Inhoud

1. TU/e at a glance 4
2. TU/e’s story 8
3. Organization 12
4. Students and staff 14
5. Education 16
6. Research 28
7. Student teams 58
8. Alumni 62
9. Campus and community 66
10. Key figures financial report 72
TU/e at a glance

Top-ranking Dutch university

Student growth

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSc</td>
<td>5,814</td>
<td>6,644</td>
</tr>
<tr>
<td>MSc</td>
<td>2,962</td>
<td>4,122</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8,776</td>
<td>10,766</td>
</tr>
</tbody>
</table>

10,766
Total number of students (+38% compared to 2012)

<table>
<thead>
<tr>
<th>84% Dutch</th>
<th>16% International</th>
</tr>
</thead>
<tbody>
<tr>
<td>76% Male</td>
<td>24% Female</td>
</tr>
</tbody>
</table>

Engineers for the future

92%
Of the graduated students finds a job within 6 months

41,715
Alumni
85% Male 15% Female

2,426
Total degrees awarded
911 BSc / 1,144 MSc 137 PEng / 234 PhD

At the heart of the Brainport region

Strong technology heritage in Eindhoven

The Netherlands

Brainport

Eindhoven

Accounts for 33% of total Dutch private R&D expenditure

All facts and figures are based on the year 2016
new companies have been founded by student teams.
In the 1950’s the plan and lobby for a second University of Technology in the Netherlands (TU/e) was concocted in the kitchen of the Van Doorne’s (DAF) jointly with Frits Philips (Philips) and the Queen’s commissioner at the time.

In 1956, a law was passed enabling the foundation of the Technische Hogeschool Eindhoven, which later became Eindhoven University of Technology (TU/e).
To achieve this, we collaborate closely with other universities, scientific institutes, social organizations, government and industry. Together, we translate our research findings into successful innovations and turn our knowledge into societal value through knowledge valorization. We strengthen the knowledge-intensive industry by providing young academic engineers and by generating new businesses.

We combine top-notch fundamental research with an application-oriented educational approach, characterized by frequent and intensive student-teacher interaction. This is all part of a tight-knit, small-scale community consisting of more than 80 nationalities, where everyone feels welcome and where the well-being of students and staff matters.

Our university connects students, researchers and entrepreneurs. Because we believe innovation starts with people, not with technology. It is our people, who make our university into a place where innovation starts and people matter.
Organization

Supervisory Board
- University Council
- Executive Board
  - TU/e Holding LLC
  - Bachelor College
  - Graduate School

Services Council
- Services
  - Communication Expertise Center
  - Education and Student Affairs
  - Equipment and Prototype Center
  - Financial and Economic Affairs
  - General Affairs Department
  - ICT Services
  - Information Expertise Center
  - Innovation Lab
  - Internal Affairs Department
  - Personnel and Organization Department
  - Real Estate Management

Departments
- Departmental Councils
  - Applied Physics
  - Biomedical Engineering
  - Built Environment
  - Chemical Engineering
  - Electrical Engineering
  - Industrial Design
  - Industrial Engineering and Innovation Sciences
  - Mathematics and Computer Science
  - Mechanical Engineering
Students and staff

Being a student or employee at TU/e means that you live and study or work in one of the most promising, fast-developing high-tech regions of Europe. Our region has a unique environment in the Netherlands and is a breeding ground for innovation and home to excellent businesses, universities and research institutes.

(International) students in numbers

- **10,766** Total number of students
  - **6,644** Students Bachelor
  - **4,122** Students Master
  - 76% Male
  - 24% Female
  - 84% Dutch
  - 16% International

Our international students in both the Bachelor College and Graduate School come from 80 different nationalities. The number of international students attending our Bachelor College is increasing every year.

(Academic) staff in numbers

- **2,946** fte
  - **1,951** Research staff
  - 63% Male
  - 37% Female
  - 66.5% Dutch
  - 33.5% International
Educational approach

Our mission with respect to education is to educate our students to become engineers who can make a significant and innovative contribution to society throughout their career. Society in general and business in particular are desperately in need of enthusiastic and entrepreneurial young engineers. Engineers, who are able to build bridges between technology and the needs of society. Each with their own unique talents: from specialists to managers and from designers to entrepreneurs. Engineers who are active within the industry, their own company, the government or science.

At TU/e, students develop a scientific knowledge base and an understanding of the wider context of technology. The first solar-powered family car, a heart valve that grows with you, the care robot, the energy-producing building: all groundbreaking innovations from TU/e scientists and TU/e students, the engineers for the future.
Bachelor College
Dean: Professor Lex Lemmens

In the Bachelor College, students can design their own program. This unique concept allows students the freedom to compose a personal education program that is as broad or as deep as they want. Our mentors guide students in making decisions, and the Bachelor College’s basic courses and multidisciplinary team projects create engineers who can look beyond their own fields and engage with society.

