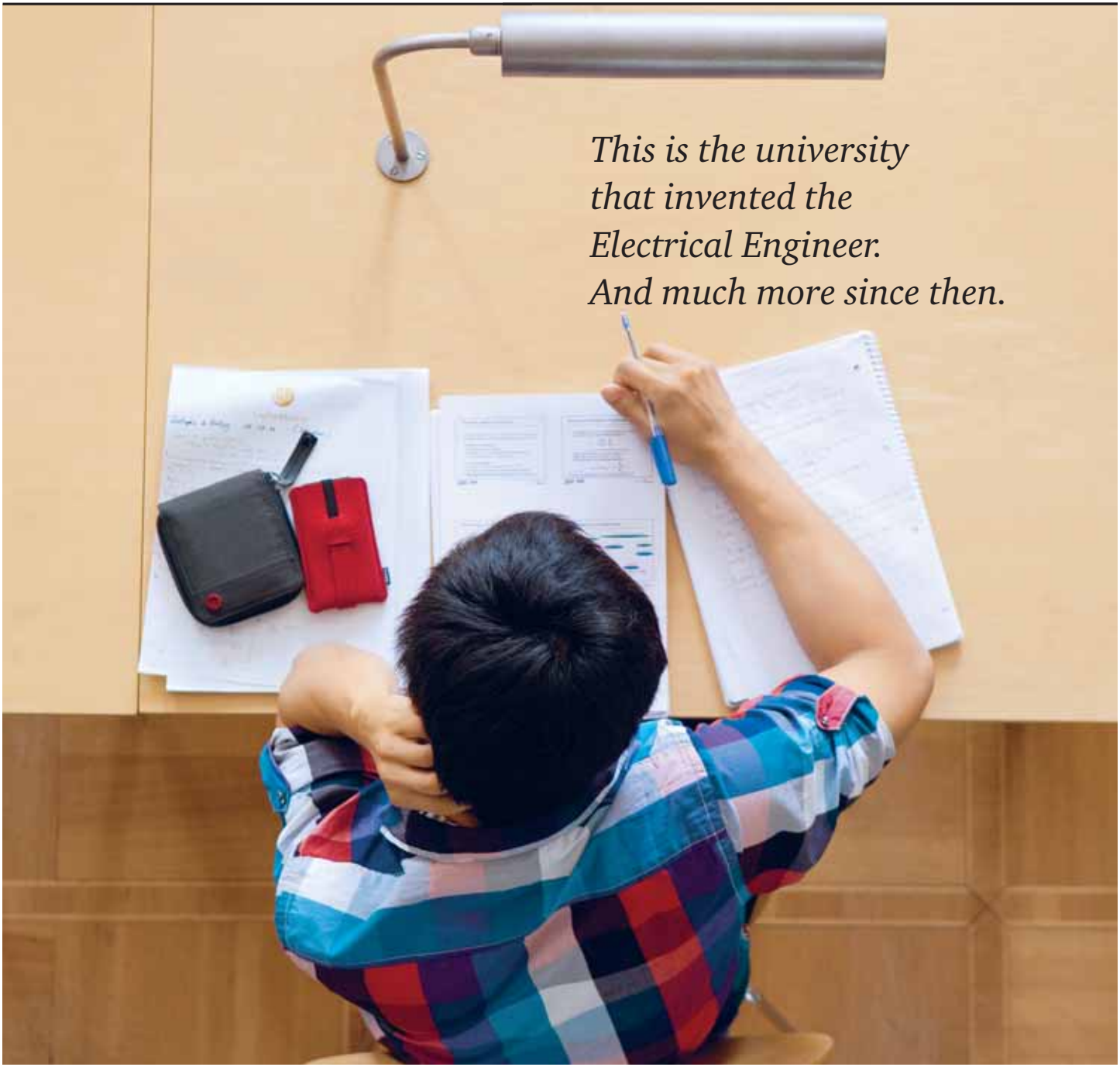
TECHNISCHE UNIVERSITÄT DARMSTADT

At A Glance

Technische Universität Darmstadt

- *We are an independent university and we practise personal responsibility and willingness to change.*
- *We thus create space for creativity and enthusiasm.*
- *We work to maintain our outstanding worldwide reputation by education, research and our response to the issues crucial for the future.*
- *We focus on technology – from the perspective of engineering, the natural sciences, the humanities and social sciences.*

www.tu-darmstadt.de


This is the university
that invented the
Electrical Engineer.
And much more since then.

