

# EuroTeQ Engineering University

Taking responsibility for the next generation

European engineering education of the future



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# 01

About us

# EuroTech Universities



**TU/e** EINDHOVEN  
UNIVERSITY OF  
TECHNOLOGY



INSTITUT  
POLYTECHNIQUE  
DE PARIS

**EPFL**



Technical  
University  
of Munich



**TECHNION**  
Israel Institute  
of Technology

# European Universities Initiative

With its European Universities Initiative, the European Commission aims at fostering excellence, innovation and inclusion in higher education across Europe, accelerating the transformation of higher education institutions into the universities of the future with structural, systemic and sustainable impact.

- Up to **€ 5 million** from Erasmus+
- Up to **€ 2 million** from Horizon 2020
- **€ 750.000** from DAAD

Building on the Bologna Process, piloting a **co-envisioned** long-term education strategy, focused on **sustainability**, **excellence** and **European** values in higher education.

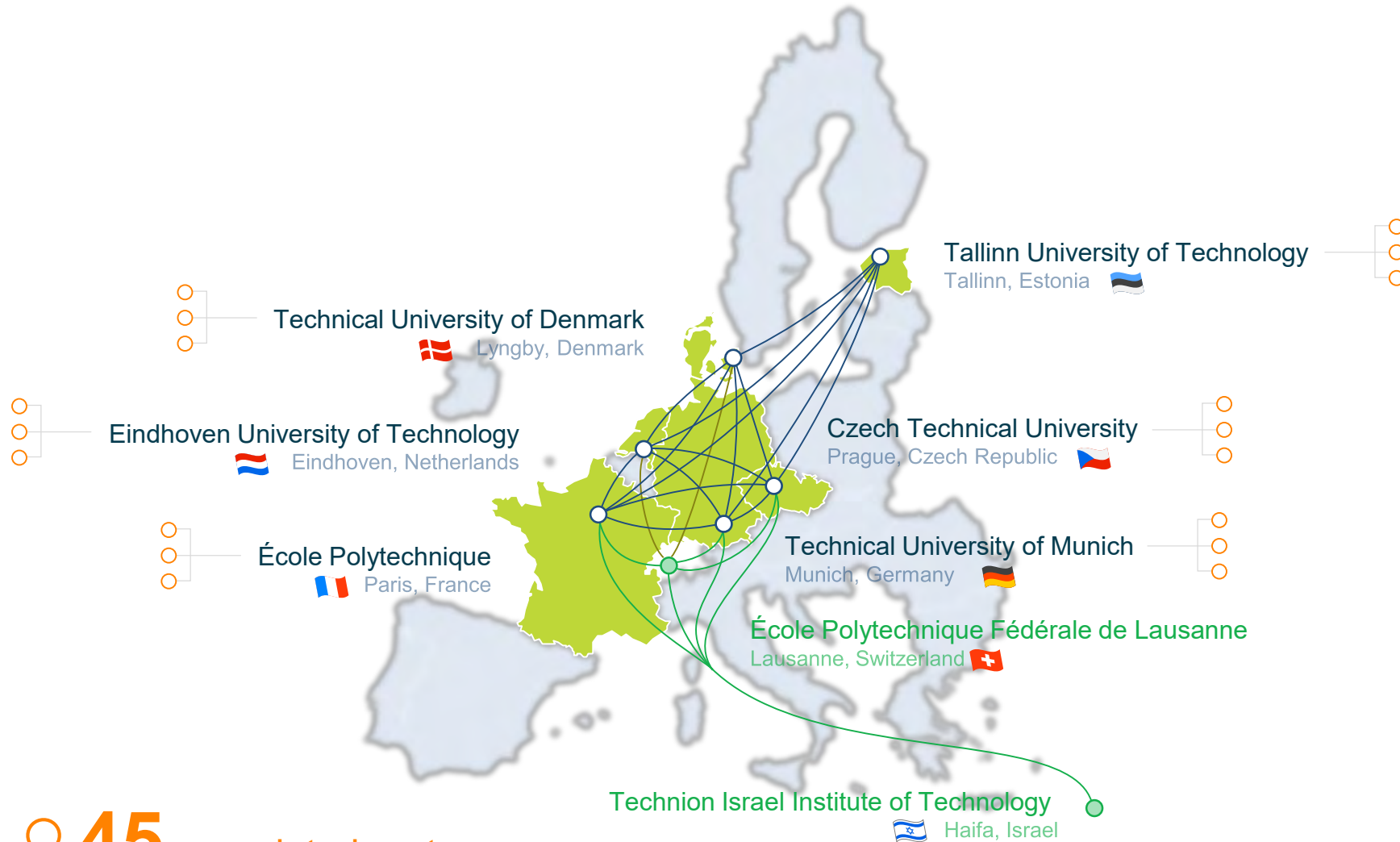
**Innovative pedagogies** with challenged-based **transdisciplinary** approach to foster entrepreneurial mind sets and civic engagement.

