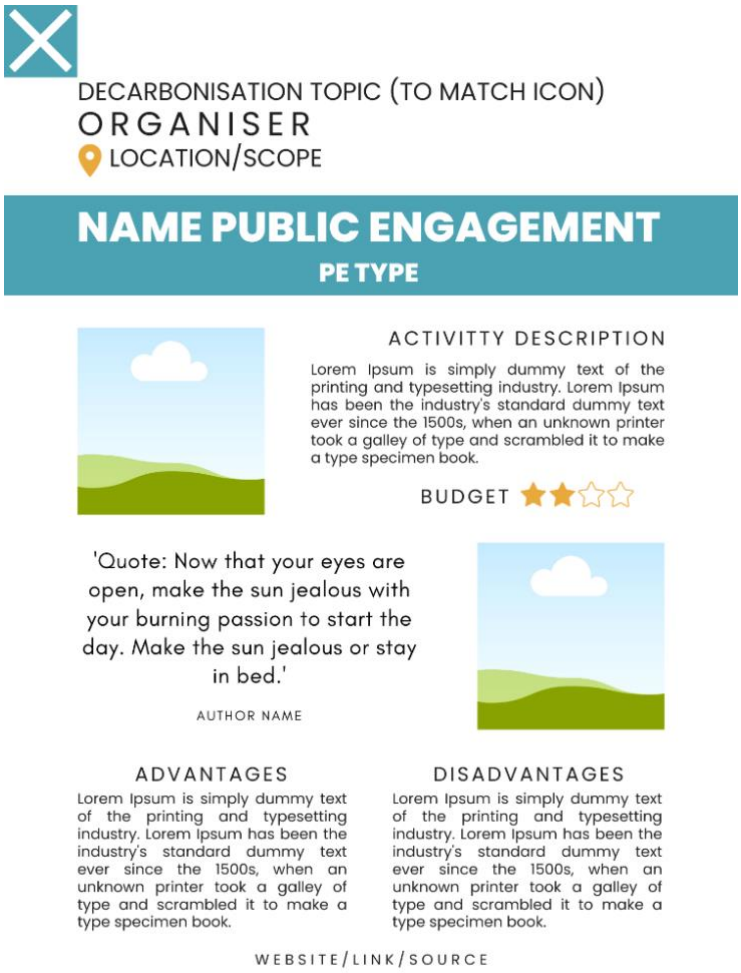
ANNEX I: COLUMN NAMES PE FORMAT DATABASE

ID	Input date	Name of project	Name of project (ENG)	Source	Subtype PE	Organiser lead	Country lead	Type lead	Scope	Cyber	Inclusive	PE aimed age

Original language	Category	Decarbonisation topic	Technology	# participants	Budget	Aim initiative	General description	Name main coordinator	Contact email coordinator	Rating	Explanation rating	Special notes

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

ANNEX II: DESCRCIPTION OF THE PE INFORMATION SHEETS



At the header of each sheet, you'll find details regarding the specific blue economy category to which the project is categorised (Aquaculture, Fisheries, Blue Tourism, Shipping, Offshore Energy - if all categories comply, 'ALL' can be found at the upper left corner), the organizing entity, and the project's geographical location. Moving down the sheet, you will encounter a comprehensive activity description, potential quotes, and supplementary information on the project or the PE format. Furthermore, we have included an estimated budget required to implement the discussed PE format. To simplify budget assessment, we have assigned stars to different budget tiers since online information on budget details if often impossible to find. One star signifies minimal to no budget requirement for establishing the PE format, while four stars denote significant budget allocations, indicative of large-scale PE initiatives with a European scope. At the bottom of the sheet, some pros and cons on using this PE format are listed together with the link to the project. At the bottom of the sheet, some pros and cons on using this PE format are listed together with the link to the project.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

ANNEX III: FULL LIST OF USED SEARCH TERMINOLOGY FOR PE FORMAT MAPPING

To find as many different PE formats as possible we searched combinations of the following terms in all European languages. Since endless combinations can be made with these key words we did not include the entire search list but provide detail on the used search terms.

Public engagement	Search categorieën
Public participation	Carbon neutral
Public involvement	Aquaculture
Public consultation	Fish-consumption industry
Public collaboration	Mariculture
Public communication	Shipping
Community engagement	Vessel transport
Civic participation	Blue tourism
Civic engagement	Ecotourism
Community participation	Fisheries
Social engagement	Fishing industry
Participation of the public	Offshore energy
	Sustainable energy
	Green energy
	Blue energy
	Circular economy

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

ANNEX IV: FULL LIST OF FOUND PE FORMATS IN MAPPING EXERCISE WITH DETAILED FORMAT DESCRIPTION

PE format	Explanation
Book	A written or printed work on paper pages on a certain topic.
Film	A visual artistic creation that emulates experiences and conveys ideas, narratives, perspectives, emotions, aesthetics, or moods by using moving pictures.
Documentary	A film, television show, or radio program that offers an informative presentation on a specific topic.
Podcast	A digital audio file accessible on the internet for downloading to a computer or mobile device, usually organized as a series, with new episodes delivered automatically to subscribers.
Social Media Campaign	A social media campaign involves a synchronized marketing initiative aimed at supporting or enhancing a business objective, utilizing one or multiple social media platforms.
Gaming	Inserting an entertaining and fun element to a certain topic.
Museum or Expo visit	Visiting a certain exposition or museum facility on a certain topic.
Animation movie	A technique that incorporates a wide range of filmmaking methods, wherein static images are manipulated to generate dynamic motion pictures. This can be achieved through traditional means like hand-drawn animation or with computer software such as CGI.
Aquarium visit	Visiting an aquarium exposition or aquarium organisation and getting an insight into the ecosystems and species present in our ocean.
All visual arts	Artistic expression characterised by creations meant to be visually appreciated, including forms like painting, sculpture, and film (in contrast to literary and musical forms).
All performing arts	Types of creative activities conducted in the presence of an audience, encompassing disciplines like theater, music, and dance.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Massive Online Open Course (MOOC)	A web-based distance learning program, accessible at no cost, specifically tailored to accommodate a substantial number of students spread across diverse geographic locations.
Adopt an animal / plant / area	Individuals can donate a certain amount of money to figuratively adopt an animal/plant/area. Typically the raised money is used to safeguard the conservation of this animal/plant/area.
Conference / webinar	(Online) meeting event on a central topic in which generally oral presentations are held and discussions can be held.
Sustainable eating event	An event that focuses on the introduction of sustainable eating and emphasizes the benefits of this lifestyle.
Science Café	Vibrant and interactive gatherings occur in relaxed environments like pubs and coffeehouses, welcoming participants of all backgrounds, where a captivating discussion with a scientist on a specific subject is the centerpiece.
Charity event	Event from which the profits go (entirely) to a good cause or charity organisation.
Survey	A general view, examination, or description of someone or something on a certain topic.
Walking interview / 'go-along'	A qualitative research method which involves a researcher walking with one or more participants while conducting an interview.
Semi-structured interview	A method of collecting data in which questions are asked within a predefined thematic framework, but without strict constraints on their order or wording.
(Beach) clean action	A campaign where trash is removed from beaches, neighborhoods, rivers, lakes, trails, and parks by the community.
Debate / panel discussion	Event that involves a group of people gathered to discuss a topic in front of an audience.
Quiz	A test of knowledge, especially as a competition between individuals or teams as a form of entertainment that can be focused on a certain topic.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

VR / AR experience	A digitally generated environment featuring lifelike scenes and objects, creating an immersive experience that makes users feel fully engaged in their virtual surroundings.
Escape room	A game in which a team of players discover clues, solve puzzles, and accomplish tasks in one or more rooms in order to accomplish a specific goal in a limited amount of time.
Competition / Award / Challenge	An occasion or competition in which individuals participate to determine their excellence in a specific domain.
Science festival/fair	A festival that presents science and technology in an atmosphere akin to that of an arts or music festival, primarily catering to the wider public audience.
Conservation action	Activities undertaken to support the conservation of a particular species or area.
Educational training / material	Materials or trainings developed to educate people on certain topics.
Science centre activity	An activity or event set up by a science centre to give the public the opportunity to engage with a certain scientific topic.
Summer school/camp	a school, or a program generally sponsored by a school or a school district, or provided by a private company, that provides lessons and activities during the summer vacation. This program can be rooted into a specific discipline, e.g.: ocean literacy, law etc.
Citizen science project	A scientific project in which citizens can participate in the data collection of the project.
Excursion / guided trip	A short trip or journey done by a group of people to a specific area or place.
Hackathon	Event that brings people with technical backgrounds together for problem-solving and developing new ideas on a certain topic or problem.
Workshop / Fab lab	A gathering where a collective of individuals immerse themselves in in-depth discussions and hands-on work focused on a specific topic or project. When the practical implementation of certain concepts occurs

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

	within a space equipped with construction tools and machinery for this group's use, it can be referred to as a Fab Lab.
Citizen assemblies	A group of people who are brought together to learn about and discuss an issue or issues, and reach conclusions about what they think should happen.
Participatory mapping	A cartographic procedure striving to illustrate the connection between the land and the nearby communities through the universally comprehensible and acknowledged medium of maps.
Extreme citizen science	A citizen science project in which citizens participate in every step of the project process, not only the data collection.
Co-creation workshops	The practice of collaborating with other stakeholders to guide the design process of a certain project.
(Future) scenario workshops	Workshops are built upon pre-constructed scenarios of the future. The participants' interactions with and evaluations of these scenarios serve as the foundation for shaping future visions and action plans.

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

ANNEX V: RESULTS OF THE QUESTIONNAIRE

Funded by the European Union under Grant Agreement ID 101093845. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

This questionnaire forms part of the D3.1 (report on citizen engagement and concerns in BANOS area with respect to SBE).
More specifically it focuses on the national MSP stakeholder consultation processes and stakeholder concerns within the BANOS region (T3.1.4).
The stakeholder consultations were conducted in each EU country as part of the 1st MSP process that was came to end in 2021.
https://maritime-spatial-planning.ec.europa.eu/faq/stakeholder-involvement

Now, we kindly request that you take the time to fill out this questionnaire by the **23rd of June.**
To collect the national input, you may use e.g.:

- official national MSP documents,
- local media coverage,
- input from planners (expert opinions)
- other referenceable materials

Please note that there is one questionnaire per country. If there are more than one partner organization in your country,
you should collectively answer the questions and organize the work accordingly yourself.

