

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 PROJECT CELEBRATES 2 YEARS OF WORK WITH SEVERAL ADVANCES

- ✓ Despite the pandemic-related problems, many advances have been made by all the consortium.
- ✓ The bio-refinery, some tests to meet market and users' requirements, progress on the sustainability assessment and regulations are the most relevant.

UP4HEALTH aims at **valorising underexploited residual biomass from the food-processing industry**. The main goal of the project is to test by-products from **olive, grapes** and **nuts** to get ingredients which are organic, natural, sustainable and healthy for the functional food, nutraceutical supplements and cosmetic industries. These high-added value ingredients from sustainable sources which would, otherwise, be qualified as food waste, are meant to be profited by these industries to achieve high quality products.

Throughout these two years, and despite the pandemic-related problems that all EU funded project had to face, **many advances have been done by all the consortium**. Firstly, in order to valorise the by-products, a **plant-based bio-refinery** was set up with optimised processes to maximize the yield of the extracts and to maximize the concentration of the compounds of interest. After the characterization of some samples, **some tests were carried out**, like bioactive assays, microbial analysis, heavy metal presence or toxicological studies in order to meet market and user requirements.

At a pilot scale, large number of specific compounds have been extracted and isolated and the nutritional characterization, partially defined. These results are being analyzed from an economic, environmental, and social assessment perspective (SLCA modelling) to scale up all these processes through eco-design tools. **The project has already delivered likely promising results for the valorization of several food by-products** from olive, nut, and grape processing. For example, some ingredients have been used to enhance food products' quality (like colour) with outstanding performance.

Also, to meet legal requirements in the European Union as well as to contribute to standardisation in the bio-based economy and to help to increase market transparency, **common reference methods and requirements have been provided**, in order to verify claims about bio-based products. **All the results were properly disseminated** in [six scientific publications](#) as well as in different international trade fairs.

About **UP4HEALTH** project: **UP4HEALTH** is a European project, which started on **June 2020** with **10 partners** from **5 different countries**: Spain, Portugal, Germany, Ireland and Turkey. It is an Innovation Action that **received funding from the BBI-JU**. The project will last until May 2024.

About **BBI-JU**: the Bio-Based Industries Joint Undertaking (BBI-JU), now known as **Circular Bio-Based Europe Joint Undertaking (CBE-JU)**, is a **partnership between the European Union and the Bio-Based Industries Consortium (BIC)** to fund projects advancing competitive circular bio-based industries in Europe.

For more information, visit **UP4HEALTH's** [website](#) and follow the project's [Twitter](#) and [LinkedIn](#).

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