DIGIRAS

Optimizing land-based fish production in next generation digital recirculating

Project Overview

CALL 1 | 2019

About the project

Recirculating aquaculture systems (RASs) have been developed for land-based production of sea- and freshwater species. These systems are designed to provide high biomass production while reducing resource usage and maximizing control of operational parameters.

However, only a few of these parameters are systematically monitored, and currently applied analysis techniques are often insufficiently sensitive, slow or laborious. Consequently, the full potential of RASs for more sustainable food production remains unexploited. The over-all goal of the DIGIRAS project is to develop innovative and data-driven solutions for digitalization of future RAS technology in order to increase environmental compatibility, fish health and productivity. The project intends to reach this goal by systematic acquisition of relevant water quality data, parameterization of fish behaviour, developing new biological and chemical sensors and efficient water treatment technology. DIGIRAS will strive to integrate all generated data towards decision support and predictive tools for next generation digital RAS operation. In DIGIRAS, R&D institutions with strong competence in (micro)biology and chemistry, fish health, video monitoring/machine learning and advanced water treatment technology will join forces with industrial partners from the fish farming and RAS-technology sector. Together, this consortium will contribute to improve land-based fish farming technology significantly, with respect to animal health, production conditions, environmental benefits and sustainability. Moreover, DIGIRAS aims at contributing to more sustainable growth in the aquaculture sector by developing new technologies, and thus, generating new jobs in infrastructural less developed areas in Europe.

In DIGIRAS, 6 R&D institutions and 5 industry partners (1 external contributor) from 5 participating European countries will collaborate for 36 months with a total funding budget of 1.68 Mio € (project budget 1.94 Mio €).

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Project Partners:
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Keywords:
RAS, Aquaculture, Water quality, Machine Learning, Digitalization

Priority Area:
Exploring improvements in fisheries and aquaculture

Funding granted:
1.679.465 euros *

This project has recieved funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 817992.

* The exact amount of granted funds may change after completion of national contracts.