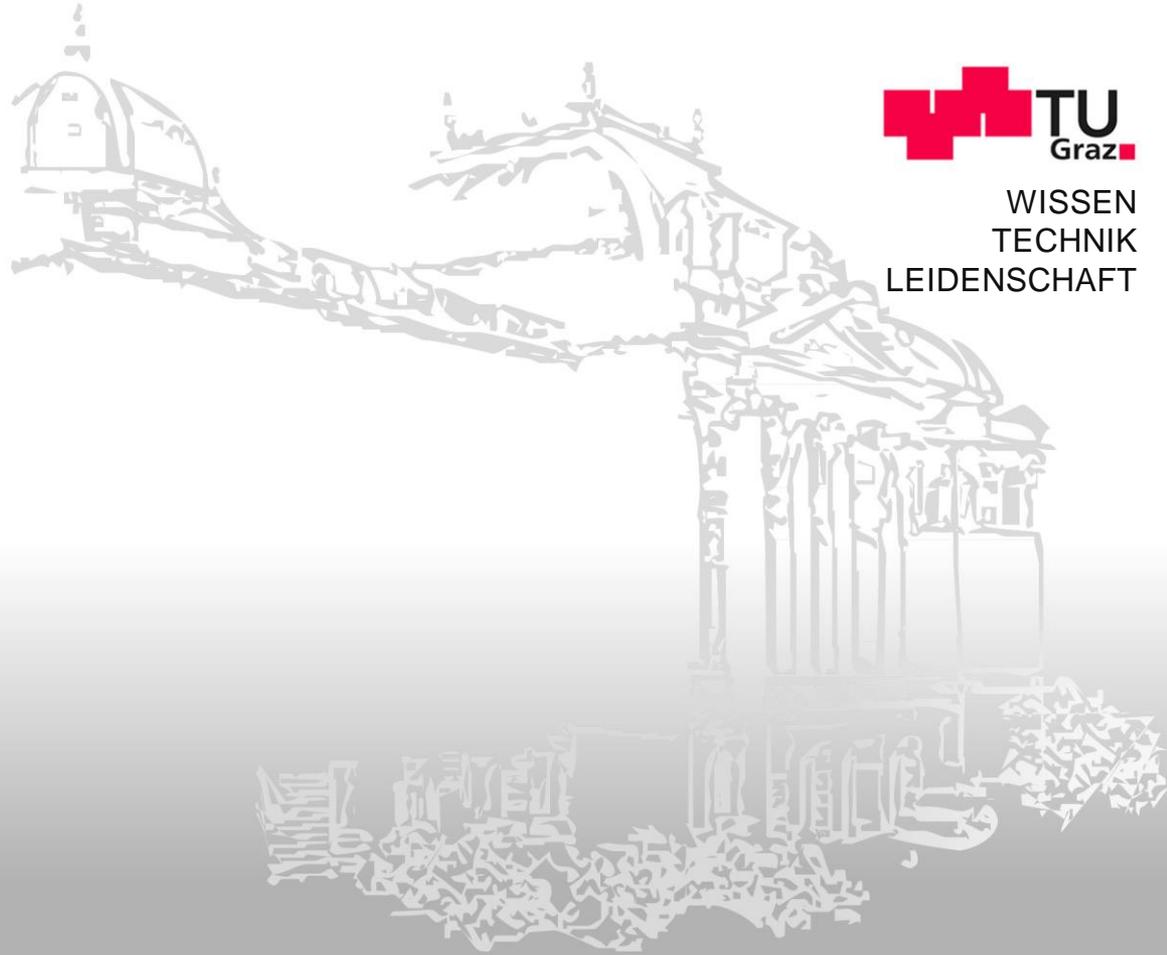


Possibilities of cooperation with universities using the example of Graz University of Technology

Mario Fallast

COGSTEPS International Startup Education Workshop

May 24th 2023 Graz, AUSTRIA



TU Graz

Facts and Figures

Facts and Figures - Students

- **Beginners (winter term 2021/22)** 1,800
 - Percentage of women 34.7

- **Students total** 13,712
 - Percentage of women 27.6

- **Graduates (acad. year 2020/21)**
 - Bachelor's Programmes 957
 - Master's Programmes 724
 - Doctoral Programmes 178



Lunghammer – TU Graz

Facts and Figures - Staff

- TU Graz staff total (Dec. 2021) 3,912
 - Academic staff 1,932
 - Lecturers, student assistants* 884
 - Non-academic staff 1,098
 - Staff funded by ministry (incl.*) 2,551
 - Third-party funded staff 1,363
- Staff in subsidiaries total (Dec. 2021) > 1,400