If you have any questions or require further clarification, please do not hesitate to reach out to us. We are more than happy to assist you in any way we can.
Karoliina Koho (karoliina.koho@gtk.fi)
Eero Asmala (eero.asmala@gtk.fi)
Liisi Lees (liisi.lees@ut.ee)

Belgium

Date of completion of the questionnaire (all parts):
Name and email of responsible person:

Please answer the 5 questions below:

1. How many stakeholders were actively engaged in national MSP consultation process in total?

Remarks from citizens (133), industry (3), interest groups (3) and government (3). Five people did not specify on behalf of whom they were submitting
35.830 contributions were made in writing, of which 28.850 were through a petition organised by the municipality of Knokke, 4.622 through a template by the action group "Stop the Island" and 1.045 through a petition organized by the municipality of Koksijde. Through email, more than 15.000 contributions were received through a mail-in campaign organized by WWF and 62 by other instances and citizens.

https://www.health.belgium.be/en/public-consultation-maritime-spatial-plan-belgian-part-north-sea-2020-2026

2. What were the formats of the consultations? e.g. online questionnaire/ workshop/ webmap/other

In the spring of 2017, the review process of the Belgian MSP for the period 2020-2026 commenced with an i nformal consultation . The comments received were collated into a first draft of the new plan and the revision process entered into its formal phase that same year. A pre-draft of the plan was presented to the advisory committee on MSP, a dedicated committee consisting of all the competent Belgian federal and Flemish government services, in Autumn 2017. Their comments and suggestions were included in an updated version. On 20 April 2018, the Council of Ministers adopted the pre-draft MSP (thus becoming a draft) and a large-scale formal consultation process was launched in July 2018. The public sent in more than 40,000 comments. These comments could be submitted in writing or through an online questionnaire. As part of the consultation process, a public hearing was organised and the neighbouring and interested countries were contacted to provide their thoughts on the draft plan. There was also an opportunity for coastal communities to request public hearings in their community, a process that was used by one community (Bredene).

https://maritime-spatial-planning.ec.europa.eu/countries/belgium

Webform online and possibility to submit remarks in writing (paper or email)

https://www.health.belgium.be/en/public-consultation-maritime-spatial-plan-belgian-part-north-sea-2020-2026

Stakeholder workshops; bilateral meetings; public consultation; etc.

https://www.mspglobal2030.org/msp-roadmap/msp-around-the-world/europe/belgium/

3. What was the most successful stakeholder consultation format? What was the unsuccessful?

Remarks submitted through the online form were easier for the authorities to process (already presorted according to sector). However there was a clear preference with stakeholders to use their own formats. Stakeholder workshops with different sector with opposing views/claims where the MSP authority acted in a more mediary role, were useful in coming to a compromise (both in space-use or necessary conditions for uses) between different stakeholders. Single sector meetings can be useful in the beginning of the process to add context to a proposal but are less succesful in decision-making.

Jesse Verhalle (MSP authority Belgium)

Successful: The Formal consultation seemed successful because of a higher number of participants in this second cycle of Belgian-MSP, people like the idea of having planning for the sea. Additionally, the informal consultation was incredibly important, representing a preparation of what stakeholders will say during the formal process. This informal consultation could be regarded as a good practice.

Marjin Rabaut (MSP Expert - DBC)

Unsuccessful: Regardless of the approach, a constant challenge that remains is a timely approach to the stakeholders at the right time of the process (Some were too late) as well as many were not enough informed causing some inconformities and discrepancies. This is still very common issue and should be minimised as much as possible in future consultations.

Marjin Rabaut (MSP Expert - DBC)

4. What were the main stakeholder groups represented/engaged in the consultation process?

entire Q4 : government, industry, research and general public

https://www.health.belgium.be/en/public-consultation-maritime-spatial-plan-belgian-part-north-sea-2020-2026

5. What stakeholder concerns were identified in the MSP process?

Economic) activities inside protected areas/Natura2000 leaves no space for nature protection, no regulatory basis to inhibit these activities.

Please give reference to here/or name of expert consulted

Stronger transboundary collaboration between different MSPs is needed. Administrative costs are relatively low for the Public Service, while the administrative gains are perceived as rather high by the stakeholders. *-There is not enough space for (recreational) fishermen and water sports, too many and too strict regulations* *-People express concerns around the environmental impacts of activities in the North Sea (shipping emissions, nature protection, pollution, dredging, bottom trawling)* *-Increase protection of nature protected areas, without exceptions for fishing, dredging, etc* *-Support of multi-use inside OWF: aquaculture, fishing that leaves seafloor intact, non-motorised water sports, shipping transport* *-Sea view should not be limited* *-General Support of wind energy for reaching climate goals* *-Request for more involvement of (fishing) industry in making next MSP* *-Request for clear and understandable information on regulations.* *-Some descriptions were deemed ambiguous and caused confusion/unrest with certain stakeholders, especially regarding the zones for commercial and industrial activities (e.g., the possibility of building islands/windfarms in these zones).*	Study on the economic impact of maritime spatial planning https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/analyse_de_la_consultation_publique_relative_au_plan_damenagement_des_espaces_marins_2020.pdf	

Contact(s) for national MSP planning and stakeholder involvement

First Name	***Surname***	***Title***	***Organisation***	***Email***	***Telephone*** *more info*
Verhalle	Jesse	Marine Attaché (Marine Spatial Planning)	Federale overheidsdienst Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu; Directoraat generaal Leefmilieu; Dienst Marien Milieu	jesse.verhalle@environment.belgique.be	+32-(0)2-5 IMIS | Flanders Marine Institute (vliz.be)

Additional literature and online resources where possible in English (incl national MSP plan and stakeholder involment in the planning process)

	Reference	***online link (if available)***	***Notes:***
1	Information on the public consultation on the MSP 2020-2026	www.consult-environment.be	
2	Brochure marine spatial planning plan 2020-2026	https://www.health.belgium.be/en/brochure-marine-spatial-plan-2020-2026-something-moving-sea	
3	Royal decree establishing the marine spatial planning for the p	https://www.health.belgium.be/sites/default/files/uploads/fi	Non Binding translation (Dutch or French is the official document)
4	Analysis of public consultation	https://www.health.belgium.be/nl/openbare-raadpleging-het	Only available in Dutch or French
5			
6			
7			
8			
9			
10			
11			
...			

Denmark

Date of completion of the questionnaire (all parts):	6/23/2023
Name and email of responsible person:	Cecilie Petersen, SDU

Please answer the 5 questions below:

1. How many stakeholders were actively engaged in national MSP consultation process in total?

The MSP is developed in collaboration with a working group with participants from 7 ministries and 10 public agencies which to a smaller or larger extend have authority at sea.
After development of the proposed MSP, it was sent into consultation from March 31 2021 to September 30 2021.
This consultation was both national and international and any organisation, company or private person could give their comment on the MSP to the authority responsible (Danish Maritime Authority, DMA) for the MSP. The public consultation was open for 6 months.
The DMA received 251 consultation responses during the national consultation.

Expert from the MSP office at Danish Maritime Authority, DMA and https://havplan.dk

2. What were the formats of the consultations? e.g. online questionnaire/ workshop/ webmap/other

Online open consultation, where a letter with comments can be uploaded on the MSP webpage. The Danish MSP is fully digital, and launched with a webmap that anyone can access during the consultation period. On the MSP-platform, havplan.dk, anyone could send in a consultation response through a consultation platform, which allowed the user to select at particular zone, sector or the entire plan as the topic of the consultation response. All consultation responses are publicly available on havplan.dk.
DMA arranged one central information meeting, which was also streamed online, and material (such as recordings and slides) is public available on the website afterwards.
Additionally DMA held 7 regional information meetings, around the country, as well as online meetings. All meetings included Q&A sessions. In total, 18 meetings were held with citizens, municipalities and other stakeholders during the six months of consultation.

Expert from the MSP office at Danish Maritime Authority, DMA and https://havplan.dk

3. What was the most successful stakeholder consultation format? What was the unsuccessful?

Every format has its benefits and downsides. The online presentation meetings that were initially held to launch the plan were good at reaching as many of the stakeholders (ca. 200 participants). However there were little room for 'small' questions or elaborate explanations.
The physical, regional meetings were good at engaging the citizens, and to give them a space to express freely their concerns for and reactions to the plan. There was however limited interest in the meeting, and in some municipalities the number og participants was quite low (ca. 10).
The digital consultation module on havplan.dk proved very effective in terms of making the message of the consultation response clear. However to some users, the set-up might be too difficult. In this case, it is always possible to send an e-mail as well.

Expert from the MSP office at Danish Maritime Authority, DMA and https://havplan.dk

4. What were the main stakeholder groups represented/engaged in the consultation process?

Stakeholder groups spanned: ministries, public agencies, regions, municipalities, (environmental) NGOs, logistics companies, leisure/recreational associations, fisheries organisations, utilities companies, private persons (see attached invited (https://havplan.dk//content/api/latest/files/e716eecb-619b-4e19-8671-c243f5f89333/file), and received consultations (https://havplan.dk/da/page/consultation/answer/3979eda1-428a-4985-8118-c9b5ba7f859f/hist).
The dominant stakeholder groups were NGOs, business organisations and individual businesses. The smallest group was private persons.

Expert from the MSP office at Danish Maritime Authority, DMA and https://havplan.dk

5. What stakeholder concerns were identified in the MSP process?

The concerns expressed by the stakeholders entailed varied from concerns on the geographical extent of specific zones to concerns for elements of the MSP process, including the implementation of the ecosystem-based approach and the environmental assessment.
The sectors that received most attention in the consultation responses were renewable energy and aquaculture, as well as the impacts on the fishing industry.

Expert from the MSP office at Danish Maritime Authority, DMA and https://havplan.dk

Contact(s) for national MSP planning and stakeholder involvement

I havent asked consent to share information, but I can put you in contact if needed.	***Title***	Søfartsstyrelsen, Danish Maritime Authority, D havplan@dma.dk	***Telephone***

Additional literature and online resources where possible in English (incl national MSP plan and stakeholder involment in the planning process)

	Reference	***online link (if available)***	***Notes:***
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
...			

