



SPACE FOR ALL

STRENGTHENING MARITIME SPATIAL
PLANNING FOR MARINE PROTECTION
AND OFFSHORE WIND EXPANSION

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SUMMARY

Europe urgently needs to accelerate the expansion of offshore wind power generation to meet its climate commitments and ensure energy security in the face of geopolitical crises. Nonetheless, the expansion of offshore wind has advanced slower than expected. This has led the Commission to put forward various policy proposals, such as ‘go-to-areas’ and Renewable Acceleration Areas (RAAs), to speed up the development of offshore wind projects.

Sea users have not, however, welcomed the Commission’s approach. The wind industry has criticised the concept of RAAs, while fishers’ associations have condemned the expansion of offshore wind, claiming that there are increasing conflicts at sea due to spatial limitations, which they call a ‘spatial squeeze’.

This briefing analyses the possible expansion of offshore wind at sea. On the one hand it demonstrates that there is no such thing as a ‘spatial squeeze’, and that there is ample physical space to ramp up the deployment of offshore wind. According to the latest Member State pledges, offshore wind will only take up 0.19% of the EU’s marine area by 2030 and 0.58% in 2040.

The briefing proposes a new policy opportunity to speed up offshore wind deployment by mandating Strategic Environmental Assessments (SEAs) with sensitivity mapping in the Maritime Spatial Planning Directive (MSPD). This would allow planning decisions to be taken quicker at project development stage. In this way, the MSPD could shift activities at sea from site-specific planning to a more strategic, long-term approach.

INTRODUCTION

The EU has committed to a significant expansion of offshore renewable energy to support its climate and energy objectives. In the present geopolitical context, this commitment is also critical to ensuring energy security. Member States have agreed to non-binding targets with an overall ambition to install around 88 GW of offshore renewable capacity by the end of 2030, scaling this up to around 360 GW by mid-century¹. Currently, offshore capacity reaches just 22 GW across Europe, demonstrating the urgent need to scale up development². To reach these goals, strong governance is required to efficiently allocate space at sea among all users.

In this context, the European Commission has announced the publication of an Ocean Act, expected by 2027, which aims to strengthen the governance of EU seas by improving coordination across sectors, enhancing maritime spatial planning, and promoting the sustainable use of marine space. Building on a revision of the Maritime Spatial Planning Directive (MSPD), the Ocean Act presents a significant opportunity to strengthen maritime governance in a way that can better support the large-scale deployment of offshore renewable energy.

¹ European Commission, “Member States agree new ambition for expanding offshore renewable energy”. Retrieved at: Member States agree new ambition for expanding offshore renewable energy

² Wind Europe, “Wind energy in Europe: 2025 Statistics and the outlook for 2026-2030” Retrieved at: Wind energy in Europe: 2025 Statistics and the outlook for 2026-2030 – WindEurope

THE SPATIAL SQUEEZE MYTH

Some ocean users, notably fishers, have expressed concern over the deployment of offshore wind due to a perceived ‘spatial squeeze’³. This briefing calculates the available space of each Member State and their offshore wind pledges. It builds on the 2024 WWF analysis, using updated pledges on offshore wind deployment to estimate if the development of offshore wind is responsible for any ‘spatial squeeze’⁴.

Based on the amount of space Member States have allocated to offshore wind (see table 1 in Annex), any potential ‘spatial squeeze’ at sea is not a result of offshore wind deployment. **Pledges by Member States for 2030 would only take up 0.19% of EU sea and pledges for 2040 would cover 0.58% of the EU’s marine area.** While a marginal amount of further space may be needed for cables and grid connections outside of the core area for offshore wind, these numbers show that in the long run the space needed for offshore wind will remain negligible.

Most countries have low needs for offshore wind, however there are a few outliers. The results are similar across most countries. Belgium, with a small marine space but high offshore wind potential and ambition, is an outlier in needing a high proportion of space: it requires around 25% of its marine space to meet its 2030 targets. Germany comes second with 7%. All other countries need less than 3% of their marine space to meet 2030 pledges. Spain and Portugal, for example, with very large marine spaces but low offshore renewable deployment due to deep seas unsuitable for fixed wind turbines, require very little space for their 2030 pledges: 0.04% and 0.01% respectively.

By 2040, these numbers rise but still cover merely a small area of the EU’s sea. Belgium remains first needing 33%, followed by Germany with 15%, the Netherlands with 12% and Poland with 5.5%. All other countries need less than 5% of space, with 11 Member States needing less than 1% of marine space to fulfil their 2040 pledges.

While this high-level analysis gives an important reframing to the ‘spatial squeeze’ debate, it should be noted that at local level, specific issues can arise between sea users. Conflicts between users are most common near the coast, where shallower seas, areas of high marine biodiversity and traditional fishing zones coincide. These conflicts will continue, particularly until floating wind technologies are mature and can be deployed in some deeper sea basins. Full and transparent inclusion of all

stakeholders in decisions around maritime spatial planning are essential to mitigating these conflicts and must be a core element of maritime spatial planning policy going forward.