Lunghammer – TU Graz

Facts and Figures

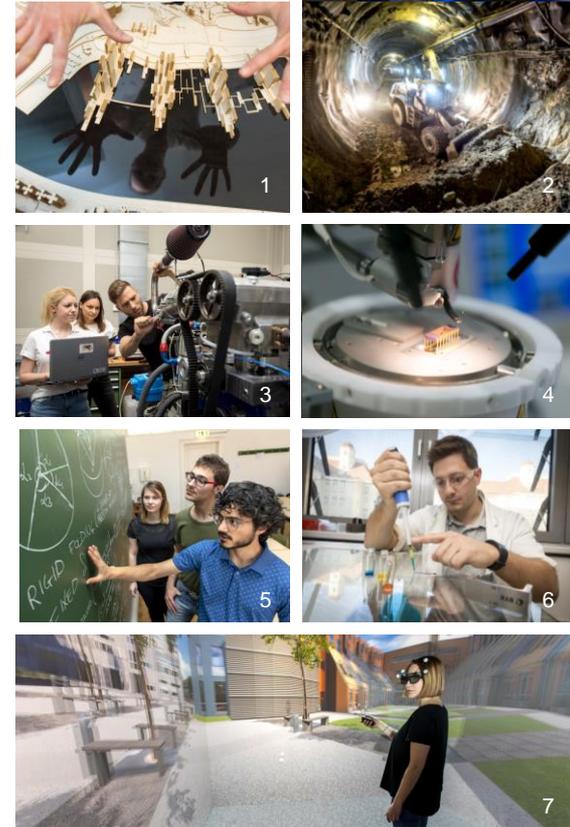
- Federal budget 2021 182.8 Mio. €
- Income from third-party funds 2021 (incl. 7.7 Mio. € CAMPUSonline) 79.1 Mio. €
- Floor space TU Graz buildings 255,200 m²



Lunghammer – TU Graz

Seven Faculties of TU Graz

- Architecture
- Civil Engineering
- Mechanical Engineering and Economic Sciences
- Electrical and Information Engineering
- Mathematics, Physics and Geodesy
- Technical Chemistry, Chemical and Process Engineering, Biotechnology
- Computer Science and Biomedical Engineering



1, 3, 5, 6, 7: Lunghammer – TU Graz; 2: Franz-Georg Piki; 4: Oliver-Wolf/JS Österreich GmbH & Co. KG

Study programmes at TU Graz

- 20 Bachelor's programmes
 - 6 NAWI-Graz study programmes
- 36 Master's programmes
 - 19 of them taught in English
 - 15 NAWI-Graz study programmes
- Doctoral programmes in 14 Doctoral Schools
 - All of them English-speaking



