going GLOBAL

The TUM Experience
Exploring the Icelandic highlands

“Spending a semester abroad definitely helps to escape one’s own egocentrism and to take a step back to look at the bigger picture. An absolute highlight of my exchange semester in Iceland was this special moment on the famous Laugavegur trail.”

Yannick Rödel, Álftavatn, Iceland
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President of the Technical University of Munich

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The Joy of Achieving Goals

During this springtime’s graduation ceremony of the International Master’s Program in “Land Management and Land Tenure”, students from all corners of the world celebrated their achievement with a collective jump for joy.

Alexander Niederklapfer, Chair of Land Management and Land Tenure
Internationalization has long been one of the central pillars of TUM’s identity as a university that is ‘at home in Bavaria’ as well as ‘successful in the world’.

Our university might be deeply rooted in its regional and cultural heritage. However, we have developed a thorough understanding that our university has to connect the vast potentials of our local ecosystem with the equally tremendous opportunities that await on a global scale. Inspired by our university’s TUM Agenda 2030 and supported by our local and regional partners, TUM seeks to deliver answers to some of the most pressing societal, technological and economic questions of our time.

As a truly global university, we have forged connections with the most innovative, renowned research and higher education institutions in the world. We thereby further advance our research, develop future-proof education models and foster collaboration and exchange back in our Munich and Bavarian ecosystem.

With our TUM Asia satellite campus in Singapore, our five TUM Global Liaison Offices on four continents, and the life bond with our worldwide alumni community, we shape impactful partnerships, attract exceptional talents to Munich, and ensure that the knowledge and innovations we create reach a global audience.

Through strategic international networks and flagship partnerships, TUM’s global engagement offers unique framework conditions to develop and test unprecedented collaboration formats. Change is our constant, so we are striving to establish a truly European university across Europe through the EuroTeQ Engineering University. In addition, we are pioneering new models of training for the next generation of researchers with our flagship partner Imperial College London and empowering members of our administration to integrate international experience into their career paths via our Graf Montgelas Fellowships.

As these examples show, all members of our TUM community benefit from our manifold international activities, whether it be by collaborating with our partners abroad or through internationalization of our campus at home.

In this **going GLOBAL** brochure, we will provide you more insights into TUM’s international engagement – The **TUM Experience** – highlighting our strategic networks and partnerships. We will also introduce innovative international projects and present opportunities to engage with TUM and our international partners.

We invite you now, as a member of the TUM community or as a partner and friend, to become part of our global TUM family and to extend your personal international outreach.

Thank you for joining us on our global tour!
In both international and national rankings, the Technical University of Munich regularly occupies leading positions as one of Germany’s top universities.
linking TUM with...
Holding On

“As a large group of 13 students from different European countries, we went from Copenhagen to the Danske Vadehavseer. There, because of the rising tide, we did not have much time to take this picture, trying to hold on to each other standing on the poles – practicing teamwork.”

Michael Meier, Danske Vadehavseer, Denmark
Linking TUM with the world through our TUM Global Network: with five TUM Global Liaison Offices on four continents and our TUM Asia offshore campus in Singapore, we ensure global visibility, attract top talents to Munich and are able to connect with the best partners.

**TUM Beijing** has been a longstanding facilitator, forming solid university and research cooperations and expanding existing cooperation with partners in China and Taiwan. It has played an important role in establishing the flagship partnership with the prestigious Tsinghua University. TUM Beijing not only reaches thousands of followers through its TUM Weibo account, its various events also attract a large and engaged local alumni community.

**TUM Brussels** is the beating heart of TUM’s strategic engagement within the EuroTech Universities Alliance and central in positioning the TUM brand within the EU and its institutions. It serves as a gateway to key European partners working jointly on the European research, education and innovation agenda. For TUM, the office is a great source for relevant EU initiatives and topics. It also offers applicants valuable advice on EU funding programs.

**TUM Mumbai** is strategically located in the commercial hub of India, providing the TUM community with direct access to unlimited opportunities in India. Within its extensive network, the office showcases TUM’s successful collaborations in India, highlighting the university’s research excellence and entrepreneurial potential. It provides support for Indo-German initiatives, such as the current Indo-German Partnerships project (IGP).
TUM Global Liaison Offices

What began 16 years ago with a grand vision has developed into a huge success story. The TUM Global Liaison Offices are TUM’s vital link to the world.

At the heart of North America’s entrepreneurial culture, TUM San Francisco monitors and reports on trends in business and academia, while engaging its growing alumni network as well. The office promotes TUM’s research and innovation topics in North America and intensifies TUM’s links with top U.S. and Canadian institutions. As a first point of contact for TUM researchers and staff, it supports transatlantic projects and establishes contact with local stakeholders.

Firmly anchored in the dense science and research network that links Germany with Latin America, TUM São Paulo taps into the enormous potential that the continent holds in terms of research and teaching as well as in the start-up sector. Its focus is on expanding strategic collaborations with universities, research institutes and industrial partners and on supporting TUM in recruiting young talents in Argentina, Brazil, Chile, Colombia and Mexico.

TUM San Francisco Liaison Officer and Senior Regional Manager North America, Mr Jeffrey Ouimet

TUM São Paulo Liaison Officer and Senior Regional Manager Latin America, Mr Sören Metz
TUM Asia currently offers two bachelor’s and five master’s degree programs:

- **BEng Chemical Engineering** with SIT
- **BEng Electronics and Data Engineering** with SIT
- **MSc Aerospace Engineering**
- **MSc Industrial Chemistry** with NUS
- **MSc Integrated Circuit Design** with NTU
- **MSc Green Electronics** with NTU
- **MSc Rail, Transport and Logistics**

Besides high-class teaching, TUM Asia students also gather hands-on experience in the Chemistry Lab.

