

## UP4HEALTH - A SUSTAINABLE AND COST-EFFECTIVE PRODUCTION PROCESS FOR THE UPCYCLING OF OLIVE, GRAPE AND NUT BY-PRODUCTS INTO 4 NATURAL AND HEALTHY INGREDIENTS FOR NUTRACEUTICAL AND COSMETIC APPLICATIONS

UP4HEALTH is a pre-industrial scale innovation and development project which proposes the use of biorefineries for the recovery of biomolecules as high added value natural and healthy by-products. The biomass used as raw material comes from other industrial processes in wineries, oil mills and nut processing. The ingredients obtained will be integrated as nutraceutical supplements and cosmetics, alluding to health-conscious consumers, the elderly, athletes, overweight people and carriers of noncommunicable diseases (NCDs), among others.

The processing of grapes, olives and nuts produces a large amount of waste, whose treatment has a high cost for the producers. The valorisation initiative proposed in this project is aimed at promoting the use of abundant residual biomass rich in bioactive compounds, optimizing the value chain of these productive industries in the food sector (cascade valorisation), to obtain **four natural, organic, healthy and sustainable ingredients**.

The production process proposed at **UP4HEALTH** is exclusive, sustainable and innovative. It is a process that pursues the objective of "zero waste", taking advantage of residual and local raw materials in the form of biomass. In this way, four sources of organic waste from the primary sector located in the Mediterranean (olive and grape pomace, nut by-products and olive stones), would be able to generate four ingredients of high quality and exclusivity.

The four ingredients that this project will put on the market are: 1) **natural fruit water rich in polyphenols**, 2) **dietary fibre rich in polyphenols**, 3) **natural oily fruit extracts** and 4) **xylooligosaccharides (prebiotic dietary fibres)**. These ingredients will be integrated into functional foods and as nutraceutical and cosmetic supplements. The multiple applications, framed in food categories, that will be promoted by the partners linked to the project are: meat products, healthy snack bars, soft foods for the elderly, drinkable solutions in the form of gel, olive oil, natural drinks, yogurt, dietary supplements and cosmetic applications.

One of the main competitive advantages of this project is the use of very low-cost raw materials, as well as using a cheap production process with a high level of environmental commitment, which is highly demanded due to the new profile of responsible customers. Some of the most relevant indicators that will mark the success of the project are in this line: **potential reduction of drying time (15 - 20%)**, **reduction of energy consumption (5 - 10%)**, **reduction of carbon footprint (30%)** and **contribution to the standardization of organic products**, among others.

**UP4HEALTH** will have a duration of 48 months and it has received funding from the European Union's Horizon 2020 Research and Innovation Programme, specifically from the H2020-BBI-JTI-2019 call. **UP4HEALTH** is estimated to have a total eligible cost of 5,542,448.75 € and will receive funding of 4,009,921.52 €.

### Project partners

The consortium is composed of nine partners from five different countries. ISANATUR SPAIN S.L. (Project coordinator) (Spain), CONTACTICA S.L. (Spain), LABORATORIOS AMEREX SAU (Spain), ZADE VITAL ILAC KIMYA GIDA SAN VE TICARET ANONIM SIRKETI (Turkey), BIOZOOM GMBH (Germany), AURORA INTELLIGENT NUTRITION (Spain), INDUKERN S.A. (Spain), University of Vigo (Spain), Instituto Politécnico de Braganza (Portugal) and Technological University Dublin (Ireland).

### For more information

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