

ENERGY TRANSITION PARTNERSHIP FINANCE WORKSHOP

Workshop Report

Background

Following on from the launch event on the Energy Transition in EU fisheries and aquaculture on 16 June 2023, the Energy Transition Partnership hosted its first workshop for stakeholders on the topic of finance. This workshop built on the panel discussions dedicated to finance during the launch event.

Workshop Objective and Deliverables

The workshop aimed to:

1. map the current challenges in terms of financing, from funding research to the final adoption of technologies by fisheries and aquaculture operators.
2. explore the currently available opportunities and tools for the transition, such as public funding opportunities in the EU and Member States and the role of private financing.
3. identify solutions and how we can collaborate and make use of synergies between programmes to effectively finance the energy transition in the fisheries and aquaculture sectors.

Target Audience and Expected Inputs

The workshop was open to all stakeholders that expressed their interest in the Energy Transition Partnership coming from across fisheries and aquaculture, as well as other-related sectors, that have a genuine interest and role to play in enhancing the financing environment to accelerate the energy transition in the sector. Such sectors were notably stakeholders from the fishers and aquaculture producers, financial sector, processing sector, fishing port authorities, insurers, NGOs, Advisory Councils, researchers and academia, shipbuilders, Member States and regional authorities dealing with relevant public (EU and National) funding tools plus EMFAF correspondents.

Workshop Execution

The workshop had two parts - Part 1 focused on the introduction to the challenge of financing and finance tools and funding examples, while Part 2 facilitated discussions with the participants to the workshop.

A short narration of the presentations delivered during Part 1 of the workshop is provided below.

Part 1: Welcome and introduction to the day and presentations of finance tools and funding examples

Title	Name and Affiliation of speaker
Introduction to the challenge of financing	Delilah Al Khudhairi, DG MARE
<p>Ms Al Khudhairi welcomed participants to the first Energy Transition Partnership (ETP) workshop, emphasizing its importance in the series dedicated to the energy transition in the aquaculture and fisheries sector. The workshop focused specifically on the challenging topic of financing this energy transition. The diverse set of stakeholders presented included fishers, aquaculture producers, researchers, energy industry representatives, academics, national and regional authorities, gear manufacturers, NGOs, etc..</p> <p>The overarching goal of the energy transition in the aquaculture and fisheries sector is to make it economically viable, resilient, and carbon-neutral by 2050—a contribution to the European Green Deal. Ms Al Khudhairi noted the sector's vulnerabilities, exposed by external factors, such as geopolitical events and fluctuating fuel prices, prompting the need for communication and strategy to enhance resilience.</p> <p>A Communication¹, adopted earlier in the year, aims to accelerate the sector's transition, with a focus on collaboration among stakeholders along the entire value chain. The ETP seeks contributions to deliver a roadmap with milestones and key deliverables by the end of the next year. To support these efforts, the Commission has launched a virtual knowledge-sharing platform under the ETP, where it has published a compendium of case studies and best practices on energy-transition innovations in the EU fisheries and aquaculture sectors. In the future, the compendium will evolve into a 'living' publication, gathering the best-case studies and best practices in the industry. The compendium will be selected by a team of experts representing several industries linked to the fisheries and aquaculture sector, and the team will be led by the ETP.</p> <p>Acknowledging the challenges unique to fisheries and aquaculture, Ms Al Khudhairi stressed the importance of addressing knowledge and innovation gaps, ensuring workforce skills, and creating a supportive business and financing environment. She added that the workshop specifically delves into financing opportunities, challenges, and potential solutions, aiming to identify building blocks for future development.</p> <p>Barriers, such as high investment costs for energy-efficient technologies, were highlighted, along with the need to navigate the complex landscape of EU financing opportunities. Ms Al Khudhairi expressed gratitude for participants' active involvement, emphasizing their crucial role in contributing to building blocks for the roadmap. The urgency of the task is underscored, given the short time frame for roadmap delivery.</p>	

Title	Name and Affiliation of speaker
Guide on Financing opportunities for the Green Energy Transition of Fisheries and Aquaculture	Liliia Akatova, ICF
<p>Ms Akatova introduced a Guide on Financing Opportunities for the Green Energy Transition of Fisheries and Aquaculture, addressing the increasing pressure to transition away from fossil fuels. The guide, prepared by the Commission, aims to enhance financial stability, sustainability, and resilience in alignment with the EU Green Deal. It simplifies access to information about funds supporting energy transition, covering five main</p>	

¹ COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS On the Energy Transition of the EU Fisheries and Aquaculture sector. COM/2023/100 final

sectors: innovation for vessels, energy-efficient equipment, energy management for aquaculture, industry infrastructure upgrades, and training and capacity building.