Education at TU/e

<table>
<thead>
<tr>
<th>3 year undergraduate program</th>
<th>2 year master’s degree program</th>
<th>4 year PhD program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>Basic Courses</td>
<td>USE (User, Society and Entrepreneurial perspective courses)</td>
</tr>
<tr>
<td><strong>90 credits</strong></td>
<td><strong>30 credits</strong></td>
<td><strong>15 credits</strong></td>
</tr>
<tr>
<td>Free Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>45 credits</strong></td>
<td></td>
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</tr>
</tbody>
</table>

Our Bachelor College offers the following programs

- **Applied Mathematics**
- **Applied Physics**
- **Architecture, Urbanism and Building Sciences**
- **Biomedical Engineering**
- **Chemical Engineering**
- **Computer Science and Engineering**
- **Data Science**
- **Electrical Engineering**
- **Industrial Design**
- **Industrial Engineering**
- **Innovation Sciences**
- **Mechanical Engineering**

All undergraduate programs are taught in English, except for Biomedical Engineering, Medical Sciences and Technology and Mechanical Engineering.
Graduate School

Dean: Professor Paul Koenraad

A graduate program within our Graduate School consists of one or more master’s programs with the possibility to continue with a PDEng or a PhD program in the same field of research. A PDEng program is a two-year salaried program in the field of technological design. The program leads to a Professional Doctorate in Engineering degree.

Graduate programs in the TU/e Graduate School are developed in cooperation with leading research groups at TU/e, and consist of several degree programs. Each graduate program offers you opportunities for in-depth specialization or multidisciplinary collaboration. TU/e education is always up-to-date with ongoing research, and has an intrinsic focus on collaboration with industry. Our excellent fundamental research and relationships with industry make a TU/e graduate program a great start for a varied, challenging and lucrative career.

Education at TU/e

Our Graduate School offers the following programs

For more information about TU/e’s PhD programs, please visit our website at www.tue.nl/phdprograms
<table>
<thead>
<tr>
<th>Graduate program</th>
<th>Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Computer Science</strong></td>
<td><strong>Master’s degree programs</strong></td>
</tr>
<tr>
<td></td>
<td>• Computer Science and Engineering</td>
</tr>
<tr>
<td></td>
<td>• Business Information Systems</td>
</tr>
<tr>
<td></td>
<td>• Embedded Systems (4TU)</td>
</tr>
<tr>
<td>Special master’s tracks</td>
<td>• Information Security Technology</td>
</tr>
<tr>
<td></td>
<td>• Data Science in Engineering</td>
</tr>
<tr>
<td></td>
<td>• EIT Data Science</td>
</tr>
<tr>
<td></td>
<td>• EIT Embedded Systems</td>
</tr>
<tr>
<td><strong>PDEng programs</strong></td>
<td>• Software Technology</td>
</tr>
<tr>
<td><strong>Electrical Engineering</strong></td>
<td><strong>Master’s degree programs</strong></td>
</tr>
<tr>
<td></td>
<td>• Electrical Engineering</td>
</tr>
<tr>
<td>Special master’s tracks</td>
<td>• Broadband Telecommunication Technologies</td>
</tr>
<tr>
<td></td>
<td>• Care and Cure</td>
</tr>
<tr>
<td></td>
<td>• Design of Electrical Engineering Systems/track Healthcare Systems Design</td>
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<tr>
<td></td>
<td>• Design of Electrical Engineering Systems/track Information and Communication Technology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Graduate program</th>
<th>Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industrial and Applied Mathematics</strong></td>
<td><strong>Special master’s track</strong></td>
</tr>
<tr>
<td></td>
<td>• Data Science in Engineering</td>
</tr>
<tr>
<td><strong>Industrial Design</strong></td>
<td><strong>Master’s degree programs</strong></td>
</tr>
<tr>
<td></td>
<td>• Industrial Design</td>
</tr>
<tr>
<td><strong>PDEng programs</strong></td>
<td>• User System Interaction</td>
</tr>
<tr>
<td><strong>Industrial Engineering</strong></td>
<td><strong>Master’s degree programs</strong></td>
</tr>
<tr>
<td></td>
<td>• Innovation Management</td>
</tr>
<tr>
<td></td>
<td>• Operations Management and Logistics</td>
</tr>
<tr>
<td>Special master’s track</td>
<td>• Manufacturing Systems Engineering</td>
</tr>
<tr>
<td><strong>PDEng programs</strong></td>
<td>• Industrial Engineering</td>
</tr>
<tr>
<td><strong>Innovation Sciences</strong></td>
<td><strong>Master’s degree programs</strong></td>
</tr>
<tr>
<td></td>
<td>• Human-Technology Interaction</td>
</tr>
<tr>
<td></td>
<td>• Innovation Sciences</td>
</tr>
</tbody>
</table>

*For more information about TU/e's PhD programs, please visit our website at www.tue.nl/phdprograms*
**Graduate program** | **Programs**
---|---
**Life Sciences and Engineering** | **Master's degree programs**
- Biomedical Engineering
- Medical Engineering
**Special master's tracks**
- Regenerative Medicine and Technology
- Care and Cure
**PDEng programs**
- Clinical Informatics
- Qualified Medical Engineering
- Design of Electrical Engineering Systems/track Healthcare Systems Design

**Mechanical Engineering** | **Master's degree programs**
- Mechanical Engineering
- Systems and Control (4TU)
**Special master's track**
- Manufacturing Systems Engineering

**Photonics** | **Special master's track**
- Photonics program as part of master program Applied Physics and Electrical Engineering

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**Science Education and Communication** | **Master's degree program**
- Science Education and Communication (4TU) (this program is taught in Dutch)

**Sustainable Energy Technology** | **Master's degree programs**
- Sustainable Energy Technology (4TU)
- Science and Technology of Nuclear Fusion
**Special master's track**
- SELECT
**PDEng programs**
- Smart Energy Buildings and Cities

---

**Off-site programs in Data Science** | **Master's degree program**
- Data Science and Entrepreneurship
**Master's tracks**
- Data Science: Business Analytics
- Data Science: Business and Governance
**PDEng programs**
- Data Science

*We will offer this Master's degree program jointly with Tilburg University in 's-Hertogenbosch.*
*Offered by Tilburg University.*
The National Student Survey (NSE) is an annual large-scale national survey in which nearly all the students in higher education are invited to give their opinion about their study programs through different themes.

