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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Invests €1,3 billion in
sustainable food, farms, forests, oceans and bioeconomy

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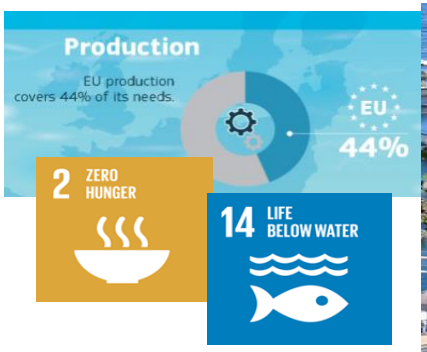
Horizon 2020

Innovation Action 6M€ per project

DT-BG-04-2018-2019: Sustainable European aquaculture 4.0: nutrition and breeding

Challenges:



- European aquaculture provides 1.25 million tonnes of seafood annually, valued at over 4 billion euro.
- **However**, Europe heavily depends on external markets to ensure consumer demands for seafood (including from fresh water) is met.
- EU aquaculture needs to **increase the competiveness** of its food products and to respond to consumer demands for high-quality and safe food, in a challenging context of climate change, greater competition for natural resources, and conflicting interests for space and markets.

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Policy priorities and existing EU initiatives:

Policy priorities and existing EU initiatives

- Bioeconomy Strategy
- Circular Economy Strategy
- Blue Growth Strategy
- Common Fisheries Policy, Marine Strategy Framework Directive, Maritime Spatial Planning Directive
- BLUEMED Initiative and notably common priorities with the WestMED Initiative and the EUSAIR
- Priorities defined in the European Commission Staff Working Document FOOD 2030 and international initiatives such as the Atlantic Ocean Research Alliance
- The BIOEAST Initiative

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Scope

Activities shall develop: smart breeding programmes and/or tailor feeding formulas and technologies for conventional and organic aquaculture – for marine and/or freshwater – targeting:

- animal health (contributing to disease resistance) and welfare,
- different production systems,
- feeding efficiency,
- resilience and climate change mitigation
- zero waste, by-products valorisation following circularity principles and organoleptic and nutritional values of seafood optimisation.
- Efforts to close the reproduction cycle of economically important species should be considered.

European Commission

Scope

- In addition, activities shall explore the potential of the microbiome on health and productivity of farmed species.
- Activities shall consider sound cost-effective production methods and profitability, testing, demonstrating and upscaling of the production processes to pre-commercial product.
- Regulatory authority and consumers should also be consulted, addressing their concerns and demands.
- The use of Internet of Things (IoT) and Artificial Intelligence (AI) should be considered.
- The participation of deep-tech start-ups is encouraged. Activities shall develop a set of indicators to monitor and measure progress towards the expected impacts as listed in the call text and in particular the improvement of the production systems that increases productivity, resilience and sustainability.

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Scope

- Activities shall develop a set of indicators to monitor and measure progress towards the expected impacts as listed in the call text and in particular the improvement of the production systems that increases productivity, resilience and sustainability.
- The interdisciplinary and cross-sectorial nature of the project should also apply to training activities improving the professional skills and competencies and supporting the creation of new jobs in the blue economy

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Requirements to keep in mind

and/or

STARTUP EUROPE

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Expected Impact

Contributing to the ongoing implementation of EU policies

In the short term:

- Demonstrate that investment in sustainable aquaculture research and innovation leads to the creation of new value chains, markets, growth and jobs in coastal, offshore and landlocked areas.
- Improve conSumers' awareness, perceptions and acceptability of the European aquaculture products and methods.
- Contribute to the creation of improved sustainable aquaculture systems and implement productive and resilient aquaculture practices that maintain healthy aquatic ecosystems and strengthen capacity for adaptation to climate change, by 2020 (UN SDG 2).

Expected Impact

- Contribute to ensure the genetic diversity of farmed algae (micro and macro) and farmed aquatic species (fish, molluscs and crustaceans) and their related wild species, and promote access to the utilisation of genetic resources by 2020 (UN SDG 2).

In the medium term

- Contribute to increasing available, accessible, affordable and nutritious food and feed, while conserving natural resources and contributing to climate change mitigation (UN SDG 2).
- Improve the professional skills and competences of those working and being trained to work within the blue economy.
- Contribute to policymaking in research, innovation and technology.

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Expected Impact

Increase available, accessible, affordable and nutritious food and feed

14 LIFE BELOW WATER

2 ZERO HUNGER

New value chains, markets, growth and jobs

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Innovation Action (IA)

- Action primarily consisting of activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services. For this purpose they may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication.
- A 'demonstration or pilot' aims to validate the technical and economic viability of a new or improved technology, product, process, service or solution in an operational (or near to operational) environment, whether industrial or otherwise, involving where appropriate a larger scale prototype or demonstrator.
- Projects may include limited research and development activities.

Thank you!

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