

Cluster of Excellence

With the Clusters of Excellence, the Austrian Science Fund FWF supports researchers of excellence who conduct cutting-edge research beyond the boundaries of their home institutions and research fields. TU Graz is involved in two clusters.

Birgit Baustädter

Five to eight scientists with high-calibre research achievements from at least three Austrian research institutions are involved in each of the clusters. The goal is to achieve great things together in their respective fields over the next five years. The Austrian Science Fund (FWF) is funding the clusters to the tune of 155 million euros, with the participating institutions contributing 104 million euros.

BILATERAL AI

Artificial intelligence is regarded as the most important and ground-breaking technology of the future. There are currently two important strands in AI research: sub-symbolic AI, which includes machine learning, and symbolic AI, which is concerned with knowledge presentation and reasoning. The Bilateral AI cluster

aims to connect the two strands and thus create the basis for so-called broad AI – in other words, artificial intelligence that is able to draw conclusions and possess comprehensive cognitive abilities. Current AI models only analyse existing data. The new systems, on the other hand, should be able to plan, react more quickly to changes and ultimately even be creative themselves.

The Institute of Theoretical Computer Science at TU Graz is involved in the cluster and its research focuses primarily on sub-symbolic AI. In addition to TU Graz, Johannes Kepler University Linz (consortium leader), TU Vienna, the University of Klagenfurt, ISTA and Vienna University of Economics and Business are also part of the cluster.

CIRCULAR BIOENGINEERING

The aim of the Circular Bioengineering cluster is to create sustainable material cycles that separate economic growth from resource consumption. Work is being carried out here on platform chemicals and materials made from renewable raw materials as well as ways of using these chemicals efficiently and in a circular manner.

BOKU Vienna (consortium leader), TU Vienna, the University of Graz and the University of Vienna work together with TU Graz in this cluster. ■



Ultrafast Science

Birgitta Schultze-Bernhardt, Institute of Experimental Physics, has received the 'Women in Ultrafast Science Global Award'.

Halil Kaya Gedik Award

Sergio Amancio, Professor at the Institute of Materials Science, Joining and Forming Technology at TU Graz, has received the Halil Kaya Gedik Award from the International Institute of Welding in Category C: Education and Training of Young People.

Wolfram Innovator Award

Thomas Wallek, Institute of Chemical Process Engineering and Environmental Technology, has won the Wolfram Innovator Award for the use of tungsten in teaching.

Eurofusion Grant

Markus Markl, Institute of Theoretical and Computational Physics has won the Bernard Bigot Researcher Grant for fusion research.