Working in small groups, our students at TUM Asia gain intensive teamwork experience.
TUM in Singapore

TUM Asia brings human-centered German engineering excellence to the technology hub of Southeast Asia. Our study programs are tailored to careers in industry, while our research with TUM CREATE helps to develop sustainable solutions for the future.

In 2002, TUM Asia became the first overseas campus of a German university. With the range of studies offered by TUM Asia, students from all over the world acquire internationally renowned German engineering skills and gain valuable insights into Southeast Asian culture combined with a research stay at the TUM.

The lectures are held by professors and lecturing staff from TUM and our top-ranking partner universities in Singapore: Singapore Institute of Technology (SIT), Nanyang Technological University (NTU), and National University of Singapore (NUS). All students receive a full qualification from TUM, often as a joint degree with a Singaporean partner.

The start of TUM CREATE in 2010 fostered a strong foundation for research collaborations between Munich and Singapore. Funded by the National Research Foundation Singapore for two phases, more than 100 TUM and NTU researchers have developed sustainable mobility solutions for tropical megacities.

In 2022, TUM and NTU are starting the new funded research phase Proteins4Singapore. The goal is to develop and establish a sustainable protein supply in Singapore and help grow Singapore’s food manufacturing industry through innovation.
5 QUESTIONS TO JULIANE WINKELMANN

TUM Senior Vice President for International Alliances and Alumni
Juliane Winkelmann was Professor of Neurology and Neuroscience at Stanford University in California before being appointed Chair of Neurogenetics at TUM in 2015. Her research focuses on the genetic architecture and underlying molecular mechanisms of complex genetic diseases as well as rare neurological diseases with a special focus on movement and sleep disorders. Since 2017 she has been Senior Vice President for International Alliances and Alumni.

1. **You’ve been Senior Vice President for International Alliances and Alumni since 2017. Looking back, what was the most memorable moment in your work?**

   Gosh, there are so many. One memory that stands out is my first visit to the African continent in 2018, to Kumasi in Ghana, where we officially concluded our TUM Global Strategic Alliance with Kwame Nkrumah University of Science and Technology (KNUST). Visiting new places is always exciting, but in this particular case, we met our counterparts in person for the very first time, and all the theoretical concepts and visions of our partnership came to life on this day. And the warm welcome or “Akwaaba” as they say in Ghana speaks for itself: I will definitely go again.

2. **What do you enjoy the most about your position?**

   Definitely the people and the variety! I have the great pleasure to meet and work with many dedicated TUM students, researchers, staff, alumni and partners, who are really excited about international collaborations. Their enthusiasm is very contagious and has a truly rejuvenating effect (laughs). And I love that there is so much to learn – everyday. There is not a single dull work day, I can assure you. My agenda is full, but also fulfilling.

3. **International cooperation can be challenging sometimes. What’s your approach when the going gets tough?**

   … The tough gets going? No, but to have a good partner at your side – that will keep you going. In this sense it is important to maintain an open dialogue and not be afraid of addressing challenges. Only then can we establish trust-based partnerships. And stay flexible as you might need to revise and modify your plans to ensure there’s mutual benefit.

4. **Corona moved a lot of your work into the digital sphere. What do you intend to do as travel restrictions are lifted?**

   Of course, I would like to resume traveling to visit our partners, for instance our flagship partners Tsinghua University or University of Queensland. At the same time, Corona has taught us a valuable lesson: it is possible to develop international partnerships through digital means. For example, I enjoyed participating in numerous roundtables, meetings and conferences all over the world – from my living room. And this will remain a central feature of our work, not least because of the growing importance of sustainability principles. But I think that although digital formats do work well in a certain context, they cannot replace the importance of personal contacts, especially when initiating collaborations.

5. **On a final note – what is your take-home message?**

   To appreciate and never forget our regional roots. This goes hand in hand with showing deep respect for the partners’ local communities and ecosystems. Only with a good understanding of local needs can we successfully collaborate.
TUM is involved in various partnerships and alliances to optimize its international cooperations: Through flagship partnerships, TUM deepens its often decades-long ties with leading universities in common fields of expertise. Strategic networks with selected partners in Europe enable innovative cross-border cooperation. Global Strategic Alliances pave the way for joint efforts.
The flagship partnership with Imperial College London (ICL) is the first of its kind. It was formed in 2018 to advance excellence in research and education and to jointly develop premium internationalization formats for students, faculty, and staff.

TUM and Imperial are among the most entrepreneurial universities in the world and perfect partners for collaboration with matching profiles regarding their subject portfolio, research performance, and ambitions. Imperial and TUM offer seed funding to initiate collaborative projects, and have already helped to bring more than 50 new collaborations in research to life since the start of the partnership. This trust-based partnership and the manifold existing contacts offer a sound platform for developing unprecedented activities. For example, innovative virtual and blended teaching provide students opportunities for international experiences beyond traditional study abroad stays.

A further innovation is the European Talent Academy, a networking event for early-career researchers from TUM and Imperial, working in a common research area that delivers insights into the European research landscape. In virtual sessions and an in-person workshop in Brussels, they gain opportunities to network, pitch research projects, present case studies and learn from external speakers with knowledge of research funding schemes and EU research policy.

