

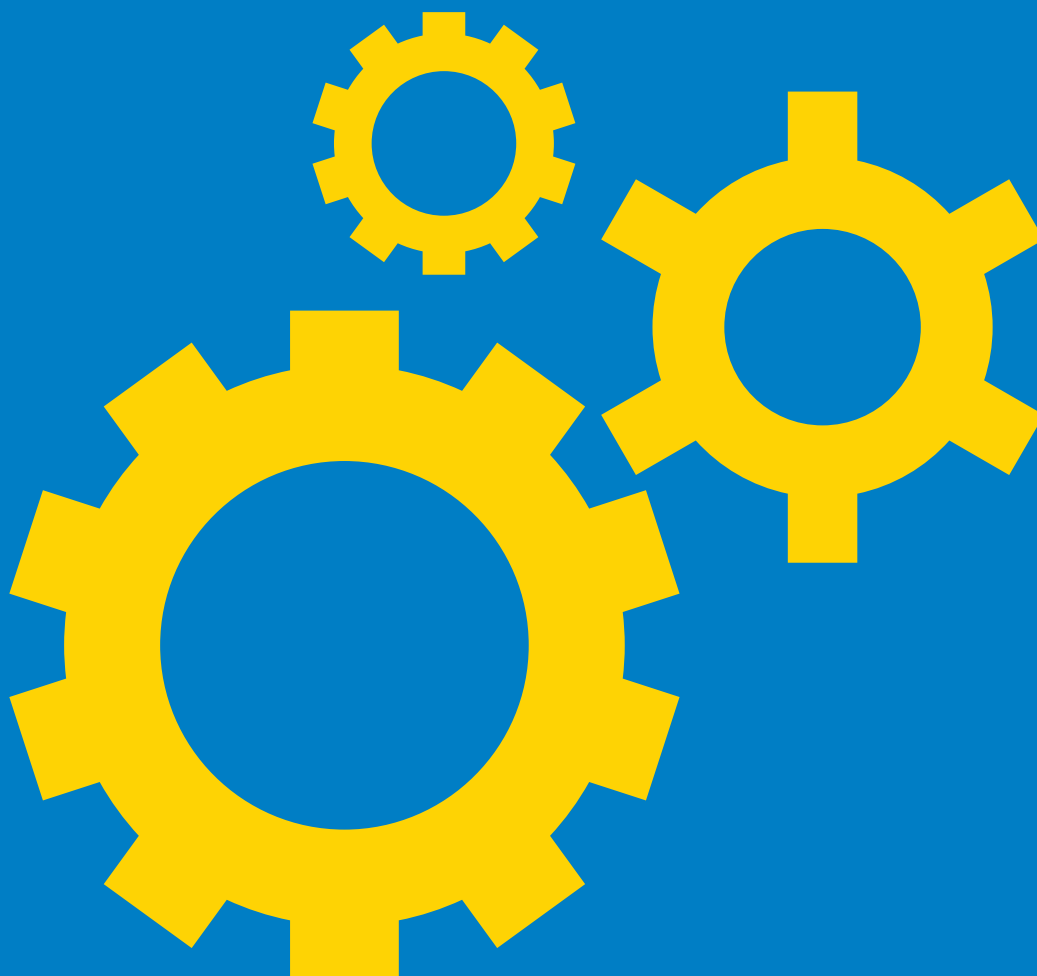


# Annual Report 2024

An overview of HELCOM's  
activities in 2024



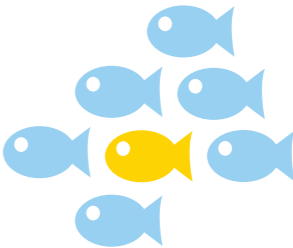
Baltic Sea Environment Proceedings n°201





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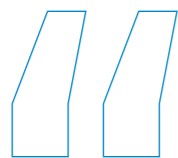
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# Foreword



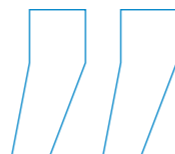
**THE YEAR 2024 MARKED HELCOM'S 50TH ANNIVERSARY.** While this was a cause for celebration and reflection on our organization's achievements over the course of half a century, we did not remain suspended in self-contemplation and commemoration. Rather, it inspired us to continue and, where possible, redouble our efforts to address the challenges ahead and achieve our shared vision of "a healthy Baltic Sea environment with diverse biological components functioning in balance, resulting in a good ecological status and supporting a wide range of sustainable economic and social activities."

The rapid growth of the HELCOM Secretariat, with its multinational and diverse staff representing 14 nationalities from around and beyond the Baltic Sea, speaks to the dynamic development of our organization and reflects the unprecedented number of projects we are engaged in as we work to realize our ambitious objectives. In doing so, the 2021 Baltic Sea Action Plan remains our central programme of action and our roadmap on the way to 2030 – the target year for both the BSAP and the UN Sustainable Development Goals. As we approach the halfway mark of our journey to 2030 and the first round of reporting in 2025, implementation is advancing. BSAP Actions from across

the four thematic segments of the report as well as the Horizontal Topics Segment are continuously being implemented, and progress is being made.

As indeed it must. The urgency of continued, sustained and enhanced efforts to achieve transformational change across all Baltic Sea countries and all relevant sectors, as well as the dauntingly high cost of inaction were once again brought into stark relief by the sobering results of HELCOM's most recent Holistic Assessment (HOLAS 3), published in 2023. This was acknowledged and the commitment of HELCOM and its Contracting Parties to fully implementing the 2021 BSAP and achieving its goals was reaffirmed by the 2024 Ministerial Meeting on the Baltic Sea Environment, held in Riga, Latvia, in April 2024. This singleness of purpose and the determination to strengthen HELCOM's role even against the background of significant geopolitical challenges is also reflected in the priorities of our previous and current Lithuanian Chairmanships, as Lithuania picked up the baton from Latvia in July 2024, to guide the organization's work through June 2026.

The present report provides a brief overview of HELCOM activities in 2024. The year of our semicentennial. A year of celebration and challenge, of continuity and change, and of continued and relentless effort in pursuit of our common objectives.



**Mr. Rüdiger Stempel,**  
Executive Secretary of  
HELCOM





# 1. About HELCOM and the Baltic Sea



The Baltic Sea is a semi-enclosed body of water in northern Europe. Overall, the sea is relatively shallow, with brackish water and low oxygen levels. Surface water temperatures vary significantly throughout the year, influenced by both seasonal changes and geographical location. In winter, the northern parts of the sea are often covered ice, while the water temperature in the south can reach up over 20°C in the summer.

Due to its unique biochemical properties, the Baltic Sea hosts a distinctive mix of marine and fresh-water species, long with a few true brackish-water species specially adapted to its environment.

In the northern and eastern regions, where salinity levels are lower, fewer marine species thrive, and ecosystems are dominated by fresh-water-adapted organisms, particularly in estuaries and coastal waters.

With only around 3,000 macroscopic species, the Baltic Sea's biodiversity is relatively low, making each species exceptionally important within the food web. The loss of even a single key species could disrupt the entire ecosystem, potentially leading to ecological collapse. This fragility makes the Baltic Sea particularly vulnerable to external disturbances.

Surrounding the sea is a vast catchment area that is four times larger than the sea itself and home to approximately 85 million people. Human activity is widespread in this busy region, exerting significant environmental pressures. Over the years, agriculture, industry, and urban development have had a severe impact on the Baltic Sea. Despite substantial conservation efforts by HELCOM countries, the sea has yet to fully recover and has not yet achieved Good Environmental Status (GES).

## What we work for

*“A healthy Baltic Sea environment, with diverse biological components functioning in balance, resulting in a good environmental and ecological status, and supporting a wide range of sustainable economic and social activities.”*



## About HELCOM

The Baltic Marine Environment Protection Commission – also known as the Helsinki Commission (HELCOM) – is an intergovernmental organization (IGO) in the Baltic Sea area, consisting of ten Contracting Parties: the nine Baltic Sea countries Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, and Sweden, plus the European Union.

A platform for environmental policy making at the regional level, HELCOM works for a healthy Baltic Sea. Its mandate stems from the Helsinki Convention, whose implementation it oversees. It maintains a Secretariat, which is located in Helsinki, Finland.

