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MARITIME MULTI-USE APPROACH IN THE BALTIC SEA REGION: OFFSHORE WIND ENERGY AND TOURISM CASES

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Abstract. This research aims at analysing maritime spatial planning (MSP) development in the countries of the Baltic Sea Region through the lens of the concept of a multi-use approach to maritime space. Special focus is on the offshore wind energy and coastal and offshore tourism sectors. The goal is to contribute to the progress of a sustainable blue economy. The research methods used include analysis (using such techniques as monographic, dogmatically comparable, and special analytical) and synthesis through examination of marine plans, regional and national policy documents, and MSP-related legislation in the European Union Member States of the Baltic Sea Region. The results of the research confirm that in a contemporary understanding a holistic multi-use approach to maritime space forms an integral part of MSP for resource and space sharing between two or more activities with the aim of benefiting all users. Conceptually, it evidences the emergence of the multi-use principle in the MSP process. However, while offshore wind development is prominently prioritised in the currently adopted marine plans, accentuation of applying the multi-use principle is rather cautious. In this aspect, knowledge transfer from countries with longer-established experience in offshore wind development and its combination with other activities, such as tourism, is crucial. At the same time, it should be borne in mind that large-scale offshore renewable energy and the concept of multi-use maritime space will also mark the long-term future development of MSP in line with global and European Union targets for achieving carbon neutrality and zero pollution, promoting the circular economy, and restoring biodiversity by 2050.

Keywords*: Baltic Sea Region, Coastal tourism, Maritime spatial planning (MSP), Multi-use approach, Multi-use principle, Offshore tourism, Offshore wind*

JEL Classification: K32, O21, Q20, R58, Z32

INTRODUCTION

The sustainability paradigm encompasses ecological, economic, and social aspects, with maritime spatial planning (MSP) acting as a lever to balance these dimensions. One of the main constraints and difficulties faced by the development of maritime activities is their coexistence, based on the *de facto* large number and diversification of sectors (EC, 2021a). For example, the tourism and offshore wind energy industries frequently compete for the same space: shallow, close-to-shore waters (Schultz-Zehden

et al., 2018). However, the current demand for maritime space poses not only tensions and risks, but also opportunities related to such "informal coexistence" and the process of maritimisation or intensification of competition for existing maritime space (EC, 2021a). These options justify the demand for multi-use (MU) of space (Royal Decree establishing the marine spatial planning for the period 2020 to 2026 in the Belgian sea-areas, 2019) and the shift from traditional sectoral governance to more coherent, holistic, and integrated governance (VASAB Secretariat, 2021b; Schultz-Zehden et al., 2018).

Currently, the concept of MU of space is already being considered by several Member States of the European Union (EU). The inclusion of a MU approach in MSP is a method for coordinating these processes to ensure better integration of MSP by 2050, as already emphasized in MSP implementation model countries such as Belgium, the Netherlands, and the United Kingdom, and in scientific and practical research in the framework of several pilot projects (e.g., MARIBE, MUSES, UNITED, MULTI-FRAME (EC, 2021a; European MSP Platform, n.d.b; Przedrzymirska et al., 2018a)).

Notable Polish MSP researcher Professor Jacek Zaucha (VASAB Secretariat, 2021a), as a challenge to MSP, citing the issue of jurisdiction, offers an intuitive hierarchy of MSP levels, illustrated by relevant examples: the EU level (MSP Directive), the sea basin level (guidelines for regional intergovernmental organizations), the national level (maritime areas or spatial plans), the sub- national level (building permits) and the local level (port investments). **Based on two elements of this approach, namely the EU level and the sea basin level, and taking into account, *inter alia*, that 31 March 2021 was the deadline for EU Member States to complete maritime spatial plans, the aim of the article is to examine current MSP issues and the development of MSP in the Baltic Sea Region (BSR) in the light of the growing importance of the concept of MU of maritime space and the MU principle, with a focus on offshore wind energy and coastal and offshore tourism.** To that end, firstly, the article provides an overview of the MSP legal framework in the EU, specifically focusing on the purpose and essence of MU. Secondly, the article analyses and describes the macro-regional and national regulatory scales of MSP in the BSR. Thirdly, the article presents MU achievements so far and reflects on the way forward in MU application. In this section, it is recognized that diverse combinations of activities are possible in terms of MU. At the same time, however, the interaction between offshore wind energy and tourism is specifically underlined. Based on these observations, the research results are extrapolated, and the generalized suggestions are highlighted in the concluding part with the aim of fostering offshore wind energy and tourism development in the BSR while integrating MU in MSP in a meaningful and effective way.