Everything has been evaluated on the following scale:

- Very dissatisfied
- 1
- 2
- 3
- 4
- Very satisfied

41% Response

4,384 Students

Rating study in general

Would recommend the education to friends, family or colleagues

Compared with 13 other Dutch universities on every theme
Established in the 1950’s, TU/e has always had strong values: optimism, collaboration and a dedication to society. These values helped Brainport Eindhoven flourish, and resulted in our university being ranked number 1 by Times Higher Education Ranking for collaboration with industry. 15% of our scientific publications are created in collaboration with industry, and we have the highest number of part-time professors from industry in the Netherlands.

Our publications have high citation scores, consortia we are part of have won prestigious grants and our researchers receive scientific accolades on a regular basis. This distinguishing excellence is based on our three-pillar strategy: attracting talent, using a multidisciplinary approach and providing a stimulating research environment.
Society’s challenges are the driving force for our research: the strategic areas of Health, Energy and Smart Mobility. Our research centers and our institutes, TU/e High Tech Systems Center, TU/e Data Science Center, the Institute for Complex Molecular Systems and the Institute for Photonic Integration combine the strengths of our university with industry needs and government strategy. TU/e researchers play an important role in new products and companies in the Brainport area and all over the world.

### Brainport Eindhoven

Forty percent of all Dutch spending on research & development takes place in this region. So it’s no surprise that Eindhoven and the surrounding region is officially referred to as ‘Brainport’. Its location on major transport routes and the presence of Eindhoven airport make the region an important crossroads. Eindhoven is a trend-setting center of innovation and technology, ranking 4th on the EU’s Lisbon index for innovation.

**Brainport fact**

More than 40% of the annual patent applications are from Brainport.

### Departments and their research

#### Department of Biomedical Engineering

**Dean:** Professor Peter Hilbers

**Chemical Biology**

- Biomedical Chemistry
- Biomaterials
- Chemical Biology
- Molecular Biosensing for Medical Diagnostics
- Protein Engineering
- Bio-Organic Chemistry

#### Cluster Biomechanics and Tissue Engineering

- Soft Tissue biomechanics and engineering
- Immuno-engineering
- Biomechanics of soft tissue
- Orthopaedic biomechanics
- Cardiovascular biomechanics
- Neuro-engineering

#### Cluster Biomedical Imaging and Modelling

- Computational Biology
- Medical Image analysis
- Ultrasound Functional Imaging and Modelling
Department of the Built Environment

Dean: Professor Elphi Nelissen

Three research themes
• Smart Living Environments
• Quality of Life
• Sustainable Transformation

SCP/e (Smart Cities Program) connects the themes.

Four research programs
• Building Physics and Services
• Design and Decision Support Systems
• Living Cities
• Structural Design

Department of Electrical Engineering

Dean: Professor Bart Smolders

Research can be attributed to one of three societal themes:
• The Connected World
• Care and cure
• Smart and Sustainable Society

The four centers of EE
CWTi Center for Wireless Technology Eindhoven
C3Te Center for Care and Cure Technologies Eindhoven
CPEe Center for Power and Energy Eindhoven
COBRA Inter-university research school and center for Communication technology Basic Research and Applications

Core research activities
• Control Systems
• Electronic Systems
• Electro-optical Communication
• Mixed-signal Microelectronics
• Electrical Energy Systems
• Photonic Integration
• Electromagnetics
• Signal Processing Systems
• Electromechanics and Power Electronics

Department of Industrial Design

Dean: Professor Aarnout Brombacher

Two research clusters
• Connected Everyday Designing for a Connected Everyday Experience
• Systemic Change Data-Driven Design for Societal Impact

Initially, the groups will not have the same size; the group Connected Everyday has its basis in the existing research and education of the department, but will, also in the future, form a strong and solid pillar of the department. The group Systemic Change is seen as an area with a strong potential for growth, now and in the future.
Department of Chemical Engineering and Chemistry

Dean: Professor Emiel Hensen

Thematic Clusters

Molecular Systems and Materials Chemistry (MSMC)
- Macro-Organic Chemistry
- Molecular Materials and Nanosystems
- Supramolecular Polymer Chemistry
- Bio-organic Chemistry
- Functional Organic Materials and Devices
- Physical Chemistry
- Laboratory of Materials and Interface Chemistry

Chemical and Process Technology (CPT)
- Molecular Catalysis
- Chemical Reactor Engineering
- Multi-scale Modeling of Multiphase Flows
- Chemical Process Intensification
- Micro Flow Chemistry and Process Technology
- Membrane Materials and Processes

Department of Industrial Engineering and Innovation Sciences

Dean: Professor Ingrid Heynderickx

Four cross-disciplinary research themes
- Sustainability
- Logistics and its interfaces
- Big Data
- Humans and Technology

