



Endowed Chair in Innovative Circular Timber Construction

Carinthia University of Applied Sciences | Construction Laboratory | Combining applied research, teaching and industrial practice



The Endowed Chair develops **innovative, sustainable** and **circular** solutions for modern timber and hybrid construction.

Three key areas



Dematerialisation

Reducing material usage through efficient structural concepts, lightweight construction methods and resource-efficient design. Focus on CO₂ reduction, material efficiency and sustainable optimisation.



Joining and disassembling timber joints

Development, analysis and testing of robust timber joints with a focus on assembly, dismantling and reusability. Joining technology as the key to circular construction.



Reuse in timber construction

Strategies for dismantling, reusing and recycling timber components and modules. Focus on the circular economy, life-cycle thinking and resource conservation.

Current projects



TERMIBELLA

Adaptive façades inspired by nature



- Biomimetic façade concepts based on dragonfly wings and termite mounds
- Improving summer comfort, energy efficiency and natural ventilation
- Combining architecture, material innovation and climate strategies



RobuKomp

Robust timber construction solutions for multi-storey residential buildings



- Analysis of technical, functional and economic requirements
- Comparison of construction methods and development of robust structural details
- **Focus on construction logistics, the circular economy and standardised details**



TIMCO

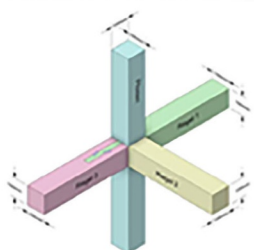
Interreg Slovenia - Austria
Co-funded by the European Union

Cross-border centre for the circular economy



- Interreg SI-AT project for load-bearing structures made of timber and eco-concrete
- Fast-track approach to research, demonstrators and knowledge transfer
- Focus on sustainable construction methods, LCA/LCC and cross-border cooperation

Selected research projects carried out



Sanpo-Sashi connections



Experimental investigations



Large-scale trials / prototype development



Key research areas:

Timber construction

Hybrid construction

Circular economy

Experimental investigations

Digital manufacturing

Kontakt: r.woschitz@cuas.at | harsanyi@cuas.at