Estonia

Date of completion of the questionnaire (all parts): 21.06.23
Name and email of responsible person: Lembe Reiman (lembe.reiman@fin.ee)/ Liisi Lees

Please answer the 5 questions below:

1. How many stakeholders were actively engaged in national MSP consultation process in total?

~100	*based on the MSP mailing list*

2. What were the formats of the consultations? e.g. online questionnaire/ workshop/ webmap/other

Public consultation 3x (obligatory 2 x+ 1 extra)	https://mereala.hendrikson.ee
physical meetings at coastal counties	https://mereala.hendrikson.ee
anyone who gave feedback via de webmap or e-mail, it was p	https://mereala.hendrikson.ee
dedicated events (e.g. Tallinn maritime days)	https://mereala.hendrikson.ee
mailing list	https://mereala.hendrikson.ee
thematic working groups (environment, recreation, aquacultu	https://mereala.hendrikson.ee

3. What was the most successful stakeholder consultation format? What was the unsuccessful?

Webmap- MSP received little input via the tool	*Lembe Reiman*
(Thematic) stakeholder engagement events- small focus groups with motivated and interested members results in topical discussion and input.	

4. What were the main stakeholder groups represented/engaged in the consultation process?

wind park developers, fishermen (trawlers), environmental groups, coastal inhabitants	*Lembe Reiman*

5. What stakeholder concerns were identified in the MSP process?

From January to April 2021, the Ministry of Finance, in close collaboration with the Ministry of Rural Affairs and Ministry of Economic Affairs and Communications, tried to find a suitable solution to the strong opposition the plan received from the fishermen. Given that both fishing and energy are state interests, it was essential that a compromise was found. Therefore, the Government made an interim decision to leave some of the suitable offshore wind energy areas on hold until the year of 2027. These reserve areas overlap with the most intensive fishing areas. This will provide the fishermen with assurance that their situation will not change until 2027, when the situation will be evaluated again.	*Please give reference to here/or name of expert consulted*
Wind park developers vs private coastal property, living environment	***https://www.riigiteataja.ee/kohtulahendid/fail.html?fid=334604259;*** *https://arileht.delfi.ee/artikkel/120027456/pikaaegne-saaremaa-poliitik-vaidlustas-mereala-planeeringu*
Wind park developers vs coastal people/tourism. The Hiiu MSP, designation areas for offshore wind energy (OWE) were abolished by the National Court of Estonia on 8 August 2018.	https://news.err.ee/1608859901/ministry-s-special-analysis-of-hiiu-maritime-area-not-legal-act-or-decree
Wind park developers vs bird migration routes	
Wind park developers vs shallow areas (biodiversity, Neugrund)	https://www.err.ee/1608889415/valitsus-vottis-neugrundi-madaliku-looduskaitse-alla-alale-tuuleparke-ei-tule

Contact(s) for national MSP planning and stakeholder involvement

Contact(s) for national MSP plannig and stakeholder involvement

First Name	*Surname*	*Title*	*Organisation*	*Email*	*Telephone*
Lembe	Reiman	Adviser at the spatial planning department, EE MSP contact	Ministry of Finance	lembe.reiman@fin.ee	+372611 3615

Additional literature and online resources where possible in English (incl national MSP plan and stakeholder involment in the planning process)

	Reference	*online link (if available)*	*Notes:*
1	MSP	https://www.fin.ee/en/state-local-governments-spatial-planning/spatial-planning/maritime-spatial-planning	
2	MSP background material	https://mereala.hendrikson.ee/en.html	
3		https://maritime-spatial-planning.ec.europa.eu/sites/default/files/download/estonia_november_2022.pdf	
4		https://maritime-spatial-planning.ec.europa.eu/sites/default/files/1_tourism_offshore_wind_1.pdf	
5		https://maritime-spatial-planning.ec.europa.eu/sectors	
6		https://www.fin.ee/riik-ja-omavalitsused-planeeringud/ruumiline-planeerimine/mereala-planeering	
7			
8			
9			
10			
11			
...			

FINLAND

Date of completion of the questionnaire (all parts): 27/06/2023
Name and email of responsible person: Eero Asmala (eero.asmala@gtk.fi)

Please answer the 5 questions below:

1. How many stakeholders were actively engaged in national MSP consultation process in total?

Please type your answer here	*Please give reference to here/or name of expert consulted*	
87 invited statements, 54 general feedback responses and 3 international (DK, EE and SE) feedback responses on the draft Maritime Spatial Plan in 2019 (total 144). in addition, 370 representatives from different stakeholder groups participated in the planning throughout the process in its different stages.	*Summary of the feedback on the maritime spatial plan and its consideration (2020).*	

2. What were the formats of the consultations? e.g. online questionnaire/ workshop/ webmap/other

Please type your answer here	*Please give reference to here/or name of expert consulted*	
In Finland anyone can register with the MSP coordination network and thus be informed about national and regional activities according to their expressed interests, as well as get information about other participation opportunities and the newsletter.	*Web form to register: https://survey.zef.fi/32m9wote/index.html*	link to webform: https://www.merialuesuunnittelu.fi/
Finland has a developed monitoring and evaluation model for MSP(8) that also foresees the engagement of stakeholders in the collection, analysis and reporting of relevant data and the use of indicators. The developed model is rather conceptual and can be used as a template and inspiration for setting up their own approach. A separate table has been created to link the MSP goals and targets with the monitoring indicators. However, the model does not specify who will ensure the engagement the stakeholders in line with the defined model. Stakeholders were actively consulted/engaged via Questionnaire/ Interviews, workshops/seminars, writen input/commenst/. Also scenarios, advisory board and impact assessment	(8) https://www.merialuesuunnittelu.fi/wp-content/uploads/2020/10/ME_report_2020.pdf	Citation from Veidemane Kristina. 2021. Integrated Report on Stakeholder Involvement and Engagement in Maritime Spatial Planning. Capacity4MSP Project Platform Report commissioned by VASAB.
the approach of close cooperation and engagement of regional and local stakeholders is linked to the situation where the planning mandate is at a regional level. In Finland, maritime spatial plans are drafted and approved by regional councils, which have used their established stakeholder networks at a regional and local level. This practice is extremely essential in a situation where plans are approved by local politicians in regional boards. In addition to regional stakeholders, also national stakeholders and authorities were involved in the planning process During the so called "vision phase" (8 months duration), a vision and roadmaps for the use of maritime areas were developed to achieve the goals (involving 370 stakeholder representatives). In fact, the stakeholders themselves decided how maritime spatial planning is conducted in Finland. The entire planning process began with a series of workshops involving the stakeholders, who constructed the structure for the planning process. For this reason, the plan was prepared only after the stakeholders had built a future vision for the use of maritime areas. Therefore, the maritime spatial plan illustrates this desired state.	*https://www.merialuesuunnittelu.fi/wp-content/uploads/2020/10/vuc*	Citation from Veidemane Kristina. 2021. Integrated Report on Stakeholder Involvement and Engagement in Maritime Spatial Planning. Capacity4MSP Project Platform Report commissioned by VASAB.

3. What was the most successful stakeholder consultation format? What was the unsuccessful?

Please type your answer here	*Please give reference to here/or name of expert consulted*
The most effective phase was the previously described vision phase, where a future image was created together based on the current situation. It involved collaborative learning and a systemic approach. Regarding this content, an official consultation round was conducted, and there was great satisfaction with the vision phase.	*Summary of the feedback on the maritime spatial plan and its consideration (2020).*

4. What were the main stakeholder groups represented/engaged in the consultation process?

Please type your answer here	*Please give reference to here/or name of expert consulted*

• regional development and planning – municipalities, entrepreneur organisations, companies and Metsähallitus *• fisheries promotional organisations, fishery regions, professional fishing,* *aquaculture and fishing harbours* *• extractive industry – entrepreneurs, organisations and researchers* *• international bodies – Baltic Sea countries, especially Sweden, Estonia and* *Russia* *• cultural heritage – the National Board of Antiquities, Military Museum and* *associations* *• national defence – Defence Forces and the Border Guard* *• tourism – entrepreneurs, municipalities and developer bodies* *• energy sectors – companies and interest groups (offshore wind energy, energy cables and pipelines)* *• coastal game – Finnish Wildlife Agency* *• maritime industry – industry, logistics and researchers* *• conservation – nature conservation and environmental organisations,* *Metsähallitus and researchers* *• authorities – Ministries, ELY Centres and municipal representatives*	*Maritime spatial planning Interaction plan (2018)*

5. What stakeholder concerns were identified in the MSP process?

Please type your answer here	*Please give reference to here/or name of expert consulted*
• clarification of the plan's nature and purpose *• land–sea interactions taken into account* *• clarification concerning the plan map and its support library of marking cards of spatial planning zones and markings* *• need to clarify and specify the relationship between maritime spatial planning and promotion of good marine environmental status* *• offshore wind development may trigger a radar compensation requirement and that it is important to take nature values such as significant fish spawning areas into account when developing offshore wind* *• maritime transport needs are different during ice-cover and open-water seasons* *• underwater noise and the need to set speed limits for maritime transport in ecologically sensitive areas* *• fishing needs to be considered as part of cultural heritage and vital archipelago areas* *• ake better account of permanent inhabitants and holiday residents in archipelago areas and their significant logistics and infrastructure needs in order to guarantee a good quality of life* *• use of sites identified for tourism and recreation may be restricted by national defence needs* *• blue biotechnology is not shown on the plan* *• overfishing of salmonids, bycatches, anchoring and ghost nets in the water will adversely affect the marine environment* *• positive effect of hunting on the populations of non-indigenous predators in coastal and archipelago areas*	https://meriskenaariot.info/merialuesuunnitelma/visio-valtakunnallinen-tyopaja/ https://www.merialuesuunnittelu.fi/wp-content/uploads/2020/11/Maritime-Spatial-Plan-draft-for-Finland-2030-Summary-of-the-feedback-and-its-consideration.pdf

Contact(s) for national MSP planning and stakeholder involvement

First Name	*Surname*	*Title*	*Organisation*	*Email*	*Telephone*
Mari	Pohja-Mykrä	Coordinator of Maritime Spatial Planning Cooperation	Regional Council of Southwest Finland	mari.pohja-mykra@varsinais-suomi.fi	+358 41 550 8442
Heikki	Heikki	Planning Director	Regional Council of Southwest Finland	heikki.saarento@varsinais-suomi.fi	+358 40 720 3056

Additional literature and online resources where possible in English (incl national MSP plan and stakeholder involment in the planning process)

	Reference	*online link (if available)*	*Notes:*
1	MSP consultation process	https://www.merialuesuunnittelu.fi/en/295/participate-in-the-planning/consultation/	
2	FEEDBACK ON THE MARITIME SPATIAL PLAN AND ITS CONSIDEI	https://www.merialuesuunnittelu.fi/wp-content/uploads/2020/11/Maritime-Spatial-Plan-draft-for-Finland-2030-Summary-of-the-feedback-and-its-consideration.pdf	
3	Maritime spatial plan 2030	https://meriskenaariot.info/merialuesuunnitelma/en/merialuesuunnitelma-english/	
4			
5			
...			

