

Facts & Figures 2018/19





Microscopic examination in cancer research

The Entrepreneurial University

The Technical University of Munich (TUM) ranks among Europe's most outstanding universities in research and innovation – an achievement powered by its distinctive character as “Entrepreneurial University”:

Science beyond boundaries. TUM's broad spectrum of subjects is unmatched across Europe, spanning engineering, the natural and life sciences, medicine, economics and social sciences. The university leverages this enormous potential by intensively and intelligently linking the different disciplines. In doing so, it successfully develops new fields of research extending from bioengineering to artificial intelligence. Simultaneously, it addresses the social, ethical and economic issues raised by technological change.

Research meets practice. Doing research with the brightest minds in science, steering international projects and gaining early business experience: Students at TUM are perfectly prepared for working on the important topics of our time. That is why employers regularly nominate TUM as one of the top ten universities in the world.

Opportunities for talent. TUM offers amazing opportunities at every level of study and research, starting with the first semester right through to professorship. It invests more than other universities in the professional development of individual talent.

From lab to market. No other German university produces as many start-up founders as TUM, thanks to its unrivalled support infrastructure. More and more companies – and not just start-ups, but some of the world's most innovative global players – are establishing roots on campus in order to build research partnerships.

Departments & Integrative Research Centers

Departments

- Aerospace and Geodesy
- Architecture
- Chemistry
- Civil, Geo and Environmental Engineering
- Electrical and Computer Engineering
- Informatics
- Mathematics
- Mechanical Engineering
- Physics
- Sport and Health Sciences
- TUM School of Education
- TUM School of Governance
- TUM School of Life Sciences Weihenstephan
- TUM School of Management
- TUM School of Medicine

Integrative Research Centers

Scientists from various departments do research and teach in interdisciplinary fields at these centers.

- Munich Center for Technology in Society
- Munich School of BioEngineering
- Munich School of Engineering
- Munich School of Robotics and Machine Intelligence
- TUM Campus Straubing for Biotechnology and Sustainability
- TUM Institute for Advanced Study

Research & Technology Transfer

7,474 Scientific Publications 2018*

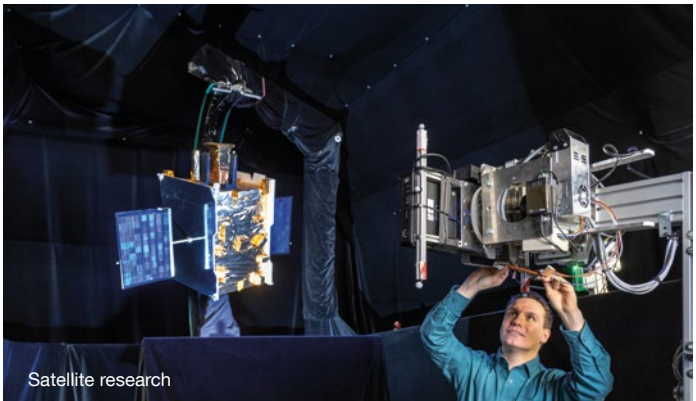
15 European Research Council
Grants 2018

4 Clusters of Excellence (German Excellence Strategy)

10 DFG Collaborative Research Centres led by TUM

66 Patents first filed in 2018

80 Spin-off companies 2018



Data as of April 1, 2019

*Source: Scopus database



Student team that has won the Hyperloop competition in the USA three times

Studies

168 Programs

among these

46 Bachelor

102 Master

58 English-language
programs

47 Programs with double
degree opportunity

7 Programs at TUM Asia
in Singapore

41,375 Students

among these

35 % Women

30 % from abroad

9,227 Graduates 2018

81,870 Members of TUM's
Alumni Network

Staff

566 Professors

among these

19 % Women

17 % from abroad

83 on Tenure Track

33 New appointments 2018

among these

36 % from institutions abroad

6,644 Research and
teaching staff

(including university
hospital)

