

Pursuing a Graduate Degree at the Technical University of Munich (TUM)

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TUM San Francisco

Technical University of Munich

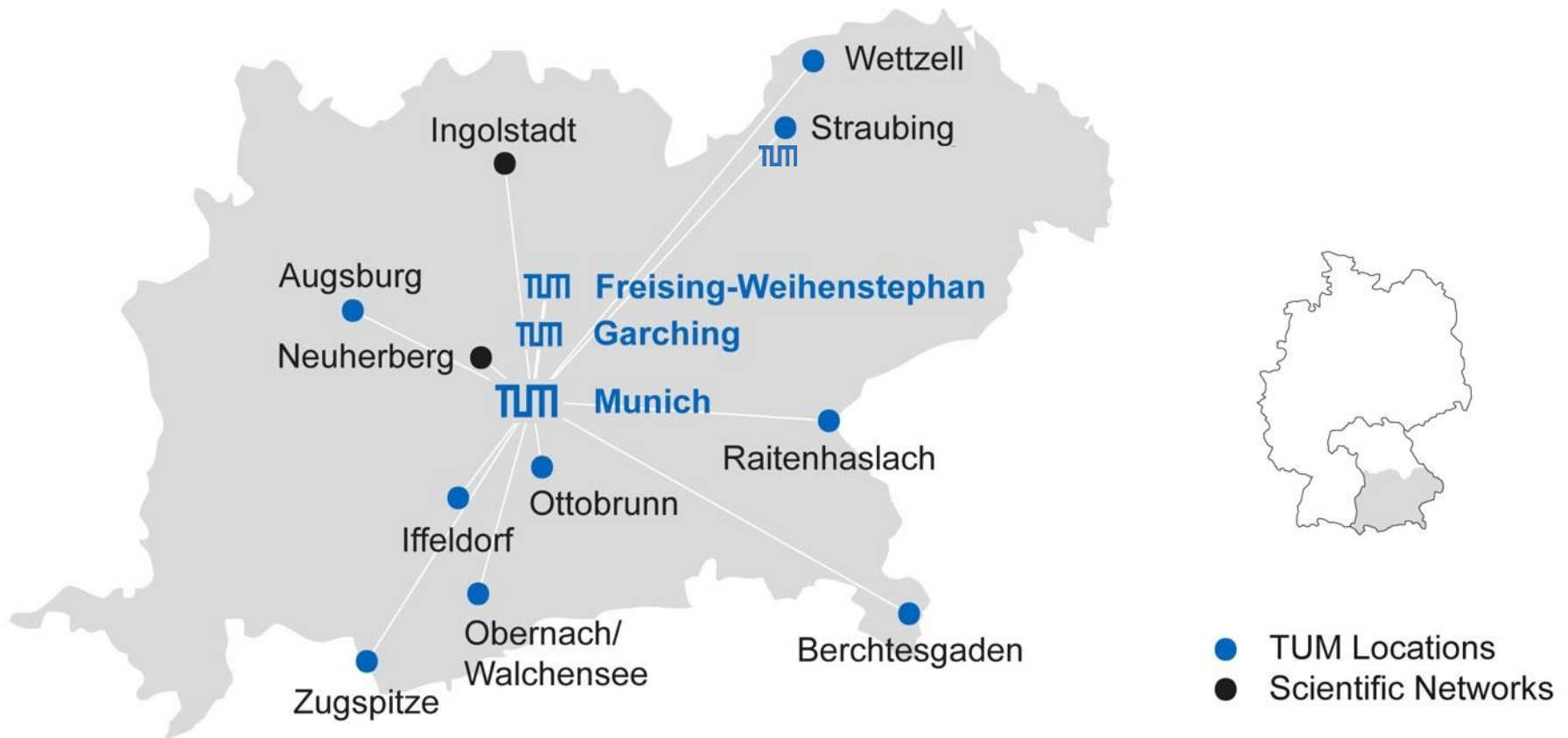
San Francisco, February 12, 2019



sanfrancisco@tum.de

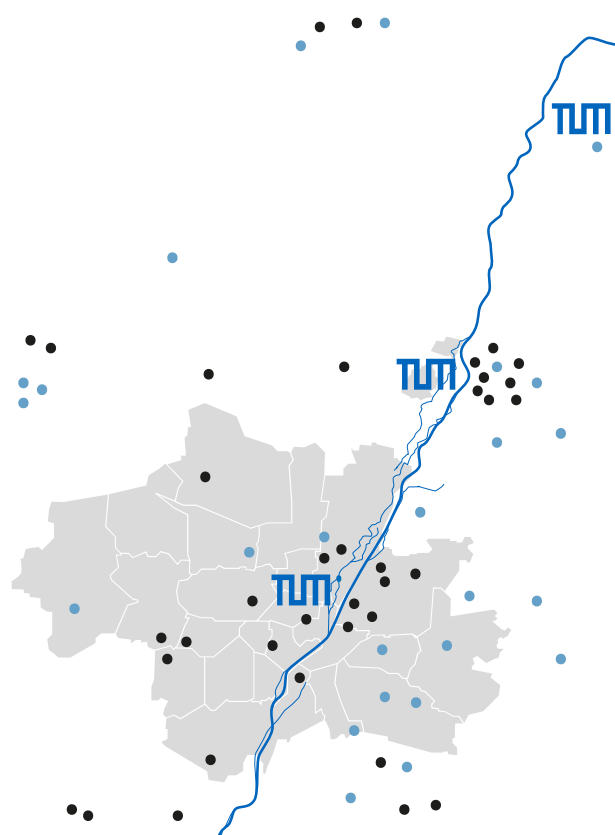
www.international.tum.de/sanfrancisco

Locations in Bavaria



European Metropolitan Region Munich

Research Network



Industry Network



TUM at a Glance



Students

~ 41,500

35% female
29% int'l

Professors

548

2018

Faculties

14

Degree Courses

178

