

Facts & Figures

2014



Portrait



Chairman of the Executive Board
Drs. D.J. van den Berg



Rector-Magnificus (and Vice-Chairman)
Prof. Ir. K.Ch. A.M. Luyben



Vice President for Education & Operations
Drs. J.L. Mulder

Vision

TU Delft views its role in society as supplying technological solutions that take us significantly further along the road towards sustainability and a flourishing economy. We position ourselves as an open academic community which, through its scientific personnel and graduates, is represented throughout the academic world and is rooted in our own regional and national, social and economic environment.

Mission

TU Delft's mission is to make a significant contribution towards a sustainable society for the twenty-first century by conducting groundbreaking scientific and technological research which is acknowledged as world-class, by training scientists and engineers with a genuine commitment to society and by helping to translate knowledge

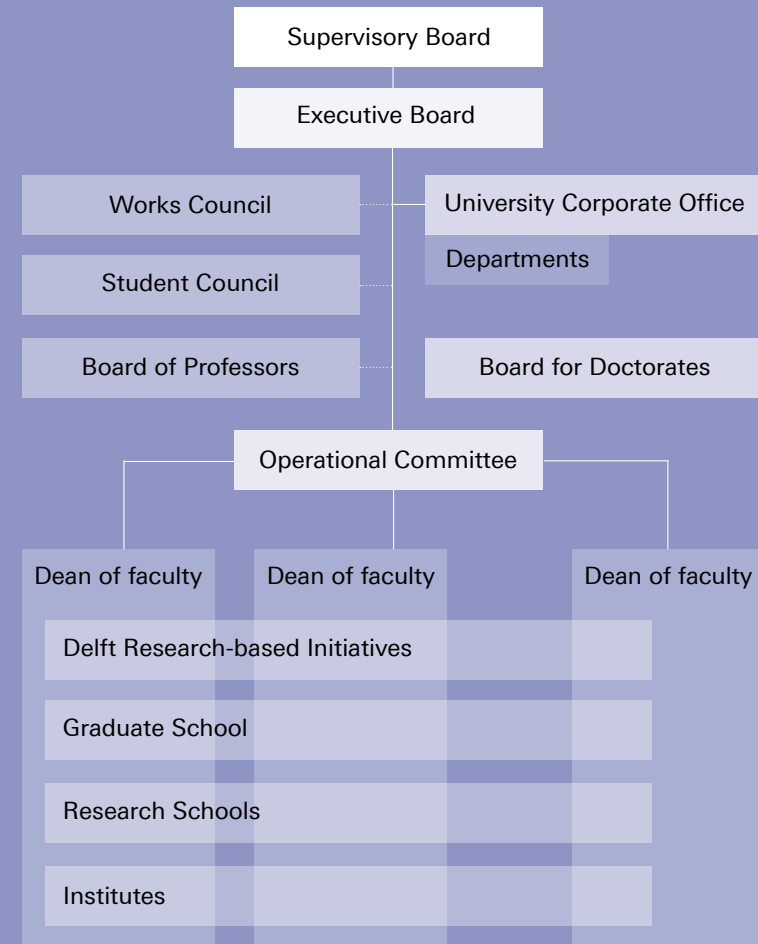
into technological innovations and activity with both economic and social value.

Values

These are the core values guiding everyone associated with TU Delft.

- Respect
- Integrity
- Expertise
- Transparency
- Avoiding conflicts of interest

Our modus operandi as an institution is trust – by which we mean that every member of our community is expected to comply with the core values, to draw inspiration from them and to feel responsible for upholding them. All at TU Delft should act with a sense of social responsibility and be aware of technology's value to and impact upon society.



Delft University of Technology @ a Glance

Finances (2013)

Equity	345,8 mln
First income stream	415,3 mln
Second income stream	42,0 mln
Third income stream	101,2 mln

Education (2013)

Bachelorprogrammes	15
Masterprogrammes	30
Student population	18781
PhD Students	2445
International students	2948
First year students	3914
Master degrees (2012)	2090

Research (2013)

Professors (in fte)	226
Publications (scientific)	5432
Promotions	353

Valorisation (2013)

Startups	17
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Personnel (2013)

Scientific staff (in fte)	2579
Scientific staff (in head-count)	2836
Professional services	1858



