

INNOVATION ECOSYSTEM LOWER AUSTRIA



Initiating Green Transformation for SMEs.

Cases and Challenges

ACCELERATE Workshop

2023/11/15

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ecoplus. The Business Agency of Lower Austria



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Lower Austria – some key facts & figures



19,177 km², Largest Austrian region



Surrounding the federal capital Vienna



1.72 million inhabitants,
“bacon-belt” vs. sparsely populated rural areas



R&D centres, competence centres well-developed
high-tech infrastructure – **critical mass through
specialization in technological niches**



Heterogeneous economic landscape
Traditionally dominant sector: agriculture and forestry



113,841 companies in Lower Austria;
63.4% SPE, 27.7% very small, 6.9% SME >10, 0.2% large enterprises
Relevant nr. of companies with family owners / headquarter / decision making power in the region



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Regional Strategies for competitiveness, RTI, green and digital transition



- High-tech & regional centers
- Smart products, materials & production
- Digital Transformation
- Green Transformation

- Health & Nutrition
- Environment, Climate, Resources
- Digital Transformation, smart production & materials
- Society & Culture

- Digital fitness: awareness, training, R&D
- Digital infrastructure: connectivity, infrastructure
- Digital solutions: platforms, data, e-government

- Construction & Living
- Mobility & Space
- Sustainable Economy
- Energy Supply
- Water & Soil
- Civil Protection
- Cross-cutting Issues

Deutsch: [NÖ Strategien, Konzepte, Berichte](#)
 English: [Economic Strategy](#), [Digitalisation Strategy](#)



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ecoplus. The Business Agency of Lower Austria

100% owner: Lower Austrian Government

Ca. 100 FTE

& subsidiaries, e.g. ecoplus digital



Business & Technology

Locations & Services

Projects & Initiatives



Clusters

Platforms

Technopols



Investor Services

Business Parks



Regional Funding

Managing the funding process



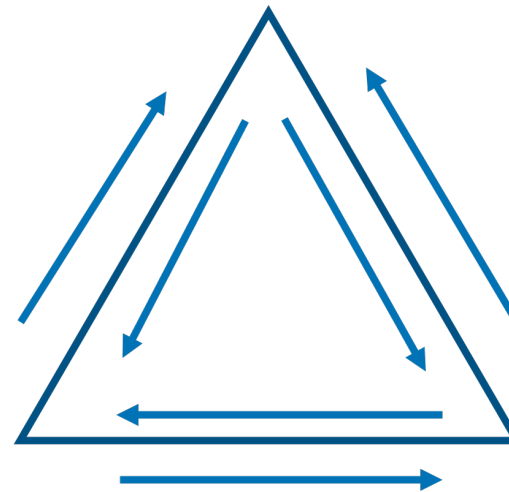
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Interactions between Clusters, Platforms and Technopols

Clusters

Technology transfer through collaborative projects
4 clusters, >500 members (445 SME)



Platforms

Topics of strategic relevance:
Bioeconomy & Green Transformation; Health
Broad involvement of local, regional,
national, international actors

Technopols

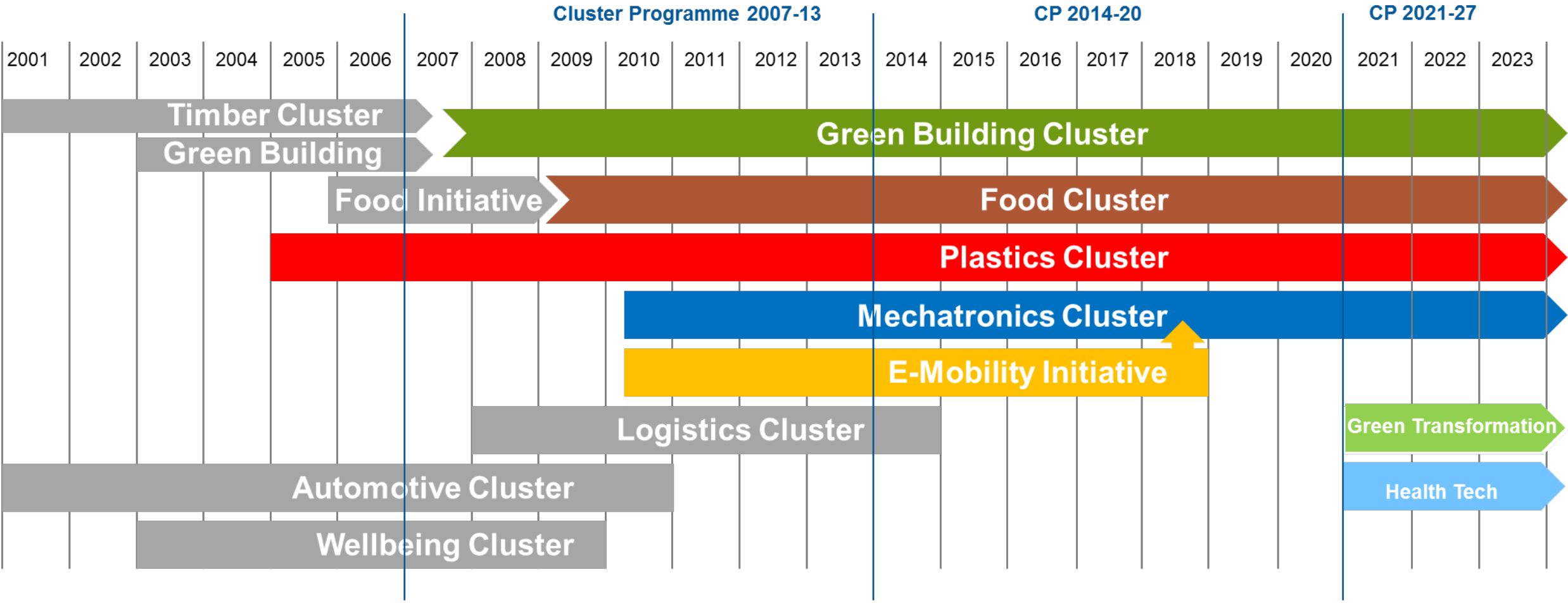
4 Research & technology locations
Pushing forward excellence in niches
Research and Knowhow creation



