



## Wood Materials Technologies - NEB 2026 01 REGEN

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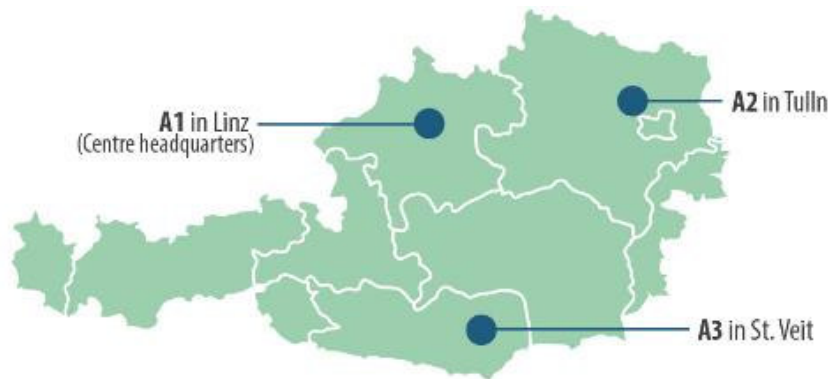


# Who we are...

## WOOD K plus - Kompetenzzentrum Holz GmbH Competence Center for Wood Composites & Wood Chemistry

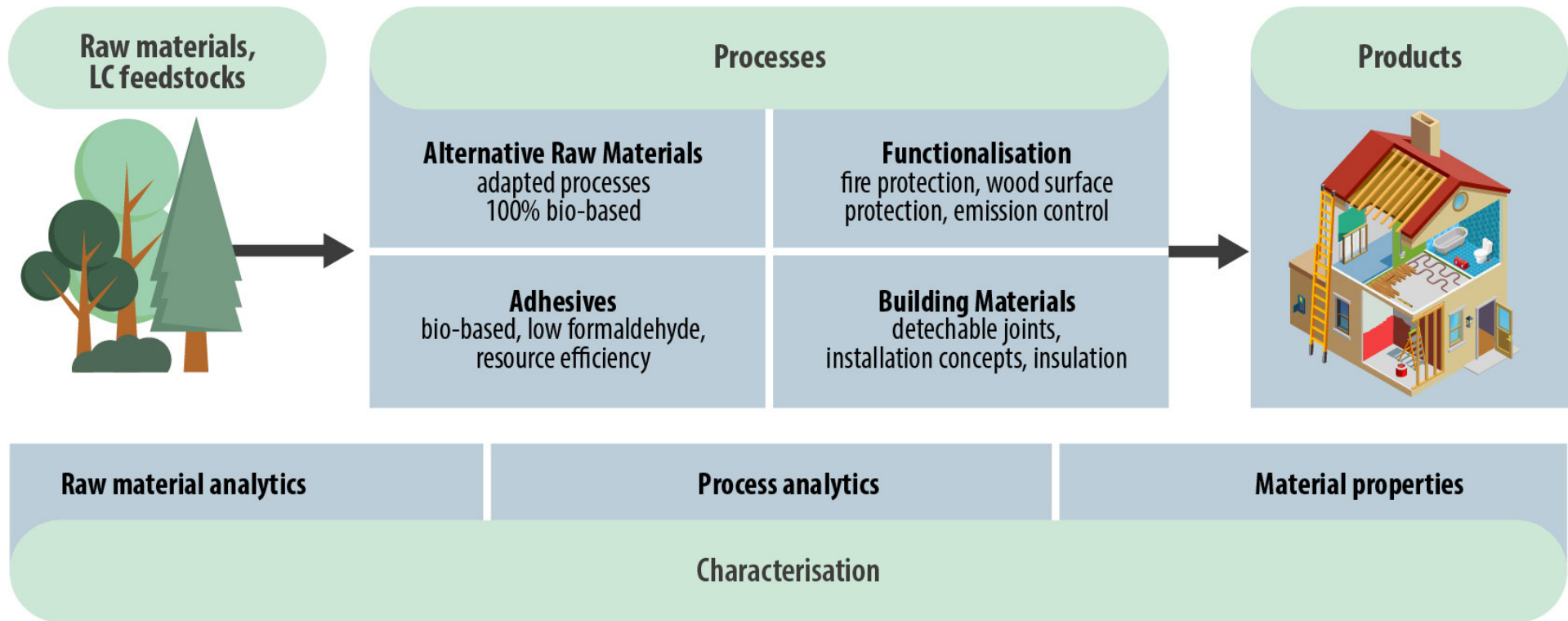
Research Institute with currently 130 employees and 3 locations (areas):

