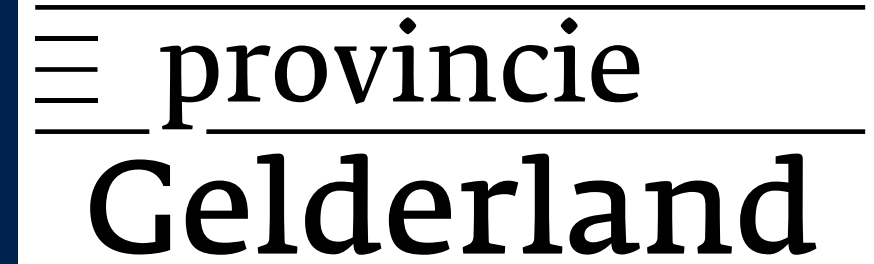


Bioeconomy initiatives in the Gelderland Region



The Eastern Netherlands region is recognized as the leading region for bioeconomy and biotechnology in the Netherlands. With a focus on sustainable innovation in agriculture, food production and bio-based materials, the province is driving the transition to a circular economy. Lignocellulosic biomass, agricultural by-products and organic waste are used as raw materials for biofuels, biochemicals and innovative materials.

The region is home to numerous companies active in the fields of biomethane, biobased building materials, pyrolysis oil products, bioplastics, alternative proteins, smart energy solutions and biotechnological processes. Within the ecosystem of the BEON-cluster for biobased production and the Wageningen University & Research there is a tight link between technology developers and researchers. The university establishes global standards in the development of new microbial production processes for sustainable food ingredients and bio-based materials. The Eastern Netherlands is strong in EU-cooperation projects and boasts specialized scaling and demonstration facilities that support the transfer of bioeconomic technologies. Through close cooperation between science, industry and politics, the region continues to expand its pioneering role as a European hub for bio-based innovations.













Gefördert durch:
 Bundesministerium
für Wirtschaft
und Klimaschutz
aufgrund eines Beschlusses
des Deutschen Bundestages

Expertise & Competences

BIORESOURCES	FOOD AND FEED	BIO-BASED MATERIALS	BIO-BASED MOLECULES AND RELATED PROCESSES	BIOENERGIES
Agriculture, horticulture, residual biomass streams and manure	Food and food processing, new food systems	Textile, paper and pulping, construction, biopolymers, packaging, bioplastics	Biorefineries for biochemical building blocks, life sciences	Biorefinery for energy, biofuels, green hydrogen

Networks & Clusters

Research & Development

Wageningen University & Research	BFF – Biotechnology Fermentation Factory	NIZO Food Research	HAN University	KRIMPPP
				
Leading university in food technology & food safety, biobased materials, alternative proteins, sustainable agriculture.	BFF in Ede is a state-of-the-art, open-access scale-up facility dedicated to foods and food ingredients production through fermentation technology.	Independent research organization with prime expertise in protein technology, fermentation, food processing & safety and bioinformatics.	Production of biobased raw materials, use of residual flows from agriculture and horticulture.	Development and marketing of bio-based raw-materials in packaging, construction, agriculture & horticulture
				
wur.nl	bff-edede.com	nizo.com	hanuniversity.com	krimppp.nl

Further information

Biobased Economy in the Netherlands and the regions – Challenges & Opportunities https://www.ufz.de/export/data/2/137654_3_Kwant_Bioeconomy%20and%20Biobased%20NL_16.03.17.pdf	Bio biobased economy and the bioeconomy in the Netherlands-Biomass research report 1601 www.rvo.nl/sites/default/files/2016/03/Netherlands%20position%20biobased%20economy_FB%20Biomass%20Research%202016_0.pdf	Bioeconomy factsheet-The Netherlands vb.nweurope.eu/media/4663/180369_bio%20base4sme_2luik_netherlands_v4_lr.pdf
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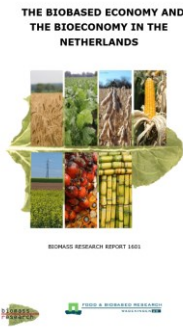
Basis Data

Inhabitants	2.1ME	2023
BE employees	60.56 k	2020

Characteristics / Profile

- Numerous biorefineries
- Some of the biggest domestic chemical companies are highly active in the bioeconomy: DSM, AkzoNobel, Corbion, Avantium, Synbra
- Biomass wastes (including residual wood, chicken manure and paper sludge) are responsible for half the input of the regional bioenergy
- Small forestry and wood sector but large transit of paper pulp and other biomass

Bioeconomy Partners



Expertise & Competences

BIORESOURCES

Agriculture, horticulture, residual biomass streams and manure

FOOD AND FEED

Food and food processing, new food systems

BIO-BASED MATERIALS

Textile, paper and pulping, construction, biopolymers, packaging, bioplastics






BIO-BASED MOLECULES AND RELATED PROCESSES

Biorefineries for biochemical building blocks, life sciences

BIOENERGIES

Biorefinery for energy, biofuels, green hydrogen

Networks & Clusters

Cluster / Ecosystem			Industry Association	
BioBased Economy	Next Food Collective	Dutch Biorefinery Cluster	Stichting BEON	Rotterdam Biomass Commodities Network
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Top consortium for knowledge and innovation for the biobased economy.	The network connects the food industry, business services & universities for sustainable nutrition and innovation transfer.	The collaboration network facilitates exchange to promote biobased products and the valorisation of side- and waste streams.	Bioenergy Cluster Eastern Netherlands for versatile use of bio-based raw materials & sustainable energy production.	RBCN is an independent business-to-business networking platform to strengthen and promote Dutch biomass and the biobased economy.
				
biobasedeconomy.nl	nextfoodcollective.nl	dutchbiorefinerycluster.nl	stichtingbeon.nl	rbcn.nl



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