

# Fields of Expertise

TU Graz's research activities are grouped into five strategic, forward-looking Fields of Expertise. Researchers engage in interdisciplinary cooperation and benefit from different approaches and methods, shared resources and international exchange.

## ● **Advanced Materials Science**

Editorial: Christof Sommitsch

**Aviation Materials and Manufacturing Techniques**

Sergio Amancio

## ● **Human & Biotechnology**

Editorial: Gabriele Berg

**Computational Magnetic Resonance Imaging**

Martin Uecker

## ● **Information, Communication & Computing**

Editorial: Kay Uwe Römer

**Combinatorial and Geometric Structures**

Cesar Ceballos

## ● **Mobility & Production**

Editorial: Helmut Eichlseder

**Battery Innovation Center – Research in Battery Production**

Franz Haas, Mathias Prechtel, Gernot Schlögl, Martin Weinzerl

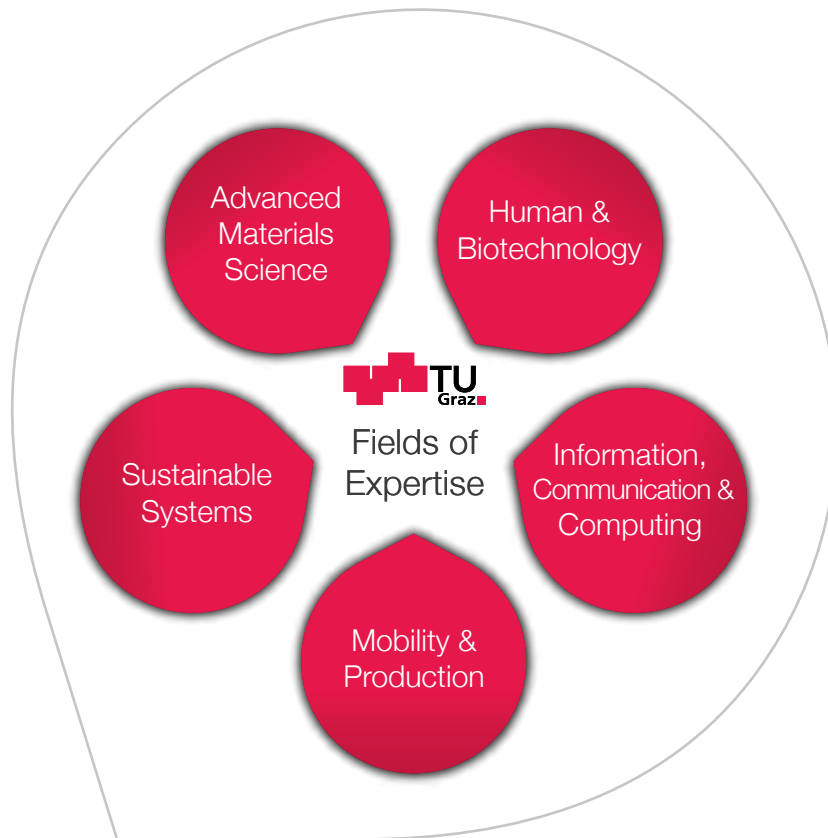
## ● **Sustainable Systems**

Editorial:

Urs Leonhard Hirschberg

**Energy System Modeling and Optimization for Climate Neutrality**

Sonja Wogrin



TU Graz has divided its research into five innovative areas: the Fields of Expertise. Researchers in the Fields of Expertise break new ground in basic research. They take part in interdisciplinary cooperation, gain support for outstanding projects and are based in the region as well as part of international networks. They also develop key technologies for industry and commerce, and perform research in the framework of company shareholdings and partnerships.

Source: TU Graz

● **ADVANCED MATERIALS SCIENCE**

Researchers aim to understand the smallest components in the structure and function of new materials, and develop and assemble them in special processes.

● **HUMAN & BIOTECHNOLOGY**

Researchers develop devices and methods for medical applications and therapies, and focus on using enzymes and living microorganisms such as bacteria, fungi and yeast in technical applications.

● **INFORMATION, COMMUNICATION & COMPUTING**

Researchers face challenges prompted by the information age, for example data security and efficient use of the ever-increasing volume of data.

● **MOBILITY & PRODUCTION**

Researchers investigate novel vehicle technologies, new drive systems and more economical product manufacturing processes.

● **SUSTAINABLE SYSTEMS**

Scientists focus on the complex challenges presented by a growing population and increasingly scarce natural resources.