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THE CHALLENGE

The European Union supports the large-scale expansion of aquaculture as it creates economic growth and employment. Offshore mussel aquaculture has been identified as a promising sector for the expansion and growth of European aquaculture. However, to date the ropes used in this sector are mostly manufactured with petrol based (non-recyclable) plastics, which can potentially contribute to marine litter generation and impact on the marine environment when not disposed of correctly. This needs to be addressed in order to create a more sustainable and eco-friendlier aquaculture sector.

PROJECT OBJECTIVES

BIOGEARS aims to provide the European aquaculture sector with biobased, biodegradable ropes that are durable, marketable and fit-for-purpose, and hence have a highly reduced carbon footprint along the whole value chain. The consortium will work together to:

- Develop and test prototypes of biobased ropes at lab and pilot scale, and examine their potential use in mussel and seaweed integrated multi-tropic aquaculture (IMTA) production systems.
- Assess the sustainability of the biobased rope prototypes, conducting technical, economic and environmental analysis of their performance at sea, to select the best to proceed with.
- Take the results closer to market and support the replication of the research and its implementation Europe-wide.
- Effectively disseminate the outcomes of the project to ensure wide uptake of the new solutions.

AT A GLANCE

PROGRAMME: EASME European Maritime and Fisheries Fund (EMFF)

CALL: EMFF-01-2018 Blue Labs: Innovative Solutions for Maritime Challenges

TITLE: Biobased gears as solutions for the creation of an eco-friendly offshore aquaculture sector, in a multitrophic approach, and new biobased value chains

ESTIMATED PROJECT BUDGET: €1.1 Million

TOTAL EU CONTRIBUTION: €945,000

DURATION: November 2019 – October 2022 (36 Months)

CONSORTIUM: Five partners in three European countries (Spain, Belgium, Ireland)

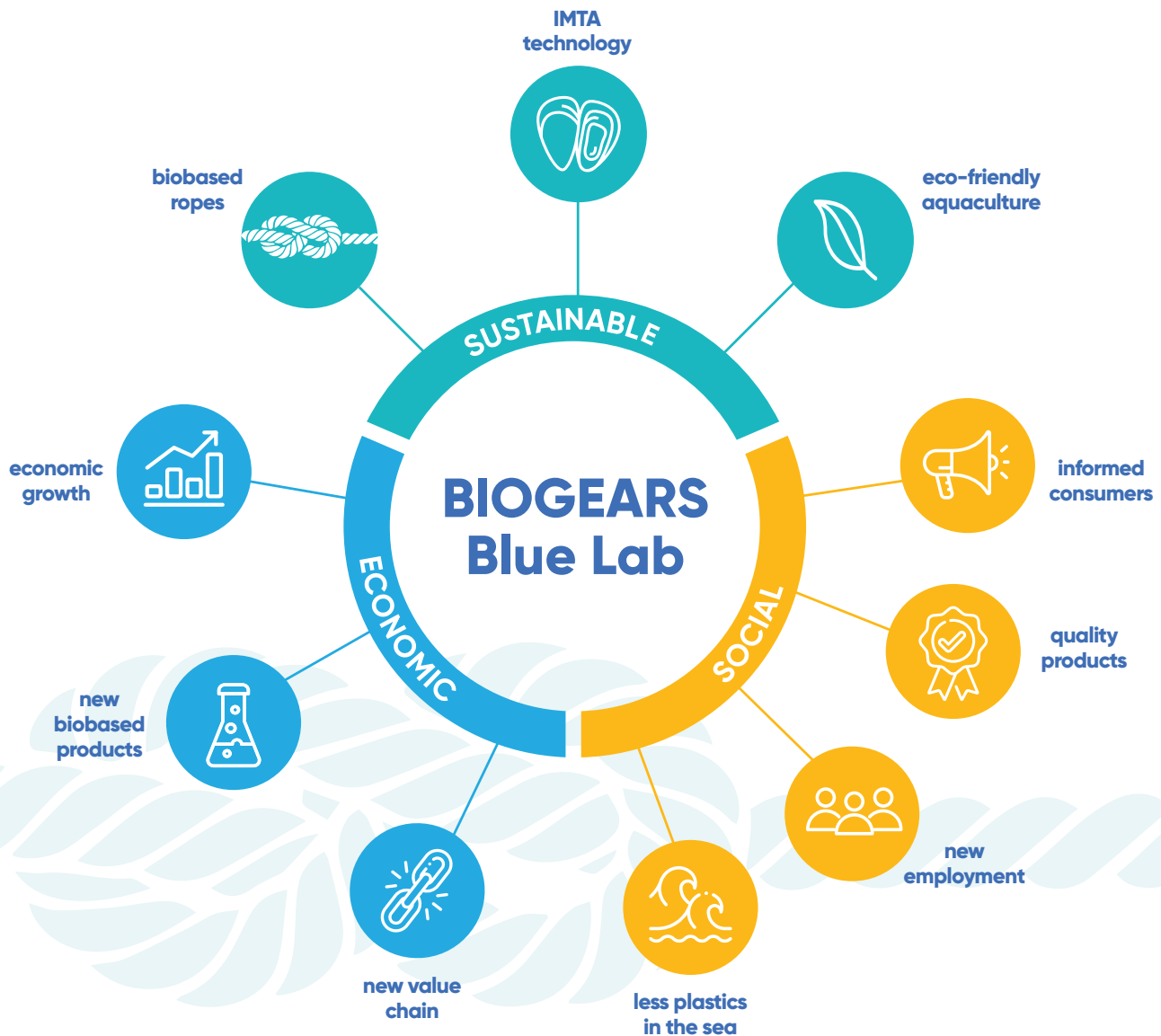
COORDINATOR: AZTI, Spain



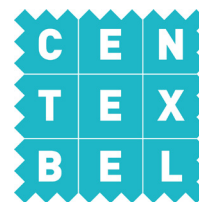
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EXPECTED RESULTS & IMPACT

- New innovative and eco-friendly products such as bioplastic compounds with potential to produce textile yarns, biobased biodegradable ropes, aquaculture prototypes for mussel and algae aquaculture at pre-industrial scale.
- **BIOGEARS**, though focusing on the Atlantic area, aims to scale up the use of biobased ropes in all European aquaculture sectors through an innovative **Blue Lab** concept.
- **BIOGEARS** will develop new business models for new biomaterials and ropes generated within the project and study new market opportunities for these products.
- **BIOGEARS** will foster an eco-friendly aquaculture industry in Europe, developing a guide of Good Practice for biobased eco-friendly aquaculture.
- **BIOGEARS** will contribute to European policies on plastics and microplastics, such as the Marine Litter Strategy, and the European Strategy for Plastics in a Circular Economy.




THE CONSORTIUM



CONTACT US

Project Coordinator:
Leire Arantzamendi
larantzamendi@azti.es

Communication & Press:
Jane Maher
jane@erinn.eu

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