



NEWSLETTER

Final workshop and project meeting

Promoting the sustainability of fish and crop farming using circular multitrophic aquaculture: the pilot experience of the PRIMA project "SIMTAP"

Final workshop of the **SIMTAP** project took place on **16 February at Pordenone Fiera**, in the prestigious context of **AcquaFarm/NovelFarm**, and visible on line. The event, under the aegis of the **Italian Society for Horticultural Science (SOI)** and the **Italian Association of Agricultural Engineering (AIIA)**, was an opportunity to present the most important results of this ambitious and pioneering project funded by the PRIMA program of the European Union. The vision of the project is that of developing and demonstrating an innovative integrated multi-trophic aquaponic system for environmentally friendly marine fish and halophytic plants production to be developed in Mediterranean areas.



The session was opened by **Prof. Alberto Pardossi**, coordinator of the project, together with **Prof. Carlo Bibbiani**, member of the leading team of the University of Pisa. The intervention of **Dr. Marco Fiori**, **Fish Department Manager of Coop Italia and member of the advisory board of the project**, drew attention to the growing importance of developing increasingly sustainable models of production from an environmental, economic and social point of view.

This is more and more important to address the growing attention from consumers and therefore of farmers and distributors of the sector, and very positively recognized the contribution that the project has made to advance knowledge in this field, with particular reference to production systems inspired by the circular economy.

The partners illustrated the **main results obtained in the various pilot systems developed and tested during the project**. A presentation focused on the innovative circular system that associates seabreams, bivalves, and shrimp in a loop tested **by INRAE at the Lycée de la Mer et du Littoral in France**, where SIMTAP was conceived as a system of open ponds. **The indoor pilot plant realized in Italy was presented by the University of Pisa**, where sustainable diets for farming seabass and seabream in multitrophic aquaculture and growing microalgae and halophytes in multitrophic aquaponic systems were studied.



The biosystems engineering systems for **environmental monitoring and optimizing energy efficiency of SIMTAP systems** were developed by the team of the **University of Bologna**, which also presented a **GIS-based decision support system** for optimal localization of SIMTAP systems. The results of the study **that compared the sustainability of the integrated aquaponic systems developed in the project with those of commercial systems currently used for fish farming** were presented by the INRAE and University of Milan teams, who jointly conducted LCA and LCC in the project.



The workshop participants sent a warm hug to the team of the Mediterranean Fisheries Research Production and Training Institute of Antalya, Turkey, which in relation to the severe earthquake that hit the country was able to participate in the workshop via videoconference. The Turkish team developed and tested a SIMTAP pilot plant to analyze performance, challenges, and opportunities of the SIMTAP prototype in the eastern Mediterranean conditions.

The participants showed a strong interest in the topics and animated the discussion thanks to their questions. The lively discussion clearly highlighted the interest on the part of both the academic world and that of production and society, for innovative production systems that can increase sustainability, inspired by the principles of the circular economy, and combining solutions based on nature and technology.

The following day, 17 February, a project meeting took place: the partners developed strategies to enhance the important results obtained in the project, also with a view to their future exploitation.



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