

SUBMARINER Aquaculture Working Group Q2

Innovative & Sustainable Aquaculture in the Baltic



SUBMARINER AQUACULTURE WORKING GROUP Q2 – MAY 2021

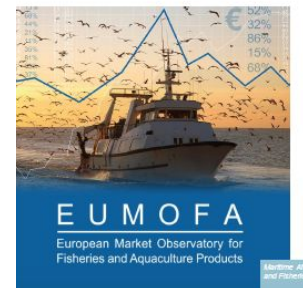


Agenda

- SUBMARINER Aquaculture Working Group
 - Frederick Bruce / SUBMARINER Network
- Finnish Aquaponic Society
 - Tobias Lipsewers / FAPS
- Natural Resources Institute Finland
 - Jouni Vielma / LUKE
- EUMOFA Blue Bioeconomy Report
 - Meredith Lloyd-Evans / BioBridge UK
- Discussion & Next Steps



BLUE BIOECONOMY REPORT



DECEMBER 2020

WWW.EUMOFA.EU

Contents

- About SUBMARINER
- Working Group definitions
- Horizon Europe
- Next steps



A Baltic-wide network

- **40** members
- **260** partner organizations
- **3000** actors throughout BSR
- **1700** institutions
- **ca. 650** blue bioeconomy companies linked via SUBMARINER



The SUBMARINER Community



- Sweden
- Germany
- Denmark
- Lithuania
- Latvia
- Norway
- Poland
- Finland
- Estonia



- SME
- University
- Research Institute
- Science & Technology Park
- Government
- Regional cluster



LEIBNIZ INSTITUTE
FOR FARM ANIMAL BIOLOGY



INNOVATUM
— SCIENCE PARK —



SYKE



Schleswig-Holstein
Ministry of Economic Affairs,
Transport, Employment,
Technology and Tourism



Goals



MSP / Ocean Literacy / Multi-Use / Eco-Tourism / Cultural Heritage / Biotechnology / Biodiversity / Climate / Circular Bioeconomy / Pollution / Eutrophication

SUBMARINER Services

Actors &
Match-Making



Data &
Tools



Sub-regional
activities



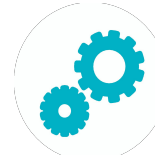
Access to
Pilot sites
&
Facilities



Training &
Capacity Building



Technology
Development
& Transfer



Finance &
Funding



Regulation
& Licensing

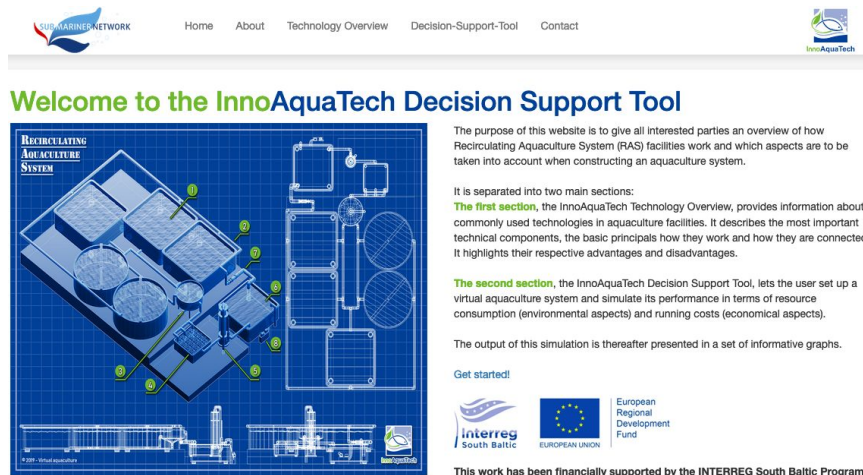


Awareness
& Marketing



SUBMARINER Working Groups

- Blue Growth Accelerator
- Ocean Literacy Platform
- Marine Litter
- Mussels
- Macroalgae
- Aquaculture