The guide serves as a comprehensive resource, differentiating itself by tailoring information to identify and assess EU funds for energy transition projects. It caters to a wide range of stakeholders, including SMEs, large enterprises, public administrations, research institutions, and civil societies. Ms Akatova emphasized that the guide will be a dynamic document, regularly updated based on stakeholder feedback. An online interactive PDF version is planned for the Energy Transition Partnership website.

The guide's features include an interactive table with information on fund budget, lifespan, funding manager, supported projects, funding stages, and types of investment instruments. Ms Akatova presented an example fund, Invest EU Green Transition, illustrating its scope, objectives, applicable project stages, successful projects, budget details, and target beneficiaries.

The guide concludes with information on the award process, technical assistance, and contact details for managing authorities. Ms Akatova encouraged stakeholder feedback to improve the guide, underscoring its role as a valuable tool in navigating and accessing financing opportunities for the energy transition in fisheries and aquaculture.

Title	Name and Affiliation of speaker
EMFAF support for the Energy Transition	Eoin Mac Aoidh, DG MARE
<p>Mr Mac Aoidh shared about the role of the EMFAF in supporting the energy transition in fisheries. Emphasizing climate and Green Deal objectives, he highlighted the need for improved efficiency in vessels, gears, fishing techniques, and models. The motivation for this transition includes climate goals, rising fuel prices, and a desire to enhance sustainability and resilience in fisheries.</p> <p>The EMFAF supports the assessment and development of new technology and investments in mature technology. Unlike its predecessor, the EMFF, the EMFAF offers more flexibility for Member States to define funding priorities, promoting creativity and adaptability. There is a list of ineligible expenditures, and those things cannot be financed. But apart from that, it's up to the Member States to define how their programme will work.</p> <p>Mr Mac Aoidh suggested potential financing areas such as energy efficiency audits, feasibility studies, technology testing, and dissemination of innovations.</p> <p>Mr Mac Aoidh distinguished between the testing of new technologies and the investment in mature technologies, detailing the conditions and limitations for vessel-related investments. Notable areas for energy efficiency include hydrodynamic changes, alternative fuels, and modifications for vessels smaller than 24 meters.</p> <p>The presentation underlined the importance of avoiding unintended harmful effects and overfishing by placing conditions on certain types of investments.</p> <p>Access to EMFAF support is primarily through the Managing Authority in each Member State. Each Member State is responsible for their own EMFAF programme.</p> <p>During the period from 2021 to 2027, Member States have allocated €94.8 million to the EMFAF under Articles 17, 18, and 19. This amount is considered not substantial, and feedback from Member States highlights concerns about technology readiness and a reluctance to take risks in investments. Member States have the potential to increase available funds, with a theoretical limit of about 10% of the EMFAF budget on those articles. Currently, the utilization rate is around 1%, indicating significant room for improvement. Beneficiaries can receive support in the form of grants or financial instruments, which</p>	

constitute the main part of EMFAF. Additionally, a small portion of the budget is managed directly by the Commission.

Mr Mac Aoidh provided information on other funds that complement the EMFAF, such as Horizon Europe and the partnership on zero emissions for waterborne transport. The presentation concluded with an invitation to explore calls for direct management by the Commission and highlighted the support provided by key funds like Horizon Europe for the decarbonization of the blue economy.

