

BALOWIL

Baltic Sea Offshore Wind Collaborative- Learning project

Final report. Workshop results and recommendations



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Abstract

The expanding offshore wind deployment and related public opposition highlight the importance of exploring novel approaches of stakeholder involvement. Effective ways to address conflicts are needed as targets for the Baltic Sea area with pace of development expected to significantly increase in the next decades. This report presents the pilot project Baltic Sea Offshore Wind Collaborative Learning (BALOWIL) which explores innovative conflict management approaches in offshore wind development. As the existing plans for the Baltic Sea would mean a rapid increase of the deployment effective stakeholder engagement is crucial.

Traditionally, stakeholder dialogues are led by authorities and industry but these have faced constructive communication challenges. Indeed, it has been shown in other projects that NGOs, as facilitators, can enhance transparency and trust, while a Collaborative Learning approach prioritizes open and constructive dialogue. Collaborative approaches through a trusted third party have been suggested, yet the potential has been underexamined. Thus, the BALOWIL project combined these strategies and with promising results. Key findings throughout the discussion included both a variety of concerns, combining economic, environmental and social aspects regarding offshore development but also what type of solutions to these were the most important to the participants.

The project included stakeholders from different sectors with sea dependency from Estonia, Latvia, Lithuania and Sweden. The first stakeholder workshop in Riga served as a new platform for getting acquainted with the Baltic offshore development plans and stakeholder concerns about these, whereas the second event in Tallinn had group discussions regarding the solutions tailored to be relevant to the identified concerns and get feedback. A post-workshop survey underlines the value of the approaches, with the diverse group unanimously agreed that similar projects would have a positive impact on stakeholder inclusiveness (63% agreed, 21% somewhat agreed, 16% strongly agreed). In addition, 90 % agreed that the collaborative learning approach was beneficial (63% agreed, with 16% somewhat agreed, 11% strongly agreed). In addition, 90 % of stakeholders found it easier to share their views when discussions were led by NGOs (53% agreed, 26% somewhat agreed, 11% strongly agreed).

This pilot project also summarises some of these findings in a list of practical recommendations for constructive offshore wind project stakeholder collaboration. However, we want to clarify that the suggestion of having a trusted third-party facilitator such as NGOs, is not meant to replace existing stakeholder involvement processes but rather complement them. Communication challenges often hamper decision-making in wind energy projects, and the findings of BALOWIL could work as an inspiration to additional ways on how to address these and make the decision more sustainable, efficient and fair.

Project partners



Airclim

The **Air Pollution & Climate Secretariat's** chief purpose is promoting awareness of the problems associated with air pollution and climate change. AirClim acts as an information centre, primarily for European environmentalist organisations, but also for the media, authorities, and researchers. Another important role of Airclim is to support environmentalist bodies in other countries in their work towards common ends. AirClim participates in the lobbying and campaigning activities of European environmentalist organisations in order to influence European policies on air quality, climate change and renewable energy, as well as in meetings of the Convention on Long-range Transboundary Air Pollution and the UN Framework Convention on Climate Change. In the field of renewables, in the last four years AirClim has been in particular focusing on offshore wind development

<https://www.airclim.org/>



ECAT

ECAT or Environmental Management and Technology Center is a Lithuanian non-governmental, non-profit organization established in 1997. Since then, ECAT works in the areas of waste management, water protection, air pollution, sustainable energy, climate change, sustainable consumption and public environmental education in these fields. One of ECAT's original goals was implementing sustainable development principles in Lithuanian municipalities.

<https://ecat.lt/>



GL

Green Liberty is one of the leading environmental NGOs in Latvia and an active platform for a team of 20 experts. Green Liberty's main area of work is climate policy and energy transition with several projects dedicated to renewable energy planning, biodiversity governance, stakeholder involvement, climate-neutral lifestyles and financial instruments.

<https://www.zalabriviba.lv/>



IBS

The **Institute of Baltic Studies** is an independent non-profit think tank founded in 1996. The main activity fields are applied research, policy analysis, and local and international projects. IBS's goal is to develop a knowledge-based society by promoting public policymaking in Estonia, the Baltic Sea region, and Europe by providing high-quality socio-economic analysis. In BALOWIL project, co-creation and co-design methodologies are core competencies of the IBS in reaching smart city and sustainable development goals throughout European communities.

<https://www.ibs.ee/en/>



PWEA

Polish Wind Energy Association brings together the leading wind energy companies in Poland: investors, developers, turbine and component manufacturers, both from Poland and abroad. PWEA is an organisation supporting and promoting the development of wind energy, whose purpose, pursued through joint activity of its members, is to create advantageous conditions for investment in wind energy in Poland and to systematically increase the use of wind energy as a clean source of electricity. In the project the role of PWEA, as an association closely working with companies, was to act as an expert of offshore wind development, to give the latest updates on technology and operation synergy potentials. Thus, PWEA was not an active part of the workshop discussion nor not promoting OW but did supporting the work of finding possible solutions.

<http://psew.pl/en/>

Introduction

The goal of the BALOWIL project was to explore and identify new ways of conflict management within offshore wind (OW) deployment. This is particularly important for the Baltic Sea Region (BSR) as it faces rapid OW expansion. Since adoption of the EU Offshore Renewable Energy Strategy in 2020, the EU's overall OW ambition for all five sea basins has increased – the aim is to install up to 111 GW till the end of this decade and 317 by 2050.¹ The OW potential in the Baltic Sea basin is estimated to be over 93 GW, but only 2.2 GW capacity was deployed by mid 2023.²

There are important factors to address to enable a sustainable deployment of OW. The marine space of the BSR is shared among multiple countries and a myriad of stakeholders. Thus, the growing deployment is accompanied by increased conflict potential. The EU Offshore Renewable Energy Strategy highlights the importance of multi-sector collaboration: “At European, national, regional and local levels, offshore renewable developers, other users of the sea, social partners, NGOs and public authorities in coastal areas should engage in long-term strategic discussion on reaching shared goals”. It points out that the EU strongly encourages dialogue with the concerned communities.³

Stakeholder involvement through the perspective of planning and environmental impact assessments certainly includes NGOs but does not acknowledge their special role. NGOs can intervene as a third-party that mediate stakeholder negotiations and undertake consensus building activities. Thus, NGOs can act as facilitators and generate a higher trust level than project planners and authorities. It can allow for less defensive, more transparent and reflective dialogues. BALOWIL analyses conflict management through the collaborative learning approach where these aspects are vital.

This report documents our work on mapping, analysing and discussing stakeholder concerns and offers a selection of good practice examples and recommendations for building inclusive dialogues. In the first part, we describe the collaborative and civic sector aspects of BALOWIL's approach and how we reached out to the participants. Second, we turn to the workshops that took place in Riga (Latvia) and Tallinn (Estonia). For the first workshop, we prepared presentations on the regional OW plans and group discussions structured in environmental, social, and economic topics. The main outcome was a list of stakeholder concerns that we studied to prepare for the second workshop. Next, we present findings from other studies and projects that we later offered as solutions or good practice examples. The notes from group discussions give a more

1 https://energy.ec.europa.eu/news/member-states-agree-new-ambition-expanding-offshore-renewable-energy-2023-01-19_en

2 <https://www.energymonitor.ai/tech/renewables/north-sea-summit-sets-course-for-more-offshore-wind-power/?cf-view>

3 https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2096

narrative snapshot of the main topics. The final section is recommendations for hosting stakeholder dialogues in formal and informal OW events and other participatory processes. Lastly, we have included the results from the questionnaires to show participant attitudes and general evaluation.

Offshore wind in the BALOWIL countries

EU's goal is to achieve 111 GW OW capacity by the end of this decade.⁴ While the North Sea is the leader with more than 22 GW installed, the Baltic Sea basin has become an equally active arena of OW farm planning and development.⁵ Increased ambition and energy crises have highlighted the need of revised permitting procedures and public participation processes. The intention of the EU is to put forward a new Wind Power package that facilitates faster permitting processes and improves the auction systems.⁶

The Baltic Sea is seen as having high potential for developing OW, with 93 GW estimated in total, including 22.5 GW set till 2030, 34.6 GW till 2040, and 46.8 GW till 2050.⁷ Currently, Germany and Denmark are leading the OW sector in the BSR.⁸

In **Estonia** offshore wind development has received a robust support from the national government. The state has indicated they plan to build offshore wind farms as quickly as possible⁹ to meet the national target of having a 100% renewable electricity grid by 2030. Of the major offshore wind projects, EL-WIND will be the first joint initiative with Latvia.¹⁰ In addition, seven companies have recently submitted bids to develop OW projects in the Gulf of Riga for two development sites with total area of 192 km² combined.¹¹

For **Latvia**, there are five OW zones designated in the marine spatial plan (MSP). In 2023, the MSP is under mid-term revision and new guidelines for coastal development and landscape policy will follow. The first OW project was planned in the National Energy and Climate Plan (NECP) – in 2019, the total

4 https://energy.ec.europa.eu/news/member-states-agree-new-ambition-expanding-offshore-renewable-energy-2023-01-19_en

5 <https://www.energymonitor.ai/tech/renewables/north-sea-summit-sets-course-for-more-offshore-wind-power/>

6 https://neighbourhood-enlargement.ec.europa.eu/news/2023-state-union-address-president-von-der-leyen-2023-09-13_en

7 https://cbss.org/wp-content/uploads/2023/05/230509_berlin-declaration-on-baltic-offshore-wind-by-cbss-foreign-ministers_final_consented.pdf

8 <https://windeurope.org/intelligence-platform/product/european-offshore-wind-farms-map-public/>

9 <https://investinestonia.com/estonias-emerging-offshore-wind-tech-innovation-and-manufacturing-hub/>

10 <https://elwindoffshore.eu/>

11 <https://news.err.ee/1609080677/seven-applications-received-to-build-offshore-wind-farms-in-gulf-of-riga>

wind energy target for 2030 was only 800 MW but it is expected to increase significantly in the updated NECP. Currently, the ELWIND project is the most active, while still at an early exploration phase. In June 2023, the EU Connecting Europe Facility allocated nearly 20 MEUR for site exploration studies in Estonia and Latvia. In August 2023, the preliminary public hearing for the ELWIND's environmental impact assessment was organized by the Latvian Investment and Development Agency.