TECHNISCHE UNIVERSITÄT DARMSTADT

University Leadership

President Prof. Dr. Hans Jürgen Prömel
University organization and development, appointment of professors, research profile, junior researchers, quality management

Chancellor Dr. Manfred Efinger
Budget, personnel, immovable property, infrastructure, legal matters

Vice President Prof. Dr. Petra Gehring
Academic infrastructure (university library, new media, e-learning, computer center), culture of interdisciplinarity, teacher- training/teaching degrees

Vice President Prof. Dr.-Ing. Holger Hanselka
Knowledge and technology transfer, collaborations with industry and scientific institutions, founding companies, patent management, alumni and fund-raising

Vice President Prof. Dr.-Ing. Christoph Motzko
Teaching and learning

Vice President Prof. Dr.-Ing. Martin Heilmaier *(temporary leave of absence)*
Research and junior researchers

5 *locations*
- *Downtown (Stadtmitte)*
- *Lichtwiese*
- *Botanical Gardens (Botanischer Garten)*
- *University Stadium (Hochschulstadion)*
- *August Euler Airfield with wind tunnel*

270 *million EUR from the Federal State of Hesse (including funds for construction) (in 2010)*

139 *million EUR in third-party funding (in 2010)*

600 *acres of property*

140 *buildings*

100 *degree programs*

13 *departments*

4 *fields of study*

23,000 *students*

270 *professorships*

4000 *staff members*

Facts and Figures

Top research

1 *Excellence Cluster “Smart Interfaces – Understanding and Designing Fluid Boundaries”*

1 *Excellence “Graduate School of Computational Engineering – Beyond Traditional Sciences”*

5 *Collaborative Research Centers of the German Research Foundation (DFG)*

- *Management of Uncertainty in Load-bearing Systems in Mechanical Engineering*
- *Integral Sheet Metal Design with Higher Order Bifurcations*
- *Nuclear Structure, Nuclear Astrophysics and Fundamental Experiments at low Momentum Transfer at the Superconducting Darmstadt Accelerator (S-DALINAC)*
- *Electrical Fatigue in Functional Materials*
- *Flow and Combustion in Future Gas Turbine Combustion Chambers*

3 *LOEWE Centers:*

- *Center of Advanced Security Research Darmstadt*
- *Helmholtz International Center for FAIR*
- *Center for Adaptronics – Research, Innovation, Application*

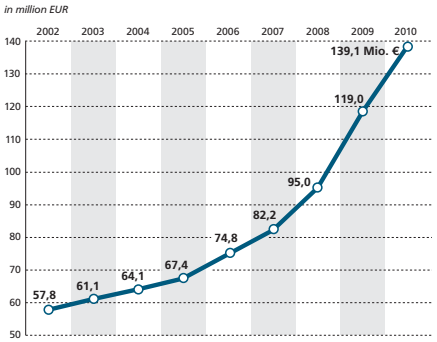
5 *LOEWE Focus Areas:*

- *Institutional Logic of Cities*
- *Soft Control*
- *Cooperative Sensor Communication*
- *Dynamo PLV*
- *Digital Humanities*

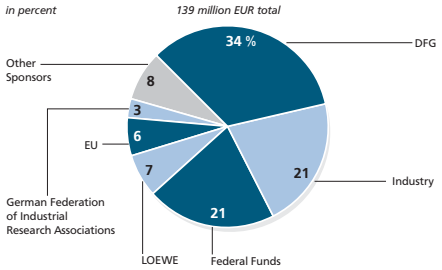
3 *Leading Edge Clusters of the Federal Republic of Germany:*

- *Software Innovation for the Digital Enterprise*
- *European Center for Security and Privacy by Design*
- *Forum Organic Electronics*