- A1-Biobased Chemistry, Processes and Composites
- A2-Wood Materials Technologies
- A3-Smart Composites and Surfaces





# What we do...

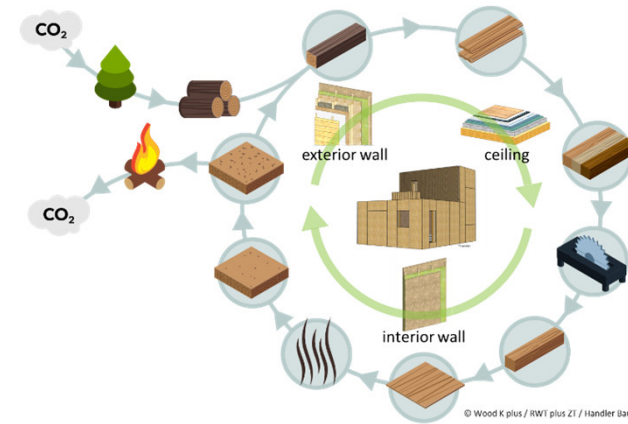


With a changed raw material supply to new, sustainable high-performance materials

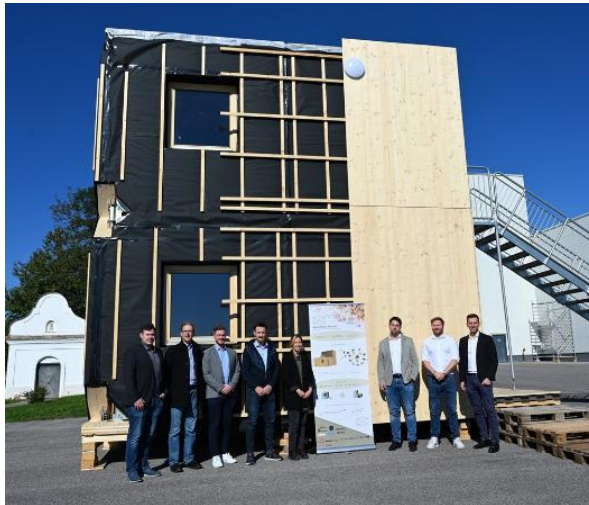


# Example of a sustainable pilot building

- **Objectives:**
  - design wood-hybrid construction to **maximize reusability** while **minimizing environmental impact**
  - store carbon in multi-level buildings
- **Demonstrator:**



phase #1  
(2024)



phase #2  
(2025)

