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## Bio-based & CO<sub>2</sub>-based Economy



### Departments

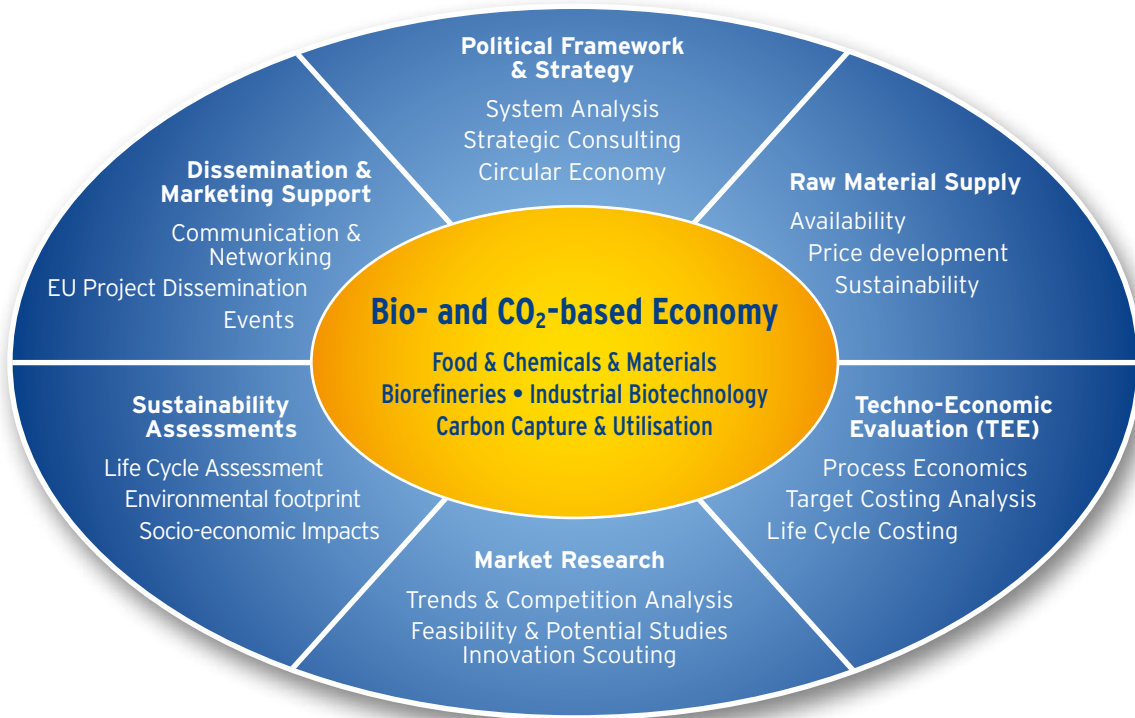
- Sustainability
- Economy & Policy
- Technology & Markets
- Communication

**Applied research for your needs**

# nova-Institute at a glance

## Applied research for your needs: We offer our unique understanding to support your business

From feedstock to product, from markets to dissemination - nova-Institute links research-based consultancy to feedstocks, technology, products and markets as well as policy, economy and sustainability in all areas of the Bio-based and CO<sub>2</sub>-based Economy. We make your business fit for the future!



## Why nova-Institute?

- We offer more than two decades of experience with the use of bio-based materials and products
- You get access to nova's internal or external top experts and scientists
- Many fruitful partnerships in various national and international associations, research projects and expert groups at your command
- We offer several popular platforms for knowledge exchange and communication - a key to success for the Bio- and CO<sub>2</sub>-based Economy
- We host some of the most successful conferences of the industry - made by experts for experts

