



TO DEVELOP, PROMOTE  
AND SUPPORT  
THE CONCEPT OF  
CIRCULAR AQUACULTURE

## WHY AQUALOOP?

September 2023-August 2026

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Due to effective feed conversion ratios (FCR), food from **aquaculture is seen as the most promising and resource efficient source of healthy protein and lipids** (omega-3 fatty acids) that will contribute to feeding the ever-expanding global population.

Worldwide aquaculture production is increasing at an impressive rate, but not in the **South Baltic region**, due to environmental, legal, economic and social restrictions. The present state of aquaculture production in the South Baltic region will continue to permit the expansion of non-sustainable fish production in other parts of the world, unless new production methods that support **circular economy and blue biotechnology** are broadly adopted.

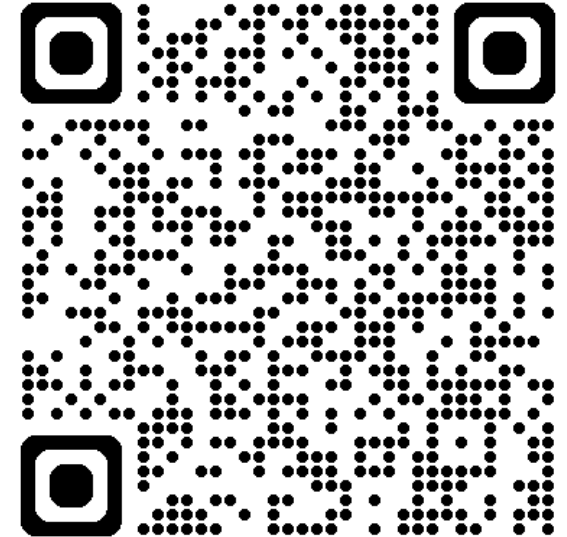
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## PURPOSE & SOLUTION

**PURPOSE:** The objective of the Aqualoop project is **to develop, promote, and support the concept of circular aquaculture in the South Baltic region** for the green transition, with a focus on **nutrient loop containment** with **by-products production** towards **responsible consumption**.



**SOLUTION:** The foreseen actions are designed **to develop and showcase original, innovative solutions, prepare present and future employees, business sector and customers for the circular aquaculture**. The collaboration of universities, municipalities, associations and SMEs reflects the strong interest and **link between research, education, awareness raising and application** in industry. This partnership is essential in developing and implementing a **circular economy-based practices**.



## STAKEHOLDERS, PARTNERS, ASSOCIATED PARTNERS

### Stakeholders

school youth, students, public authorities, policy makers, professionals: *farmers, fish-farmers, aquatic animal breeders, aquaculture enterprises, bioeconomy enterprises, fish feed enterprises... YOU!*

### Partners

LP University of Rostock, DE, University of Gdańsk, PL, Klaipeda University, LT, Gulborgsund Municipality, DK, Fish Market Development Association, PL, Scandinavian Aquasystems AB, SE, VKST, DK

### Associated partners

Polish Trout Breeder Association, PL, Danish Aquaculture, DK, Nutrition and Food Part of Bioenergie Lüchow, GmbH & Co. KG, DE, Aquafarm Lübesse GmbH & Co. KG, DE, Förde Garnelen GmbH, DE, Association Klaipeda Region, LT, Active Youth, LT, Association Modern Aquaculture, LT



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## CIRCULAR AQUACULTURE SOUTH BALTIC PILOTS

Cooperation with partners and joint development of tailored solutions for boosting human resource capacities through the development of **3 cross border pilots**, testing innovative methods and tools, demonstrations and communication.



University of Gdańsk, TARAS facilities



### Testing algae applications in recirculating aquaculture systems (RAS) to improve aquaculture circularity potential in the SB region

Pilot 1, University of Gdańsk, PL, *Litopenaeus vannamei* from RAS500 and microalga collection facility



University of Rostock, NEMATIC facilities



### Increasing the nutrient efficiency of commercial aquaculture through increased application of circular economy concepts

Pilot 2, University of Rostock, DE, FishGlassHouse facility with RAS and aquaponic systems



Klaipeda University, FISHVISA facilities



### Development of the fish-shrimp-vegetables integrated system of aquaponics to showcase the potential of circular economy

Pilot 3, Klaipeda University, LT, Glasshouse for RAS and aquaponic experiments

## CIRCULAR AQUACULTURE TRAINING LOOP

Training activities for school youth, students and professionals in innovative aquaculture methods, exchanging knowledge and experience related to human resource capacities for the circular aquaculture sector.



secondary school  
youth program

## AquaLoop Secondary School Youth Program

OVERVIEW  
March–June 2024  
University of Rostock (DE)

The program introduced a secondary school class to the concept of the circular economy in aquaculture by demonstrating the pathways of nutrients from feed, through fish, process water, to aquaponically cultivated plants

By **handling the fish and plants themselves** and **measuring the water parameters** for data collection, the schoolchildren were able to **gain practical experience** in the field of aquaculture.