Analyses (using methodologies such as monographic, dogmatically comparable, and special analytical) and synthesis of marine plans, regional and national policy documents, and MSP-related legislation in EU Member States of the BSR are employed in the conduct of the research. However, due to the limitation on the scope of the article, the overview of national legal frameworks is presented in summary form, based on the authors' previous research.

The added value of the article is that it sets the broader scene for improvements to the MSP process and its implementation through the MU concept to promote progress of the sustainable blue economy and to ensure a link between global and EU ambitions

concerning carbon neutrality and zero pollution, the circular economy, and biodiversity and their effective implementation.

1. LEGAL FRAMEWORK FOR MARITIME SPATIAL PLANNING IN THE EUROPEAN UNION

The European Commission (2010, p.17) has stated: "The key to successful maritime spatial planning lies in acknowledging that all existing EU legislation and initiatives related to marine activities are inter-twined and should be treated as different branches of one same tree." This "branching" includes the European Green Deal (EC, 2019) and the European Recovery Plan (EC, 2020b, 2020c), as well as policies (maritime affairs, energy, climate, agriculture, fisheries), strategies and action plans and many other regulations and directives, as well as guidelines, missions, and territorial cooperation programmes. In addition, it should be borne in mind that legislation is constantly being reviewed and adapted (see more, e.g., EC, 2021b), while new implementing acts and action plans related to policy documents are prepared. MSP as an integrative tool to address the economic and socio-ecological use of the sea and to achieve wider sustainability goals at sea (Tafon, 2018) functions inside a branching framework of policy documents and legislation, based on the notion of synergy, in a changing context of shifting policy priorities.

In line with its commitment to be "a strong global actor" (EC / High Representative of the Union for Foreign Affairs and Security Policy, 2016, p. 4), the EU is a world leader in maritime governance (Van Tatenhove, 2013), especially given that it has the largest maritime area in the world (EC, 2012b) and is one of the "key ocean players" (EC / High Representative of the Union for Foreign Affairs and Security Policy, 2016, p. 7). At a global level, the EU is also a leader in the development and implementation of maritime spatial plans (Friess and Grémaud-Colombier, 2019; VASAB Secretariat, 2021f) to address policy requirements in areas such as offshore renewable energy, emerging sectors and increased demand for marine resources and space in an efficient and integrated manner (EC, 2021a, 2021b). Additionally, the EU's technological and industrial leadership in offshore renewable energy is evidenced by its share of the world's total offshore wind market capacity (42% or 12 GW in 2019), as well as work in European laboratories and industries in the rapid development of other offshore renewable energy technologies (EC, 2020a).

In the framework of the EU's Integrated Maritime Policy, launched in 2007, MSP was identified as one of the three most important areas for legal certainty (EC, 2021a, 2021b) – "a key planning tool for sustainable decision-making [..] a fundamental tool for the sustainable development of marine areas and coastal regions, and for the restoration of Europe's seas to environmental health" (CEC, 2007, pp. 5–6). A specific roadmap was adopted on MSP (EC, 2008), which sets out ten guiding principles for MSP and puts at the forefront the development of a common approach to MSP in the Member States. In recent years, work has also followed on an international roadmap for accelerating MSP processes worldwide (DG MARE / IOC-UNESCO, 2017). The Marine Strategy Framework Directive (2008/56/EC), which emphasized the diversity and complementarity of the EU's maritime regions, continued to help further the implementation of MSP as a cross-cutting instrument in maritime policy (CEC, 2009a).

In support of initiatives in the blue economy (EC, 2012a), and given the intensification, diversification and cross-border dimension of maritime economic

activities (Friess and Grémaud-Colombier, 2019), in 2014, the EU also adopted Directive 2014/89/EU establishing a framework for MSP (MSPD), which "ensures that potential negative impacts on the natural environment are identified and avoided **at a very early stage in the planning process** and that national maritime spatial plans are coherent with national energy and climate plans, as well as with good environmental status as defined in the Marine Strategy Framework Directive" (EC, 2021b, p. 15). Thus, under the MSPD, academic / technical principles have been translated into operational capacity (Grimmel et al., 2019), envisaging completion of maritime spatial plans in Member States by 31 March 2021 (Article 15, paragraph 3).