The screenshot shows the homepage of the InnoAquaTech Decision Support Tool. At the top is a navigation bar with links: Home, About, Technology Overview, Decision-Support-Tool, and Contact. The main heading is "Welcome to the InnoAquaTech Decision Support Tool". Below this is a large blue diagram of a "RECIRCULATING AQUACULTURE SYSTEM" with numbered components (1-10). To the right of the diagram, there is text explaining the purpose of the website and the two main sections: "The first section, the InnoAquaTech Technology Overview, provides information about commonly used technologies in aquaculture facilities..." and "The second section, the InnoAquaTech Decision Support Tool, lets the user set up a virtual aquaculture system...". At the bottom, there are logos for Interreg South Baltic, the European Union, and the European Regional Development Fund, along with a statement that the work has been financially supported by the INTERREG South Baltic Program.



Aquaculture WG

- **Bottom-up** approach
- Share **ideas, knowledge** & latest **developments**
- **Workshops**, study visits & **training** opportunities
- **Networking** & joint **projects**

Focus Areas

- RAS
- Sustainable feed
- Offshore cages & Multi-Use
- IMTA & Aquaponics



Add to a shared library

- Share **research, tools & resources** on the SUBMARINER website

The screenshot shows a presentation slide for the SUBMARINER Aquaculture Working Group Q2. The slide has a blue background with a large image of circular aquaculture cages in the sea. The title 'SUBMARINER Aquaculture Working Group' is in the top left. A 'Back to Aquaculture topic page' button is in the top right. Below the title, there is a diagram showing the aquaculture value chain: 'Fish for human consumption' and 'Fish feed production' at the top, connected by a circular arrow. Below these are 'Open cage', 'Recirculating Aquaculture Systems (RAS)', 'Integrated Multi-Trophic Aquaculture (IMTA)', and 'Aquaponics'. To the right of the diagram is a smaller image of fish. Below the diagram, there is a paragraph about the SUBMARINER Network and a list of activities.

SUBMARINER Aquaculture Working Group

Back to Aquaculture topic page

SUBMARINER Aquaculture Working Group Q2
Innovative & Sustainable Aquaculture in the Baltic

The diagram illustrates the aquaculture value chain. At the top, 'Fish for human consumption' and 'Fish feed production' are connected by a circular arrow. Below these are four boxes: 'Open cage', 'Recirculating Aquaculture Systems (RAS)', 'Integrated Multi-Trophic Aquaculture (IMTA)', and 'Aquaponics'. Arrows indicate the flow from 'Open cage' and 'RAS' to 'IMTA', and from 'IMTA' to 'Aquaponics'.

Activities

- a one-stop-shop for relevant information on sustainable aquaculture; offered services (incl. accessible demonstration plants) by its members
- study visits to aquaculture sites inside and outside the BSR on a demand-driven basis
- matchmaking events for aquaculture practitioners to find the right Baltic Sea Region partners to complete product development value chains
- connection to R&D, regional development actors as well as industry innovators
- cross-sectoral interlinkage to actors from other blue bioeconomy thematic fields, e.g. blue biotechnology, mussel farming, algae, multi-uses of sea, beach cast, marine litter etc.
- summer schools, dedicated workshops and training courses on tailored topics on a demand-driven basis

The SUBMARINER Network is establishing a pan-Baltic Aquaculture Working Group, focused on fish aquaculture such as RAS, but also including IMTA and aquaponics, with input from our macroalgae and mussel working groups.

Together the Working Group will continue to connect aquaculture practitioners, technology providers as well as other R&D partners through a set of dedicated activities.

Benefits

- International **collaboration** platform
- **Unified** voice & **definitions** of aquaculture
- Identify **synergies** and **circular economies**
- Baltic **representation** on global issues



Become a SUBMARINER

- Commitments from WG participants
- EATIP Mirror Platform
- Link in chat -->



SUBMARINER Network Membership

Expression of Interest

The SUBMARINER Network for Blue Growth is driven by a **secretariat** responsible for **coordination, promotion & representation** of its members' interests, namely the **sustainable use of marine resources in the Baltic Sea Region**. Membership fees are a vital safety net which enable us to stay afloat and continue providing our services. By becoming a member, you and your organisation are mutually benefitting and supporting a unique **community of experts and stakeholders**.