Plasma
- Plasma and Materials Processing
- Coherence and Quantum Technology
- Science and Technology of Nuclear Fusion
- Elementary Processes in Gas Discharges

Flow
- Turbulence and Vortex Dynamics
- Mesoscopic Transport Phenomena
- Transport in Permeable Media

Department of Applied Physics

Dean: Professor Gerrit Kroesen

Nano
- Molecular Biosensors for Medical Diagnostics
- Theory of Polymers and Soft Matter
- Molecular Materials and Nanosystems
- Physics of Nanostructures
- Photonics and Semiconductor Nanophysics

Industrial Engineering
- Human Performance Management
- Operations, Planning, Accounting and Control
- Information Systems
- Innovation, Technology Entrepreneurship and Marketing

Innovation Sciences
- Human-Technology Interaction
- Philosophy and Ethics
- Technology, Innovation and Society
Department of Mechanical Engineering

Dean: Professor Philip de Goey

The department of Mechanical Engineering is built around three knowledge pillars which are designed to reflect the department’s long-term fundamental research themes.

Thermo-Fluids Engineering
- Multiphase and Reactive Flows
- Energy Technology

Dynamical Systems Design
- Control Systems Technology
- Dynamics and Control Technology

Computational and Experimental Mechanics
- Mechanics of Materials
- Polymer Technology
- Micro-Systems Technology

Department of Mathematics and Computer Science

Dean: Professor Johan Lukkien

Sections
- Information Systems
- Algorithms and Visualizations
- Stochastics
- Model Driven Software Engineering
- Security and Embedded Networked Systems
- Analysis, Scientific Computing and Applications
- Discrete Mathematics

Focus areas
- Data
- Computations
- Software and Systems
- Networks

Rankings

- Times Higher Education (THE) World University Ranking
  TU/e no. 141 out of >1000

- QS-Ranking
  TU/e no. 121 out of 900

- THE World University Ranking
  TU/e no. 1 university on collaboration with industry

- CWTS Leiden Ranking
  TU/e no. 1 in industry cooperation
Distinctions and grants

University professors
TU/e's university professors are the ambassadors of our university. They are appointed for a term of five years. That period can be extended with another period of five years. There is no specific learning assignment associated with these university professorships. The Board can decide, in consultation with the Doctoral Degree Board, to commission the university professor to (further) develop a new field.

Our university professors are:
- Prof. dr. E.W. (Bert) Meijer
- Prof. dr. ir. W.M.P. (Wil) van der Aalst
- Prof. dr. ir. R.A.J. (René) Janssen
- Prof. dr. ir. A.W.M. (Anthonie) Meijers
- Prof. dr. ir. M. (Maarten) Steinbuch

National grants

Academy Professor Program
The Academy Professor Program was founded by the Royal Netherlands Academy of Arts and Sciences (in Dutch KNAW) and is geared to excellent professors that are part of the absolute scientific elite. The aim of the program is to free up these professors for top quality research and to educate researchers. TU/e professor Bert Meijer is an Academy Professor.

NWO Spinoza Prize
The NWO Spinoza Prize is the highest award in Dutch science. Each year, the Netherlands organization for Scientific Research (in Dutch NWO) awards the Spinoza Prizes to three or four researchers working in the Netherlands, who according to international standards, belong to the absolute top of science. The NWO Spinoza Laureates conduct outstanding and ground-breaking research with a great impact on society. They are an inspiration for young researchers. The prize was first awarded in 1995.

The Spinoza award winners of TU/e are:
- 2015 Prof. dr. ir. Rene Janssen
- 2001 Prof. dr. Bert Meijer

Simon Stevin Masters
The Simon Stevin Master is an honorary title awarded by the NWO Domain Applied and Engineering Sciences (TTW, previously Technology Foundation STW) since 1998, to very prominent engineering scientific researchers at Dutch universities and para-university institutes. This prestigious Dutch award in technology is given to the best engineering-scientific researchers that have submitted research applications to TTW.

The following TU/e researchers are Simon Stevin Masters:
- 2016 Prof. dr. ir. Maarten Steinbuch
- 2010 Prof. dr. Philip de Goey
- 2006 Prof. dr. ir. Jaap Schouten
- 2004 Prof. dr. ir. Arthur van Roermund
Gravitation Program

With the Gravitation program, the Dutch Government aims to encourage research by consortia of top researchers in the Netherlands. Researchers must be carrying out innovative and influential research in their field. The Netherlands organization for Scientific Research is realizing the selection procedure for this program with respect to direct government funding at the request of the Ministry of Education, Culture and Science.

2016 Materials-driven regeneration (Eindhoven, Utrecht, UMCU, Hubrecht)
2014 Netherlands Center for Multiscale Energy Conversion (Eindhoven, Utrecht, Enschede)
2014 Networks (Eindhoven, Amsterdam, Leiden, CWI)
2014 Research Center for Integrated Nano-Photonics (Eindhoven)
2013 Research Center for Functional Molecular Systems (Eindhoven, Nijmegen, Groningen)

Innovational Research Incentives Scheme

In 2000, the Netherlands organization for Scientific Research, the Royal Netherlands Academy of Arts and Sciences and the Dutch universities established the Innovational Research Incentives Scheme (IRIS). The aim of the program is to give an extra boost to innovative research. The IRIS is a personal grant, offering talented, creative researchers the opportunity to perform their chosen research and to give them a better chance of advancement in academic research institutions.
The scheme consists of three parts:

**Veni** Open to applications from recent PhD holders, enabling them to further develop their ideas over a three-year period.

