

# TU Graz: knowledge and technology transfer between academia and business

2009-07-09



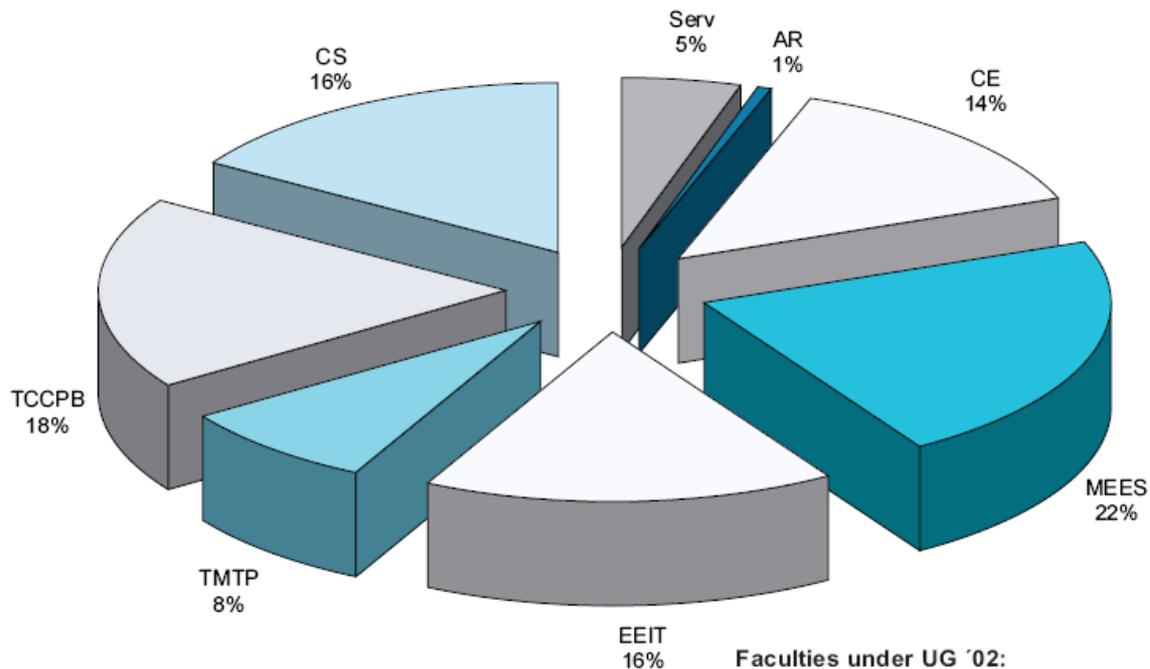
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# TU Graz: Education / Staff / Budget

Beginners in autumn 2008/09	1.779
Students (2008/09)	10.245
Graduates (2007/08):	993
- Bachelor/Dipl.-Ing./Master	823
- Doctorates	170
Floor space	195.607 m <sup>2</sup>
Federal Budget 2007	97,8 Mill.€
Income from Contractual Work 2007	42,5 Mill.€
Staff (Dec. 2008)	2.118
- Permanent Staff	1.305
- Staff für Contractual Work	813

## Income from Contractual Work 2007 by Faculties and Services

Data Source: Controlling, as of 7. 4. 2008



Total = 42.5m €

### Faculties under UG '02:

- AR = Architecture
- CE = Civil Engineering
- MEE = Mechanical Engineering and Economic Sciences
- EEIT = Electrical Engineering and Information Technology
- TMTP = Technical Mathematics and Technical Physics
- TCCPB = Chemistry, Chemical- and Process Engineering, Biotechnology
- CS = Computer Science
- Serv = Services

# Factors promoting cooperation between academia and business **on government side**

## Legislation/Policy – eg in Austria:

- University Act (UOG 1975, amended 1987): „Teilrechtsfähigkeit“: institutes are entitled to operate so-called „third-party-projects“ with industry/businesses
- University Act 2002: „Vollrechtsfähigkeit“: centralized administration of third party funds, new IPR standards (ownership, exploitation ...)

