

# 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

## Fact Sheet

### Project Information

**UP4HEALTH**

Grant agreement ID: 888003


**Start date**  
1 June 2020

**End date**  
31 May 2024

**Funded under**  
H2020-EU.2.1.4.  
H2020-EU.3.2.  
H2020-EU.3.2.6.

**Overall budget**  
€ 5 542 448,75

**EU contribution**  
€ 4 009 921,52

**Coordinated by**  
ISANATUR SPAIN SL  
 Spain

## Project description

### A second life for olive and grape by-products

Olive and grape processing produces a residual biomass which most of time remains underexploited. To tap the potential of this residual biomass, the EU-funded UP4HEALTH project aims to work on a zero-waste sustainable process for olive and grape pomace, nut by-products and olive pits. Their residue will be transformed into

a natural fruit water rich in polyphenols, polyphenol-rich dietary fibres, natural oily fruit extracts and prebiotic xylooligosaccharides that will be used in functional food, nutraceutical supplements and cosmetics. What is more, the remaining solid fraction from the hydrolysis of the olive pits will be used to produce energy.

## Objective

The UP4HEALTH project provides the demonstration at pre-industrial scale of an INTEGRATED BIOREFINERY for the recovery of valuable biomolecules from food processing by-products and their conversion into natural, healthy and sustainable high added-value products for the NUTRACEUTICALS and COSMETIC sectors. UP4HEALTH ingredients will be of suitable quality to meet market requirements of CONSUMERS and INDUSTRY in these sectors: consumers are demanding functional natural products and industry is demanding bio-based formulations for better performance and higher sustainability.

Olive and grape by-products are underexploited residual biomass rich in bioactive compounds, resulting in a great market opportunity for the UP4HEALTH project. Although existing technologies are promising for the recovery of high added-value ingredients inside the food chain, products from the valorisation of food by-products are still rather limited in the market. The main challenge is to validate an appropriate business model for the affordable upgrading at large scale of a wide variety in composition of by-products from the food processing industry, overcoming bottlenecks like logistic issues and investment costs.

UP4HEALTH upcycling process integrates a unique ZERO WASTE sustainable process for 4 locally available Mediterranean feedstocks from food processing (olive pomace, grape pomace, nut by-products and olive pits) to deliver 4 ORGANIC, NATURAL, SUSTAINABLE & HEALTHY INGREDIENTS: natural fruit water rich in polyphenols, polyphenol-rich dietary fibre, fruit natural oily extracts and prebiotic Xylooligosaccharides. UP4HEALTH ingredients will be integrated into functional food, nutraceutical supplements and cosmetics, targeting a wide niche population. The remaining solid fraction from the hydrolysis of the olive pits is intended to be used for energy production responding to the concept of BIOREFINERY, since biomass will be processed into a spectrum of bio-based products and bioenergy.

## Fields of science

> >  
> > > >

## Programme(s)

# Topic(s)

## Call for proposal

H2020-BBI-JTI-2019

## Funding Scheme

## Coordinator



### ISANATUR SPAIN SL

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02  
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 Spain

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Activity type

**Private for-profit entities  
(excluding Higher or  
Secondary Education  
Establishments)**

EU contribution

**€ 758 702,66**

## Participants (9)



### CONTACTICA S.L.

Spain

EU contribution

**€ 411 605,91**

Address

**Calle Canchal 8 Local 3  
28021 Madrid**

[Website](#)

Activity type

**Private for-profit entities  
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Establishments)**

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### LABORATORIOS AMEREX SAU

Spain

EU contribution

**€ 254 695**

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Activity type

**Private for-profit entities  
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Mina  
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Establishments)

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## ZADE VITAL ILAC KIMYA GIDA SAN VE TICARET ANOMIM SIRKETI

 Turkey

EU contribution

€ 334 785,94

Address

Buyukkayacik Osb Mahallesi  
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Activity type

Private for-profit entities  
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## BIOZOOM GMBH

 Germany

EU contribution

€ 389 025

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27572 Bremerhaven

Activity type

Private for-profit entities  
(excluding Higher or  
Secondary Education  
Establishments)

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## MORENO RUIZ HERMANOS SL

 Spain

EU contribution

€ 211 101,76

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Activity type

Private for-profit entities  
(excluding Higher or  
Secondary Education  
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## INDUKERN,S.A.

 Spain

EU contribution

€ 223 827,75

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Activity type

**Private for-profit entities  
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## UNIVERSIDAD DE VIGO

 Spain

EU contribution

€ 689 480

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Activity type

**Higher or Secondary  
Education Establishments**

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## INSTITUTO POLITECNICO DE BRAGANCA

 Portugal

EU contribution

€ 283 772,50

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**Campus De Santa Apolonia  
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Activity type

**Higher or Secondary  
Education Establishments**

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## TECHNOLOGICAL UNIVERSITY DUBLIN

 Ireland

EU contribution

€ 452 925

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Activity type

**Higher or Secondary  
Education Establishments**

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