www.vicinaqua.eu

AT A GLANCE

TITLE:
Integrated aquaculture based on sustainable water recirculating system for the Victoria Lake Basin

CONSORTIUM:
A multidisciplinary consortium of 11 partners

COORDINATOR:
HOCHSCHULE KARLSRUHETECHNIK UND WIRTSCHAFT

PROGRAMME:
H2020-WATER-2015-two-stage

DURATION:
June 2016 – June 2019

TOTAL COST:
€ 2,997,710

EU CONTRIBUTION:
€ 2,997,710

Integrated aquaculture based on sustainable water recirculating system for the Victoria Lake Basin

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 689427

VICINAQUA PARTNERS

1. HOCHSCHULE KARLSRUHETECHNIK UND WIRTSCHAFT (Germany)
2. STEINBEIS INNOVATION GGMBH (Germany)
3. CONSIGLIO NAZIONALE DELLE RICERCHE (Italy)
4. UNIVERSITA DELLA CALABRIA (Italy)
5. JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY (Kenya)
6. AQUABIOTECH LIMITED (Malta)
7. OXYGUARD INTERNATIONAL AS (Denmark)
8. BPE INTERNATIONAL DR HORNIG GMBH (Germany)
9. MINISTRY OF AGRICULTURELIVESTOCK AND FISHERIES (Kenya)
10. NATIONAL AGRICULTURAL RESEARCH ORGANISATION (Uganda)
11. SCIENCE, TECHNOLOGY AND INNOVATION POLICY RESEARCH ORGANISATION (Tanzania)

VicInAqua

VicInAqua will follow an integrated approach in order to develop a sustainable combined sanitation and recirculating aquaculture system (RAS) for wastewater treatment and reuse in agriculture in the Victoria Lake Basin area. In this decentralized integrated treatment system of wastewater from households and fish processing industry as well as RAS production water, stress on the sensitive ecosystems of the Lake Victoria will be radically reduced and will contribute to food and health security. It will be fully autonomous powered by renewable energies (PV, biogas). The RAS will produce high quality fingerlings of the local fish species to supply the pond aquaculture of the area with stocking material. The innovative core idea of the project is to develop and test new technologies which enable the integration of sanitation with the aquaculture in a sustainable manner.

The core of the project concept is to develop and test a novel self-cleaning water filter which consists of a membrane bioreactor (MBR) as principal treatment unit within a combined treatment system where the nutrient rich effluent water will be used for agricultural irrigation. The surplus sludge from both filter systems will be to produce biogas. The overall concept will promote sound approaches to water management for agriculture, taking into consideration broader socio-economic factors and also fomenting job creation and greater gender balance in decision-making. The pursued approach will be perfectly in line with the strategic guidelines of the Rio+20 and the post-2015 development framework.

Objectives of VicInAquA

- Provide an integrated, sustainable, cost effective and robust solution for wastewater treatment from the fish processing industry and municipal wastewater providing clean water for aquaculture
- Provide an autonomous power supply using a combination of high performance and robust PV panels coupled to a biogas installation (fed with RAS surplus sludge and bio-waste from fish processing industry in co-digestion with water hyacinth)
- Provide a low cost integrated sensor control system
- Enhance capacity building, awareness raising and knowledge transfer measures among local and regional aquaculture operators, stakeholders and scientific community

AT A GLANCE

TYPE:
Research SME

LOCATION:
Mosta, MALTA G. C.

CAPABILITIES:
R&D / Consultancy / Engineering

EXPERTISE:
Aquaculture / Marine Research
Blue Growth / Aquatic Environment

AquaBioTech Group

Who we Are

AquaBioTech Group is an international aquaculture and fisheries consulting company strategically located in the Mediterranean, on the island of Malta. It operates globally, with clients and projects in over fifty-five countries. Staff are recruited from across the globe, enabling communication with clients in thirteen languages.

AquaBioTech Group undertakes a variety of aquaculture, fisheries, marine surveying, aquatic environmental, financial, and technical projects, performed with its selected, worldwide partners.

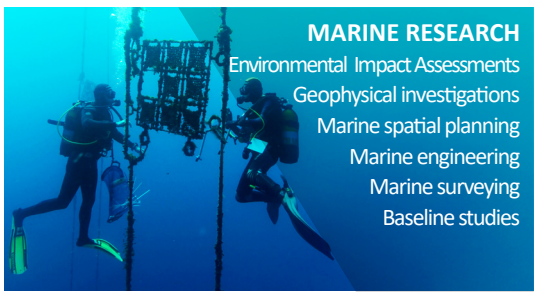
AquaBioTech Group has an established, global reputation in designing and installing recirculation aquaculture systems (RAS)

Our role in the VicInAqua project

AquaBioTech Group's main tasks within the **VicInAqua** project include:

- Leading the work package in which the integrated aquaculture and sanitation system suitable for the local context will be designed, constructed, commissioned and tested
- Contribute to tasks related to aquaculture particularly in the work package in which pilot trials will be carried out
- Carry out a study to understand the feasibility of scaling up the **VicInAqua** integrated aquaculture and sanitation system
- Carry out aquaculture training in a number of target countries to stakeholders

Our Research Activities



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