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**Training activities** for **school youth, students and professionals** in innovative aquaculture methods, **exchanging knowledge and experience** related to human resource capacities for the circular aquaculture sector.



**c r o s s - b o r d e r  
s t u d e n t  
e x c h a n g e p r o g r a m**

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## AquaLoop Cross-Border Student Exchange Program

The Program demonstrated a **highly effective model for international, practice-based learning in aquaculture and circular economy.**

By combining **experimental training, interdisciplinary collaboration, and regional aquaculture insights,** the program enriched academic curricula and helped shape the next generation of sustainable aquaculture professionals.

OVERVIEW

January–June 2025

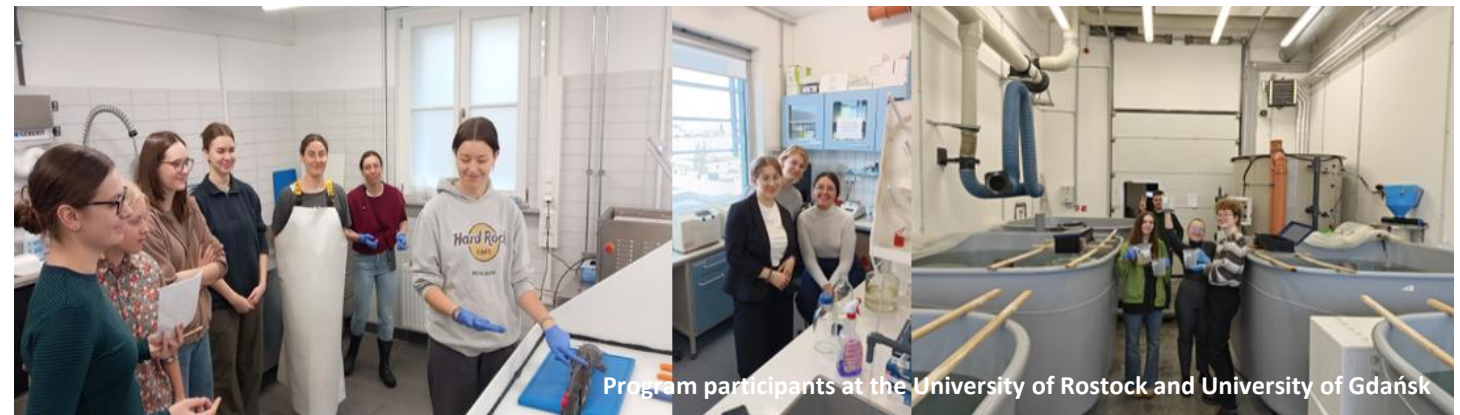
1 week long

Bachelor's & Master's students

University of Rostock (DE)

University of Gdańsk (PL)

Klaipeda University (LT)



Interreg  Co-funded by the European Union

South Baltic



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## CIRCULAR AQUACULTURE STAKEHOLDER SUPPORT

Investigating **best practices**, experiencing the **cross-sector cooperation** possibilities in and forming **international networks** with organizations pursuing the same mission.



Study visits & meetings (Scandinavian Aquasystems and FishGlassHouse, University of Rostock)

AquaLoop study visits and meetings

AquaLoop workshops and consultations



Workshops & consultations (European Maritime Days, Scandinavian Aquasystems, University of Gdańsk)



Sustainable food products from AquaLoop partners and associated partners

Showcasing & raising awareness on sustainable food production



# Contacts

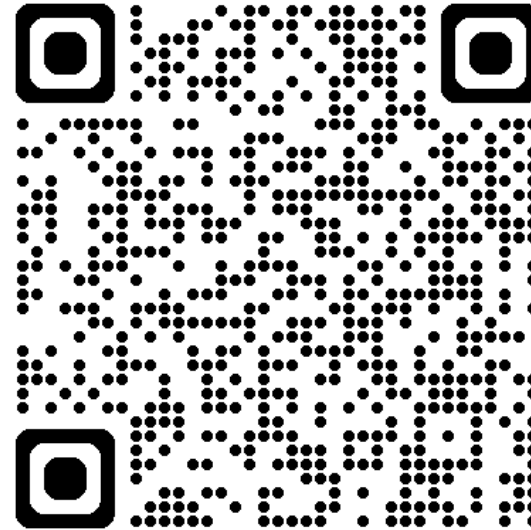
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Photos credit: AquaLoop partners and associated partners



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