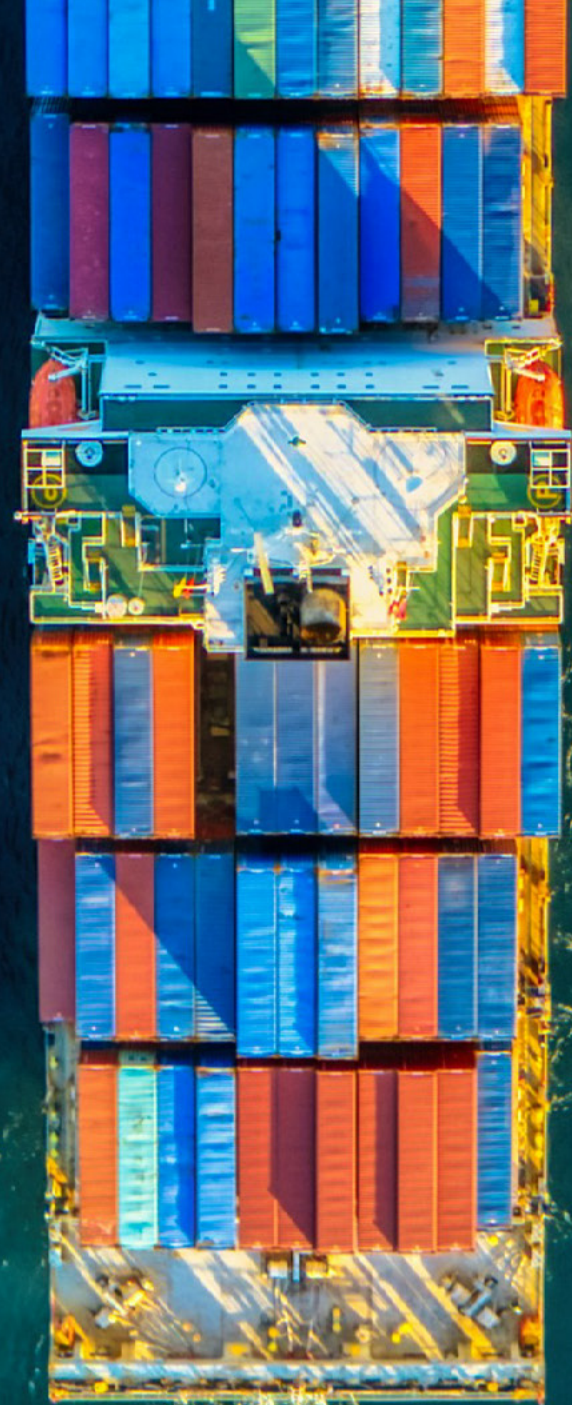


EUROPEAN
BLUE FORUM

EUROPEAN BLUE FORUM STAKEHOLDER POSITION PAPER 2

What does a fossil fuel free sustainable blue economy look like? How can we as a community support this transition?

FEBRUARY 2024



CONTENTS

<u>WHAT IS THE EUROPEAN BLUE FORUM?</u>	03
How it started	04
<u>BACKGROUND</u>	05
What does a fossil fuel free sustainable blue economy look like?	05
What are the existing solutions?	07
Is it enough?	08
<u>POSITION OF THE EUROPEAN BLUE FORUM MEMBERS</u>	11
<u>WHAT'S NEXT FOR THE EUROPEAN BLUE FORUM?</u>	14
<u>REFERENCES</u>	15

A photograph of a person walking on a white, terraced cliffside overlooking the sea. The cliffside is composed of many horizontal layers of white rock, creating a staircase-like effect. The person is wearing a light-colored shirt and dark shorts, and is carrying a bag. The sea is visible in the background, and the sky is clear and blue.

WHAT IS THE EUROPEAN BLUE FORUM?