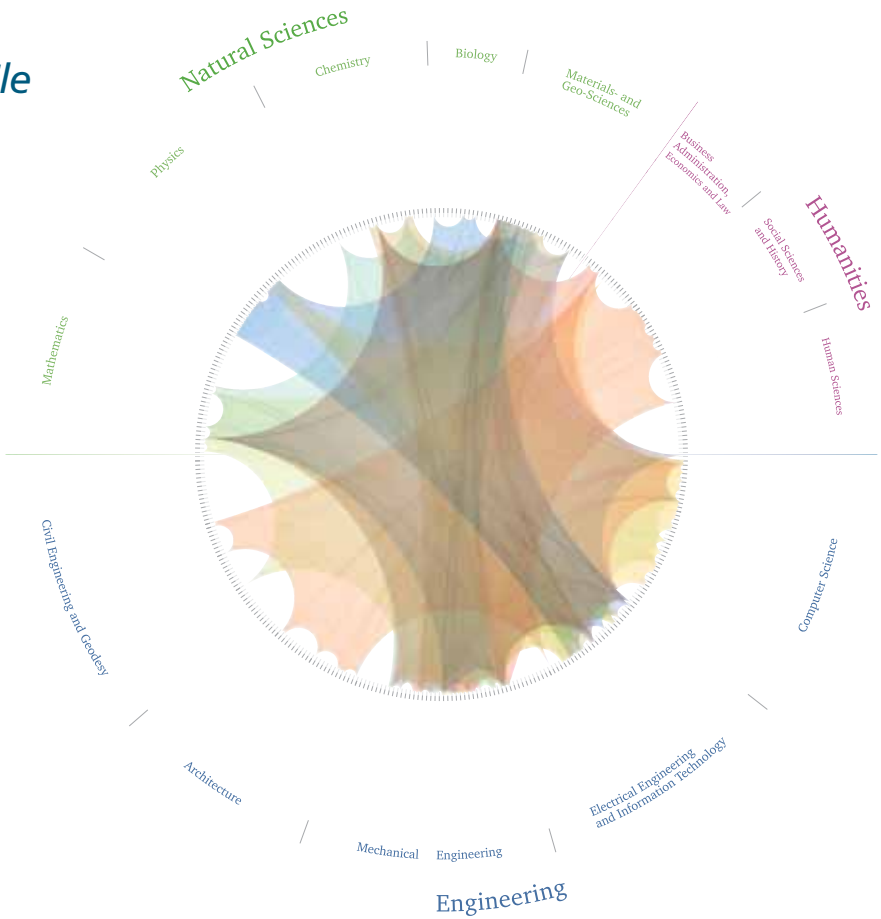
TU Darmstadt: Third-party funding



Allocation of Third-party funding (2010)



Research profile



Research Clusters

- Thermo-Fluids and Combustion Engineering
- New Materials
- Nuclear and Radiation Science
- Integrated Product and Production Technology
- Future Internet

Research Focus

- Computational Engineering
- Urban Research
- Adaptronics

*In my opinion you must **definitely** go to Darmstadt. They have a good Polytechnic School.*
Albert Einstein, 1919

Course offerings at TU Darmstadt

Bachelor programs

Bachelor
Angewandte Geowissenschaften
Angewandte Mechanik
Architektur
Bauingenieurwesen und Geodäsie
Biologie
Biomolecular Engineering
Chemie
Computational Engineering
Elektrotechnik und Informations-technik
Geschichte der Moderne
Informationssystemtechnik
Informatik
Maschinenbau – Mechanical and Process Engineering
Materialwissenschaften
Mathematik
Mechatronik
Pädagogik
Physik
Politikwissenschaft
Psychologie
Soziologie
Sportwissenschaft und Informatik
Umweltingenieurwissenschaften
Wirtschaftsinformatik
Wirtschaftsingenieurwesen/ Bauingenieurwesen
Wirtschaftsingenieurwesen/ E-Technik
Wirtschaftsingenieurwesen/ Maschinenbau

Bachelor of Education
Bautechnik
Chemietechnik
Elektrotechnik und Informations-technik
Informatik
Körperpflege
Metalltechnik

