

Revision of the Marine Strategy Framework Directive

IFAW submission to the Call for Evidence

The Marine Strategy Framework Directive (MSFD) is the cornerstone of Europe's environmental protection at sea. This Directive, adopted in 2008, required EU Member States to achieve 'good environmental status' (GES) in their marine waters by 2020 to protect the marine ecosystem and biodiversity.

The MSFD paved the way for impactful legislation and policy, and the European Commission's evaluation published in March 2025¹, confirmed that it provides a solid framework for an ecosystem-based approach, playing an important role in the wider European Water Resilience Strategy, which aims to ensure that water sources are managed properly. However, the evaluation also identified shortcomings. The lack of clear mandatory measures resulted in failure by Member States to achieve GES by 2020 in European marine waters. This is particularly relevant when striving to meet objectives related to reducing underwater noise pollution.

IFAW calls on the EU to seize the opportunity offered by the revision of the MSFD to uphold the original level of ambition of this crucial legislation, while making it more operational and effective. This should include the **introduction of mandatory and monitorable pressure-reduction targets and clear EU-harmonised and legally binding measures for the achievement of GES under each Descriptor**.

IFAW's marine conservation work in Europe focuses on two main issues addressed by the MSFD: underwater noise pollution and bycatch of sensitive species. Below, we provide an overview of these issues and our recommendations in the context of the MSFD revision.

1. Underwater noise pollution, a critical threat to marine biodiversity

Underwater noise can come from natural sources (such as waves, rain and marine animals) or human activities (like shipping, sonar, construction and resource extraction). Many marine species rely on sound for survival; to find food or avoid predators, for communication and to navigate. While research has focused on animals such as whales and dolphins which are known to be especially acoustically sensitive, scientific evidence also demonstrates that many fish species, cephalopods, crustaceans and other

¹ [Marine Strategy Framework Directive Evaluation 2025](#), European Commission

invertebrates including plankton, are negatively affected by underwater noise pollution from human activities, both temporarily and in the long-term².

Today, shipping noise from the commercial maritime trade constitutes *the* major source of continuous underwater noise in the ocean. Shipping noise (also known as underwater radiated noise – URN) can mask communication signals of marine species, interfere with navigation, and cause chronic stress in marine life³. It can also change important predator-prey interactions and community structures – compromising food web dynamics and risking ecosystem productivity and services. This pervasive pollutant continues to increase the level of noise in the ocean, with studies noting a doubling in background noise in some areas every decade over the last 50 years due to shipping activity⁴. This creates a constant din that interferes with the natural soundscape and acoustic communication/navigation of marine animals.

The MSFD recognises underwater noise as a source of pollution (article 3.8). In addition, underwater noise is implicitly covered by overarching environmental Directives, such as the Habitats Directive. The Commission Decision (EU) 2017/848 specifies criteria for the assessment of the GES and includes two Descriptors (11.1.1 and 11.2.1) on introduced energy, including underwater noise. It also requires Member States to establish threshold values for these levels through cooperation at the Union level, considering regional or subregional specificities. Therefore, Member States need to implement appropriate measures in their marine strategies to tackle this source of pollution, for example by reducing ship-generated noise. To date, this has led to monitoring Guidance on underwater noise, but further actions are needed to complete assessments relative to threshold values and implement effective mitigation measures to reduce noise.

The 2024 Commission Notice on the threshold values set under the MSFD⁵ requires the use of threshold values for underwater noise with separate thresholds for continuous noise and impulsive noise. The indicator for continuous noise is largely based on shipping whereas the impulsive noise indicator includes sources such as seismic surveys, pile driving and explosions. These threshold values contribute to set limits on where and for how long marine habitats can be exposed to underwater noise. The threshold for continuous noise is that no more than 20% of the habitat should be exposed to noise that exceeds a specified average level in any month. Similarly, no more than 20% of a marine

² [Scientific support for underwater noise effects on marine species](#), IMO MEPC 73/INF.23, 2018.

³ Merchant et al., 2022. N.D. Merchant, R.L. Putland, M. André, E. Baudin, M. Felli, H. Slabbekoorn, R. Dekeling A decade of underwater noise research in support of the European Marine Strategy Framework Directive Ocean Coast. Manag., 228 (0964-5691) (2022), Article 106299.

⁴ [Underwater noise emissions from ships during 2014–2020](#), J.-P. Jalkanen et al., Env. pollution, Vol 311, 2022.