Title	Name and Affiliation of speaker
Opportunities available in the BlueInvest	Claus Schultze, DG MARE
<p>Mr Schultze provided an overview of BlueInvest main services, emphasizing its role in supporting startups and SMEs in ten sectors with high potential to support green digital transition. These services include investment readiness support and collaboration with investors, especially venture capital and private equity investors. The platform, consisting of around 2,000 members, focuses on creating a responsive financial ecosystem for blue tech innovations.</p> <p>BlueInvest is not portrayed as a funding programme but as a facilitator, connecting investors with companies. The platform relies on a blending instrument called Investor Economy, aimed at crowding in private investments and promoting sustainability. Mr Schultze highlighted the significance of private sector involvement. Every euro from the BlueInvest blended instrument generates 3 to 5 EUR from the private sector.</p> <p>The speech delved into the various pillars of BlueInvest, including its community, events, market-focused activities, and its role in supporting innovation in energy - one of the ten sectors it serves. It also outlined the investment readiness support schemes provided, and detailed their success in coaching around 300 companies.</p> <p>The platform's collaboration with investors was emphasized, including its efforts to train around 150 investors interested in expanding their portfolios into the blue economy. The BlueInvest Fund and the larger InvestEU Blue Economy fund were introduced as initiatives to support and fund innovations in the blue economy.</p> <p>The speech concluded with a focus on what investors are looking for in potential investments, emphasizing the importance of a well-structured business case, impact, team composition, scalability, market knowledge, intellectual property, and a comprehensive sales and marketing plan.</p>	

Title	Name and Affiliation of speaker
Opportunities available in the EIB	Jean Francois De Saedeleer, EIB
<p>Mr De Saedeleer discussed the challenges and complexities associated with financing the energy transition and sustainability in the fishing and aquaculture sector. The European Investment Bank (EIB) has invested 7 billion euros from 2018 to 2022, leveraging 24 billion. Despite this significant investment, the sector remains relatively small, primarily due to its complexity and the necessity for seamless coordination among diverse stakeholders.</p> <p>The crux of the challenge lies in addressing not only the energy transition but also sustainability aspects. Mr De Saedeleer emphasized the interconnectedness of these factors, citing examples such as the need to simultaneously address fuel efficiency and fish stock management, illegal fishing, fishing methods, and</p>	

overall welfare. This holistic perspective calls for rejection to operations that lack guarantees of sustainable fishery management.

The EIB's operational scale involves direct or intermediate financing. For direct financing, the minimum investment is 15 million euros, making it challenging for small fishers to engage. Consequently, the EIB resorts to loans for intermediaries who then distribute funds to SMEs and other smaller entities. However, assessing sustainability aspects in the absence of dedicated certification or public guarantee poses a challenge, requiring trust in third-party.

The complexity further intensifies as financing one operation often demands simultaneous financial support for related activities involving multiple stakeholders (e.g. when you provide funding for the research and development of new vessels, it will also be necessary to allocate funds for the people who will buy these vessels and for the port authorities to install the necessary equipment for the new technologies associated with these vessels).

Mr De Saedeleer identified the sectors that could be more accessible for EIB involvement, including port infrastructure, low-carbon solutions, energy efficiency, food processing, and a holistic approach to supply chain management, including stock rebuilding. Additionally, he discussed the idea of promoting vessel sustainability, suggesting that port authorities or vessel manufacturers could act as facilitators in this transition. Mr De Saedeleer acknowledged the advantages of such a transition, including the potential for increased volume necessary for the EIB to consider making the investment on one side, and the potential for reducing fishers' costs on the other side. However, Mr De Saedeleer highlighted the challenge of incentivizing fishers to accept and implement these changes, particularly considering the challenges associated with adapting gears and fishing methods.

Despite these challenges, Mr De Saedeleer underscored the EIB's commitment to the sector and discussed potential solutions. Advisory support, including technical assistance and financial advice, is offered to navigate the complexities.

Title	Name and Affiliation of speaker
Example of a green investment in a vessel	Sebastien Crom, Région Bretagne
<p>Mr Crom provided an overview of the seafood sector in Brittany, emphasizing its significance in terms of employment and economic value. Brittany was highlighted as a leading region in France and Europe for fish products, with a considerable number of vessels, fishers, and annual fish production. Beyond economic aspects, seafood is portrayed as a culturally rich activity fostering coastal community development through tourism and restaurants.</p> <p>The main focus of the presentation was on Brittany's strategy for integrating energy transition into the seafood industry. The approach involves decarbonizing the fishing fleet, supporting company investments by dealing with all auction points, port infrastructure, and processing sectors. Mr Crom mentioned the inclusion of energy transition criteria in public tenders with the private sector.</p> <p>Two projects were highlighted: one for an aquaculture vessel with hydrogen as the main energy source, and the other, called Pilothy, aimed at retrofitting an existing trawler with hydrogen. The budget for both projects is EUR 1.5 million, with regional aid up to EUR 375,000 per project. The Pilothy project, a two-year initiative, has already used EUR 87,000 of funding.</p> <p>Mr Crom emphasized the importance of a local company pool, promoting circular economy principles.</p> <p>The Pilothy project was focused on retrofitting a trawler with hydrogen as the main energy source. Mr Crom described the challenges faced in decarbonizing the vessel, highlighting the financial impracticality of retrofitting the already existing vessel. The project explores now the feasibility of supplying hydrogen to the fishing gear and onboard energy while retaining the main engine. Results indicate energy savings of 10-15%, a reduction of 500 liters of diesel per fishing tide, and a yearly decrease of 75 tonnes of CO₂ equivalent</p>	