Joint Bachelor
Anglistik
Germanistik
Geschichte
Informatik
Philosophie/Ethik
Politikwissenschaft
Soziologie
Sportwissenschaft
Wirtschaftswissenschaften

Teaching degrees for 'Gymnasium'
Biologie
Chemie
Deutsch
Geschichte
Informatik
Mathematik
Philosophie/Ethik
Physik
Politik und Wirtschaft
Sport

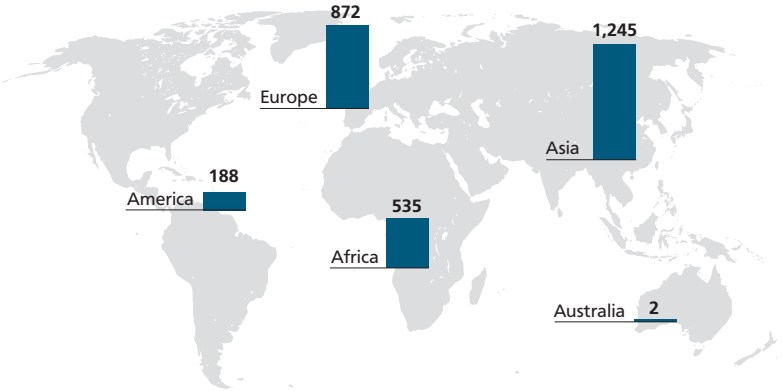
Master programs

Master
Angewandte Geowissenschaften
Architektur
Autonome Systeme
Bauingenieurwesen
Biomolecular Engineering
Chemie
Computational Engineering
Distributed Software Systems
Electrical Power Engineering
Elektrotechnik und Informations-technik
Geodäsie und Geoinformation
Germanistik
Geschichte
Geschichte, Umwelt, Stadt
Governance und Public Policy
Informatik
Information and Communi-cation Engineering
Informationssystemtechnik
Internationale Studien/ Friedens- und Konfliktforschung
International Urban Development
Internet and Web Technology
IT Security
Linguistic and Literary Computing
Maschinenbau – Mechanical and Process Engineering
Materials Science
Materialwissenschaften
Mathematik
Mechanik
Mechatronik
Paper Science and Technology
Philosophie
Physik
Politische Theorie
Psychologie
Soziologie
Technische Biologie
Technische Physik
Technik und Philosophie
Traffic and Transport
Tropical Hydrogeology, Engineering Geology and Environmental Management
Umweltingenieurwissenschaften
Visual Computing
Wirtschaftsinformatik
Wirtschaftsingenieurwesen/ Bauingenieurwesen
Wirtschaftsingenieurwesen/ E-Technik
Wirtschaftsingenieurwesen/ Maschinenbau

Master of Education
Deutsch
Englisch
Ethik
Evangelische Religion
Geschichte
Informatik
Katholische Religion
Mathematik
Physik
Politik und Wirtschaft
Sportwissenschaft

As of: summer term 2011

Foreign students



Foreign students at TU Darmstadt – by continents in 2010

1st *in reputation: top international engineering scientists who receive funding from the Alexander von Humboldt Foundation choose TU Darmstadt as their preferred location for a research stay in Germany.*

TU Darmstadt's Partner Universities – A Selection

Country	University
Belgium	Université Catholique de Louvain
France	École Centrale de Lyon
Italy	Politecnico di Torino
Norway	University of Trondheim (NTNU)
Sweden	Chalmers University of Technology, Royal Institute of Technology (KTH)
Switzerland	École polytechnique fédérale de Lausanne (EPFL), ETH Zürich
USA	University of California, Berkeley, Virginia Tech, Blacksburg
United Kingdom	University of Glasgow
China	Tongji University Shanghai
Singapore	National University Singapore, Nanyang Technical University
Brazil	Universidade de São Paulo
Canada	University of British Columbia Vancouver
Japan	Tokio University, Keio University, Tohoku University Sendai
Spain	Universidad Politecnica de Catalunya Barcelona