1.1. Purpose of Maritime Spatial Planning

The MSPD (Article 3, point 2) defines MSP as a process led by public authorities to analyse and organize human activities to achieve environmental, economic, and social objectives at sea. Recital 19 of the Directive states: "The main purpose of maritime spatial planning is to promote sustainable development and to identify the utilisation of maritime space for different sea uses as well as to manage spatial uses and conflicts in marine areas. Maritime spatial planning also aims at identifying and encouraging multi-purpose uses, in accordance with the relevant national policies and legislation." However, Article 5, paragraph 1, of the Directive refers only to the obligation of the Member States "**to promote** coexistence of relevant activities and uses", although established maritime spatial plans shall "identify the spatial and temporal distribution of relevant existing and future activities and uses in their marine waters" (Article 8, paragraph 1). Further, Article 8, paragraph 2, of the MSPD lists activities and uses whose interactions need to be taken into account, including tourism and installations and infrastructures for the production of offshore renewable energy.

In the draft MSPD, Article 7 was formulated in the following way: "Maritime spatial plans shall contain at least a mapping of marine waters which identifies the actual and potential spatial and temporal distribution of all relevant maritime activities" (Soininen and Hassan, 2019, p. 110). Niko Soininen and Daud Hassan (2019, p. 110) comment: "The biggest difference between the adopted version and draft approach is that the Member States *do not* have an obligation to produce *a map* of activities in the marine areas. This can severely cripple the spatial strengths of MSP in the EU." Therefore, it can be concluded that while MSPD focuses on harmonization of maritime spatial plans across the Member States, discretion is left for each Member State as to **how to plan** maritime activities. As stated in Article 4, paragraph 3, 2nd sentence, of MSPD: "This Directive shall not interfere with Member States' competence to design and determine the format and content of that plan or those plans." This means that national maritime spatial plans differ significantly in terms of how the MU is addressed, if at all.

1.2. Essence of Multi-use

MU (multi-use) is a concept used to describe a situation in which at least two maritime sectors or activities are present or – put differently – "being together" (Przedrzymirska et al., 2021). Przedrzymirska et al. (2021) describe that "the term being together refers to either spatial proximity, overlap or concurrence, or economic interaction." As a result, during the last 20 years, many different labels for the same concept notion have emerged: co- and translocation, multi-functional use, multiple-use, co-use, secondary and additional use, coexistence, and interdependencies, to mention a few (Przedrzymirska et al., 2021, 2018a).

The definition widely used in the EU (EC, 2021a) refers to MU as the sharing of resources in geographical proximity; it is an "umbrella" term that encompasses a combination of many uses and diverges radically from the concept of exclusive resource rights to inclusive resource sharing by one or more users (Zaucha et al., 2016). Such a resource can be biotic (such as fish stocks) or abiotic (such as ocean space, platforms, logistics and other infrastructure) and can be used directly (such as fishing) or indirectly (such as nature conservation) (Zaucha et al., 2016). Therefore, MU is based on a **conscious (intentional)** desire to share resources and space between two or more activities for the benefit of all users (EC, 2021a; Zaucha et al., 2016) which in essence means multi-functional and symbiotic mixtures (Przedrzymirska et al., 2021).

According to experience gained in the field of MU of maritime space (EC, 2021a; Przedrzymirska et al., 2018a; Schultz-Zehden et al., 2018), MU can be ensured in two main ways, as follows: 1) addition of activities, i.e., as well as an existing or historically created activity, a new activity is introduced (staggered development); 2) development of joint activities from the beginning of the project (joint development). This scenario means increasing added value by more closely combining and integrating uses. The higher the level of connectivity means the greater the need for two or more actions to be coordinated from the outset. This implies that aquaculture and fishing and wave and tidal energy extraction can take place not only directly (activities in or near the safety zone of an offshore wind farm and / or by attaching equipment to plant bases) but also indirectly (using the same cable block), while tourism can also be carried on outside the safety zone of power plants and even virtually.

