


## 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 19<sup>th</sup> EARMA Conference
- 2015: 200 Years Anniversary

TU		Facts & Figures		EARMA	
					
<b>Finances</b>					
ca. 195 Mio. €		global budget			
ca. 65 Mio. €		third party funds			
<b>Staff</b>					
3.367		scientific staff			
thereof 140		professors			
1.174		non-scientific (administrative & technical) staff			
4.541		total staff			
<b>Students</b>					
ca. 27.000					
thereof 24,6%		foreigners			
thereof 25,5%		women			
<b>Graduations</b>					
ca. 2.200		first and second degrees, Bologna System			
thereof		900 BSc, 460 MSc, 520 Diploma Engineer, 260 PhD			
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TU		Organisation of TU Vienna		EARMA	
					
<ul style="list-style-type: none"> <li>▪ The University is led by the <b>Rector</b> and four <b>Vice Rectors</b> (responsible for Research, Academic Affairs, Finance, Human Resources and Gender)</li> <li>▪ The <b>Senate</b> has 26 members</li> <li>▪ The <b>University Council</b>, consisting of seven members, acts as a supervisory board</li> <li>▪ <b>8 Faculties</b> in natural sciences &amp; engineering</li> </ul>					
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# Organisation



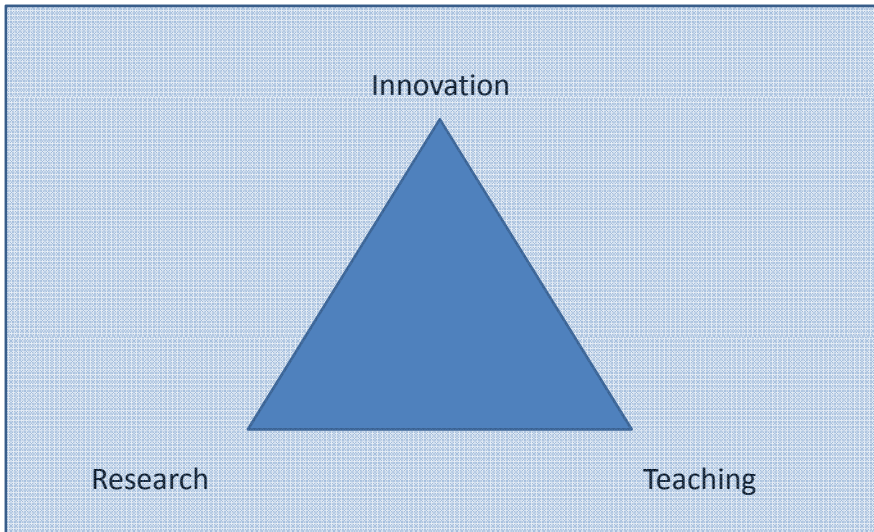
## Faculties (Schools), Programs & Departments

8 Faculties	Bachelor + Master Programmes	Institutes
Architecture and Planning	2 + 3	6
Civil Engineering	1 + 3	8
Electrical Engineering and Information Technology	1 + 5	9
Informatics	4 + 11	7
Mechanical and Industrial Engineering	2 + 2	9
Mathematics and Geoinformation	5 + 9	7
Physics	1 + 2	4
Technical Chemistry	1 + 5	4
(interdisciplinary programs)	1 + 3	-
<b>Total</b>	<b>19 + 43</b>	<b>54</b>

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# Development Plan TU 2013+ Mission



