



# cross-border student exchange program

## PROMOTING CIRCULAR AQUACULTURE THROUGH INTERNATIONAL COLLABORATION

Monika Normant-Saremba\*, Laura Ballesteros Redondo, Adrian Bischoff-Lang, Barbara Dmochowska, Joanna Hegele-Drywa, Hanna Łądkowska, Gintautas Narvilas, Nerijus Nika, Filip Pniewski  
AquaLoop INTERREG SB project, University of Gdańsk, Bażyńskiego 8, Gdańsk, 80-309, Poland, email: monika.normant@ug.edu.pl

Interreg



Co-funded by  
the European Union

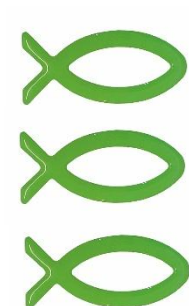
South Baltic



*The AquaLoop Cross-Border Student Exchange 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. The strong positive feedback confirms the program's value and provides a foundation for future exchanges in the South Baltic region and beyond.*

The AquaLoop Cross-Border Student Exchange Program, held between January and June 2025, aimed to foster international collaboration and practical knowledge transfer in the field of sustainable aquaculture and circular economy. Organized within the AquaLoop - Aquaculture expert floor for circular economy practice project framework, the program involved bachelor's and master's students from the University of Rostock (Germany), University of Gdańsk (Poland), and Klaipeda University (Lithuania).

### GOALS



- To foster international collaboration in sustainable aquaculture
- To promote circular economy principles in aquaculture education
- To enable hands-on training via **PILOT ACTIONS**



### OVERVIEW

January–June 2025

1 week long

Bachelor's & Master's students

University of Rostock (DE)

University of Gdańsk (PL)

Klaipeda University (LT)



University  
of Gdańsk



Klaipeda  
University



University of Gdańsk, TARAS facilities

**Pilot 1:** Testing Algae Applications in Recirculating aquaculture systems (RAS) to improve aquaculture circularity potential in the SB region



Program participants at the University of Gdańsk



University of Rostock, NEMATIC facilities

**Pilot 2:** Increasing the nutrient efficiency of commercial aquaculture through increased application of circular economy concepts

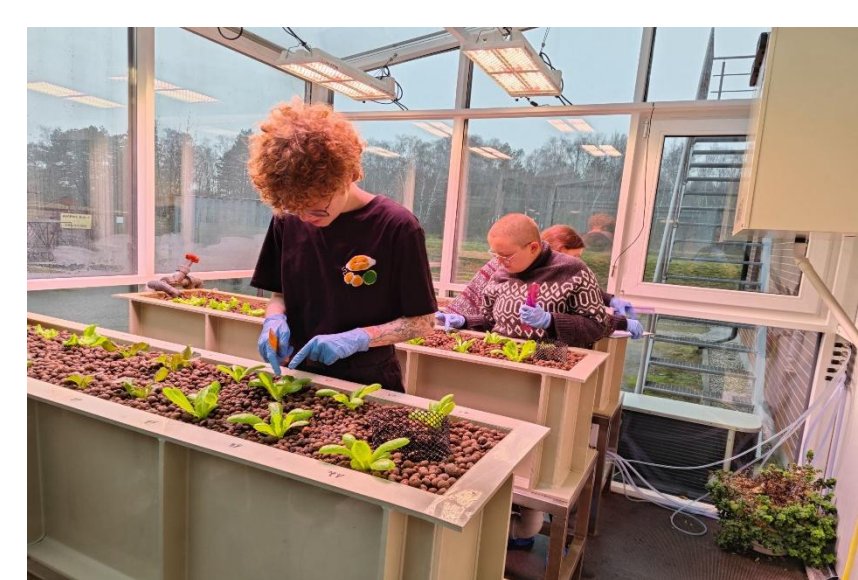


Program participants at the University of Rostock



Klaipeda University, FISHVISA facilities

**Pilot 3:** Development of the Fish-Shrimp-Vegetables integrated system of aquaponics to showcase the potential of circular economy principles in RAS



Program participants at the Klaipeda University

Photo credits: University of Rostock, University of Gdańsk, Klaipeda University

### METHODS



Laboratory and field-based learning - Participants conducted experiments and aquaculture routines based on AquaLoop pilot studies.



Varied thematic Focus - University of Gdańsk: Microalgae cultivation and shrimp farming in RAS (TARAS); University of Rostock: Fish nutrition, aquaponics, and fish leather production (NEMATIC); Klaipeda University: Integrated aquaponics and multitrophic systems (FISHVISA).



Field visits - Participants visited commercial aquaculture facilities such as: K2 Trout Farm (PL), Institute for Fisheries at the State Research Centre Mecklenburg-Vorpommern in Hohen Wangelin (DE), Martynas Klevinis Arctic Char Farm (LT).



Post-visit surveys on participants' satisfaction & learning outcomes.



Certificates of attendance.

[www.aqualoop.edu.pl](http://www.aqualoop.edu.pl)

### RESULTS

Practical skills development in: microalgae cultivation, shrimp and fish RAS operations, fish, shrimps, and crayfish feeding trials, aquaponic plant care, and advanced laboratory methods such as parasitology and molecular fish tissue analysis.

Enhanced students' understanding of circular practices in aquaculture, strengthened cross-border networks, and inspiration for future innovation in sustainable aquatic food production.

Enhanced cooperation between industry and academia fostered through study visits during exchange stays, providing students with valuable career development opportunities and exposure to real-world challenges in aquaculture.

High satisfaction across all exchanges. Evaluation scores ranged from 90% to 100% in categories such as communication, organization, collaboration, and overall satisfaction.

Further collaboration between project partners and their students in the scientific field.

Networking and cultural exchange. Students valued cross-border peer collaboration, sightseeing, and informal discussions with faculty and fellow participants.

