

### **Technische Universität Braunschweig**

www.tu-braunschweig.de

### **Research and teaching in figures**

| 86    | degree programmes       |  |
|-------|-------------------------|--|
| 3,300 | first semester students |  |
| 6,800 | students                |  |

| 120   | institutes           |
|-------|----------------------|
| 2,300 | scientists           |
| 3,800 | university employees |

| 124,000,000 | euros in outside funding |
|-------------|--------------------------|
| 393,000,000 | euros in overall budget  |





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## History

- 1745 The Collegium Carolinum, a new type of educational institution between secondary school and university, is established.
- **1878** The institute is renamed Ducal Polytechnic School (Herzogliche Technische Hochschule Carolo-Wilhelmina).



- **1968** After the establishment of a Faculty of Humanities and Social Sciences, the TH is renamed Technische Universität.
- **1978** The Teacher Training College is incorporated into TU Braunschweig.





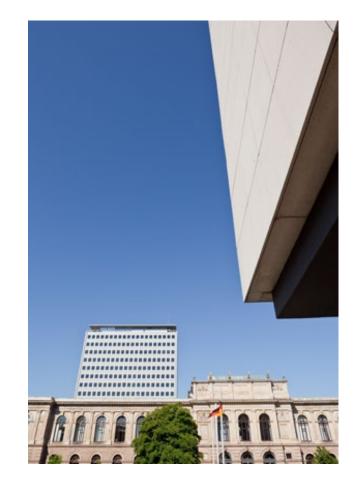
## History

- **2007** Braunschweig is named »City of Science«. Foundation of the Automotive Research Centre Niedersachsen.
- **2009** Foundation of the Aeronautics Research Centre Niedersachsen. Foundation of the Braunschweig Integrated Centre of Systems Biology.
- **2012** Foundation of the Centre of Pharmaceutical Engineering.
- **2016** Completion of the Open Hybrid LabFactory research campus. Inauguration of the Masch.Bau students' building.
- **2017** Record high of 20,116 students.
- **2018** Success in the Excellence Strategy: Clusters of Excellence in Aeronautics and Metrology.
- **2019** Relocation to the new Laboratory for Emerging Nanometrology.
- **2020** TU Braunschweig celebrates its 275th anniversary. Start of construction of a new student house and the Centre for Fire Research (ZeBra).



# Good reasons for choosing TU Braunschweig

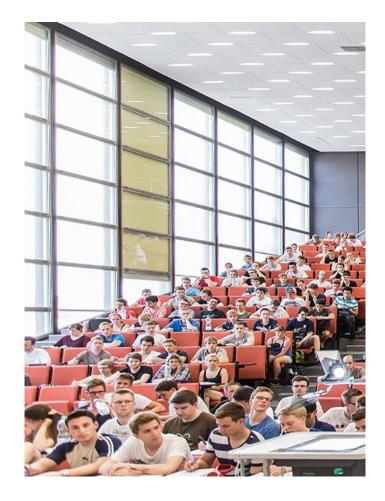
- An excellent reputation and a long tradition since 1745
- The university with the broadest range of engineering courses in Northern Germany
- Top-notch connections in Europe's number one research region
- Jobs and research projects at local research institutes and companies
- First-rate contacts with the industry and hands-on training
- Short distances between the TU's campuses in the vibrant city of Braunschweig





## **6** Faculties

- Carl-Friedrich Gauß: Mathematics, Computer Science, Business Science and Social Sciences
- Life Sciences
- Architecture, Civil Engineering and Environmental Sciences
- Mechanical Engineering
- Electrical Engineering, Information Technology and Physics
- Humanities and Educational Sciences





### **Core Research Areas**

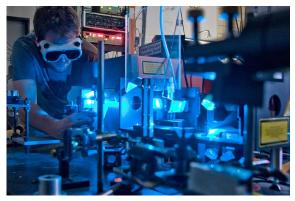
#### MOBILITY



#### **ENGINEERING FOR HEALTH**



#### **METROLOGY**



#### **FUTURE CITY**





Technische Universität Braunschweig – 7

## **Core Research Areas and Research Centres**

#### MOBILITY

- Automotive Research Centre Niedersachsen (NFF)
  - Open Hybrid LabFactory (OHLF)
- Battery LabFactory Braunschweig (BLB)
- Aeronautics Research Centre Niedersachsen (NFL)
- SE<sup>2</sup>A Sustainable and Energy-Efficient Aviation