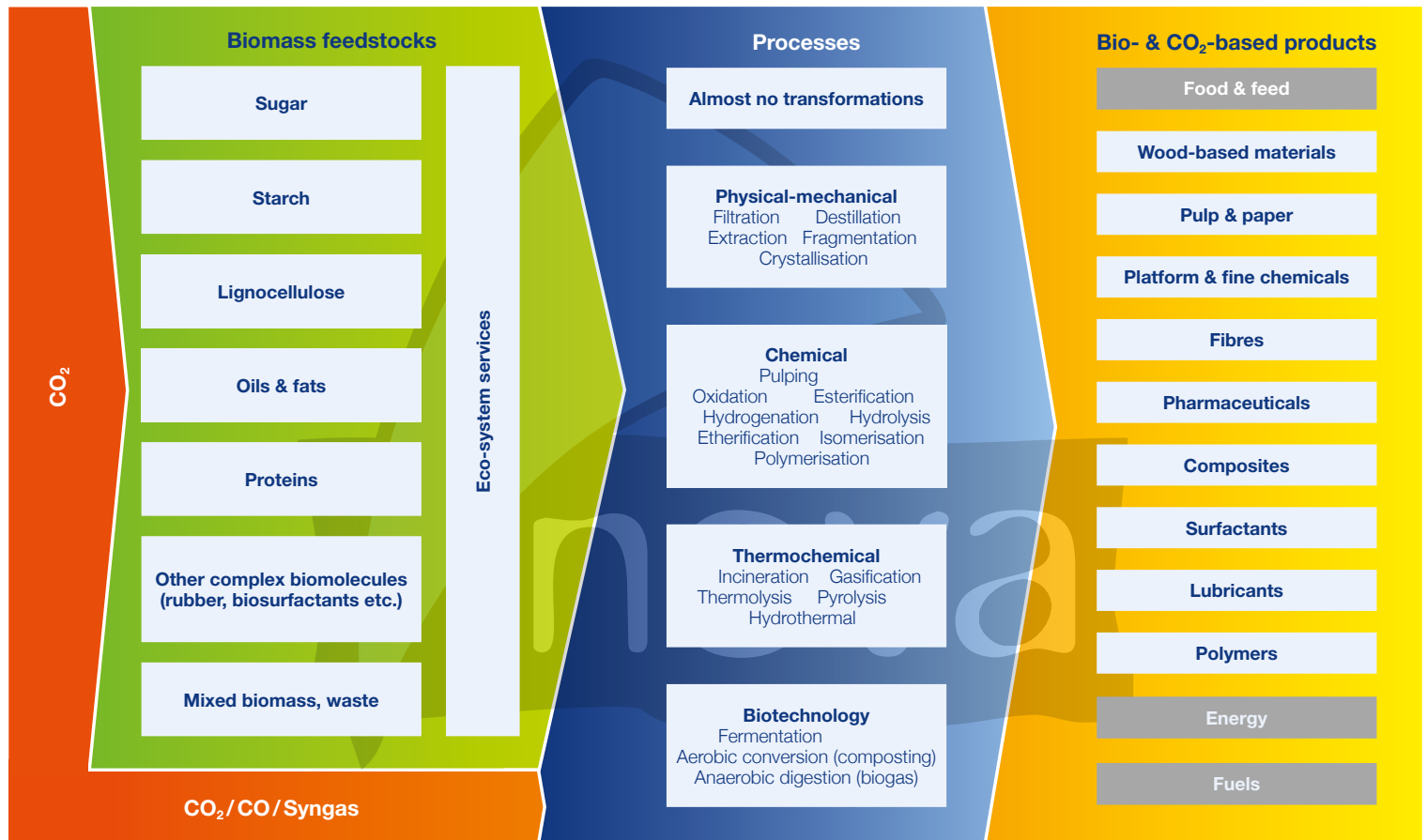
## Member of

- Bio-based Industries Consortium (BIC)
- CLIB2021
- CO<sub>2</sub> Value Europe
- Discover Natural Fibres Initiative (DNFI)
- European Bioplastics
- European Industrial Hemp Association (EIHA)
- Federation of Reinforced Plastics (AVK)
- Industrielle Biotechnologie Bayern (IBB)
- kunststoffland NRW e.V.

## Key questions informing nova activities

- What are the most promising concepts and applications for industrial biotechnology, biorefineries and bio-based or CO<sub>2</sub>-based products for the future?
- What are future challenges, environmental benefits and successful solutions in the use of bio- and CO<sub>2</sub>-based materials and products?

