



COST Action CA22160

Enhancing knowledge of BIOMolecular solutions for the well-being of European AQUAculture sector - BIOAQUA

Call for Ideas Applications

The COST network BIOAQUA is pleased to announce the **Call for R&D Ideas** as part of our ongoing effort to foster research and innovation, and collaboration in **biomolecular solutions for sustainable and resilient aquaculture**. This initiative aims to identify, nurture, and connect promising ideas for research and future innovations that can contribute to the transformation of aquaculture systems within climate change scenarios, in line with the European Green Deal, the EU Mission “Restore our Ocean and Waters by 2030,” and forthcoming **Horizon Europe 2026–2027** priorities.

Over the past 18 months, our network has conducted a **technology foresight exercise**, integrating scientific insights, policy analysis, and stakeholder perspectives to identify key innovation areas where biomolecular science and technology can deliver the greatest impact. This call translates that strategic work into action — inviting researchers, innovators, and practitioners to share creative and feasible R&D ideas that can advance the sustainability, resilience, and competitiveness of aquaculture.

Only BIOAQUA members can apply to this internal call.

1. Scope and Categories

Submitted ideas should fall under one of the following **three thematic categories**, each representing a critical frontier in biomolecular innovation for aquaculture:

1. **Nature-positive biomolecular and bioremediation solutions:** Development of new biomolecular or bioremediation-based approaches to mitigate **pollution affecting aquatic life and aquaculture**, such as bio-pollution, microplastics, or chemical contaminants. Ideas should promote **nature-positive outcomes**, restoring or enhancing aquatic ecosystem health while supporting productive aquaculture.
2. **Harnessing the microbiome for health and performance:** Innovative strategies to **integrate microbiome knowledge** to improve aquatic organism health, productivity, and resilience. This includes the use of beneficial microbes or microbial consortia to **manage pathogens**, optimize water quality, enhance feed efficiency, or stabilize aquaculture environments.
3. **Artificial intelligence for aquaculture resilience and pathogen management:** Application of AI to strengthen aquaculture’s resilience at **regional or local levels**, or to **support biomolecular research**

in understanding and controlling potential pathogens. Ideas could involve predictive modelling, digital twins, AI-assisted diagnostics, or decision-support systems linking biological data with environmental and management variables.

2. Eligibility and submission

Only BIOAQUA members can apply to this internal call.

Submission deadline: 24 October 2025, 23:59 CET

Applications should be sent via this link: <https://forms.office.com/e/zriiBtpdV0>

All the information you share about your R&D ideas will be treated as confidential by all Working Group leader and co-leader and members of BIOAQUA Core Group having access to it during the revision process.

These members agree to take all necessary measures to limit disclosure of any Confidential information. They also agree that the received “confidential information” is property of the applicant, and that the information provided will be used only for the activities foreseen within this call’s text.

3. Objectives of the call

Through this call, we aim to:

- Stimulate collaborative ideation across disciplines and sectors.
- Identify emerging R&D directions aligned with European funding priorities for 2026–2027.
- Build a portfolio of promising ideas that can evolve into competitive project proposals.
- Strengthen the role of BIOAQUA as a catalyst for biomolecular innovation in aquaculture.

4. Timeline and Process

The call will follow a structured process to support participants in developing their ideas from early concepts to actionable R&D initiatives:

1. **Webinar “From Idea Seeds to Mature R&D Concepts”:** **All applicants will be invited to participate in a 2-hour webinar on 30 October 2025, from 10 to 12h.** It will be an interactive online session offering guidance on how to refine, structure, and communicate R&D ideas effectively.
2. **Internal Review by Working Group Leaders (November 2025).** Submitted ideas will be reviewed and discussed by the Action’s Working Group leaders and co-leaders, focusing on scientific relevance, feasibility, and collaborative potential.
3. **Idea Contest and Selection Event (February 2026).** Selected applicants will be invited to present their matured ideas during a dedicated event. Participants will receive feedback from experts within and beyond the Action, and the **most promising ideas** will be highlighted for further joint development and potential submission to upcoming European or national funding opportunities. Costs related to the participation in this event will be financially supported by BIOAQUA.

Join us in shaping the future of biomolecular innovations for resilient and sustainable aquaculture!