Faculties

- Architecture and the Built Environment
- Civil Engineering and Geosciences
- Electrical Engineering, Mathematics and Computer Sciences
- Industrial Design Engineering
- Aerospace Engineering
- Technology, Policy and Management
- Applied Sciences
- Mechanical, Maritime and Materials Engineering



Education and Students

Education

- TU Delft has opted for a compact portfolio of fourteen BSc programmes, which cover almost the entire range of engineering disciplines.
- There are more than thirty MSc programmes at TU Delft. Several of these are unique in the Netherlands.
- Some of these Master's degrees are offered in conjunction with other institutions, under the auspices of either the 3TU Federation or our alliance with Leiden University and Erasmus University Rotterdam (EUR).
- All our MSc courses are taught in English.



Bachelor programmes

- Aerospace Engineering
- Applied Earth Sciences
- Applied Mathematics
- Applied Physics
- Architecture, Urbanism & Building Sciences
- Civil Engineering
- Clinical Technology (joint degree, started in 2014)
- Computer Science & Engineering
- Electrical Engineering
- Industrial Design
- Life Science and Technology
- Marine Technology
- Mechanical Engineering
- Molecular Science and Technology
- Nanobiology (joint degree)
- Systems Engineering Policy Analysis & Management

Master programmes

- Aerospace Engineering
- Applied Earth Sciences
- Applied Mathematics
- Applied Physics
- Architecture, Urbanism and Building Sciences
- Biomedical Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Construction Management and Engineering
- Design for Interaction
- Electrical Engineering
- Embedded Systems
- Engineering and Policy Analysis
- Geomatics
- Industrial Ecology
- Integrated Product Design
- Life Science and Technology
- Management of Technology
- Marine Technology
- Materials Science and Engineering
- Mechanical Engineering
- Offshore and Dredging Engineering
- Science Education and Communication
- Strategic Product Design
- Sustainable Energy Technology
- Systems and Control
- Systems Engineering, Policy Analysis and Management
- Transport, Infrastructure and Logistics

Massive Open Online Courses

MOOCS

Courses in 2013 and 2014

- Introduction to Water and Climate
- Next Generation Infrastructure – part 2
- Solar Energy
- Introduction to Aeronautical Engineering
- Introduction to Fundamental Programming
- Technology for Biobased Products
- Delft Design Approach
- Introduction to Drinking Water Treatment
- Responsible Innovation
- Solving Complex problems
- Introduction to The Treatment of Urban Sewage



Scientific Focus



Architecture

- Architecture and the Built Environment
- Architectural Engineering & Technology
- Real Estate & Housing
- Urbanism
- OTB for the Built Environment

Civil Engineering and Geosciences

- Structural Engineering
- Geoscience & Engineering
- Hydraulic Engineering
- Water Management
- Geoscience & Remote Sensing
- Transport & Planning



Industrial Design Engineering

- Design Engineering
- Industrial Design
- Product Innovation Management

Technology, Policy and Management

- Engineering Systems & Services
- Multi Actor Systems
- Values, Technology & Innovation





Aerospace Engineering

- Aerodynamics, Flight Performance and Propulsion & Wind Energy
- Aerospace Structures & Materials
- Control & Operations
- Space Engineering

Applied Sciences

- Bionanoscience
- Biotechnology
- Chemical Engineering
- Imaging Science & Technology
- Quantum Nanoscience
- Radiation, Radio-nuclides & Reactors



Mechanical, Maritime and Materials Engineering

- Biomechanical Engineering
- Systems & Control
- Maritime & Transport Technology
- Precision & Micro-systems Engineering
- Process & Energy
- Materials Science & Engineering





Electrical Engineering, Mathematics and Computer Sciences

- Applied Mathematics
- Electrical Sustainable Energy
- Intelligent Systems
- Microelectronics
- Software & Computer Technology



Delft Research- based Initiatives

- Through its public mission and core values, TU Delft is an academic institution at the heart of society.
- Its scientists and researchers are working to resolve some of the great and pressing issues of our time, in four main areas: energy, health, the living environment and infrastructure and mobility.
- Helping to solve these and similar questions requires a lot of innovative research. And so represents an enormous challenge for our staff and students.

