



## **D4.4 Technology Match-making – Workshop & Webinar Series**

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## Acronyms

|     |                          |
|-----|--------------------------|
| BBC | BlueBioClusters          |
| BBM | BlueBioMatch             |
| R&D | Research and Development |

## Executive Summary

The BlueBioClusters (BBC) project focuses on promoting sustainable blue bioeconomy practices across Europe's coastal regions. This DEC briefly summarises the results of the three matchmaking workshop/webinars that the project organised to stimulate real matchmaking between technology providers and users to inspire new or improved value chains.

## Introduction

Task 4.5 – Technology Transfer and Match-Making, led by PP INNOVATUM, stipulates that Matchmaking events (online) are carried out to stimulate further real match-making between technology providers and users to inspire new or improved value chains. The task foresees at least three online workshops (1) for technology users to showcase/prioritise technology challenges and (2) for technology providers to foster co-creation to boost interaction and identify priorities/ gaps within the Blue bioeconomy in terms of technology. BlueBioClusters delivered three events to fulfil this task:

1. **Kick-off Workshop – Mission Arena 3, 28 November 2024** (organised in the framework of the BlueMissionBANOS Project), Amsterdam (NL);  
Topic: Mentoring and Technology Exchange for Supporting the Regional Blue Bioeconomy: What Do Blue Bio Startups and Companies Really Need?
2. **Webinar 1 – Online, 16 December 2024**  
Addressing Technology Needs in Cultivation and Harvesting of aquatic and marine Biomass
3. **Webinar 2 – Online 16 January 2025**  
Addressing Technology Needs in Processing and Product development of marine and aquatic biomass

These events hosted a great number of technology providers and seekers, as well as other parties interested in or working on the blue bioeconomy and fostered valuable exchanges.

Being a DEC (Dissemination, Communication and Exploitation Activity) rather than a report, this deliverable briefly presents key facts about the three events, takes stock of the participant makeup, and summarizes the key results of the discussions featured during the events in a visual and bullet point list format.

## Kick-off Workshop at Mission Arena



Figure 1: Blue Mission Banos, Mission Arena #3, Amsterdam November 28 November 2024

### Attendees:

A group of 36 participants, with 4 speakers and 8 workshop facilitators, were involved in the session. The participants were a mix of actors representing startups and SMEs, business support organizations, financiers and technology actors from academia and research, and industry representatives. A representative of DG MARE also participated in the session.

### Presentations, Discussion Questions and Match-making focus:

- Tech Provider Perspective: What Are Solution Providers Looking For?  
*Alexander Ebbing, Ebbing Tides*
- Tech Needs from the User's Perspective: *Sigmar Snær Gunnarsson, Eat Myt*  
Tech Matchmaking Case Study: *Codland, Alexandra Leeper, Iceland Ocean Cluster*
- The Technology Match-making and Transfer Journey: an interview with *Pierre Ingmarsson, Head of Blue Economy at IVL Swedish Environmental Institute*

### Interactive Group Discussion

The session hosted a 1-hour interactive group discussion round. The main question to be discussed was: How Can We Help Blue Bio Industries Find, Integrate, and Scale Technologies?

Participants were requested to answer from 4 different perspectives (role-play activity):

- Industry
- Academy/Research

- Policy
- Startups

Participants were divided into 4 groups, who looked at one specific portion of the above question each:

- Group A. Identifying Technology Needs

How can small and medium-sized enterprises (SMEs) in the blue bioeconomy pinpoint and clearly express their technology needs?

- Group B. Integration Strategies

What are the key steps and resources needed to successfully implement new technologies in the blue bio sector - and what role does match-making and partnerships play in this?

- Group C. Inspiring Technology Suppliers

How might we engage tech suppliers from other sectors to adapt and tailor their solutions to blue bio-industry challenges?

- Group D. Scaling Innovations

What tools, frameworks, programs, or partnerships currently support scaling technology solutions in the blue bioeconomy? What are examples?