99 Masters
28 in English

Graduates

~ 9,500

Doctoral Theses

> 1,000

ISI Publications

~ 6,000

2016

Research Agreements

> 1,000

ERC Grants

96

Since '08

Humboldt Laureates

47

2011-15

Leibniz Laureates

18

Since '87

Nobel Laureates

17

Startups

700+

Since '90

Fundraising

~ 280M

1998 - 2016

3rd party funding

285 M

2016

Locations Abroad

7

University of Excellence since 2006

TUM in Rankings 2017/18

Best Global Universities
U.S. N&W Report

QS World Universities

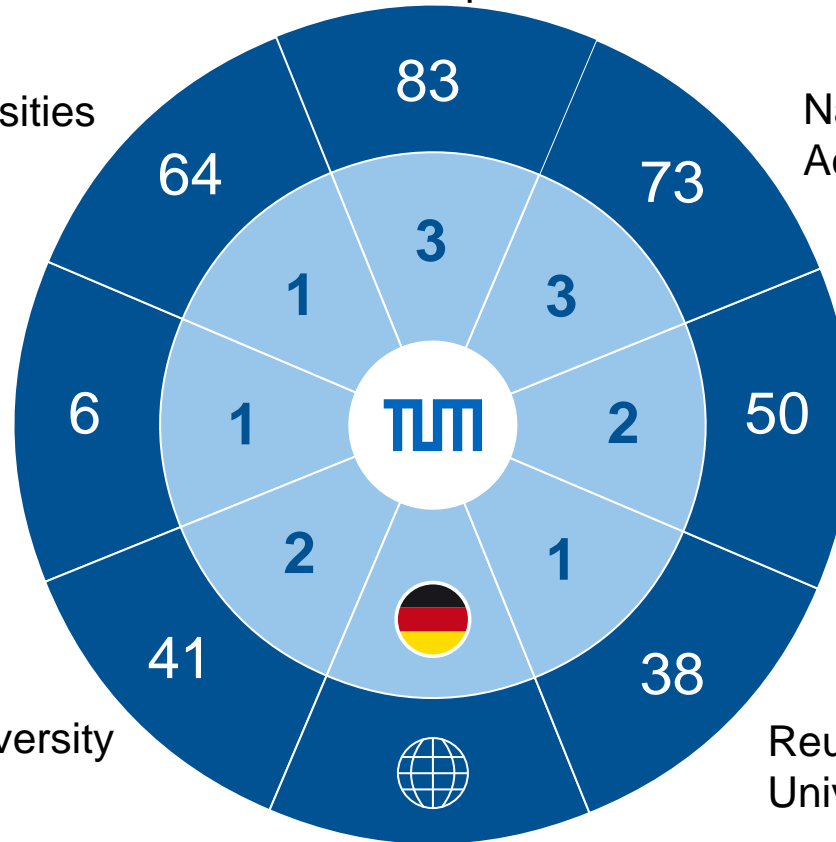
Nature Index – Top
Academic Institutions

