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The Bioeconomy Consultants

# Bioeconomy Factsheet - Germany

This factsheet gives an overview of the German bioeconomy innovation technology system. It includes the key government interventions, research initiatives, networks and finance instruments, in Germany

## Climate Change Policy

"**Energiewende**" is the Energy Transition plan to cut German emissions, which aims to develop a sustainable and affordable electrical energy supply in the future, by improving efficiency and increasing renewable electricity to 80% by 2050. This primary goal overarches Germany's energy policy and has an enormous impact on surrounding areas such as bioeconomy.



Germany also has an **Emissions Trading System** to limit GHG emissions and **Environmental Taxation** which generates funds to support 'good' things for society by taxing environmentally unfriendly activities, such as fossil fuel consumption. In addition, Germany donates the second largest Climate Fund to support international climate protection worldwide.

## Bioeconomy Governance

The key **government bodies** are the:

- **Federal Ministry of Food and Agriculture**
- **Bioeconomy council** (independent advisory body to the German Government, consisting of experts from research and industry)



## Bioeconomy Strategies

The role of the bioeconomy council was to give recommendations on what to include in the following strategies:

- **National Research strategy on bioeconomy 2030** (2010)
- **National Policy Strategy on bioeconomy** (2013)

These strategies feature strong interrelations to other governmental initiatives with an effect on the bioeconomy such as:

- **Raw Materials Strategy** (2010)
- **The German resource efficiency programme** (2012)
- **Biorefinery Roadmap 2012**





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## Bioenergy and Biofuels

**Feed-in-tariffs** for electricity generated renewably are a core mechanism of the German energy transition, under the **Renewable Energy Sources Act**.

In the **Renewable Energy Sources Act 2014 reform**, there is a large reduction in support for bioenergy (as well as nuclear), with a cap on new biogas developments. The new strategy aims to reduce the use of crops for energy and fuels, and instead support will focus on renewable wind, solar energy, and energy from waste.

Biofuel policy has also changed, from 1<sup>st</sup> Jan 2015, fossil fuel companies must reduce GHG emissions of their products by increasing amounts, rather than setting a minimum proportion of biofuels in the total fuel.

## Technology Commercialisation Centres

There are a number of centres linking research and commercialisation for example:

- **Fraunhofer UMSICHT**
- **Deutsches Biomasseforschungszentrum**
- **FNR**
- **BioSC**
- **Biorefinery CBP** (Lignocellulose refinery)
- **IBB GmbH** (Cellulosic ethanol and acetic acid demonstration plants)
- **Chempark Leverkusen** (plastic manufacturing)

## Networks

There have been several initiatives to increase knowledge exchange and cooperation between different companies and research institutions initiated by the German federal government. There is one bioeconomy cluster, and many IB clusters including:

- **Bioeconomy Cluster Central Germany**
- **BioRegio Cluster**
- **CLIB 2021**
- **Biokatalysis 2021**
- **Biopolymers** (Biopro)
- **Cib-Frankfurt**
- **IBB Network Munich**
- **IBB Network Baden-Württemberg**



Key Industry Associations:

- **German Association of Biotechnology Industries** (DIB)
- **BioDeutschland** (30 regional initiatives fostering biotechnology economy)
- **SUSCHEM**

There also an increasing number of databases and networks. The information platform on **biooekonomie.de** has an extensive collection of data of companies, support opportunities and research institutions.





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## Research & Technology Funding

The main funding body responsible for bioeconomy R&D is the **Federal Ministry for Education and Research** (BMBF).

The national research strategy on bioeconomy 2030 was launched in 2010 with €2.4B funds over the following 6 years, for research into climate change, sustainability of food, bioenergy, and industrial biotechnology. A €1.5M share was allotted for project funding, the rest for institutional funding and other commitments.

A number of **major research initiatives** aim to support bioeconomy R&D, such as :

- BioRegio
- Biofuture
- BioChance
- Innovations Initiative "Industrielle Biotechnologie"
- Next Generation Biotech. Process
- Biotechnologie 2020+



## Finance

**KMU-innovativ** – is the BMBFs funding initiative for innovative biotechnology SMEs

## Biohorizons



The Biohorizons project and survey focused on consulting stakeholders across the bioeconomy, to identify areas for growth, opportunity, and barriers to innovation.

**Biohorizons Project:** <http://www.climate-kic.org/projects/biohorizons/>

**LinkedIn:** <http://linkd.in/1dPjX7R>

## Bio Base NWE



The Bio Base NWE network represents leading biobased economy experts, advising entrepreneurs from across Europe on how to develop new ideas into marketable products, from the first feasibility study or market analysis up to funding and investment scenarios.

**BioBase NWE Project:**

<http://www.biobasenwe.org/en/home/>



This factsheet was produced by Biohorizons and Bio Base NWE partners

More Bioeconomy Factsheets can be found here:

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