SPECIAL REPORT 25/2026 **EN**

Marine protected areas

Designation alone is insufficient for meaningful protection



EUROPEAN
COURT
OF AUDITORS

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01

Main messages

Why this area is important

01 The EU's seas cover approximately 5 million km², roughly a million more than its land area. ***Figure 1*** shows the EU's four marine regions: the North-East Atlantic Ocean (with four sub-regions), Mediterranean Sea (with four sub-regions), Baltic Sea, and Black Sea[1]. About 40 % of the EU population, in 22 member states, live within 50 km of a coast. Since 2022, EU member states have been committed to contributing to the United Nations' objective of effectively conserving and managing at least 30 % of the world's seas.

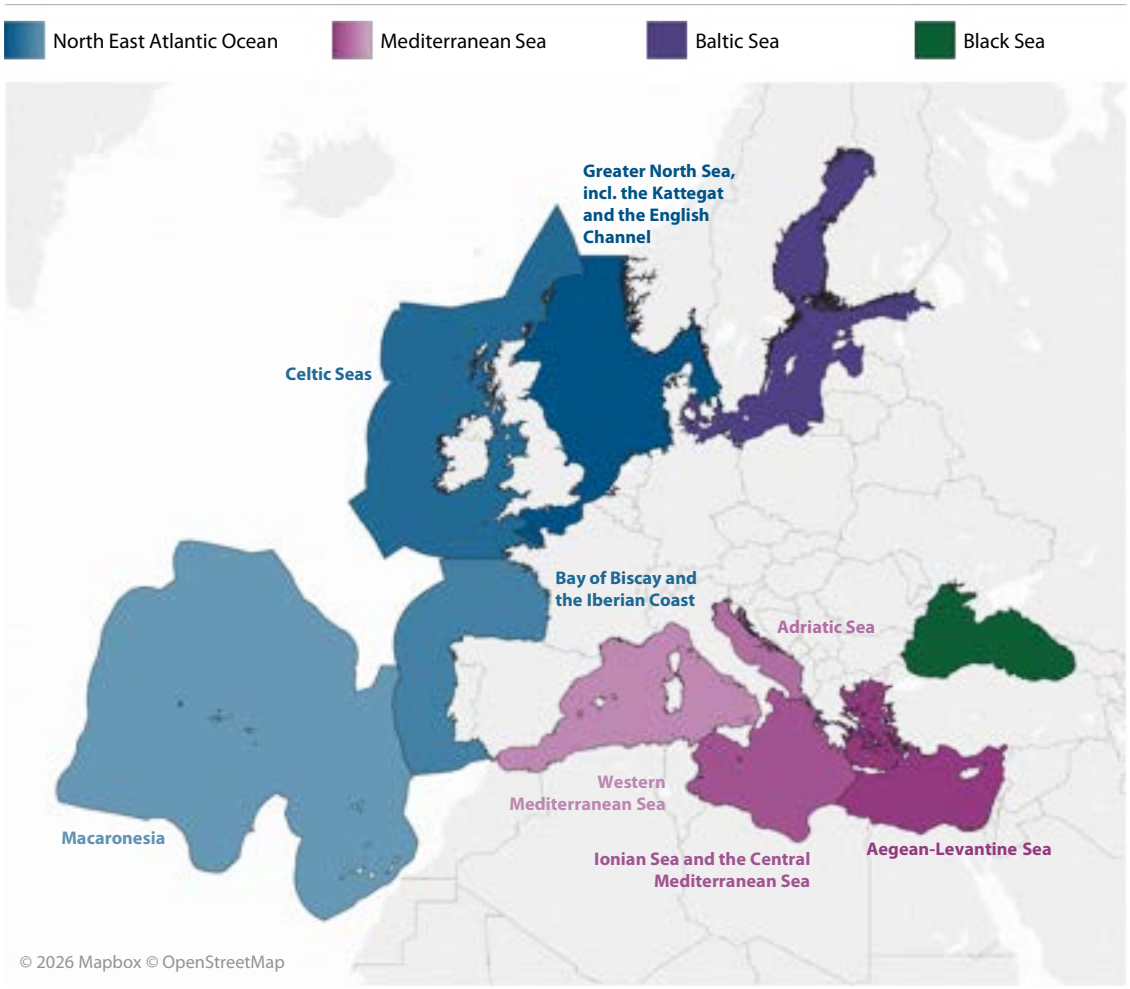
02 The state of the world's oceans and EU seas is deteriorating due to climate change, pollution, marine biological resource exploitation and habitat loss. Across the EU, approximately 15 % of assessed seabed habitats exhibited good conservation status, 81 % exhibited poor or bad status, and for 4 % the status was unknown. Various pressures affect 79 % of the coastal seabed, and 43 % of the relatively shallow shelf area near the coast.

03 Marine protected areas are considered an effective tool for protecting marine ecosystems and halting biodiversity loss. Although there are different EU definitions for such areas, in this report, we use the definition from the United Nations' legally binding 2023 High Seas Treaty: "a geographically defined marine area that is designated and managed to achieve specific long-term biological diversity conservation objectives". Marine protected areas aim to reduce human pressures on ecosystems to conserve biodiversity, maintain ecological functions, and support ecosystem recovery from degradation or overexploitation.

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[1] In addition, the EU has outermost regions in the Indian Ocean and Caribbean Sea, and overseas territories (none of these are covered by our audit).

Figure 1 – Geographical marine regions and sub-regions



Source: Marine Strategy Framework Directive.

04 The objective of our audit was to assess whether the EU had established a network of marine protected areas that protects the marine environment effectively and contributes to achieving the objectives of the EU's 2030 biodiversity strategy. This audit follows up on ECA special report 26/2020 on the marine environment, which concluded that the EU had not been able to restore seas to good environmental status or ensure that fishing operated within sustainable levels.

05 In particular, we examined whether:

- the EU was on track to achieve the strategy's objectives for marine protected area coverage, ecological connectivity and funding for biodiversity;
- the EU regulatory framework provided the necessary mechanisms to turn designation into protection;
- environmental protection objectives were balanced against socio-economic considerations and stakeholder involvement;

- the selected member states had adopted appropriate management practices.

Additionally, we analysed publicly available datasets to assess the geographical and ecological status of marine protected areas across the EU seas.

06 We carried out this audit because the accelerating degradation of marine biodiversity within European seas means that ecosystems are in need of protection. The long-term socio-economic viability of coastal communities depends directly on the stability and effective management of the marine environment.

07 We expect our work to support the Commission in considering how to enhance the effectiveness, uptake and management of marine protected areas, thereby strengthening their contribution to biodiversity protection and maintaining the supply of ecosystem services. We aim to help the Commission revise and improve its strategic approach (such as the next biodiversity strategy) and adapt the legislative framework by better integrating the economic and social aspects of marine protected area policies.

08 ***Annex I*** provides background information and details of our audit scope and approach.

What we found and recommend

09 We conclude that the EU has not yet established a marine protected area network that effectively protects the marine environment. While the EU has a long-standing and well-developed legislative framework for designating protected areas, a persistent gap remains between regulatory framework objectives and actual conservation outcomes. Despite gradual expansion of the designated surface area, the EU 2030 objectives are unlikely to be met. Additionally, the recent European Environment Agency report showed that overall, most habitats and species had been assessed as having an unfavourable conservation status. More recent information collected during the audit has revealed that biodiversity trends within audited protected areas were mixed.

10 Although the current EU biodiversity strategy aims to protect 30 % of EU marine waters by 2030, only around 14 % are designated as marine protected areas, making it highly unlikely that the target will be met. Furthermore, estimates are that currently less than 1 % of these waters are designated as strictly protected areas, far below the 2030 target of 10 %. Moreover, the designated areas do not function as a coherent ecological system. The network fails to meet key criteria for representativeness and connectivity, leaving significant protection gaps in offshore and deep-sea habitats. Currently, the Commission relies on fragmented frameworks and lacks a specific mechanism for assessing and driving the coordinated development of ecological corridors (paragraphs ***20***-***28***).

Recommendation 1

Encourage the development of a coherent trans-European network of marine protected areas

The Commission should use its broad overview to promote good practices so that the designation of EU marine protected areas takes due account of relevant ecological criteria for the development of a coherent trans-European network.

Target implementation date: end of 2029.

11 While effective conservation requires the mobilisation of substantial and predictable financial resources, existing funding for marine protected areas is spread across national funds as well as multiple EU instruments such as LIFE, Horizon Europe, the European Maritime, Fisheries and Aquaculture Fund, and cohesion policy funds. EU funds are often used to support pilot measures and research, which could be very useful for identifying efficient innovative solutions, but need to be complemented by other, stable funding sources to cover the costs of managing marine protected areas and putting innovative solutions into practice (paragraphs *29*-*33*).

12 Currently, designating a site as a "marine protected area" does not guarantee that protective measures or activity restrictions are in place. There is no harmonised EU classification for protection categories and the corresponding permitted activities. The EU legislation does not lay down any marine protected area-specific restrictions on human activities. Moreover, there is no common methodology to assess whether human activities are compatible with the conservation objectives. While the Commission has developed several data platforms, these fail to provide sufficient, standardised information about the protection measures applied in each marine protected area (paragraphs *36*-*45*).

13 Marine organism extraction, particularly through fishing and other seabed-damaging practices, is one of the main threats to marine biodiversity. The process for adopting conservation measures affecting fishing fleets of several member states can be complex and lengthy because it may require negotiations (based on scientific evidence and socio-economic analysis) between member states that have fishing interests, as well as with various stakeholders. It can take many years, and few conservation measures have been adopted since 2013. Consequently, fishing restrictions only apply to a small proportion of marine protected areas (paragraphs *46*-*54*).

Recommendation 2

Work with member states to ensure that the designation of marine protected areas translates into applicable protective measures

The Commission should:

(a) promote the use of standardised information about conservation objectives and protection measures for marine protected areas, and publish it on one of the existing platforms (e.g. Natura 2000 viewer, the European Marine Observation and Data Network) or on a specific data-monitoring platform;

(b) together with member states, identify shortcomings, bottlenecks and inefficiencies in the process of adopting conservation measures within marine protected areas that affect several member states' fishing fleets, to streamline the process;

(c) encourage the use of innovative solutions to achieve more effective conservation of marine protected areas.

Target implementation date: end of 2029.

14 Although member states are increasingly shifting towards inclusive consultation processes, stakeholder involvement in the designation and operational management of marine protected areas remains uneven, as stakeholders frequently do not have time or ability to influence designation and management decisions. This limited participation is compounded by persistent data gaps, particularly concerning small-scale fisheries, which make it more difficult to assess the economic impact of conservation measures accurately. Consequently, current consultation processes often fail to ensure social sustainability, transparent governance, and a balance between environmental and socio-economic objectives, all of which are necessary for the long-term success of marine protected areas (paragraphs *55*-*67*).

Recommendation 3

Work with member states to support an effective transition towards environmental objectives, sustainable livelihoods and competitive industries by promoting strong stakeholder engagement

The Commission should support member states:

(a) in identifying and implementing actions that mitigate the socio-economic impact of conservation measures, including those related to fishing restrictions, on the livelihoods of coastal communities; promoting approaches that enhance the benefits associated with marine protected areas;

(b) in their efforts to ensure that local stakeholders are meaningfully involved in decisions pertaining to marine protected areas.

Target implementation date: end of 2029.

15 Most marine protected areas lack effective adaptive management. Many surveyed sites have management plans but their implementation is often ineffective due to reported problems with staff and stable funding. Furthermore, robust and continuous monitoring is largely absent, with most sites relying on ad hoc data collection. The Commission has not developed a standardised management assessment framework to consistently track whether the management of the marine protected areas is achieving its intended ecological and social outcomes (paragraphs *70*-*83*).

Recommendation 4

Strengthen adaptive management and monitoring of marine protected areas

The Commission should provide support for the adaptive management of marine protected areas on the basis of coherent data, in particular by proposing a robust methodology for assessing management effectiveness.

Target implementation date: end of 2029.

16 Despite long-standing EU nature legislation, marine biodiversity protection under the Birds and Habitats Directives is still far from achieving its objectives. The last "State of nature in the EU" report, published in 2020, presented the EU's periodic Natura 2000 "health check" results from the 2013-2018 period. It showed persistent poor conservation outcomes.

Many of the marine protected areas we assessed reported mixed or unknown biological status, especially for habitats. We also found that a number of areas largely lack climate adaptation plans and miss climate-mitigation opportunities through carbon management (paragraphs ***84***-***88***).

17 Regulation (EU) 2024/1991 on nature restoration shifts the EU's focus from passive protection to active ecosystem repair, establishing legally binding targets to restore 20 % of marine areas by 2030 and all degraded ecosystems by 2050. The Regulation mandates to build a scientific baseline to guide restoration, and aims to secure the long-term viability of the blue economy (economic activities associated with the ocean, seas and coastal regions). However, implementation in the marine environment faces obstacles, making this more complex than repairing degraded land areas. These hurdles include data gaps regarding deep-sea habitats, a lengthy administrative process under the common fisheries policy to enact necessary fishing restrictions, and high operational costs (paragraphs ***89***-***93***).

02

A closer look at our observations

Ambitious EU operational targets are unlikely to be met

18 The EU biodiversity strategy for 2030 sets a strategic ambition of halting biodiversity loss. As part of its objective to reverse biodiversity loss and improve the effectiveness of nature conservation across the EU, the strategy:

- establishes targets on protected area coverage;
- calls for the development of a coherent network of protected areas across the EU; and
- aims to mobilise at least €20 billion per year from public and private sources to support nature conservation and restoration.

19 We assessed whether the EU was on track to achieve its targets for marine protected area (MPA) coverage, ecological connectivity and funding for biodiversity.

Despite gradual expansion, designation of marine protected areas is not reaching EU targets

20 The biodiversity strategy for 2030 sets a clear target of protecting 30 % of EU seas by 2030 and “strictly protecting” 10 %. The targets concern the entire EU. The Commission has therefore called on every member state to do its fair share by expanding the Natura 2000

network and national protection schemes, particularly focusing on potentially very highly biodiverse marine areas.

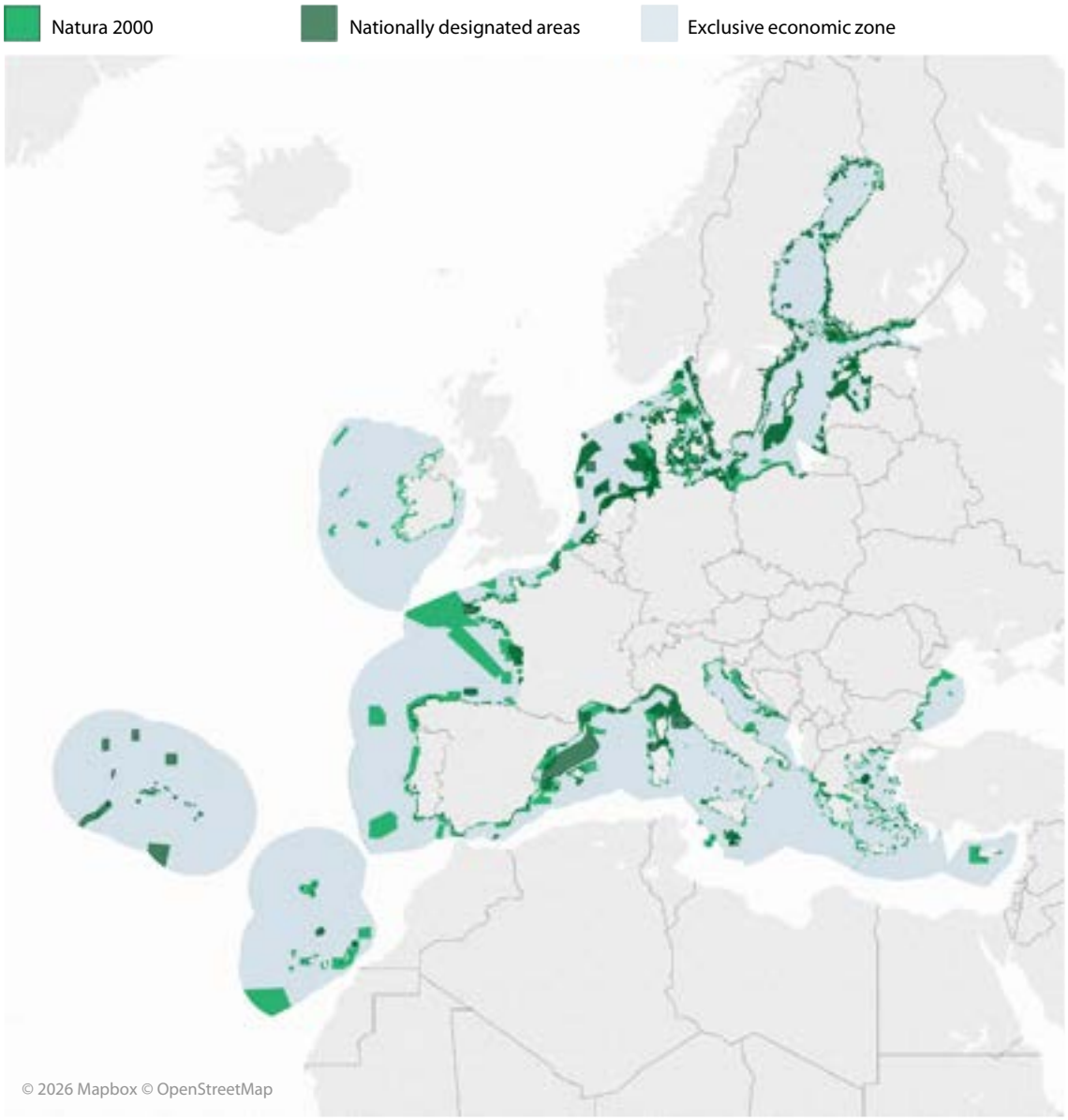
21 The most recent data from 2025 published by the European Environment Agency (EEA) shows that, in 2023, 13.7 % of EU marine waters (excluding overseas territories) were designated as marine protected areas, up by just 80 567 km^2 (1.6 %) on 2020. This result is much lower than the biodiversity strategy objective of 30 %. The EEA acknowledged that meeting the target on time was unlikely.

22 Our analysis shows that 82 % of these marine protected areas are covered by the Natura 2000 network (10.4 % of EU seas), encompassing 3 648 marine sites (525 853 km^2). As sites may be included in multiple designations, we analysed overlapping areas to calculate the following figures:

- 2 875 (415 932 km^2) special areas of conservation, designated under the Habitats Directive; and
- 1 203 (325 261 km^2) special protection areas, designated under the Birds Directive.

23 To complement Natura 2000 sites, there are 6 610 nationally designated sites (243 670 km^2). More than 50 % of these physically overlap with Natura 2000 areas, which means that they are established in the same geographical location but are managed under a different legal framework (***Figure 2***).