Through cooperation and dialogue, we will improve the Baltic Sea environment!

Benefits to full members:

- Participation in **executive board** of the SUBMARINER Network
- Full **voting rights** on strategic issues (e.g. initiatives, acceptance of new members)
- Veto right in budget-related issues
- Quarterly meetings (virtual or physical)
- 1st **priority** in representation of interests in acquisition on new projects
- **Pro bono project management** in projects managed by the SUBMARINER secretariat
- Role as a paid-in-kind **contributor in projects** (e.g. Horizon, BBI-JU) under the SUBMARINER Network EEIG flag, subject to programme rules

European Aquaculture
Technology and Innovation Platform





FRESHWATER AQUACULTURE IN THE EU



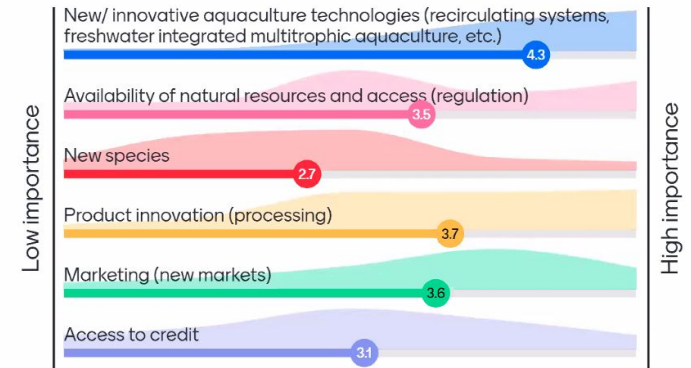
APRIL 2021

WWW.EUMOFA.EU

Eastern Europe (Regional Priorities) – FAO GSA 2021

- **Technical Innovation**
- **Environmentally Sustainable Production**
- **Governance**
- **Economic and social sustainability**
- **Disease control, animal health and animal welfare**

Which of these items will lead to the development of the freshwater aquaculture in the EU?

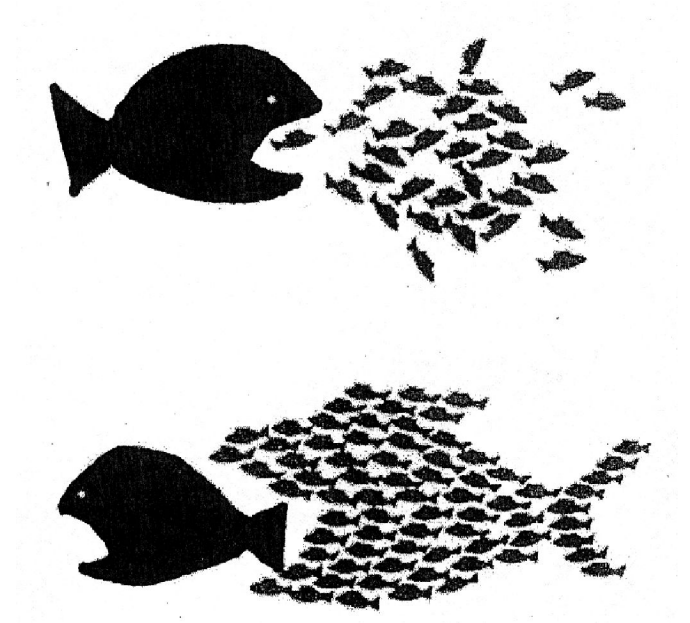


A close-up photograph of a fishing net with several white floats and orange and blue ropes, partially visible on the left side of the slide.

How can aquaculture be developed **sustainably** in the Baltic?