## The Helsinki Convention

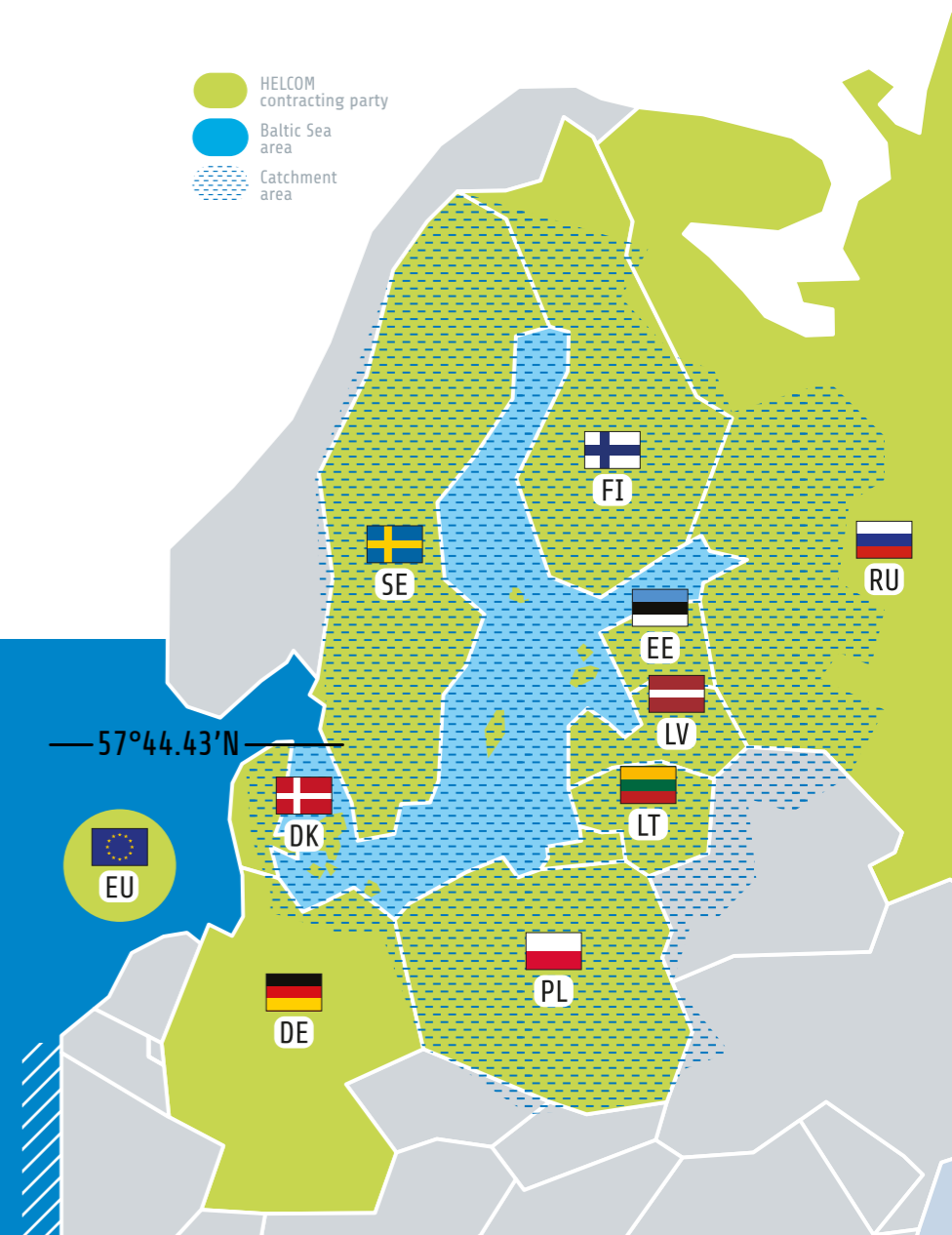
The Helsinki Convention is a regional sea convention originally signed in 1974 by the Baltic Sea coastal countries to address the increasing environmental challenges from industrialisation and other human activities that were having a severe impact on the marine environment. The Helsinki Convention aims to protect the Baltic Sea from all sources of pollution from land, air, and sea. It also commits the signatories to taking measures to conserve habitats and biological diversity and to ensuring the sustainable use of marine resources. In 1992, the Helsinki Convention was updated to take into account the geopolitical changes and emerging environmental challenges in the region. The current version entered into force in 2000.

## Our action areas



## The HELCOM Area

The Helsinki Convention defines the “Baltic Sea Area” – the HELCOM area – as the Baltic Sea and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57° 44.43'N. The Baltic Sea Area also includes the internal waters.



## Strategic pause of HELCOM

On 4 March 2022, against the background of the current geopolitical crisis, the then German Chairmanship of HELCOM issued a statement declaring that the European Union and the Contracting Parties to the Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area that are Member States of the European Union (H 9) unanimously agreed that they could not currently engage in business as usual with the Russian Federation in the context of HELCOM and declared a so-called strategic pause in regular HELCOM operations.

In line with this, all official meetings of the Helsinki Commission and the Heads of Delegation have been postponed. Informal consultation sessions of the bodies concerned in an H 9 format are, however, taking place. Approval, adoption and decisions at the political level are taken through correspondence with the Secretariat as the intermediary, to maintain the integrity of HELCOM work processes. Official meetings of all HELCOM Groups (Working Groups and Expert Groups) are also postponed and replaced by informal consultation sessions hosted by Contracting Parties. The strategic pause remains in effect and the H9 have decided that it should be continued until further notice. However, the Russian Federation remains a Contracting Party to HELCOM.

Despite the challenges posed by the current mode of operations, HELCOM has remained operational, the implementation of the 2021 Baltic Sea Action Plan (2021 BSAP) and other HELCOM activities are on track.



## 2. Change of Chairmanship



On 1 July 2024, Lithuania took over the Chairmanship of HELCOM, succeeding Latvia. Lithuania will hold the Chairmanship for two years, from 1 July 2024 until 30 June 2026.

The Chairmanship of the Helsinki Commission rotates among the Contracting Parties every two years, following alphabetical order in English.

The Chairing Party sets strategic priorities for its tenure, convenes and presides over the meetings of the Commission and Heads of Delegation (HODs) and ensures observance of the rules of procedure and oversees matters of order.

Priorities of the Lithuanian Chairmanship of HELCOM 2024-2026 are as follows:

1. Strengthening HELCOM's role in the context of geopolitical challenges. Geopolitical challenges in the Baltic region and political tensions between the countries can affect environmental activities and maritime security. To make HELCOM as effective as possible for countries to cooperate and tackle common environmental challenges, we will focus on strengthening its capacity to address environmental issues in the Baltic Sea Region, considering the changing political dynamics.
2. Seeking a balance between the Blue Economy and environmental protection. A sustainable blue economy can help overcome current shortcomings in the management of marine, coastal and aquatic ecosystems and become an important part of meeting the economic, social and environmental needs. A sustainable blue economy, based on clean technologies, renewable energies

and a circular economy, offers enormous benefits for present and future generations, while preserving a clean environment. We will enhance HELCOM's role in maintaining and developing the economic potential of the Baltic Sea Region, while at the same time enhancing environmental policies that promote the sustainable use of marine resources.

3. Strengthening dialogue and engaging the public in decision-making. Through HELCOM's public diplomacy and stakeholder engagement efforts, we will pay attention to promoting an inclusive, transparent and participatory approach to environmental management and protection in the Baltic Sea Region. Attracting diverse stakeholders, fostering partnerships and empowering communities to strengthen common efforts to protect and sustainably manage the Baltic Sea marine environment for present and future generations.

Vitalijus Auglys, Head of Pollution Prevention Policy Group at Lithuania's Ministry of Environment (MoE) will serve as Chair of HELCOM (2024-2026). With over 30 years of experience in the public and environmental sector, he has extensive experience in international cooperation across the EU and Baltic Sea region.


Mr. Tomas Želvys will serve as the Vice-Chair. He has worked both in the private sector and Lithuania's Environment Protection Agency, but most of his career in the Ministry of the Environment of the Republic of Lithuania as a Chief Specialist and as a Senior Adviser on water and subsoil issues in the Pollution Prevention Policy Group.

*Through HELCOM's public diplomacy and stakeholder engagement efforts, we will pay attention to promoting an inclusive, transparent and participatory approach to environmental management and protection in the Baltic Sea Region*




From left to right:  
Vitalijus Auglys, Rüdiger Stempel and Evij Smite.