Figure 2 | Map of Natura 2000 and nationally designated marine protected areas within EU member states' exclusive economic zones



Source: ECA, based on data obtained from the European Environment Agency (2024) and the Flanders Marine Institute (2026).
Disclaimer: The maritime zones and boundaries shown on this map are presented solely for the purposes of this audit and are based on external datasets. Their depiction is without prejudice to the legal status or delimitation of any territory, maritime area or boundary and does not imply any position of the ECA or the EU regarding sovereignty, jurisdiction or maritime claims.

24 The EEA reports on the surface area of designated areas irrespective of the protection measures in place. Consequently, because the Commission reports all "designated" areas as marine "protected" areas, this gives an over-positive picture of the actual situation.

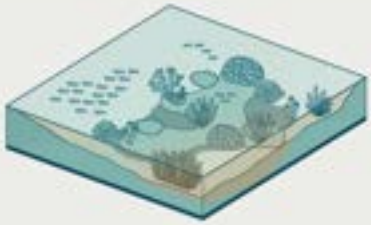
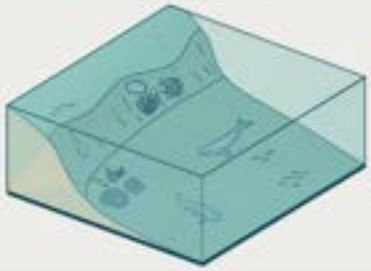
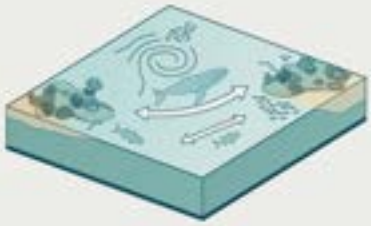
25 The EU biodiversity strategy objective of legally protecting at least 30 % of EU seas defines neither the calculation method nor the EU sea area. The latest EEA calculations use the outdated 2018 EU exclusive economic zone definition for "MPA assessment area", but this is 7 % smaller than the total area of exclusive economic zones around all coastal member states. In other words, it underestimates EU sea area and thus directly affects calculation of the 30 % target, increasing the result by around one percentage point.

The EU network of marine protected areas does not fulfil ecological criteria

26 Beyond protected area coverage, the biodiversity strategy for 2030 also states that the designation of additional protected and strictly protected areas should be accompanied by setting up ecological corridors, to ensure a coherent trans-European network of marine protected areas. This prevents genetic isolation, allows for species migration, and maintains and enhances healthy ecosystems. Specific ecological criteria can be used to assess whether a collection of individual marine protected areas operate as a network to meet objectives that individual designated areas cannot achieve (***Box 1***).

Box 1

Ecological requirements for marine protected area networks at sea basin level

	Technical target	Biological goal
 **Adequacy** Individual MPAs are large enough and have high enough ecological quality to actually work. This means the specific structures (e.g. structurally complex coral reefs) and functions (e.g. nutrient cycling) must be stable or improving.	*Sites ≥30 km²*	*Habitat functionality*
 **Representativity** This requirement ensures that the network captures all typical and unique biodiversity found within a sea basin. Protection must span all depths, from the intertidal zone to the abyssal plains, to prevent "coastal bias", where deeper, offshore ecosystems are left unprotected.	*30 % of each habitat type*	*Ecosystem diversity*
 **Replication** Replication ensures that the network is resilient to localised disasters like oil spills or marine heatwaves. Multiple copies of a habitat allow for genetic exchange between sub-populations, which is vital for long-term evolutionary survival.	*≥4 replicates per basin*	*Disaster resilience*
 **Connectivity** Connectivity ensures that MPAs are close enough for larvae and migratory adults to travel between them. Small MPAs act as rest stops for migratory megafauna like whales or bluefin tuna.	*20–50 km spacing*	*Genetic flow/larval dispersal*
 **Strictness** While 30 % of the sea must be protected, at least 10 % must be under "strict protection" (under IUCN Category Ia or Ib). In these areas, all extractive activities (fishing, mining, dredging) are prohibited to allow for the restoration of natural trophic levels and "apex predator" biomass.	*10 % "No-take" zones*	*Apex predator recovery*

Source: ECA, based on EEA and International Union for Conservation of Nature guidelines.

27 The network in EU marine regions does not currently fulfil any of these ecological criteria, and it is not yet functional or coherent. While shallow-water habitats (seagrass, estuaries) are well represented, deep-sea and offshore habitats remain under-represented. Many marine protected areas in the Baltic and the North Sea have structural connectivity, but the Mediterranean and Atlantic sites are "ecological islands". Most Mediterranean protected areas are separated by over 100 km of heavily exploited waters, preventing the genetic exchange necessary for ecosystem resilience. The estimated percentage of strictly protected areas in EU seas remains low, at around 1 % (paragraph ***54***).

28 The Commission lacks a specific mechanism for monitoring network development and coherence, hindering its ability to establish ecological corridors as part of a trans-European nature network as per the biodiversity strategy for 2030. Current oversight relies primarily on the frameworks provided by regional sea conventions or individual member states; however, regional sea convention objectives only partly align with EU targets (e.g. no 10 % strict protection requirement). Furthermore, their geographical scope may be either inherently limited often to a single sea basin, or extend beyond EU waters (e.g. OSPAR, Barcelona Convention).

EU funding for marine protected areas is spread over different instruments and is difficult to trace

29 Under the EU biodiversity strategy for 2030 at least €20 billion should be unlocked annually for nature-related expenditure through a mix of funds, requiring mobilisation of private and public funding at national and EU level. In 2023, the Commission assessed that the Natura 2000 network alone required €10 billion annually for maintenance and development, with 3.5 % (€323 million) for the marine component.

30 EU maritime policies are financed through various, separately managed EU funding instruments. Current monitoring mechanisms lack the granularity to precisely report the amount of EU funding directed towards reversing marine biodiversity loss by the Commission or member states. Total spending on designating and maintaining EU marine protected areas remains unknown.

31 Our analysis indicates that approximately €600 million has been earmarked so far for marine biodiversity from EU funds for the whole 2021-2027 multiannual financial framework. These funds are managed either directly by the Commission, e.g. LIFE (€150 million) and Horizon programmes (€62.4 million), or through shared management with member states, notably via the European Maritime, Fisheries and Aquaculture Fund (€377 million) and cohesion policy funds (€18.2 million) (***Annex V***).

32 None of the three member states we visited had a consolidated national overview of EU funding specifically allocated to marine protected areas, or of projects financed within each protected area, limiting accountability and complicating the strategic management of the protected area networks. However, financial information was often available for individual projects.

33 We found that EU financial support specifically targeting marine protected areas remained relatively low compared with overall biodiversity funding, and was spread across several funding instruments. EU funds play an important and often essential role in supporting pilot projects and analytical work related to marine protected areas. However, they alone are not meant to provide long-term financing for management, monitoring and enforcement activities in marine protected areas and deployment of innovative solutions.

The EU framework struggles to ensure consistent protection levels

34 The EU biodiversity strategy for 2030 places emphasis on expanding the coverage of marine protected areas. However, increasing designated marine areas is not sufficient on its own; designation must be accompanied by measures that ensure effective protection and deliver conservation outcomes.

35 We assessed whether the EU regulatory framework provided the necessary mechanisms to turn designation into protection in practice. We examined the Commission's support to member states in identifying and designating marine protected areas. We paid particular attention to fisheries, given their ecological impact on marine ecosystems and the central role of fisheries management measures in achieving conservation objectives within protected areas.

A long-established EU regulatory framework for designating protected areas

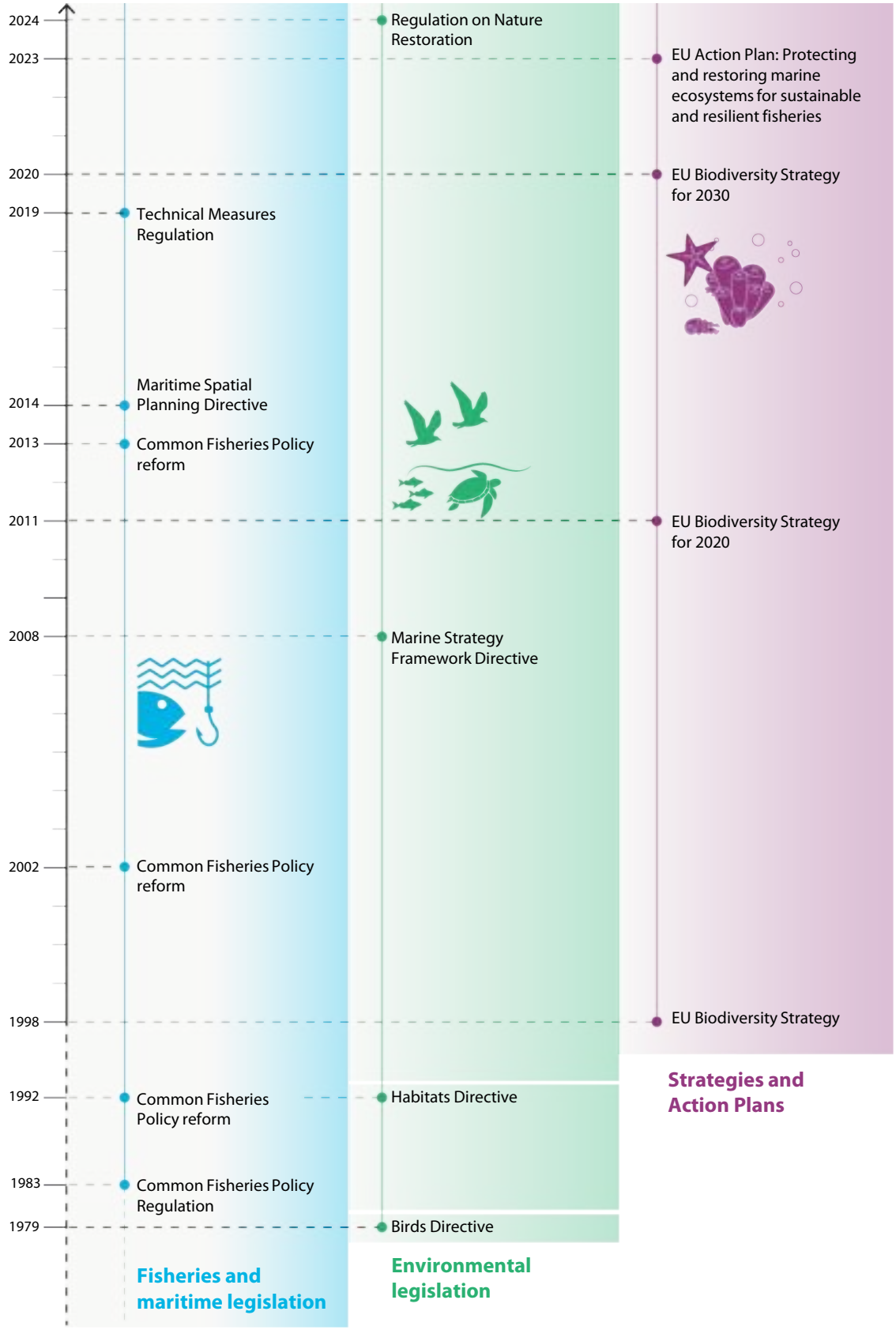
36 The designation of marine protected areas in the EU is supported by a regulatory framework developed over more than four decades (***Figure 3***). The 1979 Birds Directive and the 1992 Habitats Directive provide member states with a clear legal basis for the identification of ecologically important marine areas and the designation of Natura 2000 sites. Each of these must have site-specific conservation objectives and adopt the necessary conservation measures to achieve them. The Directives also promote

transboundary cooperation across shared regions to ensure a cohesive network of protected areas.

37 While not exclusively focused on marine protected areas, the 2008 Marine Strategy Framework Directive (MSFD) aims to enhance their ecological effectiveness by ensuring they contribute to broader marine ecosystem health. This directive establishes the legal framework for achieving good marine environmental status, requiring member states to implement strategies addressing pressures like pollution, litter and biodiversity loss.

38 The 2014 Maritime Spatial Planning Directive complements this legal framework by mandating integrated maritime spatial planning to counterbalance various human activities – such as fishing, aquaculture, shipping and offshore energy – with conservation. Member states may incorporate marine protected areas into national maritime plans, to reduce conflicts between industrial use and environmental goals.

Figure 3 | EU framework for marine protection



Source: ECA.

39 The Commission may initiate action against member states considered to be in breach of EU law. At the date of the audit, three pre-infringement dialogues and 24 infringement procedures before the Court of Justice of the European Union were ongoing for the marine part of Natura 2000.

Designation of protected areas does not directly result in protection or activity restrictions

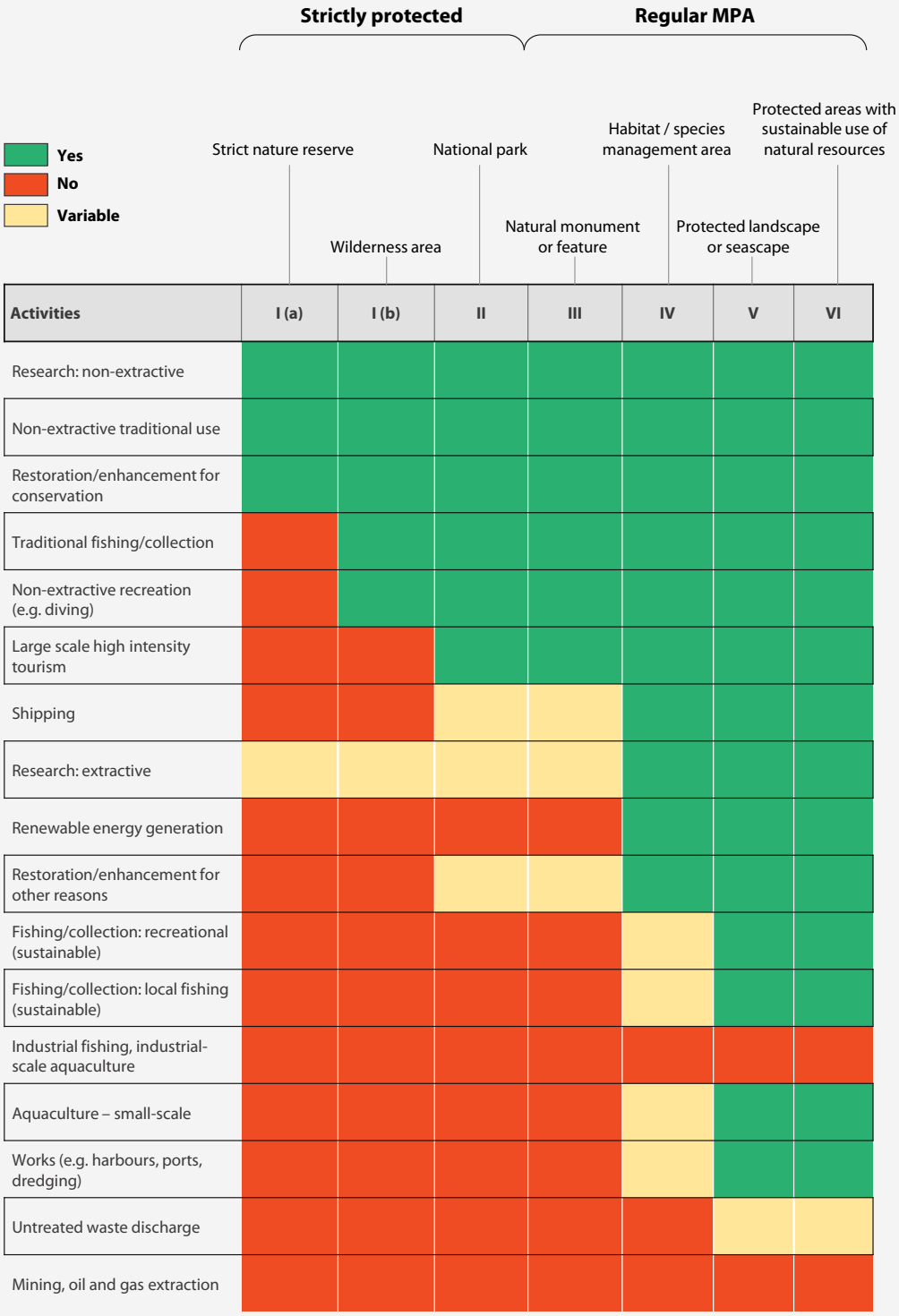
40 Member states identify, propose and designate Natura 2000 sites and national protected areas. To support member states, the Commission has issued several guidance documents. Key publications include the 2012 Guidelines for the establishment of the Natura 2000 network in the marine environment, the 2019 guidelines on interpreting Article 6 of the Habitats Directive – Managing Natura 2000 sites, and the 2022 Commission criteria and guidance for protected areas designations.

41 The key guidance for designating protected areas was published in 2022, two years later than planned in the EU biodiversity strategy for 2030. The guidance defines "strict protection" in the context of the strategy's 10 % target. The definition corresponds to "category Ia – strict nature reserve" and "category Ib – wilderness area", and partly to "category II – national parks" of the Guidelines for Applying Protected Area Management Categories from the International Union for Conservation of Nature[2]. However, as the Commission guidance has no harmonised classification of protection categories and corresponding permitted activities for areas that are not strictly protected, an overall EU definition of marine protected areas is lacking (***Box 2***).

[2] The International Union for Conservation of Nature (IUCN) is a leading global authority, founded in 1948 and dedicated to nature conservation and sustainable development. It provides knowledge, tools, and policy guidance, including the authoritative IUCN Red List of Threatened Species.