DRI	Energy	Environment	Infrastructures & Mobility	Health
				
Research fields	<ul style="list-style-type: none"> • Wind energy • Solar energy • Energy networks • (chemical) Storage • Energy efficiency in design • Energy efficiency in industry • Energy in the built environment • Geo-energy • Biomass • Nuclear 	<ul style="list-style-type: none"> • Urban Water • ICT for Environment • Sustainable Built Environment • Adaptive Delta Management • BioGeoCivil Engineering • TU Delft Climate Institute 	<ul style="list-style-type: none"> • Sustainable Efficient transport Logistics & mainports • Resilient durable infrastructures • Safe sustainable deltas and metro-poles 	<ul style="list-style-type: none"> • Medical Imaging & Image Guided Medicine • Interventions & Care • Targeted Molecular Technology • Vitality
Top Sectors	Energy, Water, High Tech Systems & Materials, Chemistry	Energy, Water	Logistics, Water, High Tech Systems & Materials	Life Sciences & Health, High Tech Systems & Materials

TU Delft Institutes

The TU Delft has clustered certain specific fields into a number of university-wide institutes. Each TU Delft institute is headed by one of our leading scientists.

TU Delft Process Technology Institute

The TU Delft Process Technology Institute (DPTI) focuses its educational and research efforts on realizing significant scientific impact that enables (bio)chemical, energy and materials industries to meet sustainability challenges of the future.

TU Delft Robotics Institute

The institute unites all the university's research in the field of robotics. The scientific challenge for the robotics institute is to get robots and humans to work together effectively in unstructured environments, and real settings.

TU Delft Transport Institute

Transport is an essential part of our society. Whether it's driving to work in the car, cycling to the supermarket, or having a package delivered at home, we all use transport on a daily basis. However, we also face the disadvantages of transport every day, in the

form of traffic jams, accidents and environmental pollution.

TU Delft Climate Institute

Spread all over the campus of TU Delft you can find researchers working on the topic 'climate', either by producing climate sensors, by producing models that describe our climate or by working on ways to cope with climate change. In TU Delft Climate Institute their expertise is brought together.

TU Delft Wind Energy Institute

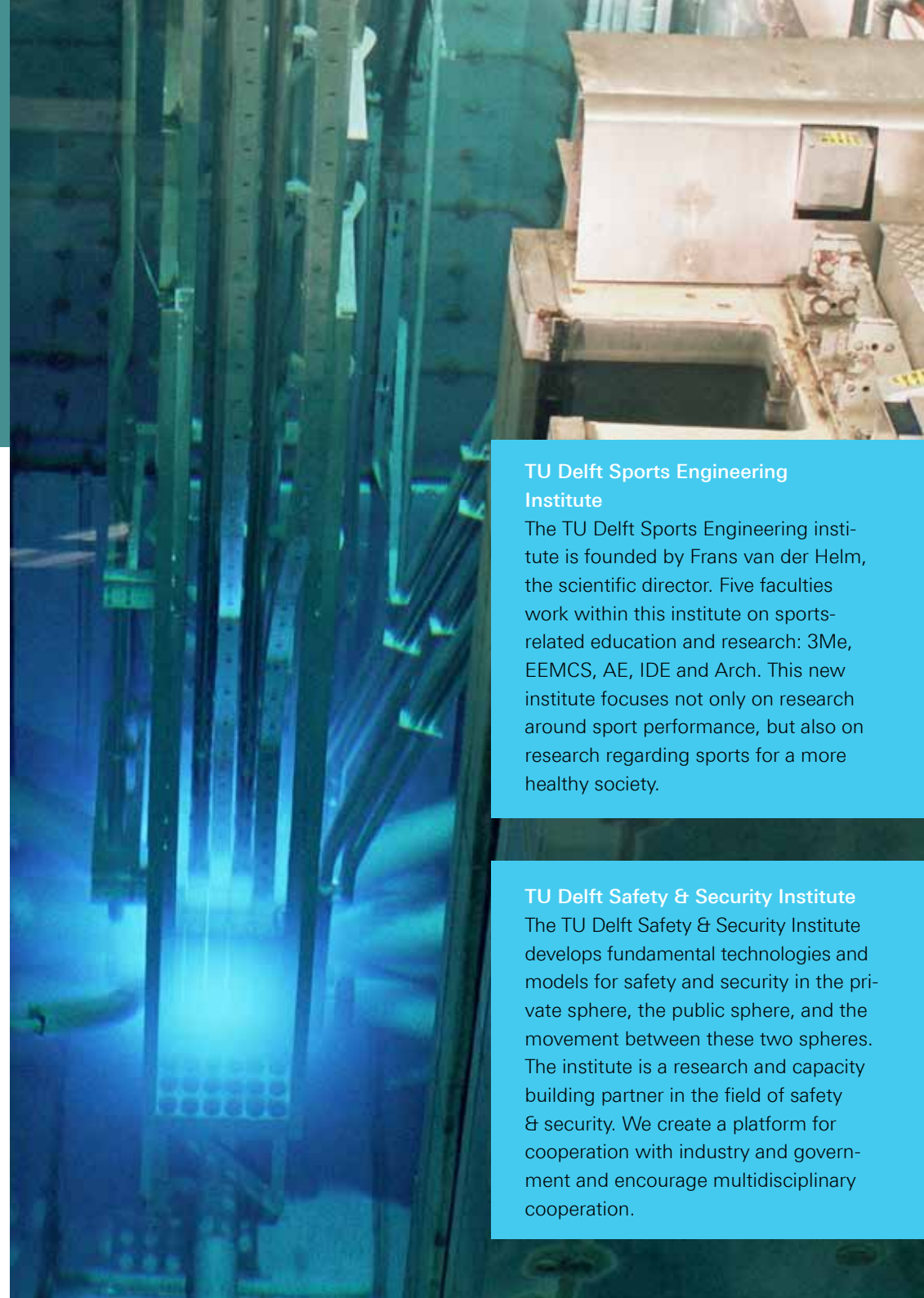
DUWind is the wind energy research organization of Delft University of Technology. Its research program covers almost all aspects of modern wind turbine technology, and is undertaken across 5 faculties in 13 groups. Each of the research groups at these faculties has its own specific expertise, but an increasing number of research questions require a multi-disciplinary approach.

