

# NANOCULTURE - Risk assessment and mitigation of the presence of engineered Nanomaterials in Atlantic aquaculture

**Lead Partner:** International Iberian Nanotechnology Laboratory (ES)

**Total budget:** EUR 1.470.041 | ERDF: 1.102.531

**Duration:** Jan 2019 – Jan 2022

## Summary

The objective of NANOCULTURE is to advance in knowledge, risk assessment and mitigation of environmental presence of the most-used engineered nanoparticles (ENPs) in market products: titanium dioxide (TiO<sub>2</sub>) and silver (Ag).

As metallic NPs present important improvements in diverse industrial applications, the frequency of their application is growing exponentially. However, the studies of risks and mitigation of their presence in the environment are lagging far behind the rate of utilization, which represents a critical environmental and safety challenge in the Atlantic Area.

The focus of the project are the aquatic ecosystems related to aquaculture, a sector of high economic relevance in the Atlantic Area, and specifically organisms used for human consumption (cultured fish, mollusks, seaweed, sea urchins, etc.). NANOCULTURE will investigate the effects of ENPs on aquaculture products, their bioaccumulation, and assess its impact on human intake.

In order to carry out this project, collaboration of all the participating centres is essential to ensure a wide range of industrial (aquaculture professionals) and scientific profiles (analytical chemists, physical chemists, molecular biologists), as well as providing infrastructure to run the analysis and deliver real samples from aquaculture plants.

## Partnership

- > Centro Interdisciplinar de Investigação Marinha e Ambiental (PT)
- > Clúster de Acuicultura de Galicia (ES)
- > Universidad de Vigo (ES)
- > Universidad de Santiago de Compostela (ES)
- > Indigo Rock Marine Research Station (IE)