2,065 *graduates in 2010*

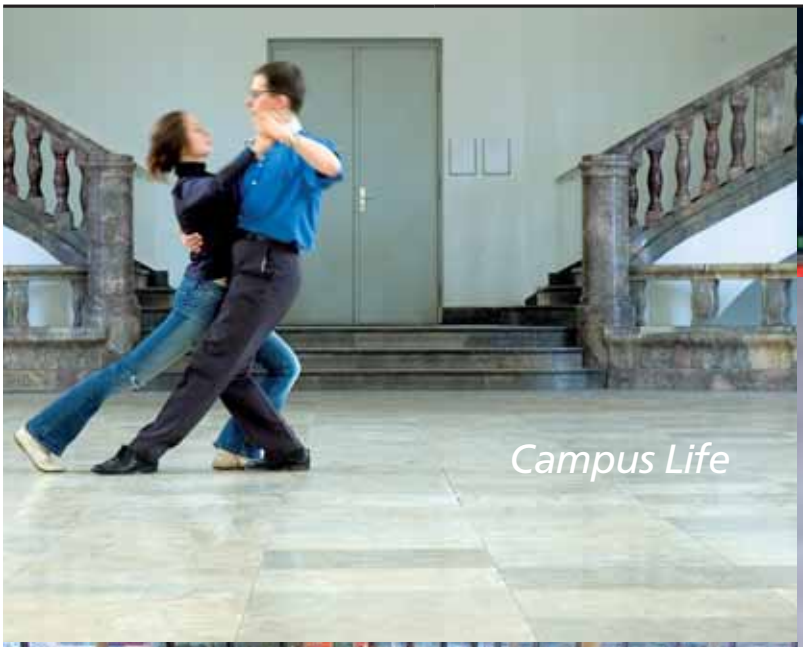
335 *doctorates awarded in 2010*

5,900 *new students in 2010*

2,850 *foreign students from 119 countries in 2010*

82 *percent of TU Darmstadt students are (very) satisfied with the quality of courses, nationwide only 70 percent of university students.*

According to the university rankings published by the magazine "WirtschaftsWoche" personnel managers rate TU Darmstadt as one of the two most reliable and popular universities in Germany. These were the findings of a survey conducted by the business newspaper in 2010 amongst some 500 personnel managers of Germany's largest companies. In Business Informatics the managers gave Darmstadt top marks for training young academics. This was the fifth time in succession that the university achieved this top result. Many other subjects at TU Darmstadt have also attained top marks in rankings on studying, research and career opportunities.



Campus Life

Approximately ***60*** *student groups are engaged in cultural, political, sporting, social or international activities.*

1.203 *million hot meals were served by Student Services in the Stadtmitte and Lichtwiese cafeterias in 2010.*

The new auditorium and media center at Campus Lichtwiese will seat ***1,450*** *people in four lecture halls.*

3,100 *beds in student residences will be rented out by Student Services in the coming years.*

Honors
People with a global impact

***Günter Behnisch**, professor of architecture at TU Darmstadt since 1967, designed the Munich Olympic Stadium, which was built in 1972. In cooperation with TU professor of architecture Werner Durth, he built the Berlin Academy of Arts, which opened in 2005. Behnisch died in 2010.*

***Jovanka Bontschits** became the first female graduate (Diploma) of TH Darmstadt and the first female Master of Engineering (Dipl.-Ing.) in Germany in 1913.*

***Franziska Braun** was the first female student to enroll at TH Darmstadt in 1908. She majored in architecture.*

***Hans Busch**, appointed to TH Darmstadt in 1930, is the father of electron optics.*

***Michael von Dolivo-Dobrowolsky**, assistant to Professor Erasmus Kittler from 1885 to 1887, invented the first functional three-phase motor while working at the Allgemeine Elektricitäts-Gesellschaft (AEG) in 1888. In 1891, he conducted the world's first long-haul transmission of electrical energy.*

***Rudolf Goldschmidt**, professor at TH Darmstadt from 1911, developed a high-frequency machine which established the first wireless transatlantic radio connection between Germany and the US.*

***Peter Grünberg**, 2007 Nobel Prize in Physics. The highly distinguished professor began his career studying at and obtaining a doctorate from TH Darmstadt.*

