

# TUM. The Entrepreneurial University.

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# European Metropolitan Region Munich

#### **Research Network**

















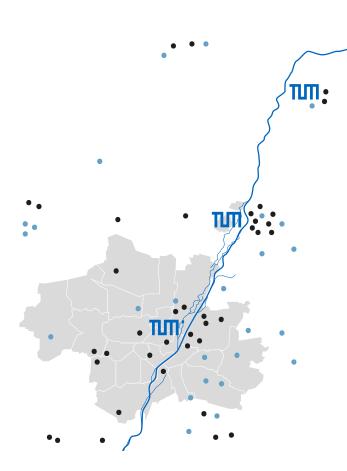


HelmholtzZentrum münchen Deutsches Forschungszentrum für Gesundheit und Umwelt









#### **Industry Network**



























































## TUM at a Glance



**Students** 

~ 41,500

35% female 29% int'l

**Professors** 

545

2016

**Faculties** 

14

**Degree Courses** 

**172** 

99 Masters 28 in English

**Graduates** 

~ 8,900

**Doctoral Theses** 

> 1,000

**ISI Publications** 

~ 6,000

2016

**Research Agreements** 

> 1,000

**ERC Grants** 

71

Since '08

**Humboldt Laureates** 

47

2011-15

**Leibniz Laureates** 

18

Since '87

**Nobel Laureates** 

16

**Startups** 

700+

Since '90

**Fundraising** 

~ 280M

1998 - 2016

3<sup>rd</sup> party funding

285 M

2016

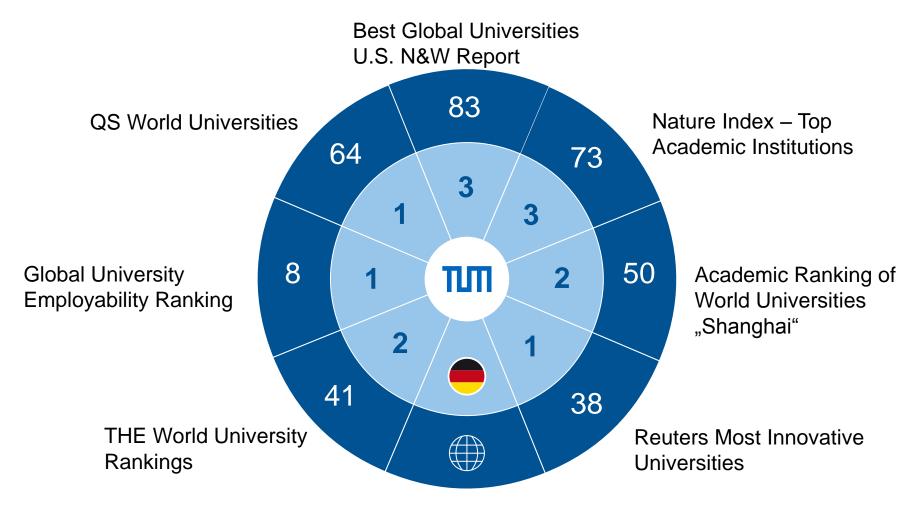
**Locations Abroad** 

7

**University of Excellence since 2006** 



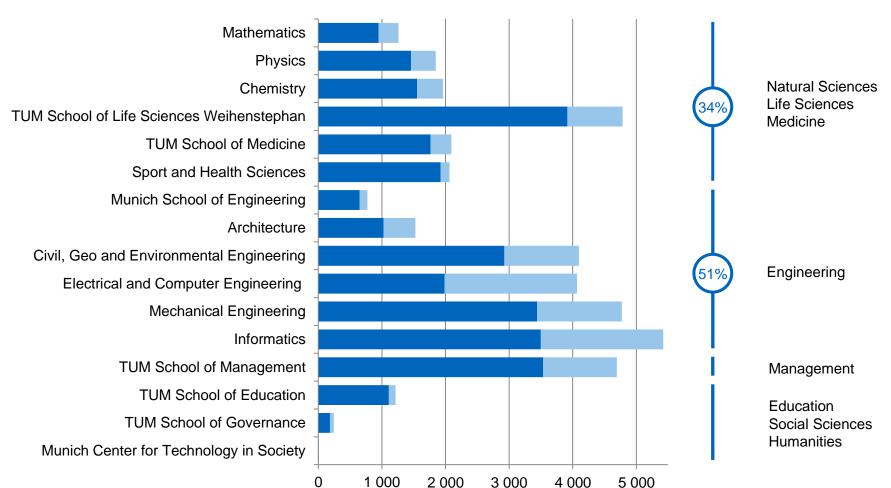
# TUM in Rankings 2017/18





# Students by Departments

- German Students WS 17/18
- International Students WS 17/18





### TUM. Estudar na TUM

#### •Custos:

- Matrícula: 129 Euros (por semestre) com transporte local
- Custo de vida (entre 700 e 800 Euros ao mes)
- Bolsa do Estado Bávaro para alunos de colegios alemães – BayBIDS (www.baybids.de/Motivationsstipendien .html)

#### Atividades extracurriculares:

- Instalações esportivas do Centro Olímpico
- Cursos de idioma (gratuito, também alemão como língua estrangeira)
- A cidade de Munique



#### Mais informações:

www.tum.de/en/studies/fees-andfinancial-aid/

www.tum.de/en/university-life/



## Master courses at TUM 1/2

#### 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
- http://portal.mytum.de/studium/studiengaenge/englisch

#### **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 lbT: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 2/2

#### **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)





## Doctorate at TUM I

#### Various schemes towards a doctorate

- Individual doctorate (chair-centered)
