Research Management, Conducting Business & Collaboration Connections at Vienna University of Technology

Siegfried Huemer

NCURA/EARMA Fellow visit to New Mexico State University
July 29 – 30, 2013

History of TU Vienna

1815: Founded as „k. k. polytechnisches Institut”
1865: First reform restructuring, implementation of faculties, concentration on technological disciplines
1872: Renamed to „k. k. Technische Hochschule” (TH Wien) new organisational statute (lasts until 1945)
1902: First doctorates awarded
1919: Admission for women
1975: Renamed to „Technische Universität” (TU Wien)
1999: Implementation of University Act ´93
2004: Autonomy through University Act ´02
2013: Host of 19th EARMA Conference
2015: 200 Years Anniversary
### Facts & Figures

#### Finances
- ca. 195 Mio. € global budget
- ca. 65 Mio. € third party funds

#### Staff
- 3,367 scientific staff
- thereof 140 professors
- 1,174 non-scientific (administrative & technical) staff
- 4,541 total staff

#### Students
- ca. 27,000
- thereof 24.6% foreigners
- thereof 25.5% women

#### Graduations
- ca. 2,200 first and second degrees, Bologna System
- thereof 900 BSc, 460 MSc, 520 Diploma Engineer, 260 PhD

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### Organisation of TU Vienna

- The University is led by the **Rector** and four **Vice Rectors** (responsible for Research, Academic Affairs, Finance, Human Resources and Gender)
- The **Senate** has 26 members
- The **University Council**, consisting of seven members, acts as a supervisory board
- 8 Faculties in natural sciences & engineering
Organisation

Faculties (Schools), Programs & Departments

<table>
<thead>
<tr>
<th>Faculties (Schools)</th>
<th>Bachelor + Master Programmes</th>
<th>Institutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture and Planning</td>
<td>2 + 3</td>
<td>6</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>1 + 3</td>
<td>8</td>
</tr>
<tr>
<td>Electrical Engineering and Information Technology</td>
<td>1 + 5</td>
<td>9</td>
</tr>
<tr>
<td>Informatics</td>
<td>4 + 11</td>
<td>7</td>
</tr>
<tr>
<td>Mechanical and Industrial Engineering</td>
<td>2 + 2</td>
<td>9</td>
</tr>
<tr>
<td>Mathematics and Geoinformation</td>
<td>5 + 9</td>
<td>7</td>
</tr>
<tr>
<td>Physics</td>
<td>1 + 2</td>
<td>4</td>
</tr>
<tr>
<td>Technical Chemistry</td>
<td>1 + 5</td>
<td>4</td>
</tr>
<tr>
<td>(interdisciplinary programs)</td>
<td>1 + 3</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>19 + 43</td>
<td>54</td>
</tr>
</tbody>
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Development Plan TU 2013+ Mission

Innovation

Research

Teaching

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Research

Five Research Focus Points:

• Computational Science and Engineering
• Quantum Physics and Quantum Technologies
• Materials and Matter
• Information and Communication Technology
• Energy and Environment

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Research Management

Research/Funding Sources: Workflow Projects to Results

- FFG Austrian Research Promotion Agency
- PWF Austrian Science Fund
- Basic (Global) Budget

Project database
Publication database
Research evaluation
Knowledge survey

Results:
- Reports
- Papers
- Patents...

R&T: Patenting
Init: Incubator
Research Marketing
Company Service

EU-Research Support: projects service EU contact point

Province:
- ZIT
- WWTF...

R&T-Support: Agreement Service

TU Wien
Conducting Business
Research & Transfer Support

Agreement Service:
- Assistance for design of R&D agreements
- Central checkpoint of TU Vienna for R&D agreements

Inventor Service (IPR issues):
- Assistance of researchers during identification of invents
- Patent application, patent realization

Company Service:
- Initiation of research co-operations between companies and institutes
- Events about the know-how of TU Vienna

External Funding Service
- Information/consultation about funding possibilities
- Helpdesk for identification of programs

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International Collaboration Connections
EU Research Support

Information and consultation about
- EU research programs and initiatives
- EU research mobility
- Administrative, financial and legal support from the proposal to the project closure