# HELCOM's activities in 2024




Species & habitats




Spatial conservation & MPAs




Agriculture




Nutrients




Hazardous substances




Marine litter




Dredging & seabed




Underwater noise




Shipping




Response to spills




Submerged hazards




Fisheries




Maritime spatial planning




Climate change



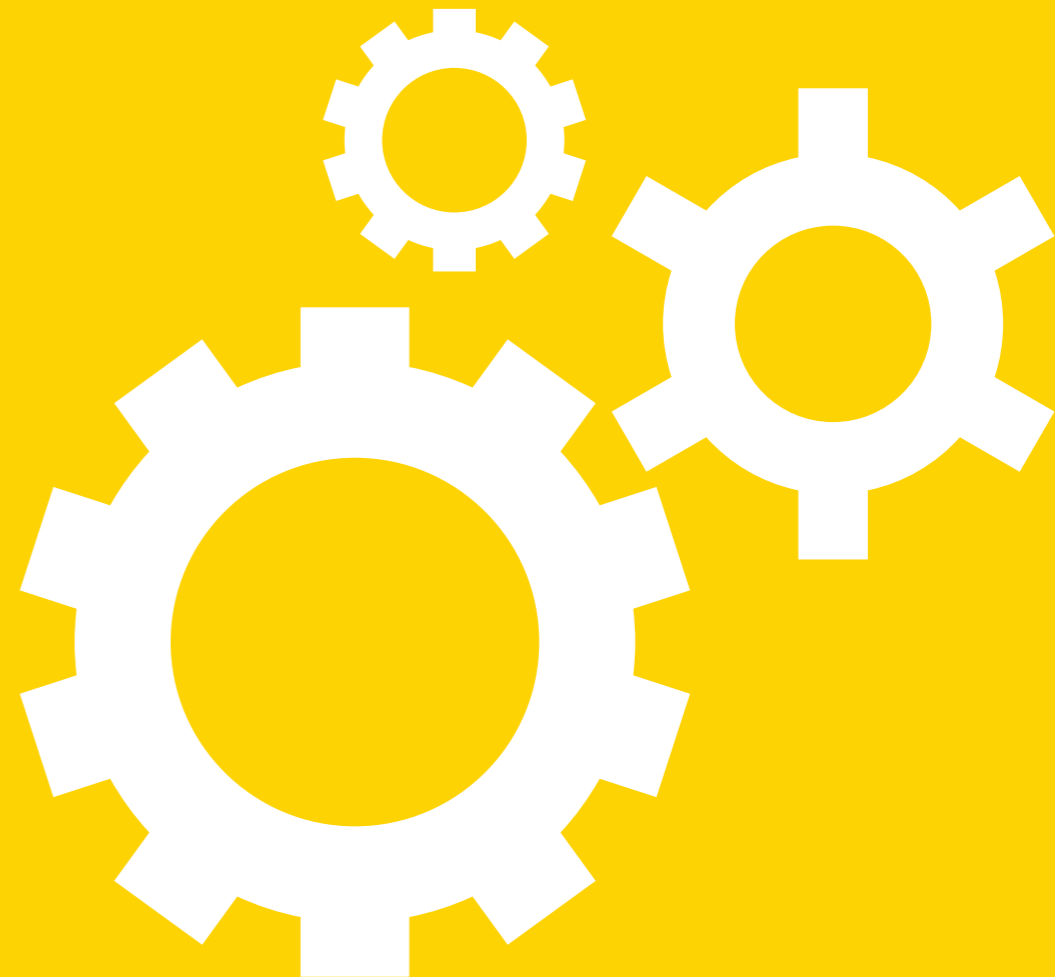
Economy & society



Monitoring & assessment



Beyond the Baltic Sea



## 3. Species & habitats



Although the overall diversity in terms of number of species is relatively low compared to other sea areas, the Baltic Sea is renowned for its unique biodiversity, featuring both freshwater and marine species that have adapted to the brackish environment. The prevalence of species and communities is largely governed by strong gradients in salinity from north-to-south, coastal-to-offshore, and surface-to-bottom. In addition, seasonal changes in temperature as well as temporary and permanent oxygen deficits influence the occurrence and composition of species. Benthic habitats and biotopes are also influenced by a multitude of factors, including substrate, exposure and depth. When combining these factors, the result is a mosaic of varied biotopes exhibiting great diversity in function and structure. The Baltic Sea's biodiversity is thus dynamic in time and variable in space, something which also needs to be taken into account in the management of human activities.

As part of the actions under the Baltic Sea Action Plan HELCOM Contracting Parties have committed to several actions aimed at improving the status of biodiversity. These include the protection of fish, birds and mammals, specific habitats, as well as the development of indicators for biodiversity, to better keep track of the effect the actions have on the environment.

In 2024, to understand which species may be facing a threat of regional extinction the ongoing HELCOM RED LIST II project completed assessments using the criteria and approach developed by IUCN. The project completed assessments of more than 2000 species and several benthic biotopes. The results of the assessments are anticipated to be published in 2025.

The adoption of the EU Nature Restoration Regulation (2024/1991) in the summer brought a stronger focus to restoration of species and habitats in the Baltic Sea. HELCOM has a long coordinated and collaborated on measures to restore riverine habitats and will now also bring new focus to active restoration of marine habitats. The development of a HELCOM Regional Action Plan on benthic habitat restoration continued in 2024.

### Projects

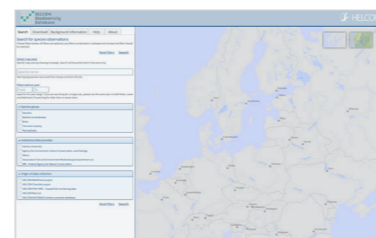
**HELCOM Red List II** regularly reviews the status of Baltic Sea species and habitats/biotopes enables the tracking of long-term trends in the status of Baltic Sea biodiversity. This makes it possible to assess whether actions taken to halt the loss of biodiversity have been effective. Together with other HELCOM assessments, the HELCOM Red Lists represent an essential part of the HELCOM evaluation system, enabling responsive, dynamic and adaptive management and measures.

**PROTECT BALTIC** is a groundbreaking initiative under Horizon Europe and HELCOM which aims to address the challenges of expanding marine protected areas (MPAs) and ensuring their effectiveness in the Baltic Sea region.

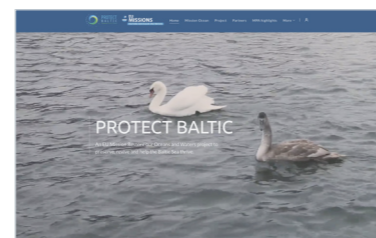
### Related resources



Status of coastal fish communities



HELCOM Biodiversity Database



HELCOM PROTECT Baltic



## 4. Spatial conservation & MPAs



The establishment of well-managed marine protected areas (MPAs) is one of the primary mechanisms for safeguarding biodiversity, ecosystem functions and natural resources. It also secures resilience in the face of a changing climate. MPAs are also essential to habitats and species beyond the protected zones. They provide refuge for mobile species such as seabirds and marine mammals, serve as spawning and nursery grounds for fish and act as buffer zones between areas of intensive human use. The goal of HELCOM MPAs, which form the coastal and marine Baltic Sea protected area network, is to safeguard marine and coastal habitats in the Baltic Sea by managing human activities within and around those areas.

As part of the initiatives outlined in the 2021 Baltic Sea Action Plan, the HELCOM Contracting Parties agreed to the ambitious targets of protecting 30% of the Baltic Sea area by 2030 ("30 by 30"). Notably, one-third of this, equivalent to 10% of the Baltic Sea area, should fall under strict protection by the same 2030 deadline. Alongside these spatial targets, the BSAP outlines how to improve MPA management efforts, thus increasing effectiveness of their protection.

In 2024, regional goals, objectives and strategies for protection were agreed as a basis for further work through the PROTECT BALTIC project to develop quantitative targets for protection. The project carried out in-depth data collection and harvesting from the Baltic Sea region, creating the most comprehensive dataset to date on all types of spatial protection. This work showed that HELCOM MPAs reach an impressive number of 188, however the total number of areas under some form of spatial protection exceeds 1 000 in the Baltic Sea.

A dedicated workshop for MPA managers was held in Lahemaa, Estonia in September. The workshop brought together some 20 MPA managers from across the Baltic Sea region to discuss how regional coordination and guidelines for management could improve biodiversity protection.

### Projects

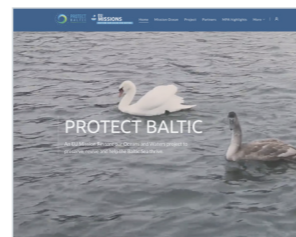
**PROTECT BALTIC** is a groundbreaking initiative under Horizon Europe and HELCOM which aims to address the challenges of expanding marine protected areas (MPAs) and ensuring their effectiveness in the Baltic Sea region.

**BLUE4ALL** proposes a new approach for marine protected areas (MPAs), aligning a bottom-up strategy with the top-down regulatory expectations defined by the [EU Biodiversity Strategy 2030](#) and national initiatives. The project's mission is to address the challenges faced in marine conservation and restoration in Europe, including the social acceptability of MPAs. This will result in the development of robust and replicable tools based on science.

The main objective of **MSP4BIO** is to develop an integrated and modular Ecological-Socio-Economic (ESE) management framework for the protection and restoration of marine ecosystems. The solutions developed in the project will fill gaps on marine biodiversity and its management, by better linking spatial ecological features with socio-economic elements.