In **Lithuania**, the first OWF auction was successfully completed in summer 2023.¹² The OWF site is located 30 km from Klaipeda. The next auction for another site will take place in autumn 2023, and its environmental impact assessment was concluded in spring.¹³

Poland has the most ambitious plans for OWF. In July 2023, the government proposed to increase the 2030 target for offshore wind from 5 GW to 12 GW¹⁴. Currently, there are no completed OWF projects yet. The revision of permitting procedures and preparation of the transmission system is under way.

From countries represented in BALOWIL, only **Sweden** has operating OW farms. It has 80 turbines grouped in 5 farms, with 192 MW total capacity. In Sweden, the government gave the energy agency a mission in 2022 to find areas for an additional 90 TWh of new electricity production per year along the Swedish coast. On the other hand, recent scenarios indicate that a tenfold increase in OW power in Sweden is possible by the year 2030. By 2050, an expansion to 167 TWh of OW power is estimated to be the most cost-effective way to meet the increased electricity demand. This is only a fraction of the technical potential for OW power in Sweden, which is estimated to be 700 TWh.¹⁵

The accelerated development of OW has created a flashpoint in communities across the Baltic Sea, where stakeholders are concerned with how OW projects will impact their daily lives. This has led to potential conflicts between those who oppose OW and those who would like to see OW farms more rapidly developed. This scenario underscores the importance of communicating with relevant target groups before OW farms are developed to identify challenges and concerns, talk with stakeholders about the implications of OW development, learn from stakeholders about different areas and come to a consensus on the optimum progress.

12 <http://www.circulareconomy.lt/kad-jurinis-vejas-pustu-visiems/>

13 <https://lvea.lt/jurinio-vejo-parkai-europoje-kaip-bendrame-paveiksle-atrodo-lietuva/>

14 <http://psew.pl/en/2023/07/26/offshore-wind-gains-momentum/>

15 Svensk Vindenergi. (2021). "Policyrapport: Havsbaserad vindkraft - en nyckel till industrins omställning". URL: <https://svenskvindenergi.org/wp-content/uploads/2021/12/Policyrapport-Havs-baserad-vindkraft-en-nyckel-till-industrins-omstallning.pdf>

BALOWIL's approach

BALOWIL is a pilot project aiming to find innovative ways of identifying and addressing conflicts in offshore wind deployment. There are different approaches to this challenge within Maritime Spatial Planning (MSP) such as project consultations and public hearings. However, one of the greatest challenges in MSP is communicating and engaging with stakeholders in a collaborative way¹⁶.

Studies have stated that communication is the principal problem to be dealt with during the decision-making process on developing wind facilities.¹⁷ Communicators fail to address potential conflicts when they do not provide meaningful information to the public, do not address the real concerns of people, and do not provide them with timely feedback. Researchers have recommended the collaborative approach regarding stakeholder conflicts when it comes to wind deployment.¹⁸ However, there is a lack of studies specifically focusing on the role of effective communication together with the use of a trusted third party in the decision-making process¹⁹.

Thus, what makes BALOWIL different and innovative is the combination of two aspects, the collaborative learning approach and NGOs facilitating the workshops.

Collaborative learning

Collaborative learning in conflict management refers to an approach where individuals or groups come together to share their perspectives, insights, and experiences with the aim of understanding and resolving conflicts in a constructive and mutually beneficial manner. This approach emphasizes open communication, active listening, empathy, and a focus on finding common ground to reach resolutions that address the needs and interests of all parties involved.²⁰

Studies show that collaborative approaches when it comes to planning wind power deployment are of great importance²¹. The method emphasizes 'talking with' rather than 'talking at' stakeholders. In today's marine spatial planning the level of collaborative process can differ from country to country.

16 Catarina Frazão Santos, Tundi Agardy, Francisco Andrade, Larry B. Crowder, Charles N. Ehler, Michael K. Orbach, Major challenges in developing marine spatial planning, *Marine Policy*, Volume 132, 2021, 103248, ISSN 0308-597X,

17 Jami, A.; Walsh, P. The role of public participation in identifying stakeholder synergies in wind power project development: The case study of Ontario, Canada. *Renew. Energy J.* 2014, 68, 194–202.

18 Wolsink, M. Wind power implementation: The nature of public attitudes: Equity and fairness instead of backyard motives. *Renew. Sustain. Energy Rev.* 2007, 11, 1188–1207.

19 Wolsink, M. Wind power implementation: The nature of public attitudes: Equity and fairness instead of backyard motives. *Renew. Sustain. Energy Rev.* 2007, 11, 1188–1207.

20 Daniels, Steven & Walker, Gregg. (2001). *Working through environmental conflict: The collaborative learning approach*. SSWA Faculty Publications.

21 Day, J.C.; Gunton, T.I. The theory and practice of collaborative planning in resource and environmental management. *Environments* 2003, 31, 5–19.

In comparing collaborative learning to ‘conventional’ stakeholder engagement, several differences are identified:

1. conventional methods tend to prioritise technical knowledge; collaborative learning respects and incorporates non-technical and everyday aspects.
2. conventional methods may view learning as one-way with the purpose of “informing and educating”; collaborative learning emphasizes shared, mutual, and on-going learning.
3. conventional involvement tools, such as public hearings, may present a ‘command and control’ form of communication; collaborative learning, however, supports wide interaction among the parties and communication that features both dialogue and deliberation.

There is also a difference between a group think tank and collaborative learning discussions. The main difference is stages which motivates parties to make progress and develop action. We did this through two workshops, in the first addressing the risks and barriers for OW deployment in the Baltic Sea. Then we returned for a second workshop four months later with possible solutions of the problems identified in the first workshop.

NGO-facilitated discussions

While the benefits of public involvement are undeniable, participation has its own challenges. It has been stated that communication is the principal problem in the decision-making process on developing new wind facilities. However, relatively few studies have specifically focused on the role of collaborative communication and the use of a trusted third party in the decision-making processes. However, the research²² available has shown case studies where stakeholder conflicts in off wind deployment have ended positively when a third party became involved in resolving them. Research that specifically examines the impact of proficient communication and the involvement of a third party facilitator in the context of collaborative decision-making, is however very limited

The reason why NGOs have great potential for leading these discussions is the trust stakeholders may have in them. Research has shown that NGOs can be mediators for proposing solutions but there are no practical examples of this regarding OW within BSR.²³

However, there are examples in other areas. More than a decade ago, PISCES (Partnerships Involving Stakeholders in the Celtic Sea Ecosystem, 2009-2012, Life+ programme) became a lighthouse project for stakeholder communication

22 Anahita A. Jami, Philip R. Walsh, From consultation to collaboration: A participatory framework for positive community engagement with wind energy projects in Ontario, Canada, *Energy Research & Social Science*, Volume 27, 2017, Pages 14-24, ISSN 2214-6296, <https://doi.org/10.1016/j.erss.2017.02.007>.

23 Calado, Helena, et al. “NGO involvement in marine spatial planning: A way forward?.” *Marine Policy* 36.2 (2012): 382-388

carried out by NGOs (led by WWF-UK).²⁴ PISCES was an innovative project that created a partnership of sea-users from the UK, Ireland, France and Spain to jointly explore ways of governing and managing activities in the Celtic Sea more sustainably. The project made stakeholders recognise the benefits of working with others to explore interactions and conflicts, understand different perspectives, and gain knowledge about other sectoral activities. Involvement in the project also strengthened networks both within and between sectors. The report revealed that it is possible to move beyond preconceptions on competing or opposing activities and to identify shared objectives and aims.

Project stages

Henceforth we will go through the different project stages in further detail to demonstrate the process and its steps so that others can use them, too. In addition to the planning and workshop structure we will also include results from the discussion as well as the solutions for stakeholder concerns. It is important to keep in mind that this is a pilot project for the whole Baltic Sea and concerns and solutions are not as location-tailored as need be in decision making processes. Even though this is a smaller project with a wide focus, we found the results of value both from the workshop discussion as well as the preconceptions of the project approaches. As it was briefly mentioned, the positive indications suggested that the collaborative approach was beneficial (90% of stakeholders agreed) and that NGOs leading the discussions made it easier for stakeholders to share their views (90% of stakeholders agreed). However, we want to clarify that these suggestions are not meant to replace existing maritime spatial planning consultations, or public hearings but rather complement them. Communication challenges often hamper decision-making in wind energy projects, and the findings of BALOWIL could work as inspiration to additional ways on how to address these and make the decision sustainable, efficient and fair.

Participants and different sectors

Table 1 below provides information about the participants of the different stakeholders. For the first workshop, there was a total of 18 questionnaire respondents and 20 participants. In the second workshop, there were 19 respondents out of the total of 19 participants. In addition, 12 respondents from the second workshop indicated that they also attended the first workshop. Regarding gender composition, there was virtually an identical number of men and women in the workshops, with slightly more women attending the first workshop, and slightly more men attending the second workshop.

²⁴ <https://maritime-spatial-planning.ec.europa.eu/projects/partnerships-involving-stakeholders-celtic-sea-ecosystem>

Table 1 - Respondent overview

Workshop 1		Workshop 2	
No. of participants: 20		No. of participants: 19	
Survey responses			
Gender	Count	Gender	Count
Male	8	Male	10
Female	10	Female	9
Total	18	Total	19
Age	Count	Age	Count
31 - 40	3	31 - 40	6
41 - 50	8	41 - 50	7
51 - 60	2	51 - 60	3
> 61	5	> 61	3
Total	18	Total	19

The workshops participants had job dependency on the Baltic Sea, with about 70% of respondents indicating that they were either “Very dependent”, “Dependent”, or “Somewhat dependent”. The diversity of dependence is reflective of the methodology for selecting participants, where the BALOWIL partners focused on identifying and mapping stakeholders who were most impacted by offshore wind development. The focus on recruiting a diverse group of stakeholders is also reflected by the industry / sectors that the participants represented. From the workshops, the following industries / sectors were represented:

Table 2 - Sectors represented in the workshops

Workshop #	NGO	Public	Academia	Private
Workshop 1	5	9	1	3
Workshop 2	6	6	1	6

Stakeholders specifically represented harbour organisations, municipal councils, fisheries, energy sector, universities, youth organisations, port authorities / logistics, and several other entities. Academic institutions are notably underrepresented, however, this is a function of the methodology for recruiting stakeholders. However, academic stakeholders were represented by guest speakers and presented on topics related to OW development to share updated research with the participants.