- Doctorate in cooperation with a research institution or industry



All doctoral candidates are members of the TUM Graduate School that supports them and their careers with a wide range of tailor-made courses, networking opportunities and services.

#### **Duration**

- usually 3 years for scholarship holders
- 4-5 years for research associates (employment contract)

#### **Preconditions**

- outstanding Master's degree (MSc), needs to be recognized
- appropriate funding needs to be secured
- German language skills helpful but not mandatory
- good working knowledge of English is essential (no TOEFL scores need to be proven, though)



## Doctorate at TUM II

#### **Application process**

- investigate research opportunities at TUM and its departments/schools
- use any previous contacts
- discuss with TUM liaison officer.
- contact prospective TUM professors directly with
  - CV
  - research proposal (with a rough outline)
  - list and abstracts of publications (if available)
  - certificates, diplomas
  - references

#### In case there is mutual interest:

- discuss topic further
- specify milestones in supervision agreement
- find and secure funding
- start registration process at TUM (online)
- contact Welcome Office of TUM Graduate School for help with accommodation and visa issues
- start learning German (if possible)



#### Opportunity Grant:





- 700 Euros(month) plus 150 Euros rent support (month
- Apply via TUM Liaison Office and by the TUM professors



## TUM-GS (Graduate School)

#### **Employment at TUM**

- Employment as research associate at the chair or institute (Wissenschaftlicher Mitarbeiter)
- Working closely with the supervisor
- Often involves teaching and administrative tasks

#### **Scholarship**

- Scholarship from external institution
- Active participation in the academic environment of TUM



#### **External Doctorate**

- Either employment at an external research institution (e.g. Max-Planck-Institut)..
- ..or employment at a company
- Active participation in the academic environment of TUM