The unparalleled Joint Academy of Doctoral Studies (JADS) co-develops cross-disciplinary clusters of PhD students who have access to world leading academic supervisors and state of the art facilities at both institutions, working across fields where both institutions have taken a global lead in researching, innovating, and breaking down disciplinary boundaries.

Imperial leadership welcomes a TUM delegation to their White City Campus in London.

Betina Burger,
TUM Global & Alumni Office
Click here for more information

„The TUM - Imperial partnership offered me the opportunity to work with students from all around the world on a distributed software engineering project. I made valuable connections, learned about different work cultures and made new friends. I am still in contact with our project instructor from Imperial, who taught me about their exciting research, and I plan one day to go there for an exchange semester.“

Hanya Elhashemy
TUM Master’s student in Informatics | Participant in the seed funded teaching project Joint Advanced Student School
For almost thirty years, TUM and Tsinghua University have been working together across diverse scientific disciplines. Now they have embarked on a new era of their partnership.

Connecting researchers and talents across disciplines, the TUM-Tsinghua flagship partnership focuses on fostering new relationships in future-oriented research areas with broader societal relevance, e.g. new mobility concepts, machine learning, or smart manufacturing. A lively student exchange and a regular summer school provide ample means for young talents to form their own networks and benefit from the institutional partnership. Moreover, long-standing joint activities in areas related to executive training and entrepreneurship allow for the partnership to further advance broader institutional engagement.

After nearly three decades of cooperation, Tsinghua and TUM have now set out to deepen their relationship in fields of mutual strategic interest – by linking the dynamic ecosystems of Munich and Shenzhen and their talent pools. In the future, the flagship partnership will expand the scope of inter-institutional collaboration by including the Tsinghua Shenzhen International Graduate School in the current collaboration framework. Providing new platforms for cooperation between the two partners, the new arrangements, including double degree programs and expanded student exchanges, as well as new initiatives to stimulate further institutional development, open up a wealth of opportunities for research talent, aspiring entrepreneurs and lifelong learners from Munich and Shenzhen.

"The big questions of the future can only be addressed on an interdisciplinary basis, working in close cooperation at the international level," says TUM President Hofmann. "We are delighted that two outstanding global universities will now strategically pool their strengths based on the spirit of trust we have built up over many years."
The TUM-UQ partnership is an excellent example of cooperation at the highest levels from the furthest possible distance. Following years of successful joint research, both sides are keen to promote topics of great social relevance even further in the future.

With The University of Queensland, one of Australia’s top-ranked universities, TUM has enjoyed a very special relationship since 2010, before it was officially sealed as a flagship partnership in April 2021.

Despite the geographical distance, the TUM-UQ bond swiftly developed into a collaboration spanning a variety of disciplines and featuring a wide scope of activities. In addition to numerous joint research projects and symposia, a range of mobility programs for students and administrators also continue to drive forward the exchange and cooperation between the two universities at all levels. The partnership gained prominence and breadth particularly through the many joint projects in the field of bioeconomy. In 2018, these activities took formal shape with the founding of the Global Bioeconomy Alliance by TUM, UQ, and their Brazilian partner UNESP. TUM and UQ will join forces in new focus areas such as digital agriculture and AI, as well as environment, climate change, and health. Partnership initiatives have also been launched in the field of hydrogen and green energy – a topic high on the research agenda of both countries. UQ scientists are part of an international team that will work under the leadership of Prof. Hartmut Spliethoff from the TUM Department of Mechanical Engineering to establish an international Future Lab for Green Hydrogen. In 2022, a new series of workshops will bring together interdisciplinary teams of scientists from UQ and TUM to plan future collaborations in these cutting-edge areas and fulfill their institutions’ mission to address global challenges.
The EuroTech Universities Alliance is a strategic network of leading European universities of science and technology, joining forces to build a strong, sustainable, sovereign, and resilient Europe. TUM is one of its founding members. The alliance origins date back to 2006, but activities have increased enormously since we opened our joint office in Brussels in 2011. Today, EuroTech also consists of the partners Technical University of Denmark (DTU), École Polytechnique Fédérale de Lausanne (EPFL), École Polytechnique (L’X), Technion – Israel Institute of Technology and Eindhoven University of Technology (TU/e).

Together we aim to educate the best talents in science and engineering, to become innovators and change agents of society. We conduct first-class research – with shared research infrastructure and a great track record in acquiring EU funding – to make major contributions to the grand societal challenges we face today. To further increase our common output, we have defined five “Initiatives@Scale”, which we seek to significantly advance by 2025. These initiatives entail ambitious, unprecedented joint efforts at a scale difficult to achieve for one partner on their own. Here, EuroTech aims to promote the 17 United Nations Sustainable Development Goals, contribute to Europe’s digital sovereignty and address the vital issue of sustainable campus development.

While the majority of EuroTech’s activities focuses on internal collaboration, we advocate at European level for topics that are particularly close to our hearts. We are convinced that the united voice of six strong universities of science and technology can make a valuable contribution to EU policymaking. And with its top-down support by TUM leadership and bottom-up possibilities and services, EuroTech University Alliance offers opportunities for the entire TUM family. We invite you to join our dynamic network.
European engineering education of the future

Emerging from the EuroTech Universities Alliance, taking on board two excellent partners Tallinn University of Technology (TalTech) from Estonia and Czech Technical University in Prague (CTU) from the Czech Republic, the EuroTeQ Engineering University came into play in the fall of 2020. Funded under the prestigious European Universities Initiative by the European Commission, this pilot project introduces a paradigm shift in engineering education.