Results from the first workshop: Riga



Image from Workshop 1



The first workshop focused on discussing concerns on OW deployment in the Baltic Sea. The project partners started the day with presenting the project, the current OW state as well as the different OW plans that have been accepted for the future both on national and international level. There were also two external expert presentations, one on the potential socio-economic impact and the other, on environmental impact.

One of the experts were John Glasson, Consultant and Professor Emeritus of Planning and Impact

Assessment in Oxford Brookes University. He has academic qualifications in economics and regional planning. ²⁵ focuses on assessing the local and regional socio-economic impacts of the construction and operation of major OW farms in the UK North Sea. The research identified factors leading and outcomes, including the changing size and location of OWF projects, the relevant legislative and regulatory context behind the decision-making processes for OWF projects, and the responses and relationships of stakeholders involved in the process.

The other expert was Lena Bergström sharing research on the environmental impact of OW on the Baltic Sea. This research is new and valuable as it uses the newest technology as well as focuses on the Baltic Sea. Lena is Head of the Ecosystem Analysis Unit and Associate Professor at Swedish University of Agricultural Sciences Aqua research. She is an expert on marine environmental assessment and the science-policy interface, with a PhD focused on ecology. Her research includes the effects of OW farms on marine wildlife, and she has authored several international and national papers on this topic.

Before starting the discussions, the participants had to agree upon rules of collaboration. The rules included such as to listen to understand and not only to respond and to make sure to let everyone speak. The participants were then divided into three groups to make sure that everyone would have time to speak their opinion. There were three subjects at different tables - environmental, economic and social impacts.

We are aware that the concerns are of a complex nature and overlapping but grouping them in three basic categories was a way to make sure that diverse aspects were discussed in an organized way. The time was divided so that each group could express their concerns at each table.

The project leaders summarised what had been said in a list of concerns on A3 papers. At the final stage each participant got 5 stickers to place the five different concerns which they thought of highest importance. The workshop took place on 12 January 2023.

²⁵ Glasson J, Durning B, Welch K, Olorundami T, 'The local socio-economic impacts of offshore wind farms' Environmental Impact Assessment Review 95 (2022) ISSN: 0195-9255

Below is the list of concerns in decreasing order of importance - the top entries earned the largest number of votes. Stakeholder concerns: economic, social, and environmental

Table 3 Concerns from Workshop 1

List of economic impacts	List of social impacts	List of environmental impacts
Financial benefits do not reach the local level in a fair way	Lack of communication leading to disappointment, passiveness	Impact on landscape
Unclear what impact is for local communities	Local communities have their own conflict of interests and OW project is not considered from different perspectives	Wind turbine waste management
Full value chain impact not clear	Project siting and exploration disregards local identities and cultures	Impact on animals: fish, birds, bats
Displacement of fisheries, tourism and hospitality can increase unemployment	Lack of awareness of the needs and paths of energy transition	Impact on wind flow/current impact/erosion
Negative impact on hospitality industry. The best spots for OW often hamper touristic objects and scenic views		Risk of pollution by toxic materials in the sea (from war) due to OWF construction
Property values decrease		
Marine traffic: Route changes, more accidents		

Results from the second workshop: Tallinn

The second workshop took place in Tallin, four months after the first workshop. The list of participants was not identical to Riga's workshop. Some participants had limited availability. On the other hand, some new contacts had been developed and several other Estonian participants were present.

The workshop agenda consisted of three blocks: (1) presentation of the solutions from the project team, (2) external presentation from an academic expert Birgit Koehler on OW synergies with other sectors with a special focus on fisheries, (3) facilitated group discussion and voting.

The goal of the main presentation was to respond to the concerns voiced in the previous workshop. The solutions were prepared and internally discussed by the project partners; they were rather inclined towards finding opportunities and synergies with non-energy benefits as well as a focus on technological options, public engagement, social justice, environmental protection, and best practice examples.

Selected responses

Thus, at the second stakeholder workshop, we proposed a set of responses to the concerns voiced in the previous event. The first part was devoted to economic concerns focusing on possible collisions and synergies with local benefits, economic fairness and other sectors such as tourism and real estate. Next, we addressed social and community impacts, including cultural heritage, commu-

nication and access to information. And third, we investigated environmental aspects that strongly affect the public perception of OW projects. To be brief, below we introduce the topics in a concise and simplified form, however, our original presentation included more proposals and references.²⁶

Collaboratively developed community benefits

Community benefits are funds or investments that a project developer often provides to host communities or stakeholder groups near project sites. They are required by law in some contexts and voluntary in others. OW community benefit models in Europe (where the industry has existed for more than two decades) include: community funds, shares, distribution of revenues, direct investment and project funding, jobs, apprenticeships and studentships, education programmes, and electricity discounts. Benefits can be integrated into various stages of a project (planning, permitting, mitigation, operation, and decommissioning). Community benefit models are most effective when developers, communities, and government authorities work together to come to a shared understanding of the definitions of community, benefits, and impacts, as well as how these components relate to each other.

The scope and amount of community benefits are agreement-based and differ from legal obligation to pay compensations and taxes. The Scottish government was first to prepare guidelines for community benefits from offshore renewable energy based on good practice studies and consultations with the public.²⁷ For a detailed review of community benefit schemes in UK, see articles by prof. John Glasson.²⁸ Well-known examples of community funds have been created by Ø²⁹ and ³⁰

Community-owned offshore projects

One of the most famous OW farms – Middelgrunden in Denmark – is partly owned by 10 000 citizens and the project has been operational since 2001.³¹ More recently, Belgium has put forward new OWF auction rule which stipulated that citizen participation must be included as a form of innovative business model.³² Despite the large costs, investing in OW projects have become interest-

26 Please contact emilia.samuelsson@airclim.org if you would like to obtain more materials

27 <https://www.gov.scot/publications/consultation-scottish-government-good-practice-principles-community-benefits-offshore-renewable-energy-developments/>

28 <https://radar.brookes.ac.uk/radar/file/c7589613-fc27-4210-8712-7dca40bc860c/1/Community%20benefits%20and%20UK%20offshore%20wind%20farms%20-%202021%20-%20Glasson.pdf>

29 <https://orsted.co.uk/about-us/corporate-responsibility/grants-and-sponsorship/community-benefit-funds>

30 <https://group.vattenfall.com/uk/what-we-do/our-projects/vattenfallinnorfolk/norfolk-zone-community-benefit-fund>

31 <https://www.middelgrunden.dk/middelgrunden-windmill-cooperative/>

32 <https://www.allenoverly.com/en-gb/global/news-and-insights/publications/the-tender-princi>

ing for citizen energy cooperatives as well.³³ However, research from Denmark shows that compensation schemes do not necessarily guarantee local acceptance and some level of ambivalence in attitude towards receiving payments remains.³⁴

Transparency in the use of public funding

Marine space is an active frontier of economic activities. OW site exploration and preparation require significant contribution of public funds, and so does the related infrastructure (for example, interconnections for power transmission between distant countries). Allocation of public funds usually includes some participatory procedures, therefore decision-making processes like drafting of National Energy and Climate Plans 2030 allow setting the path of future energy infrastructure beyond individual OW project level.

To prepare for discussing the OW plans, it is recommended to obtain background knowledge on future energy systems and governmental policies. While it is important to advocate for direct local values, the full costs and benefits of OW encompass a broader context such as long-term decarbonization scenarios and changes in design of the electricity markets.

New platforms for advocacy work

Ongoing crises have highlighted the need to account for the unequal distribution of costs and benefits among different energy system actors (including large profits of energy companies due to high energy prices). Given the long-term problems with planning and permitting, the urgency to increase renewable power often leaves little space for negotiations. No country has a complete solution, and it's the right time for more actors to intervene with new ideas. Yet it is not self-evident what 'local level' is when it comes to change. In governance, global-local or national-local may become false dichotomies based on hierarchical perception of power relations that do not match contemporary understanding. Hence, local values may contain disbalance in representation and often new geographic meanings and sources of influence are needed. If local legislation or EIA procedures do not provide collaborative venues for negotiating some aspects of energy projects, there is an option to address the problem via umbrella organizations.

Account for tourism and hospitality impacts

Researchers recommend producing a detailed Tourism and Recreation Impact Assessment, incorporating data on past and future developments and insights from all relevant actors: "This assessment must be clear and detailed, comprising all development phases, types of impacts, and related mitigatory and preventive

[ples-for-the-development-of-the-belgian-offshore-princess-elisabeth-zone](#)

33 <https://seacoop.be/en/citizen-offshore-power/>

34 <https://doi.org/10.1016/j.erss.2020.101663>

practices, conducting several evaluations, and detailed mapping of the area”.³⁵ Empirical evidence regarding tourism and renewable energy is mixed; although research confirms that members of the tourism sector are often concerned. There is a lack of evidence, however, that actual OW energy developments have harmed tourism. Community leaders and policy makers often express concerns regarding potential negative effects of OW energy development on the tourism sector. These concerns imply that tourists are primarily attracted to coastal areas by the aesthetics of an ”open, natural horizon“, but it is not necessarily the case.³⁶

³⁷

OW parks may become new sightseeing attractions favoured by the public and serve as new minor attractions. This way OW contributes to awareness raising and complement landscape perception with understanding of the new energy infrastructure as a necessity and improvement compared to the existing state of things.³⁸

Mitigate the decrease of property values

The impact of OW on property values is highly dependent on local market conditions and individual preferences. In some cases, the perceived benefits of OW development, such as job creation and reduced reliance on fossil fuels, may outweigh any negative impacts on property values. Additionally, in areas with high demand for housing and limited supply, the impact of OW may be less pronounced.

Solutions to property decrease concerns can be compensation schemes - property value guarantees. Developers can establish compensation schemes for homeowners to offset any negative impact on property values. For example, the developer may offer a one-time payment or an annual payment to homeowners located within a certain radius of the wind farm. This has been used in Denmark where the Danish property value-loss scheme entitles all owners of dwellings to compensation for value-loss on a dwelling which exceeds 1% and is caused by onshore wind turbines (above 25 m), near-shore turbines and offshore turbines established without tender. The scheme imposes an obligation on the developer to pay the compensation.³⁹

35 Machado, J.; Andrés, M. (2023). Implications of offshore wind energy developments in coastal and maritime tourism and recreation areas: An analytical overview. *Environmental Impact Assessment Review*, 99, 106999. <https://doi.org/10.1016/j.eiar.2022.106999>

36 <https://web.uri.edu/offshore-renewable-energy/ate/how-has-the-block-island-wind-farm-affected-tourism-and-recreation/>

37 <https://www.sciencedirect.com/science/article/abs/pii/S0301421522005845>

38 <https://tethys.pnnl.gov/receptor/visual-impacts>

39 Marie Leer Jørgensen, Helle Tegner Anker, Jesper Lassen, Distributive fairness and local acceptance of wind turbines: The role of compensation schemes, *Energy Policy*, Volume 138, 2020, 111294, ISSN 0301-4215, <https://doi.org/10.1016/j.enpol.2020.111294>.

