

# Consortium

The CIPROMED consortium consists of 17 members and fulfills the multi-actor and multidisciplinary approach, as it includes 8 RTOs (UTH, UNIBO, UNITO, UGOE, DIL, CNR, IIT, ILU), 8 SMEs (AE, NP, SPAROS, FS, ABT, TALOS, SB, ELVIZ), and one NGO (GDI) across 7 European (Greece, Germany, Italy, Spain, Portugal, Cyprus, Malta) and 3 non-European countries (Tunisia, Israel, Morocco).





Circular and Inclusive  
utilisation of alternative  
PROteins in the  
MEDiterranean value chains



# CIPROMED

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This project is part of the PRIMA programme supported by the European Union



# Project

The main objective of the CIPROMED project is to provide a stable and robust agri-food production system in the Mediterranean, by leveraging locally grown crops and utilizing proteins from agri-industrial by-products. This will involve adopting innovative techniques to cultivate insects and microalgae using these by-products, resulting in an acceleration of protein production. Furthermore, the project targets circularity by utilizing insect waste (frass) as fertilizer for legume crops. Through sustainable extraction methods, high-quality protein ingredients will be obtained from agri-industrial residues, insects, legumes, and microalgae for use in food and feed applications. By integrating the extraction residues in the diets for insect rearing and microalgae cultivation, CIPROMED project aims to minimize waste, while microbial fermentation will be supported for the functional and wellness properties of the novel proteins.

All protein ingredients will be fully characterized, in terms of:

- ✔ Nutritional value
- ✔ Functional
- ✔ Biological properties
- ✔ Safety

Advanced and optimized processing technologies will be adopted to formulate and validate new prototypes of food and feed products that incorporate the novel protein ingredients, based on the generated results.



# Challenge

The European agricultural sector heavily depends on protein imports to fulfill the protein requirements of aquaculture, livestock, and human consumption. The Mediterranean region, specifically, faces additional challenges due to shortage of water and ecological imbalances, exacerbating the insufficiency of traditional protein supply chains.

There is a strong demand to develop effective and environmentally sustainable sources of locally produced alternative proteins.

# Solution

CIPROMED aims to unlock the nutritional treasure that exists in the agricultural waste!

A huge volume of livestock and crop residues, alongside various by-products, is produced by agricultural farming systems. It is estimated that 27% of global agricultural production which is equivalent to 1.6 billion tons valued at \$750 billion, is lost annually. Through the CIPROMED project, an integrated approach will be adopted to extract proteins from agri-industrial by products like brewer's spent grain and oilseed presscakes, as well as from insects, microalgae, and legume biomass. Additionally, fermentative sources will be employed to enhance the availability of alternative proteins and accelerate the potential for a widely adoption of new protein sources.