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Gradually Evolving Cluster Programme



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Monitoring & Evaluation



What: Relevance of sector (statistics: turnover, jobs, etc)

Cooperation and development potential (interviews & workshops with companies etc.)

Who: External Expert

Why: Mapping result = basis for regional governments decision to start a new cluster initiative or not

Contribution of cluster initiatives to Economic Strategy (Balanced Scorecard indicators for cluster programme, s. next slide)

in-house with verification by external expert

Monitor development Dialogue with programme owner (reg. Government) every 6 months Steering cluster initiatives

Macro-economic effect (2012 and 2017):
2001 – 2015: total project volume of 104 Mio € (> 60% company contribution) led to a regional value-added effect of 81.3 Mio.€

External Expert

Show impact to policy level and civil society

Regional Impact Measurement beyond Cluster Level

- Project related evaluation
- Large scale satisfaction survey among companies
- Regional Innovation Index
- Regional extension of CIS Community Innovation Survey
- Further studies



Monitoring Indicators

- Collaborative innovation projects initiated
- Impulse projects initiated: R&D, multi-annual, involving big innovative companies
- Qualification initiatives initiated: series of events, seminars, workshops fostering know-how (new topics)
- **Nr. of companies involved in projects and initiatives**
- “Trend radar”: identification and development of future topics
- Success stories: results with high relevance for business and innovation location Lower Austria
- Internal development: new services



Clusters in Lower Austria – Innovation through Cooperation

Connecting research and business, small and large enterprises

Green Building Cluster of Lower Austria (ecoplus.at)

- Climate-adaptive technologies
- Constructive efficiency
- Digitalization in construction

204 members



Food Cluster of Lower Austria (ecoplus.at)

- Sustainable use of resources
- Food quality & safety
- Regional & organic products, digital transformation