Member States can further address conflicts by reserving zones for marine conservation or for non-destructive, small-scale fishing. Belgium, the country with the highest spatial needs of offshore wind, is a case in point of balanced spatial planning decisions. Given wind development will take significant space in its seas, Belgium has excluded new offshore wind deployment in its territorial seas (until 12nm of its coastline) with the aim of supporting coastal communities, tourism, small-scale fishers and marine biodiversity close to the coast⁵. This decision is possible given that Belgium has a small artisanal fishing fleet (as few as 14 vessels in 2017)⁶, but demonstrates that policy tools already exist but demonstrates that policy tools already exist to balance the needs of sea users, marine protection and renewable energy.

This analysis is also relevant in the context of the EU’s commitment to reserve 30% of its marine space for protection and subsequent concerns from fishers. Academic literature has shown that Marine Protected Areas (MPAs) do not have net costs to fishers. Instead, MPAs in almost all cases led to benefits for fishers, given the spillover effect where fish in MPAs live longer, grow bigger and reproduce more, such that the catches around MPAs more than compensate for the spatial closure⁷. The commitment to protect 30% of the EU’s seas should therefore not be seen as a cost to fishers, and policy-makers must enshrine the 30% target into law given that it benefits people and planet.

The results show that the vast majority of the EU’s marine space remains available for marine protection, fisheries and other uses despite the necessary ramp-up of EU offshore renewable energy. Decision-makers should, therefore, consider policy mechanisms to accelerate the deployment of offshore wind with new mechanisms to mitigate spatial conflicts in the few areas where they may occur with fishers or areas of high biological significance.

3 Europeche, ‘Europeche calls on the European Commission to address escalating marine spatial squeeze’. Retrieved at: <https://europeche.chil.me/post/europeche-calls-on-the-european-commission-to-address-escalating-marine-spatial-490915>

4 WWF EU, ‘New Horizons: The Space Needed for Offshore Wind Energy in the EU by 2030 and 2040’. Retrieved at: <https://www.wwf.eu/?15163891/report-space-for-offshore-wind>

5 European MSP Platform, ‘Belgium’. Retrieved at: <https://maritime-spatial-planning.ec.europa.eu/countries/belgium>

6 Flanders Research Institute for Agriculture Fisheries and Food (ILVO), ‘The Re-Emergence of Small-Scale Fisheries in Belgium? – An Enquiry’. Retrieved at: <https://pureportal.ilvo.be/en/publications/the-re-emergence-of-small-scale-fisheries-in-belgium-an-enquiry/>

7 Mark Costello, Evidence of economic benefits from marine protected areas. Retrieved at: <https://scientiamarina.revistas.csic.es/index.php/scientiamarina/article/view/5526/3017>

THE STATE OF PLAY IN EU LEGISLATION: INADEQUATE ATTEMPTS TO ACCELERATE OFFSHORE WIND

The European Commission mandated, in two stages, Member States to designate suitable areas for renewables to accelerate the permitting processes in these zones. In 2022, the concept of “go-to areas” was proposed under the REPowerEU Plan. These are specific areas identified by the Member States as particularly favourable for renewable energy installations. Through streamlined Environmental Impact Assessments (EIAs) “go-to areas” aimed at fewer negative environmental consequences and greater clarity for renewable energy projects. However, “go-to areas” were not legally binding, and the Commission used the revision of the Renewable Energy Directive (RED III) to create the concept of Renewable Acceleration Areas (RAAs) - legally designated zones for fast-tracking renewable energy installations. They can benefit from an exemption from conducting EIAs if no potential significant negative effects are identified in the Strategic Environmental Assessments (SEAs) that Member States carry out.

However, the wind industry has voiced concerns about RAAs. The possibility of exempting a project from an EIA holds risks for the credibility of the project given possible damage to marine ecosystems. This in turn creates risks for wind developers given possible backlash from coastal communities and potential delays. The wind industry has been supportive of EIAs, as they provide opportunities to consult local communities and ensure that projects do not develop in areas where there is a risk of destructive environmental impacts⁸.

THE SOLUTION: STRENGTHENING SEAS AND SENSITIVITY MAPPING

The upcoming EU Ocean Act presents an opportunity to accelerate offshore wind deployment while maintaining high environmental standards. This can be achieved through two targeted amendments to the MSPD: first, by making SEAs binding; and second, by operationalising the Ecosystem-Based Approach (EBA) through the mandatory inclusion of ecological sensitivity mapping within SEAs.