The European Blue Forum is intended to be a **pan-European Stakeholder group**, able to come together to discuss **shared challenges and priorities** over the medium term with the aim of **finding consensus, synergies and solutions** towards a common vision. However more than this, it should be a **'safe' moderated space** for all users of the sea, to identify innovative solutions to deliver bold and ambitious change, **bringing real benefits to people and communities** throughout Europe.

The European Blue Forum is intended to be fully representative of the European Sustainable Blue Economy. It will give **opportunities to often under-represented stakeholder groups**, as well as **new and emerging sectors**, to express the challenges they face and explore possible solutions and synergies **alongside more established sectors**.



HOW IT STARTED?

In **May 2021**, the European Commission published a Communication [“on a new approach for a sustainable blue economy in the EU - Transforming the EU’s Blue Economy for a Sustainable Future”](#), in which it supports maritime and coastal activities while acknowledging the related pressures on the marine environment, and the need to decarbonise the blue economy. In this communication the Commission committed to create a Blue Forum to **“coordinate a dialogue between offshore operators, stakeholders and scientists engaged in fisheries, aquaculture, shipping, tourism, renewable energy and other activities” – all users of the sea - with the aim to “develop synergies between their activities and reconcile competing uses of the sea”**.

Two years on, **May 2023** marked the beginning of the European Blue Forum which was successfully launched back-to-back with European Maritime Days in Brest, France, and embodied the birth of its work in shaping the future of the European Blue Economy. More than 150 people attended the launch event in Océanopolis and a further 250 joined the meeting online. Two dynamic panel sessions gathered stakeholders from different backgrounds and sometimes, different views to catalyse discussions around two broad questions: What do we need from European Seas by 2030, and are we asking too much? and what does a fossil fuel free blue economy look like, and how can we as a community support the transition?

After an intense launch event, we found ourselves with a wide range of topics which emerged from the discussions between our panellists and the inputs from participants.

To develop these discussions further with our European Blue Forum Members, these key topics were used as entry points for the organisation of two deep-dive workshops. These questions, and the discussions they catalysed formed the core of our first year of work. Since April 2023 and throughout this year, maritime stakeholders have been invited to become members of the European Blue Forum and actively contribute to the discussions by participating to our events (launch, workshops) and providing written inputs. The interest generated by this forum, promoting a bottom-up approach and representativeness, was illustrated by the diversity and number stakeholders who registered: all five EU sea basins and all EU countries are represented, and many stakeholders from non-EU countries (e.g., Canada, Chile, Japan, Morocco) or non-EU territories (e.g., Turks and Caicos, Jersey) have also joined the forum.

WHAT DOES A FOSSIL FUEL FREE SUSTAINABLE BLUE ECONOMY LOOK LIKE? HOW CAN WE AS A COMMUNITY SUPPORT THIS TRANSITION?

Among all the challenges that the EU maritime community must meet, one of the most ambitious is the reduction in the use of fossil fuels. Indeed, fossil fuel emissions (from burning coal, oil and gas) represent 75% of global greenhouse gas (GHG) emissions and are thus largely responsible for climate change. Especially in the maritime sectors, where the use of marine gas oil (also known as bunker fuel), associated with higher emissions, is common. Following the 2015 Paris Agreement and the European Green Deal, the EU has committed to reduce its GHG emissions by 55% by 2030 – compared to 1990 emissions – and to become climate-neutral (i.e., to produce zero net GHG emissions) by 2050. GHG emissions are mainly due to energy generation from the combustion of fossil fuels (e.g., as a means of propulsion or energy production), but also in the fabrication of materials (e.g., plastic). Therefore all blue economy sectors are concerned by the use of fossil fuels and should contribute to the reduction of our carbon footprint. **The progressive reduction in the use of fossil fuels coupled with the energy transition, as well as the wider decarbonisation of the blue economy sectors, are imperatives and priorities to meet the objectives set at European and international level.**



WHERE DO WE STAND NOW?