MSP can contribute to the boost of MU envisaging MU arrangements when allocating marine space in maritime spatial plans, even though other tools are available that enhance MU progress, such as market, policies, and research and development (Przedrzymirska et al., 2021). In its turn, the MU approach ensures, in particular, reduction of conflicts, efficient use of maritime space, plus delivery of environmental benefits and socio-economic values. Additionally, it has been found in practice that while offshore wind energy developers prioritize risk management of their activities, which may be adversely affected by other activities in the same place and / or at the same time, one of the driving forces in terms of generating interest in the MU of space among these developers is the opportunity to create a better image of society and thus increase social acceptability (VASAB Secretariat, 2021b) by overcoming project acceptability concerns regarding offshore wind production and the "NIMBY" ("Not In My Backyard") phenomenon (Schultz-Zehden et al., 2018). Thus, based on the perspective of this approach, it is possible not only to reduce conflicts, but also to create opportunities in the MSP process (Schultz-Zehden et al., 2018; VASAB Secretariat, 2021b). This shows the existence of interactions between MSP and MU and that these processes complement each other if the MU principle is integrated in the planning. For example, currently, the MU principle is defined in the Belgian Maritime Spatial Plan 2020–2026 (Royal Decree establishing the marine spatial planning for the period 2020 to 2026 in the Belgian sea-areas, 2019), and its aspects are included in the Dutch North Sea Spatial Planning Program 2050 (Ministry of Infrastructure and the Environment, co-production with Ministry of Economic Affairs, 2014) and the MSP framework of the United Kingdom (HM Government et al., 2011).

2. MACRO-REGIONAL AND NATIONAL REGULATORY SCALES OF MARITIME SPATIAL PLANNING IN THE BALTIC SEA REGION

The Marine Region Concept, as introduced by the MSFD, includes the BSR as one of its constituents. The EU Strategy for the Baltic Sea Region (EUSBSR) (CEC, 2009b) as the first of four macro-regional EU strategies aims at strengthening cooperation between countries bordering the Baltic Sea in order to address common challenges and take advantage of common opportunities. The HELCOM-VASAB Working Group (see below) co-chair Joacim Johannesson (VASAB Secretariat, 2021e) has underlined that although the region's countries have similar legislation in this area, implementation varies; thus, a uniform regional framework might provide a variety of benefits.

With the aim of achieving the three objectives of "Save the Sea, Connect the Region and Increase Prosperity", the EUSBSR is being implemented in fourteen policy areas, including spatial planning as part of a macro-regional approach under the updated EUSBSR Action Plan to promote sustainability and improve quality of life (EC, 2021c). While united by the functional ecosystem of the Baltic Sea, the countries concerned have varied legal and institutional cultures and planning cultures (e.g., hard vs. soft sustainability) (Piwowarczyk et al., 2019) and, additionally, the region is "also clearly divided between a prosperous, highly innovative North and West and a developing East and South" (CEC, 2009b, p. 7). Therefore, according to the renewed EUSBSR Action Plan, the overall objective of the "spatial planning" policy area is to increase territorial cohesion in the BSR to become a more integrated and coherent macro-region in 2030 with reduced socio-economic disparities between its components, turning global challenges into opportunities and benefits (EC, 2021c). Among other things, a regional approach can address the challenges of identifying the best locations and MU, thus *inter alia* ensuring that the planning and implementation of large-scale offshore renewable energy production is successful (EC, 2020a).

The EUSBSR is not only a regional framework, but also a collaborative platform that delivers significant benefits across different networks, bringing together stakeholders and implementing all geographical levels, including policy and operational coherence (VASAB Secretariat, 2021e). The actors involved in the strategy reach a wide range of stakeholders, thus creating synergies between the work of regional organizations and networks, promoting cooperation, and improving governance in maritime affairs (EC, 2011). The contribution of the Convention on the Protection of the Marine Environment of the Baltic Sea Area (HELCOM or Helsinki Commission) and the network of ministers for spatial planning and development in the BSR – Vision and Strategies around the Baltic Sea (VASAB) in this area is particularly important. MSP has been one of VASAB's priorities since 2001 (VASAB Secretariat, 2021d). VASAB is also cooperating with HELCOM by launching a special working group of the two organizations in 2010 to foster regional coherence through soft mechanisms, discourse, and experience sharing (Hassler et al., 2018) to ensure the coherence of maritime spatial plans. The HELCOM-VASAB Working Group has developed a number of strategic documents in this area, such as MSP principles (2010), an MSP roadmap (2013) and an ecosystem-based MSP guideline (2016). Thus, HELCOM and VASAB, as regional spatial planning coordinators, give the EUSBSR a territorial dimension and provide the necessary expertise to achieve its goals, making the BSR a model for MSP regional dialogue, coordination, and practical development, as well as use of scientific knowledge (VASAB Secretariat, 2021a, 2021e; Zaucha,