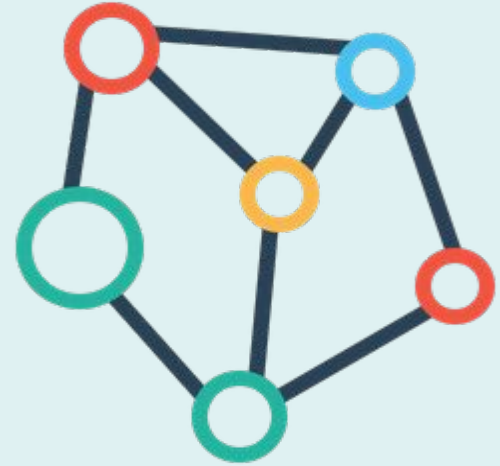
Build a network

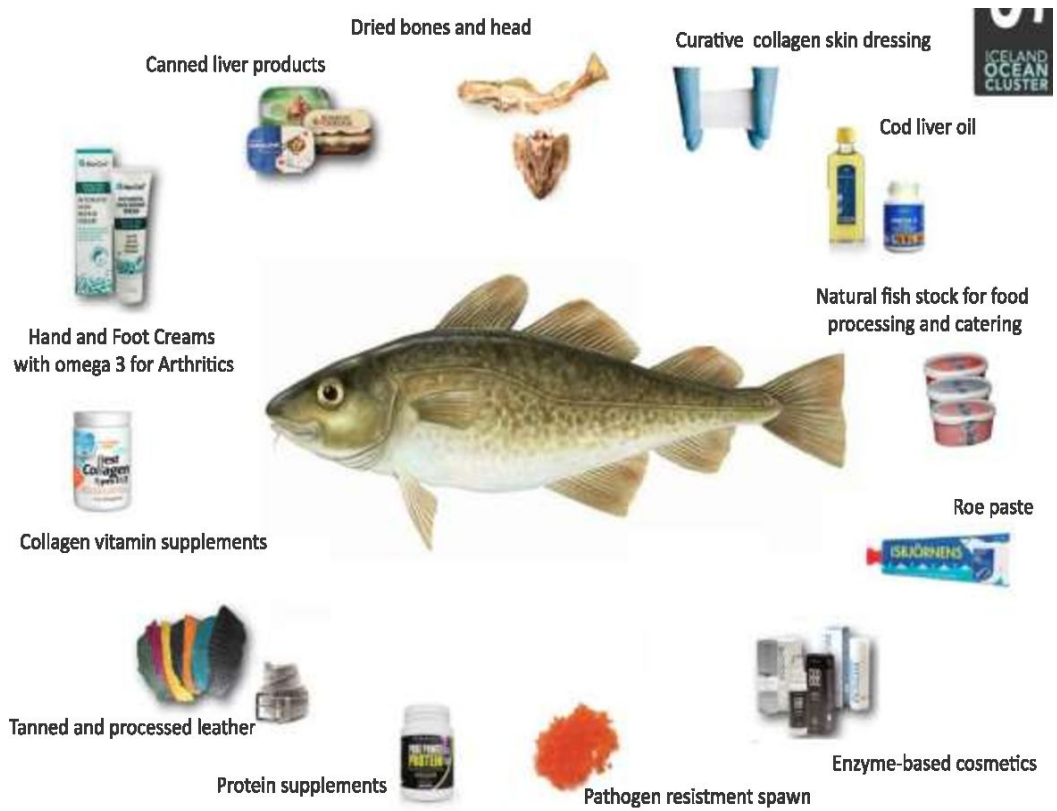
- The challenge is to make **multi-disciplinary** networks which are
 - Locally **equitable**
 - Socially **acceptable**
 - **Profitable**
 - Climate-**smart**
 - Shock **resilient** (e.g. financial / COVID19)

