

Where innovation starts

Facts and Figures

Edition 2010



TU/e

Technische Universiteit
Eindhoven
University of Technology

Eindhoven University of Technology in brief



TU/e was founded in 1956 to give a vital boost to the economy in the South East of the Netherlands. This is still one of the primary objectives.

In the international CWTS ranking TU/e ranked first of 350 best performing universities worldwide in regard to scientific output in cooperation with industry.

Eindhoven University of Technology (TU/e) plays a prominent role at both national and international levels through its research and educational programs in the engineering science and technology domain.

TU/e has a strong commitment to the valorization of knowledge: translating research results into successful innovations. This may for example take the form of contributions to the development of new products or processes for industry, and the setting up of new enterprises.

The university is located in Eindhoven, in South-East Brabant, a region with a strong engineering, technology and innovation profile. At this focal point of engineering and technology TU/e is a source of innovation, which is why the university proudly states “TU/e: Where innovation starts”.

TU/e has established a partnership with the Delft University of Technology and the University of Twente to create a 3TU.Federation in the Netherlands. The 3TU.Federation maximizes innovation by combining and concentrating the strengths of all three universities in research, education and knowledge transfer.

Departments

- Applied Physics
- Architecture, Building and Planning
- Biomedical Engineering
- Chemical Engineering and Chemistry
- Electrical Engineering
- Industrial Design
- Industrial Engineering & Innovation Sciences
- Mathematics and Computer Science
- Mechanical Engineering



Strategic research areas



Nine strategic research areas have been selected to attract research funding at national and international level, as well as top researchers and Master's students.

- Biomedical Engineering Sciences
- Broadband Telecommunication Technologies
- Catalysis and Process Engineering
- Logistics, Operations and Information Systems
- Mechanics and Control
- Nano-Engineering of Functional Materials and Devices
- Plasma Physics
- Polymer Science and Technology
- Science and Engineering of Embedded Systems

Top multidisciplinary institutes at TU/e:

- Eindhoven Energy Institute (EEI)
- Institute for Complex Molecular Systems (ICMS)
- Intelligent Lighting Institute (ILI)



Research schools

Eindhoven University of Technology supervises two of the top six Dutch research schools:

- Inter-University Research Institute on Communication Technology Basic Research and Applications (COBRA)
- National Research School Combination Catalysis Controlled by Chemical Design (NRSC-Catalysis)

TU/e supervises five research schools recognized by the Royal Netherlands Academy of Arts and Sciences:

- Eindhoven Polymer Laboratories (EPL)
- Engineering Mechanics (EM)
- Euler Institute for Discrete Mathematics and its Applications (EIDMA)
- Research School for Operations Management and Logistics (Beta)
- Institute for Programming research and Algorithmics (IPA)



Income (in millions of euro)	2009	2009 vs. 2005
Government income (incl. tuition and examination fees)	196.2	+ 8%
Income from contract research and research subsidies	80.9	+ 39%
Other income	16.6	+ 66%
Total	293.7	+ 17%

SOURCE TU/e

Costs (in millions of euro)	2009	%	2009 vs. 2005
Personnel costs	187.2	65	+ 22%
Other costs	101.7	35	+ 10%
Total	288.9		+ 17%

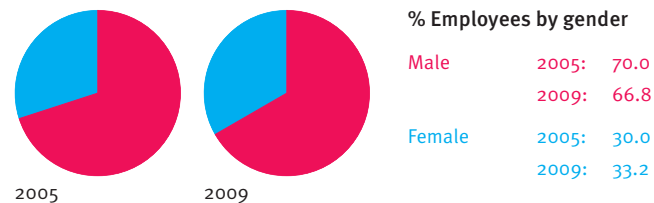
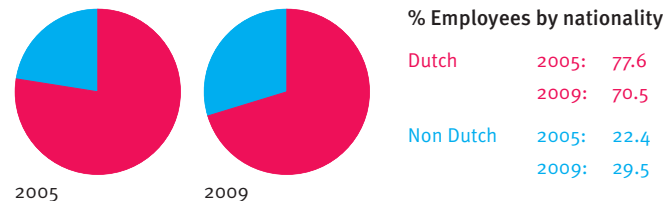
SOURCE TU/e

