

Official recommendations

From Eurocean's Youth ambassadors

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Strengthen the link between ocean and marine science and policy makers, by increasing the funding of transdisciplinary research on ocean issues and creating a science-policy interface on ocean sustainability.

— **Blue careers** —

Recommendation n°1 _____

Implement an EU-wide maritime program about fisheries.

Of all of the sectors related to the blue economy, we strongly believe that fisheries are the most unsustainable sector. To this day, IUU¹ and overfishing remain a very urgent issue, with cascading impacts on multiple crises currently affecting ocean life: it destroys biodiversity, critically reduces ecosystems' climate resilience and creates insecurities for the livelihoods of local communities. Although many EU frameworks were put forward or are being put forward or under revision (for instance, the EU Fisheries Control Regulation), there is no reliable data on how much bycatch is produced (for illustration, it is estimated that nearly 83% of assessed fish stocks are overfished in the Mediterranean). That is why we recommend several points:

▶ **Monitoring and data collection**

- To implement measures such as the introduction of a catch (and lost gear information) logbook for all categories of vessels (as foreseen by the EU Fisheries Control Regulation revision) will improve adherence to guidelines and create an opportunity for better data collection.
- To improve the traceability of supply chains through the systematic collection of information from catch to sale and the implementation of indicators to monitor origins and policies to identify products at risk from IUU fishing.
- To implement a mechanism of scientific assessment and advice (as provided by International Council for the Exploration of the Sea).

▶ **Enforcement of the EU legislation framework**

- It is also up to MS to improve their legislation to improve national monitoring measures by, for instance, using the same criteria and methods of data collection and comply with reporting obligations about catches and about IUU practices and bycatch.

- To strengthen the EU legislation about banning/restricting destructive fishing practices (e.g bottom trawling in MPAs).

▶ **Reshaping EU fisheries legislation & funding schemes towards environmental and climate targets**

- The European Commission and MS should apply a precautionary approach by setting more cautious fishing quotas for letting fish populations the necessary time to be restored.
- Consumer awareness is an essential lever for change as their choices influence production and supply patterns. Creating a European sustainable fisheries label will help encourage consumers to pay attention to seasonality, origin, the way the fish is caught, and to learn about the level of exploitation of the fish stock.

▶ **Good Practices**

In addition, a Good Practices Program should be established to teach local fishers how to implement new techniques regarding sustainability and ecology. This can take the form of training created by different stakeholders (EFCA, local organisms in charge of fisheries, NGOs specialized in fisheries...) such as guidelines, online courses, conference and workshops and this, adapted to local specificities. The set-up of this type of program will result in the creation of numerous blue jobs, such as fisheries educators, fisheries scientists, data analysts, fishing areas managers...

Recommendation n°2 _____

Invest in upskilling and reskilling of people employed in disappearing sectors to facilitate their transition to emerging sustainable jobs.

Given the current economic and political context, including the EU and international environmental policy developments, the blue careers sector is bound to change, with some jobs disappearing and others emerging. To cope with the fast-changing reality of the sector, we expect that people will opt for flexible careers that are more integrated, spanning multiple disciplines (instead of having only one lifelong career path).

As many careers are expected to disappear, not only in fishing industry but also in other blue economy sectors such as the oil exploitation, there will be many people available for up- or reskilling in order to train for new jobs in areas such as green energy, algae farms, green logistics, research, coastal protection, reef restoring, etc.

In order to adapt to these changes, **flexible career paths and concepts such as lifelong learning should be well-embedded within societal structures.** Inclusiveness (age, gender, etc.) should also be promoted.

We propose that the **EU invests in upskilling and reskilling** of people currently employed in disappearing sectors of the blue economy. Upskilling and reskilling are important both from social and economic points of view: they mean making the most of talent of the already trained people; they mean creating a skilled labour force faster than if new generations are just trained from zero, and they are more economically viable than having to support people whose jobs were lost.

Upskilling and reskilling programmes could run, for example, in Centres of Vocational Excellence (CoVEs). **We call on the EU to start this process sooner rather than later**, given the urgency of the matter. This proposal can for example run in the 2022 Call for Proposals for the CoVE platforms.

Recommendation n°3 _____

Create a Marine Erasmus+ programme combining education, job and networking opportunities, to enhance knowledge transfer and raise awareness about maritime affairs.

Science has proven that climate change is primarily caused by human activities (see latest IPCC Report). Given this scientific evidence, it is our global responsibility to ensure a sustainable future in harmony with nature and biodiversity. One of the main threats we are already facing is the incremental sea level rise. We need all hands-on deck to tackle this crisis – this refers both to those who are already witnessing the devastating effects of climate change in coastal areas and those living in landlocked areas.