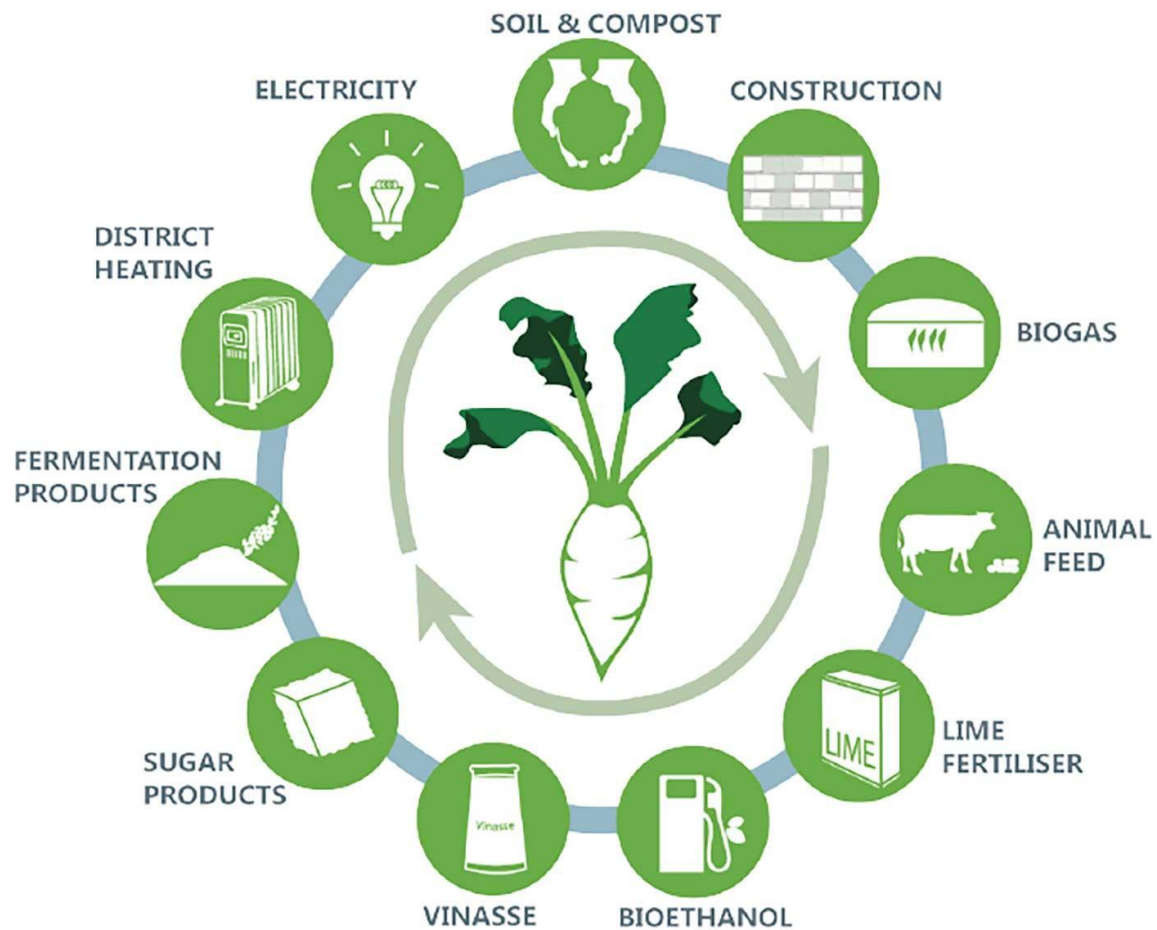


Scope

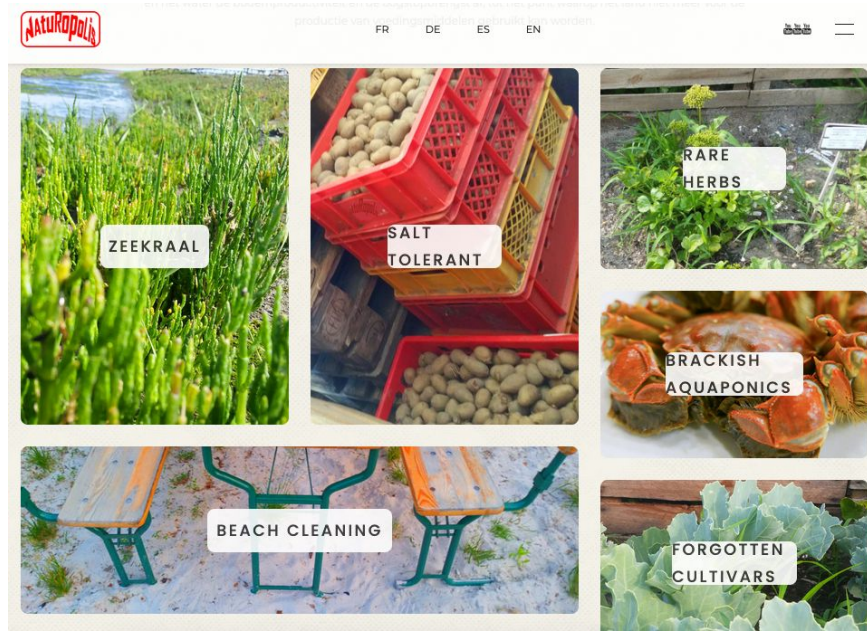
- Identify market entry points
- New products, species & technologies
- Holistic monitoring
- Industrial / agri-aqua symbioses
- Intensive monoculture to regenerative polyculture