We are implementing an unprecedented approach to collaborative teaching and learning that not only brings together various countries and engineering cultures, but also a broad coalition of stakeholders in industry, society and both academic and non-academic education. Our belief: new ideas occur from merging different perspectives, thematic fields, skills and competences, leading to innovation.

The EuroTeQ Engineering University offers training and mobility programs to students, teachers and staff members of the six universities, but also actively engages vocational and professional learners. Students can take courses from the partners through virtual mobility and engage in interactive student challenges to earn Micro-Credentials and a EuroTeQ Honours Degree. Our flexible qualification paths additionally include joint formats for continuing education for learners with academic and non-academic backgrounds, to keep workforce up to date with state-of-the-art knowledge.

The meaning “Engineering University” is thus twofold: To provide excellent education to future engineers and to engineer the University of the Future, as a role model for the European Higher Education Area and beyond.

“Our vision has been translated into tangible projects by energetic and creative working groups. Together with fantastic partners from science and industry, we have co-created great impact. Across EuroTeQ partners, our group spirit creates an enormous motivation to find sustainable solutions for new formats of engineering education of the future.”

Prof. Dr.-Ing. Gerhard Müller
TUM Senior Vice President for Studies and Teaching
With the Indo-German Partnership (IGP) project Exploration, TUM and two premier Indian Institutes of Technology (IITs) are advancing joint research in the fields of climate, environment, energy, mobility, and transportation and exploring further opportunities.

Exploration has been developing new and sustainable formats for different institutional spheres since its kick-off at the end of 2020. The IGP project is funded by the DAAD and the Indian University Grants Commission. On the TUM side, it is under the leadership of Prof. Miranda Schreurs for Climate, Environment and Energy and Prof. Constantinos Antoniou for Mobility and Transportation.

TUM has maintained close partnerships with the IITs in Bombay and Kharagpur for almost 20 years. In the IGP project, these relationships will be transformed into research platforms – not only for members of the three participating universities, but also for their broader regional and national communities. Enhancing opportunities for collaboration at both the senior scientist and young talent levels will generate new cooperation formats and tangible outcomes.

Immediately after the program’s start, the partners organized digital exploratory research workshops to identify new opportunities for research collaboration. A first IIT x TUM Research Forum brought together researchers and students from all three institutions to discuss Climate Policy & Action: National and Local Dimensions in Germany and India.

Indo-German student competitions promote student engagement across all three IGP partners to support them in establishing strong academic links and introducing them to a globalized research environment. Exploration’s early days were entirely digital, but plans for late 2022 are to have mobility programs for faculty, staff, and students that will finally allow face-to-face exchanges between partners.
A Partnership for Innovation and Sustainable Development

TUM and Ghana’s top university Kwame Nkrumah University of Science & Technology (KNUST) have been collaborating for several years to develop new solutions to global challenges.

Particular focus for the partners lies on advancing projects in innovative teaching, research, and entrepreneurship. Having worked together for many years on future-oriented topics, KNUST and TUM joined forces at the end of 2018 to form a strategic partnership with a strong focus on sustainability. Located in Ghana’s lively second largest city Kumasi, KNUST is one of the country’s most renowned institutions: U.S. News & World Report ranks KNUST as the country’s best university, 12th in Africa.

Joint initiatives include the TUM SEED Center where both partners research and teach at the intersection of sustainable energies and entrepreneurship in the Global South. A prime example of best practice in international cooperation is the aCar project, which provides sustainable mobility to remote rural regions. A further success story is the collaboration in ADLAND, where scientists are working on responsible and intelligent land management solutions in Africa.

To support Covid-19 screening in Ghana and reduce reliance on expensive products, researchers from TUM and KNUST have teamed up to develop affordable Covid-19 LAMP tests. The biotech lab BioKitchen of UnternehmerTUM and KNUST are working with a mobile lab to support local production of the new tests, create jobs, and pave the way for commercial distribution. In the field of Artificial Intelligence (AI), TUM and KNUST researchers are developing a knowledge hub focused on the responsible use of AI.

To create a home for joint workshops and lectures, the universities are working on a vision of a TUM-KNUST Cooperation Center on the KNUST’s main campus in Kumasi.

These and many more projects as well as a very active student exchange (via our TUMexchange program) demonstrate that KNUST and TUM share a common vision: an interdisciplinary and participatory approach to innovative, impact-oriented solutions for sustainable development in Ghana and beyond.

*Studying in Munich ranks high in my life experiences. Allowing students to take courses at TUM and KNUST goes a long way in shaping our collaborative and multicultural mindsets while creating a platform for other projects and research exchanges for both universities. Personally, this experience validated my competencies and made my career path clearer.*

Obeng Okofo Dartey | KNUST Master student & exchange student at TUM
Bringing electro mobility to rural Africa with the aCar, a battery electric small utility vehicle.

KNUST delegation with Vice-Chancellor Prof. Rita A. Dickson (left) during a visit to TUM.
Countless TUM students, employees and academics are working in projects in developing countries, trying to find sustainable solutions to global challenges – including ways to provide energy and food while conserving resources. In the following pages, we provide you a glimpse of the manifold activities.
At the End of the World

“At Kapp Amsterdam in Spitsbergen, together with researchers and students from all over the world, we researched the structural and mechanical properties of the sea ice in the Van Mijenfjord. With a wind chill temperature of -41 degrees Celsius, it is important to keep up the team spirit.”

