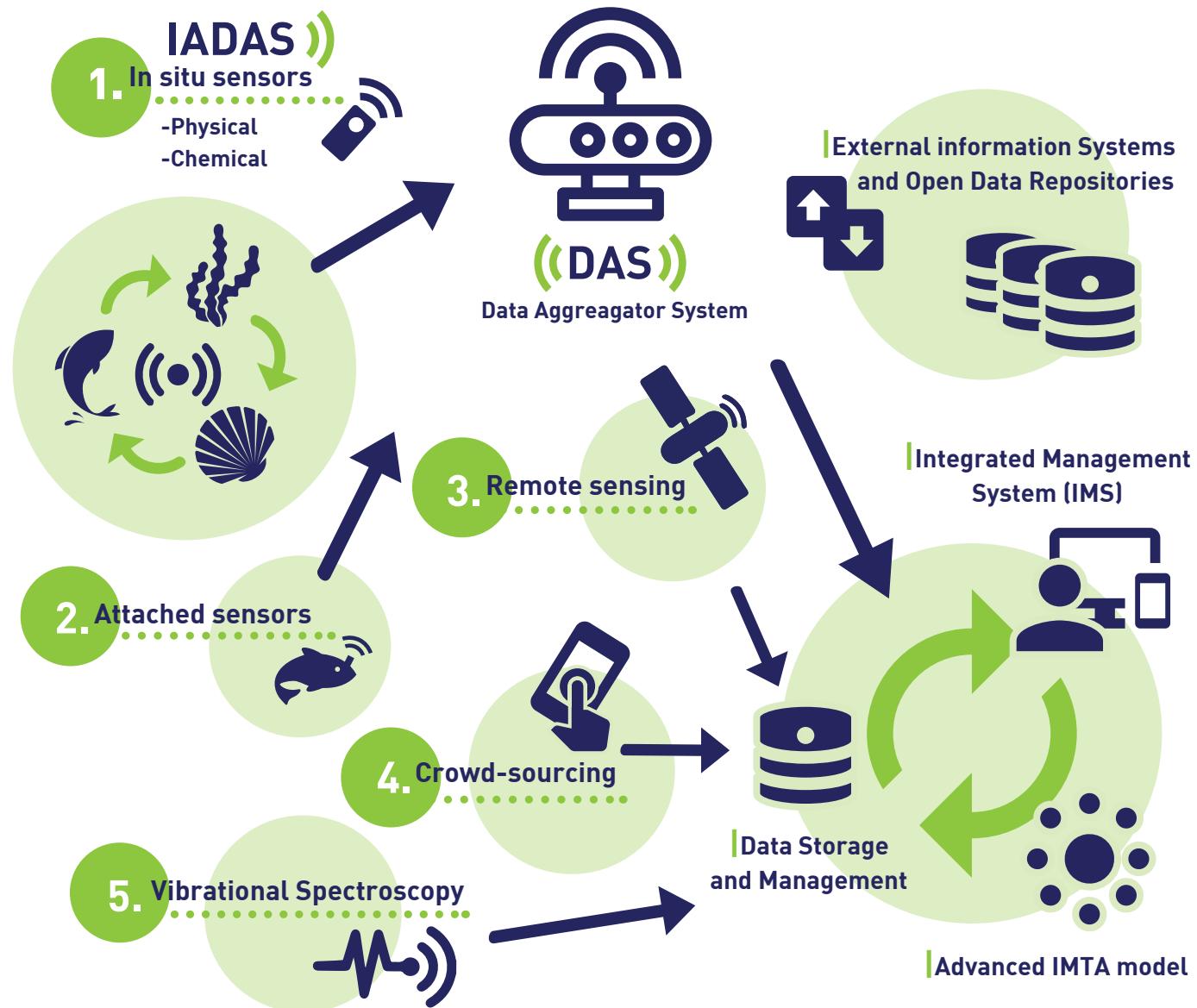


Intelligent management system for Integrated Multi-Trophic Aquaculture



Stay informed...

IMPAQT progress and results will be at the disposal of community researchers, farmers, producers associations and other stakeholders.

Keep an eye on the project's website and follow IMPAQT on social networks.

www.impactproject.eu



@IMPAQTproject



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WHAT IS IMPAQT?

IMPAQT is a project funded by the European Horizon 2020 programme aimed at **promoting and supporting the eco-intensification of aquaculture production systems**: inland (including fresh water), in the coastal zone, and offshore.

IMPAQT is working to develop and validate in-situ a multi-purpose, multi-sensing and multi-functional management platform for sustainable Integrated Multi-Trophic Aquaculture production (IMTA).

Twenty-one partners from EU and non-EU countries and with complementary profiles are working to drive a **paradigm shift in the European Industry**, and its acceptance of IMTA as a viable approach, by paving the way to a more environmentally friendly, efficient, and high-performing management.

IMTA ADOPTS A CONCEPT FROM NATURE

Integrated Multi-Trophic Aquaculture (IMTA) is acknowledged as a promising solution for the sustainable development of aquaculture. IMTA farmers combine species that need supplemental feed such as fish, with “extractive” species, which use the organic and inorganic materials and by-products from other species for their own growth and act as living filters. The natural ability of these species to recycle the nutrients (or wastes) in and around fish farms can help **growers improve the environmental performance of their sites**, while providing extra economic benefits, as they have commercial value as marketable products.

The IMTA concept, in the strictest sense, is having different trophic levels integrated into one farm or business, at the same site. However, trophic links in aquatic ecosystems can extend over a large spatial scale. As aquaculture heads towards more organised spatial planning, IMTA will have to become a reality to **optimise limited space**.

WHAT WE DO

Through a series of pilot sites across Europe and China, the project develops and tests **an intelligent management platform for IMTA**.

IMPAQT will deploy novel sensors and data sources, together with the smart systems required for long-term autonomous monitoring in the field.

An advanced IMTA model is being devised, which yields spatially explicit information on how the different farm components interact with the environment on the scale of an ecosystem. It can be used for **planning decisions** by both farmers and regulators.

An integrated management system, operating at the scale of an IMTA farm and comprising analytics and decision support functionalities, is also being developed. It will enable enhanced operational decisions **for animal welfare, production optimization, environmental protection and food quality assessment**.

WHAT IS OUR IMPACT?



High-quality fish and seafood



Long-term food security



Minimise the environmental impact



Sustainability of the EU aquaculture industry



Towards a circular economy business model



Secure EU markets