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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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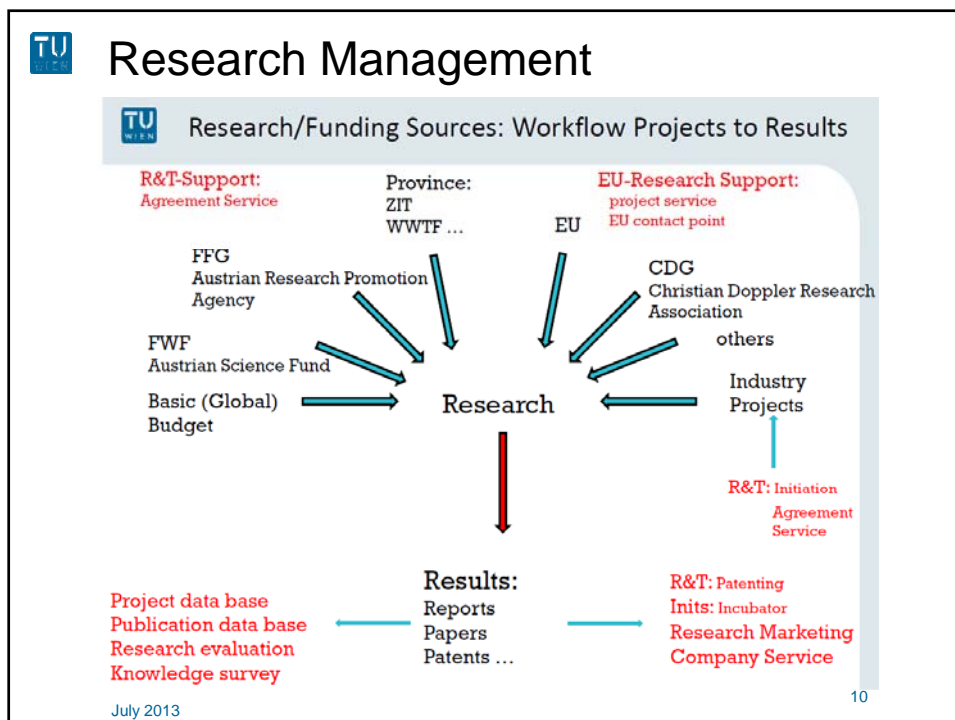
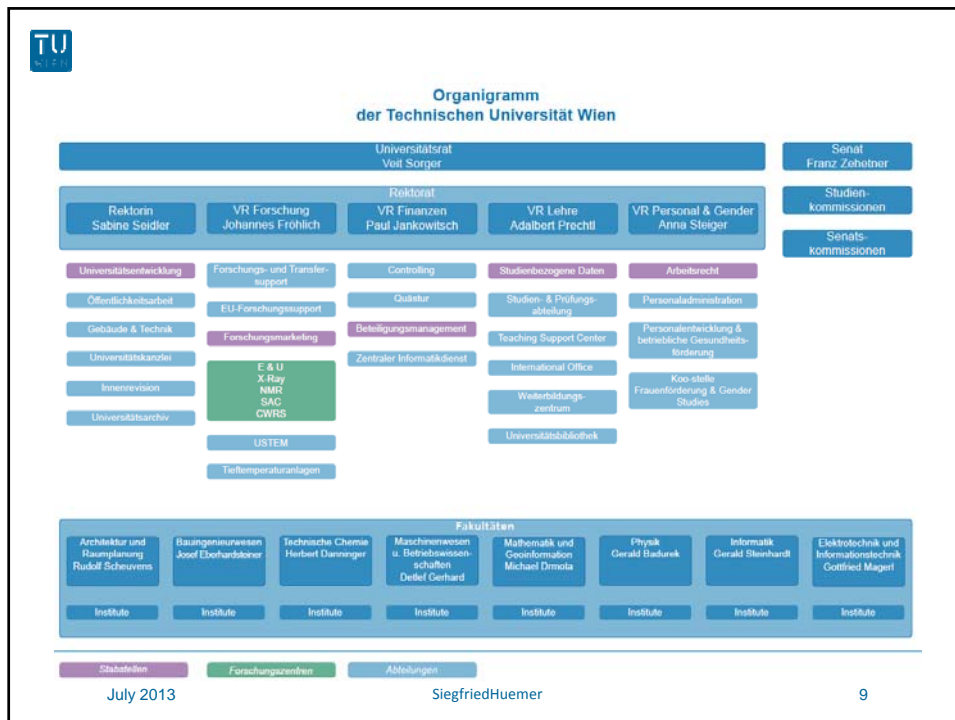


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**TU** **Conducting Business**

**TU** **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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**TU** **International Collaboration Connections**