Thomas Mascher / TUM
Combining strengths in research, innovation, and education at the intersection of sustainable energies, entrepreneurship, and development.

The TUM SEED Center is one of seven Excellence Centers for Development Cooperation funded by the German Academic Exchange Service (DAAD) and the Federal Ministry for Economic Cooperation and Development. The SEED Center family are TUM, led by Director Prof. Dr. Frank-Martin Belz, and eight outstanding partner universities from the Global South. Together they co-create solutions for sustainable development in the Global South, thus actively contributing to the 2030 Agenda for Sustainable Development by the United Nations. The Living Labs form a core element of the SEED Center and are located in the partner countries. They are decentralized energy systems in rural areas, e.g., mini-grids developed together with the local communities providing hands-on teaching and interdisciplinary research opportunities. The TUM SEED Center also features a doctoral program at TUM for excellent candidates from the Global South and the development of an international and interdisciplinary master program on Sustainable Energies, Entrepreneurship and Development.

“I think that the SEED Center is an amazing platform for students and researchers to collaborate and learn from each other on both the social and the ever-changing technological aspects that transform human lives positively.”

Cynthia Wainaina
Project Coordination team SEED Center, Jomo Kenyatta University of Agriculture and Technology (Kenya)
TUM without borders Projects

SeaSoilution
Recycling Seaweed for Sustainable Growth

Due to climate change, huge quantities of the brown algae species Sargassum wash up on the coasts of the Caribbean every year. The Dominican Republic in particular suffers from the consequences: it is experiencing a decline in tourism and increase in dead zones in the sea. The SeaSoilution team wants to turn the infestation into an opportunity by producing algae-based biostimulants for local farmers. Through financial support from the TUM Global & Alumni Office, it is possible for students to visit farmers on the ground, produce biostimulants, and build great collaborations with local partners.

Sargassum everywhere – this is how the beaches look like every morning. Some hotels try to clean the beaches, but it is pointless.

These are our algae-based biostimulants, produced on site with fresh algae directly from the sea.

We visited local farmers to tell them about our project and get some valuable insights from their perspective.

Our SeaSoilution Travel Group at Loyola University’s experimental farm. This is where we tested our product.
Conducting interviews with residents on the streets of Nuevo Ayacucho – a significant element of the need assessment.

The team with the village elders of Nuevo Ayacucho after the last reunion and the closing of the agreement.

TUM without borders Projects

Mistub

mistub – a Social Start-up to implement Low-tech Desalination Devices in Peru

The small village of Ayacucho, a three-hour car ride south of the capital Lima, is located in a predominantly desert-like region and thus in need of innovative water supply solutions. Supported by the TUM Global & Alumni Office, a team of engaged students from the entrepreneurship initiative Enactus traveled to Peru to tackle this challenge. With the help of a local partner, the mistub team conducted a need assessment by interviewing the inhabitants in order to develop a simple and affordable desalination technology powered by solar energy.
While conducting his master’s thesis research, Alexander Lotz spent seven weeks in Rwanda in 2021, where he interviewed 80 smallholder farmers about their productivity. The results contribute significantly to the implementation of a small-scale, solar-powered irrigation project managed by the student NGO TU eMpower Africa e.V. in collaboration with a farmers’ cooperative in the village of Gitaraga. For his research, Lotz partnered with the Centre for Geographic Information Systems and Remote Sensing, University of Rwanda (UR-CGIS) and received financial support via the DAAD PROMOS program.

“Our project’s goals are to ensure food security and to create a stable market access for the farmers. They happily formed a cooperative, working together towards increasing yields through good agricultural practices and capacity building. All of this was made possible by the volunteers of TU eMpower Africa e.V., who have been tirelessly working and conducting research. Thanks to our donor and the Rwandan Ministry of Agriculture and Animal Resources (MINAGRI), we can now see a direct impact.”

Prathiba Devadas
TU eMpower Africa e.V., Rwanda Project Leader
With its worldwide achievements, network, partnerships and sustainable engagement, TUM is continuously contributing to a global hub of knowledge exchange. Now, we invite you – students, staff members, junior and senior researchers and alumni – to learn more about numerous international opportunities at TUM, designed specifically to your academic profile.
Hands-on Involvement
TUM students working on the construction site for the new school assembly hall in Kibwigwa, Tanzania.
Matthias Kestel, Associate Professorship of Architectural Design and Timber Construction
Through well-established exchange programs such as Erasmus+, TUMexchange, ATHENS and other funding opportunities, the TUM Global & Alumni Office offers you various possibilities to gain international experience.

**Erasmus+ program**

Would you like to get to know your European neighbors and expand your professional, linguistic, and intercultural skills? Take part in the Erasmus+ program! Every year, TUM enables about 1,000 students to spend an unforgettable stay abroad via the EU-funded program. Erasmus+ provides financial support for study or internship stays and there are no tuition fees at the partner university.
TUMexchange

See the world with TUMexchange! If you are interested in a stay outside of Europe, TUMexchange is the right program for you. With 150 partner universities in 26 countries, it offers B.A. and M.A. students of all fields the possibility a process opens once a year at the beginning of the winter semester for both the winter and summer terms.

ATHENS

The ATHENS program offers you the chance to study at a leading European technological university for one week. The stay includes an intensive course in engineering, natural sciences, economics, political science and other fields at one of the 24 ATHENS partner universities. The courses take place twice a year. They are complemented by an individually designed cultural program to immerse you in a different culture. Participation in the program is free.