⁵ https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C_202402078

habitat should be exposed to impulsive noise levels that exceed a specified value over a given day, and an average of no more than 10% over a year.

The European Commission's assessment of Member States' progress under the MSFD showed that 97% of the EU's sea area failed to meet GES due to continuous underwater noise⁶. Effective measures to reduce underwater noise from shipping have been identified but there has been limited implementation of either operational or technical measures specifically designed to reduce underwater noise.

There are different technical and operational options available to reduce URN from the shipping sector. Ideally, URN is considered when designing new ships, but so far this has seldom been the case, except for some naval, cruise and research vessels for which low sound and vibration levels play an important role in their operation. Technical retrofit measures or innovations are available too, but reducing an existing ship's acoustic signature is more difficult and expensive than consideration at the design stage. Therefore, for existing ships, good maintenance such as hull cleaning and the reduction of speed are very effective operational measures to reduce URN over the entire frequency range⁷.

2. Bycatch of sensitive species

Entanglement of non-target species in fisheries, known as bycatch, is a source of wildlife mortality that contributes significantly to biodiversity loss, as well as being a major conservation and animal welfare concern⁸. A recent report identifies 15 cetacean populations, including five that are critically endangered, endangered or vulnerable, where fisheries bycatch thresholds have been exceeded in European waters⁹. Gillnet fishing is responsible for the highest rates of cetacean deaths¹⁰. Although all species of cetaceans are protected under European law and through international agreements, EU Member States have failed to implement adequate conservation measures to protect them from bycatch.

⁶ [Report from the Commission to the Council and the European Parliament on the Commission's assessment of the Member States' programmes of measures as updated under Art.7 of the MSFD \(2008/56/EC\)](#), 4.2.2025

⁷ CE Delft, 2022. Blue Speeds for shipping: Economic analysis and legal framework to achieve environmental benefits, Delft: CE Delft.

⁸ *Bycatch of marine mammals in U.S. and global fisheries*. A.J., Drinker, P. & Northridge, S. (2006). Conservation Biology, 20, 163–169; Dolman, S., Breen, C., Brakes, P., Butterworth, *The individual welfare concerns for small cetaceans from two bycatch mitigation techniques* A. & Allen, S.J. (2022). Marine Policy, 143: 105126.

⁹ [Catch of the Day](#), Environmental Investigation Agency, 06.05.2025

¹⁰ *The incidental catch of seabirds in gillnet fisheries: A global review*, Žydelis, R., Small, C. & French, G. (2013). Biological Conservation. 162, 76-88.

The Technical Measures Regulation, revised in 2019, contains a set of baseline rules for selective fishing in each sea basin, in order to minimise and, where possible, eliminate bycatch. The Biodiversity Strategy specifically promised that by 2030 “the by-catch of species is eliminated or reduced to a level that allows species recovery and conservation”. Despite the publication in 2023 of an EU Action Plan on protecting and restoring marine ecosystems¹¹ to achieve the objectives of the Biodiversity Strategy and comply with legal requirements to eliminate bycatch, little has changed.

Although Member States have started to propose and implement Joint Recommendations to address bycatch of sensitive species according to Art.11 of the Common Fisheries Policy, measures restricting fisheries in order to comply with obligations contained in EU environmental legislation have rarely been implemented.

In the Bay of Biscay – a critical foraging habitat for marine mammals – it has been estimated that more than 100,000 common dolphins (*Delphinus delphis*) have been killed as bycatch since 1990¹². In 2024, in line with International Council for the Exploration of the Sea (ICES) advice and thanks to intensive NGO persistence, a one-month fishing closure was introduced in French Biscay waters, following a decision of the Conseil d’Etat¹³. Following this fishing closure, a sharp decline in dolphin bycatch numbers was reported compared to previous years over the same period¹⁴. This demonstrates that fishing closures are the most effective measures to protect dolphins in the Bay of Biscay, which need to be accompanied by long-term measures to compensate impacted fishermen for their loss of income. Structural changes in EU and national legislation to implement incentive-based solutions and to allocate fishing rights also according to environmental criteria are urgently needed.