In 2019, emissions from the Plastic Lifecycle were equivalent to the emissions released by 189 Coal Plants (0,86 Gt CO₂)



In 2023, 77 % of the goods traded to and from the EU were traded by sea



In 2021, oil tankers were the second largest fleet under an EU flag in terms of Dead Weight Tonnage (DWT)



In 2022 marine-diesel prices more than doubled compared to the average prices in 2021

In 2023, the EU accounted for 15,074 ships navigating under EU Member States' flags, corresponding to around 230 million gross tonnage (GT). Shipping represents around 13% of EU GHG emissions from the transport sector, in which container ships, bulk carriers and oil tankers are the biggest CO₂ emitters. Based on a "business as usual" scenario from the International Maritime Organisation (IMO) (i.e., no adoption of new regulations that have an impact on energy efficiency or carbon intensity), shipping emissions in 2050 could increase by 90-130% compared to 2008 emissions, due to the growing transport demand from world trade. Between 6 and 7 % of the maritime sector's CO₂ emissions are currently generated at berth in European Economic Area ports, not to mention those linked to port operations. In addition, cruise ships, are steadily increasing in size, number and popularity. Finally, regarding EU fisheries, in 2020, the fleet totalled 74,000 vessels and used around 2 billion litres of marine diesel.

The dependency of maritime sectors on fossil fuels increases their economic vulnerability due to the high cost and price volatility of fuels, especially as experienced since 2022.

For some sectors, energy is one of the major costs and can have significant consequences on their profitability. As highlighted by the 2023 Communication on the Energy Transition of the EU Fisheries and Aquaculture sector, under the 2022 energy price level, 40% of the small-scale fleet, 66% of the large-scale fleet and 87% of the distant-water fleet was not profitable!

At global, national and local scales, policies are progressively being implemented to address these challenges. In 2023, objectives were set by the IMO to reduce carbon intensity of international shipping by at least 40% by 2030. In the EU, the 'Fit for 55' package, and the FuelEU Maritime initiative set a number of proposals, including measures to promote the use of renewable and low-carbon fuels, and reduce the greenhouse gas emissions from maritime transport, facilitated by new port infrastructure. In 2023, the European Commission adopted the above mentioned Communication on the Energy Transition of the EU Fisheries and Aquaculture sector. But what is the role of local, regional, national and European public authorities?

WHAT ARE THE EXISTING SOLUTIONS?





Huge challenges stand ahead of us in moving towards a fossil fuel free blue economy. All the key sectors have either started or are starting to explore pathways for this transition. Progress being made focuses on three main aspects: **energy efficiency** (e.g., eco-designs for newly constructed vessels, engine optimisation for ships, new net and gear designs for fisheries to reduce fuel consumption),

the use of **alternative energies** (e.g., batteries and fuel cells, ammonia, hydrogen, wind assisted propulsion) and **energy savings** (e.g., shipping speed reduction). Whilst the shipping and fishing sectors are at the core of many of these innovations, other sectors are also contributing to the solution. The development of marine renewable energy provides an important opportunity to support the transition of blue economy sectors.

And in the future, ports should also play a key role in providing multi-fuel and electrification facilities, bunkering infrastructure for new fuels, and port-to-port 'green corridors'.

IS IT ENOUGH?