TU Delft Sports Engineering Institute

The TU Delft Sports Engineering institute is founded by Frans van der Helm, the scientific director. Five faculties work within this institute on sports-related education and research: 3Me, EEMCS, AE, IDE and Arch. This new institute focuses not only on research around sport performance, but also on research regarding sports for a more healthy society.

TU Delft Safety & Security Institute

The TU Delft Safety & Security Institute develops fundamental technologies and models for safety and security in the private sphere, the public sphere, and the movement between these two spheres. The institute is a research and capacity building partner in the field of safety & security. We create a platform for cooperation with industry and government and encourage multidisciplinary cooperation.



Entrepreneurship@Delft

YES!Delft is the high-tech entrepreneurs centre with a clear mission: we build tomorrow's leading firms. We inspire students, professionals and scientists to make their first steps on the path to becoming an entrepreneur and offer them the necessary support to turn their enterprise into a 'leading firm'. YES!Delft focuses on companies with a technological, innovative and scalable product or process.

Number of companies YES!Delft supports

Start-up companies in 2013	17
Growing companies	22
Alumni companies	27

Number of companies per area of focus

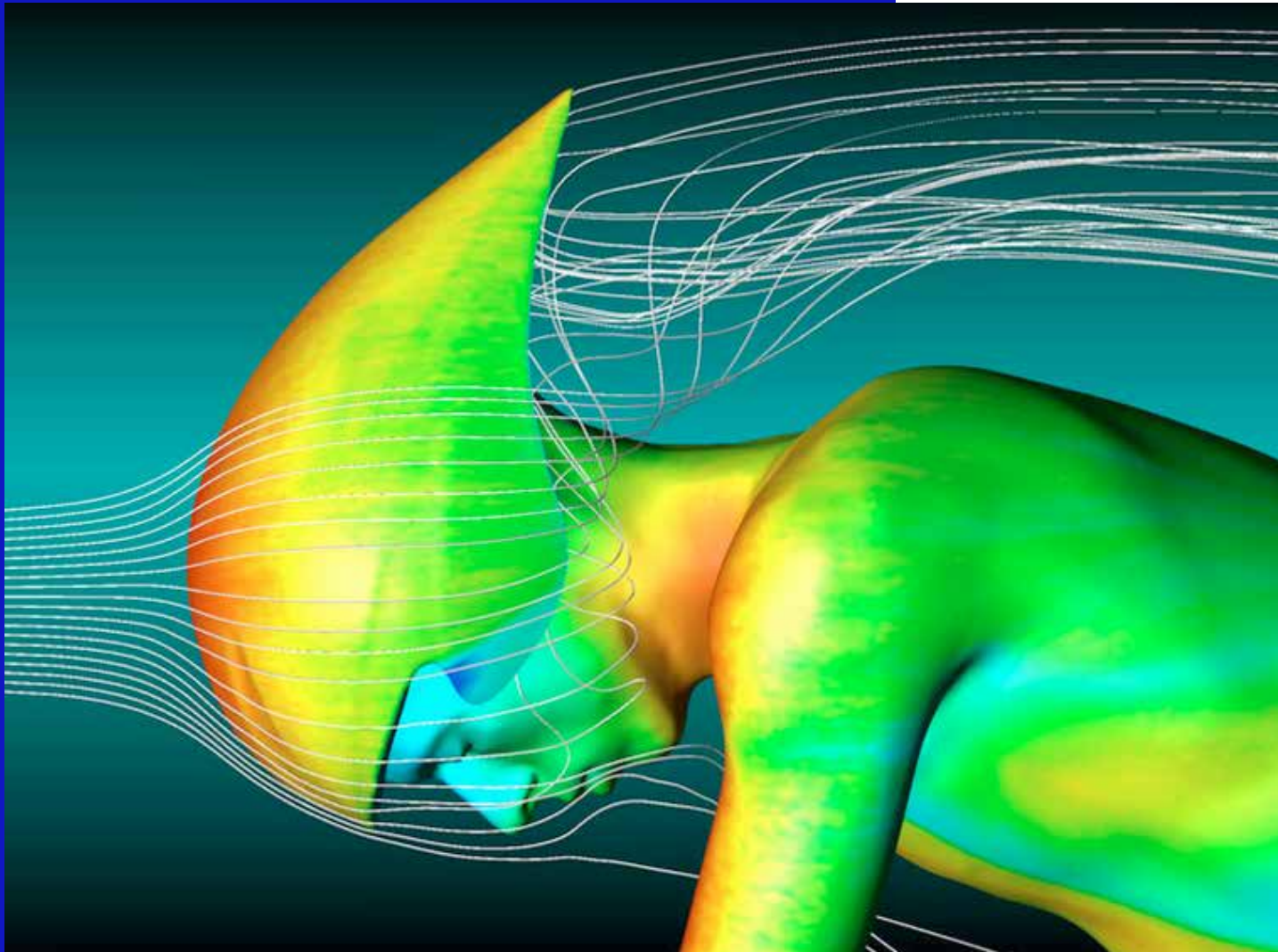
Industrial Solutions	34
ICT Solutions	34
Clean Technology	28
Consumer Products	14
Medical Technology	11



Valorisation

Valorisation Centre