112 members

www.mechatronik-cluster.at

- Adv. Manufacturing
- Green Energy & Mobility
- Climate-Neutral Production

**Cross-regional
93 members in NÖ
(ca 300 in total)**



www.kunststoff-cluster.at

- Plastics Cycle,
- Materials of the Future
- Tool making

**Cross-regional
126 members in NÖ
(ca 400 in total)**

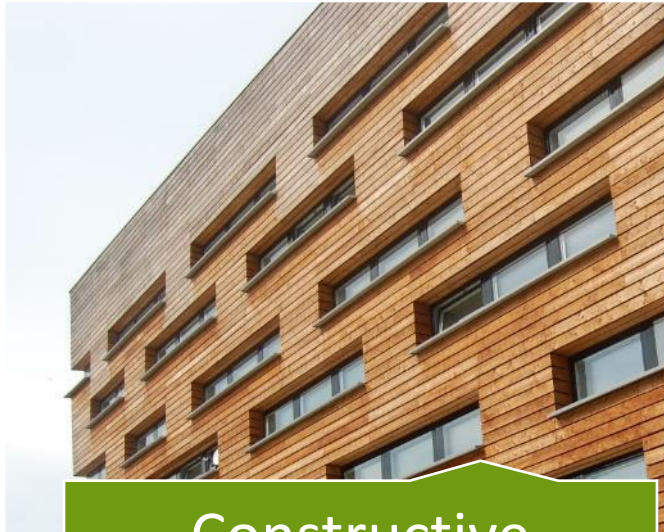
Clusters in Lower Austria



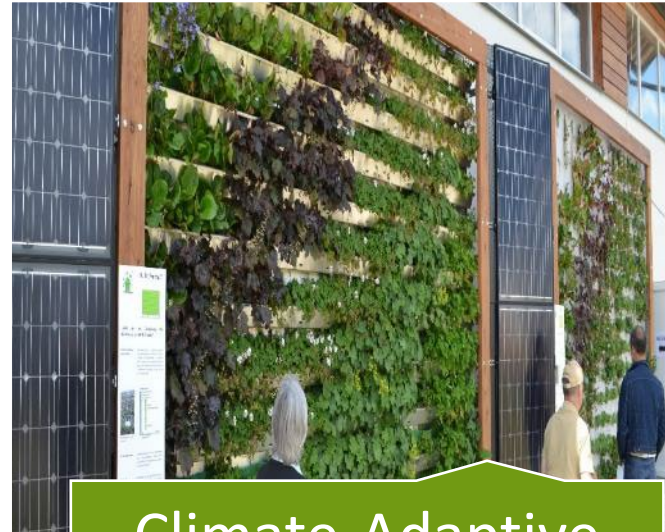
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Green Building Cluster



Constructive
Efficiency



Climate-Adaptive
Technologies



Digital
Transformation

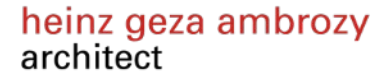


natuREbuilt Innovation network

- Innovation network for renewable, recyclable, regional and resilient building components
- Team of 18 partners
- 2021 – 2023
- Funded by FFG (Austrian Research Promotion Agency)
- The aim is to continue the network after the end of the project



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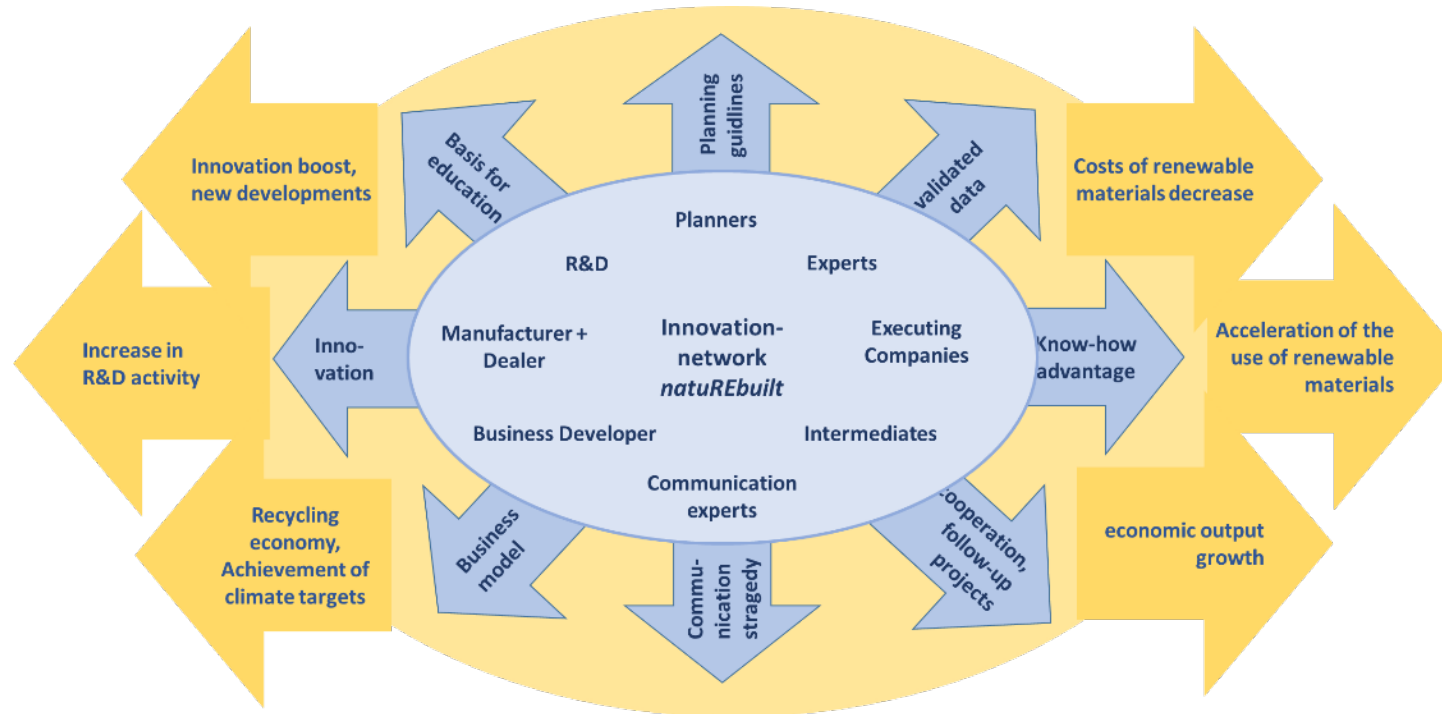
Erdig. Menschlich. Gut.