among these

36 % Women

23 % from abroad

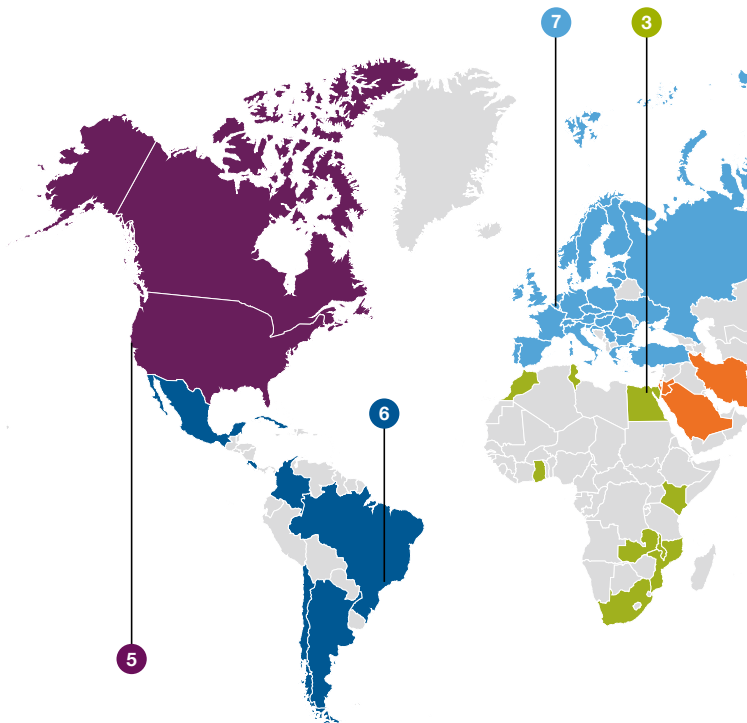
3,334 Other staff

(not-including
university hospital)

among these

60 % Women

TUM International



North America

23 partner universities

Central and South America

20 partner universities

Europe

40 partner universities and

329 Erasmus partnerships

Africa

10 partner universities

Data as of April 1, 2019

TUM Campus

1 TUM Asia, Singapore

TUM Branches

2 TUM Office Beijing

3 TUM Office Cairo

4 TUM Office Mumbai

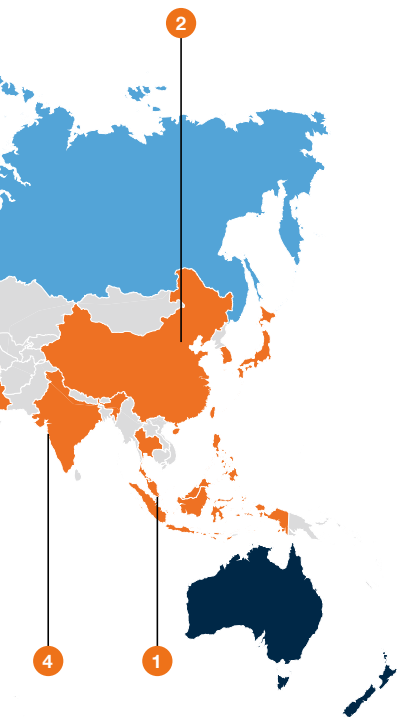
5 TUM Office San Francisco

6 TUM Office São Paulo

7 EuroTech Universities

Alliance (joint representation
in Brussels):

- École Polytechnique – l’X
- École polytechnique
fédérale de
Lausanne – EPFL
- Eindhoven University of
Technology – TU/e
- Technical University
of Denmark – DTU
- Technical University of
Munich – TUM
- Technion – Israel Institute
of Technology



Asia

60 partner universities

Australia & New Zealand

13 partner universities

Sites in Germany

Munich

Historic campus in the heart of the city

Garching

High-tech laboratories on TUM's largest campus

Freising-Weihenstephan

Modern life sciences in a traditional location

Straubing

Biotechnology with renewable resources

Taufkirchen / Ottobrunn

Aerospace innovation hub

Heilbronn

Economics in the "hidden champions" region



Funding

1,451.3 M euros **Total budget 2017**
(including university hospital)
from

626.8 M euros State of Bavaria
492.9 M euros Revenue
331.6 M euros Raised external funds

331.6 M euros **Raised external funds**
from

109.4 M euros DFG
65.1 M euros German Federal Government
49.3 M euros Private enterprise
36.8 M euros Other private donors
32.1 M euros EU
17.1 M euros State of Bavaria
16.9 M euros Foundations
4.9 M euros Founders of endowed professorships



Inventions, Discoveries, Successes

1893

Prototype of Rudolf Diesel's self-igniting engine. The idea came to Diesel while he was a student.

1928

Hans Fischer reproduces the red blood pigment hemin in a test tube.
(Nobel Prize 1930)

1985

Robert Huber decodes photosynthesis.
(Nobel Prize 1988)

1997

Long short-term memory, a groundbreaking method for machine learning and the basis for today's speech recognition

2006 & 2012

TUM is recognized as a University of Excellence.

2008

Patient receives first transplant of two arms.

1868

King Ludwig II of Bavaria founds the Polytechnic School Munich as a catalyst for industrialization.

1879

Carl von Linde founds a company to market his inventions in the field of cooling technology – the birth of the refrigerator.

1956

PERM, the fastest computer in the world

1957

Germany's first research reactor

2000

The world's first minimally invasive heart valve operation

2002

TUM Asia in Singapore, the first campus of a German university abroad

2014

Mapping of the human proteome

17 Nobel laureates

have conducted research or studied at TUM.

TUM in Rankings



TUM's clock tower in front of the Church of Our Lady

Rank 6 Global University Employability Ranking
(Times Higher Education)

Rank 6 Europe's Most Innovative Universities (Reuters)

Rank 61 QS World University Ranking
(best German university)

Rank 22 in engineering

Rank 24 in natural sciences

Rank 44 THE World University Ranking (Times Higher Education)

Rank 48 Academic Ranking of World Universities
(Shanghai Ranking)

Rank 1 German Startup Monitor

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