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PRESS RELEASE

Protein Innovation with a Zero-Waste Vision: Highlights from PROMISEANG's First Year

The PROMISEANG project has successfully completed its first year, making significant progress that could reshape the future of food innovation. Over the past 18 months, the consortium has advanced in the study and fermentation of marine biomasses to develop innovative proteins, a major step towards zero-waste for sustainable food, feed, pharmaceuticals and cosmetics.

The project's first year concluded with the Second General Assembly, held in Ourense, Spain, where representatives from the 11 consortium member organisations gathered to share initial findings and define the priorities and roadmap for 2025.

The second year of the PROMISEANG project began with the first official reporting period, during which the consortium presented initial progress and results across all work packages. This was followed by the third General Assembly, held in a hybrid format at the University of Veterinary Medicine in Budapest on 9 May.

This milestone marks an important opportunity to reflect on achievements to date and to align efforts as the project moves into its next phase of research, development, and stakeholder engagement.

Key Preliminary Findings:

- Comprehensive Biomass Characterization

Marine biomasses/byproducts were characterized in terms of carbohydrate, protein, and lipid content, as well as the presence of heavy metals and biotoxins. Results confirmed the suitability of these biomasses/byproducts to develop biotechnological processes.

- Selection of Promising Substrates

Out of 30 samples analyzed, 10 biomasses/byproducts were selected as potential candidates for use in solid-state and submerged fermentation processes, based on their favorable biochemical profiles.

- Positive Fermentation Outcomes:

Preliminary fermentation trials using selected microorganisms demonstrated a notable increase in final protein content, validating the relevance and effectiveness of the selected biomasses/byproducts.

Upcoming Milestones:

In 2025, **Promiseang** will publish several scientific articles detailing the results of the marine biomass/byproduct selection and characterization, including insights from preliminary fermentation assays that demonstrated increased protein content in selected substrates, showcasing its contributions to sustainable food innovation. These findings support one of the main objectives of **PROMISEANG**, the valorization of marine biomass through biotechnological enhancement, and help define a clear direction

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for future activities, such as scaling up fermentation processes, optimizing biotechnological valorization of marine byproducts, and developing prototypes for functional food and feed ingredients.

Looking Ahead:
Promiseang remains committed to driving sustainable food solutions through innovation and collaboration. The project is poised to make a lasting impact on global food systems by exploring the untapped potential of marine waste.

PROMISEANG is a 48-month Research Innovation Action funded by the Research Executive Agency (REA) under Grant Agreement nr. 101112378. The project started in September 2023 and will last for 48 months, until August 2027. It is coordinated by University of Vigo (Spain) and counts on a consortium formed by 11 partners from 5 different European countries: University of Vigo (Spain), Association of Instituto Superior Técnico for Research and Development (Portugal), MOA Foodtech (Spain), Prof. Waclaw Dabrowski Institute of Agriculture and Food Biotechnology (Poland), Contactica S.L (Spain), University of Veterinary Medicine Budapest (Hungary), CENTIV GMBH (Germany), Spanish National Research Council (Spain), Biozoon Food Innovations Gmbh (Germany), International Iberian Nanotechnology Laboratory (Portugal), Conservas Rianxeira S.A.U. (Spain)

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