Knowledge valorisation is the creation of social and economic value on the basis of scientific knowledge and skills. The Valorisation Centre supports, stimulates and facilitates scientists and supporting staff of the TU Delft in knowledge valorisation. This includes R&D subsidies (funding research projects), R&D project management, intellectual property, business development and cooperation with companies.



Grant agreements signed by European Union's FP7 until 2013

Rank among Higher Education Institutions	11
Participations	288
Projects	419

Grants in 2013

ERC Grants	7
Dutch (Veni/Vidi/Vici) Grants	21
STW Valorisation Grants	15

Global connections

TU Delft Joint Research Centers

TU Delft has the following international research centres:

- Nanjing, China - Water
- Beijing, China - Solid State Lighting
- Changzhou, China – Solid State Lighting
- Wuhan, China - Spatial Information
- Guangzhou, China - Urban Systems & Environment
- Campinas, Brazil - Biobased Economy
- Hanoi, Vietnam - VINWATER (Vietnam Netherlands Centre for Water and Environment)

Partner Network University Partners

3TU

- Eindhoven University of Technology
- Twente University

LDE

- Leiden University
- Erasmus University Rotterdam

IDEA

- ETH Zurich
- RWTH Aachen
- Chalmers University of Technology

CESAER

- 53 Universities of Technology in Europe

● TU Delft Joint Research Centers

● partner universities

Campus & Facilities

An inspiring campus

Our campus provides an attractive environment for everyone working, studying or staying at TU Delft. It is organised in a manner designed to appeal to the lifestyle of today's students and university staff, and flexible enough to accommodate education, research, new and established businesses, guest housing and sporting, cultural and other leisure activities. The planned Delft Technological Innovation Campus will be closely integrated with the university campus.

