

## Advice

# Energy Transition in EU Fisheries and Aquaculture

Brussels, 29 April 2024

### 1. Background

On 21 February 2023, the European Commission published a communication “On the Energy Transition of the EU Fisheries and Aquaculture Sector”<sup>1</sup>, which aims to accelerate the energy transition in the sector, including through identification and addressing barriers and setting up the structures for long-term cooperation in this area. On 16 June 2023, the Commission proceeded with the launch of the Energy Transition Partnership for fisheries and aquaculture<sup>2</sup>, which aims to be a central platform for all actors to share knowledge and solutions, and to coordinate efforts to achieve a climate neutral sector by 2050.

According to the European Commission, currently, a significant share of EU fisheries and aquaculture businesses is energy intensive and relies heavily on fossil fuels for their operations. This dependency leads to two main problems: it makes the sector vulnerable to increases in energy prices, and it reduces the sustainability of fisheries and aquaculture products by increasing their carbon footprint. The initiative proposes four main sets of actions: improving the coordination and cooperation between stakeholders, bridging the knowledge and technology gaps through research and innovation, developing skills and a workforce adapted for the energy transition, and improving the business environment, including financing opportunities.

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<sup>1</sup> [https://oceans-and-fisheries.ec.europa.eu/publications/communication-commission-energy-transition-eu-fisheries-and-aquaculture-sector\\_en](https://oceans-and-fisheries.ec.europa.eu/publications/communication-commission-energy-transition-eu-fisheries-and-aquaculture-sector_en)

<sup>2</sup> [https://oceans-and-fisheries.ec.europa.eu/news/sustainable-fisheries-launch-energy-transition-partnership-eu-fisheries-and-aquaculture-2023-06-16\\_en](https://oceans-and-fisheries.ec.europa.eu/news/sustainable-fisheries-launch-energy-transition-partnership-eu-fisheries-and-aquaculture-2023-06-16_en)



## **2. Launch of the initiative and of the Energy Transition Partnership**

The initiative for the energy transition of the EU fisheries and aquaculture sector was launched in March 2023, which was followed by the launch of the Energy Transition Partnership in June 2023. According to the Commission, the heavy dependency on fossil fuels makes the sector vulnerable to increases in energy prices and reduces the sustainability of fishery and aquaculture products by increasing their carbon footprint.

The MAC welcomes the launch of the initiative and of the partnership. As a small sector, the fishing sector must envision its transition at the EU-level to reach the necessary critical mass for worthwhile investment, especially since fisheries is an exclusive competence of the EU. Furthermore, the launch of a broad partnership is a very good way to consult a broad range of stakeholders as well as a great occasion to bring stakeholders together.

Initiatives to decrease the sector's dependency on fossil fuels are welcomed. Workable solutions should be made available in parallel to the implementation of binding objectives. To ensure that the entire supply chain contributes to the common EU objectives to reduce emissions, and to transition away from fossil fuels, as agreed by the COP, there is a need for guidance on best available technologies and fishing innovations to meet targets along with clear and accessible funding to enable the transition away from fossil fuels. Strong monitoring and reporting plans on carbon footprint will need to be implemented to ensure that progress in emission reductions is tracked. Emissions primarily come from fuel burnt during fishing activities, with differences among fishing techniques and practices. At the same time, it is also important to keep in mind the efforts of the fishing industry to reduce fuel consumption, which has decreased by 29% since

2008, as highlighted by the Commission. Additionally, emissions also exist in the post-harvest stages, such as from packaging, refrigeration and transportation<sup>3</sup>.

In the view of the EU environmental NGOs, the dependency is increased by the dependency from fossil fuel subsidies. Fossil fuel subsidies are granted to the value chain through fuel exemptions under the Energy Taxation Directive and through direct subsidies granted in some Member States through State aid. In their view, in line with the commitments made in the COP28, both direct and indirect types of fossil fuel subsidies should be eliminated in the revision of the Energy Transition Directive and in the State aid provided at national level, which would automatically give an economic signal to the value chain to move away from fossil fuel and start/accelerate the energy transition. The additional funds generated through the elimination of fossil fuels subsidies should be directly invested to support the value chain to decarbonise.