Sensitivity mapping is an established tool already recognised in European marine governance. It is based on the concept of ecological sensitivity, defined by the OSPAR Convention⁹ as the degree

to which a species or habitat is adversely affected by an external pressure and the time required for recovery once that pressure is removed. In practice, sensitivity mapping combines spatial, ecological and environmental data to assess how vulnerable marine species, habitats and ecosystems are to different human activities and pressures. Guidance from the European Commission on already exists. The “wildlife sensitivity mapping manual,” which applies geographic information systems (GIS) in combination with biological data, enables the analysis of potential impacts of offshore wind development on marine ecosystems¹⁰. This manual can be used as a starting point to guide Member States on creating their first sensitivity maps.

With mandatory sensitivity mapping in SEAs, Member States would have to classify marine environments in terms of their ecological sensitivity before allocating space to different activities of the blue economy. Areas of high ecological sensitivity should then be prioritised for conservation, marine protected areas (MPAs) and nature restoration, thereby supporting the EU’s target of protecting 30% of its seas. Once sufficient space has been allocated for biodiversity conservation, marine areas that are least sensitive could be considered suitable for offshore wind development. Early identification of ecologically suitable sites for expanding offshore facilities would help avoid conflict with biodiversity protection and other sectors such as fisheries.

Sensitivity mapping would also improve policy coherence across EU marine legislation and provide a practical mechanism for implementing the Ecosystem-Based Approach (EBA). The European Commission has repeatedly highlighted the importance of applying EBA in maritime spatial planning in its latest implementation report , yet Member States continue to face challenges in translating this principle into planning decisions. Sensitivity mapping offers a clear and consistent methodology to do so. A mandatory sensitivity mapping requirement would also help create a level-playing field across Member States by establishing a common evidence base for maritime spatial planning.

Moreover, sensitivity maps would assist in improving the harmonisation of marine environmental data. At present, data are often fragmented, gathered through different methodologies and classifications. By applying a unified approach, including habitat classifications and sensitivity scoring systems, sensitivity maps would facilitate comparability across sea basins and improve the interoperability of datasets. Better-coordinated and aligned data would improve cross-border spatial planning at sea, considering environmental sensitivity beyond national borders.

⁸ Wind Europe, “WindEurope’s response to the Commission’s Call for evidence on the Oceans Act”. Retrieved at: WindEurope’s response to the Commission’s Call for evidence on the Oceans Act – WindEurope

⁹ OSPAR, Criteria for the Identification of Species and Habitats in need of Protection and their Method of Application (The Texel Faial Criteria). Retrieved

at: [Microsoft Word - 19-03e_Agreement_Texel_Faial_Criteria.docx](#)

¹⁰ European Commission, “THE WILDLIFE SENSITIVITY MAPPING MANUAL Practical guidance for renewable energy planning in the European Union” Retrieved at: PowerPoint Presentation

Lastly, while sensitivity mapping should not replace project-level Environmental Impact Assessments (EIAs), it could streamline permitting procedures by reducing uncertainty, identifying potential risks earlier, and enabling assessments to focus on the most significant environmental impacts. Through site selection based on sensitivity assessment results, future offshore energy projects would be able to avoid some environmental conflicts.

CONCLUSION

This briefing demonstrates that far from a 'spatial squeeze', there is both enough physical space to ramp up the deployment of offshore wind and the opportunity through EU policy to make this happen with respect for people and the planet. This can

be done by enforcing SEAs in MSPD/the Ocean Act and integrating sensitivity mapping as a core requirement of SEAs. This way, Member States would be able to make faster and better-informed spatial planning decisions and to identify priority areas for marine protection to meet the 30x30 target. At the same time they would direct offshore wind development towards areas of lower ecological sensitivity.

The Ocean Act provides the opportunity to secure the sustainable future of the EU's seas, ensuring a level-playing field among Member States and guaranteeing both energy security and marine ecosystem conservation.



ANNEX

Table 1.

Note: French overseas territories are not included as the current MSPD is not legally binding in these areas. Spanish and Portuguese outermost regions are included as the MSPD is legally binding in those territories.

For full methodology, see WWF, '[New Horizons](#)'.

MEMBER STATE	2030 PLEDGES AS % OF COUNTRY AREA	2040 PLEDGES AS % OF COUNTRY AREA
Belgium	24.82%	33.09%
Denmark	1.59%	4.29%
Estonia	0.30%	0.61%
Finland	0.13%	0.67%
Germany	7.37%	14.97%
Latvia	0.16%	0.78%
Netherlands	2.96%	12.32%
Poland	1.71%	5.19%
Spain	0.04%	0.04%
Sweden	0.06%	n/a
Lithuania	2.43%	4.86%
France	0.17%	1.26%
Ireland	0.16%	0.74%
Portugal	0.01%	0.06%
Croatia	0.32%	0.76%
Italy	0.35%	1.41%
Greece	0.41%	1.26%
Malta	0.01%	0.08%
Cyprus	0.00%	0.00%
Slovenia	0.00%	0.00%
Bulgaria	0.25%	0.92%
Romania	0.00%	2.34%
EU Total	0.19%	0.58%



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