In 2021, OSPAR adopted thresholds for bycatch of some marine mammal species based on the well-established Potential Biological Removal (PBR) procedure but adjusted to meet agreed conservation objectives in Europe. The modified PBR (mPBR) was developed by tuning simulation trials to meet the conservation objective that ‘a cetacean population should be able to recover to or be maintained at 80% of carrying capacity, with a 0,8 probability, within a 100-year period’¹⁵. Setting bycatch thresholds to ensure that

¹¹ [Action plan: Protecting and restoring marine ecosystems for sustainable and resilient fisheries - Oceans and fisheries](#)

¹² [Etat des connaissances sur les captures accidentelles de dauphins communs dans le golfe de Gascogne – Synthèse 2019](#), Peltier H., et al. (2019). Observatoire PELAGIS – UMS 3462, La Rochelle Université / CNRS.

¹³ [Le juge des référés du Conseil d’Etat suspend les dérogations à la fermeture de la pêche dans le Golfe de Gascogne - Conseil d’Etat](#)

¹⁴ [Bilan des échouages durant la fermeture de la pêche à risque - PELAGIS](#)

¹⁵ Genu, M.; Gilles, A.; Hammond, P.; Macleod, K.; Paillé, J.; Paradinas, I. A.; Smout, S.; Winship, A. and Authier, M. I 2021. Evaluating Strategies for Managing Anthropogenic Mortality on Marine Mammals: an R Implementation with

conservation objectives agreed by other European bodies including OSPAR and ASCOBANS are met would require Member States to finally implement effective measures to address bycatch.

3. IFAW recommendations for the revised MSFD

The MSFD needs to be strengthened in the revision process by shifting from a process-oriented Directive to a results-driven framework that ensures measurable progress toward achieving GES.

To that end, IFAW believes that the revised MSFD needs to incorporate the following main elements:

- i. **Integrating all the adopted threshold values into the legal framework to ensure binding compliance.**
- ii. **Introducing mandatory, clearly defined pressure-reduction targets** according to the relevant threshold values for each Descriptor. These should be **trackable, monitorable, and enforceable, accompanied by specific partial and final deadlines.**
- iii. **Strengthen Annex VI on MSFD Programmes of Measures** by replacing the current overly generic categories of measures with specific, **outcome-oriented measures** linked to achieving GES for each Descriptor.
- iv. **Issuing EU-level guidance on practical measures in the strengthened Annex VI, ensuring consistency of implementation across Member States** (see section 4 for more details).
- v. **Introducing a Descriptor on bycatch of sensitive marine species**, recognising that the requirement in the Technical Measures Regulation is to ‘where possible eliminate bycatch of sensitive species’, and so bycatch mitigation measures will be required even where thresholds have not been exceeded.
- vi. **Preserve the level of ambition of the MSFD, its ecosystem-based approach and its full list of Descriptors.**
- vii. **Under the unifying framework of the upcoming Ocean Act, and to support the achievement of the MSFD objectives, the revision of the MSFD should allow for the identification of synergies with other relevant EU legislation and policy, such as the Nature Restoration Regulation, the Maritime Spatial Planning Directive, the**

Birds and Habitats Directives, the Port Strategy, the Emissions Trade System Directive, the Ship-Source Pollution Directive.

- viii. **Improve the MSFD coherence in terms of objectives, data collection and reporting cycles with other relevant legislation**, including the Water Framework Directive, the Habitats Directive, the Nature Restoration Regulation, the Maritime Spatial Planning Directive and sectoral policies.

4. Why is an EU-level Guidance on practical measures to achieve MSFD targets needed?

IFAW strongly supports the drafting of an EU Guidance on measures to achieve pressure-reduction targets, as part of the revision process of the MSFD. This would help to ensure greater harmonisation of the national and regional Programmes of Measures implementation identified in the revised MSFD Annex VI to achieve GES for each Descriptor. A harmonised approach is essential to ensure consistency across Member States, prevent regulatory gaps, and deliver collective progress toward GES.

Overall, an EU Guidance would result in enhanced regional cooperation and less discrepancies between regions, ensuring better protection of marine ecosystems in Europe.

