

Pilot 3 FISHVISA

AquaLoop Kick-off meeting

Rostock | 7-9 November 2023
Speaker



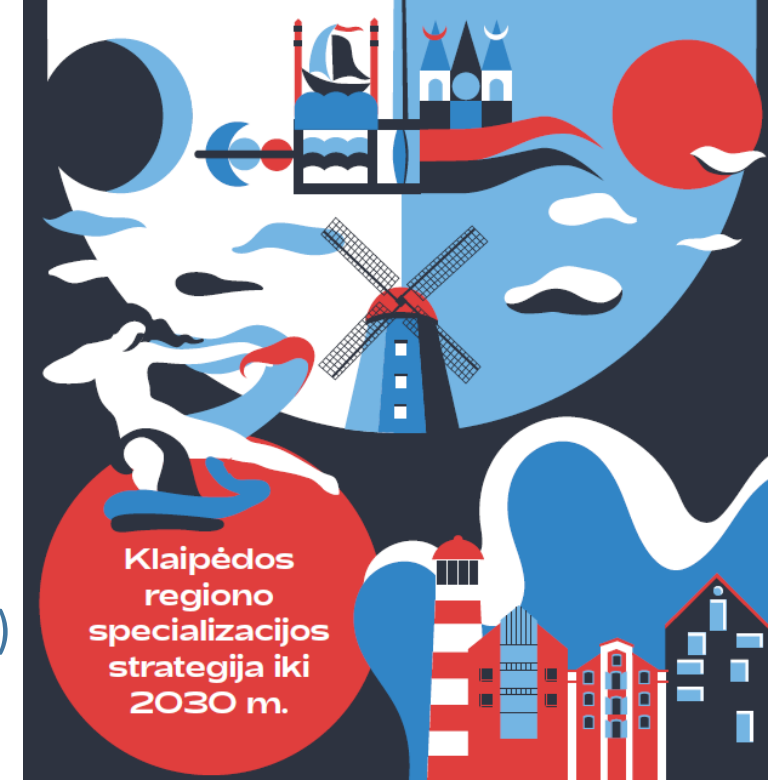
Pilot 3 FISHVISA

Background and competences

KRSS 2030 – priorities in circular economy

Akvaponik – to demonstrate and promote aquaponics technology for potential users (10 sites) – NMA national project (A. Klimienė, G. Narvilas)

Strong biogeochemistry group at MRI



FISHERIES AND AQUACULTURE LABORATORY



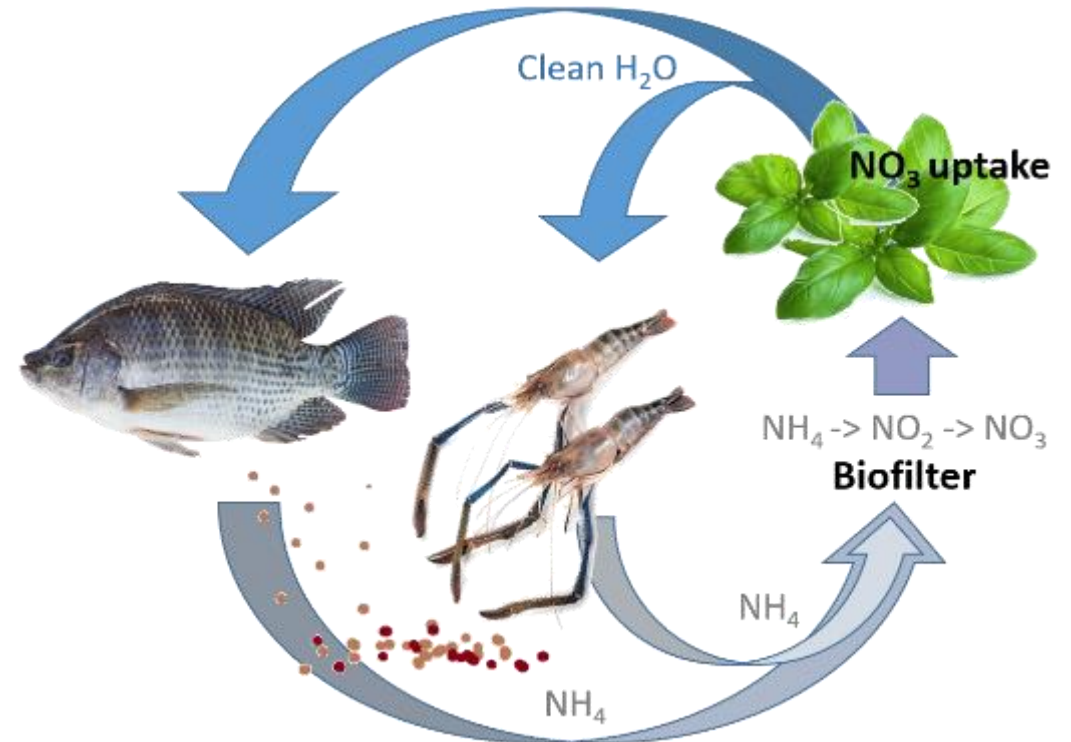
Development of the Fish-Shrimp-Vegetables Integrated System of Aquaponics to showcase the potential of circular economy principles in RAS

The FISHVISA is composed of integrated fish, shrimp (and/or crayfish) and vegetables compartments, where shrimp/crayfish use solid wastes, and vegetables use nutrients from fish and crustaceans, to develop a zero-waste RAS technology

African catfish or Nile tilapia

*Freshwater giant prawn *Macrobrachium rosenbergii* and/or Australian red-claw crayfish *Cherax quadricarinatus**

Vegetables / herbs (not selected yet)



Interactively linked with commercial technology of AP6 (???)

Prompt exchange of data and technology solutions to test interactively from the lab scale to the farm scale.



Controlled Environment Agriculture
CEA Farming



Established infrastructure for FISHVISA pilot

KORPIS 2 project outcome – GLASS HOUSE



Established infrastructure for FISHVISA pilot

KORPIS 2 project outcome – AQUAPONICS SYSTEM

- Fish tank
- Shrimp tank
- Sedimentation tank
- Backwash filter
- Biological moving-bed filter
- Sump
- 3 units of plant reservoirs
- LED lamps
- Water quality monitoring system



Expected results and outcomes

N cycle analysis, P and microelements testing

Testing different setups: lights, plants, crustaceans

Developed Fish-Shrimp-Vegetables Integrated System of Aquaponics

Onsite training for students (as a part of KU and joint Conexus study programs) and professionals

Establishment of curricula in blue bioeconomy for regional STEAM training program

Support of regional bioeconomy development scopes (KEDS 2030 and KRSS 2030)

Contacts

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