2014; EC, 2021c, 2014). At the same time, the tasks of the HELCOM-VASAB Working Group "proved to be challenging, because the differences between national frameworks unsurprisingly make the composition of the workgroup similarly diverse" (Hassler et al., 2018, p. 143).

According to the authors' research, based on national MSP legal frameworks and presented here in summarized form (see, e.g., European MSP Platform, n.d.a; VASAB, n.d.), it can be concluded that preparation of plans is carried out at different levels; moreover, the interaction patterns are very different between levels, for example, according to the federal state system in Germany or only at national level (Denmark, Lithuania). MSP is mostly implemented in different combinations at national, regional, and local levels, and the level of integration of maritime regulations also varies (Latvia, Poland). MSP approaches in the BSR are also broad, ranging from strategic and general maritime visions of the future potential of marine space for various existing and emerging activities (Finland, Sweden) to binding conditions for other planning documents and public authorities (Latvia, Lithuania) and even a very detailed spatial distribution (Denmark, Estonia, Poland, Germany). Only Germany and Lithuania have made progress in gathering expertise with developing second-generation plans among the BSR nations.

3. ACHIEVEMENTS AND WAY FORWARD IN MULTI-USE APPLICATION

Analysis of the experience of pilot projects shows that the practical application of the MU approach to maritime space varies from one European country to another and, generally, is relatively underdeveloped (Schultz-Zehden et al., 2018; VASAB Secretariat, 2021b), early in the development process, mainly in the trial and pilot phase (Przedrzymirska et al., 2021). However, important evidence exists (EC, 2020a, p. 8) that offshore renewable energy "can and should coexist with many other activities, in particular in crowded areas." For example, "the development of energy infrastructures **is not incompatible** with shipping routes" and also "it is possible to develop sustainable economic activities in marine protected areas" (EC, 2020a, p. 8), as well as to restore marine habitats and improve their condition in offshore wind farm areas (VASAB Secretariat, 2021b). Experience from pilot projects (EC, 2021a; Schultz-Zehden et al., 2018; UNITED, n.d.) also shows that most use combinations that involve offshore wind energy infrastructure and are mainly related to other forms of energy production (wave and tidal energy, desalination, hydrogen, etc.) or aquaculture (e.g., seaweed, molluscs) as well as tourism and fishing. In the Netherlands (Noordzeeloket, n.d.), it is also considered that, additionally, offshore wind energy production can be combined with activities in sectors such as oil and gas extraction, cable and piping installation, recreation, and military use of space. In turn, tourism can be combined with environmental protection and fisheries or underwater cultural heritage, aquaculture, and offshore wind production (Schultz-Zehden et al., 2018), as well as shipping and military use of space (Noordzeeloket, n.d.).

In the Baltic Sea, the interaction between MSP and offshore wind energy has taken the form that offshore wind energy has been a key driver of MSP, while MSP has had a strong leverage effect on offshore wind energy, i.e., MSP has ensured that enough sea space is allocated in a timely manner for achievement of renewable energy targets (VASAB Secretariat, 2021c). For its part, the European Commission (2021a) has pointed out that energy projects in particular are likely to have been the driving force

behind the development of MU at sea and can be seen as a powerful approach to tackling constraints associated with other maritime activities. The world's first offshore wind farm was also located on the southern coast of Denmark, in Vindeby, in 1991 (EC, 2020a). In terms of the contribution of the BSR countries to offshore wind energy, according to WindEurope (Ramirez et al., 2021) data in the EU: Germany operates 29 offshore wind farms (ranking 1st in terms of wind energy production after the United Kingdom's withdrawal from the EU), followed by Denmark (5th place, 14 wind farms), Sweden (6th place, 5 wind farms) and Finland (7th place, 3 wind farms).