**Vidi** For researchers to develop their own innovative research line and appoint one or more researchers.

**Vici** For senior researchers to create their own research group.

*Our latest* TU/e **Vici** winners are:

2017 Prof. dr. Jaime Gómez Rivas
2016 Prof. dr. Jan Draisma, dr. ir. Servaas Kokkelmans
2015 Prof. dr. Bert Zwart, prof. dr. ir. Luc Brunsveld
2014 Prof. dr. ir. Emiel Hensen
2013 Prof. dr. Bettina Speckmann
2012 Prof. dr. Harry van Zanten

*Our latest* TU/e **Vidi** winners are:

2017 Dr. Daniël Lakens, dr. Alex Alvarado, prof. dr. Patricia Dankers, dr. ir. Tom de Greef, dr. Björn Baumeier, dr. ir. Tom Oomen, dr. ir. Job Beckers
2016 Dr. ir. Rob Maaskant
2015 Prof. dr. Maaike Kroon, dr. Ilja Voets, dr. Timothy Noël
2014 Dr. Peter Zijlstra, dr. Krist Vaessen
2013 Dr. ir. Johan Hoefnagels

*Our latest* TU/e **Veni** winners are:

2016 Dr. ir. Joachim Arts, dr. Marcos Guimarães, dr. ir. Danqing Li, dr. ir. Hanneke Gelderblom
2015 Dr. Kevin Verbeek
2013 Dr. ir. Matias Duran-Matute, dr. ir. Federico Felici, dr. ir. Pieter Harpe, dr. Miranda Nabben, dr. ir. Tom Oomen
2012 Dr. ir. Tom de Greef, dr. ir. ing. Reinoud Lavrijsen, dr. Timothy Noël, dr. Chiara Rabotti, dr. ir. Rik Vullings

*from 2012*
International grants and awards

Nagoya Gold Medal of Organic Chemistry
In 2017, Japan’s highest award for chemistry scientists, the Nagoya Gold Medal of Organic Chemistry, was presented to Bert Meijer, TU/e professor of Organic Chemistry. Meijer thus joins an illustrious group of 22 predecessors, including several winners of Nobel Prizes, Franklin Medals and Wolf Prizes.

ERC grants
Europe offers funding to excellent researchers, who want to undertake pioneering research. A special agency, the European Research Council (ERC), has been established to carry out this program. The ERC has four programs that offer financial support for such pioneering research: the ERC Starting Grant, the ERC Consolidator Grant, the ERC Advanced Grant and the ERC Synergy Grant. Researchers of every nationality and age are entitled to submit research projects.

The following TU/e researchers have been awarded an ERC grant:

ERC Advanced Grant (from 2012)
2016  Prof. Jan van Hest
2015  Prof. Paul van den Hof
2014  Prof. Dick Broer
2013  Prof. Marc Geers
2013  Prof. René Janssen

ERC Consolidator Grant (from 2012)
2016  Dr. E.A. Pidko
2014  Dr. Ageeth Bol
2013  Prof. dr. Erik Bakkers
2013  Dr. Nikhil Bansal
2013  Dr. ir. Johan Padding
2013  Prof. dr. ir. Jacco Snoeijer

ERC Starting Grant (from 2012)
2016  Dr. ir. Roland Tóth
2015  Dr. ir. Rudie Kunnen
2015  Dr. ir. Tom de Greef
2013  Dr. ir. Remco Duits
2013  Dr. Sandra Hofmann
2012  Dr. Yves Bellouard
2012  Dr. Patricia Dankers
Strategic Areas
Our strategic research areas are Energy, Health and Smart Mobility

Energy
- Chemergy
- Solar PV
- Urban energy
- Nuclear fusion

Health
- Bio-molecular Health
- Image-guided Health
- Participatory Health and Wellbeing
- Data science in Health

Smart Mobility
- Safer Mobility - focus on preventing accidents
- Clean and energy efficient mobility
- Less congestion, efficient logistics
- Solving space problems for mobility
- Ensuring and extend accessibility of mobility

Centers and Institutes
- High Tech Systems Center
- TU/e Data Science Center
- Institute for Complex Molecular Systems
- Institute for Photonic Integration
Research labs

Center for Multiscale Electron Microscopy (CMEM)
The CMEM offers unique facilities for the study of soft materials and uses the knowledge gained to develop synthetic materials.

Darcy Lab
The Darcy Lab offers unique MRI facilities specially equipped for researching the properties of technological porous materials.

Future Fuels Lab
In the Future Fuels Lab, scientists are researching green fuels and cleaner combustion methods for engines.

Center for Wireless Technology (CWTe Lab)
The CWTe facilitates research on wireless systems and antennas, raising the Internet of Things to a higher level.

Equipment and Prototype Center (EPC)
The Equipment and Prototype Center (EPC) makes custom experimental setups and prototypes for various fields of research.

High Capacity Optical Transmission Lab
The High Capacity Optical Transmission Lab facilitates research on innovative optical fibers and signal processing techniques to enable transmission of ultra-high capacity.