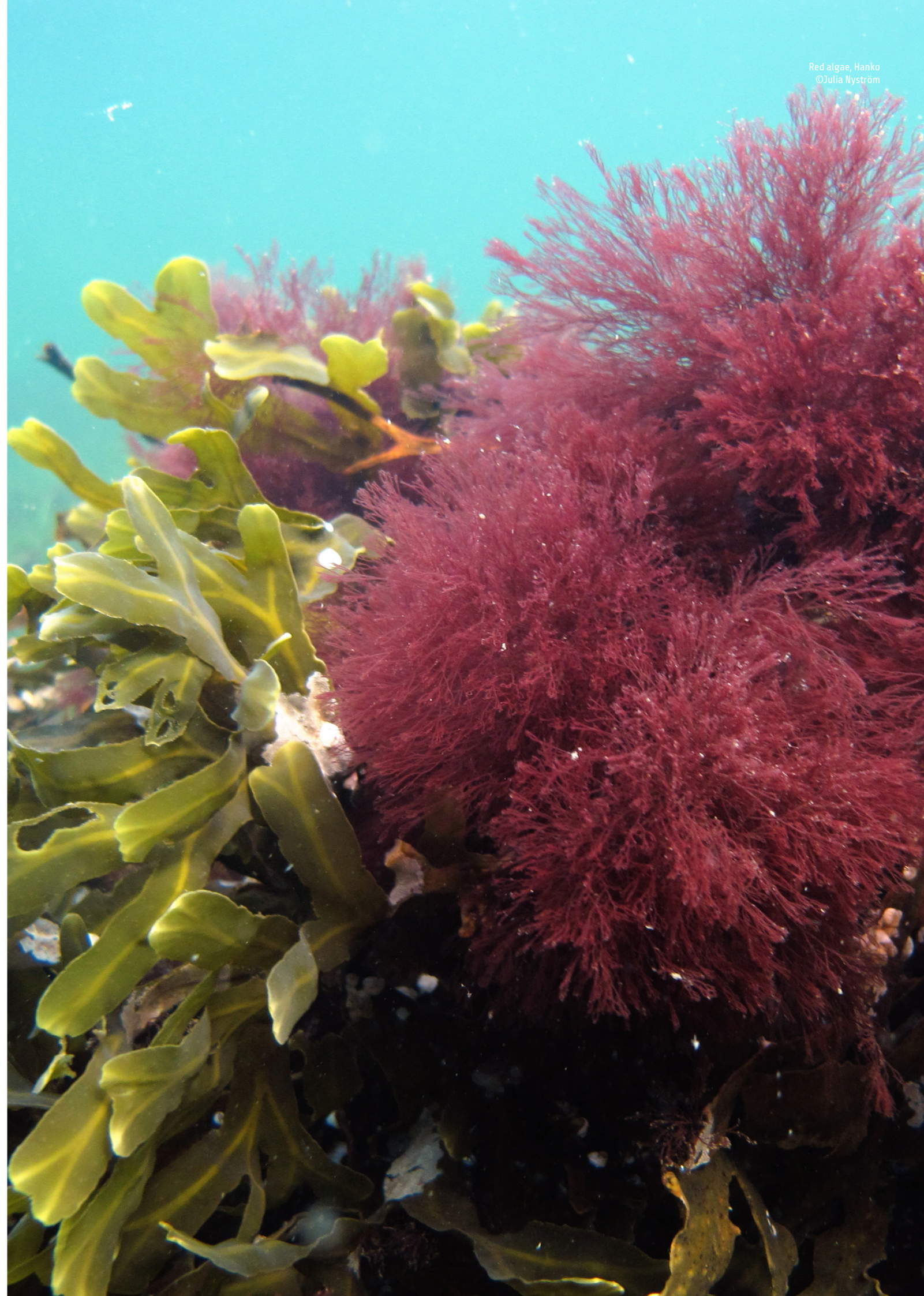
**BLUE CONNECT** develops a systematic approach to marine conservation planning and management. The project contributes to the development of a regionally shared understanding of strict protection and practical applications at demonstration sites.

### Related resources



Glossary for protection terminology

*Regional goals, objectives and strategies for protection were agreed as a basis for further work through the PROTECT BALTIC project to develop quantitative targets for protection*





## 5. Agriculture



Agriculture remains a major source of nutrient loading to the Baltic Sea, leading to eutrophication - an excess of nutrients in the sea. In recent years, HELCOM has focused on promoting more efficient manure management and nutrient recycling. The aim is to close the nutrient loops and to reduce nutrient surpluses on the farm and regional levels, to avoid nutrient runoff to the sea.

The Baltic Sea Action Plan 2021 (BSAP) includes over 20 actions focused on agriculture and nutrient recycling to promote sustainable agriculture and reduce nutrient losses.

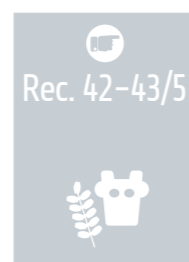
In 2024, one of these actions was implemented when HELCOM adopted a Recommendation on Mitigation of Ammonia Emissions from Agriculture. This Recommendation outlines key principles and recommends effective measures to reduce ammonia emissions.

Additionally, efforts continued to compile regional best practices for improving soil structure on clay soils to reduce phosphorus losses. Work also began on developing Best Available Technology (BAT)/Best Environmental Practices (BEP) to reduce ammonia and greenhouse gas emissions from livestock housing and manure storage.

### Projects

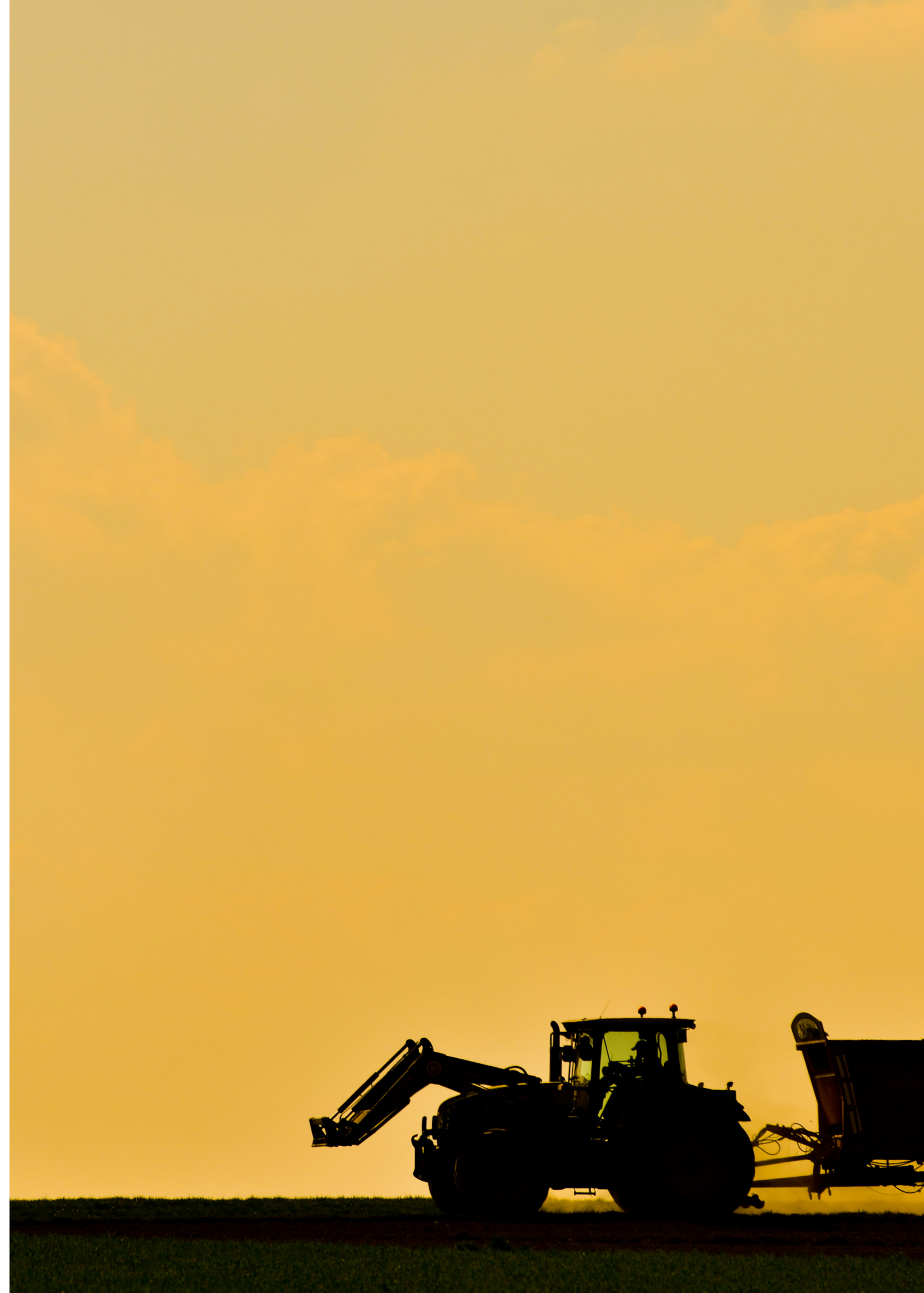
The international project **Circular Nutrients for a Sustainable Baltic Sea Region (CINURGI)**, funded by Interreg Baltic Sea Region, continues to support the implementation of the BSAP and HELCOM's Baltic Sea Regional Nutrient Recycling Strategy. With partners from eight Baltic Sea coastal countries, including HELCOM, the project aims to strengthen both national and regional efforts to increase nutrient recycling and reduce nutrient losses to the Baltic Sea.

### Related resources



HELCOM Recommendation 42-43/5  
on Mitigation of Ammonia Emissions  
from Agriculture

*Efforts continued to compile regional best practices for improving soil structure on clay soils to reduce phosphorus losses*



## 6. Nutrients



Eutrophication remains the major environmental threat to the Baltic Sea.

It results in intense algal growth and depletion of oxygen on the bottom of the sea, further leading to vast areas with anoxic or hypoxic conditions and affecting the entire ecosystem. The riverine input of nutrients is the main source of both nitrogen and phosphorus, with diffuse sources such as losses from agricultural land to rivers making up a large share, while point sources such as wastewater treatment plants or industries contribute only a few percent of the total input. Airborne transport also plays a significant role for the input of nitrogen, adding up to more than a quarter of the total load.

The HELCOM nutrient input reduction scheme is a regional approach to sharing the burden of nutrient reductions. The aim is to achieve the goal of a Baltic Sea unaffected by eutrophication, as agreed by the Contracting Parties of HELCOM. The scheme was first introduced and agreed on in 2007 as part of the HELCOM Baltic Sea Action Plan and revised in 2013 and 2021.