Additional opportunities include:

Scholarships and grants for stays abroad
TUM Global & Alumni Office offers you numerous scholarship programs, enabling study visits and internships within Europe and worldwide.

Equal opportunity grants
An additional funding opportunity via Erasmus which focuses on personal and socio-economic criteria.

Departmental partnerships
TUM schools and departments maintain their own student exchange partnerships – you are welcome to apply.

Double degree programs
Study at a partner university abroad and acquire a second degree in addition to your TUM degree.

Study virtually within the EuroTeQ network
Through a joint course catalogue, you can participate in virtual courses at the partners DTU, TU/e, L’X, TalTech, and CTU – as well as at TUM itself.
TUM offers its employees opportunities for a work-related stay abroad: Through the Montgelas Program and Erasmus+, you can pursue continuing education and training, either with an organization of your choice or a partner university.

"Thanks to Erasmus+ I had the privilege of teaching my seminar on behavioral economics at the Australian National University (Australia) and the Stellenbosch University (South Africa). Local students and academic helped me to integrate perfectly into campus life and thus I had many great experiences, which enabled me to develop both professionally and personally. Regarding my future, the Erasmus+ stays taught me that I can prove myself all over the world and that I can easily consider a long-term stay.”

Gaining Professional Experience throughout Europe or Worldwide

Erasmus+ staff mobility

Broaden your horizons, deepen your skills and gain international experience with the Erasmus+ staff mobility program. You can spend a stay abroad in Europe or even worldwide with financial support to cover your costs. Take advantage of TUM’s international network with its partner universities and institutions. Collaborate with scientists around the globe or teach foreign students in your field of research. Or learn best-practice approaches from your international colleagues – the program really offers a wide range of possibilities.

For one week, Marina Schreier, Communications Coordinator TUM G&A, became part of the UQ Global Communications team.

Magnus Strobel during his Erasmus+ stay at Stellenbosch University in South Africa.

Maximilian Graf Montgelas Program

Are you interested in learning how administration works at leading universities and enterprises within TUM’s global network? Benefit from the Maximilian Graf Montgelas Program which has been designed as part of the TUM Agenda 2030 to promote an international approach in university administration. As a Montgelas Fellow you will undertake a self-designed practical stay at a renowned TUM partner institution, working with peers abroad, and afterward share your knowledge with your TUM colleagues. The virtual Montgelas Workshops on current topics, such as Hybrid working in administration or Fostering inclusion in services complement the program and offer opportunities for joint training and exchange with research administrators worldwide.
The TUM Graduate School supports gaining international experience through numerous programs and individual funding opportunities.

From joint supervision and research exchange programs to summer or winter schools with international partners – as a doctoral candidate you can choose from a wide range of programs to equip your scientific career path with an international track. Or do you prefer a more individual approach? Then TUM Graduate School (TUM-GS) can also provide you with different funding models to support your research stays and the participation in international conferences and workshops. Building on TUM’s global network, TUM-GS is constantly developing new collaboration schemes to expand internationalization offers and support for you.

International Programs and Funding for Doctoral Candidates

“Thanks to the TUM-GS and the TUM-UQ Joint Supervision program I had the great opportunity to spend a period of my doctoral research at the University of Queensland to conduct research in the groups of Prof. Dr. Dilum Fernando and Prof. Dr. Alexander Scheuermann. The beginning of my stay was driven by various get-to-know presentations and discussions, which were quickly followed by jointly processed research supported by local industry. Due to the facilities and the support from the UQ staff, I was able to conduct a large experimental test program, which was an essential part of my doctorate. During my entire time abroad, I had the best and always quick support from the TUM-GS and the UQ-GS, which was definitely needed once the global pandemic came along and caused many difficulties.”

Tobias Teschemacher
doctoral candidate at the Chair of Structural Analysis
TUM School of Engineering and Design

Zizheng Zhang,
TUM Graduate School
Click here for more information
Interested in joining TUM as an early-career researcher? The TUM Talent Factory supports TUM postdocs and external researchers with a comprehensive program.

Once a year, the TUM Talent Factory invites promising early-career researchers from all over the world to the Research Opportunities Week (ROW). During this one-week event, you will have the opportunity to network with TUM professors, learn more about the academic career system in Germany and life in Munich, while the TUM Postdoc Mobility Grant covers all costs of invitations to on-site events.

After the ROW, you can apply for the prestigious two-year TUM Global Postdoc Fellowship together with a TUM host professor. The fellowship makes it possible to conduct an individual project of your choice and to gain scientific independence at an early stage of your career.

As a postdoc or research group leader at TUM, you will profit from a wide range of support from the TUM Talent Factory: with transferable skills workshops, flexible online learning tools, the Munich Postdoc101 talk series and information guides for new postdocs. The TUM Talent Factory is also the central point of contact for at-risk researchers and supports them with dedicated activities to facilitate their integration in Germany.
ATHENS Week
Opportunities for lectures

The ATHENS network with 24 leading technical universities, and TUM the only German one, offers a unique short-term exchange program: the ATHENS week. The week-long sessions take place twice a year – in March and November – offering European students exciting and challenging courses at TUM.

Do you wish to contribute to the ATHENS Week at TUM with a course? Please consult our TUM Global & Alumni website.