France

Date of completion of the questionnaire (all parts): 22 June 2023
Name and email of responsible person: Philippe Moguedet, philippe.moguedet@ifremer.fr

Please answer the 5 questions below:

1. How many stakeholders were actively engaged in national MSP consultation process in total?

Please type your answer here	*Please give reference to here/or name of expert consulted*
At least 2 Ministries, 2 inter-govermental organisms, 5 scientific research institutes, 4 main users organizations	Please see below

2. What were the formats of the consultations? e.g. online questionnaire/ workshop/ webmap/other

Mostly Workshops and meetings	Please see below

3. What was the most successful stakeholder consultation format? What was the unsuccessful?

Workshops and meetings	Please see below

4. What were the main stakeholder groups represented/engaged in the consultation process?

Govermental; national administrations; research institutes, main users , citizen's representations	Please see below

5. What stakeholder concerns were identified in the MSP process?

Governemental, administration	
SG MER - Secrétariat général de la mer	https://www.gouvernement.fr/secretariat-general-de-la-mer-sgmer
DGAMPA - DIRECTION GÉNÉRALE DES AFFAIRES MARITIMES, DE LA PÊCHE ET DE L'AQUACULTURE	https://www.mer.gouv.fr/direction-generale-des-affaires-maritimes-de-la-peche-et-de-laquaculture-dgampa
DIRM NAMO - Direction interrégionale de la mer Nord Atlantique-Manche Ouest	https://www.dirm.nord-atlantique-manche-ouest.developpement-durable.gouv.fr/
DIRM MEMN - Direction interrégionale de la mer Manche Est-Mer du Nord	https://www.dirm.memn.developpement-durable.gouv.fr/
MTECT - Ministère de la Transition écologique et de la Cohésion des territoires	https://www.ecologie.gouv.fr
CEREMA - Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement	https://www.cerema.fr/fr
Science	
SHOM - Service hydrographique et océanographique de la Marine	https://www.shom.fr
IFREMER - Institut Français de Recherche pour l'Exploitation de la Mer	https://www.ifremer.fr
OFB - Office Français de la Biodiversité	https://www.ofb.gouv.fr
BRGM - Bureau de Recherches Géologiques et Minières	https://www.brgm.fr
MNHN - Muséum national d'Histoire naturelle	https://www.mnhn.fr
Main users (Marine aggregate extraction Companies, fishermen)	
UNPG - Union nationale des producteurs de granulats	https://www.unpg.fr/
UAPF - Union des Armateurs à la Pêche de France	https://www.armateursdefrance.org/
CNPM - Comité National des Pêches Maritimes	https://www.comite-peches.fr
CRPM - Comité Régional des Pêches Maritimes	https://cpmr.org/fr/
Citizen's representative organizations	
Parlements de la Mer Hauts de France	https://parlementdelamer.hautsdefrance.fr/le-parlement/
Parlements de la Mer Normandie	https://parlementdelamer.normandie.fr/le-parlement/

Contact(s) for national MSP planning and stakeholder involvement

First Name	*Surname*	*Title*	*Organisation*	*Email*	*Telephone*
Olivier	Laroussinie	Director	CEREMA	olivier.laroussinie@cerema.fr	
Céline	Jacob	Project coordinator	CEREMA	celine.jacob@cerema.fr)	
Dominique	Carval		SHOM	dominique.carval@shom.fr	

Additional literature and online resources where possible in English (incl national MSP plan and stakeholder involment in the planning process)

	References	*online link (if available)*	*Notes:*
1	SIMNORAT - Potential approaches for stakeholder engagement on Marine Spatial Planning and outcomes of pilot testing (D14)	https://doi.org/10.5281/zenodo.2597520	
2	SIMNORAT - Stakeholder Perception on Maritime Spatial Planning (D15)	https://doi.org/10.5281/zenodo.2597520	
3	Documents Stratégique de Façade (DSF) & leur Carte des Vocations	https://www.merlittoral2030.gouv.fr/	
4	Manche-Est - Mer du Nord	https://www.merlittoral2030.gouv.fr/content/manche-est-mer-du-nord-5168	
5	NAMO	https://www.merlittoral2030.gouv.fr/content/nord-atlantique-manche-ouest-5142	
...			
6	***Projects:***		
	ReginaMSP (2022-2024)	https://www.cerema.fr/fr/actualites/renforcer-role-regions-planification-espace-maritime-projet https://www.regina-msp.eu/partenaires	
	SIMNORAT (ended in 2019) - France, Spain & Portugal	https://maritime-spatial-planning.ec.europa.eu/projects/supporting-implementation-maritime-spatial-planning-north-atlantic-region	
	SIMCELT (ended in 2017) - France, Ireland & UK	https://maritime-spatial-planning.ec.europa.eu/projects/supporting-implementation-maritime-spatial-planning-celtic-seas	
	SIMWESTMED (ended in 2018) - France, Italy, Malta & Spain	https://maritime-spatial-planning.ec.europa.eu/projects/supporting-maritime-spatial-planning-western-mediterranean-region	

Germany

Date of completion of the questionnaire (all parts):
Name and email of responsible person: Angela Schultz-Zehden

Please answer the 5 questions below:

1. How many stakeholders were actively engaged in national MSP consultation process in total?

Please type your answer here | *Please give reference to here/or name of expert consulted*

Stakeholder Participation in Baltic EEZ MSP: Broad public participation was secured through consultations with stakeholders (agencies and NGOs), including the following sectors: marine environment and nature conservation, fisheries, energy, sand and gravel, shipping, military, tourism, leisure boating, and scientific research.

National Consultation: Taking into account the information received and the results of the workshops and expert discussions, the BSH drew up a concept for the revision of the maritime spatial plans. The concept set out three planning options with different areas of focus. At the same time, the draft scope of the SEA was prepared. A national public hearing to discuss the concept and scope of the SEA was held on 18 and 19 March 2020. On 17 September 2020, the BSH confirmed the investigation framework for the SEA for the revision of the maritime spatial plans. Based on the results of the public hearing, the BSH prepared the first draft maritime spatial plan for the German EEZ in the North and Baltic Seas. The draft plan was published together with the draft environmental reports on 25 September 2020.
Authorities and the public had the opportunity to submit comments on the draft plan and environmental reports. In addition, a consultation meeting was offered as an online conference on 24 and 25 November 2020. The BSH revised the draft plan and the environmental reports based on the comments received and consulted with national ministries and departments. In April and May 2021, BMI and BSH prepared a second draft plan based on the results of that consultation. The national consultation on the second draft plan was launched on 3 June 2021. Comments on the second draft and the revised environmental reports could be submitted until 25 June 2021.

Broad public participation was secured through consultations with stakeholders including participation in conception (planning options) and scoping of such areas as shipping, wind energy, cables, raw material extraction, fishery and marine aquaculture, strategic uses, protection and improvement of the marine environment, national and alliance defence, other concerns to be taken into consideration (underwater cultural heritage, environmental assessment), and designation of the scope of investigation. The BSH conducted various thematic workshops and expert discussions. The process of updating was characterised by information exchange, consultations, and formal and informal participation meetings. The process was accompanied by a scientific advisory board with representatives from research and legal institutes. In parallel to the process, information meetings and expert hearings were held at various times in the parliamentary arena. The results of these were incorporated into the update process.

Public Participation in the MSP for the Baltic 12 sm zone (MV)
The SDP has been developed in a multi-step process, which included public participation. This wide and transparent involvement should help in gaining wide acceptance for the implementation of the programme's requirements.
For the LEP M-V (2005), as well as for the LEP M-V (2016), two broad participation processes have been conducted, including public participation. Additionally, both processes have been accompanied by several regional conferences organised by the responsible ministries.

2. What were the formats of the consultations? e.g. online questionnaire/ workshop/ webmap/other

Please type your answer here | *Please give reference to here/or name of expert consulted*

In 2018, the BSH started compiling information to prepare a preliminary draft baseline report on the development of the MSPs from the adoption of the plans in 2009 to date. The report also includes an assessment of Germany's MSPs of the EEZ (2009), regarding how far the plans contributed to steering the development at sea. The process officially began in June 2019, with the notification of the Ministry of Interior in June 2019 to revise the MSPs of the EEZ. All stakeholders were contacted and asked to provide relevant information. Between September and November 2019, a series of workshops comprising the selected sectors (shipping, environment, energy, fisheries, defence, raw material extraction, underwater cultural heritage) were held to clarify any issues.

Note: There is a GOOD slide on the stakeholder consultation process in the German country page of the EU MSP platform. This is ONLYapplicable for the EEZ!

See above: Online commenting; Workshops; Public Conferences; Inter-action with other specialised agencies asked for commenting

3. What was the most successful stakeholder consultation format? What was the unsuccessful?

Please type your answer here | *Please give reference to here/or name of expert consulted*

4. What were the main stakeholder groups represented/engaged in the consultation process?

Please type your answer here | *Please give reference to here/or name of expert consulted*

See above: Shipping, Nature Conservation, Fisheries, Underwater Cultural Heritage, Defence and Raw Material Extraction

5. What stakeholder concerns were identified in the MSP process?

Please type your answer here | *Please give reference to here/or name of expert consulted*

5 guidelines:
1. Safeguarding and strengthening maritime traffic;
2. Strengthening economic capacity through orderly spatial development and optimisation of spatial use;
3. Promotion of offshore wind energy use in accordance with the Federal Government's sustainability strategy;
4. Long-term sustainable use of the features and potentials of the EEZ through reversible uses, efficient use of space, and priority for marine-specific uses;
5. Safeguarding the natural environment by avoiding disruptions to ecological processes and pollution of the marine environment.