The regional input targets for reaching good environmental status of the Baltic Sea are the maximum allowable inputs of nutrients (MAI) – indicating the maximum level of inputs of water- and airborne nitrogen and phosphorus to the Baltic Sea sub-basins. Within this scheme, the maximum input to the Baltic Sea that can be allowed is 792,209 tonnes of nitrogen and 21,716 tonnes of phosphorus annually.

In the nutrient input reduction scheme of the 2021 Baltic Sea Action Plan, Nutrient Input Ceilings (NIC) define maximum inputs via water and air to achieve good status for each country with respect to eutrophication for the Baltic Sea sub-basins.

In the 2021 BSAP there are 36 measures targeted at curbing eutrophication. They range from keeping track of the implementation of the nutrient input targets to measures concerning agriculture, the wastewater sector, atmospheric nitrogen emissions and nutrient recycling. The HELCOM WG Source to sea together with HELCOM Expert Group RedCore and the [PLC-8](#) and [CiNURGi](#) projects support and coordinate implementation of those BSAP actions that are under their remit.

### Projects

[CiNURGi](#) (2023-25), co-funded by Interreg BSR, supported the implementation of the Regional Nutrient Recycling Strategy and the related BSAP actions.

Most of the remaining **PLC-8** project activities were completed.

**The Ninth Baltic Sea Pollution Load Compilation** (PLC-9) for 2025-2028 was approved by HOD.

### Related resources



HELCOM Recommendation 42-43/5 on Mitigation of Ammonia Emissions from Agriculture



Experiences on economic incentives in the Baltic Sea region to enhance nutrient recycling and reduce nutrient losses

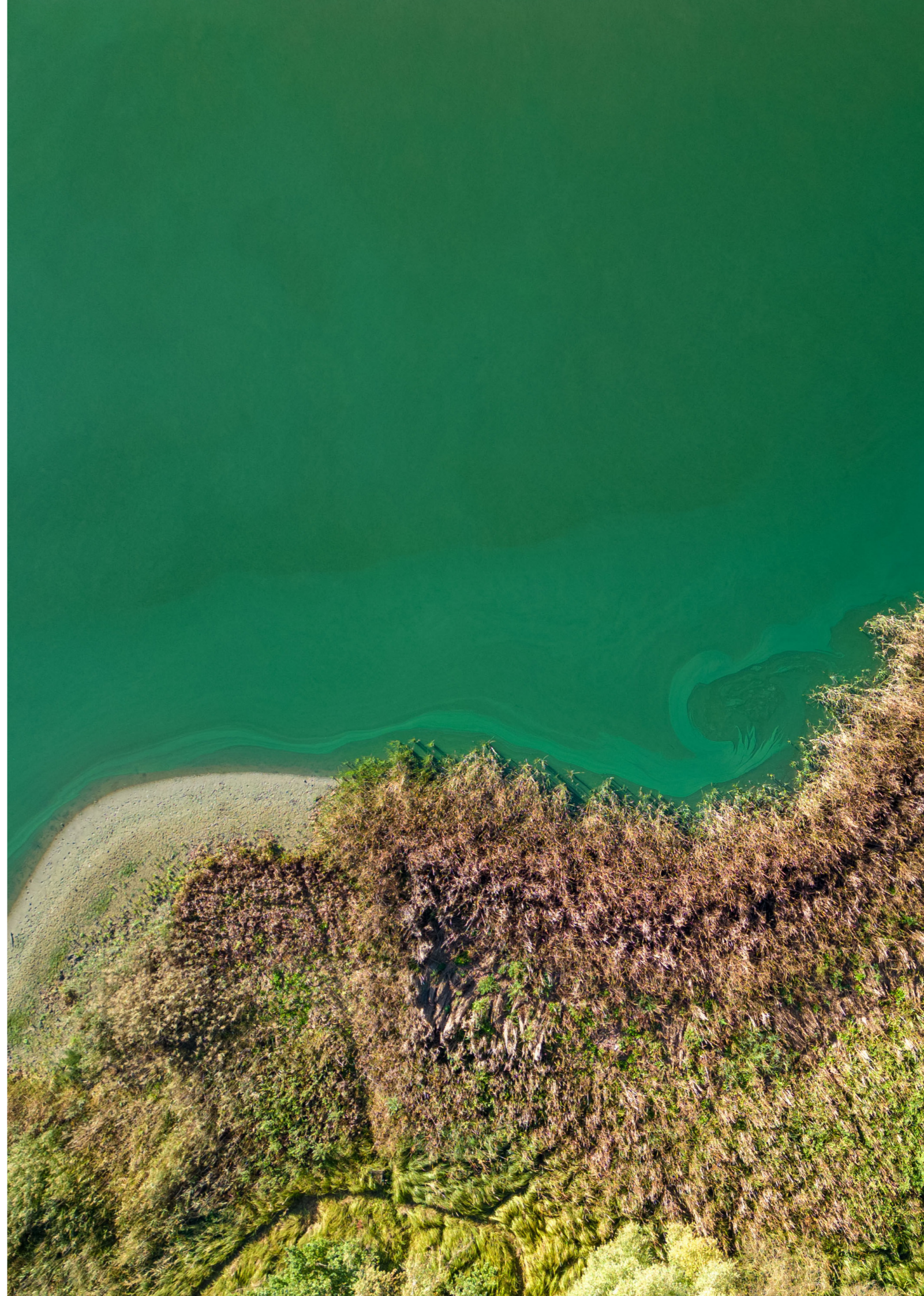


Guidelines on fertilisation planning and nutrient accounting



Contributions of emissions from different countries and sectors to atmospheric nitrogen input to the Baltic Sea and its sub-basins (PLC-8)

*In the 2021 BSAP there are 36 measures targeted at curbing eutrophication*



## 7. Hazardous substances



The Baltic Sea remains heavily affected by hazardous substances, but data scarcity prevents a comprehensive understanding of contamination levels. These substances originate from human activities on land and at sea. Thousands of chemicals and synthetic materials that are used in households enter the aquatic environment through sewage treatment systems. Urban storm water and agricultural run-off further contribute to diffuse loading. Industries utilize chemical compounds in technological processes or as raw materials, with emissions through air or water posing additional environmental risks. Offshore sources of hazardous substances include antifouling paint leaching, polluted water from ships, aquaculture, offshore installations, and oil spills.

In 2024, the HELCOM Expert Group on Hazardous Substances (EG HAZ) continued its work, with six sub-teams focusing on key areas such as strategic/holistic approach, monitoring, pharmaceuticals and biological effects.

The [HAPhazard project](#) (2022-2024) advanced regional management of hazardous substances, finalizing a new strategic framework and drafting a HELCOM Recommendation on priority substances. Drafting of a regional action plan was also launched.

The cluster on developing biological monitoring of contaminants finalized an integrated Biological Effects of Contaminants (iBEC) tool.

A joint HELCOM-ICES/OSPAR Correspondence Study Group (SGEFF) drafted guidelines on biological effects monitoring.

The [EMPEREST project](#) (2023-25) drafted methodological recommendations for monitoring and assessment of PFAS in the aquatic environment.

Cooperation continued with OSPAR, AMAP and ICES on developing an assessment tool.

The [HAZ-SHAP](#) (2023-24) project, in collaboration with the [HAPhazard project](#), established a general framework to manage hazardous substances in the marine environment. [PharmaSea](#) (2023-24) drafted a regional report on pharmaceuticals and proposed priority pharmaceuticals, supporting the BSAP actions HL22 and HL23.

[PLC-8 project](#) finalized a regional assessment on inputs of selected substances.

Data from multiple projects (HAPhazard biological effects, EMPEREST, PharmaSea, PLC-8) were used in the HAPhazard strategic framework test run.

These efforts support implementing the [2021 BSAP](#), which includes over 30 measures on hazardous substances.

A summary of the countries' reporting to the BSAP action HL3 on planned and implemented measures was published.

### Projects

Holistic Action Plan – Hazardous substances ([HAPhazard](#)) supports the implementation of the 2021 BSAP actions HL1, HL9 – HL11 and, within one work strand (HELCOM Biological Effects of Contaminants, H-BEC), also action HL13.

Application of biological effects methods in monitoring and assessment of contaminants in the Baltic Sea ([BEACON](#)) also supports HL13 implementation.

Eliminating Micro-Pollutants from Effluents for Reuse Strategies ([EMPEREST](#)) supports local authorities, service providers and the policy-making community in addressing PFAS substances and other persistent organic pollutants in the water management cycle.

Hazardous Substances Strategic Holistic Action Plan – improving management to reduce risk and impact ([HAZ-SHAP](#)).

Pharmaceutical Substances in the Baltic Sea ([PharmaSea](#)) project supported implementing the BSAP actions related to pharmaceuticals (HL22 and HL23).

### Related resources



Baltic Sea Environment Fact Sheets (BSEFS) on the airborne input of selected hazardous substances



Inputs of hazardous substances to the Baltic Sea (PLC-8)



Measures to reduce the release of hazardous substances to the environment in the Baltic Sea region (BSAP HL3)



Hazardous Substances Strategic Holistic Action Plan (HAZ-SHAP) – improving management to reduce risk and impact



## 8. Marine litter



Marine litter, including microplastics, is widely recognised as a serious environmental concern. It poses a significant threat to marine life through ingestion, entanglement and as a vector of harmful chemicals and non-indigenous species. Additionally, marine litter may impact human health, create safety hazards (such as risks to navigation and microplastic consumption in fish and seafood) and result in considerable economic costs associated related to its removal and management.