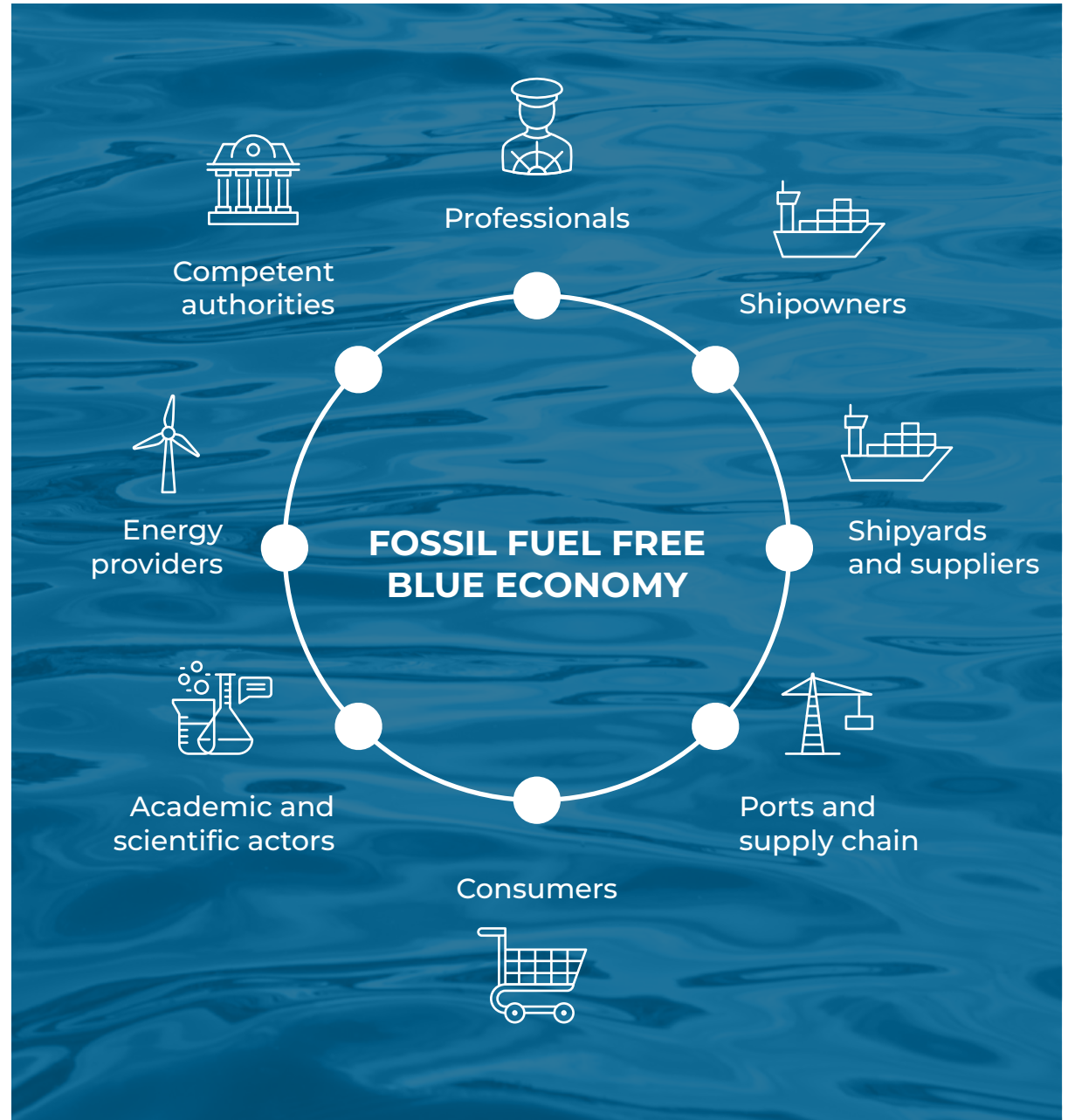
Despite these advancements we are still very far from a fossil fuel free blue economy.

Isn't the challenge as much about using less energy as it is about simply replacing it?

Solutions are still far away, expensive to develop and need further investigation to ensure their environmental sustainability.

Will maritime industries be able to afford the transition? Although more and more stakeholders are committed to improving their practices, financing the transition remains a critical issue. Not all sectors have the same ability to attract investment, therefore it is about making sure all of them can access the necessary support for a fair and equitable transition, so that small and local stakeholders are not left behind.