Contact(s) for national MSP planning and stakeholder involvement

First Name	*Surname*	*Title*	*Organisation*	*Email*	*Telephone*

	Bettina	Käppeler	MSP Referentin	Bundesamt für Seeschiffahrt und Hydrographie	Bettina.Kaeppeler@bsh.de	EEZ
	Petra	Schmidt-Kaden	Abteilungsleiterin	Ministerium für Wirtschaft, Infrastruktur,	Petra.Schmidt-Kaden@em.mv-regierung.de	MV
	Petra	Sewig		Ministry of Food, Agriculture and Consu	petra.sewig@ml.niedersachsen.de	SH
	Frank	Liebrenz		State Chanellery of the State Schleswig-Holsteir	frank.liebrenz@stk.landsh.de	LS
	Additional literature and online resources where possible in English (incl national MSP plan and stakeholder involment in the planning process)					
	Reference	***online link (if available)***	***Notes:***			
1	MSP Germany Country Profile Please see here the TEXT on stakeholder involvement in German MSP's (taken from German paper): stakeholder involvement The public as well as public authorities, whose interests are affected by the development of MSP, must be informed and have the opportunity to comment on the draft before setting the maritime spatial plan into force. A public comment round on the preliminary scoping report prior to the development of the draft Maritime Spatial Plans for the EEZ was carried out in 2005. A public hearing and commenting round on the draft Maritime Spatial Plans for the North Sea and for the Baltic Sea took place in 2008 and 2009. The first draft plan and environmental report were submitted for a full consultation in 2008. In 2009 the final draft plan was submitted for consultation before being finalised. The following stakeholder groups submitted position statements: 1 offshore wind energy association, 1 oil and gas industry association, 2 fishing associations, 3 mineral resource associations, 3 leisure boat associations, 4 scientific research institutions, 5 federal public bodies, 8 nature/environment NGOs, 18 coastal municipalities, and 20 regional and state public bodies. Stakeholders largely focussed on the placement of wind parks and use of space within their areas and near them. Based on discussions with all the stakeholders, exclusive zones were designated where only wind parks could be located, with no additional use allowed, and zones (nature protection) where wind parks would be forbidden from being constructed. Prioritisation zones where wind parks could be constructed but where additional users can be found were also identified with stakeholder input.	EU MSP Platform / country page	last updated Oct 2022	note that the process in each of the four MSP planning processes in Germany is quite different in viewof stakeholder interaction	
2	The stakeholder consultations were considered effective in terms of achieving the main goal of locating areas for wind parks while taking into account other users. A wide and inclusive stakeholder consultation was also undertaken for the development of the Federal State plans (see chapters about public participation of the three Federal Coastal States). For the development of the 2021 Maritime Spatial Plan for the German EEZ in the North and Baltic Seas, the update process was characterised by information exchange, consultations, and formal and informal participation meetings. The process was accompanied by a scientific advisory board with representatives from research and legal institutes. In parallel to the process, information meetings and expert hearings were held at various times in the parliamentary arena. The results of these were also incorporated into the update process. In particular, public authorities were asked to provide information on plans, measures, and other relevant information for the planning approval. In the period from September to December 2019, various technical discussions were held on the topics of shipping, marine nature conservation, fisheries, underwater cultural heritage, defence, and raw materials extraction. Within this framework, information was exchanged and planning options, solutions, and possible designations of a new plan were discussed. In addition, the scoping phase was prepared. The Federal Maritime and Hydrographic Agency (BSH) drew up a concept for the update of the plans, taking into consideration the information received from the early participation and the results of the expert discussions. At an early stage in the process, the concept considered three planning					
3						
4						
5						
...						

Sweden

Date of completion of the questionnaire (all parts):	6/29/2023
Name and email of responsible person:	anna.hammarstedt@ivl.se

Please answer the 5 questions below:

1. How many stakeholders were actively engaged in national MSP consultation process in total?

Analysis of the current situation: *128 actors from central authorities, county administrative boards, municipalities, industry and interest organizations and neighboring countries participated in regional meetings and a conference.*
Consultation on the roadmap: *More than 120 stakeholders commented on the roadmap proposal.*
Formal consultation: *More than 160 stakeholders shared comments and inputs in written. More than 2300 comments för made that made up the base for the audit document and impact assessment. (Type of shareholder that answered: 49 Municipalities, 41 neighboring countries, 31 Authorities and Universities, 18 industry and interest groups, 14 County Administrative Boards, 9 companies, 6 private persons, 6 regions, 4 Local Government Associations, 1 political party)*
International consultation: *40 stakeholders, mainly government agencies in environmental protection and infrastructure, from Sweden's neighboring countries.*
Audit *: 135 stakeholders submitted comments on the audit documents. The number of comments exceeded 1300. The comments submitted during the review are included in the documentation submitted prior to the Government's decision.*

Redogörelse för dialogen i havsplaneringen (havochvatten.se)

Learnings for improvement of the process: Not enough involvement of the public and politici

Goncalo Carneiro +46-(0)106986330 Handläggare Havsplanering

2. What were the formats of the consultations? e.g. online questionnaire/ workshop/ webmap/other

Analysis of current situation: In 14 background reports, central authorities presented various issues relevant to the description of the current situation. The coastal county administrative boards produced three regional reports, one for each maritime spatial plan area. Regional meetings and a national conference. The opportunity to comment on the description of the current situation via the web for a period.

Redogörelse för dialogen i havsplaneringen (havochvatten.se)

Consultation on the roadmap E-mails to central authorities, county administrative boards, municipalities, regional bodies, Swedish universities and colleges and relevant industry and interest organizations. During the preparation of the roadmap, four meetings were also held. Meetings were held with Sweden's 14 coastal county administrative boards, a government workshop, a meeting with interest groups and another meeting with relevant sector authorities

Formal consultation: Meetings and official written feedback on comments in the meetings. Thematic working groups that produced in-depth reports and ended with a reconciliation conference.

International consultation: Meetings and official written feedback on comments in the meetings

3. What was the most successful stakeholder consultation format? What was the unsuccessful?

An evaluation report on participation in Sweden s first maritime spatial planning process was made in 2021 . It shows areas for improvement, but not specifically which consultation format that was most and least successful. Positive assessment in the process is given to the fact that it has been carried out in a transparent and legitimate way that has been clear and followed the regulations. The communication and documents in the process have also been good, even if some final versions were complex and demanding to absorb. More than half of the participants are satisfied with the process. According to the actors themselves, their participation has increased in recent years, mainly through meetings, consultation responses and documentation. Most stakeholders have engaged in the last two, more formal steps (consultation and review). Participatory processes need a high degree of interactivity, dialogue and cooperation to identify and address current and future unsolved problems and open up new opportunities

Deltagandeprocessutvärdering_havsplanering_del B_Final 20210614

Learnings for the future is to focus more to get target groups like politicians, industry and interests groups more involved. Have information meetings digital and analog working meetings. Important with early information on the timeplanning.

4. What were the main stakeholder groups represented/engaged in the consultation process?

The municipalities	*Please give reference to here/or name of expert consulted*
The regions	Redogörelse för dialogen i havsplaneringen (havochvatten.se)
Industry and interest groups	
Authorities and public enterprises	Samrådsredogörelse (havochvatten.se)
Universities and colleges	
Companies	
Neighbouring countries	

5. What stakeholder concerns were identified in the MSP process?

- The proposals primarily have an environmental focus and that other societal benefits are not fully highlighted or credited, and other stakeholders consider that there is a lack of ambition when it comes to the environment

- Many stakeholders are positive to offshore wind's climate benefits. Some believe that the proposal is not ambitious enough to meet the needs for renewable electricity and want to increase the number of offshore wind areas in the plans. At the same time, other parties raise objections to certain proposed areas for wind power on the grounds of the areas' high natural values, especially birds and porpoises, or that the national interests of total defense need to be ensured.

Samrådsredogörelse (havochvatten.se)

- Better clarification of cultural heritage values and values related to outdoor recreation
- Comments for more areas with special attention to high nature values
- Calls for developed guidance on what the special consideration to high nature values means
- National interest claims for commercial fishing, spawning and nursery areas
- Rejections on proposed areas where sand extraction is used for nature conservation reasons. Other respondents are positive and refer, among other things, to the need for sand for beach claims.
- Asks for regulation of commercial fishing, such as banning bottom trawling in certain areas, but there are also those who fear increased regulation.
- Investigate measures to reduce the environmental impact of shipping, especially on long-tailed duck and porpoises in the Baltic Sea. Others believe that a lot of documentation is required and that it is complex, for example, to push through a mandatory redirection of maritime traffic.
- The need to simplify and make the environmental impact assessment more transparent and accessible. Some respondents point to uncertainties in supporting data and assessments. There is a demand for clearer assessment against the environmental directives and objectives.
- Higher transparency in sustainability assessments. It also highlights the need to include more cultural and social aspects

Contact(s) for national MSP planning and stakeholder involvement

First Name	*Surname*	*Title*	*Organisation*	*Email*	*Telephone*
Goncalo	Carneiro	Analyst Marine Spatial Planning	Swedish Agency Marine and Water Managemer	goncalo.carneiro@havochvatten.se	+46-106986330

Additional literature and online resources where possible in English (incl national MSP plan and stakeholder involment in the planning process)

	Reference	*online link (if available)*	*Notes:*
1	*Deltagandeprocessutvärdering_havsplanering_del B_Final 20210614 (Havsmiljöinstitutet 2021-06-14*		
2			
3			
4			
5			
...			

Latvia

Date of completion of the questionnaire (all parts):	29-30th June 2023
Name and email of responsible person:	aurelija armoskaite aurelija.armoskaite@lheil.lv

Please answer the 5 questions below:

1. How many stakeholders were actively engaged in national MSP consultation process in total?

The development of the first Latvian MSP took place from January 2015 to May 2019. 2 drafts of the plan were developed and reviewed as part of a participatory process before it was finally adopted in 2019. The number of participants, levels of engagement, target stakeholder groups and the methods of stakeholder involvement varied during the developement of the different drafts.
Stakeholders of the LV MSP are partially defined by the Cabinet Regulation No. 740 (henceforth LV MSP procedures), and by the planners running the Latvian MSP process. The very first version of the MSP (January 2015-mid-2016) was developed by an NGO 'Baltic Environmental Forum' (BEF) subcontracted by the the responsible authority - the Ministry of Environmental Protection and Regional Development, Latvia (MoEPRD). In May 2016, MoEPRD took over the planning exercise, drafted the second version and the final version of the plan.
The folllowing are the three groups of stakeholders, which can be derived from the MSP procedures and anlaysis of the LV MSP process (see Veidemane et al. 2017 and Tafon et al. 2023 for more details), and the approximate numbers of representatives from each group involved in the LV MSP process.

Cabinet Regulation No. 740, Item 22
Veidemane et al 2017
Tafon et al. 2023

i) the MSP Working Group (MSP WG) was established just before the LV MSP process officially kicked off and consists of approx. 30 members representing institutions defined in the MSP procedures.

ii) "target" stakeholders representing economic sectors (e.g., aquaculture and ports), interest groups (cultural heritage, environment NGOs) as well as institutions (unions and federations, businesses and regional and local governments).
Veidemane et al. 2017 report that a stakeholder database was created consisting of over 440 different people and organisations, which were invited to various participation events between 2015-2016.

iii) the wider public - residents of coastal and non-coastal areas. The involvement of the general public is a legal requirement outlined in the LV MSP procedures and wider legislation on public participation in decision making (Cabinet Regulation No. 970). Veidemane et al. 2017 report that in total 137 participants attended first version in-person consultations.

