



University of Natural Resources and Life Sciences, Vienna  
Department of Civil Engineering and Natural Hazards  
Institute of Green Civil Engineering

## Vacancy: Postgraduate Research Associate (Pre-doc)

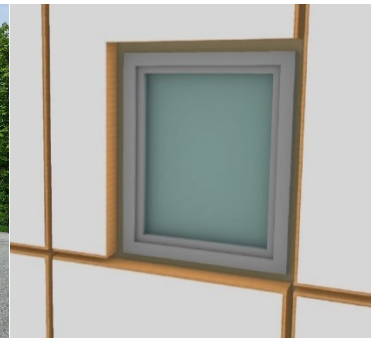
The Research Group led by Prof. Benjamin Kromoser is a very motivated team performing research in the fields of design, calculation, dimensioning and manufacturing of resource efficient building constructions made of wood and concrete. We are hiring new team members which will focus on the development of new systems and processes in the field of recyclable prefabricated façade systems for thermal insulation of existing buildings and applicable for new buildings.

Homepage: [www.krg.boku.ac.at](http://www.krg.boku.ac.at) Instagram: [#kromoserresearchgroup](https://www.instagram.com/kromoserresearchgroup)

### Research Topic: Recyclable prefabricated façade systems for thermal insulation - Constructive system development and environmental and economic evaluation

Climate change is currently one of the greatest challenges of our time. The influence of the building sector is enormous, with a raw material consumption of 47.5 gigatonnes per year and an energy consumption of 40% of the total energy consumed worldwide. The newly constructed buildings are responsible for only 10-20% of the total energy consumption due to the high demands on thermal insulation. 80% of the energy is consumed by older existing buildings. In Austria, about 1.9 million residential units are in a thermally insufficient condition and thus in need of renovation. The renovation of existing buildings and in particular the renovation and thermal refurbishment of the façade is therefore currently one of the most important sub-sectors of the building industry.

The aim of the research is to develop different constructive embodiments of prefabricated façade systems (e.g. from renewable raw materials) which can be produced within an automated process and be used for thermal rehabilitation of existing buildings and as facades for new buildings. The focus will be on resource-efficient and recyclable systems and building materials as well as efficient and economical production and installation. Accompanying the research into technical solutions, an environmental and economic analysis will be carried out in order to be able to quantify the potential accordingly.



Occupation: 30 hours/week, with the possibility of 40h/week and additional hours for teaching

Duration: Starting now until 31.08.2025

Tasks: Independent research in the field of recyclable prefabricated façade systems, independent teaching, co-supervision of bachelor and master thesis, student support and other administration related to the group's teaching and research agenda, commitment to complete doctoral degree, presentation of research results at international conferences and workshops.

Requirements: Master's degree in mechanical engineering, automation technology, architecture or civil engineering. If possible experience in designing wood and concrete structures and conducting experimental investigations. Experience in an engineering or architecture office is of advantage but not mandatory.

Classification according to Univ. employment group: B1

Please send your application including CV, information about the BSc- and MSc-grades, cover letter and a list with names of potential references to Prof. Benjamin Kromoser ([hochbau@boku.ac.at](mailto:hochbau@boku.ac.at)).