**TU** **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

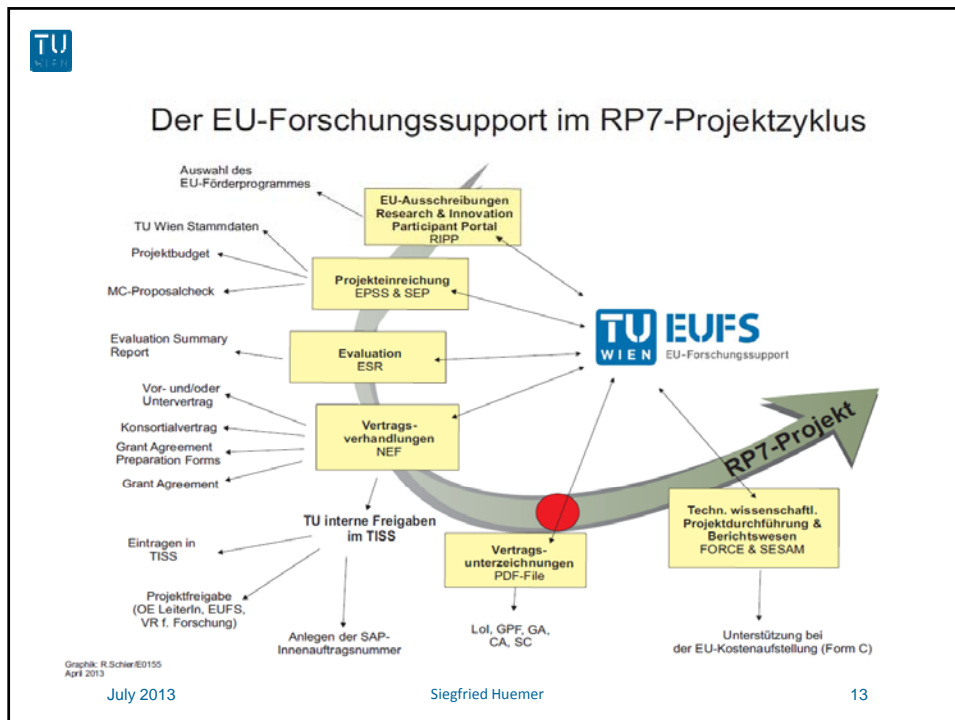
**Linking and mentoring EU research projects**

**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**

<b>FFG</b> Austrian Research Promotion Agency <a href="http://www.ffg.at">www.ffg.at</a>	<b>FWF</b> Austrian Science Fund <a href="http://www.fwf.ac.at">www.fwf.ac.at</a>
<b>ÖAD</b> Austrian Agency for International Cooperation in Education & Research <a href="http://www.oead.at">www.oead.at</a>	<b>Austrian Delegates in FP7</b> Programme Committees <a href="http://www.era.gv.at">www.era.gv.at</a>

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## 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.

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## 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)

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## 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>
- European Research Coordination Agency EUREKA  
[www.eureka.be](http://www.eureka.be)

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## TU Vienna around the world