At a MSP WG meeting in May 2016, BEF reported that by then 385 participants had attended participation events most of whom were representatives of municipalities, environmental interests, as well as fisheries, tourism and the transport sectors.

MSP WG meeting protocol no.6

2. What were the formats of the consultations? e.g. online questionnaire/ workshop/ webmap/other

A report on the development of the first LV MSP draft (Veidemane et al 2017, p. 43-44) presents an strategy employed for the participation of the above described groups:
a. inform the public and stakeholders through media, internet, social networks, printed products
b. Consult the public and stakeholders through public hearings, writtend comments and questionnaires.
c.involve stakeholders and the MSP WG through individual and cross-sectoral events
Analysis of the stakeholder enagagement process through out the whole MSP development timeline (see Tafon et al. 2023) suggests that the 3 different groups of actors described in response to Q1. were involved the following ways:

Veidemane, K., Ruskule, A., & Sprukta, S. (2017). Development of a Maritime Spatial Plan: The Latvian recipe.

Tafon, R., Armoskaite, A., Gee, K., Gilek, M., Ikauniece, A., Saunders, F. 2023. Mainstreaming coastally just and equitable marine spatial planning: Planner and stakeholder experiences and perspectives on participation in Latvia. Ocean and Coastal Management. 242. 10.1016/j.ocecoaman.2023.106681

<u>MSP WG in-person meetings in Riga</u>
All MSP WG meetings were held in-person at the capital Riga. They were held approx. 7times from 2015 - 2019, five of which were held during the first draft developemnt (2015-2016).

<u>Regional seminars to facilitate exchange of ideas and define MSP priorities</u>
During the preparation of the first draft, 9 in-person regional seminars with the 'target stakeholders' and the general public were held.
Regional workshops/seminars aimed *'to facilitate the exchange of ideas, view-points and proposals of different sectors, local municipalities and civil society to be incorporated in the vision and priorities of the MSP. Four sector-based (maritime transport; fishery; tourism; production of renewable energy) and two cross-cutting (environment and state security) priorities took shape during this process'* (Veidemane et al., 2017, p. 8). '*The strategic assessment of the scenarios by SWOT analysis was carried out during three coastal regional workshops in July, 2015 with engagement of stakeholders. By following the "world café" method that allowed everybody to express their views on all four scenarios, the participants provided input for the SWOT analysis of each scenario. Four mixed groups with different representation of sectors were setup to promote varied discussions including how to identify the shortcomings of the developed MSP solutions*' (ibid.p.28)

Veidemane, K., Ruskule, A., & Sprukta, S. (2017). Development of a Maritime Spatial Plan: The Latvian recipe.

<u>Target sector consultations</u>
'The stakeholder engagement process during the preparation of version 2 and the final/adopted version between June and September 2017 was a series of consultation events with specific sectoral stakeholders (exclusively shipping and offshore windfarms) in Riga as part of the BalticLINes project' (see Tafon et al 2023).

Individual consultations were also carried out by planners under their own initiative with small ports to encourage engagement.

Draft MSP and SEA review

i)Public hearings of the draft MSP and SEA

7 public hearings with the general public and stakeholders also took place in prep of the first version.
'*Most public hearings and all regional seminars involving stakeholders and the wider public took place in different coastal cities, towns, and rural areas during the initial phase of the first draft plan development' (see Tafon et al. 2023).*

ii)Written feedback and online consultation

Between 18.12.2015.-31.01.2016 BEF reported that 27 state institutions, municipalities, planning regions, as well as individual persons submitted their comments.
'The general public were invited to review the 2nd draft of the MSP online and were given two months to provide written feedback (see Fig. 2). A meeting with the MSP WG was then organised to discuss version 2 of the draft plan and the Strategic Environmental Assessment as well as the feedback received from the wider public.' (Tafon et al. 2023).

Ultimately, the general public were '*informed through public hearings, mainstream and social media and provided with drafts of MSP versions 1 and 2 as well as an online platform to provide feedback. Further, they were invited to hearings and regional seminars held in several coastal towns and the capital Riga'* (Tafon et al 2023).

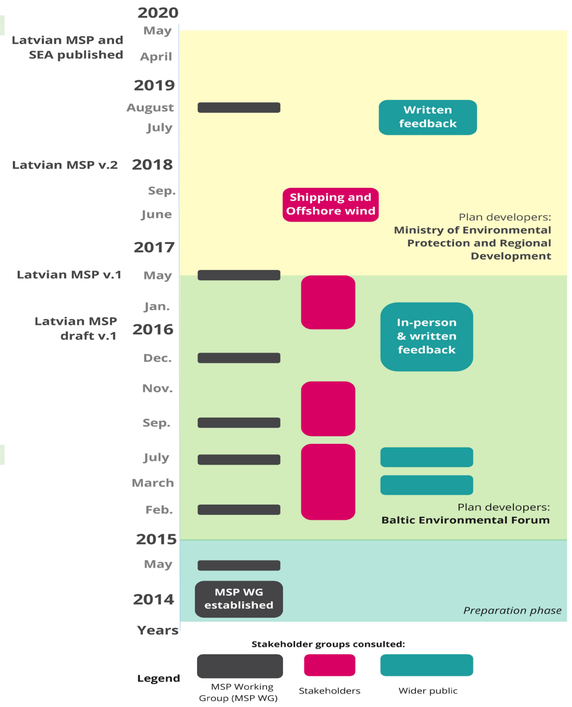
3. What was the most successful stakeholder consultation format? What was the unsuccessful?

The overall approach during the development of the first MSP draft could be seen as relatively effective judging against six equity-based principles for assessing participation in MSP - timely, inclusive, supportive and localised, collaborative, methodological, impactful (see Tafon et al. 2023 for a description of all six). Namely, during the development of the first draft engagement of coastal community groups was 'timely' because it begun early in the MSP process. The planners can also be seen reaching out to a diverse range of coastal interest groups part of the target stakeholder group (i.e., small ports, coastal tourism) through various formal, mass events and communication on a more personal level making the process 'inclusive'. The engagement process was 'supportive and localized ' because hearings and seminars were hosted in a range of coastal towns and more rural, coastal areas.

Tafon et al. 2023

According to a local planner, the use of informal approach (not a formal meeting environment) with an option for open discussions is the most successful format.
At the same time, in an interview LV MSP planners revealed that despite their efforts to conduct consultations in various more remote coastal locations, coastal municipalities did not get actively involved and were instead passive participants despite being invited. Interviews with coastal actors (planner and enterpreneurs) suggest that planners saw MSP as a top-down process, found themselves in a position with lack of capacity to shape the MSP. Interviews also suggest the aims of MSP, value of stakeholder contribution was not clearly communicated to participants outside the MSP WG. All in all revealing that the participatory process was efective in meaningfully enagaging some target stakeholders and not others.

Interviews with LV MSP planners on the topic of social sustianbility dimensions published in Tafon et al 2024



4. What were the main stakeholder groups represented/engaged in the consultation process?

To ellabrate on the answer to question 1:
i) the MSP Working Group (MSP WG) - The MSP WG steered the process and content of the plan, and is required by the LV MSP procedures to represent the following institutions:
the responsible ministry (MoEPRD);
the Ministry of Defence;
the Ministry of Foreign Affairs;
the Ministry of Economics;
the Ministry of the Interior;
the Ministry of Culture;
the Ministry of Transport;
the Ministry of Justice;
the Ministry of Agriculture;
the Cross-sectoral Co-ordination Centre;
Kurzeme planning region;
Riga planning region;
the Latvian Association of Coastal Local and Regional Governments;
the Environmental Advisory Council;
the Fisheries Advisory Council;
the Latvian Port Association;
the Latvian Transit Business Association.

Cabinet Regulation No. 740, Item 22
Veidemane et al 2017

ii) "target" stakeholders

Target stakeholders also included scientists (the Institute of Food Safety, Animal Health and Environment, Latvian institute of Aquatic Ecology), NGOs (WWF, Fishermen federation), ministries (Economics, Agriculture), Maritime administration (Shipping), energy sector (Latvenergo).
During the 2nd half of the LV MSP development process, there was increased focus on consultations with the shipping and the offshore wind sectors (see figure on the right depicting the timeline and type of participation events).
Aquaculture sector represenatives participated in the development of the first LV MSP draft, and aquaculture activities were designated space. Aquaculture skakeholder participation was limited in the secod half of the LV MSP process, the plan was reviewed, and the final version does not include aquaculture.

Caune et al. 2017
Veidemane et al 2017
Armoskaite et al. 2021

iii) the wider public

LV MSP 2019

5. What stakeholder concerns were identified in the MSP process?

tensions related to the introduction of offshore wind farms

Offshore wind farm developements and coastal residents 'Although the potential negative impacts of OWP [offshore wind parks] on coastal landscapes and ecosystems have been acknowledged in the Plan, this aspect was not fully considered as a decision-support criterion for defining the spatial allocation of research areas for the OWP development. Even stakeholder consultations organised while drafting the Plan confirmed that coastal residents oppose the siting of wind parks within a visible distance and the draft Plan proposed a distance of at least 20 km from the coastline as essential criteria for identifying suitable areas for OWP [48]. However, this was not endorsed during the final stage of the adoption of the Latvian Plan. Instead, the adopted Plan foresees that impacts on landscape as well as nature assets shall be assessed when issuing licences for the wind park developments; therefore, negotiation on balancing the interests of OWP and landscape protection is unresolved' (Pikner et al 2022)	*Pikner et al 2022*	
Offshore wind farms and MPAs areas for future MPAs and offshore wind farm developement overlap in the LV MSP. A few years have passed since the adoption of the plan, the MSP working group is coming together to review and update the plan and are seeing tensions between the two interests as both stakeholders have been actively researching the areas and are expressing interest. This will be a challenge for LV MSP to resolve through multi-use or by picking a user.	*Insights from MSP WG members*	