**The main results are summarized below:**

### **Industry Perspective**

- SMEs struggle to articulate their technology needs due to limited technical expertise—structured needs assessment tools could help.
- Partnerships with tech providers and research institutions are critical but often difficult to navigate.
- Standardization and regulatory clarity would lower barriers to adopting new technologies.

### **Academy/Research Perspective**

- More industry-driven research is needed—academia should engage earlier in the innovation cycle.
- Translational research and demonstration projects can bridge the gap between lab innovations and industry adoption.
- Funding mechanisms should support long-term industry-academia collaborations, not just short-term projects.

### **Policy Perspective**

- Policy frameworks should incentivize cross-sector matchmaking to bring relevant tech solutions into the blue bioeconomy.

- Regulations must be agile enough to keep up with emerging technologies without stifling innovation.
- Public procurement could serve as a tool to accelerate technology adoption and scale-up.

## Startup Perspective

- Blue bio startups often lack visibility among potential tech partners—matchmaking and innovation hubs could help.
- Access to testbeds and pilot funding is crucial to reduce risk when integrating new solutions.
- Scaling is hindered by fragmented markets; industry consortia and ecosystem-building efforts could create better pathways.

The workshop results were integrated into the [Mission Roadmap for the North Sea](#), further enhancing the significance of the BBC Workshop.



Figure 2: graphic recording of the main results of Mission Arena 3 (Amsterdam, 27-28 November)

## Match-making Webinars

### Target Group of the event

Technology Suppliers, users, researchers, entrepreneurs, startups, and technology transfer support actors in all blue bio value chains.

Participants were sourced, amongst others, through BlueBioClusters project technology suppliers and user database created by BBC partners. Furthermore, BlueBioMatch (BBM) was used to post and promote the event and contact potential speakers and attendees from the blue biocommunity.

### Expected Outcomes

#### Introduction to Emerging Technologies

- Insights into cutting-edge solutions addressing blue biotech challenges and sustainable development in blue bio-industries.

#### Facilitation of Collaboration

- Opportunities for cross-sector partnerships, R&D projects, and technology development initiatives.

#### Networking and Knowledge Exchange

- Building connections among stakeholders to foster innovation and share best practices.

#### Promotion of Sustainable Technologies

- Encouraging the adoption of technology and systems that drive sustainability and innovation in blue bio value chains.

### General format and design (1,5 hours)

- **Preparation** – Participants are asked to register on BBM and register prior to the event (so we can gather information and do matchmaking)
- **Part 1: Presentations Challenges and Possible Innovations/Solutions or Case Studies:** Industry leaders and/or researchers present key insights and challenges related to the theme or theme areas—suppliers with technology solutions or others doing work to solve the challenge with technology.
- **Part 2: Matchmaking and Networking:** Break-out rooms for attendees to network, discuss partnerships, and engage in one-on-one meetings for potential collaborations. (Break-out rooms with facilitator + notetaker)
- **Part 3: Summary & next steps:** Facilitators summarize the information from the break-out rooms, identify matches made, and reflect on possible cross-overs and collaborations between technology sectors.

### Description:

**PART 1:** Overview Challenges/Opportunities presented based on findings from the BBC project. Examples of solutions and innovations that highlight the innovations and technology solutions in the BBC regions used to solve various challenges.

**PART 2:** Break out rooms for matchmaking, incl. BBC facilitator and invited expert/industry leaders and participants. Discussion articulated based on the following bullet points:

- Introduction of Facilitators
- Who is in the room? Rapid Introductions - 30 seconds/participant
- Name, Company name and technology focus – do you have a technology, or are you looking for a technology?
- Guiding questions/talking points for the discussion and matchmaking:
  - ⇒ Tech providers/users give a rapid introduction
  - ⇒ During the discussion, they provide more information about their project, what they offer, what type of challenge they are facing, and what sort of collaboration they are looking for.
- Facilitators help to keep time and ensure all participants have time to speak.
- Notetakers support the facilitators by taking notes during the breakout room and documenting what potential matches have been made.

**PART 3:** Facilitators and notetakers summarise discussions from their respective break-out rooms and identify any matches made but also reflect on possible crossovers and collaborations between technology sectors.