Box 2

Matrix of marine activities that may be appropriate for each International Union for Conservation of Nature management category



Activities	I (a)	I (b)	II	III	IV	V	VI
Research: non-extractive							
Non-extractive traditional use							
Restoration/enhancement for conservation							
Traditional fishing/collection							
Non-extractive recreation (e.g. diving)							
Large scale high intensity tourism							
Shipping							
Research: extractive							
Renewable energy generation							
Restoration/enhancement for other reasons							
Fishing/collection: recreational (sustainable)							
Fishing/collection: local fishing (sustainable)							
Industrial fishing, industrial-scale aquaculture							
Aquaculture – small-scale							
Works (e.g. harbours, ports, dredging)							
Untreated waste discharge							
Mining, oil and gas extraction							

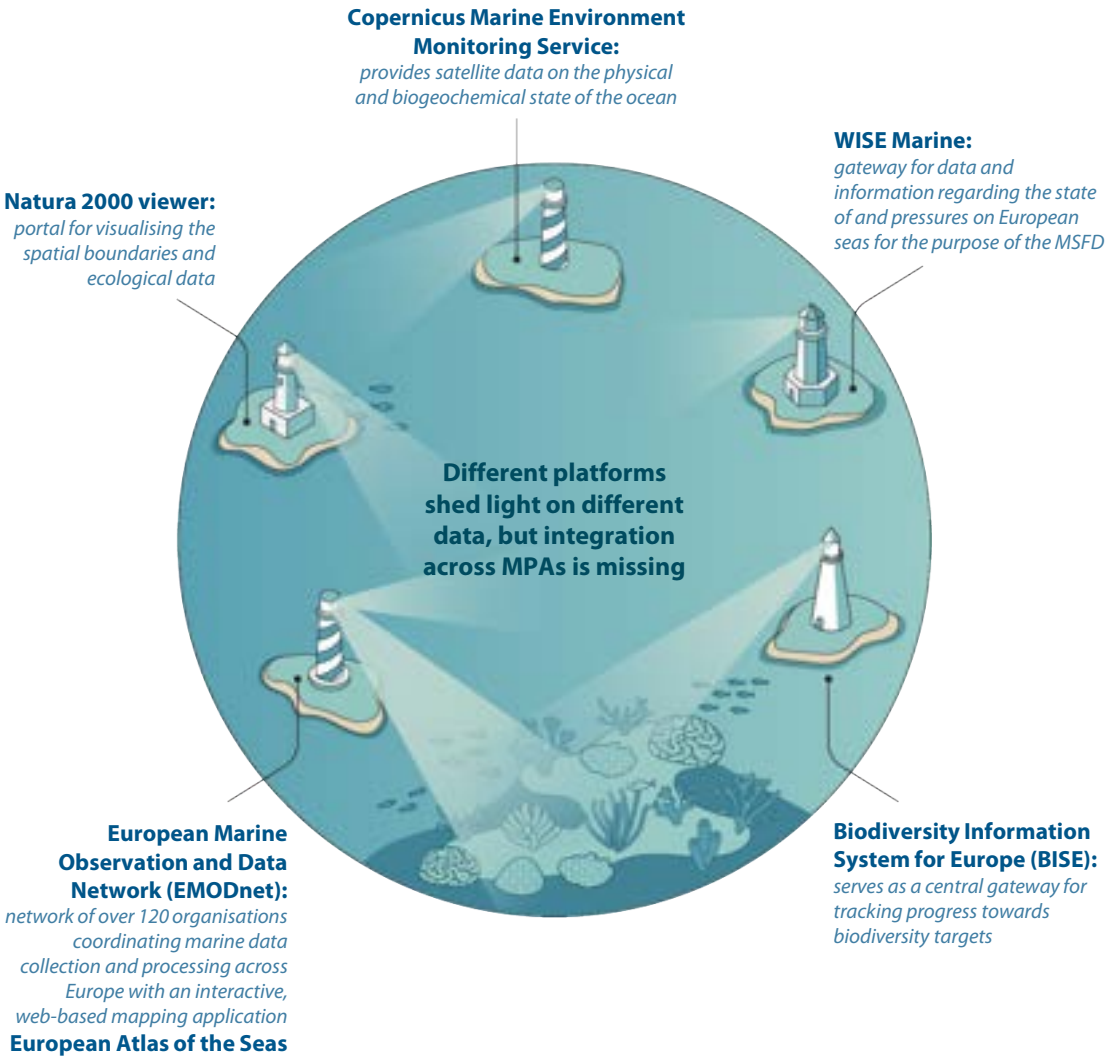
Source: International Union for Conservation of Nature Guidelines for Applying Protected Area Management Categories.

42 The restriction of human-driven pressures is necessary to achieve conservation objectives. Yet EU legislation contains no such requirements establishing activity restrictions (e.g. banning extractive and destructive activities) within protected areas. The Commission considers that designating marine protected areas does not necessarily mean restricting human activities altogether, but rather establishing effective management measures in line with the conservation objectives for the areas. However, the Commission has not developed a common management standard or specific methodology for assessing which activities are compatible with the conservation objectives of a given marine protected area and which must be restricted, given the environmental, economic and social impact.

43 The lack of harmonised classification of protection categories and a common methodology for assessing the necessary restrictions largely leaves the definition of protection needs and corresponding measures to member states. Consequently, protection can vary between sites and member states, even within Natura 2000 sites.

44 The Commission operates several parallel data services providing monitoring information for specific initiatives (***Figure 4***).

Figure 4 | Key marine-related data services



Source: ECA.

45 Notwithstanding this apparent abundance of information, the Commission does not provide standardised data about specific conservation objectives, environmental conditions, or biodiversity metrics of individual marine protected areas. Independent initiatives, like the ProtectedSeas navigator or Protected Planet, attempt to address these deficiencies. However, their scope remains limited to marine protected area-specific open data without broader environmental or social context.

Protecting fishing areas is complex and lengthy

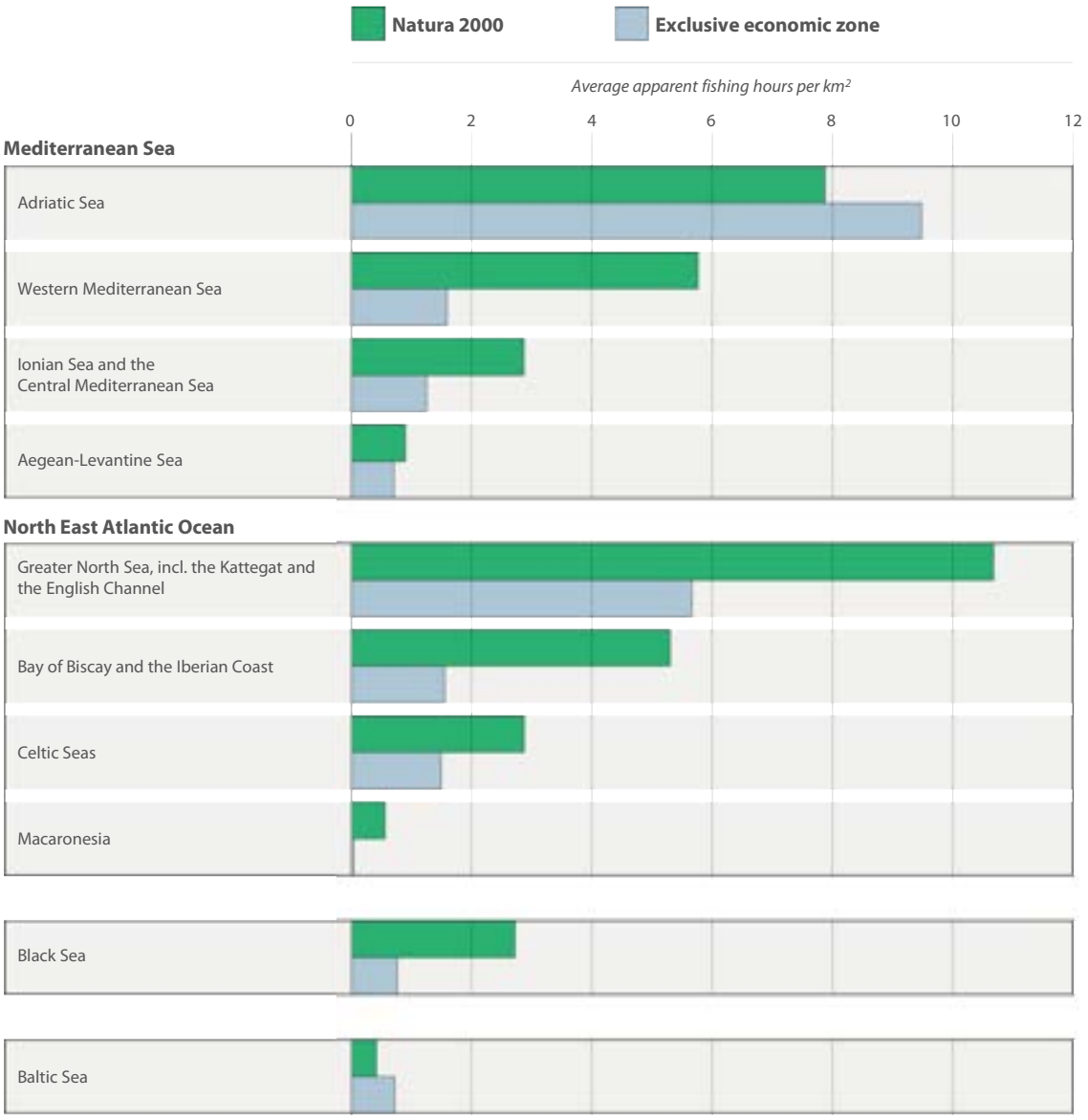
46 Fishing is a key human-driven pressure on the marine environment. Large-scale marine-organism extraction and damage to the seabed disrupts the ecological balance and reduces marine biodiversity. Marine biological resource extraction intensity in marine protected areas is directly linked to how well these areas provide protection (***Annex I***).

47 We analysed the apparent fishing effort (sometimes referred to as "apparent fishing pressure") in EU seas. The aim was to test whether this differed between waters of the same MSFD sub-region (***Figure 1***) inside and outside the Natura 2000 areas within the limits of the EU member states' exclusive economic zones.

48 Overall results of this analysis are presented in ***Figure 5***. Our calculations show that apparent fishing effort in marine Natura 2000 areas is 1.72 times higher than outside those areas. Approximately 85 % of apparent fishing effort is from fishing activities using the most destructive bottom-contact gear. Across eight marine sub-regions, the impact of fishing activities inside marine protected areas was significantly higher than in surrounding waters. The North Sea stands out with an apparent fishing effort inside its Natura 2000 areas (around 11 hours per km^2) roughly twice that of surrounding waters (around 6 hours per km^2).

49 These results may reflect the fact that many coastal marine protected areas cover some of the most productive fishing grounds. Nevertheless, higher apparent fishing effort inside marine protected areas compared to the surrounding seas indicates risks for effective protection of marine species and calls for close monitoring.

Figure 5 | Mean apparent fishing effort inside and outside marine Natura 2000 areas across ten European marine sub-regions



Note: Figures were calculated as hours of apparent fishing activity per km², per year, derived from Automatic Identification System vessel tracking data published by the Global Fishing Watch (***Annex III***), for 10 European marine sub-regions over 2020-2024.

Source: ECA analysis.

50 When fishing activities need to be restricted for conservation purposes, the common fisheries policy (CFP) applies. Fisheries conservation measures can be adopted in the following ways.

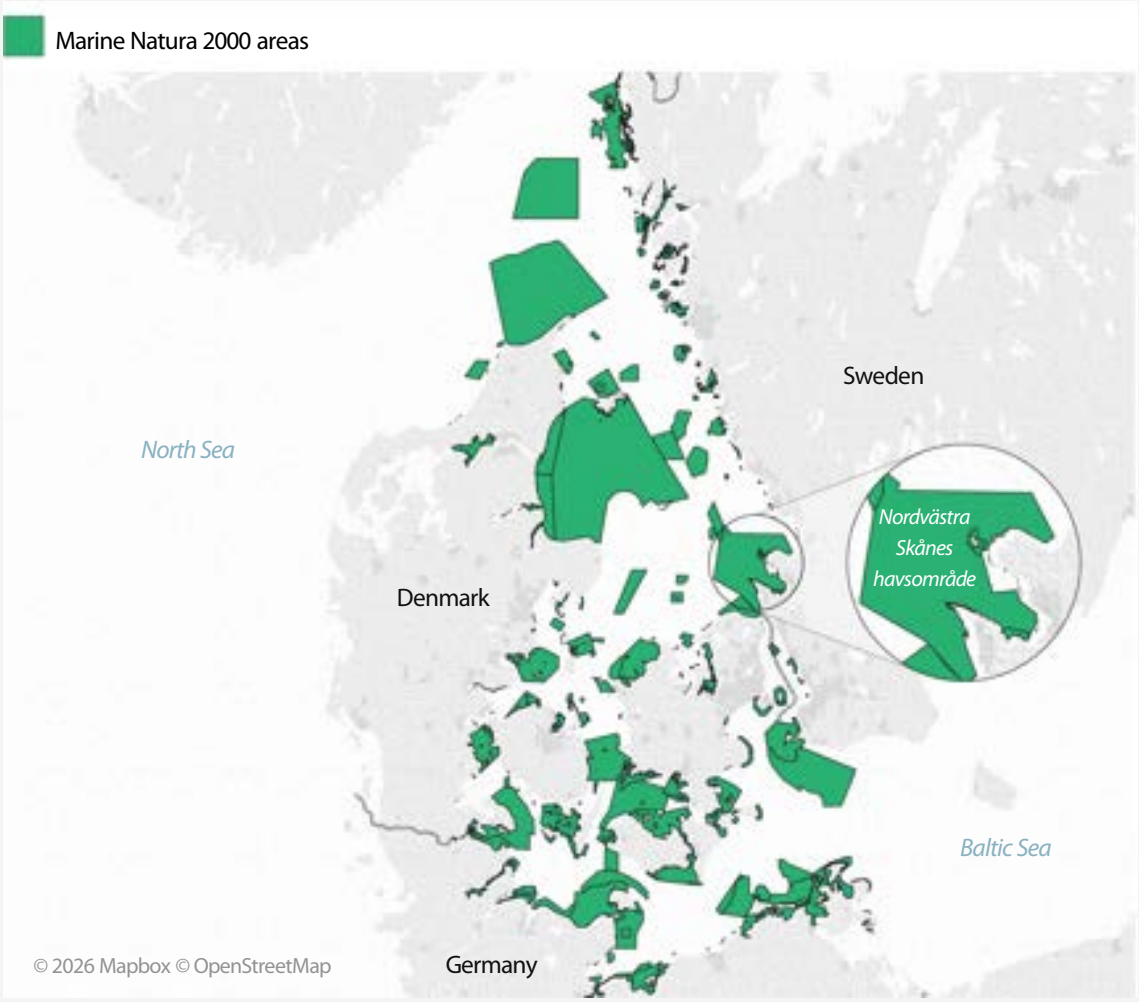
- Member states: can adopt measures for their own fishing vessels (Article 11(1) CFP) or adopt measures for affected EU fishing vessels within 12 nautical miles, after consulting the Commission, the member states concerned, and the relevant advisory councils (Article 20 CFP).

- Commission: can adopt delegated acts specifying conservation measures that take into account regional specificities of relevant fisheries and areas when measures affect fishing vessels of more than one member state (for example Article 11(2) and (3) CFP and Article 15 Technical Measures Regulation).

51 If a member state would like the Commission to introduce conservation measures that affect other member states' fishing fleets, it must initiate a procedure. The procedure under Article 11 CFP can often be complex. The initiating state must provide scientific evidence and seek a joint recommendation with other member states that have a fishing interest in the area. This process can take several years and entails negotiations with other member states and various stakeholder groups (***Box 3***).

Box 3

Joint recommendation on conservation measures in Nordvästra Skånes havsområde Kattegat sea area



Source: ECA, based on data obtained from the European Environment Agency (2024).

The Kattegat is a sea area between Denmark and Sweden, connecting the Baltic Sea and the North Sea. On 6 November 2024, Sweden, Denmark and Germany, with Sweden as the initiating member, jointly submitted a proposal for EU-level fisheries measures for the Nordvästra Skånes havsområde Natura 2000 site in the Kattegat. The joint recommendation contains the Swedish proposal for fisheries conservation measures based on the conservation objectives to be achieved in the marine protected area, including:

- designating a no-take zone to exclude all fishing activity;
- excluding all mobile bottom-contact gear from the entire marine protected area;
- restricting fishing with static nets, longlines and fyke (cylindrical) nets.

Denmark and Germany have a direct management interest in the fisheries concerned. Denmark and Sweden have national fisheries regulations in the area, while German vessels remain unrestricted. The assessment of the Scientific, Technical and Economic Committee for Fisheries was presented at its meeting of 24-28 March 2025. The joint recommendation was adopted by the Commission on 7 April 2026 and entered into force on 6 July 2026 (Commission Delegated Regulation (EU) 2026/785). The Regulation strengthens the existing fisheries restrictions and a unified EU framework now applies across the entire area – including the no-take zone – placing German fishing vessels under the same restrictions as Danish and Swedish fleets.

52 Before issuing a delegated regulation for all EU fishing vessels, the Commission conducts its own analysis and consultations, which have previously lasted between four months and four years. Therefore, since the adoption of the common fisheries policy in 2013, the Commission has only published 10 legal acts restricting fishing in around 40 protected areas. As the marine protected areas network comprises over 6 000 sites requiring protection from fishing pressure to meet biodiversity strategy objectives, existing CFP instruments are not well suited to help achieving environmental targets in the foreseeable future. In its evaluation of the CFP Regulation, the Commission concluded that the process of implementing Article 11 “has proven challenging and slow”.

53 By applying these procedures, the Commission may establish “fisheries restricted areas”. Although fisheries restricted areas and marine protected areas have different primary objectives, distinct legal frameworks, and management authorities (***Table 1***), in practice they can serve a similar purpose in reducing fishing pressure. For example, a well-managed permanent fisheries restricted area that bans or restricts bottom trawling may protect the seafloor habitat.

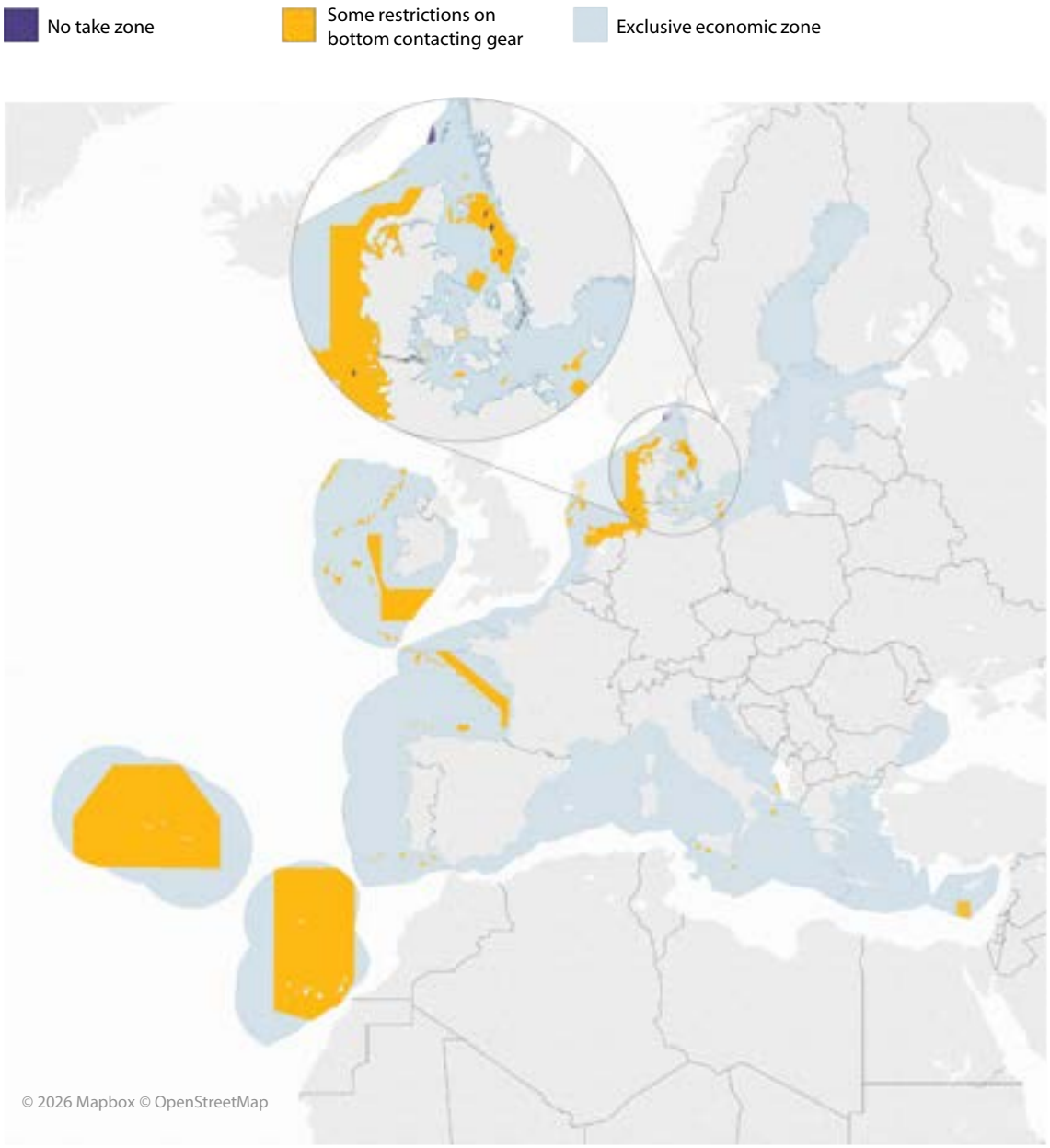
Table 1 | Main differences between fisheries restricted areas and marine protected areas

Feature	Fisheries restricted area	Marine protected area
	Fisheries policy	Environmental policy
Primary objective	Sustainable fisheries management, protecting specific life stages of fish (e.g. spawning/nursery grounds)	Broad ecosystem conservation, protecting biodiversity, habitats and cultural heritage
Main target	Specific commercial fish species or destructive fishing gears (e.g. bottom trawling)	Entire marine ecosystem, including non-commercial species, habitats and seafloor structures
Managing authority	Fisheries management bodies (e.g. national fisheries ministries, or regional fisheries management organisations)	Environment ministries, conservation agencies, or environmental organisations
Restrictions	Often targets specific fishing gear or seasons; other human activities (shipping, tourism) are rarely restricted	May restrict multiple human activities, sometimes including zoning for tourism, scientific research, and total "no-take" zones

Source: ECA.