Local job opportunities

The number of local jobs generated by OW projects can vary depending on factors such as the size of the project, location, and stage of development. However, OW projects have the potential to create a significant number of local jobs across various sectors.

Skills training programmes involve working with local education and training providers to help in providing the appropriate training to equip local people with relevant skills to work on the project. An example is Offshore Renewable Energy Catapult in United Kingdom⁴⁰ - a research and innovation centre that emphasizes the importance of ensuring that local communities have access to training and employment opportunities in the industry. Another example is The Energy Skills Partnership in Scotland⁴¹ - a collaboration of colleges aiming to increase Scotland's capacity to deliver skills and prevent duplication of effort and investment for the energy sector by ensuring capacity, quality and affordability.

Governments and regulatory bodies can establish local recruitment targets, which mandate a certain percentage of jobs to be sourced locally during the development, construction, and operation of OW projects. For example, the Hornsea project involves the developer working together with the Local Economic Partnership, local authorities, education and training agencies, and business organisations, to support a whole range of education and training, and supply chain initiatives for the Humberside area.⁴² Making sure that there is an employment and skills plan could be important to ensure local benefits.⁴³

Counter lack of communication

Involving and engaging local stakeholders is vital for an OW project to be formed in respect to the local environment and the people affected by it. To support informed opinions, people in adjacent communities should have easy access to information about OW technology. This information should be made readily available through locally defined channels that might include local newsletters, bulletin boards in high-traffic areas (community-oriented spaces such as libraries or ferries) or made accessible online. For example, in Denmark, the Kriegers Flak OW farm established a website and social media channels to provide project updates and engage with local stakeholders.⁴⁴

40 <https://ore.catapult.org.uk/about/>

41 <https://www.gov.scot/news/boost-for-renewable-energy/>

42 <https://hornseaprojects.co.uk/>

43 John Glasson, Bridget Durning, Kellie Welch, Tokunbo Olorundami, The local socio-economic impacts of offshore wind farms, Environmental Impact Assessment Review, Volume 95, 2022, 106783, ISSN 0195-9255, <https://doi.org/10.1016/j.eiar.2022.106783>

44 <https://procon.as/2022/08/09/danish-kriegers-flak-project-update/>

Appropriate facilitators

The individuals or groups who share and/or translate facts and values between stakeholders play an important role in the communication process. Facilitators need appropriate skills to translate technical information into language that helps people learn and does not alienate non-specialists. Also, in many circumstances, local knowledge and values need to be translated so that project proponents and those working at regional or larger scales can better understand the knowledge and legitimacy of local perspectives. Research has shown that this is important when it comes to constructive collaboration regarding wind project decisions⁴⁵. Local environmental knowledges can also inform expert assessments that prevent OW farm siting in ecologically sensitive areas.

Bridging organizations as liaisons between communities and developers

Bridging organizations who are accountable to both the local communities and project proponents can help translate facts and values and create opportunities for collaboration and sharing knowledge withing the decision-making process. This third party with minimal bias can support community engagement efforts and the public outreach process but does not push for or benefit from a specific outcome beyond information sharing.

Engage communities early, continuously and often

By timing stakeholder engagement before final site selection, people have opportunities to voice their concerns as a part of decision-making process, and public mistrust and opposition to project proposals can be reduced. Transparency around the broader stakeholder engagement scope is vital for thus but also communicating timescales for regulatory activities that incorporate stakeholder engagement. Early engagement can dispel community members' fears of finding out too late to become meaningfully involved in the decision process. In addition, by clearly outlining the steps of the process and the timeline for making the decision, stakeholders can determine the best way to engage in the process.

Regard of local identities and cultures

OW project siting and exploration can indeed be complex and time-consuming and may sometimes face opposition due to concerns related to local identities and cultures. However, there are several solutions that can help address these issues and promote a more inclusive and culturally sensitive approach to OW projects.

45 Anahita A. Jami, Philip R. Walsh, From consultation to collaboration: A participatory framework for positive community engagement with wind energy projects in Ontario, Canada, *Energy Research & Social Science*, Volume 27, 2017, Pages 14-24, ISSN 2214-6296, <https://doi.org/10.1016/j.erss.2017.02.007>.

Conducting thorough cultural heritage assessments can help identify and assess potential impacts of OW projects on local identities, cultures, and heritage sites. For example, the Borssele Wind Farm Zone in the Netherlands conducted extensive cultural heritage assessments to identify and protect valuable cultural heritage assets, including shipwrecks and other historical features, during the project development process. Collaborating with traditional knowledge holders can help ensure that their cultural identities, practices, and knowledge are respected in OW projects. Traditional knowledge is generated through cultural practices, lived experiences including extensive and multi-generational observations, lessons and skills. A relevant society group with traditional and relevant ecological knowledge is, e.g. fishermen.

Consider visual impacts

The OW farms can affect the scenic quality and perception of the seascape. The maximum distance of visibility of a wind turbine in clear weather conditions with an unaided eye is about 40 km. Placement of OW farms in larger distances from the coastline has become possible with the floating wind turbine technology. There are various software tools, social survey and participatory mapping methods to model and assess the visual impacts associated with the OW farms. A comprehensive collection of studies on visual impacts and wind energy is provided by Tethys initiative in the U.S.⁴⁶

Avoid risk of pollution by toxic materials

In marine areas, there are hundreds of wrecked ships and tens of tons of chemical munitions threatening to cause ecological disaster. As a result of ongoing corrosion, as well as using the Baltic Sea, the risk of fuel and toxic warfare agents being released into the environment is increasing. Both maritime administration and environmental authorities have so far failed to recognize the dangers and counteract the effects of spills from localized wrecks. In doing so, they have negated their statutory authority or explained their inaction by a lack of resources. A major threat is posed by sunken chemical munitions with poisonous warfare agents after World War II.^{47 48}

Monitoring should also be carried out after the site has been rehabilitated (remediated) and the return of ecosystem functions should be measured. The Swedish MODUM project has put forward a set of good practices for use in monitoring areas where poisonous warfare agents are deposited. It should ensure that only minimal risks to human health and the environment are maintained. The first projects to mitigate the problem of chemical and conventional munitions lying on the bottom of the Baltic Sea have already appeared.⁴⁹

46 <https://tethys.pnnl.gov/about-tethys>

47 Jasiurska-Kluczek E., Malcharek R., Tomczak W. (2020). Hazardous Substances at the Bottom of the Baltic Sea – Lack of Ecological Catastrophe Prevention Measures. *State Control*, 65(5 (394)), 45-62.

48 Miętkiewicz R. (2022). The problem of chemical munitions and conventional dumped in the Baltic Sea in the aspect of offshore wind energy development in polish maritime areas. Institute for Energy Policy.

49 <https://balticwind.eu/do-wwii-weapons-sunk-in-the-baltic-sea-pose-a-threat-to-wind-energy/>

Wind turbine waste management

Composite materials are commonly used in wind turbines due to their mechanical and aerodynamic properties, which go hand in hand with low weight. A lot of attention is now being paid to the recycling process, especially for wind turbine blades, which are the most difficult to recycle due to their construction material (fiberglass composites) and size. Current technologies of wind turbines are generally recyclable in 80-90 % of cases. The remaining 10-20 % are the key issue today in the disposal of materials of wind turbines.^{50 51}

It is important to note that also older types of turbines can be fully recycled. Some companies have a technical patent for this process. Currently, new technologies are being developed so that it is possible to provide the most effective forms of recycling on the market such as just shovel disposal can be provided. Recycling of carbon and glass fibres is very demanding, but the material obtained is technically certified and suitable as filler for products such as pipes, handrails, castings, injection moulding parts, or as degranulates for thermoplastics. Additionally, the recyclites may be used for producing road engineering construction components.⁵²

There are several manufacturers who have developed 100% recyclable blade prototypes, for example the ZEBRA project (includes manufacturers like LM Wind, GE) have rolled out the first 100% recyclable blade from Elium® resin.⁵³ Also, the RWE's Kaskasi OW farm was one of the first test site for 100% recyclable blades.⁵⁴

Mitigate impacts on animals

To evaluate the potential impact on birds and bats, every OW project need to be preceded by thorough field surveys and environmental analysis, which may condition its location and scope of operation. In this regard, special detection and response systems can be used.⁵⁵

For fish, the foundations of offshore turbines can act as artificial reefs contributing to the growth of animals. Such an environment provides shelter for them, as well as a food source. In addition, the so-called shield effect has been observed - the buffer safety zone surrounding the wind turbines has become a de facto

50 Khalid, M. Y., Arif, Z. U., Hossain, M., Umer, R. (2023). Recycling of wind turbine blade through modern recycling technologies: Road to zero waste. *Renewable Energy Focus*.

51 Psomopoulos, C. S., Kalkanis, K., Kaminaris, S., Ioannidis, G. C., Pachos, P. (2019). A review of the potential for the recovery of wind turbine blade waste materials. *Recycling*, 4(1), 7.

52 <https://ore.catapult.org.uk/what-we-do/innovation/circular/>

53 <https://www.offshorewind.biz/2022/03/17/first-fully-recyclable-wind-turbine-blade-rolls-out/>

54 <https://www.rwe.com/en/press/rwe-renewables/2021-09-07-rwe-tests-worlds-first-recyclable-wind-turbine-blade-at-its-offshore-wind-farm-kaskasi/>

55 Górecki D., Szurlej-Kiełańska A., Pilacka L. (2022). Protection of birds against collisions with wind turbines. Challenges, needs, opportunities. PTA.com.

marine reserve. As a result of the exclusion of shipping and fishing from the immediate zone, the amount of fish, including predators, has increased. With regard to fishermen who engaged in commercial fishing in the area of wind farms prior to the construction of the farm, financial compensation is possible. In addition, the right to fish in the area of the farm with certain fishing gear are frequent measures to minimize possible restrictions on fishing in farm areas.^{56 57}

There is an interesting study on the long-term impact of OW farms on fish abundance and spatial distribution, which showed that species diversity was much higher near the turbines, and the artificial reef structures were large enough to attract fish species that prefer rocky habitats.⁵⁸ Furthermore, exclusion of some or all types of fishing could also result in local increases in prey abundance for top predators, whilst reducing the risk of bycatch in fishing gear. Moreover, scour protection meets often providing shelter, nursery, reproduction, and/or feeding opportunities.