These challenges, together with the EU Green Deal that will forever change the face of the EU marine world, mean that the next generation of young professionals and academics should be up for the challenge!

Education is one of the key tools in finding coordinated, holistic and cross-border solutions. Therefore, **we call on the EU to ensure that everyone has access to education and more particularly to Marine ERASMUS+ Programme.**

We are convinced that through the exchange of points of views and experience among young people, we could create the foundations for shaping the world of tomorrow. Moreover, there is a real **opportunity of knowledge transfer** between people living close to the ocean and those who do not.

We propose to :

- ▶ Set up a foundation programme providing students around the world with the opportunity to engage in marine-focused Erasmus+ opportunities.
- ▶ Update existing online platforms (and/or applications) summarizing all marine-related professional and academic opportunities.
- ▶ Update existing online platforms (and/or applications) with conferences or other networking events which would help newly graduated marine specialists compile a networking portfolio.
- ▶ Have a budget under Marine Erasmus+ which would provide funding opportunities for applicants to attend the above-mentioned conferences, as well as enroll in a Master, PhD programme, etc.
- ▶ Under Marine Erasmus+ provide the opportunity for marine specialists to engage with EU leaders to discuss priorities and drive changes.

Recommendation n°4 _____

Create a European platform to advance ocean literacy.

Our proposal is to create a free online platform regrouping all the other platforms already existing dedicated to Ocean Literacy (e.g., the platform by UNESCO, EU4Ocean, EMSEA...). The aim is to focus on outreach to raise awareness on these different Ocean Literacy initiatives. The platform should regroup resources concerning the Ocean Literacy: initiatives, networks, EU/NGOs projects, training courses...

Based on their interests, the users could choose filters for their research among the different categories: themes, target population (kids, students, professionals), initiative carried by public or private actors, languages, kind of networks, internships/jobs/volunteering offers...Also, these resources would be available in several languages of the EU in order to reduce dilution of resources at macro level.

And, the platform should provide a forum area, where users could create teams, give feedback, exchange opinions and information.

Recommendation n°5 _____

Introduce an Ocean Certification for project leaders in the EU.

As an example, every 3 minutes in France a new project begins that is co-financed by European funds – and we believe that it should be used as a lever for promoting better ocean protection. We propose that the EU introduces an Ocean Certification system, which would be used as guidelines for project leaders, from public and private sectors. This certification could consist of::

- ▶ Use a toolbox of best practices
- ▶ Promote sustainable maritime sector and ocean protection
- ▶ Promote landlocked countries

The certification's guidelines would need to be implemented in the internal functioning of the organization, its communication, its projects, etc. These criteria, which have yet to be clearly defined, can be inspired by existing ocean-related labels (e.g., Ocean Approved label) which include, for example, the implementation of ISO standards, the management of coastal areas (access, controls, limitations), the safety of people in coastal and marine environments, etc. Naturally, the criteria will need to be adapted to the type of the organizations (the criteria may vary for a public or private organizations). And, to get the certification, the organization should satisfy to some criteria to be determined through consultation with stakeholders involved. Also, an independent auditor could evaluate and advise the organization for it to be certified.

— **Shipping** —

Recommendation n°6

Implement a new rating system for zero-emission vessels combining the EU MRV regulation and the IMO rating system. By 2040, ensure that only vessels with A rating are allowed in European waters and ports.

With this recommendation, we seek to tackle two broad challenges: multiple adverse environmental impacts on the ocean through commercial shipping, and the lack of concrete holistic regulations imposed on this growing sector.

The EU's Monitoring, Reporting, and Verification (MRV) Regulation focuses on GHG emissions, requiring ships with 5000 Gross Tonnage and beyond to monitor and report their emissions when calling into EEA ports. The IMO Rating System is a mandatory data collection system based on the vessel's annual operational carbon intensity (from A to E), recently adopted to be able to gauge the environmental impact of maritime transport.

We propose that the EU **expands the existing MRV Regulation to cover any commercial vessel of 500 GT weight and higher, explicitly including cruise ships, and covering all relevant environmental aspects** reaching beyond GHG emissions. The updated MRV Regulation should be **combined with the IMO Rating System with an accordingly expanded scope** reaching beyond carbon intensity. Therefore, the following parameters should be included in this combined scheme and influence the rating: GHG-, particles-, sulphur- and nitrogen emissions; generation and discharge of grey-, black-, and bilge water ; generation and discharge of different forms of waste; underwater noise; coating; manufacturing of the ship; propulsion system ; handling of ballast water ; safety arrangements for hazardous goods and cargo loss.