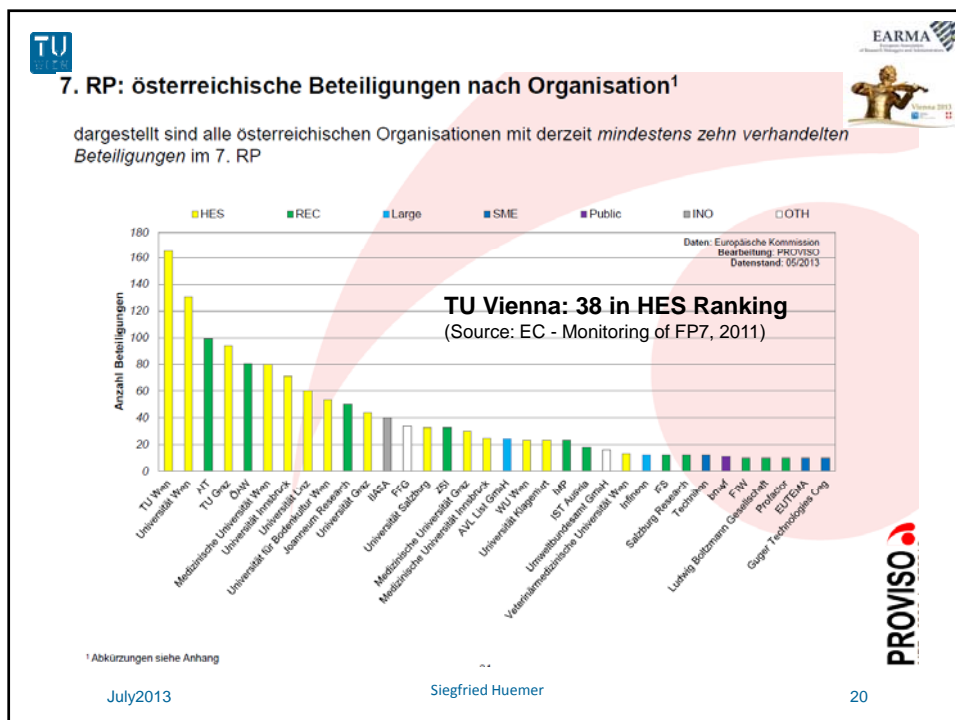
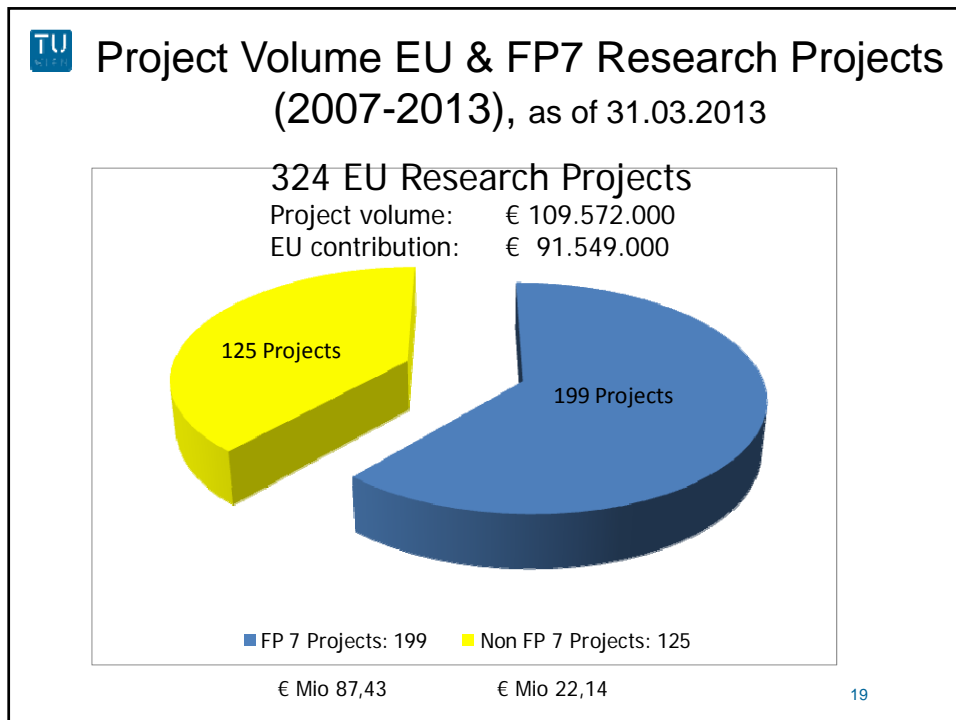