emissions. However, unexpected consequences include a 30% reduction in vessel capacity and a 30% increase in power consumption.

The presentation mentioned also future plans to launch a fully electric small-scale vessel.

Part 2: Knowledge sharing and networking

Below is a list of probing questions posed to participants during two breakout sessions. Participants were asked to share their experiences and advice on the specific topics. Responses to these questions have been collated in section “Workshop outputs”.

Breakout session I: Problem definition & Challenges:

1. **How do you judge the availability of funding opportunities for the energy transition in your sector?**
2. **From your experience, what are the main challenges (e.g. information, conditions, eligibility criteria, amount, etc) you encounter in accessing funding and financing opportunities?**
3. **In your experience, how does the financial position of the sector affect the possibility to attract private investments?**
4. **What criteria do private investors look for in a project? How do projects in the energy transition of the sector adhere to these criteria?**

Breakout session II: Possible actions and solutions:

1. **For the current state of the transition in your sector, where do you believe is the most potential for allocating funding for accelerating the energy transition in the sector (e.g. research, development, testing, infrastructure, supporting uptake of innovation, training)?**
2. **What are the most important actions in the short term to be taken by the different group of actors in the energy transition, to overcome the current challenges in the availability and accessibility of public funding? And what are the actions on the medium to long term?**
3. **How can the information and support about accessing public funding be improved? Which actors or organisations would be the important in this?**
4. **What do you think are the most important actions to be taken by the different group of actors in the energy transition, to make projects in the energy transition in the sector more “investable”?**

Workshop outputs

This section summarises the key points raised during the discussion by the different stakeholders.

Breakout session I: Problem definition & Challenges:

Question 1: How do you judge the availability of funding opportunities for the energy transition in your sector?

- **EMFAF funding opportunities are limited and lack flexibility**, necessitating the inclusion of all fishing segments to address sector-wide needs.
 - The primary focus is on innovation and large corporations, with some attention given to training and skills development. However, there seems to be insufficient funding directed toward engine replacement and energy-efficient systems.
 - Moreover, the availability, knowledge, and access to funding at small, local scales are major issues due to the small and fragmented nature of the fisheries sector, making it challenging to ensure a complete and unbroken dialogue between fishers, policymakers, and funding opportunities at a local scale.
 - EMFAF's focus on vessels under 24m does not address all segments.
 - Limitations in investing in older vessels need to be addressed to ensure rational allocation of funds. Allocating substantial funds to vessels that are 40 years old may not make sense without considering how long they will operate post-retrofit.
 - The budget is also very small for each nation under EMFAF.
- **A gap exists between available funding opportunities and sector needs/knowledge.** Fishers are often unaware and have limited links to policymakers, hindering awareness of funding opportunities.
- Stakeholders find it confusing to navigate the abundance of available funding, with **different conditions and criteria.**
- Energy transition has gained higher priority post-Ukraine, necessitating an adjustment in available resources to sustain EU independence on energy resources.
- National priorities are set by each nation during the funding period, and EMFAF calls would need to incorporate and include these as part of their needs analysis to ensure they are fit for purpose and best adapted for each Member State
- Finding suitable calls is challenging, especially in aquaculture where there is no consensus on how to move forward. The way forward in the fishing sector is clearer compared to aquaculture.

Question 2: From your experience, what are the main challenges (e.g. information, conditions, eligibility criteria, amount, etc) you encounter in accessing funding and financing opportunities?

