

# INDUSTRIELLE BIOTECHNOLOGIE BAYERN NETZWERK GMBH

Foundation

**2008** 

#### Employees

• 7

#### **Branches**

- Industrial Biotechnology
- Sustainable Economy
- Chemical Industry
- Diverse industry branches (e.g. biofuels, polymers, lubricants, varnishes, detergents...)
- Research & Development
- Innovation Activities

#### Key services

- Technology transfer
- Project initiation and support
- Network management
- Public relations

Industrielle Biotechnologie Bayern Netzwerk GmbH (IBB Netzwerk GmbH) is an organization focusing on the promotion of Industrial Biotechnology and Sustainable Economy. The German company catalyzes the transformation of novel biotechnological approaches to innovative marketable products and processes. To accomplish this goal, IBB Netzwerk GmbH manages the Network IBB, consisting of more than 100 members. Furthermore, the company carries out the management of four so-called 'sub'-networks with different fields of activity. IBB Netzwerk GmbH supports all network partners in the elaboration of research and development projects.

## **The Network IBB**

One of the main tasks of IBB Netzwerk GmbH is the management and coordination of the Network IBB. Within this network, the competences and potentials of industry, small and medium enterprises, academia, business developers, consultants and associations are combined and mobilized to strengthen as well as to expand Industrial Biotechnology. The members produce, for example, biopolymers, specialty or bulk chemicals, biofuels, enzymes, paintings, lubricants, adhesives and cleaning agents. Besides molecular biology techniques, IBB members have expertise in engineering, paper and environmental technologies, nanobiotechnology, bioinformatics and life cycle analysis.

### Special fields of activity – cooperation networks

IBB Netzwerk GmbH manages four different sub-networks: two actually public-funded ZIM-cooperation networks "MoDiPro" and "UseCO<sub>2</sub>" as well as two private financed cooperation networks "BioPlastik" and "Waste2Value".

### BioPlastik

The interdisciplinary cooperation network 'BioPlastik' wants to significantly increase the market share of bio-based, biodegradable polymers. The partners focus on technical projects for the development of innovative and low-priced biopolymers. Bioplastic materials - in particular, materials from the hitherto poorly marketed polyhydroxyalkanoates (PHA) - are expected to gain significant market shares in mass-produced products such as packaging. In addition, the partners place high demands on the sustainable production of the biopolymers and the materials themselves. The BioPlastik network was funded by the Federal Ministry for Economic Affairs and Energy from 2014-2016.

#### Waste2Value

The partners of Waste2Value focus on the use of residual and waste streams from e.g. forestry and agriculture, the food processing industry or the wood and paper industry. These are the resources to extract specialty and bulk chemicals, such as phytochemicals (e.g. phenolics, terpenes, hydroxy fatty acids, waxes) or butanol. As soon as these chemicals are extracted, the partners process them further either to innovative and high-quality products and/or add them to existing products to improve their properties. The approach of 'Waste2Value' is to replace oil-based products with products derived from renewable resources from waste streams that reveal at least equivalent or even better performance than the fossil oil products. The Waste2Value partners were funded by the Federal Ministry for Economic Affairs and Energy from 2015-2017.



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### **Contact**

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#### Contact person



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#### UseCO<sub>2</sub>

'UseCO<sub>2</sub>' is a cooperation network funded by the Federal Ministry for Economic Affairs and Energy. The network aims to replace fossil fuels such as petroleum and natural gas and use instead carbon dioxid as raw material. To overcome this challenge, the partners develop technologies, to fix CO<sub>2</sub> from industrial emissions or from the atmosphere and transform it into basic chemicals. These are used to fabricate products such as synthetic fibres, lubricants, adhesives and plastics as well as fuels. Compared to their petroleum counterparts, the products have a low carbon footprint or are even CO<sub>2</sub> neutral. By developing new CCU (carbon capture and utilization) technologies, the network provides solutions to keep on producing goods regardless of the availability of oil or fluctuating oil prices. The network thus supports the transition from a petroleum-based to a sustainable society.

#### MoDiPro

'MoDiPro' stands for "**Mo**dels for **di**agnostics and **pro**cess optimization" and brings pioneering Industry 4.0 concepts to the biotechnology industry. The combination of industry and modern information and communication technology, digitalization and automation will make biotechnological production processes efficient, resource-saving and cost-effective and enables optimal patient treatment. The focus lies on the development of predictive computer models. Desired products are e.g. intelligent control modules for automated production processes or prognosis tools, with which users from research, development and production as well as in the clinic can make valid predictions and act preventively. The MoDiPro partners are funded by the Federal Ministry for Economic Affairs and Energy.