Institute for Complex Molecular Systems Laboratory (ICMS/lab)
The Institute for Complex Molecular Systems Laboratory (ICMS/lab) facilitates the development and characterization of innovative materials from a molecular perspective.

Laboratory for Cell and Tissue Engineering
The Laboratory for Cell and Tissue Engineering facilitates culturing of autologous tissues across the full spectrum of the research field.

Microfab/Lab
The Microfab/Lab facilitates the development of new micro-manufacturing technologies for use in life sciences applications.

Multiscale Lab
The Multiscale Lab facilitates research on the deformation and failure behavior of composite materials. The insights gained lead to innovative materials.
**SolarLab**
With the facilities of the SolarLab, atomic layers can be applied to solar cells in a quick, controlled manner, making solar cells even more efficient.

**Wind tunnels**
The wind tunnels on the campus of TU Eindhoven facilitate aerodynamic and boundary layer research on static and moving objects, at both small and large scale.

**NanoAccess**
Makes it possible to produce, process and analyze innovative materials with nanometer accuracy, without releasing the necessary vacuum.

In addition to the fourteen larger labs, the TU/e also has some forty smaller research labs.
Entrepreneurship

TU/e is world leader in publications created together with industry, and has a proven track record in research collaborations with industry and in creating spin-offs, start-ups and patents. Entrepreneurship and valorization are very important to us. We turn theories and promising technological concepts into projects and products with direct impact on, for example, patient care, road safety or CO₂ reduction.

We are constantly looking for TU/e research findings with market potential. If the timing is not right for a company to market our technological concepts, we do it ourselves. In recent years, TU/e produced an impressive number of spin-offs and start-ups.

Within START@TU/Eindhoven, our entrepreneurial student community, we provide advice to students starting their own company. Every year, we incubate more than 30 knowledge-intensive start-ups. Within the TU/e campus, the Living Labs test sites for technological concepts play an important role. New technologies are introduced in these ‘testing grounds’ and turned into valuable applications through valorization.

2017 Figures

91 Patents
28 Pending licenses or transfers
30 Transferred via a transfer or license
19 In the business development process
14 Photonics patents (strategic)

46 Active spin-off companies in TU/e Holding
From 1995 to 2017 a total of 165

From foundation of STARTUP/eindhoven in 2014 till June 2017:
• 91 Companies started up by 130 students
• 174 Projects in preparation by 267 students

One student may work on more than one project or company. Vice versa is more common; more students who are working on one project or company.

5 New companies
Founded by student teams.
### Strategic partnerships

TU/e responds to our changing world by creating connections on an international scale: between researchers, companies, students, science institutes and the government. Through our many collaborations, we can create global impact and relevance.

**National scientific:**
- Eindhoven University of Technology/Utrecht University/Utrecht Medical Center
- Eindhoven University of Technology/TU Delft/University of Twente/Wageningen University (4TU)
- Eindhoven University of Technology/Tilburg University

**International scientific:**
- Eindhoven University of Technology/Danmarks Tekniske Universitet/École Polytechnique Fédérale de Lausanne/Technische Universität München (Eurotech)
- Eindhoven University of Technology/Zheijang University

**International academic networks:**
- CLUSTER (Consortium Linking Universities of Sciences and Technology for Education and Research)
- CESAER (Conference of European Schools for Advanced Engineering Education and Research)

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### Bustling start-up community

Every year, the university delivers more than thirty knowledge-intensive start-ups. Set up by inventive employees or enterprising students, jointly with external parties if possible. In order to help the technology start-ups through their tender initial stages, we, together with our partners, such as Brainport and the Brabant Development Company, provide an adequate business development process. In addition, for the provision of the indispensable seed capital there are financiers such as the regional alliance Bright Move.

Apart from advice, coaching and budget, we offer technology start-ups (originating from inside as well as outside the TU/e) spaces to work and conduct research. This results in a bustling start-up community on the site. In 2015, the various buildings accommodated no less than sixty starting and growing technology companies.
Innovation clusters:
- Brainport Eindhoven

Industrial partnerships:
- Royal Philips
- Philips Lighting
- ASML
- KPN
- NXP Semiconductors
- Shell
- DAF Trucks
- DSM
- Océ
- VDL
- NTS
- SME supplier companies (too many to mention by name; often in partnerships such as High Tech NL and KIEN)
Student teams have a special place within our entrepreneurship for students. The number of student teams has grown significantly in the recent years. TU/e regards these teams as an excellent opportunity for entrepreneurial students to further develop themselves, as the work within the team provides both subject content and organizational challenges. Our student team projects are more and more part of applied research and modern types of education.
We currently have the following student teams:

**ATeam**  Developing the technology for a connected and automated vehicle.

**Blue Jay**  Building a drone that functions indoors and in the healthcare sector.

**Team Fast**  Showing the potential of hydrazine as a sustainable energy carrier.

**Team iGem**  Contributing to the ability to regulate cell processes.

**InMotion**  Aiming to participate in the Garage 56 category in the 24 hours of Le Mans.

**Solar Team Eindhoven**  Winning the Cruiser Class three times in a row during the Australian World Solar Challenge with a solar-powered family car.

**STORM**  Proving the world's first electric touring motorcycle during an 80 days trip around the world.

**Tech United**  Developing autonomous football playing robots and a service robot that can reduce the workload of nurses.