# Bioeconomy & CO<sub>2</sub>-based economy - Our expertise



## Selected customers

**Associations / Clusters / NGOs:** AVK (DE), APAG (EU), BIC (EU), BioEconomy Cluster (DE), Birdlife (EU), CEFIC (EU), CLIB2021 (DE), EIHA (DE), EPF (EU), European Bioplastics (DE), IAR (FR), IBB (DE), VHI (DE), WWF (USA/DE)

**Automotive Industry:** Brose (DE), BMW (DE), Mercedes/Daimler (DE), Dräxlmaier (DE), Faurecia (DE), Ford (DE), Johnson Controls (DE), Porsche (DE), Quadrant (DE), VW (DE)

**Chemistry, Plastics & Composites:** Kraton (USA), BASF (DE/CA), Corbion (NL), CropEnergies (DE), DuPont (USA/DE), Elastopoli (FI), Eridania Sadam (IT), Evonik (DE), FKuR (DE), Gidetest (FI), Honeywell (USA), Hyne Timber (AU), InfraServ (DE), Mondi (AT), Neste (FI), Peter Greven (DE), Stora Enso (SE), Südzucker (DE), Synvina (NL), Teijin (JP), Total (FR)

**End Applications:** Colruyt (BE), ESE Expert (DE), IKEA (SE), Kosche (DE), Leifheit (DE), Logococ (DE), Neudorff (DE), REWE (DE), Velux (DK)

**Consulting:** AFC Consulting (DE), Blezat Consulting (FR), Boston Consulting Group (DE), Clever Consult (BE), ClouPartners (DE), Deloitte (NL), E4Tech (UK), Ecorys (FR), Ernst & Young (FR/DE), KPMG (MY), meó Consulting (DE)

**Engineering:** Coperion (DE), Ferrostaal (DE), Reifenhäuser (DE), Uhde-Inventa Fischer (DE)

**Ministries & Institutions:** BBI (EU), BBI-JU (EU), BfN (DE), BMBF (DE), BMELV (DE), DBU (DE), DECC (UK), DEFRA (UK), European Commission (EU), FAO (IT), FNR (DE), GIZ (DE), KfW (DE), Ministry of Economic Affairs (NL), Netherlands Enterprise Agency (NL), NIA (TH), UBA (DE)

**Research Institutes:** Fraunhofer UMSICHT (DE), HS Bremen (DE), IFEU (DE), INNVENTIA (SE), INRA (FR), Joint Research Centre (EU/SP), London Imperial College (UK), Öko-Institut (DE), RAPRA (UK), VTT (FI), Wageningen UR (NL), Wuppertal Institut (DE)

## ▶ Publications

▶ Markets & Economy

▶ Policy

▶ Sustainability & Ecology

▶ Technology

▶ nova-Papers

▶ Graphics

▶ Bioeconomy Market Reports

▶ Proceedings of nova Conferences

▶ Top downloads

## ▶ Platforms

▶ Bio-based News

▶ iBIB  
International Directory for Bio-based Businesses

▶ Press releases  
News from nova

## nova conferences

- **Biocomposites Conference Cologne**  
[www.biocompositesc.com](http://www.biocompositesc.com)
- **Conference on Carbon Dioxide as Feedstock for Fuels, Chemistry & Polymers**  
[www.co2-chemistry.eu](http://www.co2-chemistry.eu)
- **International Conference on Bio-based Materials**  
[www.bio-based-conference.com](http://www.bio-based-conference.com)
- **International Conference of the European Industrial Hemp Association (EIHA)**  
[www.eiha-conference.org](http://www.eiha-conference.org)
- **nova Sessions on bio-based economy**  
[www.bio-based.eu/nova-sessions](http://www.bio-based.eu/nova-sessions)
- **Revolution in Food and Biomass Production**  
[www.refab.info](http://www.refab.info)



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# Current research projects

nova-Institute is a partner in various research projects within the fields of bio-based chemistry, materials and biotechnology. nova-Institute surrounds, strengthens and completes scientific and engineering work by linking it to feedstock, markets, economy and policy. Furthermore, nova is committed to do dissemination and marketing support.

