

## Project acronym - Project title

# priority Axis 1 Promoting the smart and sustainable growth through research and innovation 1b) Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, ecoinnovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in

particular in key enabling technologies and diffusion of general purpose technologies.

Investment Priority Specific Object



1.1 Enhance the activities of innovation and research to improve the quality of life and the utilization of the cultural heritage

# Name of the lead partner organisation

Università degli Studi di Palermo – Dipartimento di Tecnologie e Scienze Biologiche, Chimiche e Farmaceutiche

Project Partners					
Partner 2	Comune Di Lipari				
Partner 3	Distretto Turistico Pescaturismo e Cultura del Mare				
Partner 4	University of Malta, Faculty of Science/Department of Geosciences				
Partner 5	Ministry for Sustainable Development, the Environment and Climate Change				
Partner 6	AquaBioTech Limited				
Project duration (months)	Start date	End Date			
36 mesi	01.06.2018	31.05.2021			

# **Project summary**

BYTHOS addresses the issue of disposing of organic waste from fish processing and catering waste with the aim of creating economic value through virtuous recycling and reuse processes.

The project intends to create a joint laboratory on the Lipari island in which researchers and experts in the field of biotechnology develop products based on bioactive molecules (BAMs) from fish waste, reducing the amount of organic waste that requires treatment or removal within a community and creating an economic value chain based on organic waste.

The complementarity of fish species, coming from the two geographical areas, provides a wide source of BAMs of interest for the biotechnological and medical industries and such production levels to ensure a high source of profit.

The antibacterial/antimicrobial/antitumor products based on bioactive molecules (BAM) extracted from fish waste are of great interest for the pharmaceutical, nutraceutical and cosmetic industries. At the same time the further treatment of the remaining fish waste will be used to create eco-innovative fish feeds, thus reducing the Sicilian and Maltese aquaculture sector dependence on purchasing from foreign suppliers.

The laboratory impact will therefore be both of environmental and socio-economic nature as it will provide new job opportunities throughout the sector and extend the value chain ensuring a more sustainable use of natural resources.

# Project results

N. 6 enterprises adopting technologies and innovative services developed by the joint BYTHOS lab

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Project outputs					
✓1 Lab created in Lipari Island ✓4 BAMs extraction procedures defined ✓2 type of Fish feed products		✓5 target markets in biomed tech sector identified ✓5 Target markets in fish feed sector identified ✓15 business models ✓40 Enterprises using the lab services			
Budget	ERDF Contribution	National Contribution	Additional Co-financing		

Budget	ERDF Contribution	National Contribution	Additional Co-financing
€ 2.371.592	€ 1.828.681	€ 421.861	€ 121.050
Contacts		Social Media	Sito web
bythosmail@gmail.com		Bythos EU	www.bythos.eu