**TU/ecomotive**  Founding team of the first structural bio-based car.

**URE**  Designing, building, testing and racing in an electric Formula-style racecar, all in one year's time.

**VIRTUe**  Participating in the Solar Decathlon in Dubai, building the most sustainable house.
After their graduation or promotion, our alumni remain an important group within the TU/e community. They can make use of the various services and activities offered to them by the university, for example in the area of life-long learning.

In recent years, TU/e has renewed the alumni program by means of a customized approach for alumni at different stages in life: young, mid-career and senior alumni. We offer the different groups diverse activities; from career workshops to open lectures, network events and ‘The Class of ....’ reunions. Furthermore, the alumni associations organize meetings for the alumni and their department.

Alumni are important ambassadors and they are therefore actively involved in the university, for example by providing the prospective students a glimpse of the professional businesses and by coaching students with respect to their career orientation. Alumni also play an important role with respect to the cooperation between industry and the university, the offering of apprenticeships and the financial support of the university.
Alumni Facts

Geography
Our alumni can be found over the entire world, but mostly in
1. The Netherlands
2. USA
3. Belgium
4. Germany
5. United Kingdom
6. Spain
7. Italy
8. Switzerland
9. France
10. China

Degrees
Most of our alumni leave our university with an MSc degree (more than 75%). Less than 3% leave after they have obtained their bachelor’s degree. The rest of the students finish their PhD or PDEng before leaving our university.

Jobs
73% of our alumni are an employee, temporary worker, self-employed or work as a freelancer. 20% is pursuing a PhD trajectory. The other students commence another study or are looking for a job. Our alumni mainly find jobs in industry/trade/transport (30%) and within universities (19%).

Top 10 employers
1. Eindhoven University of Technology
2. ASML
3. Philips
4. Shell
5. Philips Lighting
6. DAF Trucks NV
7. NXP Semiconductors
8. TNO
9. DSM
10. Vanderlande

More than half of our alumni (55%) work at large companies with more than 1000 employees.

The average income of our alumni at the start of their professional career is €2,860 per month. Nationally, new graduates earn a gross salary of €2,565 per month. Graduates from Delft University of Technology and Eindhoven University of Technology earn the highest salaries compared to graduates from other Dutch universities. This comparison is corrected for personal characteristics of the graduates, the nature and duration of their contract and education obtained. (Elsevier Magazine, June 2017)

Sources: WO monitor 2015 and LinkedIn
The TU/e campus is both a physical and a virtual place: a living lab that connects people with each other and the world. The TU/e campus is home to more than 60 businesses and welcomes more than 15,000 people every day. Our lively campus community facilitates connections between brilliant minds, in an open, friendly, vibrant environment that welcomes, inspires, motivates and supports.
We encourage everyone, students and staff, to play an active part and be actively involved in this TU/e community, because we believe that when we are personal, passionate, curious and connected, our community is the place where innovation truly starts. Everybody is welcome, regardless of gender, sexual orientation, religion, age or cultural background.

**Characteristics of our community:**
- Personal development
- Entrepreneurial attitude
- A healthy work and study climate
- Vitality
- Sustainability

The TU/e Campus is not only a place of study and work, but also a home for hundreds of students and staff from different nationalities who are resident here, turning our green, riverside campus in the heart of Eindhoven into a lively and very dynamic place.

**On-campus facilities:**
- Two small supermarkets
- A daycare center
- A sports center which offers 70 sports, (special) courses and extensive facilities
- A film house and grand café
- An extensive library, open for everyone

**Students at Eindhoven University of Technology can join various student associations, for example:**
- 4 General associations
- 13 Cultural associations
- 7 International associations
- 4 Philosophical associations
- 41 Sport associations
- 14 Study associations

**Events**

**Our campus hosts a few well-known events, for example:**
- Lightfestival Glow
- Muziek op de Dommel (classical music festival)
- Foodstock (foodtruck festival)
- Science Festival (our campus’ open day)
The city of Eindhoven

Eindhoven has a surface of 88.84 km² and a population of over 227,000 (April 2017), making it the largest city of the south of the Netherlands. Eindhoven is centrally located in Europe and easy accessible via Eindhoven Airport (or three other airports within 1.5 hour drive). Eindhoven is a bustling city in transition, with a constant flow of new developments in the fields of creativity, innovation, technology, design and knowledge.

When in Eindhoven, you might as well:
• Find soulmates at the Holland Expat Center South
• Go to the city center for some shopping and dining
• Visit one of the museums
• Listen to music in the Muziekgebouw or Effenaar
• Watch a play in the Parktheater
• Watch a soccer game in the Philips Stadium
• Play a sport yourself at one of the many sports locations Eindhoven offers
• Wander through Eindhoven’s technological past and future at Strijp-S
• Enjoy the King’s Day festivities on 27 April
• Be part of the Dutch Technology Week in June
• Run the Eindhoven Marathon the second weekend of October
• Take a sneak peek into the future at the Dutch Design Week in October
• Walk the light festival Glow route in November

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Sustainability

TU/e leads by example towards a sustainable society
The TU/e Campus, which even now is a green and sustainable campus with a park-like look, is well underway to becoming even more sustainable. Sustainability is visible in our education, our research and on our campus. In 2015, TU/e was climate neutral, and the aim is to be fifty percent energy neutral in 2030. This means that in that year half of our energy will be generated by TU/e itself.