The webinar wraps up with a reminder to connect to Working Groups on BBM to continue discussions and connect further with participants from the break-out rooms.

**AFTER THE WEBINARS:** Recordings are made available on the BlueBioClusters project website: [Technology Matchmaking - BlueBioclusters](#).

## Webinar Promotion

Webinars were promoted through BBM, which also served as the events' registration platform, on social media (BBC LinkedIn) and through personal targeted communication between project partners and their networks. Below are some examples of the webinar promotion activities.



**BlueBioClusters Project**  
1,127 followers  
1mo · 🌐

Calling all innovators in the #BlueBioEconomy! 🌱🔬

Are you developing or seeking cutting-edge technologies for cultivating and harvesting #marine and #AquaticBiomass? If so, don't miss our #BlueBioClusters #TechMatchmaking Webinar on 16 December 2024! 📅

This event provides a unique platform to connect #TechnologySuppliers with #startups, #SMEs, and #Industry professionals, fostering collaboration to address key challenges in blue bio #valuechains 🌊

Register now on #BlueBioMatch: <https://lnkd.in/eMYMYh8m> ...more

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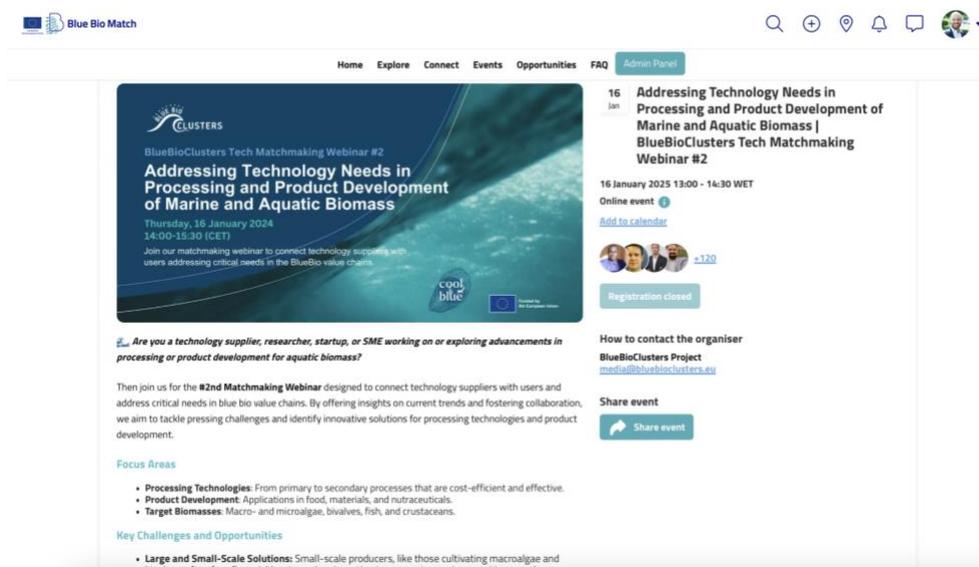


Figure 3: Social media post sample and registration interface on BBM for the BBC Matchmaking Webinars

## Webinar 1: Addressing Technology Needs in Cultivation and Harvesting Marine and Aquatic Biomass (16<sup>th</sup> December 2024, 14-15.30 CET)

The 1<sup>st</sup> webinar focused on bridging technology gaps in cultivating and harvesting blue bioresources. By examining key challenges within marine biomasses, participants explored technological solutions, identified R&D collaboration opportunities, and engaged in breakout discussions for concrete matchmaking among suppliers and technology adopters.

### PART 1 – Highlights of Technology Challenges and Solutions in Cultivation and Harvesting

- Tech Challenges in Cultivation: Presentations from BBC partners in France and Belgium
- Tech Challenges in Harvesting: Presentations from BBC partners in Iceland and Norway

### PART 2 - Interactive Breakout Rooms (participants join based on biomass and cultivation type)

- 1) OFFSHORE FISHERIES AND AQUACULTURE (Wild and Farmed)
- 2) OFFSHORE LOW TROPHIC AQUACULTURE (Macroalgae)
- 3) OFFSHORE LOW TROPHIC AQUACULTURE (Bivalves)
- 4) LANDBASED AQUACULTURE (RAS, shrimp, fish, macroalgae)
- 5) LANDBASED MICROALGAE AQUACULTURE (microalgae)

Questions participants discussed in break-out rooms:

- What cultivation or harvesting challenge are you tackling, and what technology or expertise could help solve it?