The resulting rating category and **certification would be issued by the EU institutions** and could also be awarded by accredited flag states.

The parameters would include one-time verification aspects and regular monitoring, reporting, and verification aspects.

To bring the new rating system into action, we propose to gradually **phase-out rating classes below A by 2040**. Consequently, vessels that are not verified with an A rating should be prohibited to call to EEA ports, as well as to sail in European Waters by 2040. **The compliance shall be controlled by digital monitoring and mandatory verification through AIS**, as well as **through port control measures**. **From 2050 only zero-emission commercial vessels** should be allowed in European waters and ports for which the **new comprehensive rating system** should be implemented.

To achieve an efficient energetic transition, a **technical guide** developed by the European Environment Agency before 2025 could be proposed to the shipowners, including different measures which will simplify the process of shifting towards a higher label. These would include using low-carbon alternative fuels; hull cleaning to reduce drag; cleaning of fuel injectors, propeller, blades, etc.; speed and routeing optimization and slow-steaming; installation of solar/wind auxiliary for accommodation services; installation of low energy light bulbs; improving ship's balance/weight (trim); recovering and using waste heat, etc.

The priority action remains **the transition to low-carbon fuels and renewables, such as wind propulsion**. The EEA must speed up this process, by providing financial and technical support to shipowners for an efficient transition in 2030 in order to achieve the objectives of the Paris Agreement.

However, to prevent deflagging that leads to old ships ending up in shipbreaking yards in third countries, the recycling of ships must be regulated within the EU. **Low-cost European shipyards must be set up** to counter these recycling practices which threaten the health and safety of workers and pollute the environment far from the eyes of consumers.

Recommendation n°7 _____

Improve monitoring of water quality in the EU ports.

Shipping pollution is significantly affecting the water quality and the marine life, as well as the health of the seawater sports practitioners and professionals working in the marine environment. For example, Surfrider Europe carried out a survey among its community during the summer of 2020. Based on this survey in which 1 803 seawater sports practitioners took part, 38% indicated that they had suffered health impacts. A decline in specific species (i.e Tricellaria inopinata, meiofauna) directly linked to shipping pollution has also been identified. Considering these facts, the EU should ensure qualitative water monitoring, as certain points of the regulation still need to be improved.

First, most of the time, regulations are adopted with an anthropocentric approach. For example, water quality of recreational sites is already being controlled under the Bathing Water Quality directive. However, the directive provisions are very partial: they only concern the "bathing sites" that were designated by Member States, only during the summer period, only using two bacteriological indicators, etc. Also, despite the ambitious legislations put into place to protect marine life - especially the Marine Strategy Framework Directive - there is a lack of systematic and large-scale monitoring to achieve this particular purpose.

The cause of this non-systematic monitoring can be explained by the difficulty to transpose the directive into national measures for the Member States. Most of the monitoring parameters are still not defined and most Member States have not even submitted the initial reports assessing the state of their seas. These reports were supposed to serve as a basis for achieving "good environmental status" of the EU seas by 2020.

Regarding the quality of marine waters, States are not equal in research and development. These inequalities must be compensated by the EU, which is responsible for supporting the deployment of this directive through technical, economic, and regulatory levers.

For this reason, **we urge the EU to adapt its legislation in order to ensure that regular mandatory water quality tests are conducted all year round in the EU ports, on public beaches, as well as in the vicinity of underwater archaeological parks and other diving sites.** Expanding monitoring beyond ports will allow a better understanding of the impact that shipping pollution has on the EU waters.

By improving water quality monitoring, scientists will finally be able to carry out studies with more precise data and then potentially **establish clear correlations between the shipping sector and the declining sea water quality.** It seems necessary to **implement a systematic, detailed, and long-term monitoring scheme targeting shipping pollution** that would generate all the needed data to adopt policies that will support greener shipping, cleaner ports and consequently safer waters for marine life and humans.

Recommendation n°8 _____

Ensure strict implementation of dredging rules with an ambition to introduce a dredging ban in the upcoming years.

Sediment dredging is a regular operation in harbour maintenance that is defined as the removal of material from the seabed aimed at improving the drainage, navigability, and commercial use of ports. Indeed, port areas and facilities are often located in the heart of river estuaries, so the tides and the flow of river water constantly carry sediments which are deposited on the floor. The rhythms are variable, but the deposit is constant and can disrupt navigation. Its extraction facilitates access to the port in complete safety.