In the context of underwater noise pollution from shipping specifically, establishing common standards and approaches to reducing noise from shipping would create a level playing field in EU waters, preventing competitive disadvantages for operators in regions with stricter rules. This harmonisation is essential because measures affecting shipping involve multiple flag or port states and the International Maritime Organization (IMO). In addition, underwater noise is a transboundary pressure—sound travels across borders and affects shared marine habitats—making coordinated action at EU level both necessary and effective. The Guidance should urge Member States to adopt harmonised and mandatory speed reduction (like Blue Speeds, see below) for commercial ships calling at EU ports. This has been shown to be an effective way to substantially reduce underwater noise from shipping. There has been limited implementation of voluntary measures such as those advanced by IMO¹⁶ to reduce underwater noise from ships and binding obligations are

¹⁶ Revised Guidelines for the Reduction of Underwater Radiated Noise from Shipping to Address Adverse Impacts on Marine Life. IMO, 2023 [https://wwwcdn.imo.org/localresources/en/Documents/MEPC.1-Circ.906%20-%20Revised%20Guidelines%20For%20The%20Reduction%20Of%20Underwater%20Radiated%20NoiseFrom%20Shipping%20To%20Address...%20\(Secretariat\).pdf](https://wwwcdn.imo.org/localresources/en/Documents/MEPC.1-Circ.906%20-%20Revised%20Guidelines%20For%20The%20Reduction%20Of%20Underwater%20Radiated%20NoiseFrom%20Shipping%20To%20Address...%20(Secretariat).pdf)

necessary to guarantee enforceability, accountability, and measurable reductions in underwater noise.

Achievable and implementable EU measures also have the potential to encourage widespread adoption of the IMO Guidelines on underwater noise pollution internationally, and to be potentially adopted in other international fora where the EU is represented.

The Technical Group on Underwater Noise (TG Noise) should provide advice and assist in identifying measures to be included in Annex VI and in drafting the Guidance, alongside experts participating in capacity-building events, as appropriate.

The EU Guidance should provide Member States with practical advice and concrete tools, also to improve and facilitate the collaboration of Member States and the Commission with stakeholders such as shipping companies, the nautical sector, fishing interests, port authorities, the energy sector, researchers and NGOs. This could take the form of a dedicated platform that supports the development and implementation of best practices and facilitates knowledge sharing.

A dedicated platform could also benefit regulatory bodies by facilitating marine spatial planning and assessment procedures, including Environmental Impact Assessments (EIAs) and Strategic Environmental Assessments (SEAs), while providing value to the private sector.

A practical and scalable solution: Blue Speeds for Shipping

Reduction of ship speeds ('Blue Speeds') is a viable and achievable operational practice that can be undertaken by the commercial shipping industry to mitigate three environmental pressures - underwater noise pollution, the risk of collisions between ships and large whales, and green house gas emissions from shipping - and to implement legal obligations to achieve a GES of EU marine waters^{17 18}. Limiting the speed of commercial ships to 75% of maximum design speed, which equates to an approximate 10% speed reduction, could reduce underwater noise by 40%, ship strike risk to whales by 50% and shipping GHG emissions by 13% across the global shipping fleet¹⁹.

¹⁷ Faber, J., Huigen, T., and Nelissen, D. (2017). Regulating speed: a Short-term Measure to Reduce Maritime GHG Emissions. Netherlands: CE Delft publication.

¹⁸ Comer, B., Chen, C., and Rutherford, D. (2018). "Relating short-term measures to IMO's minimum 2050 emissions reduction target," in Appendix to paper MEPC 73/INF.27 presented to IMO Marine Environment Protection Committee. 73rd session, (London).

¹⁹ [*The Role of Slower Vessel Speeds in Reducing Greenhouse Gas Emissions, Underwater Noise and Collision Risk to Whales*](#), R. Leaper, 2019.

In European waters, the benefits of Blue Speeds are equally impressive – estimated reductions of 25% in underwater noise, 23% in strike risk and 8% GHG emissions could be achieved by small speed reduction for commercial ship speeds entering and leaving European Union waters. These changes could also bring an estimated € 3.4-4.5 billion in socioeconomic benefits for Europe²⁰.

5. Conclusions

The worsening triple planetary crisis—biodiversity loss, pollution, and climate change—makes it an urgent priority to preserve and protect the marine environment as a critical step toward addressing this crisis and achieving climate neutrality by 2050.

The Ocean Pact and its forthcoming Ocean Act present a unique opportunity to close the existing governance gap in our seas by establishing an integrated, robust, and enforceable framework that connects policies, funding, and accountability across the EU.

In this context, the revision of the MSFD offers the chance for the EU and its Member States to finally deliver GES in all EU marine waters and meet the ambitious targets set by the Ocean Pact.

For more information, please contact:

Ilaria Di Silvestre

Director of Policy and Advocacy for Europe

3 Avenue des Arts

B-1210 Brussels

idisilvestre@ifaw.org

+32 (0)2 237 6054

²⁰ [Blue Speeds for Shipping](#), CE Delft, 2022.