AdriAquaNet-Enhancing Innovation and Sustainability in Adriatic Aquaculture

Marco Galeotti, Sabina Passamonti, Emilio Tibaldi, Snjezana Zrncic, Jelka Pleadin, and the AdriAquaNet staff

Introduction

Adriatic mariculture provides highly valued products from fish farms for both local and distant markets. To ensure further development of this sector in terms of economic, environmental and social sustainability, researchers and companies from Italy and Croatia are developing new technologies for the three domains of the value chain:

GOAL 1
Improved fish nutrition and waste management

the fish farm

ACTIONS
- Develop novel feeds
- Refine feeding protocols
- Exploit farm waste to produce energy

GOAL 2
New strategies to enhance fish health and welfare

the fish doctor

ACTIONS
- Develop new vaccines/ vaccination strategies
- Test novel probiotics/ nutraceuticals for controlling infectious diseases
- Develop easy, rapid and effective methods to assess fish welfare

GOAL 3
New fish products for different consumer groups

the fish market

ACTIONS
- Develop new food products based on fish
- Educate consumers on fish nutritional value
- Develop marketing strategies

Methodology

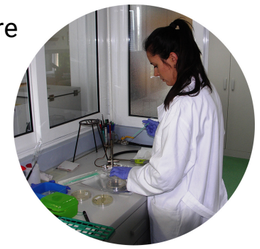
Seven research institutions from Italy and Croatia joined with 4 SMEs (3 fish farms and 1 food industry) to co-develop solutions for their technology needs.

The focus was on developing solutions only if complying with the ONE health paradigm. They were developed in laboratories and then tested on field.

Research & Innovation outputs

For the fish farm

- A new generation of feeds based on alternative protein sources
- An expert tool to monitor and predict fish growth and waste load dispersion from marine cages
- A pilot system for the anaerobic digestion of brackish and high salinity aquaculture sludges and biomethane production
- Electric propulsion engines with solar panel battery charging station for service boats
- Photovoltaic and heat pump in marine aquaculture



For the fish doctor

- New autologous vaccines against pathogens affecting farmed sea bass
- New antimicrobial peptides as therapeutics in aquaculture
- A practical method for assessing the welfare of farmed fish
- A new microanalytical method for screening stress biomarkers in farmed fish

For the fish market

- Nutritional quality indicators of sea bass and sea bream farmed in the Adriatic area with new feed formulations
- Cold-Smoked Sea Bass, a New Product with extended shelf life
- Information material on the nutritional quality of fish
- A marketing strategy for Adriatic aquaculture SMEs

The Partners

RESEARCH INSTITUTES
- LP UNIVERSITY OF UDINE – Dept. of Agricultural, Food, Environmental and Animal Sciences
- PP1 CROATIAN VETERINARY INSTITUTE
- PP2 UNIVERSITY OF TRIESTE – Dept. of Life Sciences
- PP3 INSTITUTE OF OCEANOGRAPHY AND FISHERIES
- PP4 ISTITUTO ZOOPROFILATICO SPERIMENTALE DELLE VENEZIE
- PP5 UNIVERSITY OF RIJEKA – Faculty of Tourism and Hospitality Management
- PP6 NATIONAL RESEARCH COUNCIL OF ITALY – Institute of Biomolecular Chemistry (ICB)

CONSORTIUM
- PP7 KLASTER MARIKULTURA

SMEs
- PP8 FRIŠKINA Ltd
- PP9 ITTICA CALDOLI sarl -Poggio Imperiale
- PP10 ORADA ADRIATIC Ltd
- PP11 FRIULTROTA DI PIGHIN Ltd

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Interreg Italy - Croatia AdriAquaNet

EUROPEAN UNION

www.italy-croatia.eu/AdriAquaNet

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Further information

Marco Galeotti, Lead Partner marco.galeotti@uniud.it
Sabina Passamonti, PP2, Leader of WP2 communication
Emilio Tibaldi, LP, Leader of WP3 The fish farm
Snjezana Zrncic, PP1, Leader of WP4, The fish doctor
Jelka Pleadin, PP1, Leader of WP5, The fish market

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