## European Universities

**Student-centred** curricula jointly delivered across **inter-university** campuses, where **diverse student bodies** can build their own programmes and experience mobility at all levels.

A **challenge-based** approach according to which students, academics and external partners can cooperate in **inter-disciplinary** teams to tackle the biggest issues facing Europe today.

# Local roots with an impact throughout Europe



○ 45 associated partners

Six strong Universities of Technology and 45 associated partners together form the EuroTeQ Engineering University.

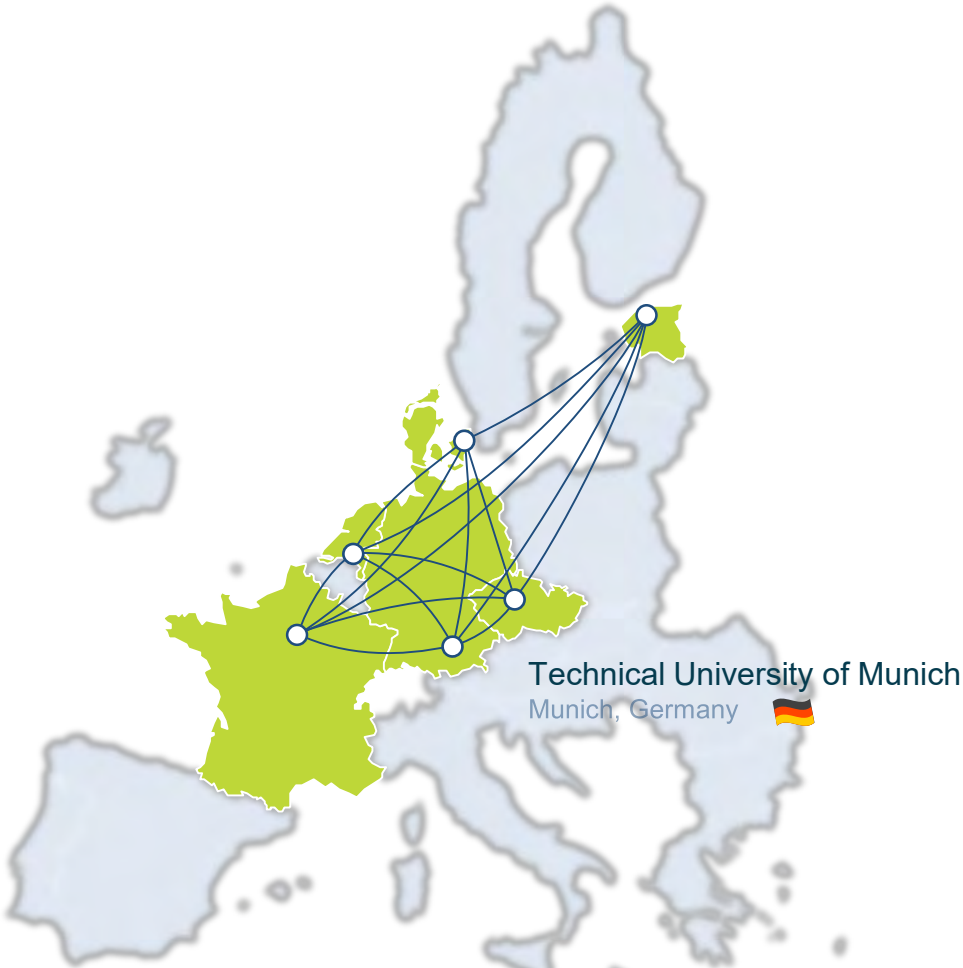
Emerging from the EuroTech Universities Alliance, taking on board two excellent partners TalTech from Estonia and CTU from the Czech Republic.

