

MINERVA

Marine Innovation using Novel Enzymes
for waste Reduction and Valorisation
of Algal biomass



WHAT IS MINERVA?

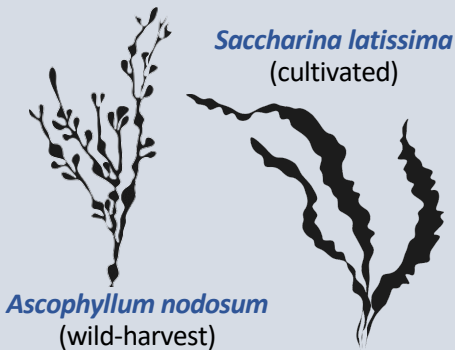
MINERVA is a EU-funded project that aims to **valorise underutilised seaweed biomass sustainably produced** across Europe, to develop new **high-value products and reduce waste** in current processes. It will add value to brown algal biomass presently used at low efficiency, based on principles of waste reduction and 'food first' for new products within the blue bioeconomy. Novel, environmentally friendly algal compounds will be developed to address identified consumer needs in **food, cosmetics, biomedical and aquaculture industries**. This are achieved via 1) new extraction methods aiding **purification of bioactives**, and 2) **omics-based approaches on unexplored marine microbial sources** to develop new enzymes for application to a wide range of marine biomass.

OBJECTIVES

MINERVA objectives are to **enhance and maximise the role played by marine algae** in the European bioeconomy, by developing new processes and products to achieve **improved integration of algae-based products** in our daily lives - supporting **sustainability** and creation of marine-based jobs particularly in coastal remote regions - and diversify/improve the quality of life of EU citizens.

- 1 Valorise underutilised seaweed biomass sustainably produced across Europe
- 2 Reduce waste in current processes
- 3 Develop new high-value products

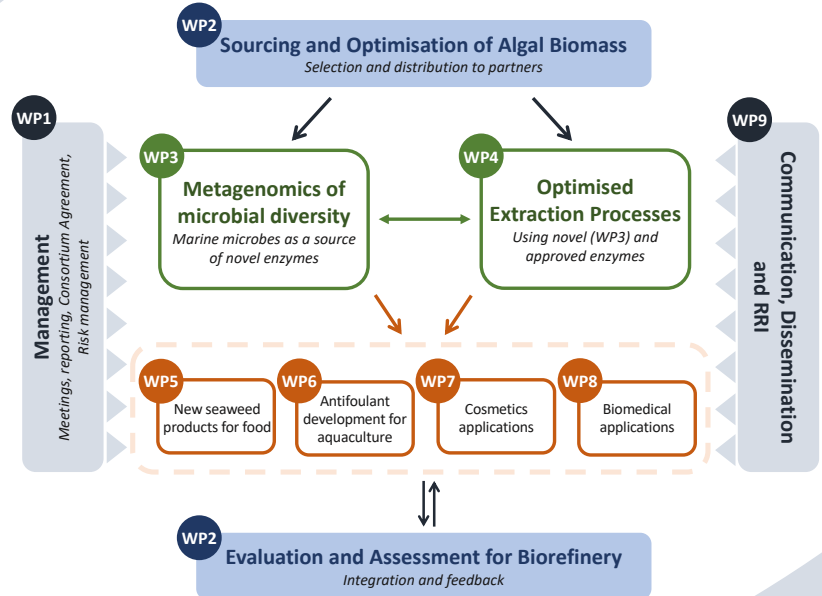
MACROALGAE



APPLICATIONS



APPROACH



EXPECTED RESULTS

Anticipated outputs are the development of novel enzymes with food and health applications; novel food fibres; active algal compounds for cosmetics and aquaculture (antifouling agents); integration of algal components into hydrogels and encapsulation.

PARTNERS