Lunghammer – TU Graz

Patent Portfolio of TU Graz

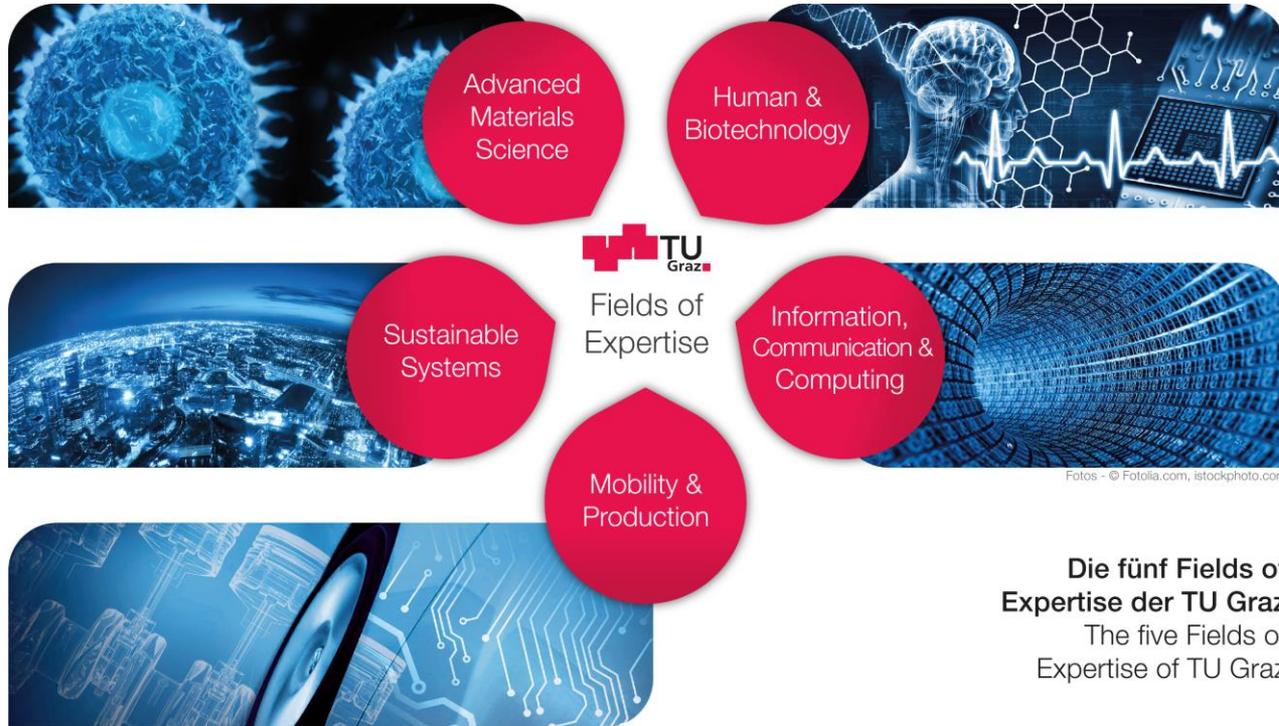
Period from 2011-2021

■ Invention disclosures	610
■ Patent applications	324
■ Granted patents	204
■ Transfer of inventions to external parties	312



Matthias Friessnig – TU Graz

Fields of Expertise



Die fünf Fields of Expertise der TU Graz
The five Fields of Expertise of TU Graz

A large, faded architectural drawing of the TU Graz building, showing its intricate facade and a prominent dome on the left side. The drawing is rendered in a light gray tone against a white background.

Science ■ Passion ■ Technology

A large, light gray line-art illustration of the TU Graz building, showing its distinctive architecture with a prominent dome and a long, curved facade. The drawing is semi-transparent, allowing the text to be overlaid.

Possibilities of cooperation with universities

using the example of Graz University of Technology

Mario Fallast

- Studies TU Graz / Aalto University Helsinki
- Industrial engineering / mechanical engineering
- 2009 Foundation of "smaXtec animal care"
 - Meanwhile about 150 employees
 - Different functions (CEO, CIO, External Relations...)
- Independent consulting
- Since 2005 employee TU Graz
 - Institute for Industrial Management and Innovation Research
 - Since 2008 Research- & Technology House

Research- & Technology-House

U. Diefenbach, C. Adametz + 22 Mitarbeiter*innen
19,5 VZÄ, teils refinanziert

Projektservices

- „pre-award“: Forschungsförderung/-finanzierung (EU, FFG, FWF...)
- „post-award“: Projektadministration und -management
- Elektronischer Meldeprozess für drittmittelfinanzierte Vorhaben
- Datenbanken (F&E-Gebiete u. Projekte, externe Organisationen...)

Technologietransfer

- Erfindungen, Patente, Technologieverwertung
- Koordination Wissenstransferzentrum Süd (WTZ Süd) und FFG Spin-off Fellowship

→ Science Park GmbH

Wirtschaftskooperationen

- Key Account Management
- Rahmenverträge
- Expert Matching
- KMU Programme

Career, Fundraising/Sponsoring (mit alumni-Verein)

- Career Info-Service
- Forum Technik und Gesellschaft

Strategische Projekte und Kooperationen

- Profilbildung in der Forschung – Fields of Expertise (FoE)
- Unternehmerische Universität
- Management / Support strategischer Unternehmenskooperationen und Forschungszentren

Knowledge- and Technology-Transfer

University \leftrightarrow Company

What do university transfer offices do?

Tasks for scientists and companies:

- Consulting on **research funding** (EU, FFG, FWF ...), contract consulting, project registration, project administration, research documentation
- Consulting on **patent issues**, invention services, technology offers
- Support of academic **company start-ups**, partly **education**
- Support of **business cooperations**, mediation of experts

Staff: between 10 and 20 persons, interdisciplinary (FTH: 25)

Organization: as service unit, assigned to a vice rector or the rector

Our task as intermediaries:

- Understanding, possibly "translating" the actual task.
- Pre-clarification of the expected questions (e.g. resources...)
- Identification of contact persons and/or institutes
- Support in finding common interests/goals
- Suggestions for a suitable project format
- Our goal:
 - *"...that the right people are sitting at the table and understand why they are sitting together".*

Our position in the institution:

- Knowledge of the processes within the organization
- Knowledge of institute-specific characteristics (capacity bottlenecks, focal points, "hobby horses" ...)
- Advice on the administrative handling of projects
- We enjoy the trust of the experts
 - Opportunity
 - Responsibility
- Special boundary conditions, e.g. IPR
- Understanding of researchers →

A researcher is happy ...