***Gerhard Herzberg**, 1971 Nobel Prize in Chemistry. He studied at TH Darmstadt from 1924 until 1928 and also obtained his doctorate from TH. Banned from working in 1935, he emigrated from Nazi Germany.*

***Wolfgang Hilberg**, inventor of the radio-controlled clock, was a professor at TH Darmstadt from 1972.*

***Rolf Isermann** was appointed to TH Darmstadt in 1977. A doyen of digital automation technology and mechatronics, the Massachusetts Institute of Technology (MIT) voted him among the top ten of the world's most important researchers in emerging technologies in 2003.*

***Erasmus Kittler** was appointed to TH Darmstadt in 1882 – to the world's first professorship for electrical engineering*

***Eugen Kogon**, a Christian anti-fascist, persecuted and deported by the Nazis, was appointed to TH Darmstadt's first professorship for political science in 1951. He is considered one of the masterminds and a moral authority of the Federal Republic of Germany as well as one of the pioneers of the European Union.*

***Heinrich Kosmahl**, who obtained his doctorate in physics from TH Darmstadt in 1949, relocated to the Ballistic Missiles Defense Agency in the US in 1956 and later to NASA. He earned special recognition for developing and patenting the "traveling-wave tube".*

***El Lissitzky**, painter, architect, typographer, and co-founder of Constructivism, studied architecture at TH Darmstadt from 1909 until 1914.*

***Winfried Oppelt** was appointed to Germany's first professorship for automatic control engineering in 1957.*

***Robert Piloty** was appointed to the professorship for information processing and digital engineering in 1964. He was one of the founding fathers of information technology programs in Germany.*

***Iris Rady** became the first female professor for art history at TH Darmstadt as well as the first female professor in this subject in Germany in 1934.*

***Achim Richter** was appointed professor of physics at the university in 1974. He laid the groundwork for the functioning of modern particle accelerators. His research in the areas of experimental nuclear physics, accelerator physics and the investigation of quantum chaos has been recognized at the highest level around the globe.*

***Harald Rose** was professor of applied physics at TU Darmstadt until 2000. Thanks to his basic research, atoms were made visible for the first time, and electron microscopy became one of the key tools in modern natural sciences.*

***Theo Schultes**, who obtained his doctorate at TH Darmstadt in 1934, developed the world's first radar early warning system the following year.*

***Gerhard Sessler** developed the electret microphone in the US together with James Edward West; it is still produced by the billion today. He was appointed to TH Darmstadt in 1975. In the 1980s, he invented the first silicon condenser microphones. In 1999, he was inducted into the US "National Inventors Hall of Fame".*

At the heart of Darmstadt, city of science

... with more than 30 research and other academic institutions:

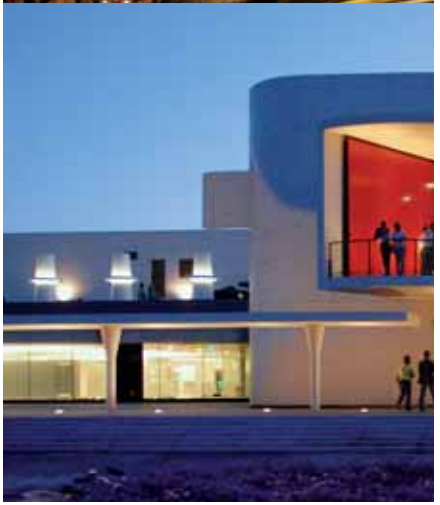
- *European Space Agency ESA/ESOC*
- *Weather satellite organization Eumetsat*
- *GSI Helmholtz Center for Heavy Ion Research*
- *German Institute for Polymers (DKI)*
- *three Fraunhofer Institutes*

... with corporations of global importance:

- *Merck (liquid crystals)*
- *Wella (cosmetics)*
- *Software AG (IT business solutions)*
- *Deutsche Telekom AG (communications)*

... with culture:

- *The Mathildenhöhe is an icon of building history and a center of Art Nouveau.*
- *The Darmstadt-based German Academy for Language and Poetry confers the annual Georg Büchner Award, Germany's most important literary prize.*

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