Global University
Employability Ranking

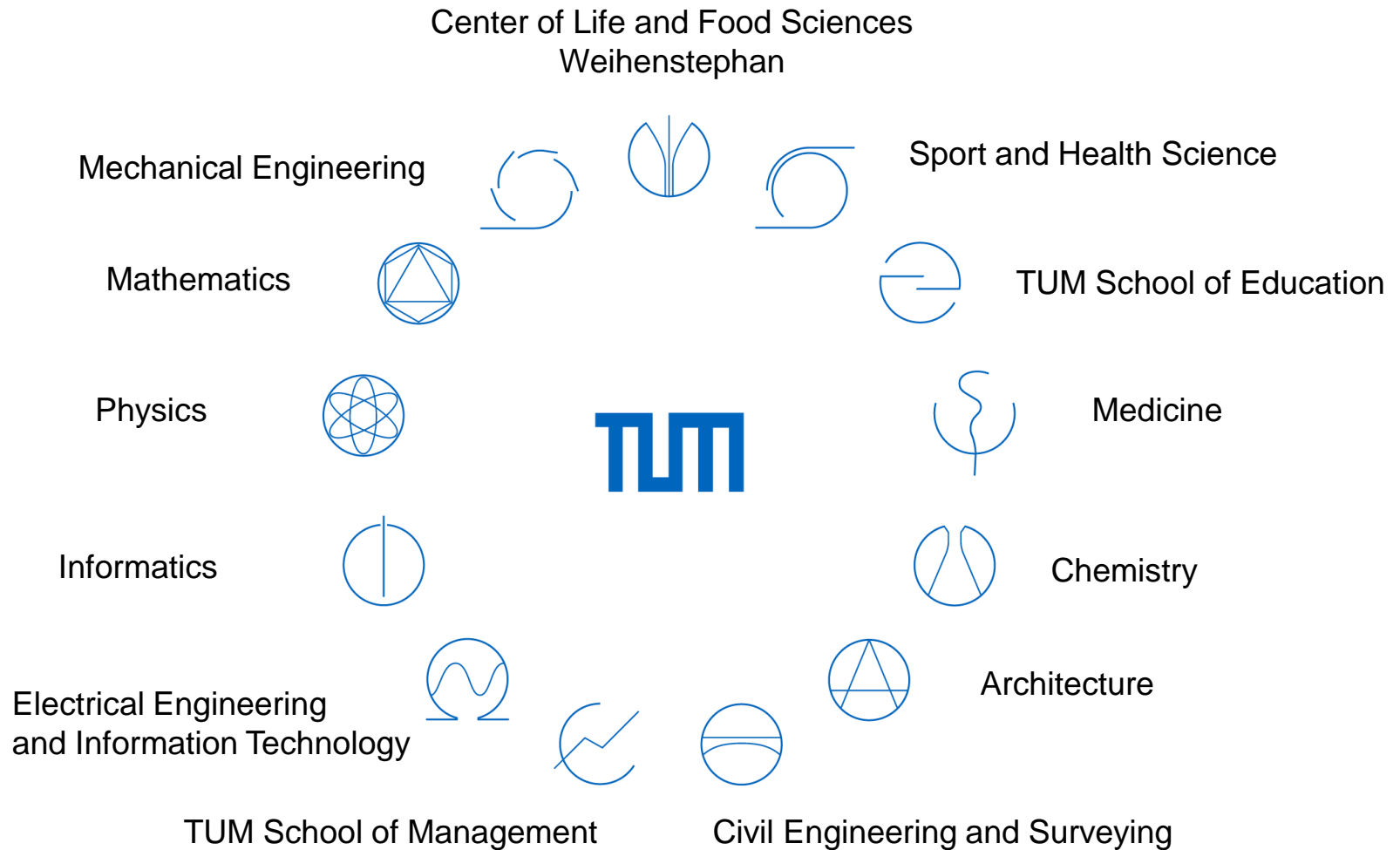
Academic Ranking of
World Universities
„Shanghai“