- What tech solutions or innovations in your field could apply to cultivation or harvesting challenges?
- What collaboration would best help you adopt or scale a solution?

## Summary of Results: Statistics

### Who is with us today?

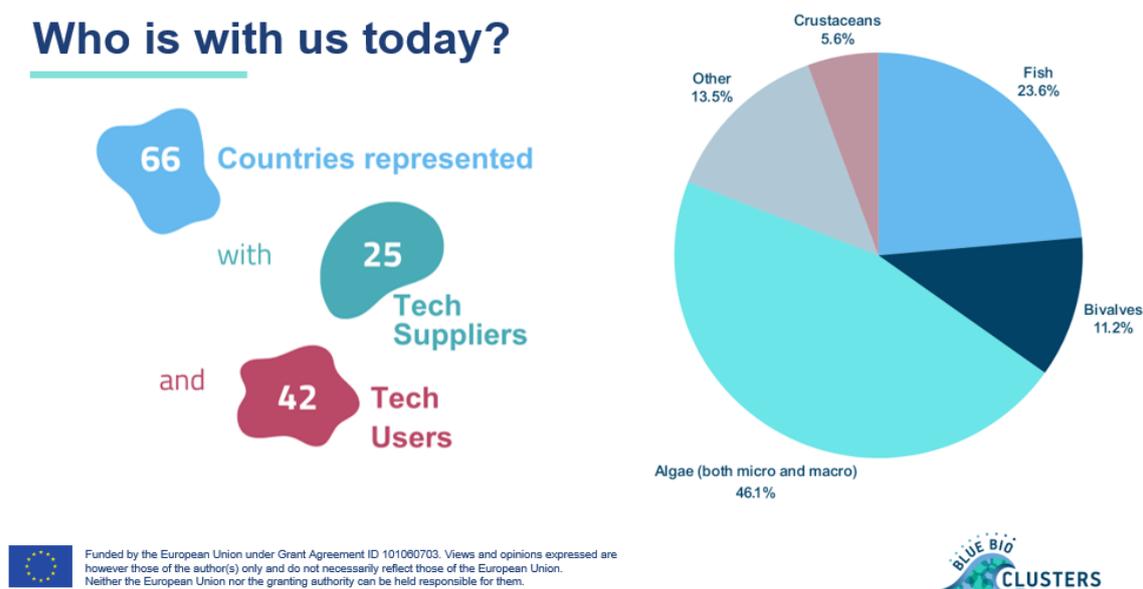


Figure 4: Overview of participant makeup based on 1st webinar registrations

## Key Reflections from Break-out Rooms

### 1.) OFFSHORE FISHERIES & AQUACULTURE

Quality matters for side streams. Maintaining the high quality necessary to ensure side streams starts immediately after the catch and requires supportive equipment and business models.

### 2.) MACROALGAE

Fragmented supply chains and scalability challenges remain key barriers to cultivation and harvesting. High-value products and standardisation are critical to unlocking economic growth and sustainability.

### 3.) BIVALVES

Sea conditions pose challenges: Strong infrastructures and real-time monitoring technologies are essential for cultivation

Multidisciplinary collaboration: Combining expertise in data science and field knowledge improves monitoring and quality control outcomes.

### 4.) LAND-BASED AQUACULTURE

Advanced monitoring systems: Tools for nutrient monitoring and adaptive feeding are needed to optimize multi-trophic aquaculture.

Scaling up: Financial risk-sharing models (e.g., involving investors or government support) are vital to enabling large-scale technology adoption.

## 5.) MICROALGAE

Cross-sector collaboration: Participants matched needs for species selection, photobioreactor solutions, and regulatory support.

Tech and funding gaps: Addressing challenges in financing and regulatory frameworks can unlock innovation for healthcare and feed solutions.

