

UP4HEALTH Project Marks Significant Advances Over 4 Years

- *Validation trials in the project demonstrate promising results in functional ingredient integration, highlighting efficacy in food and beverage applications.*
- *UP4HEALTH Project sets new standards in sustainable biorefinery process optimization.*

Madrid, Spain. 08 August 2024 – **The UP4HEALTH project**, carried out over four years, aimed to convert plant-based waste into functional ingredients and develop a sustainable process. The results achieved reveal the success of this transformative project. The close collaboration throughout the project has led to the creation of market-ready products from potential waste stream.

Central to the success of the project is securing the provision of essential raw material. Figures reveal that over 100 tons/year of Olive pomace, 100 tons/year of grape pomace, and 20 tons/year of by-products derived from nuts have been arranged to ensure the continuity of UP4HEALTH's production and subsequent supply of functional ingredients to meet market needs. In conjunction with organic farmers, ISANATUR have been pivotal ensuring quality and consistency in the supply chain.

At this stage, particular emphasis is placed on the applications being developed from these innovations. One notable example is the "Antioxidant-rich olive prebiotic" which highlights the project's focus on creating high-value, functional ingredients from plant-based waste. These ingredients have promising applications in various sectors, particularly in food and nutrition, where their health benefits can be maximized.

The validation trials continue to assess the antioxidant, anti-inflammatory, and antimicrobial potential of UP4HEALTH's ingredients. The preliminary results in the incorporation of these ingredients into various food and beverage matrices including hamburgers, gels, yogurt and snack bars highlight promising potential. Ongoing evaluations of techno-functional characteristics of food and cosmetics are crucial in the final decisions on formulations.

In addition, ISANATUR has obtained the necessary accreditation to produce UP4HEALTH ingredients with "Food grade" quality in their pilot plant. This certification ensures that the ingredients produced meet the highest standards

of safety and quality, allowing their use in a wide range of food applications. The food-grade accreditation is a crucial step that reinforces UP4HEALTH's commitment to innovation and excellence in the production of sustainable and healthy ingredients.

The project is devoted to environmental and economic viability. Eco-design approaches have been implemented rigorously to continue conducting a life cycle assessment of the production. The compliance with the highest European standards is a key concern of UP4HEALTH in relation to safety. Compliance with stringent EU regulations remains a cornerstone of UP4HEALTH's safety protocols. Extensive testing has been conducted for microbiological safety, heavy metal levels, mutagenicity, and cytotoxicity. Protocols for further toxicological assessments are well underway, underscoring the project's dedication to meeting regulatory standards.

The UP4HEALTH project has emerged as a trailblazer in sustainable biorefinery innovation, marking significant strides over its four-year journey. With a keen focus on optimizing processes and validating functional ingredients for diverse applications in the food and beverage sectors, UP4HEALTH showcases promising results that underscore its potential impact on industry standards. Upholding stringent environmental standards and regulatory compliance, the project exemplifies collaborative excellence among its consortium members. As UP4HEALTH progresses, it remains poised to deliver transformative, market-ready products that epitomize the future of sustainable biotechnology.

About UP4HEALTH

The UP4HEALTH, a project funded by the European Union with a duration of 55 months, that aims to pioneer a sustainable biorefinery approach for converting plant-based waste into high-value functional ingredients, contributing to a circular economy and offering innovative solutions for the nutraceutical and cosmetic industries.

In **UP4HEALTH** the recovery of the value of food by-products will tackle objectives at private and institutional perspectives to solve industrial, economic and social problems derived from the generation of residual streams in the food processing industry and the increasing demand for natural and healthier products by consumers and industry in a scenario of limited resources.

The consortium is formed by 10 Partners from 5 European countries: ISANATUR SPAIN S.L. (Spain); Contactica S.L. (Spain); AMEREX. (Spain); AURORA. (Spain); VIDARA. (Spain); Universidad de Vigo. (Spain); BIOZOOM. (Germany); Technological University Dublin. (Ireland); Instituto Politécnico de Bragança– Centro de Investigação de Montanha. (Portugal); ZADE VITAL. (Turkey).

For further details on the **UP4HEALTH project** and its progress, please visit our website or contact:



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