

NewTechAqua

(New Technologies, Tools and Strategies for a Sustainable, Resilient and Innovative European Aquaculture) Rachid Annane Ministry of Fisheries– ALGERIA

Online Workshop Black Sea projects on coastal and maritime tourism, maritime transports, fishery and aquaculture, digitalization Gaps and opportunities Friday, 2 October 2020



NewTechAqua project has received funding form the European Union's Horizon 2020 Research and Innovation Programme, under Grant Agreement n. 862658

About the Project

Overview

26 partners from 9 Countries (8 Eu and 1 non-Eu) Duration: 4 years Start date: 1° of January 2020

NewTechAqua Overall budget: € 6 723 843,50 EU contribution € 5 990 172,67

General objective and aims

NewTechAqua's main goal is to expand and diversify European aquaculture production of **finfish**, **molluscs and microalgae** by developing and validating technologically-advanced, resilient and sustainable applications.

The organizational approach of NewTechAqua is to group the **new applications in 6** different categories: Feed; Industry 4.0; Sustainable farming; Genetics; New species; New products



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INTEGRATED SOLUTIONS FOR A NEW AQUACULTURE



Project Strategy

- 1) Industrial Innovation with new applications
- **2)** Solution Integration to evaluate impacts (economical, social and environmental)
- **3) Result Capitalization** to exploit the achieved results
- •4) Education and Outreach to increase general consciousness of produced innovation



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Methodology and project approach



- Three innovative sets of aquafeeds, each targeting a specific issue (pro-health, organic, zero waste)
- Monitoring systems will aggregate and combine spatiotemporal information (**Big data**) in dynamic complex statistical and **Artificial Intelligence** models for disease prediction and health management
- Welfare indicators, and microbiome analyses (NGS) will be used to evaluate the impact of different rearing systems (**RAS**, **biofloc technology**, **aquaponics**, **ELOXIRAS**) on fish condition.
- Satellite imagery by the development and validation of biosensors for supporting shellfish industry
- Innovative breeding programmes to improve performance, robustness and quality of farmed fish, mollusc and microalgae, using different genomics methods.
- Enhanced know-how of the reproductive physiology and on the reproductive dysfunctions of three emerging species: greater amberjack, meagre and Senegalese sole under rearing conditions.
- Development of **innovative high-quality seafood** products and of tailored sustainable techniques for **valorisation of by-products** through the preparation of functional ingredients.



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Thank you for your attention.

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