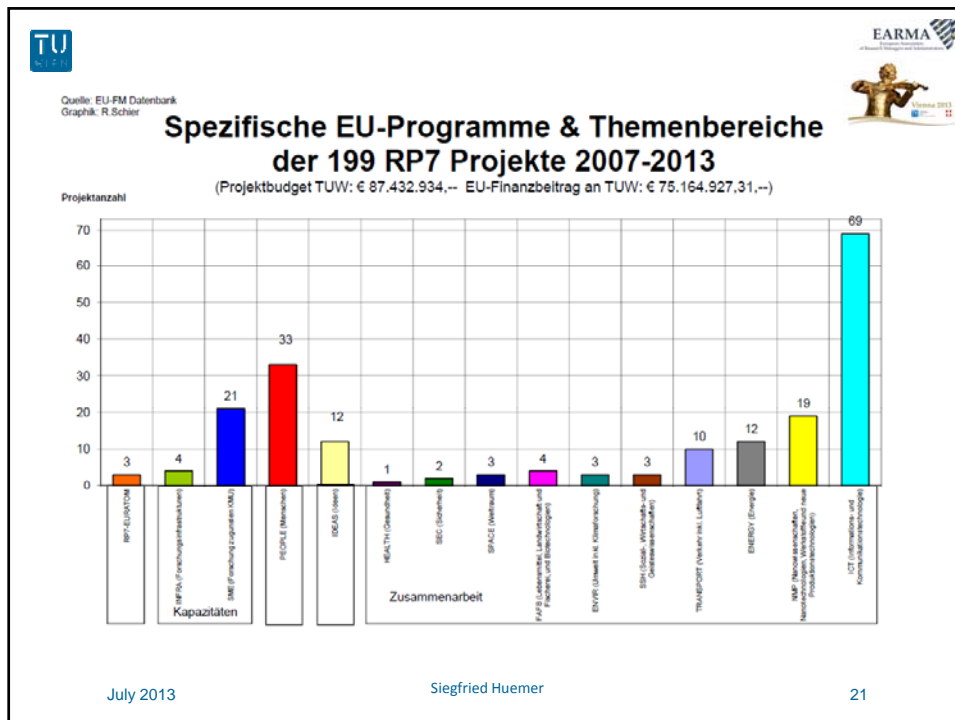
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## Research Highlights: 13 ERC Grants ...

	Andrius Baltuska, <b>Cycle-Sculpted Strong Field Optics</b> (MM)	
	Günter Blöschl, <b>Deciphering River Flood Change</b> (EE)	
	Silke Bühler-Paschen, <b>Quantum Criticality, The Puzzle of Multiple Energy Scales (Quantum Puzzle)</b> (QPT)	
	Ulrike Diebold, <b>Oxide Surfaces, Microscopic Processes and Phenomena at Oxide Surfaces and Interfaces</b> (MM)	
	Georg Gottlob, <b>Domain-centric Intelligent Automated Data Extraction Methodology</b> (ICT)	
	Christian Hellmich, <b>MICROBONE, Multiscale poro-micromechanics of bone materials, with links to biology and medicine</b> (CSE)	
	Thorsten Schumm, <b>Nuclear Atomic Clock</b> (QPT)	
	Siegfried Selberherr, <b>Modeling Silicon Spintronics</b> (MM)	
	Stefan Szeider, <b>The Parameterized Complexity of Reasoning Problems</b> (ICT)	
	<b>new in 2012:</b> Franz Schuster, <b>Isoperimetric Inequalities and Integral Geometry</b> (CSE)	
	<b>new in 2012:</b> Karsten Held, <b>Ab initio Dynamical Vertex Approximation</b> (CSE)	
	<b>new in 2013:</b> Jörg Schmiedmayer, <b>QuantumRelax: Non Equilibrium Dynamics and Relaxation in Many Body Quantum</b> (QPT)	
	<b>new in 2013:</b> Aleksandr Ovsianikov, <b>Laser-engineered Biomimetic Matrices with Embedded Cells</b> (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

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## TU Vienna Beyond Technology

### TU Orchestra



### Vienna´s oldest ball



### Soccer club



### Public debate forum



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 19 th EARMA Conference in Vienna

**Stairways to Excellence in Research Management and Administration**

**EARMA**  
European Association  
of Research Managers and Administrators



Vienna 2013

[www.earma-vienna-2013.com](http://www.earma-vienna-2013.com)

**Dipl.-Ing. Siegfried HUEMER**

**Vienna University of Technology**  
Head of EU Research Support  
& FP7 LEAR: PIC 999979888

Office: Gusshausstrasse 28 e0155  
1040 Wien - Austria  
siegfried.huemer@tuwien.ac.at

[http://www.tuwien.ac.at/en/tuwien\\_home/](http://www.tuwien.ac.at/en/tuwien_home/)

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