“Vegimariculture” = the next aquaculture subsector?





Horizon Europe

- **Project** calls under **Cluster 6** (draft)

Cluster 6 Aquaculture 2021

Call Opens 15th April 2021

Closes 1st September 2021

Topic Ref Number	Topic Title	Type of Action	Budget (EUR million)	Expected EU contribution per Project (EUR million)	Number of Projects	TRL End
CL6-2021-FARM2FORK-01-01	Reaching the Farm to Fork target: R&I scenarios for boosting organic farming and organic aquaculture in Europe	RIA	4	4	1	6
CL6-2021-FARM2FORK-01-09	Sea to Fork transparency and consumer engagement	IA	10	5	2	6-8
CL6-2021-FARM2FORK-01-10	Digital transition supporting inspection and control for sustainable fisheries	RIA	10	5	2	3-6
CL6-2021-FARM2FORK-01-11	Filling knowledge gaps on nutritional, safety, allergenicity and environmental assessment of alternative proteins and dietary shift	RIA	11	1	1	5
CL6-2021-CircBio-01-08	Unlocking the potential of algae for a thriving European blue bioeconomy	IA	18	9	2	7
CL6-2021-COMMUNITIES-01-04	Socio-economic empowerment of the users of the sea	RIA	6	6	1	

Cluster 6 Aquaculture 2022

Call Opens 15th October 2021

Closes 15th February 2022

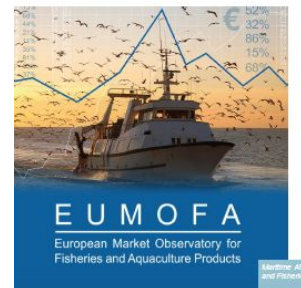
Topic Ref Number	Topic Title	Type of Action	Budgets (EUR million)	Expected EU contribution per Project (EUR million)	Number of projects	TRL End
CL6-2022-FARM2FORK-01-06	Integrated and sustainable freshwater bioeconomy: Combining aquaculture, biodiversity preservation, biotechnology and other uses	RIA	10	5	2	3-6
CL6-2022-FARM2FORK-01-07	Biosecurity, hygiene, disease prevention and fish welfare in aquaculture	RIA	12	6	2	3-6
CL6-2022-FARM2FORK-02-05	Innovative food from marine and freshwater ecosystems	IA	18	6	3	6-8
CL6-2022-CircBio-01-07	Marine microbiome for healthy oceans and a sustainable blue bioeconomy	RIA	18	9	2	3-5

Discussion

1. How can **freshwater** aquaculture & biotechnology be combined with **biodiversity preservation** in the Baltic Sea Region?
2. Which organisations are working on **biosecurity / hygiene / disease prevention / fish welfare** in aquaculture in the BSR?
3. Which **innovative** food sources can come from Baltic **marine & freshwater** ecosystems?

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Short Break

See you at 15:10 CEST

Discussion

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3. Which **innovative** food sources can come from Baltic **marine & freshwater** ecosystems?

Next Steps: Q3

- Show & tell:
 - Project proposal?
 - Invite a potential industry partner?
 - Promising business idea?
 - New research paper?
 - Baltic aquaculture news?