Research infrastructure

To attract outstanding scientific talent, to conduct groundbreaking research and to train new generations of engineers TU Delft is heavily dependent upon excellent but expensive infrastructure. This is what makes it possible for us to test the real-life practicality of models simulated on computers, for example – something no other Dutch university is able to do on such a large scale and a defining factor of TU Delft's profile in the international research landscape.



TU Delft Library

3TU.Datacentrum possesses the knowledge, experience and tools needed to archive research data in a standardised, secure and well-documented manner. It provides the research community with:

- an enduring archive for the storage of scientific research data;
- permanent access to research data and tools for its reuse; and,
- advice and support on data management.

Research facilities



Mechanical, Maritime and Materials Engineering

- Driving and racing simulator labs
- Fluid mechanics lab
- Mechatronics lab
- Perfect reactors lab
- Process technology lab
- Robotics lab
- Thermo lab
- Water tank and towing tank

Aerospace Engineering

- Aeroplane hangar
- Cessna Citation II jet aircraft
- Clean room for satellite building
- Flight simulator Simona
- Kite laboratory
- Laboratory for Earth Oriented Space research (LEOS)
- Materials lab
- Wind tunnels (low and high speed tunnels)

Architecture and the Built Environment

- Architectural model hall

Applied Sciences

- Chemical labs
- Fermentation labs
- Microbiology labs
- Molecular biology labs
- Nuclear research reactor
- Optical labs
- Vibration free labs

Civil Engineering and Geosciences

- Cloud lab
- CT scanner
- Driving simulator
- Dummy drill pit
- Self-driving car
- Traffic drone
- Water lab

Electrical Engineering, Mathematics and Computer Sciences

- Clean room
- Concrete & steel labs
- High-voltage engineering laboratory
- Jet ski
- Radar and telecommunication test facilities

Industrial Design Engineering

- Applied labs
- Consumer Research Product Evaluation Lab
- Foundational labs
- ID Studio lab
- 'Made Of..' materials library
- Model making and machine lab
- Perceptual intelligence lab
- Physical and ergonomics lab

Technology, Policy and Management

- Policy analysis simulation lab
- Serious game

History of the University

1842 - 1864: Royal academy

On January 8, 1842, King Willem II founded the 'Royal Academy for the education of civilian engineers, for serving both nation and industry, and of apprentices for trade'. The Academy also educated civil servants for the colonies and revenue officers of the Dutch East Indies.



1864 - 1905: Polytechnic school

An Act passed on May 2, 1863, imposing regulations on technical education as well as bringing it under the influence of the rules applying to secondary education. Then, on the 20th of June, 1864, a Royal Decree was issued, ordering that the Royal Academy in Delft be disbanded in order to make way for a new 'Polytechnic School'. The School went on to educate architects, and engineers in the fields of civil works, shipbuilding, mechanical engineering and mining.



1905 - 1986: Institute of Technology

On May 22, 1905, an Act was passed, acknowledging the academic level of the School's technical education - it became a 'Technische Hogeschool', or an 'Institute of Technology'. Queen Wilhelmina attended the Institute's official opening ceremony on July 10, 1905. The Institute's first Rector Magnificus was the professor of hydraulic engineering ir. J. Kraus. The Institute was granted corporate rights by an Act passed on June 7, 1956.



1986 - present: Delft University of Technology

It was an Act which took effect on 1st September, 1986, that officially transformed the Institute of Technology into Delft University of Technology, also known as 'TU Delft' (from the Dutch name Technische Universiteit Delft).



Rankings

TU Delft in rankings

	Position
Academic Ranking of World Universities (Shanghai Ranking 2014)	201 – 300
Shanghai Engineering/Technology and Computer Sciences (2014)	101 – 150
Times Higher Education World University Ranking (2014-2015)	71
THE Top 100 Engineering & Technology (2014-2015)	19
Times Higher Education World Reputation Ranking (2014)	42
QS World University Ranking (2014)	86
QS Engineering & Technology ranking (2014)	16
QS Natural Sciences ranking (2014)	79
De Leiden Ranking (2014)	148





Colophon:

Production

TU Delft, department of Marketing & Communication

Tekst and Figures

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