The European fisheries value chain fully supports the need to reduce CO2 emissions and actively engages in the search for sustainable, renewable and commercially viable energy alternatives. However, from the perspective of the European fisheries value chain, significant gaps persist in terms of skills, infrastructure, legal barriers and the readiness levels of alternative fuels and energy systems. It's imperative that these gaps are addressed to ensure and facilitate the decarbonization of the sector. The sector emphasises that the implementation and utilisation of fiscal tools to tax energy consumption should occur on a global scale, ideally under the auspices of organizations like the International Maritime Organisation (IMO) or the World Trade Organization (WTO). This approach is necessary for two reasons:

- First of all, the energy crisis triggered by Russia's invasion of Ukraine has shown the impact of energy price increase on EU supply chains when no alternative was available. Secondly,

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<sup>3</sup> [https://cinea.ec.europa.eu/publications/adapting-postharvest-activities-value-chain-fisheries-and-aquaculture-effects-climate-change-and\\_en](https://cinea.ec.europa.eu/publications/adapting-postharvest-activities-value-chain-fisheries-and-aquaculture-effects-climate-change-and_en)

EU businesses compete in a global environment, it is key for EU undertakings that a level playing field between the EU and non-EU countries be kept.

- Overall, the constant decrease in fossil fuel consumption have shown the commitment of the fisheries sector to keep reducing its carbon emission and seek innovative technologies.

At present, the topics addressed by the initiative mainly concern primary production, which means that the value chain is not entirely covered, even though significant amounts of emissions are generated throughout the value chain. To fully support EU industries in their transition and competitiveness as well as to ensure carbon-free products from sea to the plate, the Commission should look at the entire fishing and aquaculture sector and consider all economic players.

The proposed initiative can be very positive for the entire fishery and aquaculture value chain to be more competitive against other markets, offering high quality products that are better valued by the aware consumer and at more advantageous products. Any initiative that helps reduce the vulnerability of the sector is welcome. Reducing the sector's dependency on fossil fuels, thereby increasing its sustainability and profitability, presents a key opportunity for the sector.

### **3. Coordination and cooperation between stakeholders**

One of the main sets of actions of the initiative is improving the coordination and cooperation between stakeholders. One of the key deliverables is the establishment of an Energy Transition Partnership for EU fisheries and aquaculture with the objective to develop a roadmap for the sector's climate neutral energy transition by 2050.

The MAC welcomes the establishment of the Energy Transition Partnership for EU fisheries and aquaculture, as it improves the coordination and cooperation between stakeholders and enables a joint development of an operational roadmap. The partnership allows actors from different

sectors to meet and discuss what tools are available to achieve a climate neutral sector by 2050, as exemplified by the important discussions with the European Investment Bank at the workshop on financing organised by the Commission in November 2023. With that in mind, greater awareness on the existence and aims of the partnership should be pursued.

The roadmap is a key element in coordinating and giving visibility to the sector on the availability of innovations, their market readiness, and the schedule of development. The lack of a “silver bullet” for the sector means that coordination is essential to ensure sufficient capacity build-up. Each solution must be adapted to each segment, while also coordinating with other maritime sectors to ensure that the burden of infrastructural costs can be shared between sectors.

Coordination should be sought outside the sector, but also within the fishing and aquaculture supply chain. First buyers often get their supply directly from fish auctions and send them out by trucks. Therefore, finding a common alternative fuel for the vessels and for the trucks could serve as a driver for change. Additionally, the roadmap must not overlook the processing industries, especially energy intensive processing, such as fishmeal production. In the case of aquaculture, the main challenge to reduce greenhouse gas emissions is lowering the carbon footprint of feed. Finally, effectively communicating this shift in practices to the final consumer can only be achieved through the involvement of the entire supply chain.

Following the exchanges under the Energy Transition Partnership, the Commission should proceed with the adoption of the roadmap, and then ensure that it implemented and stand by it. In the view of the EU environmental NGOs, clear targets with milestones for the implementation of the energy transition towards carbon neutral fishing at the latest by 2050 with clear pathways for achieving this should be included. Decarbonisation will be a long and difficult process where decisionmakers need to be ambitious and cannot only rely on voluntary actions from economic operators.

#### **4. Knowledge and technology gaps**

One of the main sets of actions of the initiative is bridging the knowledge and technology gaps through research and innovation. According to the Commission, there is a lack of energy-efficiency data, which limits the ability to measure and trace emissions and thus a lack of know-how about the potential of energy-efficient technologies. The uptake of new technologies is also compromised by gaps in information and knowledge on the compatibility of already available solutions across different types of vessels in the fleet, such as more energy efficient and environmentally friendly gears, fishing techniques and strategies. The Commission released a techno-economic study on the available technologies, which identified 45 innovations that can support the sector in transitioning, and set up an online platform to facilitate the sharing of knowledge and best practices in the sector.

