**VOLATILE**

**Biowaste derived volatile fatty acid platform for biopolymers, bioactive compounds and chemical building blocks**

**Informationen zum Projekt**

Homepage des Projektes

VOLATILE is a large scale project in the frame of Horizon 2020 involving 21 industry and research partners from nine European countries.

The project's intention is to develop a Volatile Fatty Acids Platform (VFAP) for the economic utilization of municipal as well as industrial biowaste. Fatty acids will continuously be recovered from anaerobic digestion processes applying membrane technology and will be provided for value added fermentation approaches:

1. Polyhydroxyalkanoates (PHA) for material applications will be obtained via bacterial fermentation.
2. Single cell oils (SCOs) as precursors for oleo-chemical industry will be received from cultivation of yeast.
3. Omega-3 fatty acids to be used as food ingredients or nutraceuticals will be derived from heterotrophic microalgae.

The evolvement of the new value-added chains will be supported by findings of executed case studies and market analyses. Furthermore, the processes will be optimized applying agent-based modeling. To ensure environmentally friendly and economical reasonable process design, VOLATILE additionally will be accompanied by a life cycle assessment (LCA) and an economic feasibility study. Business cases will be developed and a CEN workshop will support standardization on "Sustainable use of municipal solid and sludgy biowaste for added value biomolecules for industrial application".

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