



PRESS RELEASE

New Horizon Europe Project "VALORISH" Launches to Revolutionise Fish Waste Valorisation in the Fishing Industry

January 9th, 2024

The VALORISH project, an EU-funded initiative under the Horizon Research and Innovation Actions program, has officially started. Coordinated by IDENER, this 42-month project seeks to transform the fishing industry's waste and by-products into high-value bio products through a circular bio refinery approach.

Central to the project is the development of a computationally-assisted bio refinery methodology. By combining advanced computational tools and bioprocessing methods, VALORISH aims to redefine sustainability in biomass utilisation. VALORISH approach will utilise technologies such as green oil extraction, and proteolytic fermentation among others to convert fishery waste into a diverse array of bio products, including fish oil, protein hydrolysates, bacteriocins, vitamins, and pigments. VALORISH's adaptive cascade conversion system is designed to accommodate the variable nature of fishery feedstocks, ensuring flexibility and efficiency.

Among the anticipated breakthroughs is the optimisation of fish oil extraction using environmentally friendly techniques that enhance both yield and quality. The protein fraction from fish waste will be efficiently converted into bioactive hydrolysates through fermentation processes. Additionally, side-streams like bones and residual biomass will be valorised through processes like calcination and anaerobic digestion, to obtain further bio products such as collagen, calcium powder and biogas, advancing the project's commitment to a zero-waste philosophy. The project also incorporates advanced computational tools for the optimisation and development of bioprocesses design. By fostering sustainable practices in the valorisation of fishery biomass, VALORISH is set to reduce environmental impact while enhancing industrial competitiveness. The initiative promises to deliver environmental, economic, and social benefits, particularly at regional and municipal levels. Dr. Igor de las Heras, the project coordinator at IDENER, emphasized the importance of the initiative, stating that, "VALORISH represents a critical step forward in demonstrating that fish by-products have large value, that can be valorised by leveraging bioprocesses development and bio refineries deployment, and impacting the society with high-value bio products in food and nutraceutical industry."

The consortium behind VALORISH, coordinated by IDENER, consists of 9 partners from 4 European countries: Spain, Portugal, Italy, and Norway. This multidisciplinary team includes 4 research and technology organisations, 3 small and medium-sized enterprises, and 2 large enterprises. Together, they aim to achieve transformative impacts in sustainability, strategic autonomy, and resource independence for EU bio-based sectors. The project's contributions

will bolster efforts toward climate neutrality by reducing greenhouse gas emissions and increasing resource efficiency. This effort aligns closely with the EU's industrial and environmental objectives, emphasizing greener, circular industrial practices.

Project details

Grant Agreement No: 101135078

Start date: 1st May 2024

Project duration: 42 months

EU Contribution: € 3 935 845,00

Partners:



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