Linking and mentoring EU research projects
Assistance and checking of the EU research agreements
Networking on national (Austrian) level
Networking on European and International level

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Austrian Network of Agencies & Experts in Funding of International Co-operation in Science & Technology

FFG Austrian Research Promotion Agency [www.ffg.at]

FWF Austrian Science Fund [www.fwf.ac.at]

ÖAD Austrian Agency for International Cooperation in Education & Research [www.oead.at]

Austrian Delegates in FP7 Programme Committees [www.era.gv.at]
International Project Development

- Identify the appropriate research area;
- Create a complementary consortium;
- Define the roles of participants (coordinator, beneficiaries and subcontractors);
- Calculate the total project costs;
- Search for public & private funding.

Funds for International Co-operation in Science & Technology

- Individual Mobility Fund of the Vienna University of Technology
- TU Wien Partnership Agreements with 70 Universities and Research Organisations worldwide [www.ai.tuwien.ac.at/international/](http://www.ai.tuwien.ac.at/international/)
- Austrian Bilateral Scientific & Technological Co-operation Agreements with 14 Countries [www.oead.at/wtz](http://www.oead.at/wtz)
- Multilateral European Research Cooperation Initiatives (COST, FP7, EUREKA)
Main Funding Opportunities in European Research Programmes and Technology Initiatives

- European Cooperation in Science & Technology COST [www.cost.esf.org](http://www.cost.esf.org)
- EUropean Framework Programme for Research FP7: COOPERATION, IDEAS, PEOPLE and CAPACITIES [http://ec.europa.eu/research/participants/portal/page/funding](http://ec.europa.eu/research/participants/portal/page/funding)
- European Research Coordination Agency EUREKA [www.eureka.be](http://www.eureka.be)

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Project Volume EU & FP7 Research Projects (2007-2013), as of 31.03.2013

324 EU Research Projects
- Project volume: € 109,572,000
- EU contribution: € 91,549,000

125 Projects
- FP 7 Projects: 199
- Non FP 7 Projects: 125

€ Mio 87,43
€ Mio 22,14

TU Vienna: 38 in HES Ranking
(Source: EC - Monitoring of FP7, 2011)
Spezifische EU-Programme & Themenbereiche der 199 RP7 Projekte 2007-2013

12.08.2013

Research Highlights: 13 ERC Grants ....

Andrius Baltuska, Cycle-Sculpted Strong Field Optics (MM)
Günter Bischof, Deciphering River Flood Change (EE)
Silke Böhler-Paschen, Quantum Criticality, The Puzzle of Multiple Energy Scales (Quantum Puzzle) (OPT)
Ulrike Diebold, Oxide Surfaces, Microscopic Processes and Phenomena at Oxide Surfaces and Interfaces (IMM)
Georg Gottlob, Domain-centric Intelligent Automated Data Extraction Methodology (ICT)
Christian Hellmich, MICRONET, Multiscale Poromechanics of bone materials, with links to biology and medicine (CSE)
Thorsten Schumann, Nuclear Atomic Clock (QPT)
Siegfried Seibert, Modeling Silicon Spintronics (MM)
Stefan Seidel, The Paramatralal Complexity of Reasoning Problems (ITT)
new in 2012: Franz Schuster, Isoperimetric Inequalities and Integral Geometry (CSE)
new in 2012: Karsten Heide, Ab Initio Dynamical Vertex Approximation (CSE)
new in 2013: Jörg Schniedermann, QuantumRelax: Non Equilibrium Dynamics and Relaxation in Many Body Quantum (OPT)
new in 2013: Aleksandr Ovsiannikov, Laser-engineered Biomimetic Matrices with Embedded Cells (MM)

.... within the 5 TU Research Focus Points
Recommendations for a successful international research project and collaboration

- Start preparation of collaboration well in advance
- Enhance face to face communication
- Scientific & technological excellence
- Implementation and impact of the project
- Administrative & management support
- Experienced coordinator

TU Vienna Beyond Technology

TU Orchestra

Vienna’s oldest ball

Soccer club

Public debate forum
19th EARMA Conference in Vienna

Stairways to Excellence in Research Management and Administration

www.earma-vienna-2013.com

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