## Webinar #2 Addressing Technology Needs in Processing and Product Development of Marine and Aquatic Biomass (16<sup>th</sup> January 2025, 14-15.30 CET)

Webinar 2 was organised and co-hosted with the [CoolBlue Project](#). The blue bioeconomy offers vast potential for sustainable growth, but advancing it requires addressing key challenges in the processing and product development of marine and aquatic biomass. Innovative processing technologies are essential for optimising efficiency, reducing waste, and minimising environmental impacts, laying the foundation for scalable, sustainable systems. At the same time, cutting-edge approaches to product development can transform marine and aquatic biomass into high-value, market-ready solutions aligned with sustainability goals. This webinar explored these critical areas, showcasing how technological advancements and collaboration can drive progress in the blue bioeconomy.

### **PART 1** – Insights and Trends in Technology for processing and product development of marine and aquatic biomass

- Overview of TECH DRIVERS > TRENDS & INNOVATIONS > MARKETS
- Insights: WHAT ARE *YOUR* PROCESSING CHALLENGES?
- Presentations of examples:
  - Project SEAMARK – Processing Technology and Product Development MACROALGAE
  - Project Baltic MUPPETS – Ecopelag – Product Development and
  - Icelandic land-based Atlantic salmon fish farms – processing and product development for sludge
  - France – Side stream valorisation from the mussel and oyster industry

### **PART 2** – Interactive Breakout Rooms

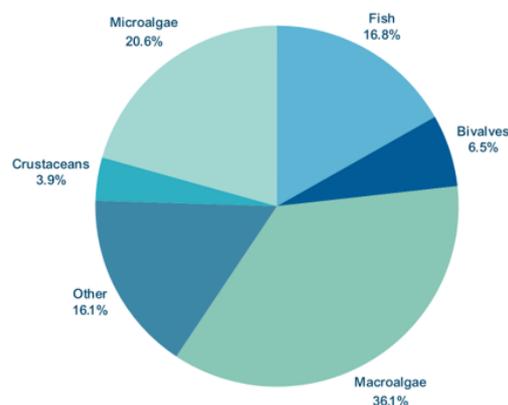
- 1.) FISH (wild catch, aquaculture, RAS)
- 2.) Crustaceans (shrimp, crab, other)
- 3.) MACROALGAE
- 4.) BIVALVES
- 5.) MICROALGAE

Questions participants discussed in break-out rooms:

- What processing or product development challenges are you tackling, and what technology or expertise could help solve it?
- What tech solutions or innovations in your field could apply to processing or product development challenges?
- What collaboration would best help you adopt or scale a solution?

## Summary of Results: Statistics

### Who is with us today?



Funded by the European Union under Grant Agreement ID 101060703. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Figure 5: Overview of participant makeup based on 2nd webinar registrations

### Key Reflections from Break-out Rooms:

#### 1.) FISH

Circular systems need innovation: Challenges include solid waste management and integrating aquaponics for closed-loop production.

Market barriers remain: New species face slow adoption in conservative markets, requiring better regulatory support and awareness campaigns

#### 2.) MACROALGAE

Consistency and scalability are critical: Achieving consistent product quality despite seasonality and scaling supply to meet demand.

Innovation in logistics and processing: Modular technologies for stabilising and preserving biomass during transit are emerging as potential solutions.

#### 3.) BIVALVES

Regional differences impact development: Early-stage production in some regions requires processing innovations, while others focus on value-added products.

Focus on side-streams: Utilizing shells for nutraceutical and pharmaceutical applications was highlighted as a growing opportunity.

#### 4.) MICROALGAE

Extraction processes remain a challenge: Species-specific extraction and biomass treatment methods were noted as critical bottlenecks.

Collaboration opportunities: Contacts were exchanged to explore synergies between technology providers and researchers.

## **Conclusions**

The Technology Exchange events organised by the BBC were instrumental and successful in spurring discussions, exchanges, and new collaboration opportunities between technology providers and seekers. Participants were invited to join BBM and continue discussions and collaboration there. This will give continuity to the exchange and ensure that further matches and business development opportunities are exploited.