Österreichisches Institut für Bauen und Ökologie GmbH



Zwettl



Goals



- create an overview of **existing ecological constructions**
- **develop new, fault-tolerant constructions** through tests in the laboratory, on the test bench, in situ and through simulations
- **digitize validated data** collected and generated in the project in a **BIM-compatible** way
- create a **planning toolkit** for ecological constructions
- build a **network** of regional companies in ecological construction for accelerating innovation

Industry Project Prefab.Facade

Performance enhancement of circular, serially prefabricated façade elements

- Collaborative analysis of existing and development of new constructive solutions
- Focus on refurbishment, but also new construction
- Feasibility of prefabrication, data consistency and automation
- ecodesign, design for disassembly
- Examine ecological and economic parameters
- 19 partners, 2022-2025, funded by FFG
- <https://www.ecoplus.at/newsroom/prefabfacade-vorgefertigte-kreislauffaehige-loesungen-fuer-die-gebaeudehuelle>



Robotics Lab BOKU © Christoph Panzer



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Platform Green Transformation & Bioeconomy



Climate Neutral value creation



Better use of Renewables

respACT
austrian business council
for sustainable development

Awareness & Communication



Stimulate Circular Economy



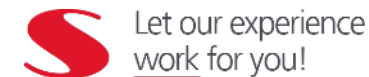
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Textile Recycling Initiative

- Background:** Textiles are of particular importance in the EU and national circular economy strategies (number 2 after plastics). Used textiles must be collected separately from 2025.
- Objective:** Measures to establish a "textile recycling" business model in Lower Austria
- Status:** Exploratory studies on business models in the textile circular economy, Networking, Applied Research Centre for Recycling strategies for textiles initiated (focus on chemical recycling)





Opportunities and potential for women in a "green and smart region"

- Background:** Bioeconomy and circular economy will generate an immense demand for skilled workers. The required disciplines are heavily dominated by women (env. management, biotech, etc.) This preliminary study serves as a basis for future measures to promote the integration of women in the bioeconomy and circular economy.
- Objective:** Identify measures at regional level that accelerate the transformation and link loose ends.
- Status:** Interviews and workshops carried out; study to be published in December 23;
Follow-up: Campaign to Promote Specific Green Jobs

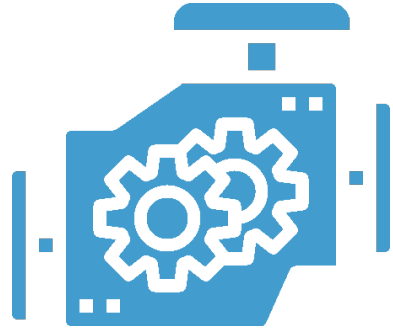


BIOECONOMY AUSTRIA



- Establishment of a comprehensive **network** (>250 partners) with initial focus on wood
 - In preparation of a **nationwide bioeconomy cluster**
 - Promote **cooperation and networking along value chains** as well as between **companies, research, politics and society**
 - to strengthen the overall regional economy and cooperation
- Exploit **synergies** and create cost benefits
- Identify potential **joint projects**
- Improving material biomass use (forest, arable land, water) overall
- Facilitated by 5 regional hubs (regional clusters in Lower Austria, Upper Austria, Salzburg, Tyrol and Styria) with methodological and dissemination support from Federal Environment Agency, BioBASE, Austrian Energy Agency, Ecosocial Forum Austria & Europe and the Centre for Bioeconomy at the University of Natural Resources and Applied Life Sciences Vienna.

House of Digitalization



House of digitalization The **network**.

In **2018** a **regional DIH**, a **network of knowledge providers and business support organisations** was established. This living network is the **engine of the project**.



House of digitalization The **virtual house**.

In **2019**, the virtual **House of Digitalization** was established as the cross-industry, structured and online **information hub** of the project.



House of digitalization The **actual building**.

The real **House of Digitalization** is the last piece of the puzzle in this process and will become **the heart of the whole project**.

[Das virtuelle Haus der Digitalisierung \(virtuelleshaus.at\)](http://virtuelleshaus.at)



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