## EU projects

- **AFTERLIFE** - Advanced Filtration TEchnologies for the Recovery and Later conversion of relevant Fractions from wastewater. (09/2017 - 08/2021)
- **BioForever** - BIO-based products from FORestry via Economically Viable European Routes. (09/2016 - 08/2019)
- **BioRECO<sub>2</sub>VER** - Microbial platforms for CO<sub>2</sub>-reuse processes in the low-carbon economy. (01/2018 - 12/2021)
- **BioMonitor** - Towards a method for the collection of statistical data on bio-based industries and bio-based products. (06/2018 - 05/2022)
- **CHASSY** - Model-Based Construction and Optimisation of Versatile Chassis Yeast Strains For Production Of Valuable Lipid and Aromatic Compounds. (12/2016 - 12/2020)
- **COSMOS** - Camelina & crambe Oil crops as Sources for Medium-chain Oils for Specialty oleochemicals. (03/2015 - 08/2019)
- **MAGIC** - Marginal lands for Growing Industrial Crops: Turning a burden into an opportunity. (06/2017 - 05/2021)

- **MARISURF** - Novel marine derived biomolecules and industrial biomaterials. (09/2015 - 08/2020)
- **PEference** - From bio-based feedstocks via di-acids to multiple advanced bio-based material with a preference for polyethylene furanoate. (09/2017 - 04/2022)
- **PULP2VALUE** - Processing Underutilised Low value sugarbeet Pulp into VALUE added products. (07/2015 - 06/2019)
- **ReSolve** - REnewable SOLVEnts with high performance in application and improved toxicity profile. (06/2017 - 05/2020)
- **RoadToBio** - Roadmap for the Chemical Industry in Europe towards a Bioeconomy. (06/2017 - 04/2019)
- **STAR4BBI** - Standards and Regulations for the Bio-based Industry. (09/2016 - 08/2019)
- **SUPERBIO** - Support and PartnERship for the development of multiple sustainable and market ready value chains in the BIObased economy. (06/2016 - 11/2018)
- **Zelcor** - Zero Waste Ligno-Cellulosic Biorefineries by Integrated Lignin Valorisation. (09/2016 - 08/2020)

## National projects

- **BEPASO** - Bioökonomie 2050: Potentiale, Zielkonflikte, Lösungsstrategien. (12/2016 - 01/2020)
- **UFOPLAN** - Untersuchungen zur Effizienzsteigerung bei der Rückgewinnung von NE-Metallen und seltenen Erden aus festen Verbrennungsrückständen durch Einsatz unkonventioneller Aufbereitungsverfahren wie Bioakkumulation oder -flotation. (10/2017 - 04/2019)
- Unterstützung bei der Überarbeitung der Monitoring-Verordnung für die 4. Handelsperiode (Schwerpunkt: Carbon Capture and Utilisation (CCU)). (11/2017 - 09/2018)
- **WeRüma** - Werkstoffentwicklung auf Basis von Rübenschnitzeln für marktrelevante Anwendungen. (01/2017 - 12/2020)
- **ZeroCarb FP II** - Nachhaltigkeitsanalysen (02/2017 - 09/2019):
  - Bioplastics
  - 2Acid+
  - Green Mining
  - Additives 1

## Bioeconomy market reports

These reports and more are available at [www.bio-based.eu/reports](http://www.bio-based.eu/reports)

- **Bio-based Building Blocks and Polymers - Global Capacities and Trends 2017-2022**, 2018-05.
- **Carbon dioxide (CO<sub>2</sub>) as chemical feedstock for polymers - technologies, polymers, developers and producers**, 2018-03.
- **Succinic acid: New bio-based building block with a huge market and environmental potential?**, 2018-02.
- **Commercialisation updates on bio-based building blocks**, 2017-07.
- **Standards and labels for bio-based products**, 2017-05.
- **Bio-based polymers, a revolutionary change**, 2017-04.
- **Policies impacting bio-based plastics market development and plastic bags legislation in Europe**, 2017-03.



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