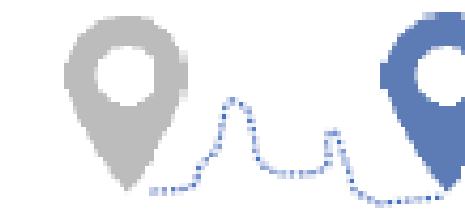


The project aims to push up Europe's protein self-sufficiency and resolve European needs about diversification of protein sources for food, feed, and non-food bio-based applications, as well as full valorization of biomass generated in protein production process enabling industrial symbiosis.

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

June 2023



May 2027

### Consortium

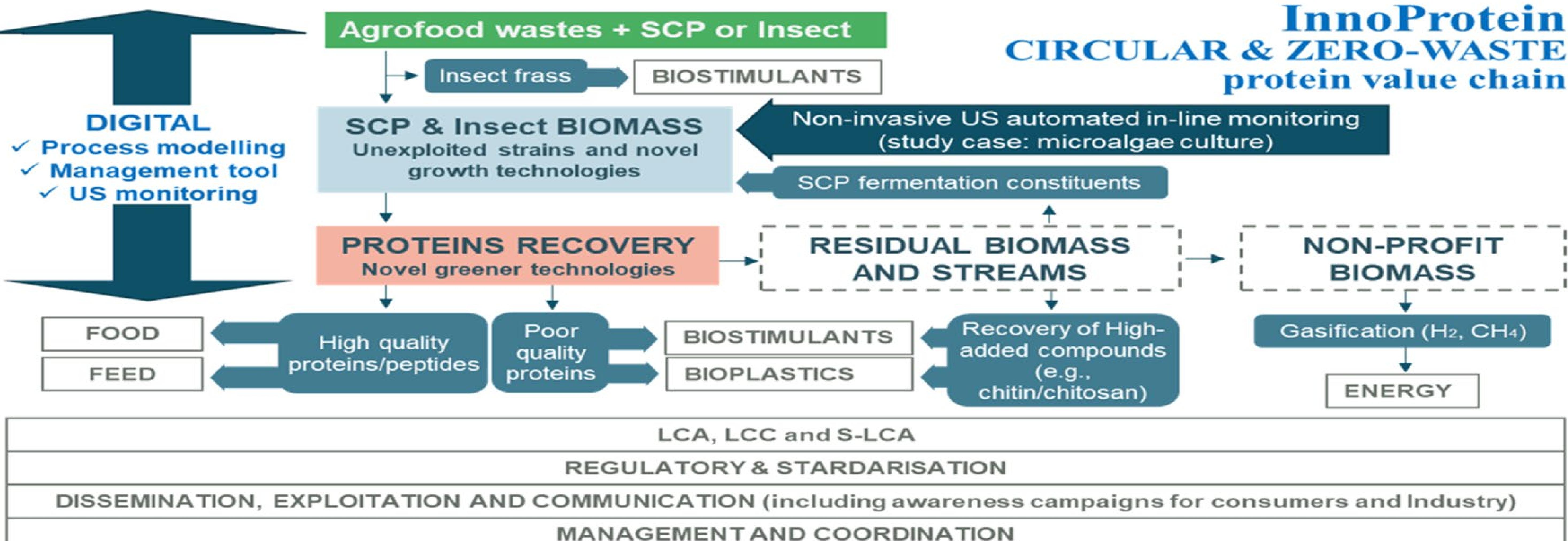
Coordinator



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*  
*Methylococcus extorquens*  
 (produced by Biotrend)

#### Fungi

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

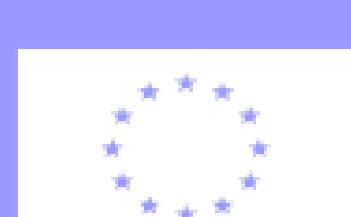
#### Insect

*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%)<sup>2,3</sup>.
- 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  
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