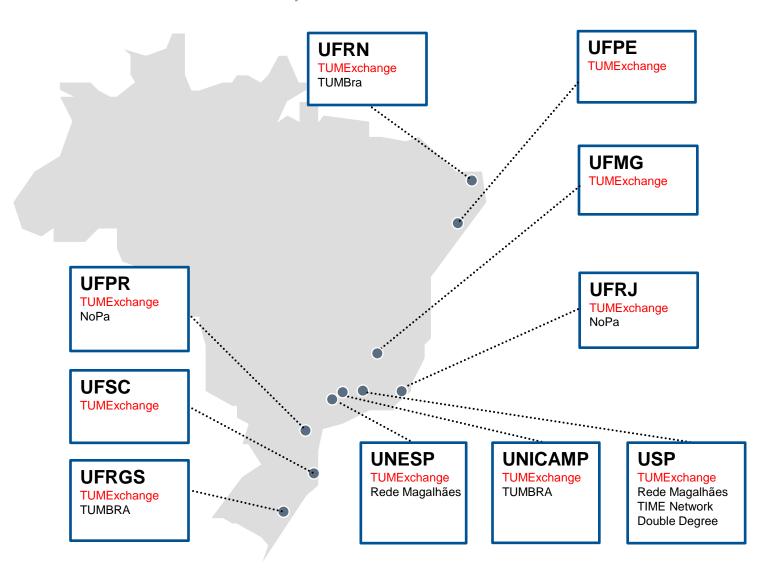
# TUM Research Opportunities Week

- One application round per year: open to advanced PhD students and young post-docs (< 3 years after PhD)</li>
- One-week stay financed by the Postdoc Mobility Travel Grant (50 postdocs; accommodation, travel expenses and meals)
- One-year TUM University Foundation Fellowship for top candidates
- Next deadline: October 31!





## TUM. Universidades parceiras no Brasil



#### TUM. International





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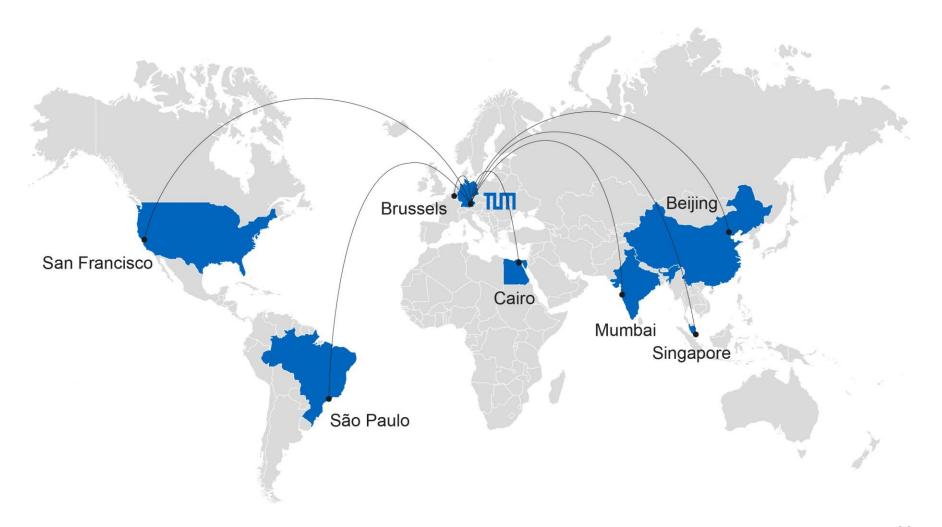
Centro Alemão de Ciência e Inovação – São Paulo Alemanha País de Ideias







# Global: Globalization through Localization





# Stimulating international collaborations – TUM funding opportunities

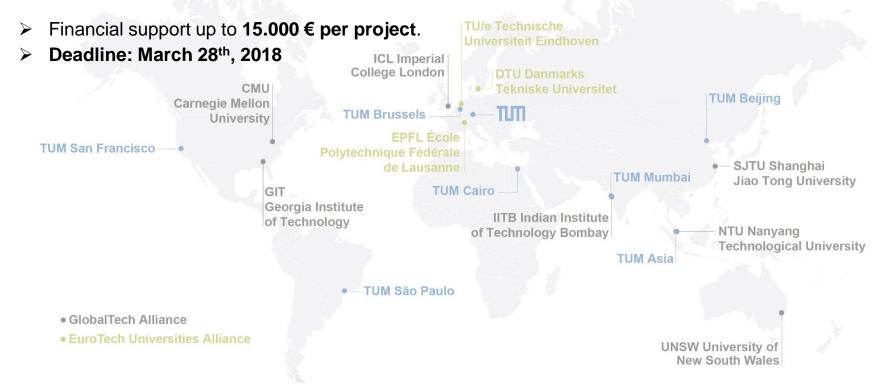




## TUM Global Incentive Fund

Support & kick-start international research / teaching cooperation

- Universities in TUM Liaison Office countries
- Partner universities within the strategic alliances EuroTech and GlobalTech





# TUM-IAS (Institute for Advanced Study)

- Accomplish and amplify top-level research at TUM risking creativity
- Stimulate local and international collaborations
- Develop TUM-IAS as a center for scientific interactions and discussions