- **Lack of knowledge and transparency.** Challenges in funding assessments highlight the need for clear information on EU and Member State funding options. EU initiatives like EMFAF, Horizon Europe, ERDF, and the Innovation Fund, along with state aid, will offer pivotal support. Limited awareness and transparency regarding available financing means, leading to unused funds. Stakeholders often lack understanding of financing options, for example with institutions such as the European Investment Bank. More capacity building would be needed. Hosting events, such as this workshop, to present opportunities at a national/regional/local level is necessary to show fishers what is available to them and how they go about applying for funding.
- **Complex Language.** Funding calls often use complex language, limiting understanding and access for some stakeholders.

- **Programme design.** Funding programs are constructed around general themes, making it difficult to focus on specific measures for energy transition. There are no specific funding calls addressing industry-specific issues. The complexity is aggravated when businesses join as consortia, leading to difficulty in selecting a call that aligns with the diverse needs of all actors involved. There is a need for industry-wide consensus on the key problems that require targeted funding support.
- **Eligibility criteria.** Focus on fishing capacity may limit innovation (GT, kW, length). In addition, it was noted that, while some Member States did use the EMFAF to open calls related to the energy transition, potential beneficiaries suffered from lack of information and clarity about scope and options.
- **Bankability.** Accessing funding for energy transition in fisheries requires demonstrating long-term bankability amidst challenges like legal changes, climate influences, and the sector's small scale. To attract investors, replicating successful solutions in other sectors is crucial, necessitating positive political support for investor confidence.
- **Identification of investments.** The challenge lies in determining what should be funded and identifying the best investments. More information is needed for both public authorities and local/regional actors to understand funding possibilities and sound investment options.
- **Lack of clarity and vision.** As of now, there is a lack of clarity on the vision for the decarbonization of fisheries. The purpose remains uncertain — whether it is intended to spur economic growth, contribute to the food chain, or align with the goals of the Green Deal.
- **Discrepancy in resources and sector challenges.** There is discrepancy between available financial resources and substantial sector challenges. Different fishery subsectors present distinct challenges, and the capacity for banks to understand these differences is also a significant challenge.
- **Coordination of public-private funding and managing transition between them.** Initially, a public push is essential, considering the substantial investments and inherent high risks that make investors cautious. While public investment is important, the timing of the shift from public to private funding is crucial. It is imperative to recognize that continuous reliance on public investments cannot replace the role of private funding.
- **There is a need for more planning and coordination when proposing fund regulations.** The concern is that without careful planning, each Member State may propose different versions of funding mechanisms or regulations. The challenge is to ensure a more homogeneous and standardized approach.
- **Maritime Spatial Planning is fragmented, limiting energy supply.** There is a need for harmonization to enable a more efficient energy supply.

Question 3: In your experience, how does the financial position of the sector affect the possibility to attract private investments?

- **Negative image and communication.** Despite being highly sustainable, the sector has a negative image, necessitating improved communication to change perceptions.
- **The economic cycle of the sector requires targeted support** during poor performance years to attract private investments.

- **Problems related to the allocation of funding within the fishing sector.** Funding tends to be directed toward small-scale fleets, where profits are low. This allocation pattern makes it challenging to attract private investors to these small-scale operations.
- **Difficulties in engaging private investors in less attractive sectors such as fisheries.** Aquaculture, in comparison to fisheries, is often characterized by being a large and industrial sector with greater profitability and increased opportunities for risk capital. This suggests a likelihood of attracting more significant investment over the long term. In contrast, fishing is the polar opposite. The fishing fleets are typically small-scale, with older vessels owned by families or individuals. While they can have societies to assist in funding, very few are capable of affording the significant investments required, especially considering the greater risk in investing in these smaller enterprises compared to the larger industry. There is a need for measures to encourage private investment in these less attractive sectors, such as co-finance support, as it is difficult to attract investment if your business appears less attractive than others.
- **One of the key factors influencing the attractiveness of the sector for investors is large-scale sustainability.** In the mussel aquaculture sector, for example, there are questions raised about its sustainability due to issues surrounding seed mussel availability. Similarly, technological improvements, solutions, and developments taking place in the industry/business to support this long-term sustainability have to be visible to demonstrate the long-term viability of the sector and thus attract private investment.
- **The economic prosperity of the aquaculture sector is influenced by factors beyond economic conditions.** For instance, Spanish aquaculture exhibits high variability, with investment opportunities differing based on the structure of each sector. The mussel aquaculture sector, for example, can range from large businesses to small family operations, impacting factors like capacity, capital, business size, markets, and networks. Similar variations exist in other sea basins, such as the Mediterranean, where different types of aquaculture, markets, and scales further affect the financial landscape. These considerations are crucial for investors and impact the potential to attract private investments.
- **The private sector is currently facing a limited cash flow** due to the ongoing crisis, making it challenging to initiate investments and attract other investors.
- **The absence of a clear fuel alternative is a current challenge.** Despite this, there is recognition of the potential for action in terms of energy efficiency. Future concerns include the availability of raw materials, particularly in a scenario of widespread electrification. This prompts consideration of the energy source and encourages a broader, global perspective.
- Continued EU support for fossil fuel production in fisheries does not sustain sustainability practices. Effective financial measures for decarbonization depend on restoring fishing stocks and eliminating subsidies, including fuel tax exemptions.
- The role of fisheries is primarily to provide food with a low environmental footprint. Compared to other sea vessels, the impact of their energy transition would be negligible. Ensuring the long-term viability of fisheries businesses is crucial and influences all related aspects. Public funding can stimulate the energy transition if available. Funding opportunities for the energy transition within the EMFAF are viewed as weak. There are calls for the CFP to be reformed if there is a desire for the energy transition to take place in fisheries as well. However, it should be remembered that the role of fisheries is basically the provision of food with low footprint, and compared to other sea ships, the impact of their energy transition would be negligible. The long-