Few cross-sector solutions have been developed so far, and scaling up innovations remains a major challenge. Therefore, actions need to be taken simultaneously by all stakeholders of the different maritime industries, all along the value chain of each sector, to make the blue economy greener; upstream (e.g., designers) and downstream (e.g., consumers); at sea (e.g., vessels) but also on the coast (e.g., ports) and on land (e.g., onward transport of global products).





A SMALLER BUT MORE SUSTAINABLE BLUE ECONOMY? CAN THE BLUE ECONOMY SUPPORT GREATER NATIONAL AND EUROPEAN AUTONOMY?

Alongside technological innovation, the move towards a fossil fuel free blue economy will require a shift in our consumption models and habits. 80% of goods are transported by ships, coming from the other side of the planet, and a large proportion of our production is exported. Reducing consumption of imported goods and relocating production will therefore most probably play a significant role in decarbonising our economy and its blue components.

In this context, our individual and collective values as a society will need to change. How can we make the transition acceptable for all of us? Local initiatives to increase citizens' ownership of this transition, such as participatory energy projects or cooperative fish markets, might be an effective mechanism to get people onboard. The sharing of experiences and best practices among stakeholders will also be a key driver.

IS THIS POSSIBLE?

Current activities and technologies will need to adapt to reduce their carbon emissions and become fossil fuel free. New carbon neutral activities need to be developed and deployed at a large scale. For now, one large scale solution is still lacking. In this regard, achieving a fossil free sustainable blue economy will rely on a combination of smaller-scale solutions, both from innovation and technical solutions, but also on societal changes.



POSITION OF THE EUROPEAN BLUE FORUM MEMBERS

The members of the European Blue Forum collectively agree on the following key messages:

- › **There is clear political willingness to move towards fossil-fuel free solutions** and support innovation for blue economy sectors. However major barriers remain to implement effective public action towards a fossil-fuel free blue economy.
- › Even though a lot of technological solutions are being identified to support a fossil-fuel free blue economy, **most of them are still at prototype stage**, or are largely inaccessible (economically) to some stakeholders (e.g., small scale fishers) or in some sea-basins (e.g., bathymetry constraints for fixed-bottom offshore wind in the Mediterranean), therefore highlighting the need to ensure equitable access to technologies.
- › **Land-sea connections are essential to the implementation of fossil fuel-free solutions.** They are key for (i) the overall decarbonisation of maritime sectors: some maritime activities are strongly linked to land-based activities (e.g., connections with the hinterland to ship goods transported by sea) and (ii) for developing renewable energy at sea: no matter how mature technologies are, land infrastructure and grid capacity need to be adapted to accommodate and transport new energy production.
- › One **major barrier** hindering the development of technological solutions for fossil-fuel free blue economy is **the complex administrative and regulatory processes.** This lack of clarity affects (i) private stakeholders in the implementation of their solutions and activities (e.g., complex and time consuming licensing procedure) but also (ii) public authorities themselves are not always fully aware of the many existing regulations applying to a given sector.

The majority of stakeholders considered that **given the current state of technology, the existing solutions for decarbonising the blue economy, and despite future innovation and development projections, we are not ready to achieve the targets set for 2030 or 2050!**

CHALLENGES AND EXPECTATIONS EXPRESSED BY THE EUROPEAN BLUE FORUM MEMBERS:

- › **To adopt a systemic approach to the phasing-out of fossil fuels and decarbonisation** of the blue economy. The blue economy includes “main” sectors (e.g., shipping, fisheries, tourism), but also many “sub-sectors” (e.g., shipbuilding and repair) that make up the value chain of each activity. These sub-sectors are all too often overlooked in the discussions. Yet it will not be possible to phase-out of fossil-fuels unless the entire value chain is taken into account.

In this context, it's crucial **to recognise the inherent connection between maritime and land-based environments and activities**. It's important to understand that decarbonising one of these aspects is not feasible without addressing the other.