The MAC welcomes the key set of actions to carry out the bridging of knowledge and technology gaps. The setting up of an online platform will allow all stakeholders to be informed on the different innovations that have been tested.

#### **5. Skills and workforce**

One of the main sets of actions the initiative is developing skills and a workforce adapted for the energy transition. According to the Commission, there are limited opportunities for those working at sea, in aquaculture facilitates, in ports, and in supporting sectors to acquire the necessary practical skills for working with novel and alternative propulsion technologies. Another barrier is the ageing of the workforce and the difficulty to attract new talent and young people to the sector. The Commission will promote calls for careers in the “blue economy”, comprising jobs and activities in coastal and marine areas, and also encourage training, reskilling and upskilling actions by the Member States. It will also explore setting up a virtual academy programme on the energy transition for the sector.

The MAC agrees it necessary to support reskilling and training, investing in the preparation for the decarbonisation, in order to evolve towards greener and more efficient energy systems. The sector is faced with a lack of generational renewal as well as a need to develop new skills<sup>4</sup> that will be needed by engineers to transition away from fossil fuels. The retraining of the workforce is essential to adapt to the new technologies. Educational programmes should be set up to ensure that needs are met. Concerning the setting up of a virtual academy programme, it is important to enhance virtual and online classes, so the programme should be complemented with in-person practical courses.

Finally, the funding for these developments should not be focused only on shipbuilding, but also on the ancillary industries. The funding for these objectives cannot come only from the European Maritime Fisheries and Aquaculture Fund (EMFAF).

## **6. Business environment and financing opportunities**

One of the main sets of actions the initiative is improving the business environment, including financing opportunities. The European Maritime, Fisheries and Aquaculture Fund (EMFAF) supports a variety of activities, including education projects and the development, testing, auditing and dissemination of energy-efficient technologies. The Commission will also develop specific guidance to help the sector access other EU funds and assistance mechanisms to support the energy transition in the sector to the fullest.

The EMFAF can be a starting point to support the energy transition, but, as recognised by the Commission, this fund would be insufficient to cover the proposed changes. The EMFAF's main funding goal is to ensure market uptake once an innovation is market ready, but more time is needed to develop viable alternatives to fossil fuels. EU funds should be used strategically by

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<sup>4</sup> For more detailed views on employment and skills in the fisheries and aquaculture supply chain, see the advice on the "European Year of Skills", adopted on 30 March 2023: <https://marketac.eu/european-year-of-skills/>.

Member States to reward those part of the value chain that are investing in less impactful and less energy intensive systems. The Commission's new comprehensive guide released this year serves as a valuable resource for understanding the diverse funding options available to support the energy transition of EU fisheries and aquaculture<sup>5</sup>.

Public funds will not be sufficient to support the transition in its entirety. Since the entire value chain of fishery and aquaculture products is facing a major crisis, if the Commission's commitment to decarbonisation does not have tangible financing measures, the sector will not be encouraged to invest with its own funds in these initiatives. In terms of business environment, it is necessary to create an environment supportive of innovation and risk taking, including by addressing existing legislative barriers.

Transitioning to new sources of energy will be extremely expensive. It is therefore imperative to explore and secure alternative funding sources. In this context, banking institutions can play a crucial role in fostering a fair and competitive energy transition through offering loans, guarantees, equity investments, and advisory services. These tools should support production and infrastructure changes relevant to the industry that contribute to lowering carbon emissions, alongside providing training and capacity-building opportunities.

The Commission has initiated work towards making investments more sustainable, but more works needs to be done to direct these funds towards the fishing and aquaculture sector. Examples of measures that could be set-up include setting-up bank guarantees on investments made to transition away from fossil fuels to limit the risk taken by banking institutions.

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<sup>5</sup> European Commission, Directorate-General for Maritime Affairs and Fisheries, Guide on financing the green energy transition of fisheries and aquaculture – Supporting the energy transition in fisheries and aquaculture through EU funding opportunities under the 2021-2027 multiannual financial framework, NextGenerationEU and beyond, Publications Office of the European Union, 2023, <https://data.europa.eu/doi/10.2771/377801>

The development of specific guidance on access to funds and assistance mechanisms does have added value. The guidance should also include the funds available for the processing industries. As an example, the fishmeal and fish oil industry is concerned about the lack of funding opportunities, since it is not covered by the General Block Exemption Regulation or by the EU funding possibilities for the fisheries and aquaculture sector. Additionally, the Commission should consider the publication of a guidance document aimed at bridging the knowledge gap between investors and the fisheries and aquaculture sector.