term viability of businesses in fisheries is important and everything that affects it. The current Common Fisheries Policy (CFP) poses challenges in attracting private investment.

Question 4: What criteria do private investors look for in a project? How do projects in the energy transition of the sector adhere to these criteria?

- **Profitability** is considered the most important factor.
- **Sustainability** (Sustainable Development Goals, sustainable investment etc) should be used as a leverage point to attract investors. It was noted that some sustainability issues and controversies in fishing might deter investors.
- **Return on Investment (ROI)**. There is a lack of clarity on the return on investment for many projects at the early stages that can be attributed to several factors (uncertainty and risk, incomplete information, technology and innovation risks, etc).
- **Market size**. Investors may invest in a proof of concept, but developers may simultaneously explore opportunities for scaling up in alternative maritime sectors where the market potential is more significant, thereby enhancing the attractiveness of the investment. Scaling is something that is important for private investors but is often difficult in the fisheries sector.
- **Predictability**. Private funding needs predictability, which is challenging in fisheries and aquaculture. Predictable conditions enhance investor confidence.
- **Possibility for combined results**. It is important that a project can yield combined results by aligning with and complementing other initiatives in the energy transition. There is a need for compatibility and synergy between diverse projects, such as integrating mussels with offshore wind energy infrastructure. Additionally, there is the potential to contribute to green credit systems, support the development of related projects, and make social contributions, including carbon sequestration and increased energy efficiency.
- **The private sector is interested in discussing the potential transition to alternative fuel with academia**. However, making this transition poses challenges for fisheries. The difficulties mentioned include the high cost, limited availability of suitable technology, and the absence of significant benefits to incentivize fishers to invest in alternative fuel technologies. Moreover, even if there is a perception among fishers regarding the benefits and the need for transition, in fisheries, investment is more focused on improving aspects such as catch efficiency and more efficient access to fishing grounds.
- **Strategies to attract private investors in the fisheries and aquaculture sector include**
 - improving the industry's image.
 - initiating pilot projects to demonstrate feasibility and draw additional investors.legal certainty is highlighted as a key aspect, emphasizing the need for a stable legal framework to instil confidence in investors, stabilize the sector, and minimize perceived risks. The perceived lack of a comprehensive vision and unclear policy signals hinder fisheries and investors.

Breakout session II: Possible actions and solutions:

Question 1: For the current state of the transition in your sector, where do you believe is the most potential for allocating funding for accelerating the energy transition in the sector (e.g. research, development, testing, infrastructure, supporting uptake of innovation, training)?