Activities in the area of sustainability at TU/e:
• Renovation
• Energy supply
• Living Labs
• GO Green Office
• Rankings
• Mobility
• Waste
• Water
• Catering
• Campus and business operations
TU/e closed the financial year 2016 with a positive result of 7.9 million euros. The balance of the financial income and expenditure is in line with 2015, with the exception of a devaluation of participations at net equity value.
## Core figures

### Income and expenditure

(\textit{amounts shown in millions of euros})

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>EUR</td>
<td>EUR</td>
<td>EUR</td>
<td>EUR</td>
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<tr>
<td><strong>Income</strong></td>
<td></td>
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<tr>
<td>Government funding</td>
<td>197.4</td>
<td>188.6</td>
<td>185.7</td>
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<td>Tuition and examination fees</td>
<td>26.5</td>
<td>23.3</td>
<td>19.6</td>
<td>17.1</td>
<td>16.1</td>
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<td>Work commissioned by third parties</td>
<td>98.4</td>
<td>95.7</td>
<td>96.3</td>
<td>94.1</td>
<td>93.2</td>
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<tr>
<td>Other income</td>
<td>19.6</td>
<td>20.1</td>
<td>18.3</td>
<td>15.8</td>
<td>15.3</td>
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<tr>
<td><strong>Total income</strong></td>
<td>341.9</td>
<td>327.7</td>
<td>319.9</td>
<td>317.9</td>
<td>305.2</td>
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<td><strong>Expenditure</strong></td>
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<td></td>
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<td>Personnel expenses</td>
<td>214.7</td>
<td>204.1</td>
<td>202.6</td>
<td>194.7</td>
<td>191.0</td>
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<td>Depreciations</td>
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<td>23.5</td>
<td>20.7</td>
<td>22.4</td>
<td>19.7</td>
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<tr>
<td>Housing expenses</td>
<td>22.9</td>
<td>24.6</td>
<td>22.1</td>
<td>22.3</td>
<td>22.2</td>
</tr>
<tr>
<td>Equipment and inventory</td>
<td>16.4</td>
<td>12.8</td>
<td>19.1</td>
<td>18.5</td>
<td>17.0</td>
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<td>Costs of materials</td>
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<td>13.5</td>
<td>13.6</td>
<td>13.7</td>
<td>13.7</td>
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<tr>
<td>Miscellaneous expenses</td>
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<td>37.4</td>
<td>36.3</td>
<td>36.9</td>
<td>35.7</td>
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<tr>
<td><strong>Total miscellaneous expenses</strong></td>
<td>114.8</td>
<td>111.8</td>
<td>111.8</td>
<td>113.8</td>
<td>108.3</td>
</tr>
<tr>
<td><strong>Total expenditure</strong></td>
<td>329.5</td>
<td>315.9</td>
<td>314.4</td>
<td>308.5</td>
<td>299.3</td>
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<tr>
<td><strong>Balance of income and expenditure</strong></td>
<td>12.4</td>
<td>11.8</td>
<td>5.5</td>
<td>9.4</td>
<td>5.9</td>
</tr>
<tr>
<td>Financial income and expenditure</td>
<td>-4.9</td>
<td>-4.2</td>
<td>-3.9</td>
<td>-4.0</td>
<td>-2.8</td>
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<tr>
<td><strong>Result before taxes</strong></td>
<td>7.5</td>
<td>7.6</td>
<td>1.6</td>
<td>5.4</td>
<td>3.1</td>
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<tr>
<td>Taxes</td>
<td>0.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td><strong>Result after taxes</strong></td>
<td>7.9</td>
<td>7.6</td>
<td>1.6</td>
<td>5.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Third party share in result</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>-0.1</td>
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<tr>
<td><strong>Net result</strong></td>
<td>7.9</td>
<td>7.6</td>
<td>1.6</td>
<td>5.3</td>
<td>3.1</td>
</tr>
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</table>
### Financial position

(amounts shown in millions of euros)

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<tr>
<td>Liquidity position</td>
<td>84.9</td>
<td>66.8</td>
<td>47.3</td>
<td>74.4</td>
<td>64.2</td>
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<tr>
<td>Net working capital*</td>
<td>-11.9</td>
<td>-19.5</td>
<td>-29.1</td>
<td>-3.5</td>
<td>5.8</td>
</tr>
<tr>
<td>Current ratio**</td>
<td>0.92</td>
<td>0.85</td>
<td>0.76</td>
<td>0.97</td>
<td>1.05</td>
</tr>
<tr>
<td>Solvency ratio***</td>
<td>0.36</td>
<td>0.36</td>
<td>0.36</td>
<td>0.35</td>
<td>0.36</td>
</tr>
<tr>
<td>Average credit term in days</td>
<td>25</td>
<td>28</td>
<td>28</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Group equity after consolidation of result</td>
<td>149.3</td>
<td>141.4</td>
<td>133.8</td>
<td>132.2</td>
<td>126.8</td>
</tr>
</tbody>
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<tr>
<td></td>
<td>27.3</td>
<td>23.4</td>
<td>21.1</td>
<td>18.3</td>
<td>20.7</td>
</tr>
</tbody>
</table>

* Net working capital = liquid assets - short-term debts

** Current ratio = liquid assets/short-term debts

*** Solvency ratio = group equity/total equity
Visiting address

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E: info@tue.nl