54 We analysed 296 permanent fisheries restricted areas, established under various CFP and the General Fisheries Commission for the Mediterranean instruments and with an area of 1 259 288 km^2 (***Annex IV***) covering 15.1 % of the surface of marine protected areas, including 51 fisheries restricted areas (525 km^2) that had permanently banned any fishing (no-take zones). These ensured strict protection from fishing pressure for 0.8 % of the North Sea, where they were located. No other sea basins had established no-take areas under CFP rules. ***Figure 6*** shows the fisheries restricted areas we analysed.

Figure 6 | Map of permanent fisheries restricted areas



Source: ECA, based on spatial polygons and corresponding legal references provided by the European Fisheries Control Agency (2026) and the Flanders Marine Institute (2026) and ECA classification by restriction type.

Disclaimer: The maritime zones and boundaries shown on this map are presented solely for the purposes of this audit and are based on external datasets. Their depiction is without prejudice to the legal status or delimitation of any territory, maritime area or boundary and does not imply any position of the ECA or the EU regarding sovereignty, jurisdiction or maritime claims. The map was prepared for illustrative purposes only and should not be regarded as an official or legally binding representation of the applicable restrictions.

A difficult but necessary balance: environmental protection and socio-economic impact

55 The EU biodiversity strategy for 2030 frames biodiversity protection as both an environmental necessity and a socio-economic imperative. Regarding marine ecosystems, the strategy states that restored and properly protected marine ecosystems bring substantial health, social and economic benefits to coastal communities and the EU as a whole. It specifically calls for fisheries management within marine protected areas and measures to reduce the impact of fishing on sensitive habitats and species.

56 At the same time, the strategy highlights that the implementation of EU's biodiversity commitments should take into account the many challenges across sectors, regions and member states. It points to the need for a new governance framework ensuring co-responsibility and co-ownership by all relevant stakeholders in meeting the EU's biodiversity commitments. This framework should support stakeholder dialogue and participatory governance at different levels.

57 Using the Management Effectiveness Tracking Tool (METT-4) developed by the International Union for Conservation of Nature, we examined how environmental protection objectives are balanced against socio-economic considerations and stakeholder involvement in practice (***Annex VI***).

Significant data gaps hinder socio-economic assessment of conservation measures

58 Stemming from the biodiversity strategy for 2030, the EU action plan for protecting and restoring marine ecosystems for sustainable and resilient fisheries was adopted by the Commission as part of the fisheries policy package in February 2023. The plan aimed to achieve a more consistent implementation of the EU's environmental policy and the common fisheries policy with three sustainability pillars – environmental, economic and social.

59 One operational objective of the action plan was to contribute to achieving and maintaining sustainable fish-stock levels. It set out the need to improve gear selectivity, reduce fisheries' impact on sensitive species and the seabed, and support the fishing sector, research, implementation, governance and stakeholder involvement.

60 The action plan also stressed the urgent need to protect and restore seabed habitats. It therefore called on member states to adopt national measures or submit joint recommendations to prohibit mobile bottom fishing in the marine protected areas that were Natura 2000 sites by 2024, and to phase out bottom fishing in all marine protected areas by 2030. We found an example of such national measures in only one member state we visited (***Box 4***).

Box 4

Ban on bottom trawling in marine protected areas

Sweden decided to amend its fisheries legislation to introduce a general ban on bottom trawling in marine protected areas within three to four nautical miles of the Swedish coast, where only Swedish vessels have access. The ban entered into force on 1 July 2026. The Swedish Agency for Marine and Water Management may grant exemptions where the permitted activities do not undermine the purpose of the marine protected area.

The Agency must also consult the management authority responsible for the area before granting an exemption. For one marine protected area, Kosterfjorden Väderöfjorden, the Agency, based on an assessment, decided that shrimp trawling could continue in parts of the area since it did not negatively affect the area's conservation objectives.

61 The Commission's 2023 action plan acknowledged that phasing-out mobile bottom fishing in marine protected areas would have a socio-economic impact on certain operators and communities. This underscores the importance of conducting robust socio-economic assessments when designing and implementing such measures. However, our analysis of the 2024 and 2025 plenary reports of the Scientific, Technical and Economic Committee for Fisheries indicates that the lack of data often hinders a proper assessment of the socio-economic effects and impact of proposed measures.

62 Data gaps exist regarding inshore fishing fleets, as until 2026, vessels under 15m were not obliged to have any vessel tracking system. This prevented authorities from accurately quantifying displacement risks related to protected areas or their economic impact on vulnerable small-scale fishers. We also found that systematic post-designation socio-economic monitoring was largely non-existent, with member states citing a lack of standardised methodologies for local-scale assessment. Consequently, authorities frequently rely on qualitative assessments or international case studies rather than site-specific national economic data to project or justify economic outcomes of conservation measures.

Growing stakeholder participation, but not always embedded in governance processes

63 Effective stakeholder participation is fundamental to long-term success and social sustainability of marine protected areas. Engaging stakeholders is necessary to build trust and confidence in the conservation process. The action plan on marine ecosystems stresses that successfully implementing environmental and fisheries-management measures requires support of all stakeholders, and that transparency, cooperation, outreach, information and inclusiveness are essential when developing and implementing measures.

64 In the past, notably in the Natura 2000 network early designations often used top-down approaches prioritising scientific environmental criteria, overlooking stakeholder involvement. The member states we visited are now transitioning towards systematic and institutionalised stakeholder consultation. France receives formal input from its maritime coastline council (Conseil Maritime de Façade) which includes the main stakeholders. Ireland is moving towards more active stakeholder participation (***Box 5***), and Sweden conducts extensive site-level engagement. Over half (56 %) of surveyed managers feel there is open communication and trust between local people, stakeholders and protected area managers.

Box 5

Public consultation on trawling ban

Sprats are small fish indigenous to Ireland and a rich protein source for whales, other cetaceans and seabirds.

Policy Directive 1 of 2019 effectively banned fishing vessels longer than 18m from using trawl or seine nets within a six-nautical-mile coastal zone. The ban was overturned by a ruling of the High Court in Dublin soon after, due to a procedural deficiency in the consultation process affecting stakeholders' right to be heard.

In 2024, the Irish government opened a public consultation on trawling inside the six-nautical-mile zone, which eventually led to a new attempt.

In July 2025, the Irish government announced its intention to place certain restrictions on trawling by large vessels fishing for sprat. Policy Directive 1 of 2025 provided that trawling by vessels over 18m fishing for sprat within the six-nautical-mile zone require authorisation, have been subject to a quota limit since October 2025, and will be fully banned from October 2026.

65 Despite these structural improvements, the stakeholders we interviewed maintained that "rushed" timelines frequently restricted their ability to perform technical analyses or meaningfully influence final regulatory boundaries. The survey result (paragraph ***69***), shows that 18 % of stakeholders contribute to all management decisions (e.g. co-management) while 44 % provide some input into discussions.

66 Properly managed marine protected areas with participatory governance, involving stakeholders as local communities and fisheries representatives in the design and implementation of conservation measures, helps to increase their legitimacy and successfully combine conservation objectives with economic and social outcomes (***Box 6***).

Box 6

An example of participatory governance

The Iroise Marine Natural Park achieved IUCN Green List status in 2014. The IUCN Green List Standard assesses four components: good governance, sound design and planning, effective management and successful conservation outcomes.

The park was created in 2007 off the Finistère coast, between the island of Sein, Ouessant, and the limits of the territorial sea, and covers an area of almost 3 400km^2. It is known for its rich natural resources, traditional fishing, offshore lighthouses, and diverse wildlife – from dozens of algae species to marine mammals and birds. It includes several Natura 2000 sites.

The park is managed by the French Office for Biodiversity, a government agency. It implements the decisions adopted by the park's management board. This board brings together all those involved in the marine environment who have an interest in protecting this area: government departments, local authorities, representatives of maritime professionals, environmental protection associations, users, and scientific experts.
Source: IUCN Green List.

67 Our survey results highlight inconsistent engagement levels with economic operators. As regards the commercial sea users, only 21 % of sites maintain regular contact and substantial cooperation, while 44 % report partial involvement and 18 % indicate little or no engagement. Interactions with tourism operators are similarly varied, with 31 % of managers reporting good cooperation, 31 % limited contact and 17 % practically no interaction.

Management shortcomings and weak implementation result in poor conservation outcomes

68 The EU biodiversity strategy for 2030 stipulates that all protected areas should be subject to effective management, define clear conservation objectives and measures, and monitor them appropriately. The efficacy of EU marine protection policies depends on robust implementation and enforcement by the 22 coastal member states, who share responsibility with the Commission for implementing the EU environmental legislation and associated strategies concerning marine protected areas.

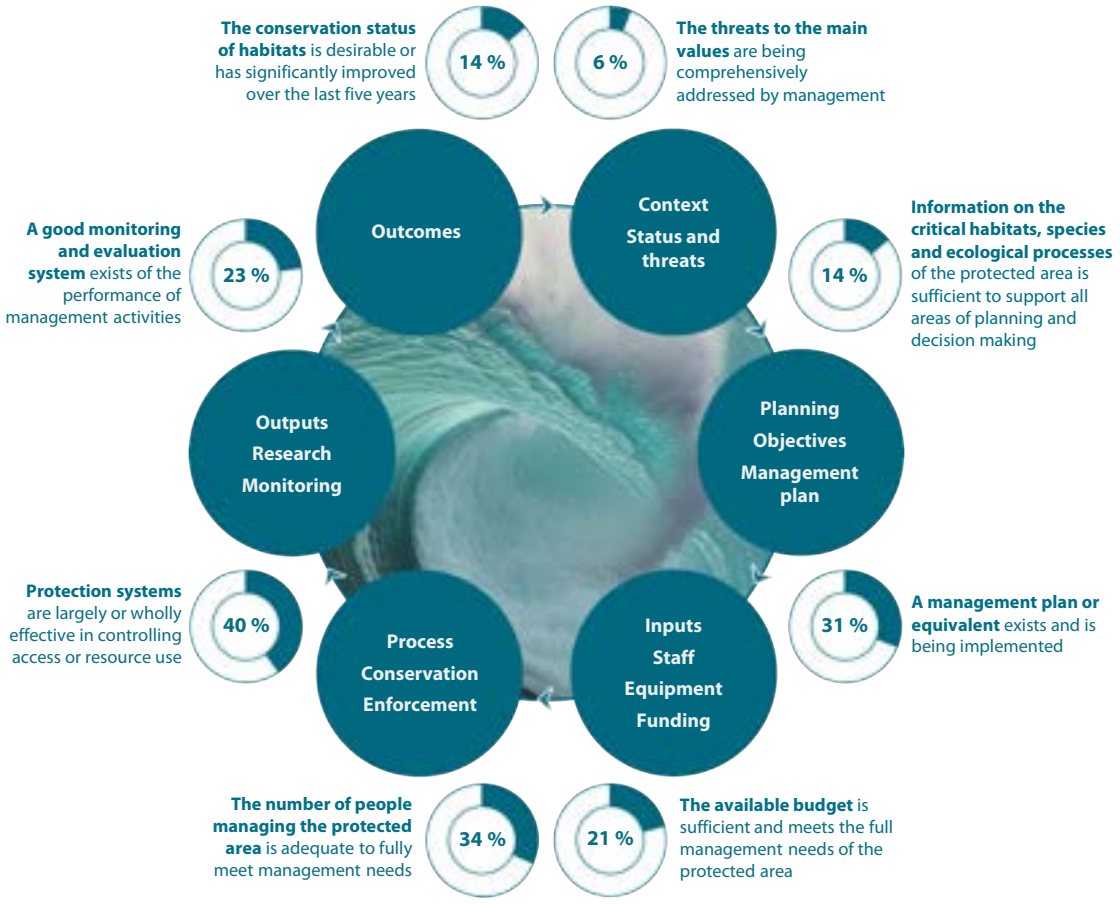
69 We examined whether the selected member states had adopted appropriate management practices, using the adaptive management model as a reference framework. For this purpose, to obtain quantifiable results, we utilised the METT-4. The methodology to calculate percentages is presented in ***Annex VI***. We corroborated the assessment obtained from the tool with audit visits and desk reviews of 15 marine protected areas in the audited member states. Additionally, we analysed publicly available datasets to assess the geographical and ecological status of marine protected areas across the EU seas.

Most protected areas do not apply adaptive management practices

70 Adaptive management is a circular process that prioritises continuous learning by integrating feedback from past performance into future strategic planning. This approach employs systematic evaluation to determine whether specific interventions have achieved their intended conservation outcomes, thereby allowing for evidence-based adjustments.

71 ***Figure 7*** illustrates the concept of adaptive management and presents the most positive replies provided by surveyed managers.

Figure 7 | Adaptive management loop and marine protected areas managers'opinions



Source: ECA, based on results from the METT-4 tool.

Conservation objectives and management plans

72 The Birds and Habitats Directives require the Natura 2000 sites to have site-specific conservation objectives. The biodiversity strategy and the 2022 Commission criteria and guidance for protected areas designations further emphasised this requirement, stressing that "all protected areas should have clearly defined conservation objectives and measures".

73 The assessment provided by the managers of the marine protected areas we surveyed using the METT-4 tool, showed that 86 % of protected areas in our audit sample had agreed objectives. However, only 23 % were managed with a view to achieving their conservation objectives. A total of 63 % of marine protected areas reported that while objectives existed, the sites were only partially managed with a view to achieving them. We corroborated this assessment with data from the 3 648 marine Natura 2000 areas reported to the European Environment Agency (EEA), and found that 59 % had prepared or were in the process of preparing site-specific management plans.

74 The Birds and Habitats Directives do not explicitly require a management plan for each site, but the Commission nonetheless recommends this as it facilitates conservation planning and stakeholder involvement. The Commission guidance from 2022 stipulates that effective management needs to be supported by management plans which incorporate robust monitoring and review mechanisms.

75 A total of 80 % of the managers in our survey said they had a management plan, with 31 % saying it was properly implemented, 40 % partially implemented, and 9 % not implemented. However, 20 % of managers indicated there was no management plan. Management plans are not legally required, but their absence could indicate weak or non-existent management activity.

Funding and staff

76 Effective management needs clear goals – such as biodiversity preservation and fish-stock enhancement requiring continuous, adequately funded, collaborative, long-term action implemented by skilled staff. Over 63 % of surveyed managers said there were either no staff available (9 %) or too few to meet management needs (55 %). Nevertheless, 51 % of respondents felt their staff's knowledge and skills were well aligned with the specific management needs of their protected areas.

77 The operations of marine protected areas are financed from national budgets. In our survey, 62 % of respondents said their budget was at least acceptable for basic management. However, fund stability is highly volatile, with 40 % of sites having little to no secure funding and being wholly reliant on variable external sources. Only 14 % had a secure budget and 49 % of managers said they had inadequate facilities and equipment to carry out their tasks.

Enforcement

78 Although digital monitoring and vessel tracking systems are often used, there are frequently insufficient human and logistical resources to act upon this data. A total of 37 % of surveyed sites reported either no or insufficient protection, despite the fact that 48 % of the staff had at least acceptable capacity to enforce protected area legislation and regulations, meaning that detected infractions could not be turned into effective deterrence. Consequently, while many protected areas possess the capacity for oversight, they often lack the legal instruments or logistical support necessary for robust enforcement.

Research and monitoring

79 Marine protected areas are valuable places for conducting scientific research and learning about marine ecosystems. This knowledge should be shared with managers to improve management decisions. A total of 62 % of surveyed sites reported considerable research work, but only 11 % considered the integrated programme of survey and research work fully relevant to management needs.

80 Apart from scientific research, the implementation of management plans, or equivalent instruments, should encompass formal monitoring and review mechanisms to facilitate necessary performance-based adjustments. However, only 23 % of site managers surveyed told us they had successfully closed the management loop, using robust monitoring systems to actively refine and improve their conservation activities. For the remainder of the valid answers (63 % of the surveyed managers), there was no monitoring at all (9 %) or monitoring data was collected ad-hoc and did not feed structured results back into the management system (54 %). Consequently, for the majority of cases, monitoring was a passive exercise rather than an active tool for adaptive management.

81 The managers interviewed during audit visits said systematic monitoring in the marine environment was costly and often unaffordable. Therefore, the data used for monitoring often comes from ad hoc research projects conducted by universities or other research institutions. However, these data sources are unsuitable as the scope and type of data collected do not always correspond to specific management needs. To address this issue, some marine protected areas are trying innovative, cost-effective solutions using research drones (***Box 7***).

Box 7

Marine drone use for cost-effective monitoring of Baltic-Sea fish stocks



Photo ©Aron Hejdström, County Administrative Board of Gotland.

