

Rheticus Aquaculture awarded the e-shape EU Call

Rheticus Aquaculture is among the 5 new pilots of the Call for EO-based products 2020 to join the e-shape consortium expanding the EuroGEO community.

e-shape is a unique initiative that brings together decades of public investment in Earth observation and cloud capabilities into services for decision-makers, citizens, industry, and researchers.

It enables Europe to position itself as a global force in Earth observation by leveraging Copernicus, using existing European capabilities, and improving user adoption of Group on Earth Observations (GEO) data.

A key element for e-shape is to on-board further pilots during the project, through specific calls, to contribute to the expansion of the EuroGEO ecosystem. For the first call, the e-shape General Assembly received a total of 34 applications from private entities, research institutes, and academia from all Europe and beyond, and selected only 5 applications.

Rheticus Aquaculture is one of the awarded. The service was designed by the Rheticus specialists in collaboration with aquafarmers and their associations, and driven by the connection among aquaculture, climate change and satellite Earth observation.

Aquaculture represents the optimal solution to ensure the production of fish and shellfish necessary to meet global needs. The environmental context is essential for this activity since the temperature, chlorophyll, and turbidity of marine waters significantly affect animals' growth rate and health.

Nowadays, the so-called climate changes have led to changes in the sea temperature and the quantities of phytoplankton, affecting the growth rates and mortality of animals and, therefore, the productivity of farms and the quality of products.

Indeed, EO satellite data allow to carefully estimate multiple parameters such as sea temperature, chlorophyll concentration (proxy of the presence of phytoplankton), and water turbidity (proxy of water quality).

Over the last 25 years, Planetek Italia gained significant expertise in this field thanks to several European Space Agency and European Commission research programs, so to develop Rheticus[®] Aquaculture.

This service provides aquaculture farmers with daily information consisting of weekly bulletins with indicators calculated by the algorithms to increase production and profitability. The main benefits include determining the optimal time for harvesting and selling products by estimating the growth trends and the best-selling time.

Within the e-shape project, by organizing pilots in different plants in the Mediterranean Sea with the collaboration of the aquafarmer's associations, we intend to scale up the adoption of the Rheticus[®] Aquaculture service in the Mediterranean and worldwide markets. We will pursue it by co-designing the service with the end-users and adapting it to the different needs that different areas will require.