Project Duration

48 months

from June 2021 to May 2025

€ 14.3M

European Union's Horizon 2020 Research and Innovation Programme and the Bio-based Industries Consortium contribution

Total cost

€ 24.5M

11 partners from **4** EU countries

5 SMEs (Microphyt, Nutrasteward, Institut Paul Bocuse Research Center, Sunti, Evolys)

4 large companies (Chanel Parfums Beaute, Lallemand Animal Nutrition, Plameca, PNO Consultants)

1 research organisation (Tecnalia)

1 innovation cluster (Bioeconomy For Change)

microphyt, plameca, Institut Paul Bocuse Research, Lallemand Animal Nutrition, Chanel Fragrance Beauty, tecnalia, Evolys, sunti, NutraSteward, PNO, Bioeconomy For Change

#SCALE
#Flagship
#MarineBiorefinery
#GreenIndustry
#BlueFuture
#MarineBiomass
#Microalgae
#Photobioreactors
#Bioactives
#Innovativeprocess
#Sustainability
#Bioeconomy

Graphic design : www.links-web.fr

scaleproject.eu

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BBI JU · Bio-based Industries Consortium · Horizon 2020 European Union Funding for Research & Innovation

This project has received funding from the Bio-based Industries Joint Undertaking (JU) under the European Union's Horizon 2020 research and innovation programme under grant agreement No 101023593. The JU receives support from the European Union's Horizon 2020 research and innovation programme and the Bio-based Industries Consortium.
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Supplying bioactive compounds from micro-algae to foster a blue future

scale

CONTEXT & CONCEPT

PRODUCE INGREDIENTS WITH HIGH NUTRITIONAL VALUE FROM AQUATIC SOURCES

Microalgae are a highly promising source to solve several global challenges of our current world such as evolving consumer needs and rapid world population growth. This aquatic biomass can be applied to a wide range of end uses, due to their advantages of containing a high number of bioactive compounds and to their great diversity and CO2 absorption capacity.

The SCALE project strives to build and operate a first of its kind flagship plant to produce natural active ingredients of high nutritional value derived from unique microalgae species for the food, food supplements, feed and cosmetics sectors, through economically-sound and environmentally-friendly processes.

OBJECTIVES

- **To create** on a large scale a first-of-its-kind bio-based value chain and flagship plant to produce new, safe and high-yielding ingredients from microalgae for food, food supplements, feed and cosmetics applications.
- **To ensure** the sustainability by operating the plant as a truly integrated biorefinery converting biomass into a variety of products and without generating waste.
- **To supply** the market demand by demonstrating the efficiency, quality, purity and safety of the end-products in full conformity with the EU and FDA regulations.

EXPECTED IMPACTS

ENVIRONMENTAL:

- Replace fossil-based material with biobased, sustainable materials
- Reduce greenhouse emissions
- Protect aquatic and marine biodiversity

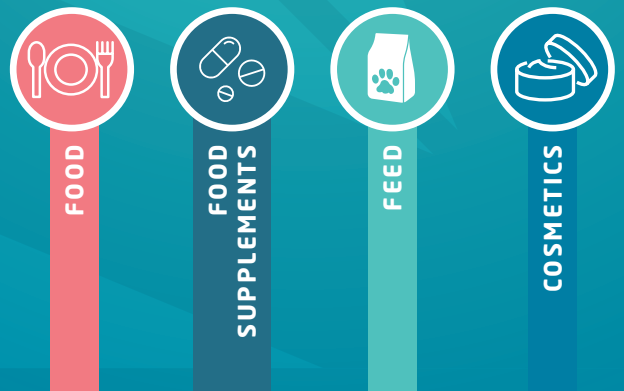
ECONOMIC:

- Create new cross-sector interconnections and value chains in the bio-based economy
- Reduce reliance on high-cost or unsustainable raw materials
- Increase raw-material flexibility and accessibility
- Increase employment, income and strengthen the local and regional economy

SOCIAL:

- Create +50 direct jobs per plant and 190 indirect jobs
- Support growth and investment
- Increase the competitiveness of European biomass producers and biobased industry
- Promote the inclusion of coastal or rural areas in a bio-based industry setting

APPLICATION FIELDS



A MULTI-STAKEHOLDERS PROJECT

SCALE brings together 11 European partners

- **Coordinator: Microphyt** (France)
- Plameca (Spain)
- Institut Paul Bocuse Research Centre (France)
- Lallemand Animal Nutrition (France)
- Chanel Parfums Beauté (France)
- Tecnalia (Spain)
- Evolys (Norway)
- Sunti (France)
- Nutrasteward (UK)
- PNO Consultants (France)
- Bioeconomy For Change (France)

Contribution to sustainable development goals