- › **To improve energy efficiency in order to reduce energy consumption - including not only fossil-fuels but all forms of energy**. While discussions generally focus on the implementation of new technologies (e.g., hydrogen, LNG, marine renewables), many solutions exist to make activities less energy-intensive (e.g., adopting life cycle assessment approaches, enhancing circular-economy, improving grid connections, optimizing activities' value chain, etc). There is a need to promote local trade and consumption

of local products, avoiding long freight of products by sea. Whilst there is a focus on shipping and fisheries, reduction in energy consumption of recreational activities at sea that contribute to CO₂ emissions (e.g., cruises, recreational boating). All approaches are necessary to reach decarbonisation objectives.

- › **To better understand the impacts of technological solutions** (e.g., electromagnetic fields generated by offshore wind farm sub-sea cables) and **improve the assessment of cumulative and in-combination impacts of activities at sea**. The introduction and expansion of these technological solutions at sea must be sustainable, also in terms of the scale and speed of development, without causing additional harm to the marine environment.
- › **To improve geospatial data collection, availability and sharing**, which if standardised, could support many processes towards decarbonisation: improving maritime spatial planning and the optimisation of the placement of offshore activities, improving value chain efficiency, supporting cumulative impact assessment, and reducing conflicts. A large amount of data is collected in different forms by a multitude of stakeholders, but it is not always made available.
- › **To develop new skills and training** to meet the growing needs of the renewable energy sectors and those sectors supporting decarbonisation (e.g., research, innovation). The aim is also **to encourage**

the adaptation of current professions to provide retraining opportunities, particularly for professionals working in sectors that will be declining (e.g., oil and gas industry).

- › **To increase funding capacities for infrastructure and innovation**. Energy transition investments can represent a major risk to the private sector, which needs to ensure that projects are economically viable. Therefore, funding is necessary to ensure the development of promising technologies from prototype to commercial phase.
- › **To strengthen dialogue and collaboration** between (i) **local, national and European scales** to ensure the coherent implementation of policy targets; between (ii) **private and public stakeholders**, at the earliest stage of project/technology implementation; and between (iii) **maritime sectors** to identify synergies and areas for cooperation.
- › To facilitate **the exchange of experiences and best practices across Europe**, showcasing the practical implementation of solutions in local contexts. This allows stakeholders to stay informed about advancements both within and beyond their specific sectors. **Mutual learning is considered as a driving force for action**.
- › **To involve local communities early in the deployment of these new technologies** in order to ensure that solutions are adapted to the local context. This allows the cultivation of social acceptance (e.g., community owned offshore wind infrastructure).

After several months of discussion, and beyond the commonly agreed principles listed above, diverging views from the Members appeared during discussions on the following points:



1. The role of technology

Technological innovations are pushed and presented as solutions to achieve policy objectives to decarbonise the blue economy, while most stakeholders think technology will not be ready to achieve those objectives. Therefore, some members of the Blue Forum are questioning this vision that technology is the only or main solution. For these members, the priority is to change our 'model' and our practices, by prioritising well-being and reducing consumption of globally transported goods, and instead consuming local products. Some stakeholders advocate for a shift away from a growth-centric societal model towards a 'post-growth' society.

On the other hand, many consider that we need both: to transition our practices towards more sustainability but still rely on innovation and technologies to reach our targets. These members acknowledge the ongoing expansion of the global population and the growing future demand for energy, food security and the transportation of goods. From this point of view, maintaining activities at sea whilst reducing their impacts on the environment is key and should be possible through the support of technological solutions and innovation.

2. Balancing activities at sea

Space at sea and on the coast is subject to growing competition between activities and users. The relatively recent development of marine renewable energies (MRE) and the ambitious 2030 and 2050 targets raise concerns among some members. This is particularly true of long-established sectors such as the fishing industry, which sees the rapid development of MRE as a threat to its continuing activity and access to the resources on which it depends. Other members underline their concerns about the willingness to rapidly develop large-scale renewable energy and associated infrastructure, which cannot happen at the detriment of environmental considerations and the precautionary principle, particularly in areas of high ecological value, such as MPAs. These members particularly recall the importance of early stakeholder engagement and the necessity for good representation of all maritime sectors when implementing any project or policy, such as in maritime spatial planning.