Dredging can have numerous effects on the environment, causing physical, chemical, and ecological changes. It leads to resuspension of molecules accumulated at the bottom of ports in the water column. This directly affects water quality and therefore the development of marine fauna and flora which becomes contaminated. The rock removal (breaking the rocks on the seabed with explosives) can threaten the populations of marine macrofauna dependent on the hard substrate and cause its high mortality.

Despite its considerable environmental impact, the existing regulations on dredging are scarce. Therefore, **we propose that the EU** :

- ▶ **Creates a new law on dredging**, taking into account the existing legislation on the environment and the underwater cultural heritage. This new law should also differentiate recoverable and non-recoverable waste and fill in the gap in the EU regulation when it comes to recycling and reusing dredging waste material.
- ▶ **Applies the highest standards of corporate responsibility**, using the OECD and UNESCO guidelines as the explicit basis for corporate policies.

The EU public authorities should also ensure that the information about potential social and environmental risks regarding any new project **is open and accessible to all relevant stakeholders**, and work to foster public awareness about the topic.

We need the EU to lay down administrative and technical requirements to regulate the management of dredged material. It is needed to differentiate recoverable and non-recoverable waste (ex. by defining the selection criteria for levels of certain pollutants, grain size, etc.).

At the same time, the marketing of dredged materials could contribute to a common European fund on a larger scale. Pooling resources would ensure sustainable and integrated management of dredged materials (contaminated and non-contaminated). However, the EU must ensure that **the companies involved in this European market are held to the highest standards of corporate responsibility** and are respectful of the environment and human rights.

Recommendation n°9 _____

Provide EU subsidies for training in autonomous vessels technology and promote this specialization in maritime schools EU-wide.

There is no doubt that autonomous vessels have a place in the maritime sector's future. Currently in Europe we are still in the beginning stages, but with more interest, faster technological development will be conducted. As the use of autonomous vessels for different purposes will be increasing, it can potentially be beneficial to human and environmental safety, but also bring various risks related to cybersecurity, piracy and safety at sea, as well as environmental hazards. Accidents can lead to significant damage to ocean and coastal wildlife and ecosystems.

Today, only a few schools offer programs to train students for this specialty – ex. Aboa Mare in Finland. Financial aids are needed to prepare the new generation of employees and assist companies who want to train their current staff. **We propose that the EU should provide subsidies** which, combined with partial private funding, would be used **for the training of maritime sector employees to master autonomous vessels and promoting this specialization in maritime schools**, and as part of dedicated vocational training programmes. This training could namely encompass :

- ▶ Crisis management with the specificity of autonomous vessels.
- ▶ Functioning and driving of an autonomous vessel.
- ▶ Driving without advanced technologies.
- ▶ Safety in extreme situations.
- ▶ Using Galileo satellites for coastal control and piracy threats.

Financial aid would reinforce the European maritime sector and would be an incentive to strengthen autonomous vessels' development. Furthermore, the European maritime sector could better face international competition

with high-quality employees. These subsidies could also encourage companies to invest in this field and in R&D. Moreover, they could motivate the EU governments to revise their maritime law regarding the new needs for these vessels. And finally, the more people are trained, the lower the risk of accidents and errors.

In addition to that, we urge the EU Member States, as well as a broader international community, to foster cooperation and fight together against the above-mentioned security challenges. We propose promoting autonomous ships training on 2 levels :

1. European institutions, EEA countries and EU close partners (ex. Switzerland, USA, Canada, South Korea, Australia, etc.)
2. **International level:** neighbour and third countries (and their national authorities), mainly least developed countries that face massive challenges regarding modern piracy and new hybrid threats.

The European Maritime Safety Agency (EMSA) would be instrumental to carry out the recommendation. Ideally, the European Agency for Cybersecurity (ENISA) would be the entity to bring in transversal competences, contributing to listing the requirements that autonomous vessels should meet to cope with the threats of cybersecurity and modern piracy. Finally, **ENISA should produce recommendations for cybersecurity in European ports.**

Recommendation n°10 _____

Make government, private and EU funding available to the environmental transition of the shipping sector.

Maritime shipping is often left out of emissions reduction talks and frameworks. This discourages the private sector from investing in the implementation of sustainable practices and greener technologies. Despite these nuisances, shipowners pay almost no taxes thanks to very accommodating legislation. For example, Swiss-Italian shipowner MSC makes 22 million euros in profits a year but only pays 18,000 euros in corporation tax – a ridiculous rate of 0,08%. Moreover, companies in the sector are successfully fighting attempts to introduce more restrictive environmental regulation, in the name of maintaining “competitiveness” of the sector.