At the global level, despite serious efforts, the international legally binding agreement to end plastic pollution is yet to be finalised. However, negotiations continue, and once an agreement is in place, Regional Seas Conventions, although not specifically mentioned in the latest draft, will be expected to be key contributors in the implementation.

Demonstrating the success of cooperation on marine litter among the Regional Seas Conventions, a riverine litter session was held in May 2024 in Valencia, Spain, as part of the MARLICE 2024 forum. The session shared experiences on riverine litter monitoring, aiming at the inter-regional harmonisation of monitoring activities. A high-level session titled "Connecting Seas: Regional Assessments on Marine Litter and the Global Framework" focused on the potential role of regional seas in implementing the legally binding instrument on plastic pollution under development.

Monitoring activities in 2024 focussed on pilot testing for riverine litter monitoring, as well as monitoring pellets on beaches and microlitter in mussels. The results of these activities will contribute to the development of new marine litter indicators within the HELCOM framework. In this regard, new Guidelines for monitoring microlitter in bivalves were developed.

There was also progress in implementing the [HELCOM Regional Action Plan on Marine Litter](#) in 2024, with a focus on actions related to plastic pellets spills from ships, national activities on the management and recycling of end-of-life boats, and abandoned, lost and otherwise discarded fishing gear (ALDFG). The results on ALDFG related actions are expected to be available in early 2025.

Additionally, the action addressing plastic shot wads was completed, resulting in a policy brief.

Finally, the [Terms of Reference for the Expert Group on Marine Litter 2025-2027](#) were adopted, outlining HELCOM's planned efforts to address marine litter in the coming years.

### Related resources



Guidelines for monitoring microlitter in biota of the Baltic Sea: bivalves



Policy brief on shot wads made of plastic – Opportunities for substituting non-degradable shot wads

*Demonstrating the success of cooperation on marine litter among the Regional Seas Conventions, a riverine litter session was held in May 2024 in Valencia, Spain, as part of the MARLICE 2024 forum*



## 9. Seabed



The dredging and deposition of dredged material at sea pose significant threats to seabed integrity. In addition to increasing levels of physical disturbance, these activities also introduce hazardous substances into the marine environment – either from the deposited material as such or through the related resuspension of substances.

There is a general prohibition of dumping in the Baltic Sea according to the Helsinki Convention, with the exception of dredged material. However, dumping of dredged material containing harmful substances is only allowed in accordance with the HELCOM Guidelines for the Management of Dredged Material at Sea.

Recommendation 36/2 and the Guidelines for Management of Dredged Material at Sea, which were published in February 2024, contain a requirement for consolidated reporting to the London Convention/London Protocol on the deposition of dredged material at sea and identify the reporting procedure. The Contracting Parties are required to annually regulate and report on the material deposited in the Baltic Sea Area.

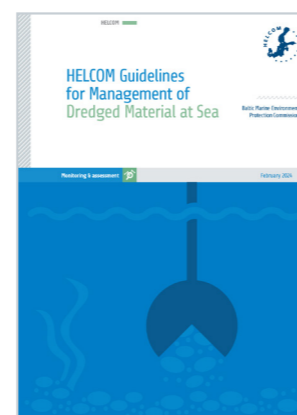
On the basis of the reported and verified data, WG Sea-based pressures approved the assessment report for Depositing of Dredged Material in the Baltic Sea for the period 2013–2022 for publication as a Baltic Sea Environmental Fact Sheet (BSEFS). Furthermore, the Secretariat submitted the consolidated report on depositing dredged material at sea to the LC/LP Secretariat at the IMO, as recommended by WG Sea-based pressures.

In 2024, work also continued with the implementation of BSAP actions related to seabed disturbance, across a number of HELCOM working groups and expert groups.

### Related resources



Baltic Sea Environmental Fact Sheet (BSEFS) on depositing of dredged material 2022



Guidelines for Management of Dredged Material at Sea

*WG Sea-based pressures approved the assessment report for Depositing of Dredged Material in the Baltic Sea for the period 2013–2022 for publication as a Baltic Sea Environmental Fact Sheet (BSEFS)*



## 10. Underwater noise and energy



Sound plays a crucial role in the functioning of the aquatic ecosystems. However, human-generated impulsive and continuous underwater noise can significantly impact noise-sensitive aquatic species and may lead to population decline. High-intensity sources of impulsive noise include explosions, pile driving, seismic explorations and low-frequency sonars. Meanwhile, continuous anthropogenic noise originates from sources such as pipelines, oil platforms, dredging, shipping, and offshore windfarms.

As part of HOLAS 4 preparatory activities, the [Terms of Reference of the Expert Group on Underwater Noise 2025-2027](#) were approved, outlining a roadmap for improving underwater noise assessment in HOLAS 3 and facilitating the implementation of the HELCOM Regional Action Plan on Underwater Noise. Within this framework, discussions began on enhancing the assessment of underwater noise impacts on noise-sensitive species. Due to the complexity of this issue, these discussions are expected to continue in the coming years.

Additionally, the drafting of guidelines for the design and use of acoustic deterrent devices (ADDs)—aimed at minimizing environmental harm from underwater noise under Action S61 of the Baltic Sea Action Plan—was initiated and is now well advanced.

Regarding the implementation of the HELCOM Regional Action Plan on Underwater Noise, the drafting of implementation plans for each action was completed, and these plans are now publicly available. Progress on the implementation of actions was also monitored in 2023. Notably, significant advancements were made in identifying Best Available Technologies (BAT) to mitigate impulsive noise (Action 6) and continuous noise (Action 19).

### Related resources

Implementation plans for regional actions



Implementation plans for regional actions of the Regional Action Plan on Underwater Noise

*The Terms of Reference of the Expert Group on Underwater Noise 2025–2027 were approved, outlining a roadmap for improving underwater noise assessment in HOLAS 3 and facilitating the implementation of the HELCOM Regional Action Plan on Underwater Noise*



# 11. Shipping



The HELCOM Contracting Parties cooperate to fulfil commitments established under global sectorial bodies dealing with maritime affairs. In doing so, they actively contribute to advancements on maritime transport issues, particularly crucial for the Baltic Sea in terms of its extensively used shipping lanes.

In alignment with the provisions of Annex IV of the Helsinki Convention, the Contracting Parties cooperate within the International Maritime Organization (IMO). This cooperation focuses on promoting the development of international regulations, and regionally to foster the harmonized implementation of said regulations.

In 2024, WG Maritime approved the revised HELCOM Recommendation 20/4 on antifouling paints containing organotin compounds with a view to its adoption by IC HELCOM 3-2025. The Group also approved Biofouling management guidance for recreational craft, a guidance document on BAT/BEP to minimize nutrient losses from dry bulk fertilizer storage and handling in ports in the Baltic Sea region and considered a draft HELCOM Recommendation on the same topic, to be submitted for adoption by HELCOM in 2025.

Other activities in 2024 included inter alia further implementation of several maritime related actions in the BSAP, the approval of the reports “Emissions from Baltic Sea shipping,” “Discharges from Baltic Sea shipping” and “Underwater noise emissions from Baltic Sea shipping” for publication as Baltic Sea Environment Fact Sheets (BSEFS).

## Projects

The **EMERGE** project (2020-2024) on shipping emissions in EU marine waters was successfully concluded in 2024. Coordinated by the Finnish Meteorological Institute, the project quantified and evaluated the effects of potential emission reduction solutions for shipping in Europe. Furthermore, it developed effective strategies and measures to reduce the environmental impacts of shipping.

## Related resources



Minimizing nutrient losses from dry bulk fertilizer storage and handling in ports in the Baltic Sea Region



Biofouling management guidance for recreational craft



BSEFS Underwater noise emissions from Baltic Sea shipping in 2022



BSEFS Discharges to the sea from Baltic Sea shipping in 2022



BSEFS Emissions from Baltic Sea shipping in 2022



Baltic Sea Port Reception Facilities 2006-2023



HELCOM data analysis dashboard on shipping accidents in the Baltic Sea region 2004-2023



## 12. Response to spills



HELCOM has an extensive history of cooperation and coordination regarding pollution events associated with oil and hazardous or noxious substances, as per Annex VII of the Helsinki Convention. The cooperation framework is further outlined in the HELCOM Response Manual and a number of HELCOM Recommendations. Among other things, it involves mutual assistance in response operations, where vessels and equipment are deployed by other Contracting Parties, notification of suspected incidents, information sharing, aerial surveillance and regular exercises (including the annual BALEX exercise, which is one of the world's largest response exercises). The Response Manual is continuously updated by all Contracting Parties through the HELCOM Response Working Group to ensure the best possible joint response capacities in the Baltic Sea.

The HELCOM Response Working Group continued the planning of a long-term risk analysis for pollution of the Baltic Sea by oil and hazardous and noxious substances (HNS), in line with BSAP Action S31.