TUM PREP
Matching excellent students for your research project

Become a supervisor in the Practical Research Experience Program (TUM PREP)! Restarting as of summer 2022, TUM PREP offers you the opportunity to attract excellent Bachelor and Master students from selected, top-ranked universities from the US, Canada, and the Imperial College London (ICL).

For about nine weeks, the TUM PREP participants will work exclusively on your research project. Their stay is funded through a scholarship from the German Academic Exchange Service (DAAD) and accommodation is pre-arranged. Your protégées will also profit from a great framework program provided by the TUM G&A – including orientation days, cultural activities, as well as a buddy for individual support.

The main objectives of TUM PREP are to strengthen research collaborations, to foster partnerships with North American universities, and our flagship partner ICL – as well as to recruit excellent students for master or doctoral studies at TUM.

“TUM PREP was a great opportunity to meet a new group of fellow students and scientists, and learn new methods and techniques all while getting to spend a summer in Germany. I felt fully welcomed both in the scientific and social communities.”

Elliot Vaughan
University of Wisconsin – Madison

Elliot Vaughan (right) during his research stay at the TUM Chair of Soil Science of Prof. Kögel-Knabner (2nd from left).
TUM Global Incentive Fund (TUM GIF) offers you two funding lines: strengthening TUM’s strategic partnership engagement, e.g. with Imperial College London, the Kwame Nkrumah University of Science and Technology and many more, and/or supporting collaborations with international partners irrespective of location, thus encouraging even more bottom-up initiatives. From joint publications, research, or teaching projects, networking events or facilitation of third-party funding acquisition – numerous collaboration ideas with international partners are eligible. Be sure to submit your idea and become part of a great success story: Thus far, TUM GIF has funded more than 150 collaborations between TUM scholars and scientists with over 70 international partners.

Eligible activities include conducting block seminars together, writing joint publications, preparing proposals for third-party funded projects, or developing international masters programs. The duration of stay is rather flexible as well – from one week to three months. With approximately 60 short term stays of international scholars and researchers per year, funded by the Bavarian State Ministry for Science and the Art (StMWK) and under the Excellence Strategy of the Federal Government and the Länder, the program contributes substantially to internationalizing curricula and enriching the vibrant research culture at TUM.

“Thank you for making Prof. Shannon’s stay at TUM possible! The entire experience with the TUM Global Visiting Professor Program was very positive. Prof. Shannon was particular happy about all the help he received in finding a place to stay and support on various practical matters. Our group and the Physics Departments strongly benefitted from Prof. Shannon’s presence and inspiring discussions with him as well as his group members who visited frequently.”

Prof. Frank Pollmann
on the stay of Prof. Nic Shannon, Okinawa Institute of Science and Technology 2018/2019

Looking for a funding opportunity to host your international partner at TUM?

The TUM Global Visiting Professor Program is the tool to attract brilliant academic talents for a temporary teaching or research stay.

How about financial support for developing or strengthening your worldwide cooperation?

Then apply for the TUM Global Incentive Fund, the central seed funding scheme for fostering international relationships.

TUM Global Incentive Fund
Supporting your cooperation around the globe

TUM Global Visiting Professor Program
Do you fancy high-risk research projects with top-class international scientists?

Then take advantage of the funding opportunities at the Institute for Advanced Study (IAS).

Fellowships for high-profile visiting scientists

As a TUM professor, the IAS invites you to nominate international researchers from both academia and industry for a joint three-year research project through its fellowship programs. Your fellow will profit from extended visits at TUM, funded research and travel expenses as well as a jointly supervised doctoral candidate at TUM. A number of fellowships are sponsored each year by Siemens AG, the TÜV Süd Foundation, and the Nemetschek Innovation Foundation.

With more than 210 fellows from 26 countries on five continents, the IAS plays a core role in attracting high-ranking international scientists for joint collaborations, and in kick-starting ambitious research projects which are at the forefront of their fields.

Welcome Services for International Researchers

Your central point of contact

We offer individual consultations – digital and face-to-face – on relocation topics before and after arrival in Munich, and arrange other helpful contacts.

Be sure to profit from valuable insights thanks to our information and networking events, such as meet & greets for new postdocs or Meet the expert events providing valuable information about taxes or the health insurance system in Germany. Our monthly newsletter keeps you up to date on campus life and current events in Munich. We also assist with the social integration of our guests and offer a monthly cultural program where you can meet like-minded people and discover the beauty of Bavaria. Furthermore, we support spouses and partners to facilitate their relocation as well.
As a TUM alumni, you remain a valuable part of TUM’s worldwide network after graduation. TUM Community members are welcome to share their professional and personal experience and have the opportunity to benefit from the wide range of services offered by their Alma Mater.

Be part of TUM’s worldwide alumni network!

Alumni groups
Regional networking works particularly well where alumni are active locally and organize alumni meet-ups, such as informal get-togethers and one or two special events per year.

Volunteer to become a mentor
At TUM Mentoring, alumni provide support to students, doctoral candidates or other alumni in a format of their choice. They are available to answer student questions and assist them in their personal development.

Volunteer to become a speaker
At our career and mentoring events, alumni share their professional and life experience, provide insights into working in specific professional fields and offer advice on how to launch a successful career.

Alumni are opening doors
TUM alumni work in interesting places all over the world. Many are happy to open their doors to other alumni and show them around.

Events
As a TUM alumni, you are always welcome to attend numerous TUM events. In addition, there are exclusive events organized just for TUM alumni, such as the jubilees, where all alumni who completed their degree at TUM 25 or 50 years ago will be celebrated.