Collaboration with fisheries

In Scotland, a project with successful fishery stakeholder involvement and coexistence potential was carried out. It mapped the small-scale commercial fishing activity and its value in Scottish coastal areas (“ScotMap”). Coastal fishing is carried out with smaller boats that are required to report their landing locations, but they are not included in the detailed satellite-based control system “Vessel Monitoring Systems” (VMS). This means that the more detailed localization of coastal fishing has been identified as a knowledge gap in the marine planning process. The collaboration project included personal interviews with 1090 fishermen about their fishing areas, fishing seasons, fishing boats, equipment, target species, and income, and the data obtained was analysed to produce maps. Fishing representatives were also consulted to discuss and revise initial versions of the maps, and the final maps were made available online. Most of the fishermen contacted responded to the interview questions and were described as positive about the project, which led to much more extensive and detailed information than was previously available being compiled. The knowledge base was considered to be an important contribution to Scottish marine planning.⁵⁹

56 Glarou, M., Zrust, M., Svendsen, J. C. (2020). Using artificial-reef knowledge to enhance the ecological function of offshore wind turbine foundations: Implications for fish abundance and diversity. *Journal of Marine Science and Engineering*, 8(5), 332.

57 van Berkel, J., Burchard, H., Christensen, A., Mortensen, L. O., Petersen, O. S., Thomsen, F. (2020). The effects of offshore wind farms on hydrodynamics and implications for fishes. *Oceanography*, 33(4), 108-117.

58 <https://tos.org/oceanography/article/offshore-wind-farm-artificial-reefs-affect-ecosystem-structure-and-functioning-a-synthesis>

59 Koehler, B., Bergström, L. (2023). Havsbaserad vindkraft i samexistens med fiske, vattenbruk och naturvård? En inledande kunskapssammanställning. *Aqua reports 2023:4*. Uppsala: Institutionen för akvatiska resurser. 69 s. <https://doi.org/10.54612/a.4or8sfk59u>

Discussion

In the second part of the workshop, we split up the participants into two groups. Both discussions were moderated by the project partners (Group 1: AirClim, ECAT, & PWEA; Group 2: IBS & Green Liberty). Both groups had an individual approach to the discussion. Group 1 reviewed most of the solutions step by step to obtain immediate stakeholder feedback. In contrast, Group 2 used an 'open stage' approach where the moderators encouraged all participants to reflect on any topic previously discussed and point out additional concerns. The main points are summarized in the next section:



Group 1

The participants underlined that **community benefits** must be tangible, and the citizens should be empowered to vote for both the level of benefits and how those are distributed (focus on fairness and proportionality). For example, the community funds could be reinvested in local renewable energy solutions. However, **community ownership of OW projects** must not be available for well-off people only, but everyone should have the opportunity – equality matters. Having more energy cooperatives and closer cooperation among them in the Baltic countries would be very beneficial.

Ensuring **transparency** in the use of public funds matter a lot for countries like Latvia. In Lithuania, 1% of the OW profit should go to locals, but this compensation needs to be better tracked. Therefore, having **advocacy platforms** would be an important solution but with conditional mandate, because one needs it on the local level too rather than expert others doing it. To manage the economic

interests and to find the right balance between protection and openness regarding energy security issues, the OW legislation must be accessible, and we need information from other countries on how their legal frameworks are built.

When it comes to **landscape and coexistence with other activities**, safety is a priority for sectors like fishing and further monitoring of how this could be done on a local level is needed. **Property value decrease** did not appear a big issue in the group, but it was important that some local advantage also exists, for example, cheap energy. To have **local OW jobs**, re-training is needed but difficult. Local recruitment targets are important but then you need to make sure that people can afford living in coastal municipalities, there needs to be more funding for housing.

To prevent **lack of communication and passiveness** is important, but information spreading alone can be one of the least effective measures. However, efficient communication on what future the community wants can be important, a long-term plan codesigned with local assemblies is necessary. There are concepts of smart villages and cities as different networks for local interest, and we need something similar for OW and energy projects.

There are ongoing efforts to **make the OW farms less visible**, information about the effects on the visual landscape is required. It matters in cases when coastal tourism is an important sector. A difficult question is how to encourage people feel more positive about the turbines visible from the shore. **Identities and cultures** deserve some protection, and OW farm siting should not conflict with historical values. For example, fishing has traditionally been part of local identity and should be respected as such.

In case of **negative impacts on animals**, cumulative effects may increase unwillingness to accept the projects and turn people anti-offshore wind. But there are cases when OW farms can help improve the ecological condition, for example 'dead areas' within the Baltic Sea. **Pollution by toxic materials** must be prevented; it is important to collaborate with other initiatives like the Clean Baltic Sea. Also, there are fears that OW farms could worsen the coastal **erosion**, prevailing in Latvia.



Group 2

Image from Workshop 2"

Despite the good intentions, participants expressed concerns whether **public engagement in OW projects** can be effective enough and well informed. For example, in Liepāja (Latvia) the locals can be characterized by some degree of passiveness, two oppositional sides: “People do not act but feel that everything is already decided. Then comes the company and announces their plan”. In these situations, public institutions can be blamed for doing the process “too silently” when they present the project areas already chosen and decisions made for developers to come. Advocacy is largely about education / knowledge – what kind of information is needed to engage and lobby one’s needs through public hearings and discussions.

In Estonian context, there is a sense of high **activity after years of inaction**: “If you don’t have it now, you’ll lose it - that’s the dominant feeling”. In law, there are obligations to provide compensation to local communities, however **uniform solutions do not work** and there is a need for individual agreements. As to fishermen, they **risk to become ‘enemies’** of development due to their objections. OW ambitions can be also too high – each project aims to become **‘the biggest farm on the planet’**. Conflicts emerge because of difference in needs, benefits, and doubts. There is a rush to get the energy production system ready for exports – from both land and sea. The **funding decisions are taken remotely**. Also, cooperative ownership models can be exclusive – for example, with a 10 000 EUR entry level. In each case, for each farm, the plan should start from a discussion - for example, how many GWh can be sold to Germany? What is **the Baltic solution**? Also, the arguments must be validated, need elaborated proofs.

For **tourism and hospitality, multi-use approaches** can be beneficial: “Bring back biodiversity – assist ecosystems”. The tourism, too, could benefit from more ecological approaches. For fishermen, the compensation mechanism is usually biased in favour of larger enterprises. Activities of **smaller fishermen** are not well accounted for; therefore, they cannot claim their rights easily and are marginalized because not being able to present their interests in an organized way.

Four **quality criteria for stakeholder involvement can be identified by the group**: (1) comprehensive visual impact assessment, (2) access to high quality and timely information, (3) fair compensation mechanisms, and (4) well-organized public hearings. Too often there is conflicting information on what will be built and what real impacts can be expected. There are large differences in perception, including generation-specific. It is clear that high quality materials and addressing the concerns of different target groups, explaining the effects of other industries (military, traffic) will definitely be a right thing to do. When the information comes too late, it seems that institutions are simply trying to **manage the opposition** from above.

The communication should go beyond formal circles, including wider community and environmental NGOs. In addition to the local questions and benefits for the municipalities, **national-level decisions and strategies matter most**. For example, on how much renewable energy is and will be needed and how it will be transported and used. **Vocational training and local skills** sound attractive but it is not clear how this aim will be reached and how ‘locally based’ the OW workforce can be.

Finally, whenever placing an OW farm in the sea, it is still important that not all landscapes turn into man-made ones. So, the effort to **strengthen the nature conservation component** of managing marine space remains strong.

In summary of both groups, the solutions were in general received well but also with caution. There were doubts about these proposals being delivered in a fair way in the future. These doubts are relevant and justified, after all these are the solutions of best practice examples and many are not obligated on a national level. The caution of fair stakeholder involvement and passiveness is however especially important to highlight in regard to the main focus of this project. Having appropriate timing and enabling inclusive and engaging communication efforts are essential to discuss appropriate actions, synergies and solutions. As will be shown below the result of the questionnaire shows that the participants found both the collaborative nature and facilitators of this project were beneficial and had a positive impact on stakeholder inclusiveness. The engagement and communication input from the discussions were in mind when we created the recommendations list for collaborative and constructive stakeholder dialogue.

Voting results

After the group discussion, we asked everyone to give their votes (each of us had five) to those topics that addressed their main concerns and offered promising solutions. The results showed that financial and economic aspects attract a lot of interest and innovative OW business models, including cooperative ownership and codesigned community benefits, should be further discussed and inform the auction design process led by public authorities. From environmental perspective, having comprehensive monitoring techniques and programmes became the most popular choice. Although landscape change is usually the dominant concern, our stakeholders preferred a combined approach to landscape evaluation and management in contrast to purely visual assessment. In the social arena, however, communication and meaningful engagement earned most of the votes. The results indicate that OW projects have a significant potential to serve as anchor points in public debates on future of the energy systems and democracy.

Table 2 - Solution with the number of votes

Environmental	Economic	Social
Comprehensive monitoring 8	Community-owned offshore projects 13	Engaging with affected communities early, continuously and often 11
Circular economy models 7	Collaboratively developed community benefits 8	Appropriate facilitator and available information 6
Detection systems 4	Transparency in the use of public funding 7	Bridging organisations to act as liaison between community and developers 4
Cleaning vessels 4	Compensation schemes / Property value guarantees 3	Skill training programmes 3
Artificial reefs 3	New platforms for advocacy work 2	Deliberative learning opportunities 2
Mapping 3	Obligatory Tourism / Recreational Impact assessment 2	Collaboration with traditional knowledge holders 1
Aesthetic indicators 2	Landscapes host new values and attraction 1	
Floating technology 2		
Compensations to fishermen 1		
Technology solutions 1		

Questionnaire result summary

Both before and after the workshops a questionnaire was sent to analyse the experience. Information was also gathered about the participants. There was an equal part that opposed OW deployment as supportive. At the beginning of the project, before the workshops, the respondents had a diverse level of knowledge of OW with about equal levels of high and low knowledge. About 70% of the participants had jobs to some degree dependent on the Baltic Sea.

