

## AT A GLANCE

**TITLE:**  
HatcheryMatch

**CONSORTIUM:**  
4 partners

**COORDINATOR:**  
AquaBioTech Group (ABT)  
L-Università ta' Malta (UM)

Fishery Machinery and Instrument  
Research Institute (FMIRI)

Qingdao Blue Granary Ocean  
Fishery Development Co., Ltd. (BG)

**DURATION:**  
July 2021- June 2023

**MALTESE  
TOTAL BUDGET:**  
€ 173,243.98

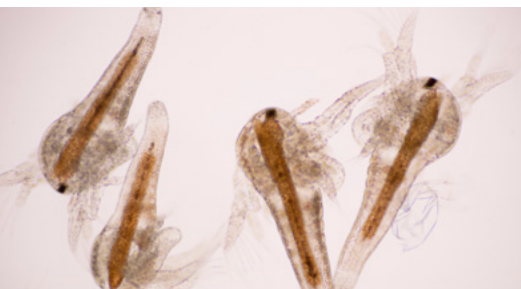
**NATIONAL FUNDING:**  
€ 120,994.18

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An Automatic Marine Fish Hatchery  
with Innovated Water Recirculation  
Technologies



### Our Partners



## HATCHERYMATCH

### An Automatic Marine Fish Hatchery with Innovated Water Recirculation Technologies

HatcheryMatch is a two-year Science and Technology Cooperation Sino-Malta Fund Project between Maltese partners AquaBioTech Group and The Department of Food Sciences and Nutrition at the L-Università ta' Malta, and Chinese partners Fishery Machinery and Instrument Research Institute and Qingdao Blue Granary Ocean Fishery Development Co., Ltd., under the thematic priority Maritime & Aquaculture. Malta and China have a history of collaborative research going back to 2002 and in 2018 Malta and China signed the Belt and Road Initiative agreement to further support collaborative trading, cultural and research activities between the two countries.

The HatcheryMatch project aims to develop four new automation technologies which will improve water quality, embryonic categorization, and feeding and in turn reduce stress and losses during the hatchery phase of fish lifecycles. Prototypes for live feed systems, ultra-sound disinfection, bottom cleaning devices and a digital, embryonic image analyzer will be created. A pilot recirculating hatchery will be developed integrating these new technologies to reduce stress on marine stocks, lower labor dependence and increase seeding rate.

These innovations will help to further progress Aquaculture in both China and in Malta and promote research collaboration between researchers in the two countries.

## Objectives of HatcheryMatch

- Design, develop and implement 4 new technological innovations that will increase water quality and survival rate of fish in marine hatcheries.
- Design, develop and install a pilot scale marine recirculating hatchery integrating the 4 technologies to achieve >60% survival.
- Develop standard protocols for design, operation and management of recirculating marine hatchery.
- Further progress Aquaculture in both China and in Malta and promote research collaboration between researchers in the two countries.

## AT A GLANCE

### TYPE:

Research SME

### LOCATION:

Mosta, MALTA G. C.

### CAPABILITIES:

R&D / Consultancy / Engineering

### EXPERTISE:

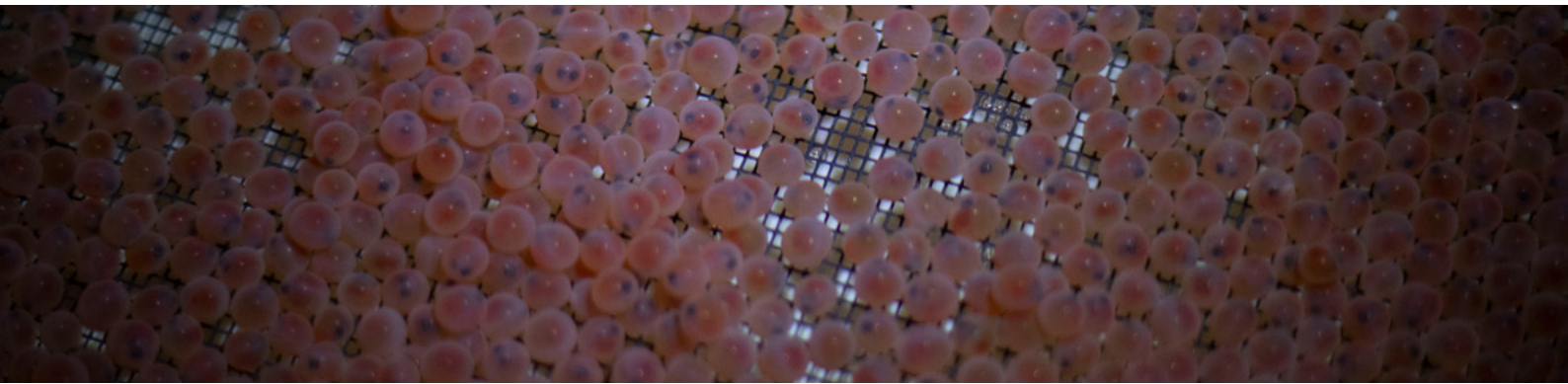
Aquaculture / Marine Research  
Blue Growth / Aquatic Environment



## Who We Are

**AquaBioTech Group** is an international consulting, engineering and R&D company with over 20 years of experience in aquaculture, fisheries and other aquatic sciences. Located in the center of the Mediterranean on the island of Malta, although operating globally with clients and projects in over fifty-five countries.

The vast majority of the organisation's work is related to the marine or aquatic environment, encompassing aquaculture developments, market research/intelligence through project feasibility assessments, finance acquisition, project management, technology sourcing, technical support and training.



## Our Role in the HatcheryMatch Project

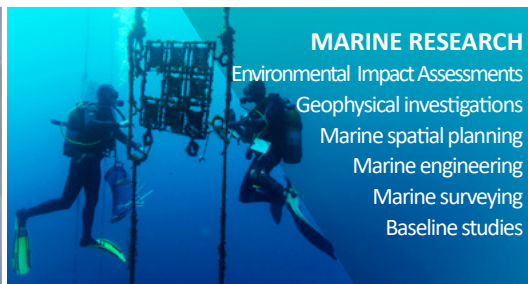
- Design, develop and test an automatic live feed system for implementation in a pilot-scale marine hatchery.
- Test a scale-up ultrasound system- developed by UM, in our facilities recirculating aquaculture system for the investigation of the effects on water quality and relevant aquaculture pathogens.
- Design, collaborate and supervise the building and installation of a pilot scale marine hatchery at Rudong Platform China which will integrate the 4 technologies developed by the partners.
- Contribute to the creation of standard design, operation and production procedures for the marine hatchery.

## Our Research Activities



### AQUACULTURE R&D

Fish & shellfish hatchery technology  
Health & disease prevention  
Nutraceutical development  
new species development  
Aquatic nutrition research  
Production techniques



### MARINE RESEARCH

Environmental Impact Assessments  
Geophysical investigations  
Marine spatial planning  
Marine engineering  
Marine surveying  
Baseline studies



### WATER TECHNOLOGIES R&D

Recirculation Aquaculture Systems  
Aquaponics  
Wastewater treatment  
Energy efficiency  
Sustainability  
Innovation

## AquaBioTech Group



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