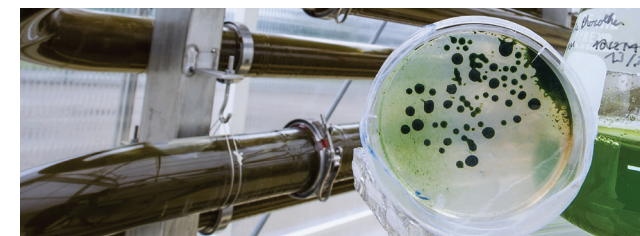
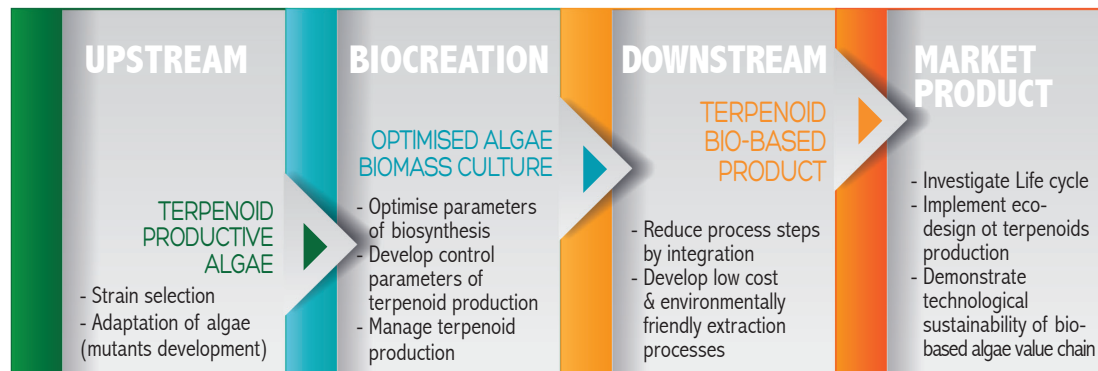
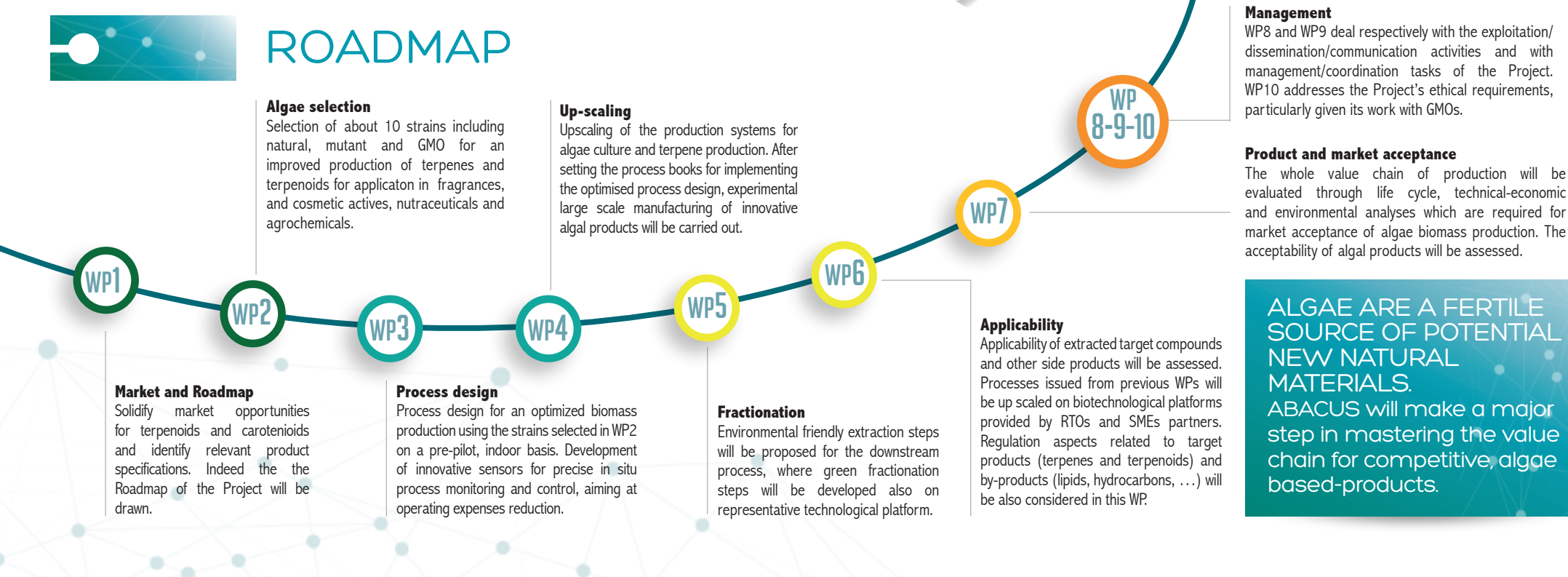


# BRINGING INNOVATIVE MICROALGAE-BASED COMPOUNDS TO THE MARKET



THE MAIN ACHIEVEMENT FROM ABACUS WILL BE TO TACKLE THE BIOLOGICAL AND BIOPROCESS CHALLENGES of oriented algal production for different terpenoids encompassing both well-established and more innovative market sectors.

## ROADMAP



ALGAE ARE A FERTILE SOURCE OF POTENTIAL NEW NATURAL MATERIALS.

ABACUS will make a major step in mastering the value chain for competitive, algae based-products.

# ABOUT THE PROJECT



**ABACUS is a 3-year project aiming at a business-oriented and technology-driven development of a new algal biorefinery, thereby bringing to the market innovative algae-based ingredients for high value applications, with focus on algal terpenes for fragrances to long-chain terpenoids (carotenoids) for nutraceuticals and cosmetic actives.**

The concept of ABACUS will associate several interdisciplinary approaches in order to support a high-value products oriented market development:

- Selection and Biological engineering of microalgal strains and oriented photosynthesis of terpenoids
- Technological development of algae biomass production system to optimize cultivation and photosynthesis of terpenoids
- Technological development of the downstream processing step to reduce harvesting time and costs (both investment and operational costs), and to be environmentally acceptable
- Market development oriented to new added value algae bio-based materials and new bio based value chain production

**Terpenoids are molecules that can be found in photosynthetic microorganisms like plants or algae. They represent a renewable alternative to petroleum-derived fuel and building blocks of synthetic biopolymers as well as high value compounds for cosmetic and nutraceutical uses**

# WE ARE ABACUS



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Création graphique: Jeanne Peltier

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**ALGAE FOR A  
BIOMASS APPLIED  
TO THE PRODUCTION  
OF ADDED VALUE  
COMPOUNDS**