



new sustainable proteins for food, feed and non-food bio-based applications

The project aims to push up Europe's protein self-sufficiency and resolve European needs about diversification of protein sources for food, feed, and non-food bio-based applications, as well as full valorization of biomass generated in protein production process enabling industrial symbiosis.

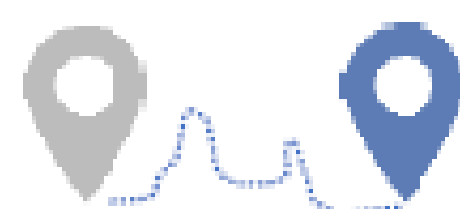
How?

INNOPROTEIN will explore new protein sources (Single Cell Proteins (SCP) and insect) and use emerging technologies for protein recovery from them adopting a circular & zero waste strategy.

Whats in it for you?

INNOPROTEIN will develop new protein-based products for food, feed and non-food-based applications (bioplastics and biostimulants) and new eco business model. Get in contact with us and don't miss any opportunity! info@innoprotein.eu

June 2023



May 2027

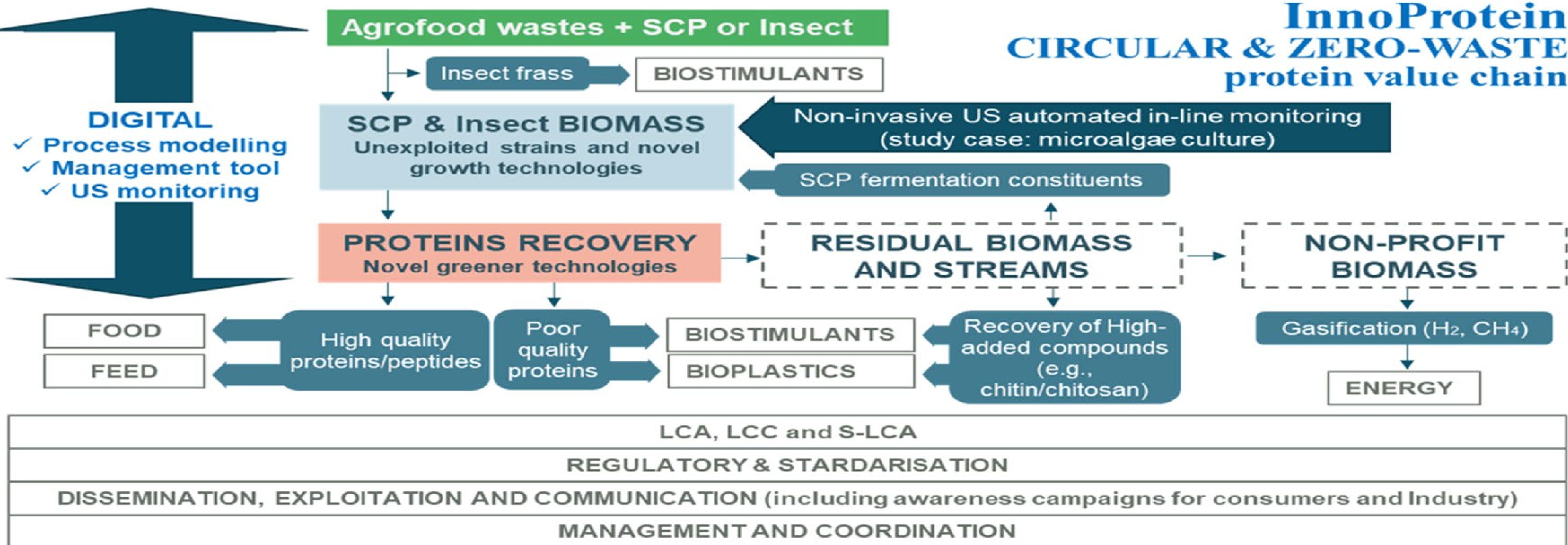
Consortium

Coordinator **tecnalia**

Partners



InnoProtein CIRCULAR & ZERO-WASTE protein value chain



Advances

✓ First culture trials for the selection of potential SCP and Insect:

Microalgae

Haematococcus pluvialis (produced by A4F)
Euglena gracilis (produced by A4F)
Schizochytrium limacinum (produced by Tecnalia)

Bacteria

Methylophilus methylotrophus
Methylorubrum extorquens
(produced by Biotrend)

Fungi

Aspergillus oryzae
(produced by NST)
Rhizopus microsporus (produced by Tecnalia)

Insect

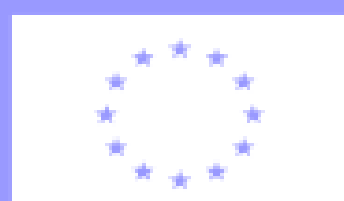
Hermetia illucens
Tenebrio molitor
(produced by Alpha Chitin)



- SCP and Insect biomasses have a protein content between 36%-56%. Its protein content is higher than other conventional sources such as cheese (23%), legumes (22%), chicken (20%), pork (19%), fish (19%), beef (17%) and eggs (13%)^{2,3}.
- The SCP and the insect studied contain a significant amount of protein, suggesting they could hold substantial potential as a viable protein source.



- ✓ Selection of 1 specie/each source (microalgae, bacterial, fungal and insect) with potential as unconventional protein sources.
- ✓ Selection of the recovery methodology of proteins from SCP & Insect.
- ✓ Design of sensor topology, mechanical holder and hardware of non-invasive US prototype.
- ✓ Design of Process Simulating, Management tool and US monitoring tool.



Co-funded by the European Union



Circular Bio-based Europe Joint Undertaking



Bio-based Industries Consortium