THE World University
Rankings

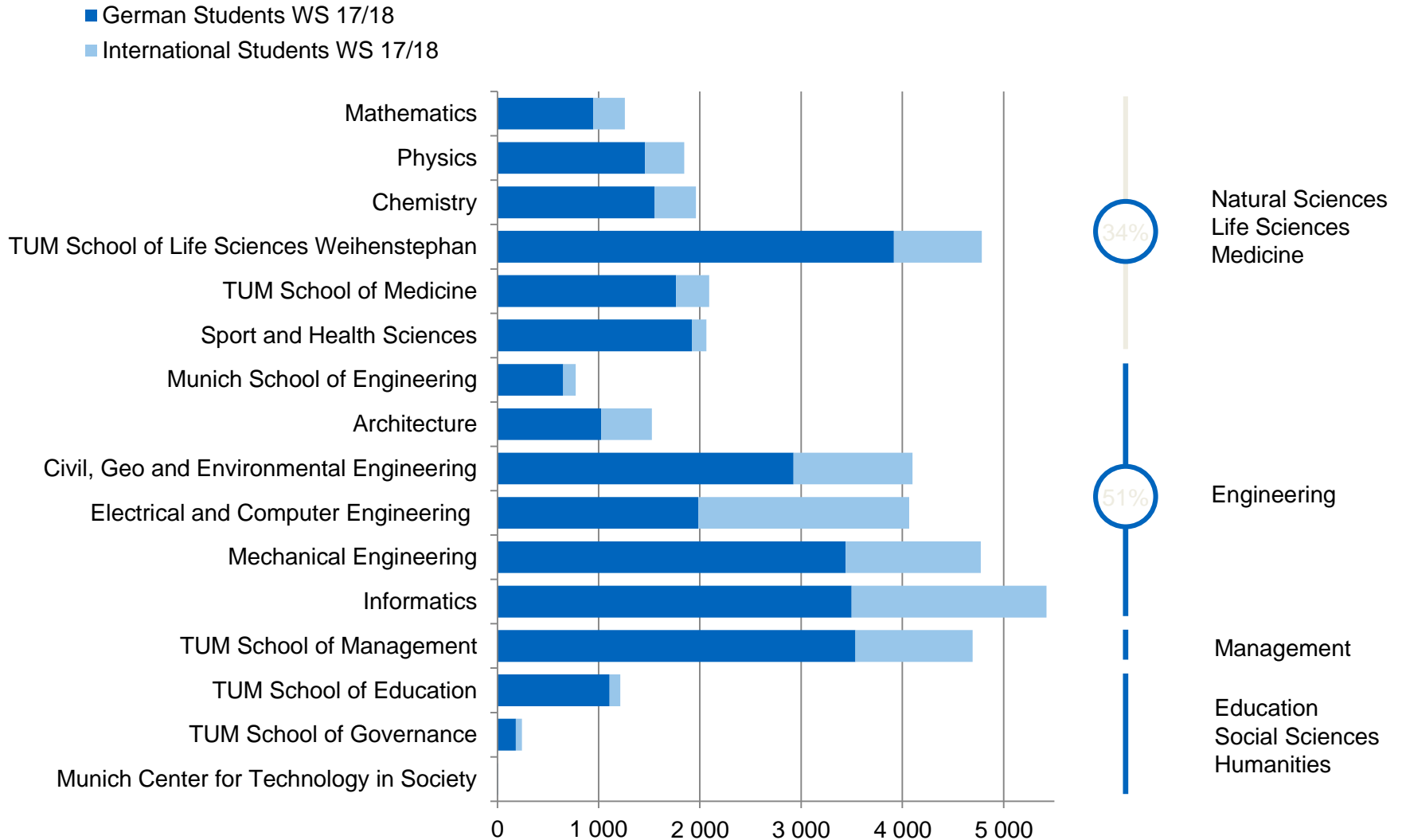
Reuters Most Innovative
Universities



Departments



Students by Departments



Master courses at TUM I

Various Master courses completely in English or in English/German

- 30 Master courses in English and 28 Master courses in English and German in Science and Engineering
- <https://www.tum.de/en/studies/degree-programs/>

