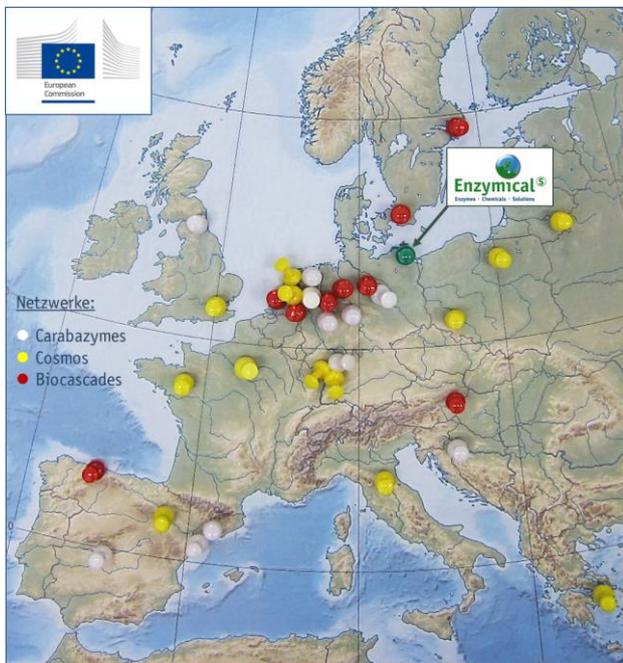


PRESS RELEASE

€ 1.2 million in EU project funding for Enzymicals

Enzymicals is a consortium partner in three projects of the H2020-funding period. With these projects a total of € 1.2 million grants were procured for Enzymicals. The company thus has the opportunity to focus more on the scale-up and piloting of biocatalytic processes, on developing new products and on promoting young scientists. At the same time these projects strengthen the company's international network.



Locations of network partners

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An important project is the **COSMOS** project which will be running over 54 months. The aim of the project is to increase Europe's independence of imported coconut and palm kernel oils and fatty acids as well as castor oil. These are currently important sources of raw materials for the production of various fatty acids. The fatty acids are starting materials for the production of plastics, surfactants, detergents, lubricants and many others.

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From robust indigenous oil plants oils are extracted which are more suitable for obtaining these fatty acids than e.g. Rapeseed oil. The project includes work on the cultivation of oil crops, on optimizing the composition and on increasing the yield of the pressed oils. Other tasks deal with the separation and purification of the fatty acids which are extracted from crude product. Further aspects are processes for producing the desired fatty acids and the recycling of waste materials from the oil crops and press cake. In the consortium 18 partners from 9 countries work together. The entire project is funded by the EU with € 10.8 million.

In the separation and purification of the fatty acids selective enzyme technology will be used. The task of Enzymicals is the upscaling and the piloting of the manufacturing process for lipases which are suitable for these processes.

In the **CARBAZYMES** project a total of € 9.3 million will be invested. Funding from the EU is € 8.3 million over four years. The international, multidisciplinary consortium consists of 14 companies and research centers in 5 countries.

In the chemical industry, there is a great need for robust, industrially useful biocatalysts for the formation of carbon bonds. The classical chemical reactions involve the use of hazardous substances and a high energy consumption. The use of enzymes has great potential to improve these processes both from an economic and from an environmental point of view. The aim of the CARBAZYMES project is the development and subsequent scale up to an industrial process for four pharmaceutical intermediates and three bulk chemicals.

In this project Enzymicals works on the process of manufacturing an intermediate for a frequently used drug. For this purpose unique enzymes produced by Enzymicals are tested, and the process will be increased up to the 100L scale.

Enzymicals is an industry partner in the innovative training network Marie Curie **BIOCASCADES** for European industrial doctorates (ITN



EID). In this Research Network seven universities and five industrial companies from five European countries are involved.

In total eleven ESRs (early stage researchers) will be dealing with the development of sustainable cascade reactions for the production of specific amines and amino alcohols. These are important intermediates for pharmaceutically active substances such as those used in drugs for emergency treatment of anaphylaxis (allergic shock) or in cough solvers. Enzymicals contributes here with a position for a young scientist and the provision of several workplaces for exchange scientists.

With all three projects Enzymicals highlights its positioning as a developer of industrially applicable biocatalytic processes in pilot scale.

About Enzymicals AG:

Enzymicals has a highly recognized expertise in enzymatic processes for the synthesis of sophisticated compounds. We design and develop cost effective and sustainable chemical and biochemical routes for the production of APIs and fine chemicals, which can be transferred to industrial scales. We provide enzymes suitable for research and production of high-quality substances. Our service includes the route scouting for the synthesis of compounds desired by our customers, up to feasibility studies and final applications orientated on customer demands. Together with our partners BRAIN AG and the BBG "Braun Beteiligungs GmbH", to which also the company Herbrandt Pharma-Chemicals belongs, Enzymicals is integrated in a strategic network, which covers the whole value chain from identification and improvement of biocatalysts, process development and optimization up to commercial production under GMP conditions, distribution and regulatory issues.

For more information: www.enzymicals.com