In the offshore Hoburgs Bank and Midsjöbankarna Natura 2000 site (SE0330308), an autonomous drone, powered by wind and solar energy, has been deployed to monitor fish biomass and environmental conditions relevant to harbour porpoise conservation.

Compared to conventional ship-based surveys, marine drones reduce monitoring costs. While they cannot replace research vessels (for example, for physical sampling), they can complement traditional methods of collecting data on fish distribution, plankton and environmental conditions.

82 The Commission has not developed a common management standard or specific methodology for assessing management effectiveness. Only in September 2024 did it allocate €1.6 million to the LIFE-PAME[3] Europe Methodology project to develop a "flexible, adaptable framework tailored to the diverse needs of EU Member States" by the end

[3] Management Effectiveness for Protected Areas in Europe, LIFE23-PRE-DE-PAME-Europe/101148110.

of 2028. The project builds upon internationally established tools and methodologies for measuring management effectiveness, such as IUCN METT-4 and the World Wildlife Fund Rapid Assessment and Prioritization of Protected Area Management methodology.

83 Given the project duration and the absence of an implementation plan, it is unlikely that a standardised management assessment framework will be operational across the EU before 2030. This makes it difficult to consistently track whether marine protected area management is achieving its intended ecological and social outcomes effectively.

Conservation outcomes are mixed

84 Every six years, the Commission conducts a Natura 2000 network "health check" based on Article 17 Habitats Directive and Article 12 Birds Directive. The EEA uses national reports to produce a composite EU-wide assessment that identifies which species are recovering and which are in decline. The results are presented in the "State of nature in the EU" report and the data dashboard, which show that only 19 % of coastal habitats and 24 % of fish have a favourable conservation status. The last report was published in 2020, presenting results from the 2013-2018 reporting cycle (over eight years ago). A new "State of nature" report based on 2019-2024 data is scheduled for publication at the end of 2026.

85 A significant divergence remains between the ambitious high-level legislation and the actual achievement of conservation targets. The Birds and Habitats Directives came into force more than 30 years ago and are still far from achieving the objective of favourable conservation status of all protected marine habitat types and species. Similarly, there is a recurring implementation gap where MSFD mechanisms in place fail to deliver good environmental status for marine biodiversity or seabed integrity.

86 At the level of protected areas, the majority of managers that we consulted did not provide information about the conservation outcomes. When they did, they presented a mixed situation: 17 % reported that the status of key species was undesirable and 31 % replied that their conservation status was desirable or had improved over the last five years. This situation was more acute for habitats, where 25 % of sites were considered to be in an undesirable condition and 14 % were desirable or had improved over the last five years.

87 Marine habitats play a critical role as carbon sinks. However, carbon storage and sequestration were unaddressed in 66 % of the areas we assessed, while for 26 % of these, the concepts were considered only in general terms, without measures on the ground. Only 9 % of sites had adopted active measures to reduce carbon loss captured in sediment or enhance sequestration. This is a missed opportunity for climate mitigation through carbon management.

88 We also found that the surveyed areas remained largely unprepared for the impact of climate change (paragraph ***05***). Notably, none of the surveyed sites had implemented detailed, actionable climate adaptation plans. Furthermore, 60 % of managers reported that only negligible efforts had been made to integrate climate adaptation into their management strategies. While 17 % have begun developing plans, these have yet to be consistently applied. This absence of strategic planning leaves most of these marine ecosystems vulnerable to the effects of a rapidly changing climate (ECA special report 15/2024 on climate adaptation).

High expectations of new legislation imposing active restoration

89 Recognising this continued undesirable state of biodiversity, the EU adopted Regulation (EU) 2024/1991 on nature restoration, marking a shift in the nature conservation approach from passive protection to active repair of degraded ecosystems. As the Regulation is directly applicable in all member states, if implemented correctly, it should facilitate and accelerate the attainment of its objectives.

90 As a central pillar of the EU biodiversity strategy for 2030, the Nature Restoration Regulation establishes legally binding targets to restore 20 % of marine areas by 2030 and all ecosystems in need of restoration by 2050 (Article 1). Article 5 requires member states to establish the restoration measures needed to raise the status of at least 30 % of sensitive habitats that are not in good condition (Annex II), up to “good condition”. The list of habitats included in this annex is also an improvement on the nine marine habitats included in the Habitats Directive. ***Table 2*** provides a summary comparison of the legacy legislation and the new approach.

Table 2 | Comparison of legacy protection with active restoration

Feature	Legacy protection	Active restoration
Main objective	Protecting remaining resources and preventing deterioration	Active improvement initiatives; recovering lost habitats
Strategy	Creating boundaries, designating areas, allowing nature to recover	Replanting seagrass, rebuilding reefs, repopulating depleted ecosystems
Legal weight	Directives; often qualitative objectives, vague deadlines	Regulation; legally binding targets and deadlines; established monitoring
Territorial scope	Mostly inside Natura 2000 sites	All areas in need of repair

Source: ECA analysis.

91 Another important change concerns the building of a knowledge base. To ensure that restoration is guided by science, member states must map and determine the condition of marine areas. By 2030, the condition must be known for at least 50 % of the area covering habitats (groups 1 to 6) listed in Annex II to the Nature Restoration Regulation.

92 The Nature Restoration Regulation also seeks to secure the long-term viability of the blue economy. The impact assessment indicates that every euro spent on restoration delivers a return on investment between €8 and €38 in benefits from ecosystem services (e.g. seafood supply, climate regulation, tourism). Restoring critical "nursery" habitats and seabed ecosystems is regarded as essential, not only for biodiversity recovery, but also to ensure food security and replenish commercial fish stocks, preventing the fishing industry from further undermining its own biological foundations.

93 The Nature Restoration Regulation is a legally binding act setting specific, time-bound objectives. However, restoring the ocean is more complex, expensive and politically sensitive than restoring land. Several obstacles impede the practical implementation of marine restoration (see below).

- The absence of accurate mapping for many deep-sea habitats is a key obstacle, as restoration is unfeasible without comprehensive baseline data. Similarly, scientific challenges remain in defining "good environmental status" for seabed areas subjected to long-term dredging or trawling.
- Effective restoration requires restrictions on fishing activities; however, such measures remain contingent upon the common fisheries policy framework, involving a long and burdensome administrative process (paragraph ***52***).
- Given the substantial costs associated with specialised maritime operations, there is a risk that current funding will be insufficient for scaling up projects from small pilot sites to the 20 % of sea area required by 2030 (paragraph ***29***).

This report was adopted by Chamber I, headed by Ms Joëlle Elvinger, Member of the Court of Auditors, in Luxembourg at its meeting of 22 September 2026.

For the Court of Auditors

Tony Murphy
President

Annexes

Annex I – About the audit

Background information

01 The world's oceans and seas play a central role in sustaining life on earth by regulating key planetary systems. They are essential to our existence as they produce 50 % of the planet's oxygen and contain 80 % of its biodiversity. Oceans are crucial for climate mitigation, as they absorb about 90 % of excess heat trapped by greenhouse gases in the atmosphere and about 25 % of all carbon emissions.

02 They underpin global food security and economic livelihoods, providing a primary protein source for billions of people and supporting millions of jobs through fisheries, tourism and trade. According to the EU's 2025 Blue Economy Report, the sector generated an estimated €263 billion in gross value added, representing 1.7 % of total EU gross value added, and supported 4.9 million jobs, equivalent to 2.4 % of EU employment (in 2022).

03 The state of the oceans is deteriorating due to climate change, pollution, marine biological resource exploitation, and habitat loss. Globally, around 60 % of marine ecosystems are degraded or used unsustainably and over 50 % of marine species face the threat of extinction by the year 2100. EU seas show a similar situation.

04 Overexploitation and destructive fishing practices are the most significant threats to marine ecosystems and biodiversity, with over 35 % of global fish stocks currently harvested at biologically unsustainable levels. Destructive techniques such as bottom trawling cause physical damage to the seabed, destabilise marine food webs, and result in bycatch, including protected species like turtles, sharks and dolphins. These techniques are associated with high discard rates, averaging between 30 % and 55 % of total extracted biomass. The ecological impact is further intensified by illegal, unreported, and unregulated fishing, estimated to account for approximately 11 to 19 % of reported global catches.

05 While overfishing is the most immediate threat, climate change is the fastest-growing marine pressure and a threat multiplier. Warming oceans drive coral bleaching and species migration to colder waters, while acidification impairs shell-building for calcifying organisms. Rising temperatures trigger deoxygenation and dead zones, leaving marine life increasingly vulnerable to all other environmental pressures.

Marine protected areas

06 Marine protected areas are geographically defined marine spaces that are legally designated, regulated and managed to achieve long-term nature conservation. Their primary objective is to protect and restore marine biodiversity, habitats and ecosystem functions by mitigating human-driven pressures and controlling resource extraction within their boundaries.

07 Marine protected areas encompass a diverse range of designations and protection levels, from strictly protected, highly regulated zones with rigorous “no-take” restrictions to minimally protected areas that permit human activities, seabed disturbance and unlimited marine biological resource extraction.

08 The conservation outcomes of a marine protected area are significantly higher in well-managed, strictly protected environments than in lightly protected areas with weak or no management, where they are generally considered negligible. Outcomes include conserving biodiversity, protecting vulnerable habitats, maintaining ecosystem functions and supporting associated ecosystem services (e.g. safeguarding spawning and nursery areas). Marine protected areas can also support tourism and recreation, sustain cultural and community values, protect livelihoods linked to healthy marine ecosystems, and provide opportunities for education, research and long-term stewardship.

09 Increased populations within protected areas can enhance surrounding fisheries and biodiversity through two key mechanisms: the spillover of juveniles and adults into adjacent non-protected waters, and the export of eggs and larvae that contribute to recruitment beyond protected area boundaries. To achieve effects at sea basin level, marine protected areas need to form a network that complies with specific ecological criteria to maximise biological output.

Regulatory framework

10 The EU has always regarded environmental protection as a fundamental pillar of its institutional framework and operational identity. Both the EU and its member states are active parties to a number of key international agreements governing sustainable ocean use and protection. This includes foundational legal frameworks such as the United Nations Convention on the Law of the Sea, as well as biodiversity-focused mandates like the Bonn and Bern Conventions and various regional sea conventions (e.g. OSPAR, Baltic Marine Environment Protection Commission HELCOM).

11 In 2022, parties to the Convention on Biological Diversity adopted the Kunming-Montreal Global Biodiversity Framework, including a target to effectively conserve and manage at least 30 % of the world's land, inland waters, coastal areas and oceans by 2030 through protected areas and other effective area-based conservation measures. This is known as the "30x30" target. Almost every country worldwide, including all EU member states, endorsed the objective. On 17 January 2026, the United Nation's High Seas Treaty entered into force.

12 The EU's environmental ambitions have often exceeded global commitments. The 1979 Birds Directive and the 1992 Habitats Directive established the Natura 2000 network of protected land and sea areas, which remains a cornerstone of the EU's nature protection mechanism. These Directives were reinforced by the 2008 Marine Strategy Framework Directive (MSFD) and the 2014 Maritime Spatial Planning Directive, designed to sustainably manage human activities in marine waters.

13 The Commission demonstrated its ambitions through successive biodiversity strategies in 1998, 2011, and 2020. The most recent one, the EU biodiversity strategy for 2030, adopted by the Commission and endorsed by the Council in 2020, set EU marine protected area commitments for achievement by 2030, specifically:

- protecting a minimum of 30 % of the EU's sea area by law; and
- strictly protecting at least a third of the protected area (i.e. 10 % of the total EU sea area).

The strategy also commits to the effective management of all protected areas. This means that these areas should have clear conservation objectives and measures as well as appropriate monitoring. The strategy stresses the importance of establishing ecological corridors as part of a true trans-European nature network.

14 In 2023, as part of implementing the EU biodiversity strategy for 2030, the Commission published the action plan: Protecting and restoring marine ecosystems for sustainable and resilient fisheries. This plan aimed to support biodiversity by maintaining fish stocks at sustainable levels and reducing the environmental impact of fishing on sensitive species and on the seabed. As with the EU biodiversity strategy for 2030, the implementation and achievement of these objectives are not legally required but represent the EU's policy ambitions.

15 Originating in the Treaty of Rome and initially developed under the common agricultural policy, the common fisheries policy (Regulation (EU) 1380/2013) emerged as a separate EU policy, which followed the first rules on fisheries adopted in 1970. The policy was formally established in 1983, and has since been substantially reformed in 1992, 2002, and 2013. The CFP regulates fishing and aquaculture activities to ensure their sustainable exploitation and to minimise their adverse impacts on the marine ecosystem, including through measures applicable in marine protected areas. Its framework includes instruments such as the Technical Measures Regulation (EU) 2019/1241, which governs fishing gear and operations, and the Control Regulation (EC) No 1224/2009 (as revised by Regulation (EU) 2023/2842), which defines fishing restricted areas and requires incidental catches of sensitive species to be recorded.

Roles and responsibilities

16 In accordance with Article 4 of the Treaty on the Functioning of the European Union (TFEU), the EU and member states share competence for environmental protection. This necessitates a collaborative approach to environmental policy development and implementation.

17 While overarching environmental objectives are established at EU level, the practical execution and management of conservation efforts is carried out by national governments. Member states are responsible for establishing national environmental frameworks in line with EU legislation. In particular, member states conduct environmental assessments to identify areas of biodiversity interest and designate protected areas while also taking into account stakeholders' interests. Moreover, member states are responsible for establishing protected areas' governance, defining conservation objectives and implementing suitable measures to achieve desirable conservation outcomes.

18 Unlike for environmental policies, the EU has exclusive competence for conservation of marine biological resources under the common fisheries policy. This means that member states cannot unilaterally introduce fisheries measures affecting other member states' fishing fleets. The ECA examined the practical implications of this policy design in detail in special report 26/2020 on the marine environment.

Scope and approach

19 Our audit aimed to assess whether the Commission and member states had established a marine protected areas network that enabled the EU marine environment to meet the objectives of the EU's 2030 biodiversity strategy. In particular, we examined whether:

- the EU was on track to achieve the strategy's objectives for marine protected area coverage, ecological connectivity and funding for biodiversity;
- the EU regulatory framework provided the necessary mechanisms to turn designation into protection;
- environmental protection objectives were balanced against socio-economic considerations and stakeholder involvement;
- the selected member states had adopted appropriate management practices.

Additionally, we analysed publicly available datasets to assess the geographical and ecological status of marine protected areas across the EU seas.

20 To assess progress in implementing the strategy and understand the role and functioning of relevant EU bodies, we conducted interviews with the Directorate-General for Environment and the Directorate-General for Maritime Affairs and Fisheries. Those interviews were complemented with meetings with the European Environment Agency (EEA), the European Fisheries Control Agency (EFCA), the European Climate, Infrastructure and Environment Executive Agency and the International Council for the Exploration of the Sea. Additional information related to systemic risks in specific member states was obtained during the interviews with representatives of non-governmental organisations. Two external experts in marine conservation biology supported us in our audit.

21 In order to assess the implementation of EU legislation and the effectiveness of marine protected areas management, we selected three member states for close examination: Ireland, France and Sweden. According to EEA data, these three countries had designated around 45 % (metropolitan France), 15 % and 2 % of their marine territory for marine protection respectively. To assess management quality, we visited or interviewed managers

of 15 marine protected areas in the audited member states between September and November 2025. The selection of those areas was based on an analysis of their geographic location, different types of designation, and their size.

22 We also used an adapted version of the International Union for Conservation of Nature Management Effectiveness Tracking Tool (METT-4) to collect structured evidence. More information about the scope of this assessment is presented in ***Annex VI***.

23 To analyse the geographical distribution and management of marine protected areas across the EU, the audit mapped the spatial network by combining the Natura 2000 database with nationally designated protected areas. We overlaid this layout with apparent fishing activity data from Global Fishing Watch to evaluate commercial fishing pressures. To ensure a comprehensive view of human impacts, this spatial matrix was cross-referenced with additional anthropogenic and ecological datasets sourced from the Natura 2000 Viewer and the European Marine Observation and Data Network (EMODnet).

24 Our audit methodology complies with the international standards on auditing issued by the International Organization of Supreme Audit Institutions (INTOSAI).

Annex II – Sample of marine protected areas selected for audit

No	Member state	Natura 2000 / national site code	Name of marine protected area	MPA area (km²)	Management plan	Desalination outlet	Dredge spoil dumping (Points)	Dredging site	Sewage treatment plants	Main ports	Wind farms	Annual total vessel presence (h)	Annual total apparent fishing effort (h)	Annual total apparent fishing effort (h/km²)
1	Ireland	IE0000210	South Dublin Bay SAC	7.26	No	-	-	-	-	-	-	0.06	0.00	0.00
2	Ireland	IE0002328	Hovland Mound Province SAC	1 086.55	No	-	-	-	-	-	-	660.50	124.20	0.11
3	Ireland	IE0000268	Galway Bay Complex SAC	129.49	No	-	1	1	1	1	-	24.56	0.83	0.01
4	Ireland	IE0000707	Saltee Islands SAC	156.64	No	-	1	1	1	-	-	35 240.64	1 986.40	12.68
5	Ireland	IE0004078	Carlingford Lough SPA	5.83	No	-	-	-	-	-	-	187.71	0.00	0.00
6	Ireland	IE0000197	West of Ardara/ Maas Road SAC	22.22	No	-	-	-	-	-	-	0.00	0.00	0.00
7	Ireland	IE0000764	Hook Head SAC	170.06	No	-	1	-	-	-	-	1 266.18	503.33	2.96
8	Ireland	IE0002158	Kenmare River SAC	408.89	No	-	-	-	3	-	-	4 363.24	1 051.04	2.57
9	Ireland	IE0002165	Lower River Shannon SAC	597.16	No	3	17	11	-	1	-	599.89	420.75	0.70
10	Ireland	IE0002269	Carnsore Point SAC	87.36	No	-	-	-	-	-	-	60.92	0.67	0.01

No	Member state	Natura 2000 / national site code	Name of marine protected area	MPA area (km²)	Management plan	Desalination outlet	Dredge spoil dumping (Points)	Dredging site	Sewage treatment plants	Main ports	Wind farms	Annual total vessel presence (h)	Annual total apparent fishing effort (h)	Annual total apparent fishing effort (h/km²)
11	Ireland	IE0002329	South-west Porcupine Bank SAC	329.30	No	-	-	-	-	-	-	17.91	0.70	0.00
12	Ireland	IE0002330	North-west Porcupine Bank SAC	716.30	No	-	-	-	-	-	-	95.73	34.50	0.05
13	Ireland	IE0002998	West Connacht Coast SAC	659.46	No	-	-	-	-	-	-	239.98	5.47	0.01
14	Ireland	IE0003001	Porcupine Bank Canyon SAC	781.10	No	-	-	-	-	-	-	138.35	89.93	0.12
15	Ireland	IE0003002	South-east Rockall Bank SAC	1 487.90	No	-	-	-	-	-	-	265.06	210.76	0.14
16	France	FR9300135	Réserve naturelle régionale des sites d'intérêt géologique de la presqu'île de Crozon	120.12	Yes	-	-	-	-	-	-	0.00	0.00	0.00
17	France	FR5302015	Mers Celtiques Talus du Golfe de Gascogne	58 995.52	Pending	-	-	-	-	-	-	322 563.92	245 574.75	4.16
18	France	FR5212016	Mers Celtiques Talus du Golfe de Gascogne	71 860.94	No	-	-	-	-	-	-	371 315.83	279 639.89	3.89