In that light and because the dominant sectors in a specific marine basin appear to have a significant impact on MU development (Przedrzymirska et al., 2018a), wind energy, in combination with tourism and aquaculture, unsurprisingly plays a key role in MU in the western part of the Baltic Sea. In Denmark, Germany, and Sweden, wind farms have been deliberately integrated into regional offshore and coastal tourism (Schultz-Zehden et al., 2018; VASAB Secretariat, 2021b). In the North Sea, the experience of Belgium, the Netherlands and the United Kingdom also provides useful insights on approaches addressing the combination of offshore wind energy production and tourism. Tourism-related activities most frequently involve sight-seeing boat tours (sometimes combined with angling), offshore restaurants, and diving around the turbine foundations, as well as shared onshore facilities (information centres, museums, and platforms for observation wind farms with telescopes) and even helicopter flights around offshore wind farms (Przedrzymirska et al., 2021; Schultz-Zehden et al., 2018). However, in the eastern part of the Baltic Sea the most frequent MU variety is environmental protection sites and underwater cultural heritage sites in combination with tourist activities, although this also occurs in the western part of the Baltic Sea (Przedrzymirska et al., 2021). Accordingly, in the MUSES project (Przedrzymirska et al., 2018b), the primary driving sectors for MU have been identified as tourism and energy. As a result, tourism as a MU driver should be adequately acknowledged in policy supporting MU (Przedrzymirska et al., 2018a). Additionally, taking into account, the global and EU ambitions of climate neutrality and biodiversity, it would be proper to look at the closer link between these two sectors **throughout the Baltic Sea**, especially given that offshore wind capacity installed in the Baltic Sea could reach more than 83 GW by 2050, compared to today's 2.2 GW (almost 40 times more than at present) (Freeman et al., 2019; VASAB Secretariat, 2021c) and more complex cross-border renewable energy projects will become increasingly important in most European sea basins (EC, 2020a).

Assessing spatial distribution in current maritime spatial plans in the BSR, it can be concluded that offshore renewable energy, especially with regard to offshore wind energy, is an important component of MSP, largely determining its research and installation in priority areas. As a result, most countries use the principle of prioritization and the principle of hierarchy, with certain areas designated for priority use, while other uses and functions that are incompatible with the priority function are prohibited or severely restricted. As a result, it can be concluded that the concept of MU is only cautiously emphasized in the current versions of maritime spatial plans (Denmark, Estonia, Poland, Sweden) or is missing altogether. In this regard, an important caveat must be taken into account in connection with the European Commission's recommendations (2021a) in the field of MU: the MU principle is unlikely to be widely applied in setting permit conditions if MU is not initially included in the maritime spatial plan (VASAB Secretariat, 2021b).

Further progress in the MU area is accompanied by many shortcomings and threats. These are due to lack of available data and knowledge on the impact on the marine environment, traditional economic sectors and emerging sectors or opportunities and political and legal barriers, as well as lack of regulation and the challenges of implementing MSP. For example: there is no common maritime classification system for statistical territorial units (Nomenclature of Territorial Units for Statistics (NUTS)) that offers spatial and temporal statistical classification (UNESCO, 2021; Fairgrieve, 2019). Other obstacles include conflicting cross-sectoral policymaking and management / decision-making schemes, lack of continuity of legislation from land to sea, inadequacy of the regulatory framework for MU of maritime space (there are separate rules tailored to each sector), funding, liability, and insurance issues, and others (see more EC, 2021a; Schultz-Zehden et al., 2018; VASAB Secretariat, 2021b). Sectoral, mutually incompatible, or overlapping spatial plans are still common in today's world (EC, 2021a), and are aging relatively quickly (UNESCO, 2021). The latter aspect is governed by the MSPD (Article 6, paragraph 3), which provides for review of maritime spatial plans at least every ten years. However, for example, the experience of MSP in Germany (UNESCO, 2021) shows that the demands and needs of today's rapidly changing society also pose one of the biggest challenges for MSP, as once a new maritime spatial plan is developed stakeholders may significantly change their views in the process of implementing, reviewing, and developing it. Potential innovations regarding uses of maritime space, as well as the availability of new data and knowledge, may cause substantial changes (UNESCO, 2021).