#### **ENGINEERING FOR HEALTH**

- Braunschweig Integrated Centre of Systems Biology (BRICS)
- Centre of Pharmaceutical Engineering (PVZ)

#### METROLOGY

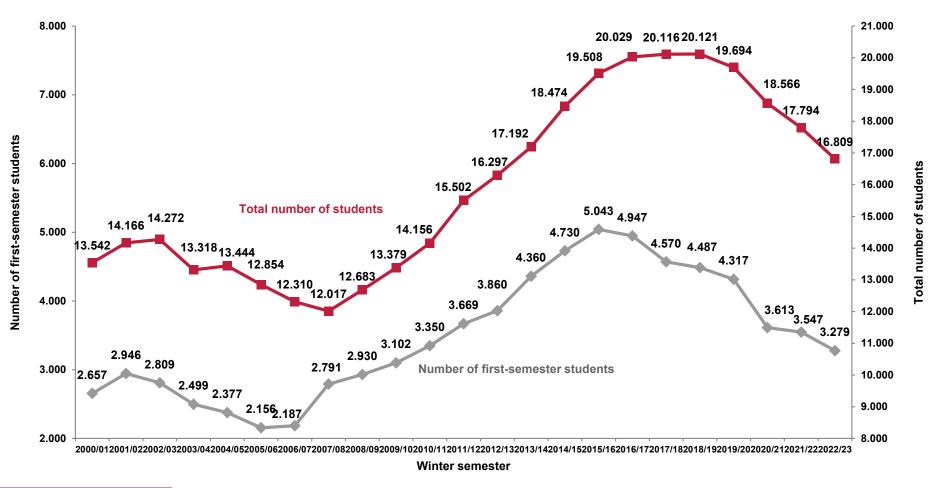
- Laboratory for Emerging Nanometrology (LENA)
- QuantumFrontiers

#### **FUTURE CITY**

Centre for Fire Research (ZeBra)

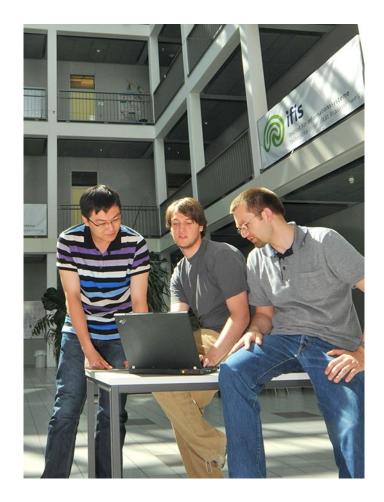


### **Student enrolment numbers**





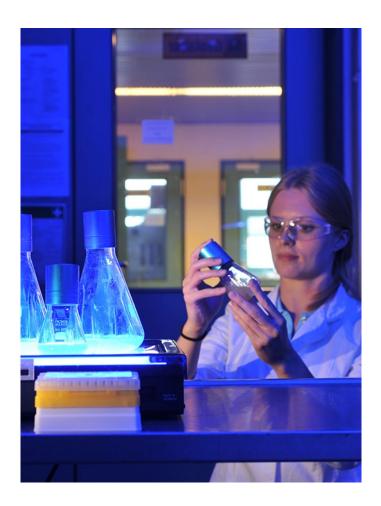
- Business Informatics (Bachelor, Master)
- Computer Science (Bachelor, Master)
- Data Science (Master)
- Mathematics (Bachelor, Master)
- Mathematics in Finance and Industry (Bachelor, Master)
- Media Sciences (Bachelor)
- Media Technology and Communication (Master)
- Organisation, Governance, Education (Master)
- Social Sciences (Bachelor, Master)
- Technology-orientated Management (Master)





### **Life Sciences**

- Biochemistry/Chemical Biology (Master)
- Biology (Bachelor, Master)
- Biotechnology (Bachelor, Master)
- Chemistry (Bachelor, Master)
- Child and Adolescent Psychotherapy (Approbation)
- Food Chemistry (Bachelor)
- Pharmacy (State examination)
- Psychology (Bachelor, Master)
- Psychotherapy (Approbation)