No	Member state	Natura 2000 / national site code	Name of marine protected area	MPA area (km²)	Management plan	Desalination outlet	Dredge spoil dumping (Points)	Dredging site	Sewage treatment plants	Main ports	Wind farms	Annual total vessel presence (h)	Annual total apparent fishing effort (h)	Annual total apparent fishing effort (h/km²)
19	France	FR9100001	Parc Natural Marin Iroise	3 361.10	Yes	-	5	-	-	-	-	60 410.25	11 949.10	3.56
20	France	FR9402017	Golfe d'Ajaccio	473.74	Pending	-	2	-	1	1	-	14.02	1.20	0.00
21	France	FR52000653	Marais breton, baie de Bourgneuf, île de Noirmoutier et forêt de Monts	157.01	Yes	-	4	6	7	-	-	1 235.94	114.93	0.73
22	France	FR2502022	Nord Bretagne DH	2 832.00	No	-	-	-	-	-	-	34 682.24	29 652.68	10.47
23	France	FR9301592	ZCS Camargue	385.73	Yes	-	-	-	1	-	1	2 535.93	1 032.02	2.68
24	France	FR2500079	Chausey	820.08	No	-	2	-	-	-	-	24 105.38	12 824.64	15.64
25	France	FR5300015	Baie de Morlaix	258.18	Yes	-	-	-	1	-	-	17 032.11	385.46	1.49
26	France	FR302008	Roches de Penmarc'h	457.28	Yes	-	1	-	-	-	-	31 808.88	3 430.79	7.50
27	France	FR9102018	Grand Dauphins du golfe de Lion	4 917.51	No	-	-	-	-	-	1	21 435.66	15 270.82	3.11
28	France	FR9402019	Grands dauphins de l'Agriate	5 943.14	No	-	-	-	-	-	-	293.42	204.56	0.03
29	France	FR530216	Recifs du Golfe de Gascogne	3 339.52	No	-	-	-	-	-	-	33 756.15	26 242.39	7.86
30	France	FR5312011	Iles Houat-Hoedic	173.22	No	-	-	-	-	-	-	455.26	69.24	0.40

No	Member state	Natura 2000 / national site code	Name of marine protected area	MPA area (km²)	Management plan	Desalination outlet	Dredge spoil dumping (Points)	Dredging site	Sewage treatment plants	Main ports	Wind farms	Annual total vessel presence (h)	Annual total apparent fishing effort (h)	Annual total apparent fishing effort (h/km²)
31	Sweden	SE0520189	Bratten	1 205.53	Yes	-	-	-	-	-	-	8 510.43	6 936.75	5.75
32	Sweden	SE0520170	Kosterfjorden-Väderöfjorden	523.96	Yes	-	1	-	-	-	-	15 130.36	8 060.30	15.38
33	Sweden	SE0340097	Gotska Sandön-Salvorev	568.65	Yes	-	-	-	-	-	-	18.94	0.00	0.00
34	Sweden	SE0340023	Stora Karlsö	9.30	Yes	-	-	-	-	-	-	0.00	0.00	0.00
35	Sweden	SE0110088	Bullerö-Bytta	130.26	Yes	-	-	-	-	-	-	0.00	0.00	0.00
36	Sweden	SE0220129	Skärgårdsreservaten	69.61	Yes	-	-	-	-	-	-	25.68	2.10	0.03
37	Sweden	SE0330174	Sydöstra Ölands sjömarker	60.29	Yes	-	-	-	-	-	-	0.00	0.00	0.00
38	Sweden	SE0330308	Hoburgs bank och Midsjöbankarna	10 511.11	Yes	-	-	-	-	-	-	3 722.18	1 906.01	0.18
39	Sweden	SE0420360	Nordvästra Skånes havsområde	1 342.41	No	-	6	-	-	-	-	5 800.38	2 902.14	2.16
40	Sweden	SE0430095	Falsterbohalvön	410.72	Yes	-	1	2	-	-	-	287.71	2.72	0.01
41	Sweden	SE0430187	Sydvästskånes utsjövatten	1 151.28	No	-	2	-	-	-	-	838.48	4.81	0.00
42	Sweden	SE0510186	Stora Middelgrund och Röde bank	114.10	Yes	-	-	-	-	-	-	309.01	197.75	1.73

No	Member state	Natura 2000 / national site code	Name of marine protected area	MPA area (km^2)	Management plan	Desalination outlet	Dredge spoil dumping (Points)	Dredging site	Sewage treatment plants	Main ports	Wind farms	Annual total vessel presence (h)	Annual total apparent fishing effort (h)	Annual total apparent fishing effort (h/km^2)
43	Sweden	SE0630068	Agön-Kråkön	332.81	Yes	-	-	1	-	-	-	0.00	0.00	0.00
44	Sweden	SE0810003	Snöanskärgården	53.71	Yes	-	-	-	-	-	-	0.67	0.00	0.00
45	Sweden	SE0820327	Kalix yttre skärgård	92.03	Yes	-	-	-	-	-	-	45.76	30.30	0.33

Annex III – Data sources and data processing

1. Marine protected areas in EU seas

Source 1.1 – Natura 2000 data (EEA)	
Title	**Natura 2000 (vector) – version end-2024; Natura 2000 (tabular) – version end-2024 rev. 01**
Description	The Natura 2000 dataset is part of the European network of protected sites and is maintained by the EEA. It comprises spatial vector data on designated Natura 2000 sites and a corresponding tabular dataset containing descriptive and classification attributes.
Source	European Environment Agency (EEA)
Licence	CC-BY 4.0
Available format	Vector data (SHP, GeoPackage, OGC:WMS); tabular data (CSV/TXT/SQL, Microsoft Access)
Date of extraction	March 2026

Data was extracted from the EEA's Natura 2000 database, using both the spatial vector dataset (Natura 2000 (vector) – version end-2024) and the corresponding tabular dataset (Natura 2000 (tabular) – version end-2024 rev. 01). The vector data was used to identify and delineate marine Natura 2000 sites, while the tabular data was used to retrieve descriptive information on site characteristics, management status and management measures. The datasets were filtered to display only marine sites located within the EU exclusive economic zone area (EU EEZ area). On this basis, spatial aggregation and area calculations were performed to derive indicators on:

(i) the number of marine protected areas;

(ii) their total surface area; and

(iii) the share of marine protected areas in the assessment areas; plus

(iv) geographical distribution of Natura 2000 sites by their size.

Where marine protected areas overlap spatially, the overlapping areas were identified and counted only once in the calculation of total surface area. Overlapping geometries were excluded from double counting to ensure that the reported total surface area of marine protected areas reflects the unique spatial extent of protection within the EU EEZ area.

In addition, tabular data was aggregated to produce statistics on:

(v) area management arrangements and the use of management measures for marine Natura 2000 sites at EU level.

Source 1.2 – Nationally designated areas (EEA)	
Title	**Nationally designated areas for public access (vector data) - August 2025**
Description	The European inventory of nationally designated areas is the official source of information on protected areas designated at national level and is maintained by the EEA. It comprises spatial vector data on nationally designated sites and corresponding tabular data containing information on designation types and related national and international legislative instruments.
Source	European Environment Agency (EEA)
Licence	CC BY 4.0
Available format	Vector data (SHP, GeoPackage);
Date of extraction	October 2025

Data was extracted from the EEA's European inventory of nationally designated areas using the spatial vector dataset. The vector data was used to identify and delineate marine nationally designated sites. The dataset was filtered to display only marine sites located within the EU EEZ area. On this basis, spatial aggregation and area calculations were performed to derive indicators on:

(i) the number of marine nationally designated protected areas; and

(ii) their total surface at the EU level.

In cases where nationally designated marine protected areas overlap spatially, the overlapping surfaces were identified and counted only once in the calculation of total surface area. Overlapping geometries were excluded from double counting to ensure that the reported total surface of marine protected areas reflects the unique spatial extent of protection within the EU EEZ area.

Source 1.3 – EU exclusive economic zone area (EU EEZ area)	
Title	**World_EEZ_v12, October 2022**
Description	The EU exclusive economic zone (EU EEZ) dataset consists of marine spatial areas representing the exclusive economic zones of EU member states. The dataset provides a harmonised geospatial framework defining the extent of EU marine waters in which member states exercise sovereign rights and jurisdiction over marine resources. It supports consistent spatial analysis by providing a common geographical reference for delimiting EU waters and enabling the calculation, comparison, and monitoring of marine activities, protected areas, and management measures within the EU exclusive economic zone.
Source	Flanders Marine Institute (via https://www.marineregions.org)
Licence	CC BY 4.0
Available format	Vector data (SHP, GeoPackage);
Date of extraction	January 2026

Spatial vector data from the EU exclusive economic zone (EU EEZ) dataset was extracted and used to define the geographical scope of the analysis. The dataset was applied to delimit EU marine waters and to filter spatial datasets to retain only features located within the EU EEZ. On this basis, the EU EEZ served as the reference framework for the assessment of marine protected areas, fishing-restricted areas, and human activities, ensuring that calculations and analyses were limited to EU waters and carried out using a consistent geographical extent.

2. Vessel presence and fishing activity indicators 2020-2024

Source 2.1 – Global Fishing Watch data	
Title	**AIS apparent fishing effort (fleet-daily-csvs-100-v3-2020.zip, fleet-daily-csvs-100-v3-2024.zip)**
Description	The Global Fishing Watch apparent fishing effort dataset provides global information on vessel activity derived from Automatic Identification System (AIS) signals. The dataset used corresponds to version 3.0 (March 2025 release) and covers the 2020-2024 period. It is based on publicly available AIS data and statistical and machine learning classifications used to identify fishing activity. Apparent fishing hours are estimated using a fishing detection model and may not fully capture the nuances of local fishing practices. While Global Fishing Watch conducts manual review of the dataset at global scale and for selected regions, it is not possible to manually review all fleets and regions given the size of the dataset. The dataset includes tabular data on fishing hours by flag state and gear type at 0.01 degree spatial resolution, daily apparent fishing hours by flag state and gear type at 0.1 degree resolution, and fishing hours by vessel identifier (MMSI). Vessel activity is expressed in hours and spatially aggregated to regular grid cells defined in the WGS84 coordinate reference system. The dataset is accompanied by supplementary vessel information, including gear type and flag state.
Source	Global fishing watch *(Global Fishing Watch data are accessible only after user registration on the Global Fishing Watch platform)*
Licence	CC BY-NC 4.0
Available format	Tabular data (CSV)
Date of extraction	September 2025

Data was extracted from the Global Fishing Watch apparent fishing effort dataset, using tabular data files derived from Automatic Identification System (AIS) signals (AIS Apparent Fishing Effort, version 3.0, March 2025 release). The extracted data covered the 2020-2024 period and included information on vessel presence and apparent fishing activity, with differentiation between bottom-contact and non-bottom-contact fishing classified by the ECA.

The data was filtered to retain only observations located within the assessment area. On this basis, aggregation steps were applied to derive indicators on:

(i) annual total vessel presence (hours), and

(ii) annual total apparent fishing effort (hours).

In addition, vessel activity data were normalised using marine reference area data to calculate apparent fishing density indicators on:

(iii) annual total apparent fishing density (hours/km²),

(iv) bottom-contact apparent fishing density (hours/km²), and

(v) non-bottom-contact apparent fishing density (hours/km²).

For the purpose of distinguishing bottom-contact and non-bottom-contact fishing activity, fishing gear types provided in the Global Fishing Watch dataset were classified into two groups following consultation with an external expert.

Bottom contact		**Non-bottom-contact**	
Fishing gear	Description	Fishing gear	Description
trawlers	Bottom trawls drag nets along the seafloor	*other purse seines*	Surface/midwater encircling nets
set gillnets (anchored)	Nets are anchored to the bottom	*purse seines*	Same as above
set (demersal) longlines	Longlines fixed to the seabed	*tuna purse seines*	Purse seines targeting tuna in upper water layers
pots and traps	Deploy gear that sits on the seafloor	*other seines*	Typically midwater; not dragged on bottom
dredge fishing	Dredges scrape the seabed to harvest shellfish	*seiners*	General category of seine fishing, midwater
fixed gear	By definition attached to or resting on the bottom (e.g., traps, longlines, nets). "Fixed gear fishing" refers to passive fishing methods where gear like traps, pots, or longlines are anchored and left in place for fish to find, unlike active methods where gear is towed; in fishing, it means stationary gear to catch marine life.	*drifting longlines*	Gear drifts pelagically; not anchored

Bottom contact		Non-bottom-contact	
Fishing gear	Description	Fishing gear	Description
		pole and line	Surface fishing
		squid jigger	Uses lights and vertical lines near the surface; no bottom contact
		trollers	Troll lines in midwater/surface
		fishing	General term, difficult to assign to any specific category

Source 2.2 – Natura 2000 data (EEA)	
Title	**Natura 2000 (vector) (2020-2024 period)**
Description	The Natura 2000 dataset is part of the European network of protected sites and is maintained by the EEA. It comprises spatial vector data on designated Natura 2000 sites.
Source	European Environment Agency (EEA)
Licence	CC BY 4.0
Available format	Vector data (SHP, GeoPackage, OGC:WMS); Tabular data (CSV/TXT/SQL, Microsoft Access)
Date of extraction	March 2026

Spatial vector data from the EEA's Natura 2000 database covering the 2020-2024 period was extracted using successive versions of the Natura 2000 (vector) dataset. The extracted data was used to define the spatial extent of Natura 2000 marine sites relevant for the assessment period. The dataset was applied to support the calculation of indicators related to vessel presence, apparent fishing effort and apparent fishing density, by providing the spatial reference for identifying the overlap between vessel activity and Natura 2000 marine protected areas.

Source 2.3 – Nationally designated areas (EEA)	
Title	**Nationally designated areas for public access (vector data) (period 2020-2024)**
Description	The European inventory of nationally designated areas is the official source of information on protected areas designated at national level and is maintained by the EEA. It comprises spatial vector data on nationally designated sites containing information on designation types and related national and international legislative instruments.
Source	European Environment Agency (EEA)
Licence	CC BY 4.0
Available format	Vector data (SHP, GeoPackage);
Date of extraction	October 2025

Spatial vector data from the EEA's European inventory of nationally designated areas covering the 2020-2024 period were extracted using the *Nationally designated areas for public access (vector data)* dataset. The extracted data was used to define the spatial extent of nationally designated marine protected sites relevant for the assessment period. The dataset was applied to support the calculation of indicators related to vessel presence and apparent fishing effort and apparent fishing density, by providing the spatial reference for identifying the overlap between vessel activity and nationally designated marine protected areas.

3. Fishing restricted areas

Source 3.1 – Fishing restricted areas	
Title	**Fishing restricted areas (FRA)**
Description	The list of fishing-restricted area polygons provided by the European Fisheries Control Agency (EFCA) is based on restrictions established under Regulation (EU) 2016/1139, Regulation (EU) 2019/1241, Council Regulation (EC) No 1224/2009, Commission Regulation (EC) No 494/2002, relevant Commission delegated and implementing regulations, and recommendations adopted by the General Fisheries Commission for the Mediterranean (GFCM). EFCA-provided spatial polygons were used to define and present fishing-restricted areas.
Source	EFCA polygon data, based on the Regulations and recommendations
Licence	C0
Available format	Vector data (SHP, GeoPackage);
Date of extraction	March 2026

Data was provided by EFCA in the form of spatial polygons delineating fishing-restricted areas, together with references linking each polygon to its corresponding legal basis, including EU regulations and General Fisheries Commission for the Mediterranean (GFCM) recommendations. The EFCA-provided polygons were used as the spatial representation of fishing restrictions (column 2 and 3 of the table in Annex IV).

Based on the associated legal acts, the ECA classified the fishing-restricted areas into categories according to the type of restriction. This classification was performed on the basis of the legal provisions governing the restrictions, including those established under Regulation (EU) 2016/1139; Regulation (EU) 2019/1241; Council Regulation (EC) No 1224/2009; Commission Regulation (EC) No 494/2002; relevant Commission delegated and implementing regulations, and GFCM recommendations.

Classified fishing restriction categories:

(i) no-take zone (permanent);

(ii) some restriction on bottom-contacting gear (permanent);

The classified polygons were subsequently used for spatial analysis, including the assessment of their overlap with marine protected areas under the Natura 2000 network and nationally designated protected areas, in order to support the analysis of fishing restrictions in relation to marine protection objectives.

To ensure accurate area calculations, fishing-restricted area polygons were dissolved within predefined groups so that overlapping areas were counted only once. This avoided double counting of surfaces where multiple restrictions overlap spatially. All spatial layers were transformed to a projected coordinate reference system (EPSG:3035) suitable for area calculations at European scale. Standard spatial set operations were applied, including union to merge overlapping restrictions, intersection to identify shared areas between fishing restrictions and protected areas, and difference where necessary to isolate areas outside protected zones. This approach ensured that overlap surfaces between fishing-restricted areas and marine protected areas were calculated consistently and without duplication.

Source 3.2 – Natura 2000 data (EEA)	
Title	**Natura 2000 (vector) – version end-2024**
Description	The Natura 2000 dataset is part of the European network of protected sites and is maintained by the EEA. It comprises spatial vector data on designated Natura 2000 sites.
Source	European Environment Agency (EEA)
Licence	CC BY 4.0
Available format	Vector data (SHP, GeoPackage, OGC:WMS);
Date of extraction	March 2026

Spatial vector data from the European Environment Agency's Natura 2000 database for 2024 was extracted and used to identify and delimit marine Natura 2000 sites within the assessment area. The extracted Natura 2000 geometries were used as a spatial reference layer for the analysis of fishing-restricted areas. EFCA-provided polygons defining fishing-restricted areas were overlaid with the Natura 2000 marine sites to assess their spatial intersection. On this basis, spatial analysis was performed to identify areas of overlap and to calculate the surface of fishing-restricted areas falling within marine Natura 2000 sites, supporting the assessment of the interaction between fishing restrictions and marine protected areas for 2024.

Source 3.3 – EU exclusive economic zone area (EU EEZ area) data	
Title	**World_EEZ_v12, October 2022**
Description	The EU exclusive economic zone (EU EEZ) dataset consists of marine spatial areas representing the exclusive economic zones of EU member states. The dataset provides a harmonised geospatial framework defining the extent of EU marine waters in which member states exercise sovereign rights and jurisdiction over marine resources. It supports consistent spatial analysis by providing a common geographical reference for delimiting EU waters and enabling the calculation, comparison, and monitoring of marine activities, protected areas, and management measures within the EU exclusive economic zone.
Source	Flanders Marine Institute (via https://www.marineregions.org)
Licence	CC BY 4.0
Available format	Vector data (SHP, GeoPackage);
Date of extraction	January 2026

The EU exclusive economic zone (EU EEZ) was used to define the geographical scope of the analysis. The EU EEZ was spatially intersected with EFCA-provided polygons defining fishing-restricted areas to retain only fishing restrictions located within EU waters. On this basis, the resulting fishing-restricted areas were used to analyse their spatial distribution and their overlap with Natura 2000 sites and nationally designated marine protected areas within EU waters.