Contact(s) for national MSP planning and stakeholder involvement

First Name	***Surname***	***Title***	***Organisation***	***Email***	***Telephone***
Mārtiņš	Grels	Spatial Planning Department Head of Spatial Planning Policy Division	Ministry of Environmental Protection and Regional Development (MoEPRD), Latvia https://www.varam.gov.lv/en/maritime-spatial-planning	martins.grels@varam.gov.lv	+371 66016733
Kristīna	Veidemane	Baltic Environmental Forum (BEF) Latvia Chair and first LV MSP draft planner	BEF https://www.bef.lv/en/	kristina.veidemane@bef.lv	+371 6735 7555
Anda	Ruskule	Baltic Environmental Forum Latvia borad memeber, environemntal expert, and first LV MSP draft planner	BEF	anda.ruskule@bef.lv	+371 6735 7555
Solvita	Strake	Senior researcher and MSP WG member	Latvian Institute of Auatic Ecology	solvita.strake@lhei.lv	
Aurelija	Armoskaite	Research assistant and PhD student	Latvian Institute of Auatic Ecology	aurelija.armoskaite@lhei.lv	

Additional literature and online resources where possible in English (incl national MSP plan and stakeholder involment in the planning process)

	Reference	***online link (if available)***	***Notes:***
1	"Latvija2030" – the Sustainable Development Strategy of Latvia 2030 (2010)	https://www.pkc.gov.lv/sites/default/files/images-legacy/LV2030/LIAS_2030_en.pdf	
2	Cabinet Regulation No. 740: Procedures for the Development, Implementation and Monitoring of the Maritime Spatial Plan. Adopted 30 October 2012.	https://likumi.lv/ta/en/en/id/252709-procedures-for-the-development-implementation-and-monitoring-of-the-maritime-spatial-plan	Key legal docs underpinning Latvian MSP
3	Spatial Development Planning Law adopted by the Parliament of the Republic of Latvia, 2014.	https://likumi.lv/ta/en/en/id/238807-spatial-development-planning-law	
4	Ministry of Environmental Protection and Regional Development of the Republic of Latvia. 2016. The Maritime Spatial Plan for the Marine Inland Waters, Territorial Sea and Exclusive Economic Zone Waters of the Republic of Latvia. Summary (in Latvian)	https://drive.google.com/file/d/0B9UI5MsfsbRDekFCUjB6OHJTNEU/view?resourcekey=0-5wJWCzAnUnvnlWbElkqTPA	The first version of the Latvian MSP in Latvian only
5	Latvian MSP Environmental report final version summary. 2019.	https://drive.google.com/file/d/1GEBFD5HJA9bVajOPZlDMGHtQsaAAg_RL/view	SEA for the Final, adopted Latvian MSP
6	Cabinet of Ministers Order No. 232: MARITIME SPATIAL PLAN 2030. The Maritime Spatial Plan for the Marine Inland Waters, Territorial Sea and Exclusive Economic Zone Waters of the Republic of Latvia. National level long-term spatial development planning document. Ministry of Environmental Protection and Regional Development of the Republic of Latvia. Adopted 21 May 2019.	https://drive.google.com/file/d/1mKigVjv6N03cjgPkwR5RSItcQezsn5zY/view	The final, adopted first Latvian MSP in English
7	Veidemane, K., Ruskule, A., & Sprukta, S. (2017). Development of a Maritime Spatial Plan: The Latvian recipe.	http://www.balticscope.eu/content/uploads/2015/07/LVrecipe_EN_web.pdf	An output of the BalticScope project summarising the developemnt of first version of the Latvian MSP
8	Cabinet Regulation No. 970: Procedures for the Public Participation in the Development Planning Process, Latvia. Adopted 25 August 2009.	https://faolex.fao.org/docs/pdf/lat182068.pdf	
	Tafon, R., Armoskaite, A., Gee, K., Gilek, M., Ikauniece, A., Saunders, F. 2023. Mainstreaming coastally just and equitable marine spatial planning: Planner and stakeholder experiences and perspectives on participation in Latvia. Ocean and Coastal Management. 242.	10.1016/j.ocecoaman.2023.106681	Scientific paper
	Armoškaitė, A., Bārda, I., Andersone, I., Bonnevie, I.M., Ikauniece, A., Kotta, J., Kõivupuu, A., Lees, L., Psuty, I., Strāķe, S., Sprukta, S., Szymanek, L., von Thenen, M., Schrøder, L., Hansen, H.S. 2021. Considerations of Use-Use Interactions between Macroalgae Cultivation and Other Maritime Sectors: An Eastern Baltic MSP Case Study. Sustainability. 13, 13888.	doi.org/10.3390/su132413888	
	MSP WG protocols (in Latvian)	https://www.varam.gov.lv/lv/juras-planojuma-darba-grupa	
	Caune et al., 2017. Stakeholder Involvement in Long-term Maritime Spatial Planning: Latvian Case.	https://vasab.org/wp-content/uploads/2018/06/Stakeholder_Involvement_Latvian_Case-1.pdf	An output of the INTERREG Baltic Sea Region Transnational Coope- ration Program project "Coherent Linear Infrastructures in Baltic Maritime Spatial Plans (Baltic LINes)"
	Pikner, T.; Piwowarczyk, J.; Ruskule, A.; Printsmann, A.; Veidemane, K.; Zaucha, J.; Vinogradovs, I.; Palang, H. Sociocultural Dimension of Land–Sea Interactions in Maritime Spatial Planning: Three Case Studies in the Baltic Sea Region. Sustainability 2022, 14, 2194.	https://doi.org/10.3390/su14042194	Scientific paper

Lithuania

Date of completion of the questionnaire (all parts):	22.8.2023
Name and email of responsible person:	Paulius Kliučininkas <paulius.kliucininkas@am.lt>
Lithuania first Maritime Spatial Plan was elaborated as a part of the Comprehensive Plan for the Republic of Lithuania by including a section on “Maritime territories“. The “Maritime territories” section, that complements the terrestrial spatial plan, was adopted by the Parliament of the Republic of Lithuaniathe, the Seimas, on 11 June 2015. This plan expired in 2020, a new Comprehensive Plan for the Republic of Lithuania was prepared. Lithuania adopted the new Comprehensive Plan integrating components of Maritime Spatial Planning, on 29 September 2021. https://maritime-spatial-planning.ec.europa.eu/countries/lithuania	Info from interview (22.8.23): MSP is connected to national territorial plan. Same process for the whole country, no difference for land and sea. All stakeholders were the same and involved. 1st plan: formal and administrative plan carried out at ministry level- not much public engagement, basis for second plan; 2nd plan: advanced innovative solutions (vision done before the plan). 2nd one took SH into account more. Min of Env- generally in charge to connect different areas. Monitoring: not done for the first plan; second plan- some agencies have the task to create implementation and monitoring plan. Plan is regulatory, it tells the direction but no specific targets. MSP only tells directions

Please answer the 5 questions below:

	1. How many stakeholders were actively engaged in national MSP consultation process in total?	
2nd	In general for land and sea area: municipalities (6-7 coastal municipalities) and marine institutes, and ministries (economy, transport, etc). 20 main stakeholder organisations. Forums organised for specific groups of stakeholders, some very open, approx. 2-3 forums per year. Thematic forum on MSP others more general also including land-based planning.	
	2. What were the formats of the consultations? e.g. online questionnaire/ workshop/ webmap/other	
1st l	*Public consultations, seminars/workshops/forums, written comments, working groups (group of experts- not public)/advisory board/*	*Veidemane Kristina. 2021. Integrated Report on Stakeholder Involvement and Engagement in Maritime Spatial Planning. Capacity4MSP Project Platform Report commissioned by VASAB.*
1st l	*"the first Lithuanian MSP process (in 2015) can be described as centralised, unidirectional and occurring late in the process. Under Lithuanian law, there is no formal requirement to involve. regional and local authorities in the planning process, with the exception of public consultations, thus coastal authorities have had a minor role in the development of the first Lithuanian MSP (Hassler et al, 2017)." (Note: not clear if the above information was for the 1st or 2nd consultations)*	*Veidemane Kristina. 2021. Integrated Report on Stakeholder Involvement and Engagement in Maritime Spatial Planning. Capacity4MSP Project Platform Report commissioned by VASAB.* *Hassler et al. (2017). BONUS BALTSPACE D2:2: Ambitions and Realities in Baltic Sea Marine Spatial Planning and the Ecosystem Approach: Policy and Sector Coordination in Promotion of Regional Integration. Huddinge: Södertörn University. https://www.baltspace.eu/files/Policy-and-Sector-report-BONUS-BALTSPACE-May-23th-2017.pdf*
2nd	E-mails were form of information exchange.	
2nd	**Working groups** were composed of experts (no local communities).	
2nd	Forum was very open and broad, presentations, workshops and discussions (both ways). 2-3 Forums were opened for all interested parties, one was specifically for MSP.	*productive format.*
2nd	*dedicated webpage*	
	3. What was the most successful stakeholder consultation format? What was the unsuccessful?	
2nd	Forums were successful	*public engagement (different formats- some public, some less public, ~3 public broadcasted via media)*
2nd	Challenges are not about the formats but getting citizens involved.	
	4. What were the main stakeholder groups represented/engaged in the consultation process?	
2nd	*1st question+ communities of local citizens, fishermen, agenci*	Institutions under the ministries were consulted, local communities, fisheries, port (governmental/ministerial level), private institutes were engaged, transportation companies (private consultation). Diversity of engagement could be improved.
	5. What stakeholder concerns were identified in the MSP pr	
2nd	Fisheries/fishermen communities and energy related issues (new lines for energy that don’t follow infrastructure corridors previously decided)-new zones were protested; urban development and port: local/coastal/organized citizens were against port developments and expansion, port takes nature areas away, leisure environment decreases; new plans regarding energy infrastructre- citizens- protests (environmental aspects- port infrastructure expansion, livable urban env natural areas vs actiivities planned in MSP - power lines...). (Article)	
2nd	Energy related aspects and infrastructure of ports (new connection from Poland to Lithuania was planned). Actual protsests.	

