

# AT A GLANCE

**TITLE:**  
SMARTPOL

**CONSORTIUM:**  
6 partners

**COORDINATOR:**  
Yildiz Technical University

**DURATION:**  
12 January 2022 - 30 November 2025

**TOTAL BUDGET:**  
€ 173 000

**EU CONTRIBUTION:**  
€ 130 000



**SMARTPOL**  
MONITORING MARINE POLLUTION

Autonomous network system with specialized and integrated multi-sensor technology for dynamic monitoring of marine pollution.

## SMARTPOL CONSORTIUM

- Yildiz Technical University (Turkey)
- AquaBioTech Group (Malta)
- Malta College of Arts, Science and Technology (Malta)
- INTERACTIVE SOFTWARE (Romania)
- University of Cape Town (South Africa)
- Sirena Marine Denizcilik San Tic A Ş (Turkey)

This project has received funding from Turkish National Funding Authority (TUBITAK) in Turkey, Malta Council for Science and Technology (MCST) in Malta, UEFISCDI subordinated to the Ministry of Education and Research in Romania and the Department of Science and Innovation in South Africa, via the MarTERA – ERA NET co-fund scheme under grant agreement No 728053-MarTERA of H2020 of the European Commission.



## SMARTPOL PROJECT

SMARTPOL project aims to present a novel compact pollution detection, monitoring and analysis system to monitor marine fields and detect different types of marine pollution. The system will mainly consist of Shore Control Centre (SCC) and unmanned surface vessel (USV), both equipped with multi-sensor technology and AI based solutions. SMARTPOL inland sea pollution monitoring and detection system provides higher spatial and temporal resolution-based early warning and real time information which are essential to decrease first intervention time and avoid possible environmental losses.

This project will build a solution in which new technological developments are integrated with the state-of-the-art technologies to preserve sea, reduce the first response time in sea pollution, and enable effective actions in interaction with information technologies instead of analogue response operations.

## Objectives of SMARTPOL

- Pollution detection, monitoring and analysis system
- A state-of-the-art AI-driven analysis
- A full electric Unmanned Surface Vehicle (USV)
- Potential to reduce human intervention to the minimum



## AT A GLANCE

**TYPE:**

Research SME

**LOCATION:**

Mosta, MALTA G. C.

**CAPABILITIES:**

R&D / Consultancy / Engineering

**EXPERTISE:**

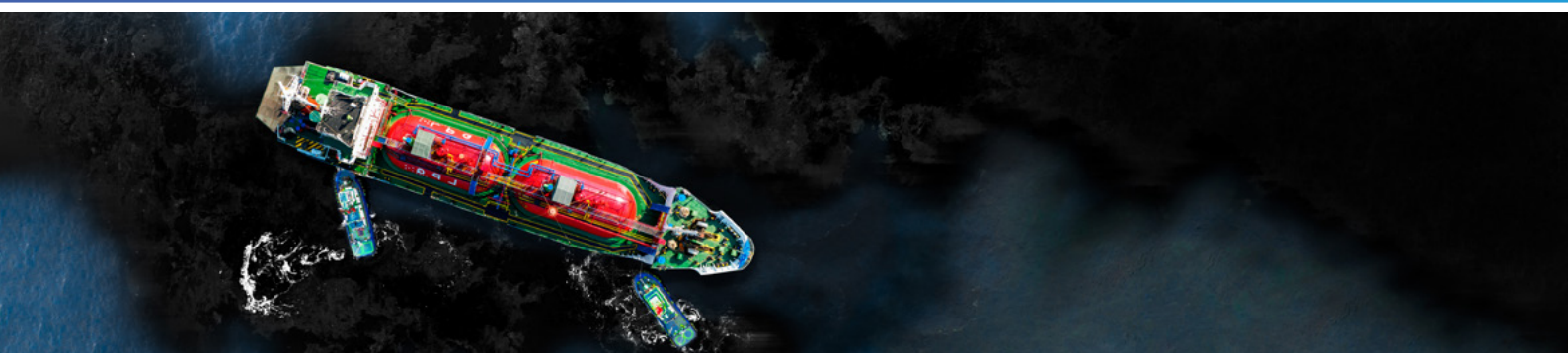
Aquaculture / Marine Research  
Blue Growth / Aquatic Environment



## 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 SMARTPOL project

**AquaBioTech Group's** main tasks in the SMARTPOL project include:

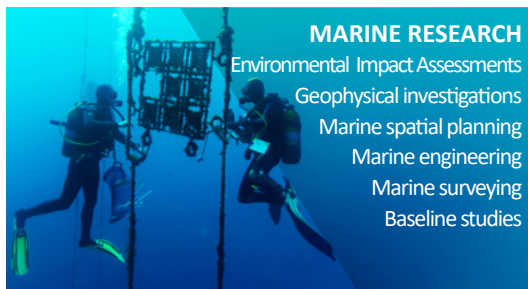
- Defining state-of-the-art technology (SoTA)
- Model and simulate the form of unmanned surface vehicles (USVs)
- Define the region of interest area for pollution detection
- Pilot demonstration assessment and evaluation
- SotA on relevant pollutants, microplastics, and environment issues
- Ecosystem Building and networking activities

## 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