Scientific output	2009	2009 vs. 2005
Scientific publications	3513	+ 14%
Publication in Web of Science	1301	+ 14%
Patents	10	- 37%

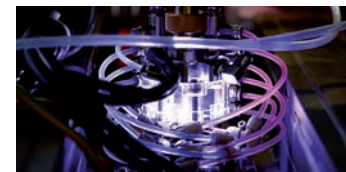
SOURCE TU/e

Staff	2009	2009 vs. 2005
Total staff	3131	+ 9%
Research staff	1906	+ 10%
Full professors	126	+ 18%
PhD fellows	756	+ 22%

SOURCE TU/e



SOURCE TU/e



Knowledge and technology transfer

Eindhoven University of Technology pursues optimal knowledge and technology transfer to industry and related organizations.

TU/e Innovation Lab

TU/e Innovation Lab is responsible for the process of generating and maintaining valorization. It provides industry, small businesses and academic entrepreneurs with a wide range of services, and supports them with the following:

- account management large industry and corporate relations;
- contract research and contract education;
- joint research and development projects within the TU/e research fields;
- research and development studies in the form of research or graduate traineeships;
- design assignments such as a twelve-month practical assignment for the postgraduate design program.

TU/e Innovation Lab and Incubator3+

High-tech enterprises have easy access to TU/e researchers through seminars, expert meetings and personal contact. In turn, support is given to TU/e researchers, students and alumni in realizing their business plans for the commercial exploitation of scientific research and applications by setting up high-tech start-up ventures. For these services TU/e participates in Incubator3+, an organization to support starters which was set up with governmental and commercial partners in the Eindhoven region.

TU/e Innovation Lab and United Brains

Together with the other knowledge institutes in the Brainport Eindhoven region, TU/e offers front office access for SMEs through United Brains. United Brains is the intermediate organization for knowledge transfer to and collaboration with (high-tech) SMEs.

3TU.Innovation Lab

TU/e Innovation Lab is the Eindhoven part of 3TU.Innovation Lab, the organization in which the 3TU.Federation organizes all valorization and knowledge/technology transfer activities.

Leading Technological Institutes

Leading Technological Institutes (LTIs) are founded by the Dutch government to strengthen fundamental strategic research relevant to industry. Research groups of universities and industry work closely together in LTIs. TU/e has a major role in the Dutch Polymer Institute (DPI) and participates in the Materials innovation institute (M2i).

TU/e also participates in:

- BioMedical Materials program (BMM)
- Center for Translational Molecular Medicine (CTMM)
- Dutch Institute for Advanced Logistics (Dinalog)
- Embedded Systems Institute (ESI)
- Holst Centre
- innovation program Point-One
- innovation program High Tech Automotive Systems (HTAS)
- Knowledge & Innovation Community (KIC): EIT ICT Labs
- Knowledge & Innovation Community (KIC): InnoEnergy
- The Dutch key area High Tech Systems & Materials (HTSM)

International scientific network



A variety of contacts with scientists all over the world form the international network of the researchers at Eindhoven University of Technology. TU/e participates in:

- CLUSTER (Consortium Linking Universities of Science and Technology for Education and Research)
- CESAER (Conference of European Schools for Advanced Engineering Education and Research)
- European Alliance in Science and Technology (Technische Universität München, Danmarks Tekniske Universitet)
- Santander Group (European Universities Network)

TU/e has also enlarged its network in China, Asia, Central America and Europe and has collaboration with:

- Northeastern University in Shenyang, China (with Philips Medical Systems)
- Manipal University India
- Middle East Technical University (METU) in Turkey
- Instituto Tecnológico y Estudios Superiores de Monterrey (ITESM) in Mexico
- Zhejiang University in Hangzhou, China (with Philips Research)

The TU/e Talent Scholarship Program (TSP) offers scholarships to highly-talented students from foreign countries, often in combination with a 3 year work experience at a global high-tech company in the Eindhoven region. Since May 2010 TSP scholarship is also to be known as the Amandus H. Lundqvist Scholarship Program, named after the former President of the TU/e Executive Board.