- ... about a project topic that has a **novelty content** (does not want to "copy" anything);
 - Exception: project has educational character
- about understanding that he/she will not leave the actual task immediately when a request comes:
 - 100% job: teaching + research/publication → Time conflicts
- ... about an adequate compensation (at least full compensation of the additional costs) for his/her institute, if it means an additional effort

A researcher is happy ...

- ... if he/she is able to **finance a junior employee** for medium and larger projects
- ... if the project helps to **meet countable targets** for his/her career path (e.g. publication, thesis, third-party funding)
- ... about a **manageable effort for administrative issues**
- ...a fixed contact person in the company, on an equal professional level
- ...a project topic that fits the competences of the institute

Typical Formats of Collaboration

- Expert discussion to clarify the issue:
 - best with transfer office, then with experts: free of charge
- **Bachelor theses** or design/laboratory exercises by students
 - Duration: 1 semester
- Projects with **diploma / master theses**: Advanced students, supervised by scientists*.
 - ~6 months, costs approx. 2.000.- to 8.000.- €
- Technical or scientific consultations / feasibility studies / short studies (3 days to several months),
typical hourly rates for scientists: 80 € to 120 €.

Other ways to get/stay in contact

TU Graz Life Long Learning

- Postgraduate Programmes
 - Digital Leadership
 - Green and Digital Transition
 - Hydropower
 - Leadership in Digital Transformation
 - Lean Management in Civil Engineering
 - New Austrian Tunnelling Method Engineering – NATM
 - Paper and Pulp Technology
 - Space Systems and Business Engineering (SpaceTech)
 - Sustainable Construction
 - Traffic Accident Research
 - Traffic Accident Research – Aviation Safety
- University courses and summer academies



1–4: alephcom01, marcel, H-J Paulsen, Maksim Samasiuk, sebastianreuter – Fotolia.com; 5: stockpics – shutterstock; 6: Schubert – TU Graz



everySIZE Zinterl - TU Graz

EBS-Center & DATA HOUSE: Companies at the Campus.

ebsCENTER
electronics based systems

on campus of  **TU**
Graz.

managed by TU Graz Errichtungs- und Betreiber GmbH

dataHOUSE ^{STYRIA}

on campus of  **TU**
Graz.

managed by DATA HOUSE Styria GmbH

Special formats including Students

Special Formats with Students

- Hackathons
- „Makerthons“
- Green Tech Jam
- Product Innovation Project
- TU Austria Innovation-Marathon
(European Forum Alpbach)

Special Formats with Students

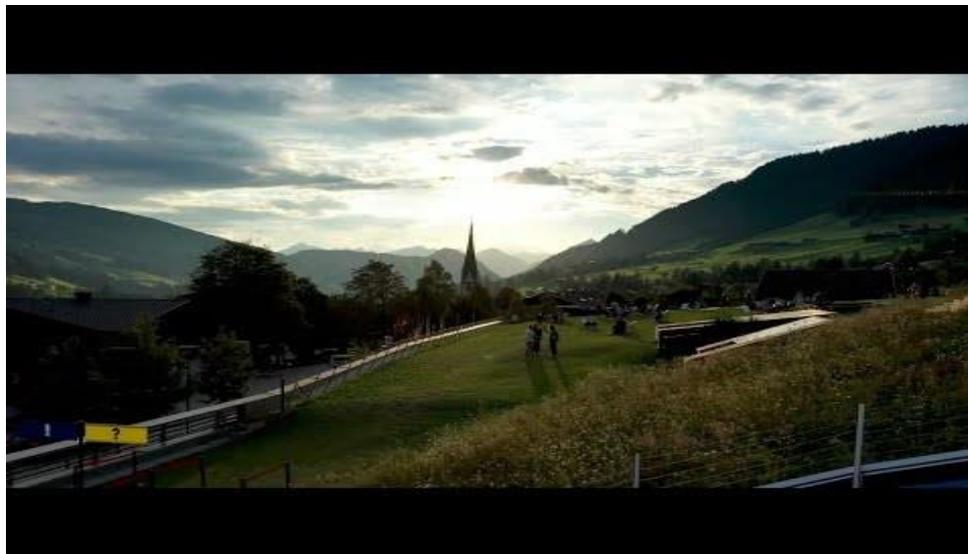
- Product Innovation Project



<https://youtu.be/csSfJ1qwlJk>

Special Formats with Students

- TU Austria Innovation-Marathon
(Europäisches Forum Alpbach)



<https://youtu.be/8eT7bT6s-E8>

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