After the second workshop the respondents found themselves to be generally more knowledgeable about OW development compared to the first workshop. The responses showed a higher general level of knowledge among participants

of the second workshop may indicate that return participants had learned more about OW in the workshop and were more knowledgeable after having attended the second workshop. Indeed, when comparing the second workshop participants who attended the previous workshop to first time participants, return participants had more medium to high level of knowledge about OW energy, whereas first time participants had a lower general level of knowledge. This could also be observed when evaluating the knowledge level of returning participants which indicated that their understanding of OW development had increased (58% confirmed, 33% maybe, about 8 % no).

Speaking of supporting OW deployment, first workshop participants were generally more opposed to OW development before the workshops. Comparing the results for return participants versus new participants in the second workshop, it could be observed that more return participants “somewhat support” or “strongly support” OW development. From the results it is not clear whether the workshops influenced their level of support but based on evidence of the knowledge level increase of return participants, it might be concluded that the workshops also influenced their level of support.

Speaking of the effectiveness of the workshops the results were positive. When asked after the second workshop on how informative the workshops had been, the respondents stated 7.7 out of 10. In addition, the average rating was 7.6 out of 10 when participants were asked whether they felt that their opinions and ideas were valued by the project leaders. Summing up, the feedback from the participants is mostly positive, with most respondents indicating that the workshops were a relevant, informative, effective and generally positive experience.

When it comes to the approaches which make BALOWIL different the results were very positive. Participants largely agreed that the collaborative learning approach implemented in the workshops was beneficial for constructive dialogue. Indeed, 90 % agreed to some degree with this statement (63% agreed that it was a beneficial approach, with 16% somewhat agreeing, and 11% strongly agreeing with this statement. In addition, 90 % of the stakeholders found it easier to share their views when discussions were led by NGOs (53% agreed, 26% somewhat agreed, 11% strongly agreed). Another important indicator was that of a diverse group; all respondents agreed that projects like BALOWIL would enhance stakeholder inclusiveness (63% agreed, 21% somewhat agreed, 16% strongly agreed).

Main findings and ideas for further work

When it comes to conflict management, trust and constructive dialogues are of importance. Because this is a pilot project there is insufficient empirical data to confirm the benefits of the two approaches. However, these are important indicators for collaborative and constructive discussion settings. Indeed, a possible way to improve communication could be to have it in collaborative stages with facilitators who can be less biased and adapt the information and dialogue according to the stakeholder needs and priorities. As the results of the questionnaire testify, a large majority of the stakeholders felt more comfortable about sharing their views when the discussions were led by NGOs. In addition, most of them admitted that the collaborative learning approach was beneficial for a constructive dialogue. Another important finding was that all respondents unanimously thought that similar projects enhance stakeholder inclusiveness. Thus, this can be a valuable addition to the already existing consultations and public hearings for everyone involved. The main aspects that could be important for a positive result are further elaborated in the list of recommendations below.

Recommendations for collaborative and constructive OW dialogues

Have a dialogue when there is potential to affect the results

As OW deployment in the BSR could exponentially increase, inclusive discussions like the ones held within BALOWIL should take place as soon as possible. One of the key factors when it comes to OW conflict management is timing. Stakeholder involvement must be strategically undertaken not merely as a formality for final stage confirmation but rather as an integral part of the planning process from the very outset. Recognizing the significance of actively engaging stakeholders at an early stage, well before any conclusive decisions are made, facilitates the identification and incorporation of diverse perspectives, concerns, and expertise, thereby fostering a more inclusive, transparent, and well-informed decision-making process. This was expressed as a high priority in the discussion and, also one of the highest valued solutions was indeed “engaging with affected communities early, continuously and often”.

To make it possible, transparency around the scope of stakeholder engagement as well as communicating timelines for regulatory activities that incorporate stakeholder engagement are necessary. By clearly outlining the steps of the process and the timeline for making the decision, stakeholders will be able to prepare and plan their engagement in the process.

Early engagement can dispel community members’ fears of failing to become meaningfully involved in the decision process. By timing stakeholder engagement long before final site selection, public mistrust, and opposition to project proposals can be reduced.

Introduce developments in an inclusive way

Stakeholders need accessible information about OW technology, project specifics and how the developments could impact individuals and their communities. This information should be made readily available through locally defined channels. In addition, local knowledge and priorities should be taken into account and rendered so developers and other external stakeholders have a strong understanding of them and can effectively incorporate local expertise and values.

Let participants freely express their concerns

The discussions had a main approach - to hear every participant's concerns and comments regarding OW deployment in the BSR. Giving stakeholders the opportunity to share their opinions at the outset and respecting their input fosters an engaged and collaborative atmosphere throughout a constructive dialogue process. In addition, allowing participants to vent their opinions at the beginning of the workshop may help identify the most critical and sensitive issues early on. This makes it easier to address critical issues promptly as well as reduce the chance of misunderstandings and misinterpretations about the concerns.

Make the dialogue space feel safe

The discussions were formed to promote a safe and inclusive environment where participants feel heard and respected. We had round-table discussions in smaller groups to make sure that there was time for everyone to speak. We also had, according to the collaborative learning approach, a set of rules that everyone who wanted to take part in discussions needed to agree on certain rules. These rules included, for example, "listening to understand, not to merely respond". These can help to create an environment where stakeholders actively listen to each other, promote better understanding of different viewpoints, and encourage empathy and collaboration. Additionally, this provides a safe space for stakeholders to share their perspectives without fear of judgement or retaliation. When people feel that their opinions are valued, they are more likely to contribute constructively to the conversation.

Show how everyone's concerns were taken into account

The first workshop focused on everyone's concerns, and rate which concerns were of highest importance. Adapting solutions based on input ensures that the proposed resolutions are relevant. This customization is vital in achieving more effective and sustainable conflict resolution outcomes.

When we presented the solutions at the second workshop, we made sure to explain how these were found and why they were relevant/updated to address the concerns the participants had raised. A vital factor for trust and fruitful

collaboration is transparency. Transparency fosters trust among stakeholders. This trust is essential for maintaining positive relationships and future collaboration. Transparently sharing the process of arriving at a solution demonstrates accountability on the part of the project leaders. It shows that the solution was not arbitrary but based on a well-defined process. When stakeholders understand how the solution was reached, they are more likely to support it, even if it may not fully align with their initial preferences. Transparency helps the participants see the rationale behind the decision.

Have the discussion in stages

Discussions organized in stages was an effective approach to conflict management, especially when incorporating the collaborative learning approach. The two-stage process is important due to multiple reasons. The first workshop generated the following:

- **Open Communication:** In the initial workshops, stakeholders are encouraged to openly express their concerns, grievances, and fears related to the OW deployment project. This open communication creates a safe space for stakeholders to share their viewpoints.
- **Building Trust:** When stakeholders see that their concerns are heard and respected, it fosters a positive atmosphere for subsequent discussions and collaboration.
- **Identifying Core Issues:** Focusing on concerns allows understanding of underlying concerns, which is crucial for analysing and researching relevant solutions for the next stage.
- **Stakeholder Inclusivity:** The concern-focused workshop ensures that all stakeholders have the opportunity to voice their perspectives.
- **Framing Solutions:** The insights gathered during the concern-focused workshop serve as valuable inputs for shaping the agenda of the subsequent solution-focused workshop.

The second workshop in turn generated the following:

- **Solution Exploration:** With a better understanding of stakeholders' concerns and priorities, the second workshop focused on exploring tailor-made solutions collaboratively.
- **Finding Synergies and Compromises:** Stakeholders can discuss and evaluate potential synergies and compromises associated with various solutions. This could enable the final resolution to consider multiple perspectives and strike a balance between conflicting interests.
- **Strengthening Relationships:** The collaborative nature of the solution-focused workshop reinforces positive relationships among the participants. Working together to find solutions can strengthen the sense of mutual understanding and cooperation.

Have facilitators with minimal bias

Instead of official authorities or the wind industry leading the stakeholder dialogues, the BALOWIL discussions were held by the NGOs. Studies have shown that NGOs can act as facilitators and generate a higher trust level than project planners and authorities. It allows less defensive, transparent and reflective dialogues. Facilitators play an important role in the communication process as it can be important to translate technical information into language that helps people learn and doesn't alienate non-specialists. NGOs are skilled in translating technical information into accessible language for non-specialists. This helps bridge the gap in understanding between experts and community members, facilitating more effective communication.

Find applicable and updated examples to respond to the concerns

As mentioned at the end of the first workshop we made sure to summarize the different concerns as well as let the participants vote on which were the most important ones. Thus, we could research and analyse different solutions that were relevant but also focus more on those of greater concern. We tried to focus on finding solutions either applicable for the Baltic Sea concerns, or involving new synergy potentials. OW deployment involves rapidly evolving technologies. Therefore, it is essential to use updated information and examples that reflect the latest advancements in the industry. Outdated information may not accurately capture the current state-of-the-art practices, hindering the introduction of more effective solutions. By staying up-to-date with technology advancements, the participants can be introduced to approaches that may better address the challenges.

Real-life examples provide particular evidence of how similar concerns have been successfully addressed. Such evidence visualize how the proposed solutions can function in practice and allow to learn from best practices.

Be open to criticism and take it into account

When discussing the solutions presented at the second workshop, we made sure to be open to criticism and making note of such. The participants have different expertise and may identify potential flaws, overlooked aspects, or alternative perspectives that can lead to more refined and effective resolutions.

Acknowledging and noting criticism demonstrates that stakeholders' input is valued and respected. This inclusivity fosters a collaborative and open atmosphere, encouraging stakeholders to remain engaged and committed to the resolution process. It shows that the goal is not just to present solutions but to genuinely find the best possible outcomes through collaborative problem-solving.

Annex

Questionnaire Analysis

To collect the opinions of the participants who attended the workshops, two questionnaires were sent, one questionnaire before the first workshop, and another one after the second workshop. The purpose of the first questionnaire was to collect information about the workshop participants' perceptions of OW development, their level of knowledge on the topic, and concerns about OW development. The second questionnaire sent after the second workshop in May asked similar questions to assess possible changes in opinion after the first workshop at the time of the second one as well as to assess the presented work. Additional questions were added to assess the effectiveness of an NGO-run workshop.