In the light of the above, the recommendations of the European Commission (2021a) are worthy in terms of promoting MU projects, including ensuring close integration between maritime activities through, for example, hybrid projects and multifunctional platforms (see also in this regard EC, 2020a; OECD, 2016; Przedrzymirska et al., 2018a). They propose identifying pre-defined multifunctional areas in the MSP process (such as marine protected areas) that are suitable for MU development (e.g., access to communication networks), to make MU mandatory for sector-specific activities and identify its potential benefits in the context of strategic environmental and social assessment. One can agree that sector-specific measures such as active involvement by tourism boards and other tourism industry representatives in the MSP and offshore wind energy farm planning consultation processes, encouragement of shared ownership and collection and exchange of information regarding what types of agreements should be established between the two sectors (Shultz-Zehden et al., 2018) for sea basin / macro-regional projects to be applied.

These operational activities could develop the content of the MU principle of maritime space. This will be supported, *inter alia*, by the evaluation framework planned under the MULTI-FRAME pilot project – a streamlined global guide for policy makers, legislators, planners and developers on how to assess MU potential in terms of environmental, economic and social sustainability (SUBMARINER Network for Blue Growth EEIG, n.d.; VASAB Secretariat, 2021b). In this respect, it is also important to gather national and transnational experience in the implementation of maritime spatial plans (Ehler, 2014; UNESCO, 2021). This could be used in the preparation of second and future generations of maritime spatial plans. As is aptly indicated in Swedish marine spatial plans for the Gulf of Bothnia, the Baltic Sea and the Skagerrak/Kattegat (Swedish Agency for Marine and Water Management, 2019, p. 145): "Future claims for new activities in the sea will be part of continuing marine spatial planning, with **coexistence as the guiding principle**".

CONCLUSION

Policy requirements and experience from pilot projects demonstrate that a multi-use approach based on the concept of spatial efficiency and / or economic benefits is becoming an integral part of maritime spatial planning. This involves the emergence of the multi-use principle. However, the multi-use concept of space is only cautiously highlighted or absent entirely in existing versions of maritime spatial plans in the Baltic Sea Region. In turn, the principle of prioritization and the principle of hierarchy clearly dominate in these maritime spatial plans regarding spatial designations. Consequently, the multi-use principle of maritime space would appear to be rather left for application in the future. As a result, the outline of the multi-use principle is still unclear, and its meaningful application would require further specification.

Although offshore renewable energy projects offer different options and perspectives in the context of a multi-use approach to maritime space, several countries in the Baltic Sea Region have not yet developed practical experience in this area, so the potential is not yet fully realized. As a result, the situation is considerably diverse in the Western Baltic Sea where the primary multi-use driver is offshore wind energy and the Eastern Baltic Sea where the catalyst role is played by tourism. Firstly, in line with the experience of pilot projects and their conclusions, it would mean that while drafting multi-use supporting policy, the role of tourism should be properly recognized and integrated. Secondly, a stronger relationship between offshore wind energy and tourism throughout the Baltic Sea would be beneficial to global and EU aspirations of climate neutrality and biodiversity.

In this regard, exchanges of experience and cooperation with countries in the region, especially Denmark, Finland, Germany, and Sweden, which have a long tradition of offshore wind energy and practical experience in the field of multi-use, are also useful here. At the same time, maritime spatial planning and multi-use complement each other if the multi-use principle is integrated in planning at all. Multi-use needs to be reflected in the maritime spatial plan in order to affect the conditions for granting a specific operating permit, and in some cases, this may even run counter to the principle of prioritization. Therefore, in this aspect, it is also critical to gain experience with the implementation of maritime spatial plans. This experience can then be applied to the development of such plans in the future. In short, the Baltic Sea Region can draw useful lessons from integration of the multi-use principle into maritime spatial planning and practical approaches on addressing offshore wind production and tourism from the North Sea (especially, Belgium, the Netherlands, and the United Kingdom) as the forerunner in this field.

It should be borne in mind that large-scale offshore renewable energy and the concept of multi-use maritime space will not only be the guiding principle for second-generation maritime spatial planning over the next ten years, but will also guide long-term maritime spatial planning development, with the global and European Union goal of achieving carbon neutrality and zero pollution, promoting the circular economy, and restoring biodiversity by 2050.

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