Duration

- 2 years (4 semesters)
- Administrative Fees: 129 Euros / semester

Preconditions / Application process

- Outstanding Bachelor degree (BSc), needs to be recognized
- Letter of Motivation
- Letters of recommendation (normally from 2 different professors)
- German language skills helpful but not mandatory (only for Master courses completely in English language)
- Good knowledge of English is essential (TOEFL: min IbT:88, CbT:234, PbT: 605 / IELTS: min 6,5 and CAE&CPE Level A,B and C)
- Sometimes Internships and work experience required
- Interviews in some cases (via skype or personally)
- Every course has its own list of required documents



Master courses at TUM II

International Master courses in English

- Sustainable Resource Management (Master)
- Nutrition and Biomedicine (Master)
- Physics (Applied and Engineering Physics) (Master)
- Power Engineering (Master)
- Power Systems and Energy Management (Master)
- ESPACE-Earth Oriented Space Science and Technology (Master)
- Environmental Engineering (Master)
- Communications Engineering (Master)

International Master courses in English and German

- Management and Technology (TUM-BWL) (Master)
- Nanoscience and Catalysis (Master)
- Landscape Architecture (Master)
- Industrial Biotechnology (Master)
- Electrical Engineering and Information Technology (Master)
- Robotics, Cognition, Intelligence (Master)



The TUM doctoral model I



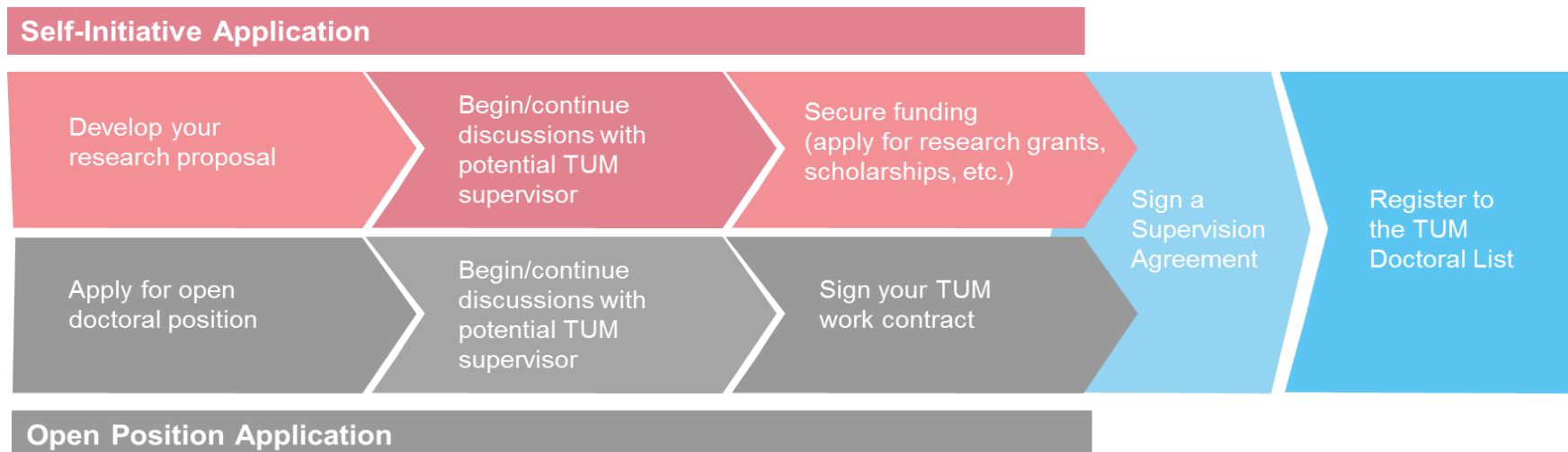
- ✓ Independent research as well as integration into the TUM research environment and interdisciplinary networks
- ✓ Combination of fixed and optional curriculum based on the individual needs of the candidate
- ✓ Mentor besides doctoral supervisor
- ✓ Supervision agreement and mid-term feedback talk