In this section, the results of the questionnaires will be presented and evaluated. The section includes three subsections:

- Effectiveness of workshops
- Knowledge about OW development and opinions on it
- Comfortability with the collaborative process and the facilitation of workshops by NGOs

Effectiveness of workshops

To assess the effectiveness of the workshops, it is important to understand the main outcomes the project partners hoped to achieve. These outcomes can be framed by the following questions:

- **Question 1:** Were the workshops relevant and informative?
- **Question 2:** Were the participants satisfied with the workshops?

This first question is related to the relevancy of the workshops and whether they were informative to the participants. As observed in Figure x, the participants mostly felt that the workshops were relevant to them, and they found the workshops to be informative. Respondents who indicated that their careers were dependent or very dependent on the Baltic Sea were also compared to the general response, because for them OW development would likely be more relevant since it could have a direct impact on their careers.

Average responses

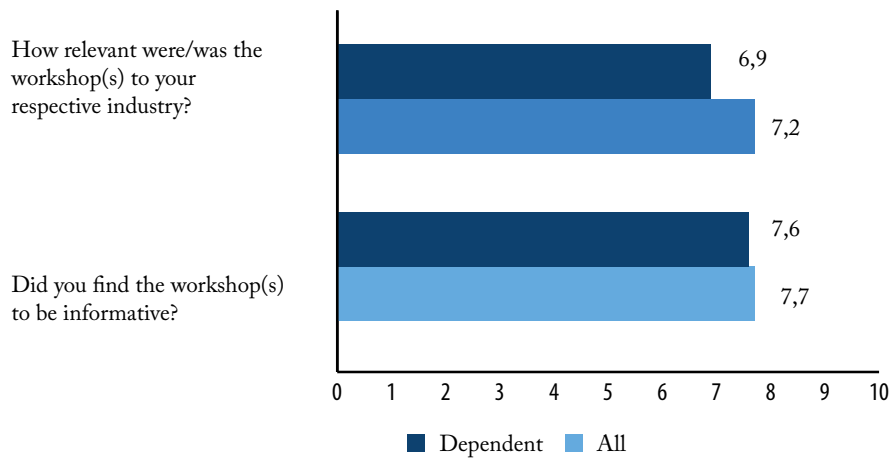


Figure 2: Relevance of the workshops & whether the respondents found the workshops to be informative. Source: Workshop 2 survey, 2023.

The results show that the relevance and informative nature of the workshops were roughly the same for all participants, albeit slightly less for respondents whose industry is dependent or very dependent on the Baltic Sea.

The average rating was 7.6 out of 10 when participants were asked whether they felt that their opinions and ideas were valued by the project leaders, demonstrating the general effectiveness of the workshops (Figure 2).

Opinions and ideas valued

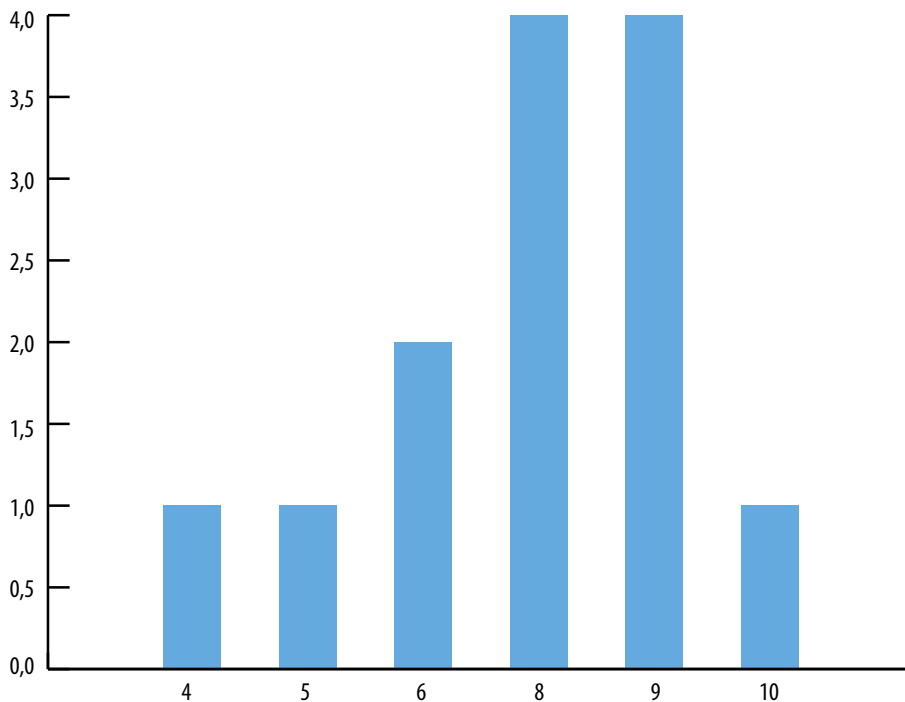


Figure 2: Did the participants feel their opinions were valued by the workshop moderators? Source: Authors own, 2023.

In summary, the feedback from the participants is mostly positive, with most respondents indicating that the workshops were relevant, informative, effective, and generally a positive experience for the participants.

Knowledge about offshore wind development and opinions on it

This section deals with the level of knowledge and understanding the participants had about OW development, and, if relevant, whether they learned something from the workshops. Further, we assessed what their opinions were about the OW development both in the first workshop survey and after. Here, the main questions we will answer are:

- **Question 1:** What are the participants' current understanding of OW development and did the workshops increase their knowledge?
- **Question 2:** Do participants support the development of OW?

As to the first question, both workshop participants had a mid to high range understanding of OW industry, albeit with some key differences. Most first workshop participants indicated that they had little knowledge about the OW development (rated 2 out of 5). When comparing the respondents who selected high levels of knowledge 4-5 (24%) and lower levels of knowledge 1-2 (45%) at the first workshop, there was a higher rate of lower levels.

WS1: Knowledge

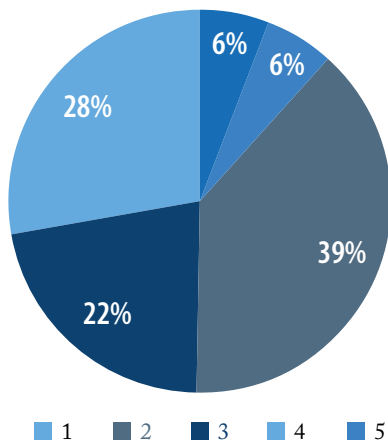


Figure 3: First workshop's respondents' level of knowledge about offshore wind development. Source: Workshop 1 survey, 2023.

WS2: Knowledge

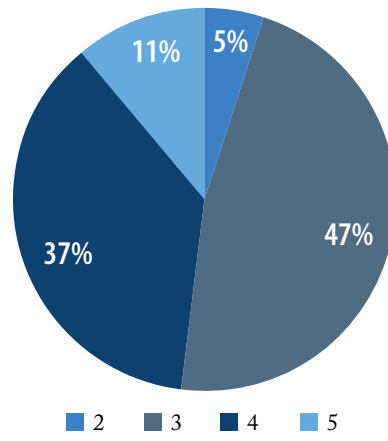


Figure 4: Second workshop's respondents' level of knowledge about offshore wind. Source: Workshop 2 survey, 2023.

In the second workshop, the respondents were generally more knowledgeable about OW development compared to the first workshop (Figure 4).

The higher overall level of knowledge for the second workshop participants may indicate that return participants had learned more about OW in the workshop and were more knowledgeable after having attended the second workshop. Indeed, when comparing the second workshop's participants who attended the previous workshop to first time participants, return participants had more examples among them who indicated they had a medium to high level of knowledge

about OW energy, whereas first time participants had a lower general level of knowledge. This is also supported by findings in figure 5, which indicates that return participants to the second workshop mostly indicated that their understanding of OW development has increased.

Return increase in understanding

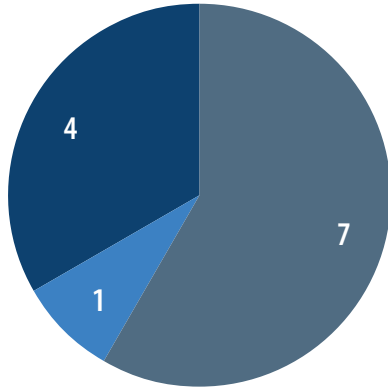


Figure 5: Return participants' increase in understanding of offshore wind development. Source: Workshop 2 survey, 2023.

When considering the level of support for OW development based on their current knowledge, first and second workshop had some differences. First, the first workshop's participants were generally more opposed to OW development (Figure 6). When considering the methodology used to recruit stakeholders, this is logical since the project team purposefully selected stakeholders who may be opposed to OW development to join the workshops. The second workshop participants were more in favour of OW development, with 53% indicating that they somewhat support OW development and 21% indicating that they strongly support OW development.

Level of support for offshore wind development

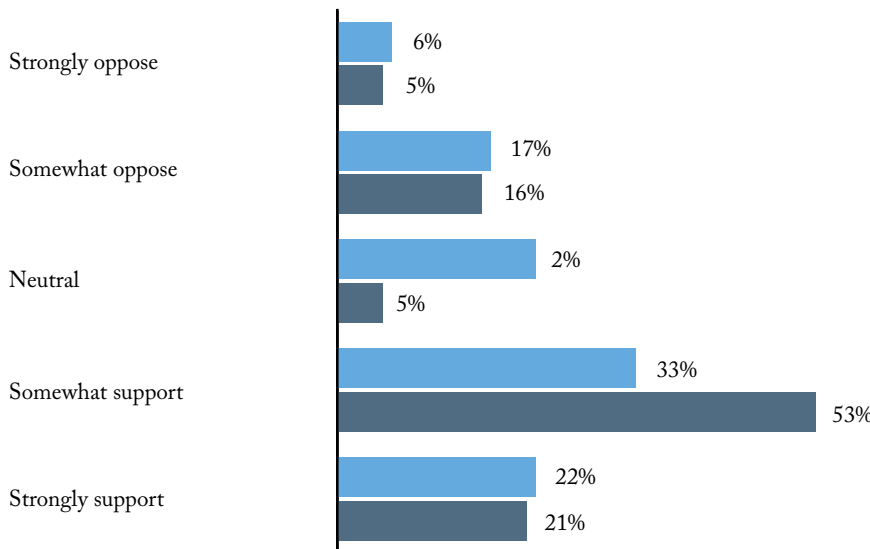


Figure 6: Level of support for offshore wind development. Source: Workshop 1 and 2 survey results. 2023.