- **Aquaculture technology.** Exploration of new feeding systems using sensors for reduced waste, improved fish welfare, and increased efficiency. Implementation of mathematical solutions to define feed requirements
- **Analysis and roadmap development.** There is a need for comprehensive analysis, including energy demand scenarios, to identify priorities and common challenges in aquaculture. Based on the analysis, the European Commission should develop a comprehensive roadmap with strong policy signals, aligning funds with net-zero priorities and minimizing ecosystem impacts. This roadmap, adopting a systems approach, should address biodiversity loss, prioritize immediate measures for GHG reduction in fisheries, and promote sustainable practices..
- **Technology platforms and multi-use platforms.** The necessity for collaboration and funding for technology platforms in the aquaculture sector. Exploration of multi-use platforms integrating aquaculture activities, such as wind farms.
- **Studies for developing new fuels** to meet diverse fleet requirements and fuel viabilities.
- **Training and education.** Investment in training fisheries for the energy transition, covering future technologies and already existing solutions (such as new propulsion methods, fishing techniques, structural enhancements, alternative gear) and explaining their role in the process. Training programmes for fishers are crucial for their role in driving the net-zero transition. Member States should enhance guidance for fishers' access to funding, provide local administrative support, and implement ecosystem-based fisheries management.
- **Knowledge.** Spreading knowledge about energy savings and benefits throughout the value chain and lifecycle. Promotion of the use of alternative materials, with a focus on circular alternatives to plastic.
- **Auditing.** There is a need for comprehensive greenhouse gas emission tracking and audits across the entire value chain.
- **Collaboration between science and industry.** Collaboration between the scientific community and industry for successful energy transition is essential.
- **Fleet renovation.** renovation of the ageing fleet to create more space for fuel and crew.
- **Pilot projects and implementation support.** Promotion of pilot projects as a means to test and implement innovative energy transition solutions. Support for the effective implementation of investments.
- **Create a knowledge platform** that gathers information about various research/pilot projects in various stages of their development, including available results, etc. This would strengthen the exchange of good practices and help avoid each research project having to 'reinvent the wheel'.

- **Funding concentration.** There is a need to concentrate funding on initiatives aimed at reducing reliance on fossil fuels.
- **Technology Implementation.** There is a need to transition existing technology from development to operational use within companies.
- Investments in **gear efficiency** to reduce fuel consumption.
- Additional co-finance or increased co-financing to incentivize and **encourage private investment in less profitable sectors** of the fishing industry such as small-scale fleets.

Question 2: What are the most important actions in the short term to be taken by the different group of actors in the energy transition, to overcome the current challenges in the availability and accessibility of public funding? And what are the actions on the medium to long term?

- **In the short term,** the focus should be on allocating funding towards energy efficiency, research for innovative fuel alternatives, and easily achievable improvements, including energy savings, gear adjustments, energy audits, and training for fishers.
- **For the longer term,** there is a need for regulatory adjustments, including those related to the Common Fisheries Policy (CFP), the EMFAF, and state aid guidelines. It is suggested that these regulations be reviewed to ensure support for the energy transition.
- **Establish a comprehensive strategy** to define priorities and actions for each actor involved. To achieve this, there is a need for a comprehensive understanding of fishing activities, including various aspects such as types of fishing gear used, the frequency of trips, energy demands, distances travelled, and the age of vessels. This understanding is crucial for assessing the level of investment required to decarbonize both the fleet and the fishing industry as a whole.
- **Form consortia,** particularly through technology platforms, to strategically support the sector.
- **Risk and benefit evaluation.** Evaluate economic risks and benefits of investments to demonstrate value to investors.
- **Engagement:**
 - Implement a coordinated approach to engage with fishers and aquaculture operators, avoiding duplication and stakeholder fatigue. Recognize the diverse demands within different sub-sectors.
 - Engage with the ship-building industry for vessel development and efficiency design, including innovative designs like the inverted bow in fishing.
- **Information sharing.** Promote information sharing between different actors to enable collaboration, addressing current limitations in knowledge exchange.
- **Sharing infrastructure with other sectors** could make energy supply and infrastructure development/investment more viable. All are looking at energy transition, including military vessels.

- **Innovation and research:**
 - Direct public funds towards supporting innovation and testing, exploring innovations from other maritime sectors and adapting them to the fishing sector.
 - Invest in more sensors and research on the fleet for informed decision-making.
 - Decide on the most suitable technology or solution for each case, considering regional and fleet-specific factors.
- **On-board monitoring strategies.** There are some easily implementable solutions, such as "slow steaming," in the fishing industry, but there is a need for continuous on-board monitoring strategies to determine the optimal vessel steaming regime in terms of fuel consumption for different fishing operation scenarios.
- **Other ideas included:** phasing out fossil fuel subsidies in EU fisheries is essential; redirecting funds for a net-zero transition; develop national schemes for energy transition under state aid; formulate strategic plans for different regions; implement pilot projects in various regions; utilize taxes to support circular economy initiatives; focus on innovation research to find the vessel of the future; reflect on incentives for the fisheries of the future, potentially through taxation; allocate public funding for adaptation research to attract private investment and support sector growth; consider adjustments to EU borders and focus on utilizing EU own resources.