# Architecture, Civil Engineering and Environmental Sciences

- Architecture (Bachelor, Master)
- Architecture+ (Bachelor)
- Civil Engineering (Bachelor, Master)
- Computational Sciences in Engineering (Master)
- Environmental Engineering (Bachelor, Master)
- Environmental Sciences (Bachelor, Master)
- Industrial and Civil Engineering (Bachelor, Master)
- Transportation Engineering (Bachelor, Master)





## **Mechanical Engineering**

- Aerospace Engineering (Master)
- Automotive Engineering and Mobile Systems (Master)
- Biochemical Engineering (Master)
- Biological, Chemical and Pharmaceutical Engineering (Bachelor)
- Industrial and Mechanical Engineering (Bachelor, Master)
- Mechanical Engineering (Bachelor, Master)
- Metrology and Analytics (Master)
- Pharmaceutical Process Engineering (Master)
- Sustainable Energy Engineering (Master)
- Sustainable Engineering of Products and Processes
  (Bachelor)





# **Electrical Engineering, Information Technology, Physics**

- Computer Systems Technology (Bachelor, Master)
- Electrical Engineering (Bachelor, Master)
- Electromobility (Master)
- Electronic Automotive and Aerospace Systems (Master)
- Industrial and Electrical Engineering (Bachelor, Master)
- Physics (Bachelor, Master)
- Sustainable Power Systems and Electromobility (Bachelor)





## **Humanities and Educational Sciences**

- 2-subject Bachelor's degree (B.A. or B.Sc.)
- Culture of the Technical-Scientific World (Master)
- Educational Sciences (Bachelor)
- Teacher Training Course Grundschule (Master)
- Teacher Training Course Haupt- und Realschule (Master)
- Teacher Training Course Gymnasium (Master)





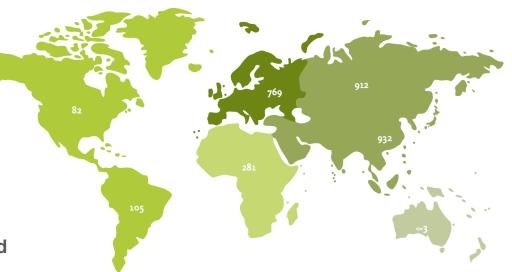
## International

3,200 international students

from 120 countries = **19** %

Top-notch connections:

- 330 partner universities around the world
- 170 cooperation programmes with European universities (Erasmus)
- Strategic partnerships with universities in France, Great Britain, Italy, Switzerland, the USA, China, Singapore, Japan, Brazil, Mexico and Australia.





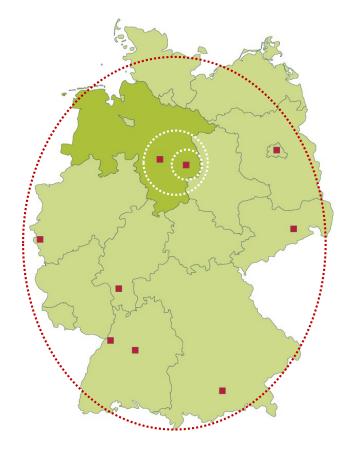


## Active in the Research Region – networked in Germany

- Research Alliance of Technische Universität Braunschweig and Leibniz Universität Hannover
- Member of TU9
- Strong partner of the research industry

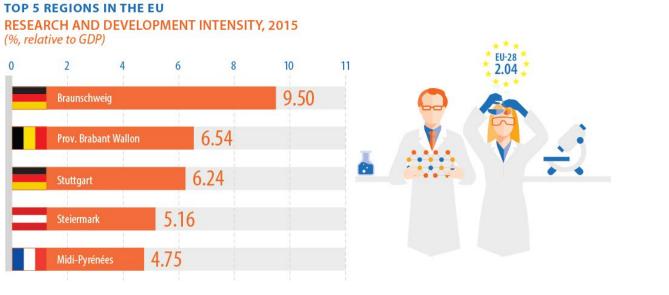






# **Europe's Research Region**

- Braunschweig is the most active research region in Europe.
- Braunschweig is also Europe's top investment region, with the highest level of spending on research and development (eurostat 2015/2018).







# The City of Braunschweig – university and life style

- Metropolitan city with 250,000 inhabitants from 150 countries
- Largest city between Berlin and Hanover
- Focal point of a renowned science and research region and an important business hub
- Rich in medieval history, with an exciting present and a high-tech-oriented future
- Broad range of cultural, sporting and recreational activities