We urge funders (the EU and its Member States, banks, investment funds, international organizations, etc.) **to prioritize funding and incentives for the environmental shift of shipping by 2035.** Investments, incentives, as well as sanctions should aim at **a multi-target shift** (GHG emissions, pollution, noise) and **integrate marine biodiversity protection and conservation objectives.**

- ▶ We encourage banks and private funds to create low-interest loans for ship owners to seek cost-saving solutions, such as more efficient and green fuels, and the EU Environment Agency to provide environmental guidelines for it (e.g Green Marine Europe label).
- ▶ Funders may also fund environmental assessment of autonomous vessels to have an overview of their environmental footprint and be able to consider if they are a relevant proposal for the future.

- ▶ States and EU institutions should develop calls for innovative applications and proposals for the purpose of energy transition of the fleets.
- ▶ Support research and development on carbon-free hydrogen as a future energy source
- ▶ We urge the EU to implement the Maritime Transport Decarbonisation (MTD) fund, as per the European Parliament 2020 vote on reforming the regulation on maritime transport emissions monitoring, reporting and verification system. This fund would improve the energy efficiency of ships by supporting investment, and help facilitate retrofitting of the fleet, renewal, and recycling of oldest vessels. We recommend the MTD fund does not only rely on ETS revenues, and further looks for other income such as penalties for non-compliance with the EU regulations.
- ▶ We encourage Member States to create incentives motivating shipowners to initiate ambitious transitions (on energy consumption and reducing all types of pollution, including noise pollution), such as tax exemption on specific material and equipment.

Recommendation n°11 _____

Facilitate the accession of shipowners to the Green Marine label by providing financial support to its certified members.

Shipping is responsible for 90% of the global trade. It represents 3% of the world's anthropogenic GHG emissions contributing to climate change. Moreover, it is associated with different types of pollution, such as air pollutants, ship dismantling, ballast waters, containers' loss at sea, collisions etc. Therefore, a fast transition towards a greener sector is urgently needed. However, such transition should be supported economically since it will generate significant costs.

We recommend the EU to facilitate the accession by shipowners to the “Green marine Europe” label by funding its members with the budget provided for by the European Green Deal Investment plan. The ecological transition of the shipping sector would be framed within a label system. **The EU should recognize the Green Marine Europe label system as a source of authority in ascertaining how green and non-polluting a company's fleet is.** The ratification by shipowners of such a label would be promoted with subsidies and/or fiscal advantages depending on the level of commitment within the label system. As a result, shipowners would be **encouraged and financially assisted to commit to a monitored ecological transition.** We believe that this financial assistance could come from the European Green Deal Investment plan. Finally, the label would offer a green public image to the shipowner.

This financial aid would be intended for companies which have chosen a European Flag State. This would enable Flag States, together with the Port States, to control that the companies effectively respect the criteria of the label.

As these measures do not impose any constraints on the shipowners, but create an incentive for a fast transition, it is possible to implement them as soon as they are adopted by the EU. This would encourage shipowners to pursue a regular progression in their efforts for the ecological transition.

— **Ocean Governance** —

Recommendation n°12 _____

Strengthen the link between ocean and marine science and policy makers, by increasing the funding of transdisciplinary research on ocean issues and creating a science-policy interface on ocean sustainability.

Ocean governance is understood as the processes that operate within and between states, civil society and local communities, and the market, including industry, related to ocean issues. We want to strengthen the link between scientific knowledge and ocean governance, by:

- ▶ Provide policy makers scientific knowledge on ocean issues, in order to close the gap between science and policy. This can be done through workshops, summer schools, trainings, or the creation of a platform such as an International Panel on Ocean Sustainability (IPOS). This could follow the existing IPCC (climate change), IPBES (ecosystem), GESAMP (pollution) and regional initiatives such as MedECC (climate change for the Mediterranean). Through the co-construction of scenarios, the new platform could also inform us about possible futures of our changing ocean, thereby guiding our decisions on how we use it. And, by working with different stakeholders, it could provide a true science-policy interface not only limited to policy makers, but open to other actors too (e.g. NGOs, private sector, etc.) which would help to integrating knowledge on the ocean into ocean governance at multiple scales and sectors. By taking advantage of synergies between with IPCC, IPBES, and regional initiatives, the new platform can help ensure its whole-of-the-ocean approach by taking into account the complex interrelations between ocean challenges and other global challenges.
- ▶ Increase research funding and capacity building in ocean and marine sciences. This can be done through a financial support for early-career scientists, the reprioritization of funding towards interdisciplinary ocean research, the increase of private PhD fundings on ocean and marine science.