In 2024 WG Response inter alia also considered the future development of the HELCOM drift model SeaTrack Web and approved the HELCOM Annual report on discharges observed during aerial surveillance in the Baltic Sea 2023. WG Response also recommended to establish a new HELCOM Expert Group on Places of Refuge (EG PoR), which was subsequently approved by Heads of Delegation.

The annual HELCOM BALEX exercise for ensuring good cooperation in case of a pollution incident was successfully organized by Lithuania from 26 to 29 August 2024 in Klaipėda. The exercise included a BALEX ALPHA table-top exercise on harmful and noxious substances (HNS), a BALEX BRAVO alarm exercise as well as the operational BALEX DELTA exercise on oil recovery at sea, in port and on the shore.

### Related resources



HELCOM Annual Report on discharges observed during aerial surveillance in the Baltic Sea 2023

*The HELCOM Response Working Group continued planning a long-term risk analysis for pollution of the Baltic Sea by oil and hazardous and noxious substances (HNS)*





## 13. Submerged hazards



Numerous hazardous objects and remnants of warfare material rest on the seabed of the Baltic Sea. These objects pose a potential or current threat to not only to the marine environment, but also to human health and safety. While the location of certain types of objects, such as mines, chemical munitions and wrecks are reasonably well-documented, significant uncertainties persist regarding the quantities and types of submerged hazardous objects in the Baltic Sea, their degree of corrosion and their effects on the environment.

Work on the HELCOM Submerged Assessment on Wrecks in the Baltic Sea continued in 2024, as well as work related to actions needed to address the issue and mitigate the risk associated with submerged warfare materials in the Baltic Sea.

### Projects

In 2024, three multinational EU funded projects addressing submerged munitions initiated their work, with HELCOM as a project partner in each of them:

- **MUNIMAP** - Baltic Sea Munitions Remediation Roadmap, 2024-2027
- **MMinE-SwEEPER** - Marine Munition in Europe - Solutions with Economic and Ecological Profits for Efficient Remediation, 2024-2028
- **MUNI-RISK** - Risk assessment of sea-dumped munitions in the Baltic Sea, 2024-2027

Together, the projects are expected to significantly increase the knowledge about risks and options to mitigate munitions in the sea, and develop policy advice including BAT/BEP in accordance with BSAP action S34.

### Related resources



Thematic assessment on  
Hazardous Submerged Objects in the Baltic  
Sea Warfare Materials in the Baltic Sea

*In 2024, three multinational EU funded projects addressing submerged munitions initiated their work*



## 14. Fisheries



Fisheries contribute to the Baltic Sea blue economy and fishing is central to the cultural heritage of the Baltic Sea region. Fisheries rely on the provisioning ecosystem service of the Baltic Sea ecosystem, and humans share this resource with other top predators. Populations of some commercially targeted fish species have declined to very low levels in recent years.

In 2024, HELCOM brought new focus to engaging and cooperating with other competent authorities and stakeholders working on fisheries issues. There was continued engagement with the Baltic Sea regional fisheries body BALTFISH on protection of Baltic Sea harbour porpoise. With the Baltic Sea Advisory Council (BSAC) HELCOM engaged in a discussion on seal and fisheries interactions. Focused cooperation with the International Council for the Exploration of the Sea (ICES) on sharing best available information and knowledge was carried out.

Protection of migratory fish species requires a regional approach where the entire life cycle of the species is considered. HELCOM continues coordination of protection efforts on eel, and during 2024 work to develop updated Recommendations for salmon was undertaken.

HELCOM continued work to collate a toolbox of by-catch mitigation measures with proven effect in the Baltic Sea.

*HELCOM continues coordination of protection efforts on eel, and during 2024 work to develop updated Recommendations for salmon was undertaken*



# 15. Maritime Spatial Planning

 Maritime spatial planning (MSP) serves as the marine counterpart to terrestrial spatial planning, aiming to support the rational development of marine areas while safeguarding environmental and cultural values. Where terrestrial spatial planning has long been an integral part of national law in many European countries, MSP-related regulations introduced in 2014 provide a similar legislative framework. MSP also offers an opportunity to move beyond purely sectorial policy measures towards an integrated spatial approach within the Baltic marine areas.

The Baltic Sea region is a global front-runner in MSP, particularly in transboundary planning. All HELCOM countries have either already developed national maritime spatial plans or are actively engaged in the process of doing so.

The joint HELCOM-VASAB Maritime Spatial Planning Working Group leads the implementation of the Regional MSP Roadmap for 2021-2030, which focuses on:

- Strengthening collective efforts and regional coherence in implement Maritime Spatial Plans;
- Promoting a sustainable blue economy and climate-wise MSP in the Baltic Sea region;
- Establishing a strong foundation for an adaptive Maritime Spatial Planning process that applies the ecosystem-based approach.

In line with the MSP Roadmap and the HELCOM-VASAB MSP WG workplan 2022-24, several key activities continued. Support for the BASE-MAPS service continued, Planner's Forums were organized, and collaboration with other HELCOM groups such as BioDiv WG, EG ESA and EN Clime was launched. Additionally, country fiche templates were updated, and revision process for the ecosystem-based approach Guidelines continued. Furthermore, the Interim Assessment process for the implementation of the Regional MSP Roadmap was planned and initiated.

## Projects

HELCOM is involved in several international projects related to MSP.

The **BalticSea2Land** project aims to foster integrated governance for the joint sustainable use of human and natural capital in the near

shore zone. As part of this project, a tailored platform 'Sea2Land Navigator' is being developed to provide guidance and decision-making support for public authorities on land-sea planning interactions.

The emerging ecosystem-based Maritime Spatial Planning topics in the North and Baltic Sea Region (**eMSP NBSR**) project (2021-2024) was finalized. HELCOM, together with the Swedish Agency for Marine and Water Management (SwAM), co-led the work on the Ecosystem-based Approach (EBA).

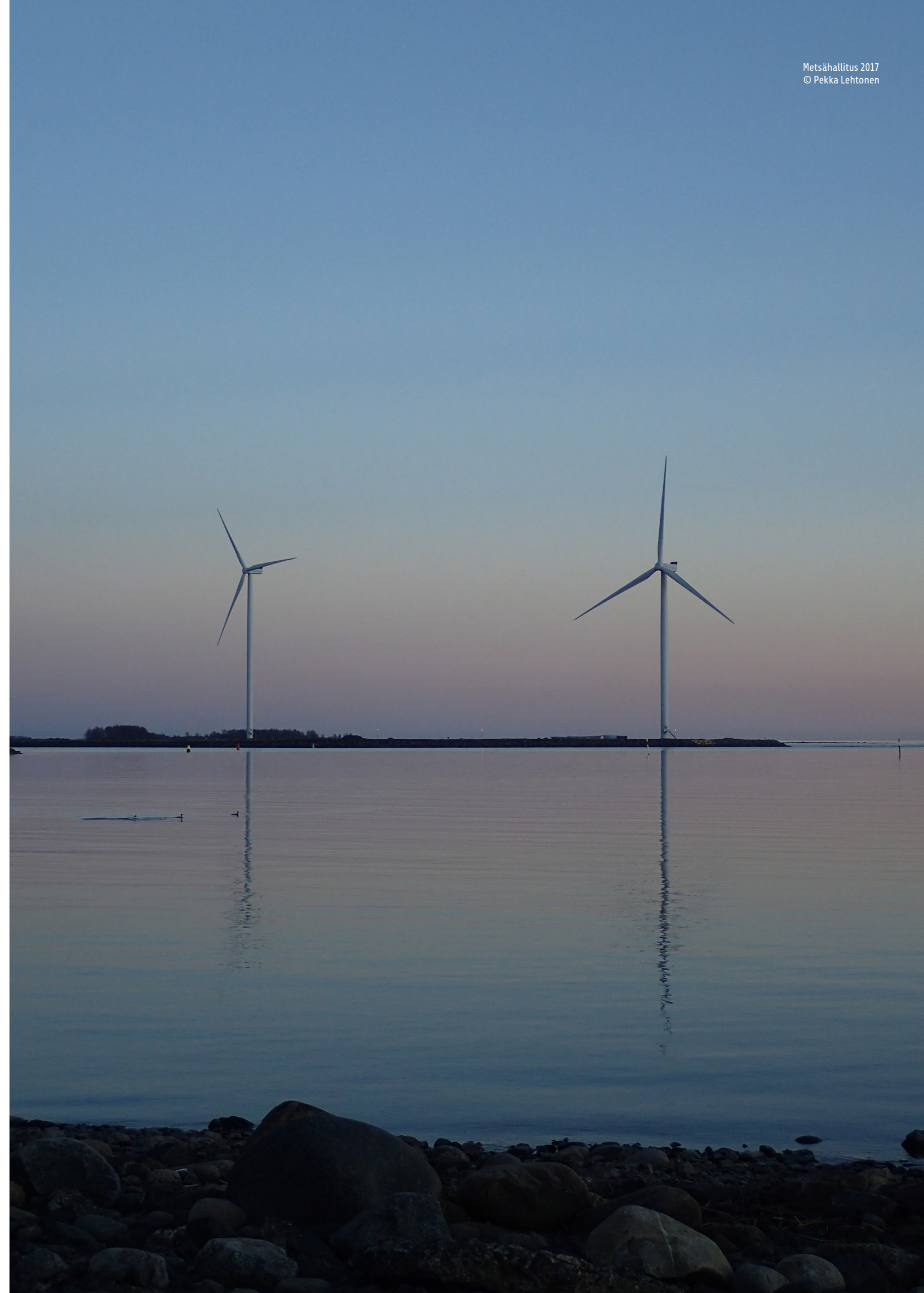
The **PASPS** project supports the coordination of Policy Area (PA) Spatial Planning of the EU Strategy for the Baltic Sea Region. The HELCOM-VASAB MSP Working Group serves as a steering group of the PA in MSP-related matters. PA Spatial Planning drafted new actions as part of the EUBSR Action Plan update process initiated in 2024.