## **7. EU market of fishery and aquaculture products**

In the view of the MAC, in principle, the initiative will not have an impact on the EU supply of fishery and aquaculture products, since the objective of the partnership should not be to reduce the supply to decrease the sector's carbon footprint.

Nevertheless, the initiative should consider the entirety of the value chain, as to reduce vulnerabilities and support the European Green Deal ambitions, and as to not create negative externalities, such as a possible increasing reliance on imports of fishery and aquaculture products. Concurrently, the provision of information to consumers on the environmental impacts of fishery and aquaculture products could be facilitated<sup>6</sup>.

Presently, alternative fuels are more expensive than fossil fuels, which can lead to an increase in price for EU products to guarantee that primary producers do not bear the full cost. Any initiative that requires a strong investment will have an impact on the prices of its products in short and medium terms. The economic resilience of the sector will be increased only if supply of these alternative fuels is constant and not subject to price increases as seen for fossil fuels.

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<sup>6</sup> On this matter, it is important to keep in mind previous advice on the development of Product Environmental Footprint Category Rules for Marine Fish Products: <https://marketac.eu/recommendation-of-mac-concerning-product-environmental-category-rules-pefcr-for-marine-fish-for-human-consumption/>.

Through the decarbonisation of fishing and aquaculture activities, alongside the decarbonisation of the rest of the value chain, the resilience of sector can be increased. Positive impacts can include less exposure to volatility of energy prices and less days at sea for the same catch.

At this early stage and given that it is not clear what will be the exact content of the Commission's roadmap, it is difficult to evaluate whether the impacts on the market of fishery and aquaculture products have been comprehensively assessed or not.

## **8. Recommendations**

In the context of the ongoing initiative for the energy transition in EU fisheries and aquaculture, the MAC believes that the European Commission should:

- a) Proceed with the implementation of the initiative, with the aim of reducing the sector's dependency on fossil fuels and vulnerabilities as well as increasing sustainability and profitability, while expanding the initiative to the entire value chain;
- b) Proceed with the work of the Energy Transition Partnership for EU Fisheries and Aquaculture, with the aim of improving coordination and cooperation between stakeholders as well as the joint development of an operational roadmap, while increasing awareness on the existence and aims of the partnership;
- c) Develop an operational roadmap with solutions adaptable to each segment of the fisheries and aquaculture sector, while also coordinating with other maritime sectors for a sharing of the burden of infrastructural costs, coordinating within the supply chain to find common alternatives, and communicating the changes to the final consumers;
- d) When developing the operational roadmap, account for the need to develop workable solutions to decrease dependency on fossil fuels in parallel to the implementation of the agreed binding objectives;

- e) Proceed with the set of actions aiming to bridge the knowledge and technology gaps, while keeping in mind the present dependency due to the lack of practical technological and supply solutions as well as the lack of funding from the private and public sectors;
- f) Under the study on available technologies, promote the adoption of the technologies and practices that can tackle fishing and aquaculture practices and post-harvest value chain emissions (e.g., packaging, transport);
- g) Proceed with the set of actions aiming to develop skills and an adapted workforce, keeping in mind the lack of generational renewal as well as the need to develop new skills, while also covering the ancillary industries;
- h) Concerning the setting up of a virtual academy programme, complement the programme with in-person practical courses;
- i) Proceed with the set of actions on improving business environment, keeping in mind that the EMFAF will be insufficient to cover the proposed changes, meaning that alternative financing measures should be considered, such as other EU funds;
- j) Create a business environment that is supportive of innovation and risk taking, ensuring that banking institutions will be ready to fund the transition, including through increased visibility of the sector and increased attractiveness;
- k) When developing the specific guidance on access to funds and assistance mechanisms, include also the funds available for the processing industries;
- l) Publish a guidance document aimed at bridging the knowledge gap between investors and the fisheries and aquaculture sector;
- m) Ensure that the initiative does not create negative externalities, such as a potential increase in reliance on imports of fishery and aquaculture products, while also keeping in mind the potential increase in price for EU products;
- n) Clarify whether the potential impacts of the initiative on the market of fishery and aquaculture products have been comprehensively assessed.