

Press release to Plumtri.org, a platform for R&I stakeholders in the Mediterranean Region (www.plumtri.org) from AquaBioTech Group, Malta.

New project sets sail: seeking solutions to the problems of maritime corrosion and biofouling.

AquaBioTech Group Malta is pleased to announce the launch of the ProNiCare MarTERA ERA-NET Co-fund project, in which they are a partner. In the first six months the project managers and tasks leaders have collaborated extensively on their vision and methodology to achieve the goals of the ambitious work plan, and the research work is now ongoing.

The main objective of this project is to develop a copper-free, eco-friendly, cost-effective surface coating that provides a combination of corrosion and biofouling protection for metal surfaces in niches areas. Marine biofouling and corrosion are two substantial challenges for shipping, offshore infrastructures and maritime technologies exposed to sea water, costing millions of Euros in cleaning costs and fuel inefficiencies in the Mediterranean alone. Compared to ship hull fouling, the fouling community in niche areas may differ compared to exposed areas of ships due to lack of light and different water flow and temperature. To save time and money for maritime industries, urgent research and practical solutions are needed.

There is a great need for environmentally friendly and more cost-effective innovation and in ProNiCare this will be achieved through use of a high-tech nanomaterial-based formulations with functional antifouling and anti-rust additives.

ProNiCare is a collaborative effort of a broad field of competence from 6 partners including research institutions and companies from 3 different countries (Norway, Germany and Malta) to strengthen sustainable development and industrial innovation. Led by coordinator Dr Juan Yang, of SINTEF AS, Norway, there has been a significant focus on the technical work to be conducted for each project task, with a special consideration to the multidisciplinary approach. The multidisciplinary perspective of ProNiCare will result in innovations capable of benefiting multiple sectors of high potential for a sustainable marine economy including maritime transport and aquaculture. This strategy will increase the competitive strength of European maritime industries, secure and create jobs, and improve sustainability. It will provide a significant added value against the spread of marine invasive species, as it offers a new solution to test antifouling systems under real life conditions and to detect their design limitations.

The Mediterranean based partner, AquaBioTech Group, will be responsible for the ecotoxicological testing and conducting bioassays to assess exposure and antifouling properties of the newly developed materials and coatings. This will both ensure that the new coatings have no potential to damage the marine environment and that they will be usable for niche shipping components and aquaculture infrastructures in the warm Mediterranean waters. By conducting field trials to evaluate corrosion and fouling in different test sites and comparing this field testing to the results in colder environments, the project can ensure that the coatings will be usable throughout Europe.

The ProNiCare project has received funding from the Research Council of Norway, the Malta Council for Science and Technology, and the Federal Ministry for Economic Affairs and Climate Action (Germany) via the MarTERA – ERA-NET Co-fund scheme of H2020 of the European Commission. The overall goal of the ERA-NET Cofund MarTERA is to strengthen the European Research Area (ERA) in maritime and marine technologies as well as Blue Growth.

For further news about the outcomes of ProNiCare will be featured on a new website has been launched www.pronicare-project.com

About the project:

ProNiCare project will address the urgent need to develop environmentally friendly and more cost-effective solutions for new antifouling and anti-corrosion coatings. This will be advanced through use of high-tech nanomaterial-based formulations, creating a thin coating with functional antifouling and anti-rust additives suitable for use in niche areas- a green and eco-friendly product that will be tested in a newly developed innovative testing unit.

ProNiCare project additionally aims to improve the understanding of biofouling propagation in niche areas and tools for their protection as well as offer best practices to address this maritime challenge.

<https://www.martera.eu/projects/2021/pronicare>

About MarTERA ERA-NET cofund:

MarTERA is an ERA-NET Cofund scheme of Horizon 2020 of the European Commission. The overall goal of the ERA-NET Cofund MarTERA is to strengthen the European Research Area (ERA) in maritime and marine technologies as well as Blue Growth.

The MarTERA consortium, consisting of 16 collaborating countries, has organized joint call that is co-funded by the EU for transnational research projects on different thematic areas in 2017. Furthermore, three joint calls without co-funding by the EU have been successfully launched by the MarTERA partners in 2019, 2020 and 2021. Additional joint activities are planned, in order to contribute to the national priorities as well as to the Strategic Research Agenda of JPI Oceans and WATERBORNE.

The focus of development in MarTERA is given to technologies (instead of sectors) due to their potentially large impact to a wide range of application fields.

<https://www.martera.eu/about-matera>

About AquaBioTech Group

AquaBioTech Group is an independent aquaculture, fisheries, biotechnology and environmental testing/research, engineering, consulting, development, and training company with its own dedicated research and marine survey facilities. AquaBioTech Group operates globally, specializing in three main areas: a) aquaculture and fisheries consultancy from resource management and market research to policy development and feasibility, due diligence studies; b) contracted aquaculture research for feed development, pharmaceutical testing and breeding programmes; c) design and

commissioning of land based and marine aquaculture production systems and technologies. ABT Labs offers a wide range of laboratory services including microbiology, water quality, fish diagnostics, ecology, marine biology, antifouling efficacy testing and aquatic ecotoxicology. The laboratories are GLP & GMP certified. www.aquabt.com

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