AquaBioNets
Newsletter #1

AquaBioNets | Interreg Euro-MED | Co-funded by the European Union

April 2026

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AquaBioNets

AquaBioNets is a Mediterranean cooperation project focused on making aquaculture more sustainable. By bringing together partners from Croatia, Spain, Cyprus, Italy, Albania and Greece, the project combines knowledge from research, industry, public institutions, and civil society.

At its core, AquaBioNets addresses the environmental impact of plastic aquaculture nets by promoting biodegradable alternatives. Using a Living Lab approach, the project creates space for collaboration, testing, and knowledge exchange - ensuring that solutions are not only innovative, but also practical and applicable in real conditions.

OUR TEAM

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We bring together a diverse group of organisations and experts - from scientists and shellfish farmers to net manufacturers and regional development specialists - working jointly to support a more sustainable Mediterranean aquaculture sector, combining technological, biological, and socio-economic perspectives.

UNIZAG FSB

UNIZAG FSB is the AquaBioNets coordinator. As the Croatia's leading institution in mechanical engineering and naval architecture, currently runs 15 Horizon projects and numerous other international initiatives; the AquaBioNets project will be executed by a skilled research team from the Chair of Marine Engineering. **Visit UNIZAG FSB!**

ANETEL

Larnaca District Development Agency (ANETEL) supports public and private stakeholders in accessing EU funding and development programs, providing technical expertise while promoting innovation, transparency, and sustainable socio-economic development. **Visit ANETEL!**

MUSOL

MUSOL Foundation, an organization committed to fostering a more sustainable, democratic, and just world, works to strengthen local and regional public entities and promote active citizen participation in governance processes across Europe, Africa, and Latin America. **Visit MUSOL!**

MREŽA ZNANJA

Mreža znanja (Knowledge Network, MZ) is a Zagreb-based SME that provides strategic consultancy and expert analyses, supporting sustainable development through EU co-funded projects across sectors such as health, environment, circular economy, and education. **Visit MREŽA ZNANJA!**

PORTO CONTE RESEARCH

Porto Conte Research (PCR) promotes sustainable aquaculture through research, innovation, and consultancy, supporting industry stakeholders while fostering knowledge exchange and collaboration across sectors. **Visit PCR!**

UNIVERSITY OF TIRANA

The University of Tirana (UT), Albania's first university, conducts extensive research and monitoring in environmental pollution through its Faculty of Natural Sciences, contributing valuable scientific data. **Visit UT!**

KITO MARINE FARM SA

Kito Marine Farm SA (KMF), one of Greece's first aquaculture enterprises, supports industry innovation by testing equipment and contributing to the development of eco-friendly aquaculture solutions. **Visit KMF!**

Associate Strategic Partners

LISSUS ADRIA shpk • ATEVAL - Asociación de Empresarios Textiles de la Comunitat Valenciana • Redes Sintéticas S.A. – REDSINSA • Platforma 22 d.o.o. • Ministry of Agriculture, Forestry and Fisheries of the Republic of Croatia

AquaBioNets in Action

AquaBioNets is moving steadily from planning into action, with partners already contributing through research, preparation of pilot activities, and stakeholder engagement across the Mediterranean. The project is building a strong foundation for the upcoming implementation phase, where solutions will be tested and validated in real-life conditions.

A key milestone comes from the UNIZAG FSB, which has recently **published a scientific paper** titled *"Review of biodegradable materials for aquaculture nets: Environmental performance and potential to reduce marine plastic pollution"* in the *Marine Pollution Bulletin*. This research strengthens the scientific basis of the project and supports the development of more sustainable alternatives to conventional aquaculture nets. Read the publication on the link.

At the same time, Porto Conte Research (PCR) is preparing **a growth trial on gilthead seabream** (*Sparus aurata*), with ongoing work on defining the operational protocols. The trial will evaluate feed formulations incorporating different material types, including biodegradable options such as jute and sisal, alongside conventional materials used in aquaculture nets, such as polystyrene and polypropylene, for benchmarking purposes.

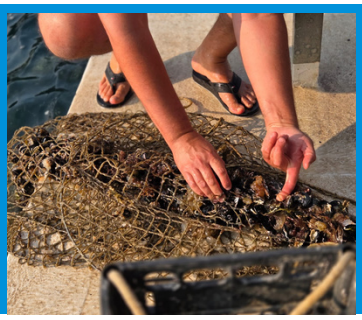
The **AquaBioNets project video** is also now available, offering a clear overview of the project's mission, approach, and expected impact. Watch our video on the link.

In parallel, **stakeholder mapping** is underway in all partner countries. Partners are identifying and engaging key actors from aquaculture research, industry, public administration, and civil society to ensure that project activities reflect real needs from the field.

Preparations for the **establishment of Living Labs** are also progressing. These collaborative spaces will enable stakeholders to co-create, test, and refine solutions in real-life settings.

The next step will be the **constitution of national Working Groups**, which will guide the design of training activities and support the development of practical, applicable solutions for the sector.



AquaBioNets Workplan for 2026

April – May

Establishment of national Working Groups across partner countries

June – July

Development of training programmes and coordination of timelines in all countries

September

Launch of AquaBioNets trainings and educational activities tailored to specific target groups

October

International Summer School (6–8 October) in Alghero, Sardinia (Italy)

November – December

Follow-up of the Train & Educate phase; launch of the Implementation phase, focusing on sustainable solutions in aquaculture

Interested in AquaBioNets?
Stay up to date with our activities by joining our mailing list -
FILL IN A SHORT SURVEY

Did you know?

From knowledge to practice

In AquaBioNets, capacity building isn't just about training - it's directly connected to what we test and develop within the project. Each training is tailored to a specific target group and builds on insights from ongoing activities, such as testing biodegradable materials and feed trials in Recirculating Aquaculture Systems (RAS). This approach supports the uptake of innovative and bio-based solutions by helping stakeholders turn knowledge into practical application in real aquaculture settings.

Biodegradability vs. performance

Not all biodegradable materials behave the same in the sea - and that matters for aquaculture nets. Certain biodegradable and bio-based materials can significantly reduce long-term plastic pollution, but they may also degrade faster or have lower mechanical strength compared to conventional plastics. Thus, finding the right balance between durability and environmental performance is key when developing biodegradable nets for aquaculture use.

Aquaculture nets and microplastics

Conventional aquaculture nets are a source of microplastics in the marine environment. Over time, materials such as polyethylene and polypropylene degrade due to sunlight, mechanical stress, and seawater conditions, gradually releasing small plastic particles. These microplastics can persist in the environment and interact with marine organisms, raising concerns for ecosystems and aquaculture sustainability.

Fish metabolism and materials

Offshore aquaculture operations rely heavily on synthetic polymer nets that, over time, progressively fragment through mechanical abrasion and hydrodynamic stress, also generating secondary microplastics in the farming environment. In AquaBioNets, conventional and new materials are also tested for their effects on fish. Growth trials in controlled conditions are used to assess how different materials may influence fish metabolism and overall condition of farmed fish. By comparing biodegradable materials with conventional plastics, we explore how material choice can impact fish wellness and welfare beyond just environmental performance.

Follow the AquaBioNets project on https://aquabionets.interreg-euro-med.eu/