FOOD & BIOBASED RESEARCH

WAGENINGEN UR

SPLASH: SUSTAINABLE POLYMERS FROM ALGAE SUGARS AND HYDROCARBONS

Lolke Sijtsma and Maria Barbosa

Background

Around the world steps are being taken to move from today's fossil based economy to a more sustainable economy based on biomass. Currently, the majority of chemicals and polymers are based on fossil raw materials, predominantly oil and gas. SPLASH will broaden the range of bio-based platform biochemicals and biopolymers produced by making use of algal species and biotechnological routes.

Objective

The 4-year SPLASH project will develop a new biobased industrial platform using microalgae as a renewable raw material for the sustainable production and recovery of hydrocarbons and (exo)polysaccharides from the species *Botryococcus braunii* and further conversion to renewable polymers.

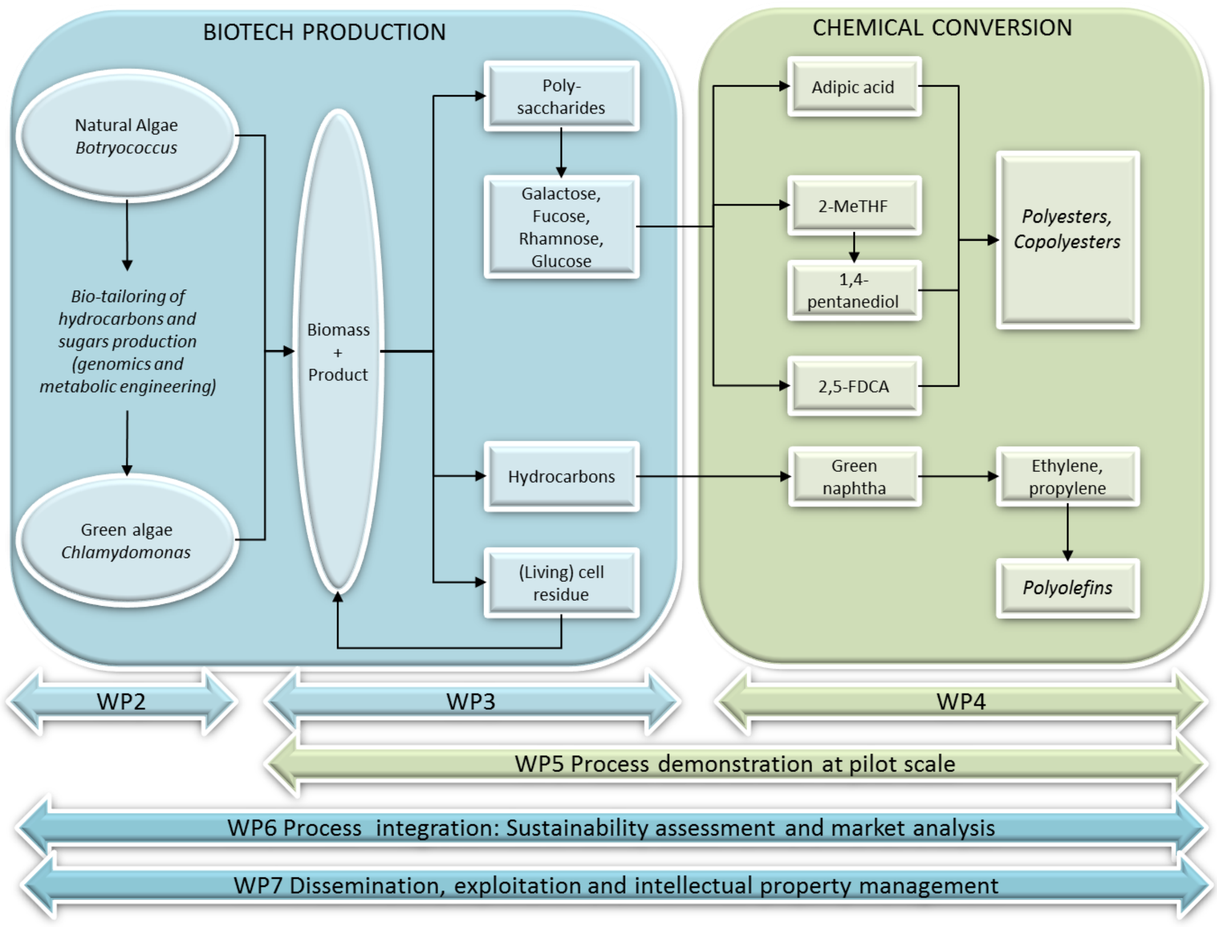
Partners

The project comprises of 20 partners of which 40% SME and several large corporates plus universities and research institutes and is coordinated and managed by dr. Maria Barbosa and dr. Lolke Sijtsma.

SPLASH
Sustainable Polymers from Algae

1 Stichting Dienst Landbouwkundig Onderzoek	NL
2 Centre for Research and Technology Hellas	GR
3 Organic Waste Systems	BE
4 Paques bv	NL
5 Niels-Henrik Norsker	DE
6 Value For Technology bvba	BE
7 Avantium chemicals bv	NL
8 Lifeglimmer gmbh	GER
9 Pursuit Dynamics plc	UK
10 Nova-institut	GER
11 Fraunhofer-Gesellschaft	GER
12 University of Cambridge	UK
13 PNO consultants bv	NL
14 Universidad de Huelva	ES
15 Wageningen Universiteit	NL
16 Universitaet Bielefeld	GER
17 Westfaelische Wilhelms-Uni Muenster	GER
18 EGE universitesi	TUR
19 Lankhorst Euronete	PT
20 Rhodia operations	FR

Project structure



Why Botryococcus

B. braunii is a green alga, widespread in freshwater and brackish lakes, that is resistant to a number of stress conditions. It is one of only a few known species that can accumulate large amounts of hydrocarbons (CxHy). Th e green algal genus *B. braunii* is also known for its unique and outstanding capacity to produce and excrete high quantities of long-chain hydrocarbons as well as an interesting group of polysaccharides that can be converted into platform biochemicals.

Botryococcus braunii,
(photograph: Joao Gouveira)

Information

SPLASH website: www.eu-splash.eu
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Project manager: dr. Lolke Sijtsma lolke.sijtsma@wur.nl

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SEVENTH FRAMEWORK PROGRAMME