	Contact(s) for national MSP planning and stakeholder involv					
	First Name	***Surname***	***Title***	***Organisation***	***Email***	***Telephone***

	Additional literature and online resources where possible in English (incl national MSP plan and stakeholder involment in the planning process)		
	Reference	***online link (if available)***	***Notes:***
1	New Comprehensive Plan of the Territory of the Republic of Lithuania	https://www.bendrasisplanas.lt/2019/12/13/en/	
2			
3			
4			
5			
...			

the Netherlands

Date of completion of the questionnaire (all parts):	26 june 2023
Name and email of responsible person:	Nico Buytendijk nico.buytendijk@rvo.nl

Please answer the 5 questions below:

1. How many stakeholders were actively engaged in national MSP consultation process in total?

On a governmental level with Four Ministries, at least three governmental agencies supported by researchinstitutes. On a broader level with a wide range of governments together with NGO's, researchinstitutes and entrepreneurs — *At least 100*

2. What were the formats of the consultations? e.g. online questionnaire/ workshop/ webmap/other

In person and online — *Please give reference to here/or name of expert consulted*

3. What was the most successful stakeholder consultation format? What was the unsuccessful?

The North Sea consultation (higher level) and the Community of Practice Northsea together with the consultation proces set out by the Ministry of Infrastructure and Watermanagement — *All sorts of consultation serve their own purpose*

4. What were the main stakeholder groups represented/engaged in the consultation process?

Alle stakeholdergroups. Windfarm operators and fisherman are also important groups. — *Please give reference to here/or name of expert consulted*

5. What stakeholder concerns were identified in the MSP process?

The whole issue on space and the distribution of different kinc — *Please give reference to here/or name of expert consulted*

Contact(s) for national MSP planning and stakeholder involvement

First Name	*Surname*	*Title*	*Organisation*	*Email*	*Telephone*

Additional literature and online resources where possible in English (incl national MSP plan and stakeholder involment in the planning process)

	Reference	*online link (if available)*	*Notes:*
1			
2			
3			
4			
5			
...			

Norway

Date of completion of the questionnaire (all parts):	6/28/2023
Name and email of responsible person:	Emily Cowan emily.cowan@sintef.no

Please answer the 5 questions below:

1. How many stakeholders were actively engaged in national MSP consultation process in total?

Please type your answer here	*Please give reference to here/or name of expert consulted*

2. What were the formats of the consultations? e.g. online questionnaire/ workshop/ webmap/other

Conferences/stakeholder meetings and hearings	*Petroleum, fisheries/sea food, transport, environment, renewable energy, defence, foreign affairs, regional development, finance. All at ministerial level, first six sectors mentioned also at agency level, preparing cross-sectoral factual basis/or name of expert consulted*

3. What was the most successful stakeholder consultation format? What was the unsuccessful?

Most feedback recieved from surveys to unions	*How do we measure successful stakeholder consulations?*

4. What were the main stakeholder groups represented/engaged in the consultation process?

Aquaculture	☑	*Oil and Gas*	
Cables and pipelines	☑	*Ports*	
Fisheries	☑	*Scientific research*	
Military	☑	*Shipping*	
Mining	☐	*Tourism and Leisure*	
Nature conservation	☑	*Underwater Cultural Heritage*	
Offshore renewable energy	☑		

	Please give reference to here/or name of expert consulted

5. What stakeholder concerns were identified in the MSP process?

Petroleum activity, fisheries, maritime transport, environment	*MSPglobal2030*

Contact(s) for national MSP planning and stakeholder involvement

First Name	***Surname***	***Title***	***Organisation***	***Email***	***Telephone***
Geir	Klaveness	Specialist Director	Norwegian Ministry of Climate and Environmen	geir.klaveness@kld.dep.no	4,722,245,942

Additional literature and online resources where possible in English (incl national MSP plan and stakeholder involment in the planning process)

	Reference	***online link (if available)***	***Notes:***
1	Norwegian MSP Roadmap	https://www.mspglobal2030.org/msp-roadmap/msp-around-th	Upstart of work 2002, first generation plans in place Barents Sea 2006, Norwegian Sea 2009 and North Sea–Skagerrak 2013. Thereafter updates, now scheduled every four years. Last update for all areas endorsed by Parliament June 2020. New updates scheduled for 2024.
2		https://havforum.miljodirektoratet.no/	
3		https://www.hi.no/hi/nettrapporter/rapport-fra-havforskningen-2023-24	
4	technical basis for management plans	https://www.miljodirektoratet.no/hoeringer/2023/februar-2023/innspill-til-faggrunnlag-for-forvaltningsplanene-for-havomradene/	
5			
...			

Poland: replies are relevant for the marine spatial plan for the entire Polish Marine Areas (PMA; scale 1:200 000); replies do not cover the smaller scale and specific marine s

Document prepared by: Joanna Piwowarczyk; IOPAN <piwowarczyk@iopan.gda.pl>

Please answer the 5 questions below:

1. How many stakeholders were actively engaged in national MSP consultation process in total?	
More than 230 stakeholders submitted written proposals and remarks during the formal, in-written consultation process; about 700 strakeholders participated in the four open consultation meetings organized at the national level; about 400 stakeholders participated in the targeted, small-scale workshops (8 workshops, about 50 participants each); more than 35 stakeholders participated in the international meeting concerning the MSP; while some stakeholders obviously participated in more than one format of consultations, the formal attendance documents are not publicly available and, hence, the exact number of participants cannot be easily identified;	*Matczak, M. (2019) Podsumowanie procesu konsultacyjnego (eng.Summary of the consultation process); a presentation given during the final MSP open meeting in Warsaw; available at: www.umgdy.gov.pl; data was additionally consulted with Ms. Magdalena Matczak on July 3rd, 2023;*
2. What were the formats of the consultations? e.g. online questionnaire/ workshop/ webmap/other	
Three main formats were employed: (i) collecting in-written proposals and remarks concerning the plan (each remark was published and replied to with a justification if (and why) it was included in the plan; (ii) 4 open consultation meetings (national level) organized in big cities to allow for wide stakeholder attendance; (iii) 8 smaller-scale workshops; these workshops were organized upon stakeholders' request and their themes were co-designed with the interested stakeholders; (iv) three meetings at international level. In addition, there were specific consultation at the ministerial level as well as wide dissemination of the MSP process in media, through open lectures and participation in the scientific conferences;	*Matczak, M. (2019) Podsumowanie procesu konsultacyjnego (eng.Summary of the consultation process); a presentation given during the final MSP open meeting in Warsaw; available at: www.umgdy.gov.pl; the data was additionally consulted with Ms. Magdalena Matczak on July 3rd, 2023;*
3. What was the most successful stakeholder consultation format? What was the unsuccessful?	
Since no systematic review has been performed, it is difficult to assess what was most successful. However, it seems that it was the combitation of all these formats that proved the consultation process was rather successful and included a large number of stakeholders groups. Perhaps the small-scale workshops were the most successful (especially in terms of designing the plan-related solutions), where the discussions were most intensive and focused at gatherning then non-existent knowledge (in some areas) and developing certain solutions that could be included in the plan.	*Ms Magdalena Matczak; Ms Joanna Piwowarczyk (based on joint discussions on July 3rd 2023)*
4. What were the main stakeholder groups represented/engaged in the consultation process?	

There is no easily accesible data that could be used to reply to this question. The analysis of the stakeholders' participation were targeted more on the functions included on the plan, areas of stakeholders' interests, and the stakeholder type (which was not equal to stakeholder group). However, it seems that all the most important stakeholders groups were represented during the consultations, including but not limiting to: (off-shore) energy, fishery, national, regional and local level authorities, nature conservation, military, ports, marine transport, mining, tourism, science and cultural heritage. The activity of variuous groups of stakeholders varied significnatly during the different stages of the MSP process, depending on their interests. It seems, however, that no groups were intentionally left outside the process. Perhaps more participation could be beneficial from the science and culture sectors, as well as from the small-scale fishery and civil society at large. However, given the scale of the plan and the extent of the consultation process, further research would be needed to evaluate the additional benefits of the extended participation of these specific stakeholders' groups.	*Matczak, M. (2019) Podsumowanie procesu konsultacyjnego (eng.Summary of the consultation process); a presentation given during the final MSP open meeting in Warsaw; available at: www.umgdy.gov.pl; Ms Magdalena Matczak; Ms Joanna Piwowarczyk (based on joint discussions on July 3rd 2023)*	

5. What stakeholder concerns were identified in the MSP process?		
The MSP process in Poland, including the consultation phase, was preceeded with the stocktaking phase that included identification of the possible (and most likley) tensions and conflicts between stakeholders' operating in the PMA. These tensions (or concerns) did manifest themselves during the actual planning and consultation phases; they were, however, identified before the actual consultation phase. So, it is fair to say that the consultation phase was more about overcoming these tensions (and finding the right solutions) than identifying them. The examples of the most visible concerns and tentions includes: fishery and offshore energy (spatial restrictions to fisheries, economic consequences of spatial exclusion, accidental damage, disturbance of fish species), fishery and nature conservation (spatial exclusion, destructive fishing practices, limitation in gears), offshore energy and conservation (noise pollution, impact on birds, damage to the seafloor), or tourism and offshore energy (concerns for aesthethics disturbances).	*Study of Conditions of Spatial Development of Polish Sea Areas (availble at www.umgdy.gov.pl); Ms Magdalena Matczak; MS Joanna Piwowarczyk (based on joint discussions on July 3rd 2023)*	

Contact(s) for national MSP planning and stakeholder involvement					
First Name	***Surname***	***Title***	***Organisation***	***Email***	***Telephone***
Anna	Stelmaszyk-Świerczyńska	Vice Director	Maritime Office in Gdynia	dtsekr@un	4.86E+10

Additional literature and online resources where possible in English (incl national MSP plan and stakeholder involment in the planning process)		
Reference	***online link (if available)***	***Notes:***
Maritime spatial plan for the Polish Marine Areas (Dz.U. z 2021 r. poz. 935)	https://www.umgdy.gov.pl/plan_morski/opublikowany-plan-zagospodarowania-przestrzennego-polskich-obszarow-morskich/	

	Turski, J., Matczak, M., Szalucka, I., Witkowska J. (2018) Maritime Spatial Planning (MSP) as an integrative factor in POLAND, Bulletin of the Maritime Institute in Gdańsk 33 (1), 83-93.	
1	Zaucha J. (2014) Sea basin maritime spatial planning: A case study of the Baltic Sea region and Poland, Marine Policy 50, 34-45.	https://www.sciencedirect.com/science/article/pii/S0308597X1400133X
2	Piwowarczyk J., Matczak, M., Rakowski, M., Zaucha, J. (2019) Challenges for integration of the Polish fishing sector into marine spatial planning (MSP): do fishers and planners tell the same story? Ocean & Coastal Management, 181, 104917.	https://www.sciencedirect.com/science/article/abs/pii/S0964569118308603
3	Tafon, R., Saunders, F., Zaucha, J., Matczak, M., Stalmokaitė, I., Gilek, M., Turski, J. (2023) Blue justice through and beyond equity and participation: a critical reading of capability-based recognitional justice in Poland's marine spatial planning, Journal of Environmental Planning and Management, DOI: 10.1080/09640568.2023.2183823.	
4		
5		
...		