



101131420-PHENOCYCLES

HORIZON – MSCA –2022-SE-01



Funded by the
European Union

Exploiting the multifunctional
properties of polyphenols: from
wastes to high value products

The consortium

6 European Academic Institutions,
4 non-European Associated Partners

Duration

48 months
March 2024-February 2028



UNIVERSITÀ
DI TORINO



UNIVERSITAT
POLITÈCNICA
DE VALÈNCIA



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NACIONAL
DE LA PLATA



PHENOCYCLES provides support for 101 months of staff exchange for a *smart reuse* of agro-industrial refuses within a *circular economy* view.

Waste from crops of grapes, apples, berry and herbs are the source for the extraction of bioactive *polyphenols* (PP).

PHENOCYCLES aims at exploring *innovative uses of PP* and at *validating methods for their extraction* with a *green chemistry approach*. PP extracted from agro-industrial wastes and herbs with therapeutic value will be purified/fractionated with pilot-scale nano/ultrafiltration membranes to recover different PP fractions, to be employed in four distinct sectors:

- **health**
- **plant production**
- **environment protection**
- **material science**

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PHENOCYCLES approach

WP5 – Polyphenols and social footprint of anthropogenic pollution

Waste minimisation, recycling and valorization

WP4 – Polyphenols
in agronomics

WP1 – Recovery of natural
polyphenols from agro-
industrial waste

WP2 – Polyphenols
and health

WP3 – Polyphenols
and environment

WP7 – Project management and coordination of exchange activities

WP8 – Ethics requirements

WP6 – Dissemination, Communication,
Training and Exploitation

1

Recovery of natural polyphenols from agroindustrial waste (extraction from natural resources and purification procedures)

2

Polyphenols and health (cosmetic and medical applications)

3

Polyphenols and environment (products and processes for pollutants degradation)

4

Polyphenols in agronomics (formulations for biostimulation and plant protection)

5

Polyphenols and social footprint of anthropogenic pollution (analysis of project results perception)

6

Dissemination, Communication and Exploitation (strategy for increase the project impact)

7

Project management and coordination of exchange activities (integration of activities and optimization of the interaction)

8

Ethics requirements control