Comparing these results for return participants versus new participants in the second workshop, it can be observed that more return participants “Somewhat support” or “Strongly support” OW development (figure 7). Interestingly, this was the exact same number of participants who indicated that the Somewhat support (6) and Strongly support (4) in both the first and second workshop for returning participants. The results are not clear if the workshops influenced their level of support but based on evidence in Figure 5 (knowledge of return participants), it is possible that the workshops also influenced their level of support.

Return Vs. New participant level of support

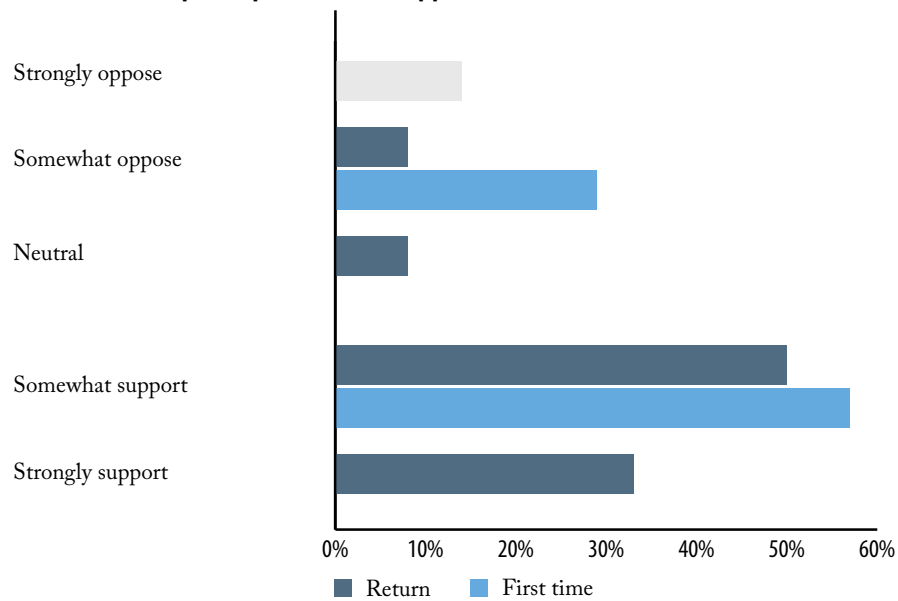


Figure 7: Return vs. first time participant level of support for offshore wind development. Source: Workshop 2 survey, 2023.

The collaborative process & comfortability with NGO-run discussions on OW

The next section focuses on the methodologies chosen to engage with stakeholders in the collaborative process, and having non-profit organisations lead the dialogue and bring stakeholders together.

The first two questions (Figure 8) address the collaborative learning approach, whether similar projects would increase the inclusivity of different stakeholders. The questions help the consortium to validate the chosen methodological approach.

To the first point, participants largely agreed that the collaborative learning approach implemented in the workshops was beneficial for constructive dialogue. Indeed, 90 % agreed to some degree (63% of respondents agreed that it was a beneficial approach, with 16% somewhat agreeing, and 11% strongly agreeing with this statement).

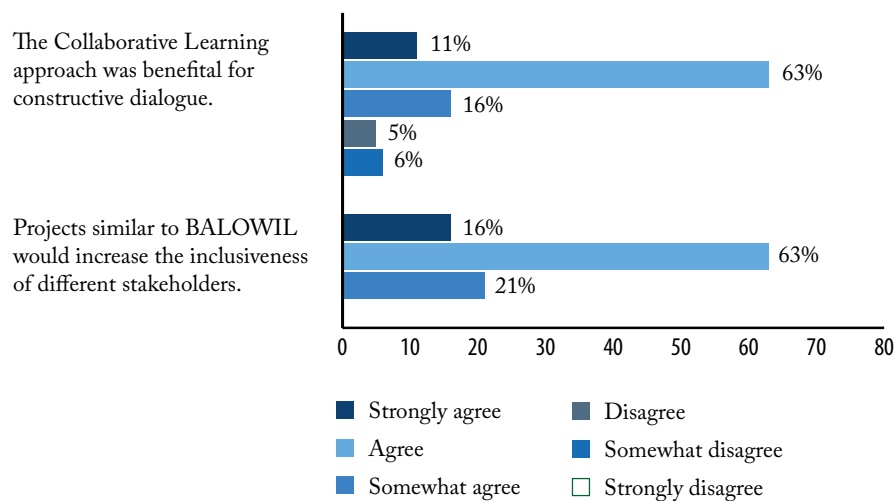


Figure 8 - Opinions of respondents on the collaborative approach, inclusiveness of these activities, and importance of international stakeholders. Source: Workshop 2 survey, 2023.

In the context of the BALOWIL project, the collaborative approach has been validated to an extent as it was favourably received by the participants within the project. Focusing on the results of the project, the results show that the workshops were effective in conflict management by bringing together a diverse group of stakeholders with varying degrees of support for OW development, and effectively mapping challenges and solutions in the Baltic Sea Area. While only one respondent indicated they strongly oppose OW, they still felt that the second workshop effectively mapped solutions, although, the somewhat opposed participants were not sure it was effective. However, all the respondents who were opposed or somewhat opposed, indicated they were satisfied or somewhat satisfied with the workshops which supports the notion that the workshops were fruitful for them.

Table 4 - Somewhat and strongly opposed responses to effectively mapped solutions and satisfaction of workshops. Source: Workshop 2, 2023

Effectively mapped solutions			Satisfaction with workshops	
	Response	No. of respondents	Response	No. of respondents
Strongly opposed	Yes	1	Satisfied	1
Somewhat opposed	Maybe	3	Somewhat satisfied	1
			Satisfied	2

In responding to the statement “Projects like BALOWIL would increase the inclusiveness of stakeholders”, the respondents unanimously agreed (63% agreed, 21% somewhat agreed, 16% strongly agreed) that replicating this pilot project on a larger scale can be of great use when it comes to stakeholder engagement and inclusiveness. The fact that everyone thought that BALOWIL presented a beneficial approach even if they had taken part in OW workshops before or were against OW is a promising result.

The next statements speak to whether the approach to lead the discussions on OW development was a well-received approach. The results show that the respondents prefer that discussions on OW development be led by public institutions compared to private companies. The reason this question is relevant is because it relates to the trust and validity of community discussions and the notion that a private company may be more motivated by profit rather than understanding stakeholder needs. Of course, this is a common stigma, and private companies can be both benevolent and focus on profits, however, the questionnaire indicates that for this target group, more stakeholders would prefer not to have a private company lead such discussions. These findings relate to the results in Figure 9 below indicating the comfortability and trust of NGO-led discussions on OW development. Here, the respondents showed a high level of trust and comfortability with having NGO led conversations on OW development. What is more, most respondents (90%) indicated that they felt more comfortable sharing their thoughts and opinions because the discussions were led by NGOs. With such a diverse group of participants with different sectors represented this is also a promising result worth looking into in future projects.

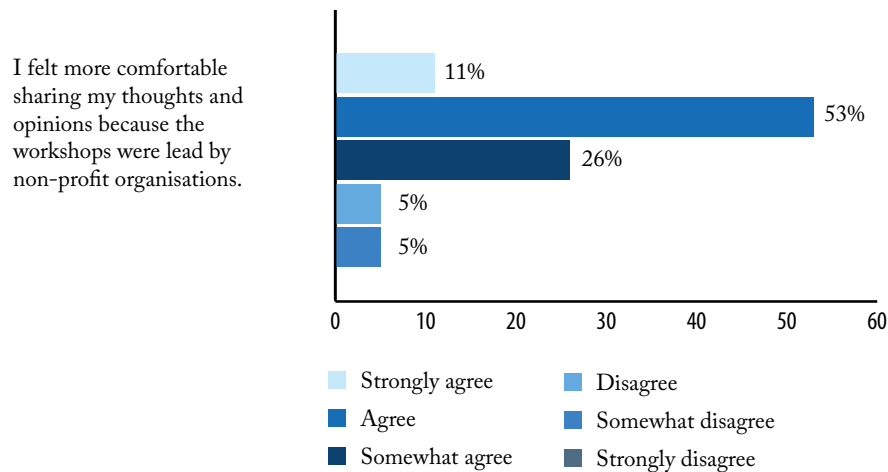


Figure 9 - Comfortability with OW discussions being led by NGOs. Source: Workshop 2, 2023.

Limitations

Selection of workshop participants was the responsibility of each project partner. The team did not agree on strict selection criteria, the partners performed an ‘open search’ depending on their own contact list, information about the national-level stakeholders and a quick screening of the media. For example, in Latvia, Green Liberty contacted the representatives from the coastal municipalities closest to the first OW project site. Some of the stakeholders had publicly announced their concerns with OW projects, while others represented public institutions (planning, environment), expert circles, ports, or citizen associations. The final composition of the participants was not intended to be identical or representative of a local community. The diversity of stakeholders in terms of regional and professional identities was easily achieved. BALOWIL did not build on the results from any specific public hearings, nor had a single project focus. None of the participants had expressed strong objections against OW farms, yet several of them had critical opinions on ongoing development processes. A few potential participants did not join the workshops because of language barriers.

The locations of the workshops (Riga and Tallinn) were chosen based on accessibility and costs. Latvia and Estonia were represented by a larger number of participants. Because of COVID-19 restrictions, the start of BALOWIL was delayed in order to wait until it was possible to have the workshops in person to benefit the collaborative approach.

In addition, we want to highlight that there is insufficient empirical data to pinpoint the precise benefits of the recommendations. To thoroughly evaluate the strengths and weaknesses of collaborative processes and establish best practices, it is important to conduct a comprehensive assessment of the proposed recommendations. In forthcoming projects, the focus should be on enhancing decision-making processes to align more closely with the collaborative approach. This can be achieved by engaging all key stakeholders, having a trusted third party facilitator like an NGO, and implementing an interactive and interpretive process to foster the development of shared visions.

Acknowledgments

We would like to thank all the participants of the workshops for their engagement and knowledge sharing during the workshop as well as answering the questionnaires. Your invaluable participation in the project has played a pivotal role in shaping our findings and recommendations, and we would like to express our great gratitude for your contributions.

An additional thanks to the external professors whom helped to fill important knowledge gaps with their expertise at the workshops.