In 2009 TU/e introduced the High Potential Research Programs: multidisciplinary programs enabling young and promising TU/e professors to start innovative and risky research which is expected to earn an international reputation in their field.

Foreign students	2005	2006	2007	2008	2009
Exchange students	284	387	420	447	490
Bachelor's students (BSc)	101	120	115	113	103
Master's students (MSc)	162	216	274	338	430
Total	547	723	809	898	1023

Students	2009	2009 vs. 2005	female	intern.
Bachelor's students (BSc)	4839	n.a.	17%	2%
Master's students (MSc)	2736	n.a.	19%	16%
Total	7118	- 0.7%	18%	7%

Choices and challenges in Education



TU/e students looking for an extra challenge,
can supplement their education with an Honors
program.

Bachelor's programs (BSc)

- Applied Physics
- Architecture, Building and Planning
- Biomedical Engineering
- Chemical Engineering
- Computer Science and Engineering
- Electrical Engineering
- Industrial and Applied Mathematics
- Industrial Design
- Industrial Engineering and Management Sciences
- Innovation Sciences
- Mechanical Engineering

Special Bachelor's track

- Industrial Engineering and Management Sciences for Healthcare

Master's programs (MSc)

- Applied Physics
- Architecture, Building and Planning
- Automotive Technology
- Biomedical Engineering
- Building Services
- Business Information Systems
- Chemical Engineering
- Computer Science and Engineering
- Construction Management and Engineering
- Electrical Engineering
- Embedded Systems
- Human-Technology Interaction
- Industrial and Applied Mathematics
- Industrial Design
- Innovation Management
- Innovation Sciences
- Mechanical Engineering
- Medical Engineering

- Operations Management and Logistics
- Science Education and Communication
- Sustainable Energy Technology
- Systems and Control

Special Master's tracks

- Broadband Telecommunication Technologies
- Fluid and Solid Mechanics
- Information Security Technology
- Nano-Engineering
- Polymers and Composites
- Science and Technology of Nuclear Fusion

Designer programs PDEng

(Professional Doctorate in Engineering,
a two year postgraduate program)

- Architectural Design Management Systems
- Design and Technology of Instrumentation
- Information and Communication Technology
- Logistics Management Systems
- Mathematics for Industry
- Process and Product Design
- Software Technology
- User System Interaction



Region of Eindhoven, Technology Hotspot



The Eindhoven region is known as Brainport and internationally recognized as a center for advanced technology, and is characterized by knowledge and creativity. Eindhoven is the fifth-largest city in the Netherlands, and number one in terms of technology.

With Campus 2020, TU/e has established an accommodation plan for a compact campus - a building complex at the south-west edge of the university terrain, where all departments will be grouped around a traffic-free, green central area.

- The industrial and technological mainstay of the Netherlands: 40% of Dutch Research & Development expenditure takes place in this region and 30% of regional employment is related to the industrial sector. The Dutch government has qualified the Eindhoven region as a Technology Hotspot in the Netherlands.
- A population of 733,000 and a workforce of 400,000. The Eindhoven region hosts a large number of high-tech enterprises, including the multinational Royal Philips Electronics group and ASML.
- The High Tech Campus Eindhoven, a special area where the renowned Philips Research and a growing number of other research groups, institutes and companies work together in an open innovation environment. For example: the Holst Center for autonomous wireless transducer solutions and systems-in-foil (initiative of IMEC Leuven, TNO and Philips), in which TU/e participates.
- A strong concentration of educational institutes such as TU/e, Fontys University of Applied Sciences, and the Design Academy Eindhoven.
- Direct connections to the European road system and the European railway network. Direct flights to and from Eindhoven Airport.
- Important cultural facilities (including the Van Abbemuseum for modern art, the Frits Philips Music Center, and the Parc Theatre) are located in the Eindhoven region.



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