WHAT'S NEXT FOR THE EUROPEAN BLUE FORUM?

The finalisation of this stakeholder position paper is only the beginning.... as stated by the European Commission's Director-General for Maritime Affairs and Fisheries, Ms Charlina Vitcheva, **'Today we are creating a common vision. It will take time - it's not a sprint. It's a marathon!'**

This position paper will now be presented to the European Commission, and on 7 March 2024 it will be presented and discussed at the European Parliament as part of the intergroup on Seas, Rivers, Islands and Coastal Areas (SEARICA).

Since its inception, the European Blue Forum aims to ensure the voices of all our blue economy stakeholders are heard, and that they can have an influence on future EU policy on Blue Economy. As communicated by DG MARE, **'the (European Blue Forum) position papers will be used to shape the forthcoming public blue policies, and at the same time, we will strengthen coordination by engaging with all the Commission's Directorates-General, ensuring that the diverse outputs and recommendations generated within the forum resonate with other EU policies.'**

After this first year of cooperation with our Blue Community, this paper gathers the main challenges and needs of the European Blue Forum members and provides the main axes of action for the years to come. It also marks the beginning of **a new cycle of work which will be celebrated by our European Blue Forum Annual Meeting – 'From position to practice' which will taking place during European Maritime Day in Svendborg** – please keep an eye on the [website](#) and Twitter account (EU_MSP_Platform) for more details.





ACKNOWLEDGEMENTS

Thank you to all the members of the European Blue Forum who participated in our events and contributed to the preparation of this Stakeholder Position Paper.

REFERENCES

Alma-Maris (2023) [A pathway to decarbonise the EU fisheries sector by 2050 \(2023\)](#).

Center for International Environmental Law, [Plastic and Climate: The Hidden Costs of a Plastic Planet \(2019\)](#).

Council of the European Union, General Secretariat, Analysis and research team, [The EU: from maritime actor to sea power \(2023\)](#).

European Commission, [On the Energy Transition of the EU Fisheries and Aquaculture sector \(2023\)](#).

European Commission, [A new approach for a sustainable blue economy in the EU \(2021\)](#).

European Commission, [2022 Annual Economic report on the EU Fishing fleet](#).

European Environment Agency, European Maritime Safety Agency, [European Maritime Transport Environmental Report 2021](#).

European Maritime Safety Agency - [The EU Maritime Profile – the maritime cluster in the EU](#).

European Parliament, [European ports becoming ‘fit for 55’](#).

International Maritime Organization (IMO), [Fourth IMO greenhouse gas study \(2020\)](#).

International Maritime Organization (IMO), [Strategy on Reduction of GHG Emissions from Ships \(2023\)](#).

For more information about the European Blue Forum, including how to join, events, recordings and publications please [visit the website here](#).



Publication Editors

Emilie Riclet and Chris McDougall, European Blue Forum Secretariat, a component of the Support and Expert Services on Maritime Spatial Planning and for the Establishment of a European Blue Forum Contract. CINEA/EMFAF/2022-3.5.1/SI2.885676

External Reviewers

Sheila Heymans and Paula Kellett, European Marine Board; Dr Josep Lloret, Institut de Ciències del Mar (ICM-CSIC); Tobias Troll, Seas at Risk

Suggested Reference

European Blue Forum, 2024. Position Paper 1: What do we want from European Seas by 2030, and are we asking too much?



This publication was funded by the European Union. Its contents are the sole responsibility of the European Blue Forum and do not necessarily reflect the views of the European Union.

**EUROPEAN
BLUE FORUM**