4. Marine protected area questionnaire replies

Source 4.1 – Marine protected area questionnaire	
Title	**Marine protected area questionnaire**
Description	The marine protected area questionnaire is a structured survey instrument used to collect information on the management and governance of selected marine protected areas. The questionnaire is an adapted version of the Management Effectiveness Tracking Tool (METT-4) developed by the International Union for Conservation of Nature (IUCN) and partners. It was tailored for the purpose of assessing management effectiveness in marine protected areas and is supported by guidance provided in the original IUCN METT-4 framework. The questionnaire covers key aspects of protected area management, including planning, implementation, monitoring, enforcement and stakeholder engagement.
Source	Explore the World's Protected Areas
Available format	Questionnaire responses: Textual (.docx), tabular (.xlsx)
Date of collection	October-December 2025

The marine protected area questionnaire was designed and distributed by the ECA to national authorities in a sample of member states (France, Ireland and Sweden). The questionnaire was completed by the selected member states for a sample of 45 marine protected areas, covering sites under the Natura 2000 network and nationally designated marine protected areas.

Completed questionnaires were collected and reviewed by the ECA and responses were compiled into a structured dataset. The information was processed to support the analysis and evaluation of management arrangements, management measures, and implementation practices in the sampled marine protected areas. The resulting dataset was used to assess management effectiveness and to identify common features, strengths, and gaps in the management of marine protected areas across the selected member states.

5. Human pressures and activities

Source 5.1 – EMODnet Human Activities	
Title	**EMODnet Human Activities**
Description	EMODnet Human Activities provides harmonised marine data on human and maritime activities carried out in European waters, made available through a single access point covering multiple thematic layers. The dataset compiles geographically referenced information on human pressures and activities derived from national, regional, and sector-specific sources and standardised to support integrated marine spatial analysis across EU waters. For the purposes of the assessment, data was extracted for the following human activities: desalination, dredge spoil dumping (points), dredging, treatment plants, main ports and wind farms. These datasets provide point-based information on the location of selected human activities relevant for the analysis of interactions within marine protected areas.
Source	Human Activities | European Marine Observation and Data Network (EMODnet)
Licence	CC BY 4.0
Available format	Vector data (SHP, GeoPackage);
Date of extraction	October 2025

Point-based data corresponding to selected human activities (desalination plants, dredge spoil dumping, dredging, treatment plants, main ports, and wind farms) were extracted from the EMODnet Human Activities dataset. The extracted point information was used to identify the spatial distribution of human activities occurring within the EU EEZ area. The extracted datasets were spatially intersected with marine protected area boundaries to assess the presence and distribution of human activities within Natura 2000 sites. This processing supported the analysis of human pressures within protected areas.

6. MSFD regions and subregions

Source 6.1 – MSFD regions and subregions (European Environment Agency)	
Title	**MSFD regions and subregions – version 2, October 2022**
Description	The Marine Strategy Framework Directive (MSFD) marine regions and subregions dataset defines the marine regions and subregions established under Directive 2008/56/EC. The dataset provides a harmonised geographical framework for the implementation of the Marine Strategy Framework Directive, covering the Baltic Sea, North-East Atlantic Ocean, Mediterranean Sea, and Black Sea, including the associated subregions. The dataset supports consistent spatial representation and reporting of marine environmental assessments across European seas.
Source	European Environment Agency (EEA)
Licence	CC BY 4.0
Available format	Vector data (SHP, GeoPackage);
Date of extraction	March 2026

Spatial data on the MSFD marine regions and subregions was extracted and filtered for the geographical scope of the assessment. The resulting spatial layer was used for illustrative and cartographic purposes to display the boundaries of the European marine regions and subregions defined under the Marine Strategy Framework Directive. The dataset served as a reference layer to visualise the location of marine protected areas, fishing-restricted areas, and other marine features in relation to the official MSFD marine regions and subregions.

7. Blue economy

Source 7.1 – Blue economy indicators (2013-2023)	
Title	**Blue economy indicators (raw data)**
Description	The EU Blue Economy Observatory provides harmonised economic and employment data for sectors linked to marine and maritime activities (blue economy sectors) in the European Union. The data is compiled using a common methodology based on official statistical sources and estimation techniques to ensure comparability across member states and over time. For our analysis, we extracted data for the indicators "Gross Value Added (GVA) at factor cost" and "Persons employed". For our analysis, we extracted the following blue economy activities: coastal tourism, living resources, maritime transport, non-living resources, port activities, renewable energy, and shipbuilding and repair.
Source	Joint Research Centre EU Blue Economy Observatory
Licence	CC BY 4.0
Available format	Tabular (.xlsx)
Date of extraction	June 2026

We extracted data from the EU Blue Economy Observatory for the indicators "Gross Value Added (GVA) at factor cost" and "Persons employed" for the relevant reference years. We then filtered and harmonised this data to ensure consistency across member states. We aggregated subsector values, where available, to derive the corresponding sector values for each member state. We then used the resulting dataset to present and compare economic performance and employment across the main blue economy sectors at member-state and EU level.

8. Seabed habitats

Source 8.1 – EMODnet seabed habitats	
Title	**EMODnet Seabed Habitats**
Description	The European Marine Observation and Data Network (EMODnet) seabed habitats dataset provides harmonised information on the spatial distribution of seabed habitats in European marine waters. To create our dashboard, we extracted data on "Coastal Wetlands in European waters" and "Macroalgal Canopy Cover (Essential Ocean Variable) in Europe". These datasets provide explicit spatial information on selected coastal and marine habitats to support our assessment of habitat distribution within European seas.
Source	Seabed Habitats | European Marine Observation and Data Network (EMODnet)
Licence	CC BY 4.0
Available format	Vector data (SHP, GeoPackage);
Date of extraction	June 2026

We extracted spatial data on "Coastal Wetlands in European waters" and "Macroalgal Canopy Cover (Essential Ocean Variable) in Europe" from the EMODnet seabed habitats dataset. We filtered the extracted habitat layers to the geographical scope of the assessment and used them as spatial reference layers. We overlaid this habitat data with Natura 2000 sites and nationally designated marine protected areas to identify areas of spatial overlap. We then used the resulting information to show the location of the selected seabed habitats in relation to marine protected areas within the assessment area.

Annex IV – List of permanent fishing restricted areas

No	Fishing restricted area name	Legal basis	Size (km^2)
1	BALTIC_SEA_MPA_AREA_1.1	Commission Delegated Regulation (EU) 2017/117	11.609
2	BALTIC_SEA_MPA_AREA_1.10-10		1.596
3	BALTIC_SEA_MPA_AREA_1.10-11		1.994
4	BALTIC_SEA_MPA_AREA_1.10-12		4.070
5	BALTIC_SEA_MPA_AREA_1.10-13		1.249
6	BALTIC_SEA_MPA_AREA_1.10-14		2.750
7	BALTIC_SEA_MPA_AREA_1.10-15		0.579
8	BALTIC_SEA_MPA_AREA_1.10-16		0.741
9	BALTIC_SEA_MPA_AREA_1.10-17		6.869
10	BALTIC_SEA_MPA_AREA_1.10-18		5.242
11	BALTIC_SEA_MPA_AREA_1.10-19		1.823
12	BALTIC_SEA_MPA_AREA_1.10-2		2.008
13	BALTIC_SEA_MPA_AREA_1.10-20		2.065
14	BALTIC_SEA_MPA_AREA_1.10-21		1.842
15	BALTIC_SEA_MPA_AREA_1.10-22		0.210
16	BALTIC_SEA_MPA_AREA_1.10-23		4.655
17	BALTIC_SEA_MPA_AREA_1.10-24		2.665
18	BALTIC_SEA_MPA_AREA_1.10-25		4.179
19	BALTIC_SEA_MPA_AREA_1.10-26		14.864
20	BALTIC_SEA_MPA_AREA_1.10-27		3.857
21	BALTIC_SEA_MPA_AREA_1.10-28		8.331
22	BALTIC_SEA_MPA_AREA_1.10-3		1.108
23	BALTIC_SEA_MPA_AREA_1.10-4		9.406
24	BALTIC_SEA_MPA_AREA_1.10-5		9.123
25	BALTIC_SEA_MPA_AREA_1.10-6		0.991
26	BALTIC_SEA_MPA_AREA_1.10-7		2.671

No	Fishing restricted area name	Legal basis	Size (km^2)
27	BALTIC_SEA_MPA_AREA_1.10-8		18.407
28	BALTIC_SEA_MPA_AREA_1.10-9		15.862
29	BALTIC_SEA_MPA_AREA_1.2		8.654
30	BALTIC_SEA_MPA_AREA_1.3		3.389
31	BALTIC_SEA_MPA_AREA_1.4		7.361
32	BALTIC_SEA_MPA_AREA_1.5		5.634
33	BALTIC_SEA_MPA_AREA_1.6		10.661
34	BALTIC_SEA_MPA_AREA_1.7		6.672
35	BALTIC_SEA_MPA_AREA_1.8-1		195.428
36	BALTIC_SEA_MPA_AREA_1.8-2		3.074
37	BALTIC_SEA_MPA_AREA_1.8-3		6.372
38	BALTIC_SEA_MPA_AREA_1.9-1		2.868
39	BALTIC_SEA_MPA_AREA_1.9-10		21.445
40	BALTIC_SEA_MPA_AREA_1.9-12		1.845
41	BALTIC_SEA_MPA_AREA_1.9-13		5.975
42	BALTIC_SEA_MPA_AREA_1.9-14		5.038
43	BALTIC_SEA_MPA_AREA_1.9-15		18.938
44	BALTIC_SEA_MPA_AREA_1.9-16		12.369
45	BALTIC_SEA_MPA_AREA_1.9-17		16.121
46	BALTIC_SEA_MPA_AREA_1.9-18		35.733
47	BALTIC_SEA_MPA_AREA_1.9-19		1.523
48	BALTIC_SEA_MPA_AREA_1.9-2		2.163
49	BALTIC_SEA_MPA_AREA_1.9-21		7.972
50	BALTIC_SEA_MPA_AREA_1.9-22		11.371
51	BALTIC_SEA_MPA_AREA_1.9-23		2.934
52	BALTIC_SEA_MPA_AREA_1.9-24		1.064
53	BALTIC_SEA_MPA_AREA_1.9-25		1.214
54	BALTIC_SEA_MPA_AREA_1.9-26		0.371
55	BALTIC_SEA_MPA_AREA_1.9-27		0.620

No	Fishing restricted area name	Legal basis	Size (km^2)
56	BALTIC_SEA_MPA_AREA_1.9-28		0.615
57	BALTIC_SEA_MPA_AREA_1.9-29		11.448
58	BALTIC_SEA_MPA_AREA_1.9-3		0.347
59	BALTIC_SEA_MPA_AREA_1.9-30		9.999
60	BALTIC_SEA_MPA_AREA_1.9-33		21.723
61	BALTIC_SEA_MPA_AREA_1.9-34		4.860
62	BALTIC_SEA_MPA_AREA_1.9-35		15.663
63	BALTIC_SEA_MPA_AREA_1.9-4		0.839
64	BALTIC_SEA_MPA_AREA_1.9-5		3.802
65	BALTIC_SEA_MPA_AREA_1.9-6		3.532
66	BALTIC_SEA_MPA_AREA_1.9-7		0.901
67	BALTIC_SEA_MPA_AREA_1.9-8		22.094
68	BALTIC_SEA_MPA_AREA_2.1		184.970
69	BALTIC_SEA_MPA_AREA_2.2		78.047
70	BALTIC_SEA_MPA_AREA_2.3		87.349
71	BALTIC_SEA_MPA_AREA_2.4		234.965
72	BALTIC_SEA_MPA_AREA_2.5		609.178
73	NORTH_SEA_MPA_AREA_1.1	Commission Delegated Regulation (EU) 2017/118 (Annex I)	5.912
74	NORTH_SEA_MPA_AREA_1.2		70.415
75	NORTH_SEA_MPA_AREA_1.3		27.801
76	NORTH_SEA_MPA_AREA_1.4		25.925
77	NORTH_SEA_MPA_AREA_1.5a		36.669
78	NORTH_SEA_MPA_AREA_1.5b		13.372
79	NORTH_SEA_MPA_AREA_1.6a		4.533
80	NORTH_SEA_MPA_AREA_1.6b		19.679
81	NORTH_SEA_MPA_AREA_1.6c		108.542
82	NORTH_SEA_MPA_AREA_1.6d		7.213
83	NORTH_SEA_MPA_AREA_1.6e		98.051
84	NORTH_SEA_MPA_AREA_1.7a		1.969

No	Fishing restricted area name	Legal basis	Size (km^2)
85	NORTH_SEA_MPA_AREA_1.7b		3.252
86	NORTH_SEA_MPA_AREA_1.7c		11.454
87	NORTH_SEA_MPA_AREA_1.7d		38.254
88	NORTH_SEA_MPA_AREA_1.8a		22.677
89	NORTH_SEA_MPA_AREA_1.8b		10.414
90	NORTH_SEA_MPA_AREA_1.8c		2.087
91	NORTH_SEA_MPA_AREA_1.8d		7.853
92	NORTH_SEA_MPA_AREA_1.8e		2.886
93	NORTH_SEA_MPA_AREA_1.8f		3.321
94	NORTH_SEA_MPA_AREA_1.8g		12.879
95	NORTH_SEA_MPA_AREA_1.8h		0.641
96	NORTH_SEA_MPA_AREA_1.8i		2.812
97	NORTH_SEA_MPA_AREA_1.8j		0.433
98	NORTH_SEA_MPA_AREA_1.8k		2.814
99	NORTH_SEA_MPA_AREA_1.9a		167.378
100	NORTH_SEA_MPA_AREA_1.9b		4.283
101	NORTH_SEA_MPA_AREA_1.9c1		3.080
102	NORTH_SEA_MPA_AREA_1.9c2		5.721
103	NORTH_SEA_MPA_AREA_1.9d1		2.836
104	NORTH_SEA_MPA_AREA_1.9d2		57.157
105	NORTH_SEA_MPA_AREA_1.9d3		2.666
106	NORTH_SEA_MPA_AREA_1.9e		76.757
107	NORTH_SEA_MPA_AREA_1.9f		270.000
108	NORTH_SEA_MPA_AREA_2.1	Commission Delegated Regulation (EU) 2017/118 (Annex II)	0.948
109	NORTH_SEA_MPA_AREA_2.10		5.620
110	NORTH_SEA_MPA_AREA_2.11		7.278
111	NORTH_SEA_MPA_AREA_2.12		1.166
112	NORTH_SEA_MPA_AREA_2.13		0.420
113	NORTH_SEA_MPA_AREA_2.14		1.823

No	Fishing restricted area name	Legal basis	Size (km^2)
114	NORTH_SEA_MPA_AREA_2.15		6.635
115	NORTH_SEA_MPA_AREA_2.16		1.284
116	NORTH_SEA_MPA_AREA_2.17		3.016
117	NORTH_SEA_MPA_AREA_2.18		1.589
118	NORTH_SEA_MPA_AREA_2.19		1.543
119	NORTH_SEA_MPA_AREA_2.2		6.225
120	NORTH_SEA_MPA_AREA_2.20		1.637
121	NORTH_SEA_MPA_AREA_2.21		242.925
122	NORTH_SEA_MPA_AREA_2.22		0.449
123	NORTH_SEA_MPA_AREA_2.23a		0.473
124	NORTH_SEA_MPA_AREA_2.23b		0.571
125	NORTH_SEA_MPA_AREA_2.23c		0.204
126	NORTH_SEA_MPA_AREA_2.23d		0.203
127	NORTH_SEA_MPA_AREA_2.23e		0.203
128	NORTH_SEA_MPA_AREA_2.23f		0.969
129	NORTH_SEA_MPA_AREA_2.23g		1.241
130	NORTH_SEA_MPA_AREA_2.23h		0.795
131	NORTH_SEA_MPA_AREA_2.23i		0.825
132	NORTH_SEA_MPA_AREA_2.23j		0.806
133	NORTH_SEA_MPA_AREA_2.24a		0.418
134	NORTH_SEA_MPA_AREA_2.24b		0.207
135	NORTH_SEA_MPA_AREA_2.24c		0.255
136	NORTH_SEA_MPA_AREA_2.24d		0.216
137	NORTH_SEA_MPA_AREA_2.24e		0.442
138	NORTH_SEA_MPA_AREA_2.24f		0.213
139	NORTH_SEA_MPA_AREA_2.24g		0.202
140	NORTH_SEA_MPA_AREA_2.24h		0.203
141	NORTH_SEA_MPA_AREA_2.24i		0.207
142	NORTH_SEA_MPA_AREA_2.24j		0.211

No	Fishing restricted area name	Legal basis	Size (km^2)
143	NORTH_SEA_MPA_AREA_2.24k		0.194
144	NORTH_SEA_MPA_AREA_2.24l		0.685
145	NORTH_SEA_MPA_AREA_2.24m		0.193
146	NORTH_SEA_MPA_AREA_2.24n		0.279
147	NORTH_SEA_MPA_AREA_2.24o		0.427
148	NORTH_SEA_MPA_AREA_2.25		47.378
149	NORTH_SEA_MPA_AREA_2.26		62.977
150	NORTH_SEA_MPA_AREA_2.27		79.552
151	NORTH_SEA_MPA_AREA_2.3		2.337
152	NORTH_SEA_MPA_AREA_2.4		2.250
153	NORTH_SEA_MPA_AREA_2.5		8.335
154	NORTH_SEA_MPA_AREA_2.6		19.619
155	NORTH_SEA_MPA_AREA_2.7		6.827
156	NORTH_SEA_MPA_AREA_2.8		3.999
157	NORTH_SEA_MPA_AREA_2.9		3.472
158	NORTH_SEA_MPA_AREA_3.1	Commission Delegated Regulation (EU) 2017/118 (Annex IV)	70.985
159	NORTH_SEA_MPA_AREA_3.2		74.797
160	NORTH_SEA_MPA_AREA_3.3		104.917
161	NORTH_SEA_MPA_AREA_3.4		6.891
162	NORTH_SEA_MPA_AREA_AIS_1.2	Commission Delegated Regulation (EU) 2017/118 (Annex V)	960.364
163	NORTH_SEA_MPA_AREA_AIS_1.3		427.383
164	NORTH_SEA_MPA_AREA_AIS_1.4		866.543
165	NORTH_SEA_MPA_AREA_AIS_2		3 532.319
166	NORTH_SEA_MPA_AREA_1.10aa _Sylt_Outer_Reef	Commission Delegated Regulation (EU) 2017/118 amended by 2023/340	653.284
167	NORTH_SEA_MPA_AREA_1.10ab _Sylt_Outer_Reef		2 772.082
168	NORTH_SEA_MPA_AREA_1.10bc _Sylt_Outer_Reef		324.119
169	NORTH_SEA_MPA_AREA_1.10bd _Sylt_Outer_Reef		534.946

