The Karlsruhe Institute of Technology

Volker Saile
KIT – Facts and Figures

Campus North

Campus South

Helmholtz Mission
- 12 Programs
- 27 Institutes
- 3.864 Employees
- 355 Mio. € Budget

University Mission
- 11 Faculties
- 130 Institutes
- 5.133 Employees
- 20.700 Students
- 320 Mio. € Budget

- 2243 doctoral students

- Thematic overlap
- Excellent synergy
KIT Large-Scale Research Division

formerly: Research Center Karlsruhe (FZK)

1956 Founded as Society for Construction and Operation of Nuclear Reactors
1963 Society for Nuclear Research Karlsruhe
1978 Nuclear Research Center Karlsruhe GmbH (KfK)
1995 Research Center Karlsruhe – Technology and Environment
2002 Research Center Karlsruhe – Member of the Helmholtz Association

Programmes:
- Atmosphere und Climate
- Renewable Energies
- Conversion of Energy
- Fusion
- Nuclear Safety
- Technology, Innovation & Society
- Nano- and Microsystems
- BioInterfaces
- Scientific Computing
- Grid Computing
- Synchrotron Source ANKA
- Astroparticle Physics
KIT University Division

*formerly: University of Karlsruhe (TH)*

- **1825** Founded as Polytechnical School similar to the Ecole Polytechnique in Paris
- **1885** Technical College
- **1902** Additional name „Fridericiana“ in honor of the grand duke Friedrich von Baden
- **1967** University of Karlsruhe (TH)
- **2005** Supplemental name: „Forschungsuniversität · founded in 1825“

- Mathematics
- Physics
- Chemistry and Biology
- Architecture
- Humanities and Social Sciences
- Civil Engineering, Geo- & Environmental Sciences
- Mechanical Engineering
- Chemical and Process Engineering
- Electrotechnical Engineering & Information Techn.
- Computer Sciences
- Economics and Business Engineering
The way to KIT

Decision of the Excellence Initiative:
October 13, 2006

Submission of the KIT concept
May 31, 2007

Corner stone paper
November 21, 2006

Signature of the KIT contract
December 13, 2007

One legal entity
October 1, 2009

- Mission

KIT Law
July 24, 2009

- Mission
Institutional Strategy: Promotion of Scientists

- House of Competence
  - Feasibility Studies
  - Young Investigator Groups
  - Young Investigator Network
  - Shared Professorships
  - Shared Research Groups
  - New Field Groups
  - Time – Space - Money
  - Exc. Retired Scientists

- Karlsruhe House of Young Scientists

Age
- Students
- PhD
- PostDoc
- Jun.Prof.
- Prof.
- Retired Scientists

Experience
KIT – One legal entity, two missions, three tasks

One entity

Two missions

Three tasks

research

higher education

innovation
KIT Energy Center

200 Mio €
1100 Scientists

Number of Scientists per Topic

- Renewable Energies: 142
- Energy Conversion: 275
- Energy Storage and Distribution: 70
- Efficient Energy Use: 75
- Energy Systems: 70
- Nuclear Energy and Safety: 70
- Fusion Technology: 240
- Analysis: 230
### 30 Competence Fields in 6 Competence Areas

#### Matter and Materials (6)
- Elementary Particle and Astroparticle Physics
- Condensed Matter
- Nanoscience
- Microtechnology
- Optics and Photonics
- Applied and New Materials

#### Applied Life Sciences (4)
- Biotechnology
- Toxicology and Food Science
- Health and Medical Engineering
- Cellular and Structural Biology

#### Earth and Environment (4)
- Atmosphere and Climate
- Geosphere and Risk Management
- Hydrosphere and Environmental Engineering
- Constructed Facilities and Urban Infrastructure

#### Technology, Culture and Society (3)
- Cultural Heritage and Dynamics of Change
- Business Organization and Innovation
- Interaction of Science and Technology with Society

#### Information, Communication, and Organisation (6)
- Algorithm, Software and System Engineering
- Cognition and Information Engineering
- Communication Technology
- High-Performance and Grid Computing
- Mathematical Models
- Organisation and Service Engineering

#### Systems and Processes (7)
- Fluid and Particle Dynamics
- Chemical and Thermal Process Engineering
- Fuel and Combustion
- Systems and Embedded Systems
- Power Plant Technology
- Product Life Cycle
- Mobile Systems and Mobility Engineering
KIT – Our Mission

Research & Development

Higher Education

Innovation
KIT – Our Mission

Research & Development

Higher Education

Innovation
Impressions – Research on a LARGE scale

Nanotechnology

Synchrotron „ANKA“

Elementary / Astroparticle physics

Energy Research
KIT – Our Mission

Research & Development

Higher Education

Innovation
# New Possibilities in Education and Promotion

### Students
- **House of Competence (HoC)**
- integration of employees originating from large scale research division into teaching
- special courses of study for excellent students
- research-based educational modules
- KIT scholarships for excellent students

### Doctoral & Post-Doc students
- **Karlsruhe House of Young Scientists (KHYS):**
  - Mentoring and Services, Financing, Career Service
  - advanced training modules

### Advanced Training
- interdisciplinarity and focus on research
- didactical competences
- development of an integrated program for advanced training
KIT – Our Mission

Research & Development  Higher Education  Innovation
Innovation at KIT: New Alliances between Research and Industry

So far we have established:

- 8 shared research groups
- 6 shared professorships
- 2 shared new field groups
- 1 industry fellowship

Financed:
50 % by KIT and
50 % by partners from industry
Thank you and enjoy the Open Access Workshop!