Online community forum
The community forum is the place to connect to students and alumni worldwide. Find old university friends and exchange ideas in one of the various interest groups.

Career counseling
TUM’s Career Service offers professional advice and support in career planning: career webinars, online CV check, TUM job portal, and personal advice. It is a life-long service for all alumni.
The TUM Language Center plays a central role in the internationalization initiative of the Technical University Munich. We offer students and staff diverse opportunities to develop competence in a foreign language in addition to professional communication skills. Our program strongly emphasizes intercultural communication in the context of scientific research.

Discovering cultures, communicating science and preparing for international collaborations:

Courses in 18 languages

There is a course for every linguistic taste: Our teaching program includes courses in 18 different languages at all levels of the Common European Framework of Reference (CEFR). With us you can learn Arabic, Catalan, Chinese, Danish, Dutch, English, French, German, Hebrew, Italian, Japanese, Korean, Norwegian, Portuguese, Russian, Spanish, Swedish, and Turkish.

Writing skills in German and English

For our professors, students, and staff, we offer various programs to improve writing skills in English and German.

German Writing Assistance

As a TUM student or scholar, you can receive help with your academic writing projects. We advise you during all phases of the writing process (planning, wording, editing).

English Writing Center

The English Writing Center (EWC) offers free one-to-one consulting. We use your own English texts as our raw material to develop your competence in written English.

Arabic
Catalan
Chinese
Danish
Dutch
English
French
German
Hebrew
Italian
Japanese
Korean
Norwegian
Portuguese
Russian
Spanish
Swedish
Turkish

Strengthen your intercultural communication skills through taking part in our seminars.

Denise Lichtig,
TUM Language Center

Click here for more information
English Coaching Program
This program offers tailored support to professors, academic staff, and doctoral candidates who use English in their work at TUM.

Intercultural Communication
Intercultural competence is essential for effective communication among people from diverse cultures. Benefit from courses with a special focus on creating global awareness of the particular character of different cultures.

TUMtandem
Take advantage of the tandem learning method which enables two people to learn the other’s language in an autonomous and collaborative manner.

Diversity film series
Enjoy international films in this cooperation with the University of Television and Film Munich (HFF). Carefully selected by lecturers from the respective language areas, the films are shown in the original language with subtitles and discussed afterwards.

Global Minds training
Offered in cooperation with TUM Global & Alumni, the events prepare students to apply for positions abroad.

German courses for faculty and staff
If you work or do research at TUM during the day you can learn German in the evening in our program „DaF for Staff“.

Besides improving your language skills you also get the chance to connect with other students and staff from all over TUM.
stay involved!

TUM Global News
Here you can find information about international events, training offers from universities from all over the world, news on cooperative research projects, and more. What’s more, you always get the latest news from TUM’s representatives in Brussels, Mumbai, Beijing, San Francisco, and São Paulo.

TUM Global Events
Learn more about events organized by the TUM Global & Alumni Office together with strategic partners as well as about the events of our liaison officers. Moreover, the TUM G&A invites TUM’s international representatives and all interested parties of our university to the virtual information series TUM Global Spotlights – an informal, 30-minute exchange in German about news from TUM’s international network.

TUM Global Week
Every year around June, the TUM Global Week offers a platform for the exchange of ideas on the topics of internationalization and international experience for the entire TUM family. In addition to numerous information and networking events for students, doctoral candidates, scientists, administrative staff, TUM alumni and TUM’s international partners, the Global Week is the occasion for the annual meeting of the TUM liaison officers with the TUM community.

Our newsletters

TUM Global Newsletter
International exchange, partnerships, current events of TUM G&A, as well as news from our network: The monthly TUM Global Newsletter gives TUM employees the opportunity to stay up to date on all these topics.

TUM.Africa
Keep up to date with what is happening at TUM.Africa: From our TUM-KNUST partnership in Ghana to projects across the African continent.

Welcome Services Newsletter for International Researchers
The monthly newsletter for international scientists at TUM provides information about Welcome Services events as well as interesting events in Munich and the surrounding area for you and your families.

For news on research funding
The monthly TUM ForTe newsletter published by the TUM Office for Research and Innovation (TUM ForTe) provides information on current calls for proposals and funding opportunities at TUM as well as research programs in Germany, Europe and beyond.

TUM Community Events
We offer career workshops, alumni expert talks, mentoring get-togethers, and much more for the entire TUM community. Come and join us!
Partner Organizations Funding Programs

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**Bavarian State Chancellery**  
TUM-KNUST Cooperation Center project

**Bavarian State Ministry for Science and the Arts (STMWK)**  
TUM Global Visiting Professor Program

**European Union**  
EuroTeQ

**Excellence Strategy of the Federal Government and the Länder**  
TUM Global Incentive Fund  
TUM Global Visiting Professor Program  
TUM’s Liaison Offices  
KNUST-TUM Partnership for Innovation and Sustainable Development  
Flagship partnership with Imperial College London  
Maximilian Graf Montgelas Program  
TUM Global Postdoc Fellowship

**Federal Ministry for Economic Cooperation and Development (BMZ)**  
TUM SEED Center

**German Academic Exchange Service (DAAD)**  
TUM SEED Center  
TUM PREP  
Student project Solar powered irrigation system in Rwanda  
Exploration. An Indo-German Partnership Project (IGP)  
EuroTeQ

**National Research Foundation Singapore**  
TUM CREATE

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