No	Fishing restricted area name	Legal basis	Size (km^2)
170	NORTH_SEA_MPA_AREA_1.11 _Borkum_Reef_Ground		621.474
171	NORTH_SEA_MPA_AREA_1.12a _Cleaver_Bank		113.943
172	NORTH_SEA_MPA_AREA_1.12b _Cleaver_Bank		294.377
173	NORTH_SEA_MPA_AREA_1.12c _Cleaver_Bank		178.126
174	NORTH_SEA_MPA_AREA_1.12d _Cleaver_Bank		102.117
175	NORTH_SEA_MPA_AREA_1.13a _Frisian_Front		399.914
176	NORTH_SEA_MPA_AREA_1.13b _Frisian_Front		599.831
177	NORTH_SEA_MPA_AREA_1.13c _Central_Oyster_Grounds		999.030
178	NORTH_SEA_MPA_AREA_2.28 _Amrum_BankSylt_Outer_Reef		48.049
179	NORTH_SEA_MPA_AREA_1_14	Commission Delegated Regulation (EU) 2017/118 amended by 2025/2191	1 157.376
180	NORTH_SEA_MPA_AREA_1_15		1 099.257
181	BALTIC_SEA_ODERBANK	Regulation (EU) 2019/1241 (Annex VIII) – Part C, Point 1	512.992
182	NORTH_SEA_PLAICE_BOX	Regulation (EU) 2019/1241 (Annex V - Part C - 2.1.) amended by 2021/1160	45 458.537
183	NORTH_SEA_RABARBEREN	Council Regulation (EU) 2025/202 (Annex IV)	36.842
184	NORTH_SEA_REVET		195.490
185	NORTH_SEA_WEST_BANK		41.859
186	WW_VME_41	Commission Implementing Regulation (EU) 2022/1614 (Annex II)	83.656
187	WW_VME_42		1 085.504
188	WW_VME_43		167.151
189	WW_VME_44		124.890
190	WW_VME_45		82.861
191	WW_VME_46		82.787

No	Fishing restricted area name	Legal basis	Size (km^2)
192	WW_VME_47		239.319
193	WW_VME_48		30.780
194	WW_VME_49		286.726
195	WW_VME_5		198.312
196	WW_VME_50		225.393
197	WW_VME_51		347.545
198	WW_VME_52		163.054
199	WW_VME_53		78.560
200	WW_VME_54		77.471
201	WW_VME_55		77.052
202	WW_VME_56		77.978
203	WW_VME_57		1 140.445
204	WW_VME_58		76.944
205	WW_VME_59		133.129
206	WW_VME_6		99.078
207	WW_VME_60		76.045
208	WW_VME_61		75.960
209	WW_VME_62		268.337
210	WW_VME_63		76.377
211	WW_VME_64		76.377
212	WW_VME_65		76.039
213	WW_VME_66		345.535
214	WW_VME_67		73.901
215	WW_VME_68		110.677
216	WW_VME_69		127.592
217	WW_VME_7		148.739
218	WW_VME_70		382.549
219	WW_VME_71		73.533
220	WW_VME_72		73.100

No	Fishing restricted area name	Legal basis	Size (km^2)
221	WW_VME_73		199.025
222	WW_VME_74		553.484
223	WW_VME_75		71.727
224	WW_VME_76		71.200
225	WW_VME_77		619.981
226	WW_VME_78		333.527
227	WW_VME_79		140.633
228	WW_VME_8		99.138
229	WW_VME_80		122.209
230	WW_VME_81		432.225
231	WW_VME_82		257.928
232	WW_VME_83		69.967
233	WW_VME_84		122.351
234	WW_VME_85_part_1		46.072
235	WW_VME_85_part_2		1.428
236	WW_VME_85_part_3		532.666
237	WW_VME_85_part_4		0.161
238	WW_VME_85_part_5		233.072
239	WW_VME_85_part_6		0.454
240	WW_VME_85_part_7		244.954
241	WW_VME_85_part_8		21.333
242	WW_VME_86		120.959
243	WW_VME_87		25.598
244	WW_VME_9		618.854
245	WW_VME_1		399.076
246	WW_VME_10		248.381
247	WW_VME_11		296.841
248	WW_VME_12		148.579
249	WW_VME_13		97.659

No	Fishing restricted area name	Legal basis	Size (km^2)
250	WW_VME_14		94.030
251	WW_VME_15		139.058
252	WW_VME_16		89.457
253	WW_VME_17		89.577
254	WW_VME_18		90.554
255	WW_VME_19		88.642
256	WW_VME_2		99.705
257	WW_VME_20		89.163
258	WW_VME_21		88.941
259	WW_VME_22		89.830
260	WW_VME_23		178.098
261	WW_VME_24		87.968
262	WW_VME_25		88.938
263	WW_VME_26		88.836
264	WW_VME_27		131.344
265	WW_VME_28		155.424
266	WW_VME_29		88.715
267	WW_VME_3		174.437
268	WW_VME_30		86.578
269	WW_VME_31		86.452
270	WW_VME_32		129.219
271	WW_VME_33		85.682
272	WW_VME_34		85.528
273	WW_VME_35		233.181
274	WW_VME_36		84.204
275	WW_VME_37		210.193
276	WW_VME_38		125.885
277	WW_VME_39		83.814
278	WW_VME_4		198.593

No	Fishing restricted area name	Legal basis	Size (km^2)
279	WW_VME_40		167.467
280	WW_HAKE_01	Commission Regulation (EC) No 494/2002 (Article 5(1)(a))	49 293.570
281	WW_HAKE_02	Commission Regulation (EC) No 494/2002 (Article 5(1)(b))	31 511.144
282	GFCM_FRA_VME.AREA_RESTRICTED. GFCM_VME_CLOS_3	Recommendation GFCM/30/2006/3, 1a	976.348
283	GFCM_FRA_VME.AREA_RESTRICTED. GFCM_VME_CLOS_2	Recommendation GFCM/30/2006/3, 1c	9 937.753
284	GFCM_FRA_OTHER.FISH_HAB.GFCM _OTHER_FISH_HAB_6	Recommendation GFCM/42/2018/5 (Annex II)	613.147
285	GFCM_FRA_OTHER.FISH_HAB.GFCM _OTHER_FISH_HAB_7		616.134
286	GFCM_FRA_OTHER.FISH_HAB.GFCM _OTHER_FISH_HAB_8		469.002
287	GFCM_FRA_VME.AREA_RESTRICTED. GFCM_VME_CLOS_4_part_1	Recommendation GFCM/46/2023/1 (Annex I)	44.946
288	GFCM_FRA_OTRANTO_CHANNEL_CORE	Recommendation GFCM/47/2024/6 (Annex I)	878.579
289	WW_BELGICA_MOUND_PROVINCE	Regulation (EU) 2019/1241 (Annex II - Part A – Point 1)	416.835
290	WW_HOVLAND_MOUND_PROVINCE		1 088.289
291	WW_NW_PORCUPINE_BANK_I		356.640
292	WW_NW_PORCUPINE_BANK_II		287.507
293	WW_SW_PORCUPINE_BANK		329.264
294	WW_EL_CACHUCHO	Regulation (EU) 2019/1241 (Annex II - Part B – Point 1)	2 350.595
295	WW_MADEIRA_CANARY_ISLANDS	Regulation (EU) 2019/1241 (Annex II - Part B – Point 2)	553 067.902

No	Fishing restricted area name	Legal basis	Size (km^2)
296	WW_AZORES	Regulation (EU) 2019/1241 (Annex II - Part B – Point 3)	531 502.939

NB:
Data (not exhaustive) used by the ECA for the purposes of this report was provided by the European Fisheries Control Agency (EFCA) in the form of spatial polygons delineating fishing restricted areas, together with references linking each polygon to its corresponding legal basis, including EU regulations and General Fisheries Commission for the Mediterranean (GFCM) recommendations in March 2026.
Information about the surface area of individual fisheries restricted areas. Due to the fact that some areas are geographically overlapping, the sum of those areas does not equal the total area.
Total surface, excluding the overlapping areas is the following:

- the total area of permanent fisheries restricted areas (categories 1-3) = 1 259 288.11 km2;
- the total area of Natura2000 areas in 2024 (no internal overlaps) = 525 853.29 km2;
- the total area of Natura2000 areas covered by permanent fisheries restricted areas (categories 1-3) = 79 670.24 km2.

Thus, the proportion of all Natura 2000 areas covered by permanent fisheries restricted areas (categories 1-3) = 79 670.24 / 525 853.29 = 15.15 %.

Annex V – EU funding

01 **LIFE programme:** For the 2021-2027 period, we identified 18 projects related to marine protected areas implemented across nine member states representing a total project cost of €272 million, including €150 million in EU funding. For the 2014-2020 period, we identified 20 additional relevant ongoing projects across eight member states, representing €138 million in total project costs, including €79 million in EU funding. The Commission has proposed to integrate the LIFE programme into the new European Competitiveness Fund from 2028 onwards.

02 **Cohesion policy funds:** We identified 16 projects related to marine protected areas for the period from 2021 to 2025, representing a total project cost of €22.5 million, including €18.2 million in EU funding.

03 **European Maritime, Fisheries and Aquaculture Fund (EMFAF):** 25 member states have allocated funding in their national programmes under Specific Objective 1.6 ("contributing to the protection and restoration of aquatic biodiversity and ecosystems"), which includes support for marine protected areas.

The total EU allocation under EMFAF specific objective 1.6 is €377 million, of which:

- €108 million is allocated for type 6 intervention, concerning designation, maintenance and monitoring of marine protected areas, including Natura 2000;
- €255 million is allocated for type 1 intervention concerning biodiversity protection and restoration, with such operations contributing more broadly to marine protection.

Support for marine protected areas implementation and monitoring, including Natura 2000 (interventions type 6) is also allocated under other specific objectives. An additional €10 million has been allocated so far to type 6 intervention, mainly under Specific Objective 2.1 "sustainable aquaculture" (more information in Open data portal).

04 **Research and innovation:** Projects funded under Horizon Europe, including European Blue Parks initiatives, aim to improve the scientific basis for marine protection. These projects, with a total budget of approximately €62.4 million covering six member states, focus on activities such as identifying areas suitable for strict protection, analysing ecological connectivity between marine protected areas and developing tools for marine spatial planning.

Annex VI – Marine protected area management assessment methodology using METT-4

01 Marine protected areas vary in their geographical scale, legal frameworks, and conservation objectives. In order to assess the effectiveness of their management objectively, we used an adapted version of the Management Effectiveness Tracking Tool (METT-4) developed by the International Union for Conservation of Nature.

02 The METT-4 is a standardised evaluation framework in a form of a survey (closed questions) built around the IUCN World Commission on Protected Areas management cycle, designed to measure a protected area's operational health. The tool can be used for all kinds of protected areas, including on land. We thus omitted the questions which were not applicable in the marine context. The full list of questions used for the purpose of this audit is given below.

Assessment area	Question
1. Legal Status	Does the protected area have legal status or is it established under "other effective means"?
2. Objectives	Is management undertaken according to agreed objectives?
3. Regulations/ Controls	Are appropriate regulations/controls in place to manage land/sea use and activities (such as fishing, mining, tourism)?
4. Planning for land/sea use	Does land and sea use planning outside of the protected area recognise the protected area and contribute to the achievement of management objectives?
5. Design	Is the protected area the right size and shape to protect species, habitats, ecological processes and water catchments of key conservation concern?
6. Demarcation	Is the boundary known and demarcated?
7. Management planning	Is there a management plan or equivalent and is it being implemented?
8. Regular work plan	Is there a regular work plan and is it being implemented?
9. Resource Inventory	Do you have enough information to manage the area?
10. Staff	Are there enough people to manage the protected area?
11. Knowledge and skills	Do the people involved in managing the protected area have the necessary knowledge and skills?

Assessment area	Question
12. Current budget	Is the current budget sufficient?
14. Budget management	Is the budget managed to ensure effective administration of the protected area?
15. Equipment	Are equipment and facilities sufficient for management needs?
16. Law enforcement	Can staff (i.e. those with responsibility for managing the site) enforce protected area legislation and regulation?
17. Protection	Are systems (e.g. patrols, permits, intelligence gathering etc) in place to control access/resource use in the protected area?
19. Research	Is there a programme of management-orientated survey and research work?
20. Monitoring / Evaluation	Are management activities regularly monitored, evaluated and adapted?
21. Resource management	Is active resource management being undertaken?
22. Climate change	Is the protected area consciously managed to adapt to climate change?
23. Carbon Capture	Is the protected area being consciously managed to prevent carbon loss and to encourage further carbon capture?
24. Ecosystem services	Does management consider ecosystem service provision?
25. Education / Awareness	Is there a planned education and awareness programme linked to the objectives and needs?
26. State and commercial neighbours	Is there co-operation with neighbouring land/sea State and commercial users?
27. Commercial tourism operators	Do commercial tour operators contribute to protected area management?
28. Fees	If fees (i.e. entry fees or fines) are applied, do they help protected area management?
29. Visitor facilities	Are visitor facilities and services adequate?
31. Local communities	Do local communities living in or near the protected area have input to management decisions?
32. Livelihood benefits	Is the protected area providing sustained livelihood benefits to local communities people?

Assessment area	Question
33. Threats	Are the threats to the main values of the protected area being effectively addressed?
34. Connectivity	Have the requirements for functional connectivity have been assessed and implemented?
37. Conservation status of species	Has the status of key indicator species changed over the last 5 years?
38. Conservation status of habitats	Has the status of habitats changed over the last 5 years?

Source: The Management Effectiveness Tracking Tool (METT-4).

03 For the purpose of this audit, we selected 45 marine protected areas (see ***Annex II***) in three member states (in total, 15 per member state) and asked their managers to provide relevant information as of 2025. However, 10 of the 15 selected marine protected areas in Ireland could not provide any information, so our conclusions presented in this report were based on 35 replies, i.e. 77 % of all managers.

04 The METT-4 methodology uses 0-to-3 score system for each question. However, to make the results easy to interpret, we simplified the counting method. We counted answers instead of applying scores. Each METT-4 question gives site managers four specific options to describe their situation, from no action to full implementation. We calculated percentages by counting all answers given by managers to each question and divided this number by the total number of questionnaires (35 replies). This approach avoids mixing different scores and shows the most common problems in a way that makes interpretation easier.

05 While the adapted METT-4 tool provided valuable insights, the assessment has certain limitations. First, because the questionnaires rely on self-reporting by marine protected area managers, there is an inherent risk of self-reporting bias. Second, data gaps affected specific regions, notably Ireland, where 10 expected replies were not received. Where possible, the answers were corroborated with results from interviews carried out during our audit visits.

06 Extrapolating these percentages across the entire EU is not possible due to the modest size of the final sample. Of 45 marine protected areas in the sample, 30 were selected using a monetary unit sampling method, which was adapted by replacing monetary values with surface area metrics. Consequently, the resulting percentages represent an area-weighted sample rather than a purely statistical generalisation of all European marine protected areas.

Abbreviations

Abbreviation	Definition/Explanation
CFP	Common fisheries policy
EEA	European Environment Agency
EMFAF	European Maritime, Fisheries and Aquaculture Fund
IUCN	International Union for Conservation of Nature
METT	Management effectiveness tracking tool
MPA	Marine protected area
MSFD	Marine Strategy Framework Directive

Glossary

Term	Definition/Explanation
Apparent fishing effort	Amount of time a vessel spends presumably fishing as estimated from its movement patterns on the basis of vessel tracking data.
Bycatch	Inadvertent catch of organisms not specifically targeted by fishing.
Discard	Catch that is returned to the sea. This practice is forbidden by the EU legislation with few exceptions.
Exclusive economic zone	Area of sea, immediately beyond the territorial waters of a coastal country, in which that country has certain rights and duties under the UN Convention on the Law of the Sea.
Fishing effort	Measure of fishing activity that takes account of the capacity of a vessel or fleet and the number of days spent fishing.
Fishing pressure	Impact of fishing on fished populations and ecosystems.
Marine protected area	Area of sea designated, by law or otherwise, for the protection and maintenance of biodiversity, natural resources and cultural heritage sites
MPA assessment area	Marine waters surrounding an EU member state whose outer limit is 200 nautical miles from the coast, equidistant from a neighbouring EU member state, or a boundary defined by an agreed treaty.
Regional sea convention	International agreement to protect the marine environment in EU marine regions.
Strictly protected area	Zone in which all extractive activities (such as fishing, mining or dredging) are prohibited to allow marine ecosystems to recover.

Replies of the Commission

https://www.eca.europa.eu/en/publications/SR-2026-25

Timeline

https://www.eca.europa.eu/en/publications/SR-2026-25

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This performance audit was carried out by Audit Chamber I – Sustainable use of natural resources, headed by ECA Member Joëlle Elvinger. The audit was led by ECA Member Iliana Ivanova, supported by Mariana Hristcheva, Head of Private Office and Mariya Byalkova, Private Office Attaché; Emmanuel Rauch, Principal Manager; Rafał Czarnecki, Head of Task; Kim Hublé, Zuzana Gullová, Monika Dedičová, Alina Tereszkiewicz and Torgny Karlsson, Auditors. Stamatis Kalogirou, Anthony Pantelis, Fotios Polyzos and Iveta Toleikyte provided data support. Jennifer Schofield, Zoe Dennis and Laura Mcmillan provided linguistic support. Alexandra Mazilu provided graphical support and Frédérique Hussenet provided secretarial support.



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HTML	ISBN 978-92-849-8417-6	ISSN 1977-5679	doi:10.2865/2825630	QJ-01-26-048-EN-Q
PDF	ISBN 978-92-849-8418-3	ISSN 1977-5679	doi:10.2865/3800491	QJ-01-26-048-EN-N

HOW TO CITE

European Court of Auditors, special report 25/2026 “Marine protected areas – Designation alone is insufficient for meaningful protection”, Publications Office of the European Union, 2026.

EU seas are deteriorating because of climate change, pollution, fishing and habitat loss. The EU Biodiversity Strategy for 2030 aims to protect 30 % of EU seas, including 10 % under strict protection. We assessed progress towards these targets, whether designation ensures effective protection, and how environmental and socio-economic objectives are balanced. Although the marine protected area network has expanded, the targets are highly unlikely to be met, many sites lack protective measures, and adaptive management is often weak. Recently adopted EU legislation shifts the focus from passive protection to active ecosystem restoration. We recommended expanding the network, turning designations into enforceable measures, strengthening stakeholder participation, and improving adaptive management and monitoring.

ECA special report pursuant to Article 287(4), second subparagraph, TFEU.

EUROPEAN COURT OF AUDITORS

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