The **MSP4BIO** project aims to improve science-based maritime spatial planning to safeguard and restore biodiversity in a coherent European MPA network. The Baltic Sea is one of the six European test sites in this project, with the HELCOM Secretariat leading the work package on policy coherence and co-production of solutions. In 2024, policy solutions were developed to enhance alignment between EU policies, with validation through active engagement with policy actors and MSP authorities.

The **ReMAP** project (Reviewing and evaluating the monitoring and assessment of maritime spatial planning) is developing approaches for reviewing maritime spatial plans, focusing on developing data tools, models and the reuse of operational data infrastructure by 2025.

Both MSP4BIO and ReMAP projects organized events as part of the European MSP Week, held on 21-24 October 2024 in Marseille, France.

*The Baltic Sea region is a global front-runner in MSP, particularly in transboundary planning*



## 16. Climate change



Climate change impacts are evident in the Baltic Sea: the water temperature is rising, ice cover is decreasing, and annual mean precipitation is increasing over the northern part of the region. All these changes affect the sea, its ecosystems, their function and subsequent ecosystem services, as well as the human activities that depend on the sea.

HELCOM's work on climate change aims to increase the resilience of the Baltic Sea ecosystem – its capacity to recover from stress and disturbance resulting from climate change impacts.

In 2024, HELCOM, together with Baltic Earth, updated the assessment in the HELCOM Baltic Sea Climate Change Fact Sheet of key climate change parameters. This Fact Sheet provides the latest scientific knowledge on how climate change is affecting the Baltic Sea in a concise format. It is the second of a series of successive Baltic Sea Climate Change Fact Sheets aiming to track advances in the understanding of how climate change impacts the state of marine systems, drawing on the best available science for the region.

### Related resources



Baltic Sea Climate Change Fact Sheet  
(2024 Update)

*HELCOM Baltic Sea Climate Change Fact Sheet provides the latest scientific knowledge on how climate change is affecting the Baltic Sea in a concise format*



## 17. Economy & society



The Baltic Sea countries benefit considerably from their utilization of the Baltic Sea, both economically and socially. Benefits derived include jobs, income, natural resources, and various other contributions to economic growth and personal well-being. However, in doing so we often cause negative impacts on the environment, ultimately reducing its ability to produce many of those same benefits. A key challenge for society is to find the appropriate balance between exploitation and environmental protection. There is no single correct solution to this dilemma. Economic and social analyses can help make informed choices, for instance through the identification of cost-effective environmental measures and the estimation of economic value gained from the marine environment.

In 2024, HELCOM initiated a new strand of work to address BSAP 2021 actions HT21 and HT22 on incentives and subsidies. This impactful area of work will at the beginning explore regional subsidies and incentives related to construction, maintenance or removal of barriers to fish migration. Collecting this new type of information on a regional scale can inform future recommendations for coordinated measures.

HELCOM continues to develop and improve assessment methods on ecosystem service evaluation as well as on cost of degradation, recreational use and benefits.

### Projects

**PROTECT BALTIC** is a groundbreaking initiative under Horizon Europe and HELCOM which aims to address the challenges of expanding marine protected areas (MPAs) and ensuring their effectiveness in the Baltic Sea region.

One of the project deliverables will contribute to describing the contribution by Baltic Sea ecosystem services and use valuation methods to inform management decisions on protection.

For the **AqualNFRA** project, HELCOM acts as the task leader for the Baltic Sea region use case, which will involve identifying the presence, content, and formats of data produced under HELCOM and EU policies and instruments. This data is required for evaluating the cost, benefit, and effectiveness of management measures for two specific cases: river basins in southern Finland and the Daugava River-Gulf Riga in Latvia.

*Economic and social analyses can help make informed choices, for instance through the identification of cost-effective environmental measures and the estimation of economic value gained from the marine environment*



# 18. Monitoring & assessment



To assess progress towards objectives and targets set, we need to understand the actual effects that measures have on the marine environment. This in turn requires access to extensive temporal and spatial monitoring data, collected in a comparative fashion for the entire region.

Monitoring in the Baltic Sea region is supported by commonly agreed monitoring programmes, based on HELCOM Monitoring and Assessment Guidelines. The guidelines provide technical descriptions for common data collection which, in turn, constitutes the foundation for regional and harmonized assessments.

In 2024, HELCOM commenced planning for the next update of the holistic assessment to be published in 2029. A detailed programme for the method development to be carried out to further strengthen and improve the quality of indicator assessments and integrated assessments was completed.

In 2024, HELCOM worked on the implementation of several actions related to monitoring as part of the 2021 BSAP.

All Working Groups have carried out coordination activities, ensuring that each monitoring programme is implemented across the region.

Active planning and preparation for the upcoming review of the HELCOM monitoring programmes took place and work to update the overarching HELCOM Monitoring and Assessment Strategy.

## Projects

**HOLAS to all** project aims to bridge scientific findings of the HOLAS 3 assessment to diverse audiences by creating tailored, engaging communication outputs to enhance ocean literacy and awareness of the Baltic Sea's health.

## Related resources

### HELCOM Monitoring and Assessment Strategy



HELCOM Monitoring and Assessment Strategy - 2013 HELCOM Ministerial Declaration



HELCOM Monitoring Manual



HELCOM Map and Data Service (MADS)



## 19. Beyond the Baltic Sea



The Baltic Sea and its environment are part of a larger interconnected entity. HELCOM collaborates with and contributes to a wide range of global and international organizations, frameworks and processes. Among these are various relevant United Nations (UN) conventions and agreements, the International Maritime Organization (IMO), the UN Economic Commission for Europe (UNECE), other Regional Sea Conventions (RSCs), the European Union, the European Monitoring and Evaluation Programme (EMEP) and the International Union for Conservation of Nature (IUCN).

HELCOM's work is closely aligned with key global frameworks such as the UN's 2030 Agenda for Sustainable Development Goals or the Post-2020 Global Biodiversity Framework established by the UN Convention of Biological Diversity (CBD).

In addition to the examples of HELCOM's global and international engagement throughout 2024 outlined in the thematic chapters above, several other activities are worthy of mention.

At the Ocean Decade Conference in Barcelona, Spain, in April, HELCOM co-organized the satellite event "Science – the key to unlocking change" in collaboration with OSPAR, the Barcelona Convention and the Black Sea Commission.

Further strengthening its international engagement, HELCOM participated in several key events, including the Sustainable Ocean Initiative (SOI) Global Dialogue event in Brussels in March and the Our Ocean Conference in Athens in April. HELCOM was also represented at the MARLICE International Forum on Marine Litter, which took place in Valencia, Spain, in May.

In the second half of 2024, HELCOM remained actively engaged in key international events. In October, we participated in the Meeting of the Heads of the Secretariats of the European Regional Seas Conventions and the European Water Commissions, Bordeaux, France; the 10th session of the Meeting of the Parties to the Water Convention (MOP) in Ljubljana, Slovenia; the G7 workshop on the role of Regional Seas Conventions and Programmes (RSCAPs), organized in Piraeus, Greece, in the framework of the Italian G7 Presidency; and the European Maritime Spatial Planning week in Marseille, France.

These and other activities underscore HELCOM's long-standing role as a regional organization deeply integrated with international processes and the global multilateral policy agenda.

*HELCOM's work is closely aligned with key global frameworks such as the UN's 2030 Agenda for Sustainable Development Goals or the Post-2020 Global Biodiversity Framework established by the UN Convention of Biological Diversity (CBD)*





Contracting Parties and Heads of Delegation (2024)

**Denmark**  
Ms. Marie-Louise Krawack  
Ministry of Environment and Gender Equality

**Estonia**  
Mr. Jaak Viilipus and Mr. Teemo Toomsalu  
Ministry of Climate

**European Union**  
Mr. Michel Sponar  
DG Environment  
European Commission

**Finland**  
Ms. Sara Viljanen  
Ministry of the Environment

**Germany**  
Ms. Meike Gierk  
Federal Ministry for the Environment, Nature Conservation,  
Nuclear Safety and Consumer Protection

**Latvia**  
Ms. Baiba Zasa  
Ministry of Climate and Energy

**Lithuania**  
Ms. Vida Kučinskienė  
Ministry of Environment

**Poland**  
Ms. Natalia Zając  
Ministry of Infrastructure

**Russia**  
Ms. Natalia Tretiakova  
Ministry of Natural Resources and Environment

**Sweden**  
Mr. Jacob Hagberg  
Ministry of Climate and Enterprise



Baltic Marine Environment  
Protection Commission