## Good **public funding opportunities**:

subsidies for the whole scope of cooperation formats, ie from small bilateral projects to large integrated projects; portfolio should include „bottom-up“ R&D subsidies

**Public entities and not-for-profit organisations as contract research partners,**  
innovative public procurement

# ways of knowledge and technology transfer (KTT) academia $\leftrightarrow$ businesses

## 1 - transfer of information:

- Scientific publications; conferences; awareness measures
- R&D registers, expertise registers
- Technology offers / invention disclosures / licensing

## 2 - transfer "via heads":

Researchers mobility schemes, student/graduate placement services, career services (recruiting)

## 3 - transfer via education and training:

Master theses; dissertations; continuing education

## 4 - R&D projects:

- Research collaboration, contract research
- Research and technology services and consulting

## 5 - spin-offs; joint ventures

Modified overview, based on Koschatzky, K.: Nutzen von Forschungsk Kooperationen, 2003

## examples: ways of KTT at TU Graz

- 1 - transfer of information:
  - TUGonline R&D projects, expertise register, publications
  - TU Graz technology offers (online)
  - Proactive awareness measures (eg “TECHNOFIT”, “SCIENCE FIT”)
- 2 - transfer "via heads":
  - International Relations Dept., Career Info-Service, Recruiting Fairs,
- 3 - education and training:
  - master theses: > 40% of TU Graz master theses with businesses  
→ 25% of students take permanent job in the enterprise
  - PIP product innovation project (with group of 10+ students)
  - TU Graz LifeLongLearning office
- 4 - R&D projects: Research & Technology House (*see later*) and Legal Department assist researchers in legal and IPR issues, in finding partners and in addressing the appropriate public funding instrument
- 5 - spin-offs; joint ventures:
  - TU Graz holds 50,5% share with Science Park Graz academic incubator
  - TU Graz holds shares in many Competence Centres (joint ventures), with a duration of 3-10 years, appr. 50% public funding

# TU Graz support unit: Research & Technology House

[www.fth.tugraz.at](http://www.fth.tugraz.at)

RT Research & Technology Office

TT Technology Transfer Office

TE Technology Exploitation Office

- Head: Vice Rector for Research & Technology (Prof. F. Stelzer)
- Result of re-organisation in 2005, based on prior service units
- 18 employees

# Research & Technology House Services

for enterprises and TU Graz (*italics: services for TU Graz members*)

- RT: *Database for research documentation*
- RT: *researchers' mobility financing*
- RT: *Advice on international scientific cooperations / funding (eg EU FP7)*
- RT & TT: *Advice on national research funding opportunities*
- TT: *Handling of businesses' innovation inquiries; support in initial phases of cooperative projects (science-businesses)*
- TT: *Proactive investigation of businesses' innovation needs*
- TT: *Enterprise directory*
- TT: *Recruiting service for enterprises*
- TT & TE: *R&D related and patent database inquiries*
- TE: *Advice on commercial exploitation of intellectual property*
- TE: *Qualification of technologies with potential for exploitation, evaluation of notification of inventions*
- TE: *protection of IPR's; negotiation of exploitation contracts*
- TE: *Technology offers for enterprises*

„Science Park Graz“ academic incubator

# formats for cooperative projects – from small to XL

cost, duration

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- Student exercises, student team projects (students / senior supervisor)
  - Technological and scientific services and counselling (scientists)
  - Projects with diploma theses (advanced students / senior supervisor)
  - Contract research / R&D collaboration (scientists + graduate students)
  - In-licensing of TU Graz inventions / patents
  - COMET Competence centres, Christian-Doppler-Laboratories (academia-business joint ventures), spin-offs
  - Strategic partnership, endowed chairs

# SCIENCE FIT: hands-on R&D collaboration support scheme for regional SMEs

- ARGE SCIENCE FIT network
  - Initiated in 2008 by TU Graz TT based on partnership schemes since 2002 and TU Graz TT „stand-alone“ schemes since 1994
  - regional government and EU ERDF funding
  - partnership with University of Mining & Metallurgy Leoben, Joanneum Research Ltd. and Graz University
- SCIENCE FIT content:
  - proactive approach to get in touch with regional SMEs less inexperienced with academic collaboration
  - Honest broker approach (4 partners - best competence)
  - initial contact with min. 60 Styrian SMEs p.a.
  - innovation workshops with interdisciplinary experts
  - appr. 20 follow-up additional projects
  - annual recruiting event
- **Award – RegioStars Nominee 2008:**  
 In February 2008 the predecessor scheme TECHNOFIT PRO was shortlisted among 12 projects in the category “technology transfer from research institutes to SMEs” in the EU RegioStars initiative which highlights best practice regional projects match-funded by ERDF.