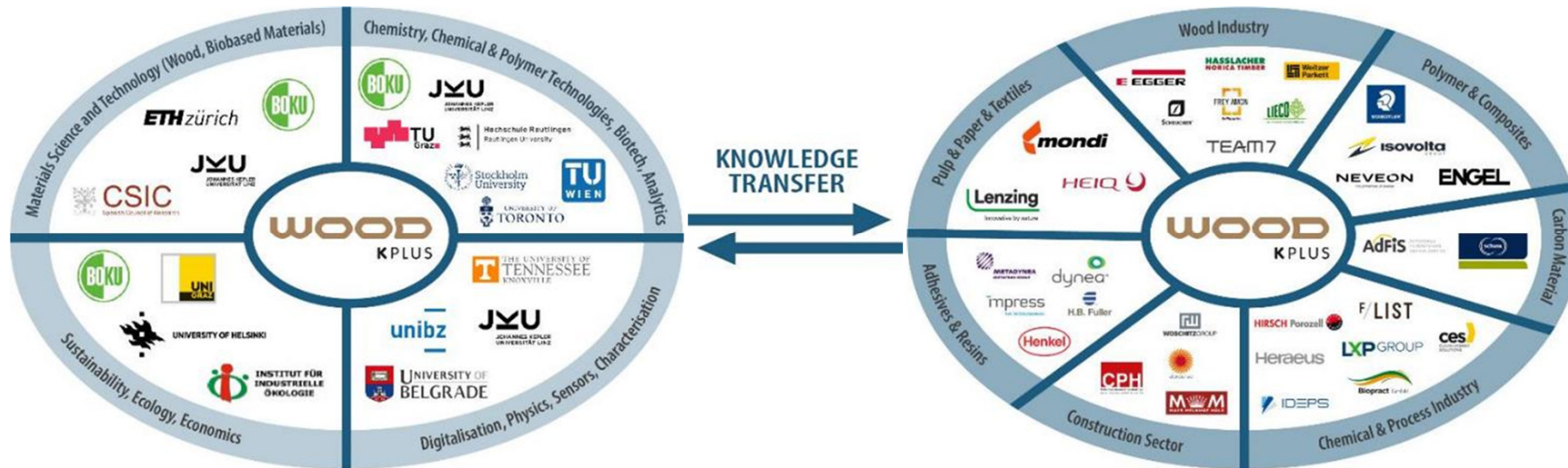




# Our network...

## scientific Partner

## industrial Partner



Fundamental Research → Industrial Research → Experimental Development

### Good contacts in Austria to:

- Urban greening initiatives and projects
- Institutes for social impact analysis
- Local municipalities (especially in Lower Austria)

Member of „Initiative Bauhaus“ Austria (network)



# Our ideas...

NEB-2026-01-REGEN-01: Sustainable, inclusive, affordable and beautiful solutions for thermal comfort in buildings

## LignoCOMFORT

*Bio-based thermal comfort solutions for buildings*



- Develops **sustainable, affordable lignocellulose-based systems** to improve thermal comfort in buildings
- Combines **bio-based insulation** and **PCM-enhanced wood composites** for passive thermal regulation
- Integrates **vernacular-inspired bioclimatic design** with **frugal innovation** principles
- Two complementary solution pathways:
  - **Hybrid timber façade & envelope systems** for new builds or deep renovations
  - **Reversible, minimally invasive interior retrofit systems** for existing and heritage buildings
- Focus on **aesthetic quality, comfort and low environmental impact**
- Demonstration in **at least two EU climate zones** to ensure transferability

NEB-2026-01-REGEN-03: Innovative solutions for the sustainable and beautiful use of vertical space

## WoodVERT

*Timber-hybrid vertical solutions for urban environments*

- Develops **innovative timber-hybrid systems** for vertical extensions and façades in cities
- Activates **unused vertical space** to create new living and functional areas
- Integrates **vertical greening, urban farming** and **circular water & nutrient cycles**
- Strong coupling of **architecture, timber engineering, biobased composites** and **nature-based solutions**
- Creates **climate-resilient building envelopes** that:
  - Sequester **CO<sub>2</sub>**
  - Improve **urban microclimates**
  - Enhance **aesthetic and social value**
- Demonstrated through **pilot sites** across different climate zones
- Living labs assess **technical performance, environmental impact and social acceptance**





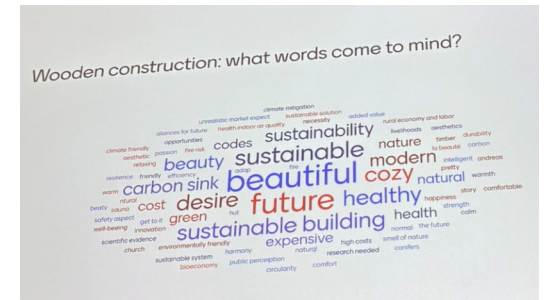
# Our interests...

- Bring relevant players and sectors from network together in a project
- Development and implementation of new bio-based building materials
- Integration of **wood and wood-based materials**
- Communicate the key-role of wood for CO<sub>2</sub> sequestration in (existing) buildings



## Our role...

- We are willing to coordinate and lead project
- We are open to join consortium
- We are seeking international partners from:  
architecture, design, social sciences and life cycle assessment, actors experienced in co-creation with local authorities, housing providers, heritage bodies and vulnerable user groups
- We welcome scientific contributions and innovative ideas to further shape the concepts



Participant survey at COLI Summit 2026 Vienna