

Workshop on the European Green Deal – Challenges and opportunities for EU fisheries and aquaculture – Part I: Decarbonisation & circular economy aspects for fisheries


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Decarbonisation of the fishing fleets and the application of circular economy practices in fisheries have been the main strategy fostered for the fisheries sector to make Europe carbon neutral by 2050, as requested by the European Green Deal. Solutions, funds and regulations are available, however, the implementation of solutions within the European fishing sector is low due to economic, human, regulatory, technological and information barriers.

Main observations

The solutions applicable to embrace decarbonisation and circular economy practices within fisheries are shown in the Figure below. The challenges detected by the study are the following:

The study

gives insight on solutions, challenges and opportunities regarding decarbonisation and circular economy practices for fishing fleets and the fisheries value chain.

Economic barriers:

Investing in low carbon practices and equipment is often difficult for shipowners, particularly challenging for small scale fishers due to lack of funds or eligibility criteria, no compensation to risks taken, and high fuel price.

Human barriers:

Fishing is still a traditional sector, which often hampers proactivity towards innovations.

Regulatory barriers: Regulations often act as obstacles rather than facilitators for innovations. For instance, some solutions may increase the gross tonnage and engine

power of the vessels, only small-scale fisheries are eligible for funding (EMFAF), and asking for funding may imply high administrative burden.

Technological barriers: There is no one-size-fits-all solution valid for all fisheries. Ports need to be ready to supply alternative energy for fishing vessels.



Information barriers: Information about technologies and benefits is not well communicated. Fishers should be well-informed and trained on decarbonisation solutions.

Circular fishing gear: Fishing gears are made of a mix of polymers and metals. This hampers the disassembly and sorting, hindering their recycling.

Collection of discarded gears and marine litter requires awareness, storage space onboard and in port, a good reporting, willingness to collaborate amongst fishers, port and waste managers, and training.



Conclusions and policy recommendations

Roadmaps for decarbonisation and circular economy in fisheries are needed to achieve a carbon neutral European Union by 2050. Here some recommendations:

- **Decarbonisation of EU fleets**

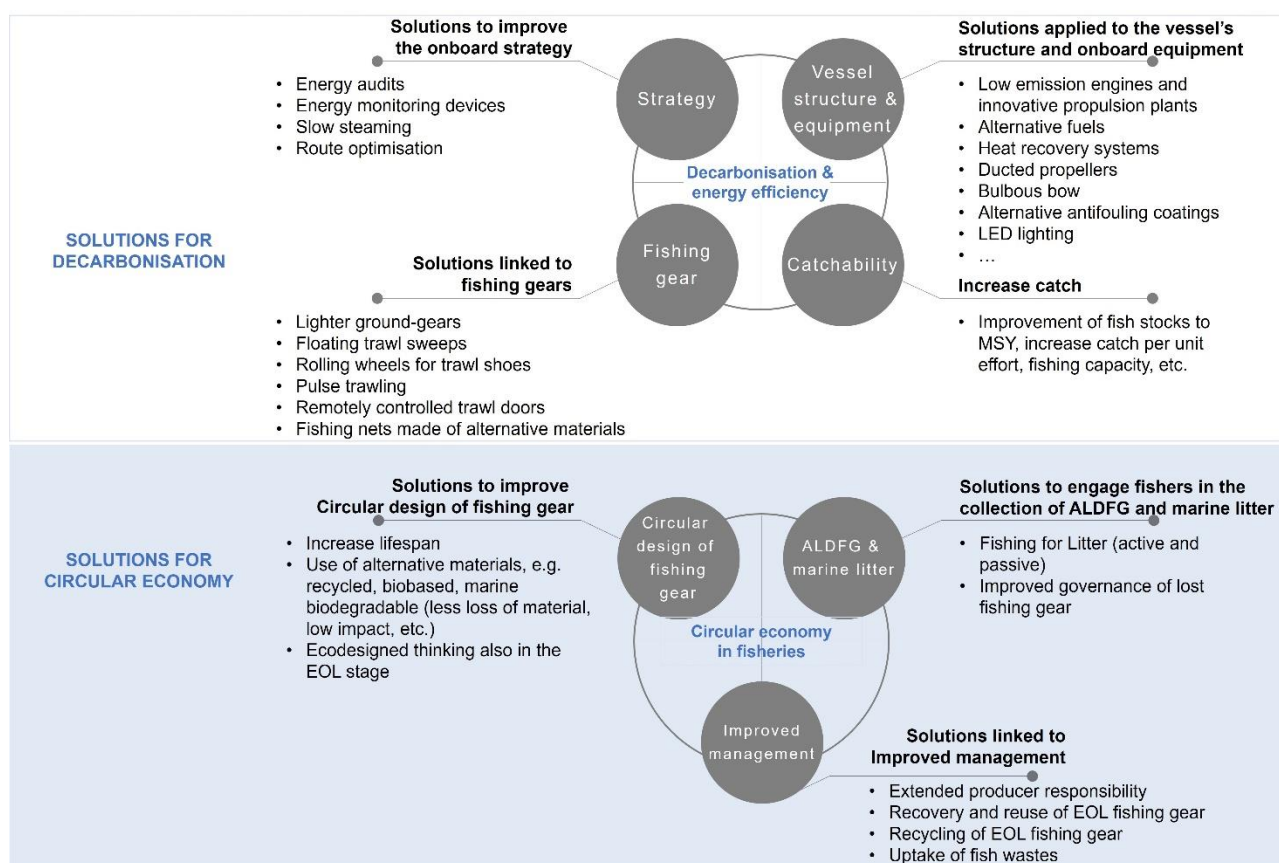
Monitoring of energy consumption and defining energy and activity patterns of the fishing vessels are key to efficiently define tailored-solutions. Well-established monitoring reporting will help fishers make sound decisions on how to decarbonise their activity. Energy monitoring devices should be promoted in all vessel segments. Fishers need to be oriented and motivated to adopt solutions; this can be achieved by a good communication strategy, incentivising skippers that are energy efficient and through quality training.

Sustainability certifications should include decarbonisation scores to compensate those fishers engaged in energy efficient practices. Energy transition required funding that is more inclusive.

- **Circular economy in EU fisheries**

The Fishing industry and its value chain has encompassed some circular practices, even jobs have been created; however, they are still limited and not continued in time. The design of circular gear needs to be defined and standardised. Ports are key to embrace the circularity in fisheries, this needs to be coordinated, where the collection, sorting, conditioning and recycling of end of life (EOL) fishing gear and marine litter is at its core. Extended producer responsibility (EPR) schemes should be fostered and cooperation amongst stakeholders guaranteed.

Summary of solutions applicable to embrace decarbonisation and circular economy practices within fisheries



Source: own elaboration of the study authors.

Note: MSY = maximum sustainable yield; ALDFG = abandoned, lost or otherwise discarded fishing gear; EOL = end of life

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Responsible for this At a Glance Note: Kinga OSTANSKA and Marcus BREUER,

Contact: Poldep-cohesion@ep.europa.eu; Further information: www.research4committees.blog/pech. Follow us: [@PolicyPECH](https://twitter.com/PolicyPECH)

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