



**inno
protein**

New sustainable proteins

**for food, feed and
non-food bio-based
applications**



Co-funded by
the European Union



Circular
Bio-based
Europe
Joint Undertaking



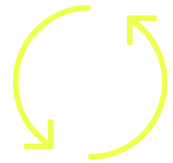
Bio-based Industries
Consortium

About InnoProtein

The EU-Funded project InnoProtein aims to **tackle the protein deficit in the EU**, where 70% of protein-rich crops and 85% of soybeans are imported. To achieve this objective, InnoProtein will deliver safe, tasty, and new proteins that can solve the food security crisis.

Beyond generating newer protein to reduce Europe's dependence on third countries, InnoProtein adopt a **zero-waste approach** to minimize waste by converting **residual protein streams into bioplastics, biostimulants, fermentation medium and bio-based energy sources.**

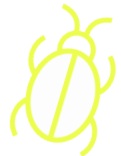
Zero waste approach

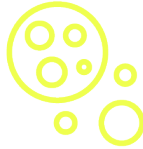
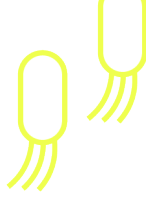
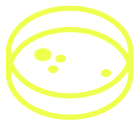


Not all the biomass extracted can be used to produce food and feed.

The Project's consortium aims to use all the biomass following a circular and zero-waste approach.

Thereafter biofuels, biostimulants and bioplastics will be produced starting from the biomass discards.





Our protein sources

Microalgae:

They are a diverse source of biomass. The project aims to optimize microalgae production for maximum protein yield, exploring greener refining methods, to obtain a purified protein.

Methylotrophic bacteria:

Known for their adaptability, will be used for high-quality protein production. Proteins will be extracted using innovative techniques, then purified and ground into a powder that will be used for food and feed production.

Fungi

Rich in essential amino acids, various strands will be screened for industrial-scale protein production.

Insects:

As a source of both nutrients and polymers. InnoPROTEIN will establish optimal conditions for large-scale production while revalorizing the insect's shells into polymers and the meat into nutritious ingredients.

In the next four years InnoProtein will:

- Explore different streams of protein sources (**bacteria, fungi, microalgae and insects**) and maximize the protein yield by testing **new advanced extraction techniques**.
- Deliver **new products for food and feed applications**.
- Propose a zero-waste perspective by using all leftover biomass to create **valuable non-food biobased applications and products** like bioplastics, bio stimulants, and biofuels. Closing the production cycle and promoting an overall reduction of waste.
- Elaborate and **eco-business model** to demonstrate the economic feasibility of the project.



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