Question 3: How can the information and support about accessing public funding be improved? Which actors or organisations would be the most important in this?

- Several actors and tools have been identified that could support the access to public funding:
 - **Producer Organizations.** It is important to strengthen the role of producer organizations in energy transition, leveraging their capacity to disseminate information to small enterprises. Public support is crucial for this initiative.
 - **Advisory Councils and research centres.** It was suggested to leverage advisory councils and research centres to assist in communication and information dissemination about funding opportunities.
 - **National public authorities.** They should be encouraged to gather all relevant information about funding opportunities and conduct national sessions to educate on financing options.
 - Utilize **Community-Led Local Development (CLLD)** as a tool to engage local communities in the energy transition process.
 - **Establish a single website** as a centralized resource to provide small enterprises with easy access to various funding possibilities for the energy transition.
- Other identified actions supporting access to public funding include:
 - Identifying and communicating regional investment needs, with information gathered at the regional level.
 - Involvement of regional governments and bodies **facilitating the formation of consortia** involving sector partners, technology providers, and researchers.

- **Sharing examples of successful energy transition projects**, emphasizing cost savings and benefits for businesses.
- **Organizing events** to connect stakeholders and disseminate information and technology.
- **Providing technical assistance** to help producers and fishers identify funding opportunities.

Question 4: What do you think are the most important actions to be taken by the different group of actors in the energy transition, to make projects in the energy transition in the sector more “investable”?

- **Risk Reduction for Private Investors.** It is important to demonstrate broader benefits of investing in the sector, emphasizing its importance as a significant food provider and aligning with societal goals, including the Sustainable Development Goals (SDGs).
- **Demonstrate the viability of technology** and projects through robust financial analysis.
- **Identify leaders** in energy transition within the sector and share their successes as best practices.
- **Foster linkages with other sectors**, such as offshore wind, to showcase mutual benefits and added value.
- **Improve business models** to make companies more appealing by focusing on effective sales strategies and raising consumer awareness of the sector's sustainable practices and advantages of its products. Building a strong reputation for sustainability with consumers can subsequently attract investors.
- **Facilitate regional-level planning** and collaboration involving various stakeholders.
- Encourage public authorities to provide some public derogations to enhance attractiveness for investors.
- **Promote local initiatives** to enhance the appeal of energy transition projects.
- It is essential not only to ensure sustainable stocks and environmentally friendly vessels but also to address social and economic factors, such as attracting new generations to the sector, maintaining competitive prices to support local and European fish consumption, and effectively communicating the importance of sustainable practices. Proactive and positive communication is a key strategy, focusing on solutions rather than problems, to encourage the adoption of decarbonization solutions and promote a truly sustainable and investable future for the fisheries and fishing industry.

Follow-up Actions

After the event, participants were encouraged to provide further feedback in writing. An online form with the same questions asked during the event was made available online for sharing further food for thought.

Annex 1 - Agenda

9h30 – 10h00	<i>Registration & Welcome coffee</i>
10h00 – 10h30	Welcome and introduction to the day (Moderated by Stephen DAVIES(MARE)) Icebreaker Introduction to the challenge of financing Round table
10h30 – 11h30	Presentations of finance tools and funding examples: <ul style="list-style-type: none">○ Presentations on EU funding opportunities○ Example of an energy transition investment in a vessel
11h30 – 11h50	<i>Coffee break</i>
11h50 – 13h00	Breakout session I: Identification of challenges in different types of funding: public, EU, private
13h00 – 14h00	<i>Lunch break & networking</i>
14h00 – 15h10	Breakout session II: Identification of solutions & possible actions: how each stakeholder can contribute to a solution and where synergies and opportunities for collaboration can be found
15h10 – 15h40	Presentation of Conclusions and Recommendations
15h40 – 16h00	<i>Closing and networking</i>