Application for a doctorate at TUM II

Pre-requisites

- Excellent Master degree
- Fluency in English (German not needed but a plus)
- A TUM professor who supervises the doctoral research

Application procedure



Funding a doctorate at TUM

- No tuition fees for doctorates
- Three possibilities for funding, each with different implications

1

Employment at TUM:

Research associates are employed at a TUM chair/research group. Available positions on the TUM website and/or website of the chair/research group.

- Work closely with supervisor
- Involves teaching and administrative tasks
- Part of TUM' research staff with access to staff development facilities

2

Scholarship/ Grant:

Scholarship holders finance their doctorate with funding from an external organization. No TUM scholarships.

- Active participation in the academic environment of TUM
- Often more freedom in choosing the research topic

3

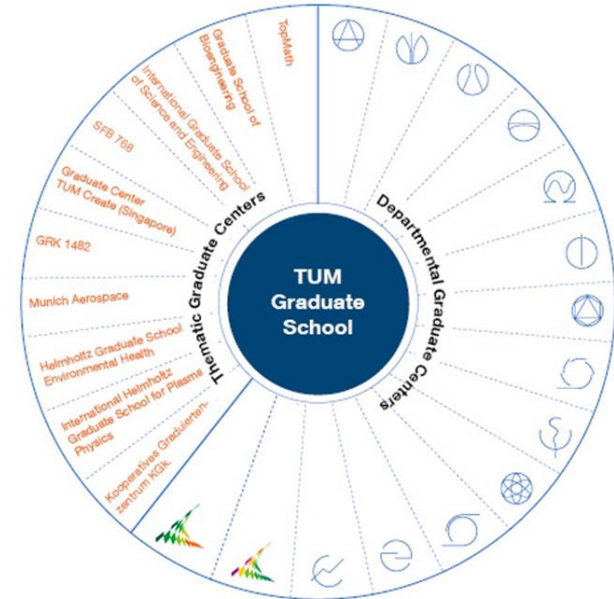
External Doctorate:

Candidates work for a company or a external research institution while being supervised by a TUM professor.

- Active participation in the academic environment of TUM
- Less integration into the daily-business of the chair/research group

TUM-GS Facts & Figures

- Established 2009
- Largest of its kind in Germany with automatic membership since 2014
- **17 Departmental Graduate Centers**
- **8 Thematic Graduate Centers**,
incl. 4 with external partners
- **Graduate Dean** as a member of the TUM
Extended Board of Management
- Doctoral Council
- Current members: **~6,000**
- Intake in 2017: **1344**
- Graduation in 2016: **995**
- female doctoral candidates: **33%**
- international doctoral candidates: **29%**
- **Top 5 international countries** of origin: China, Italy, Austria, India, Iran



TUM-GS Kick-Off Seminar

15-17 Kick-Off Seminars p.a.

80-100 doctoral candidates across all disciplines

Goals:

- Interdisciplinary exchange
- Strengthening of personal network
- Get to know TUM and its resources
- Transferable skills training

Fixed program parts:

