





### Reduction of CO<sub>2</sub> emissions from industry

One of the main advantages of this technology is that those plants only need sunlight and carbon dioxide to grow. Therefore, the gas emissions from industrial sources, such as cement plants or power generation companies, are additionally used to achieve a reduction of the environmental impact of these installations. Moreover, each project team focuses on the extraction of individual compounds originating from microalgae. That allows the production of new additives for the formulation of industrial products, which have the advantage of being 100% renewable.

A first valuation of the original biomass is followed by the extraction of its lipid fraction and thus polyurethanes can be obtained to be used as components for adhesive products. Simultaneously, the extraction of proteins creates amino acids and lactic acid for the food industry. The resting biomass undergoes firstly a thermochemical process for its total exploitation and secondly, to obtain surfactants and other chemical substances for the production of paints and inks.

The following institutions or enterprises participate in the project: Biofuel Systems, University of Warwick, VTT, Beckers Industrial Coatings, Sun Chemical, Process Design Center B.V., Bangor University, Croda International, 3V Mabo, Phycosource, Gruene-Bioraffinerie, Caspeo, Cromogenia and the Technological Institute of Plastics - AIMPLAS.