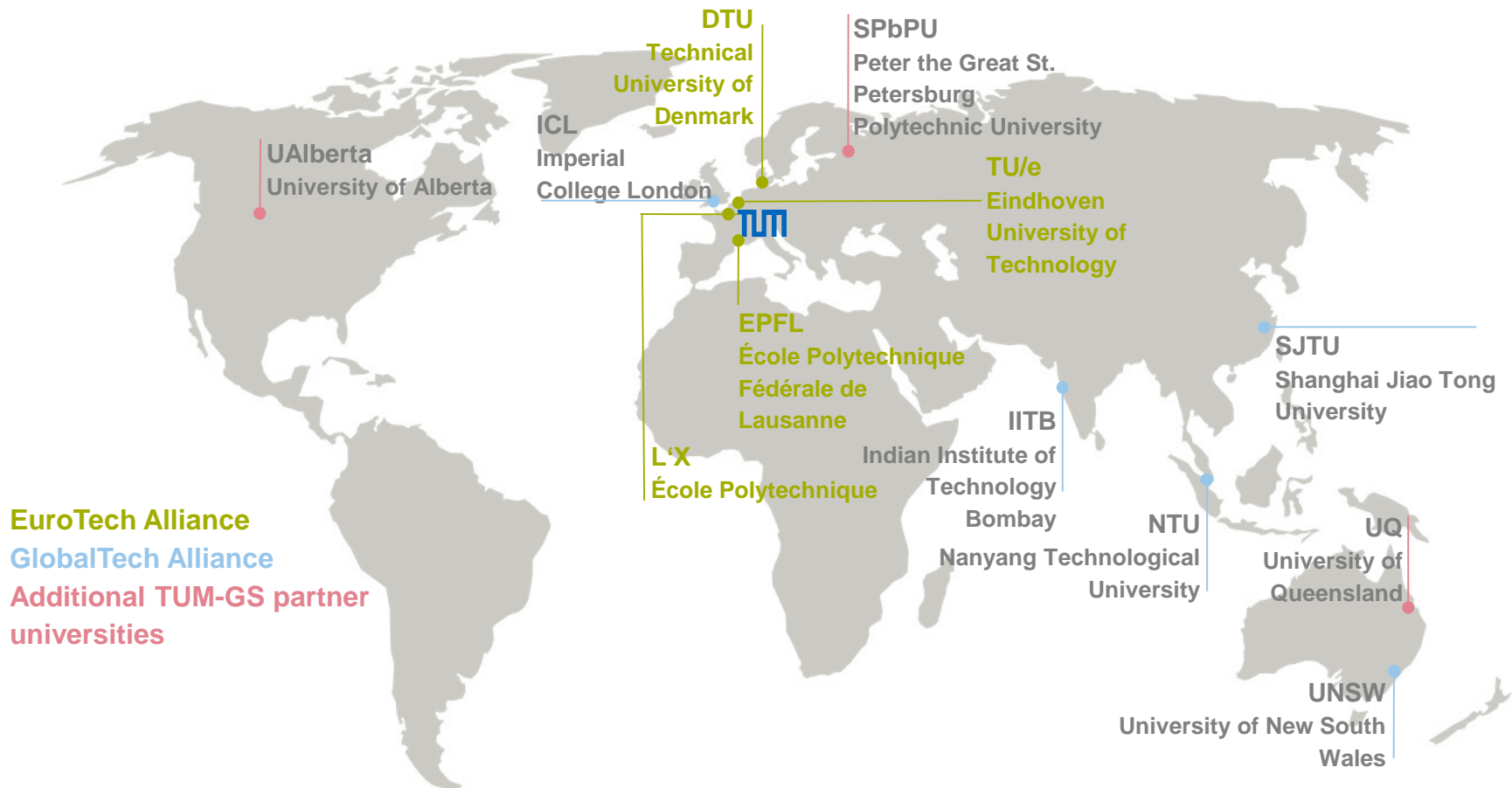
- Intro to Good Scientific Practice
- Poster session
- Science Slam, music, culture and networking
- Introduction to TUM services and entrepreneurship



TUM-GS Partnership Mobility Grant

Additional travel grant for research stays and workshops at partner universities

- Up to 500 EUR (within Europe)
- Up to 1.000 EUR (outside Europe)
- All regular members of the TUM-GS



PhD Opportunity Grant

- 4-8 weeks research stay at the chair/research group of potential TUM supervisor
- Monthly scholarship rate: 700 euro + 150 euro accommodation support

Objectives:

- Increase the chance of finding a doctoral supervisor by enabling personal meetings and interaction between applicant and prospective supervisor
- Gain first impressions of future colleagues, the professor
- Get overview of TUM's research environment, Germany and life in Munich

How to apply:

- No deadlines
- Letter of support from the prospective doctoral supervisor for research stay