Anchored in diverse geographical and cultural contexts, each partner with their corresponding eco-system provides added value and a competitive advantage to the EuroTeQ cooperation.

EPFL in Switzerland and Technion in Israel contribute to these efforts.

The goal is to ensure a strong integrative link with different cultures and traditions of engineering education across Europe.

# Co-Creation with industry & society



○ **11** associated partners in Munich



**Studentische Vertretung**  
Technische Universität München




Bayerische  
Ingenieurkammer-Bau  
Körperschaft des öffentlichen Rechts



UNIVERSITÄTSSTADT  
**GARCHING.**



BAYERISCH-FRANZÖSISCHES  
HOCHSCHULZENTRUM  
CENTRE DE COOPÉRATION  
UNIVERSITAIRE FRANCO-SAVOIS

**BayFrance**



**vbw** Die bayerische  
Wirtschaft

**UNTER  
NEHMER  
TUM**



**infineon**

**BAU>INDUSTRIE**  
Bayern

**OSKAR VON MILLER FORUM**

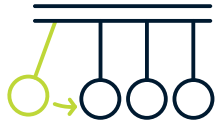
**BMW  
GROUP**



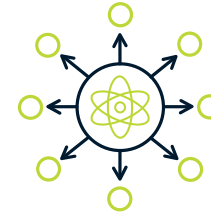
**VDI**

**SIEMENS**

# Our Mission



Societal developments of recent years call for strong University Alliances to make the **Knowledge Square of Education, Research, Innovation and Service to Society** a reality.



As six leading Universities of Science and Technology, we are equipped to introduce a paradigm shift in the engineering education of the future, aspiring **responsible value co-creation in technology**.



Our ambition is to create a **real impact Europe-wide**, enabling other universities and stakeholders to follow our example, fostering technological progress and **societal cohesion**.



The meaning “Engineering University” is 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

A modern engineering education must provide students not only with **in-depth technical knowledge** but also with an **extended educational horizon**, an **entrepreneurial mindset** and **socio-political sensitivity**.

# 02

Open education beyond the university

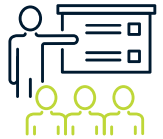
# Building the EuroTeQ Campus

A holistic approach to integrate the campuses and educational systems of the six academic project partners towards a platform for open education, delivering high-quality research-led teaching to a peer group of over

**115.000** students.

Our graduates will have intercultural and multilingual competences, an entrepreneurial mindset, think and act responsibly and are ready to lead a competitive Europe into the future.

We will jointly develop a EuroTeQ Campus for engineering education by



Establishing a **joint course catalogue** and joint course formats



**Individual study paths** including Micro-credentials, the label EuroTeQ Professional, and a EuroTeQ Honours Degree



Enhancing **mobility for students and staff**, in physical and virtual formats



Specifically tailored **multilingual digital** learning materials



Stakeholders from **industry and the public sector** integrated into the teaching formats at all locations



Demonstrable impulses for **entrepreneurial spirit**

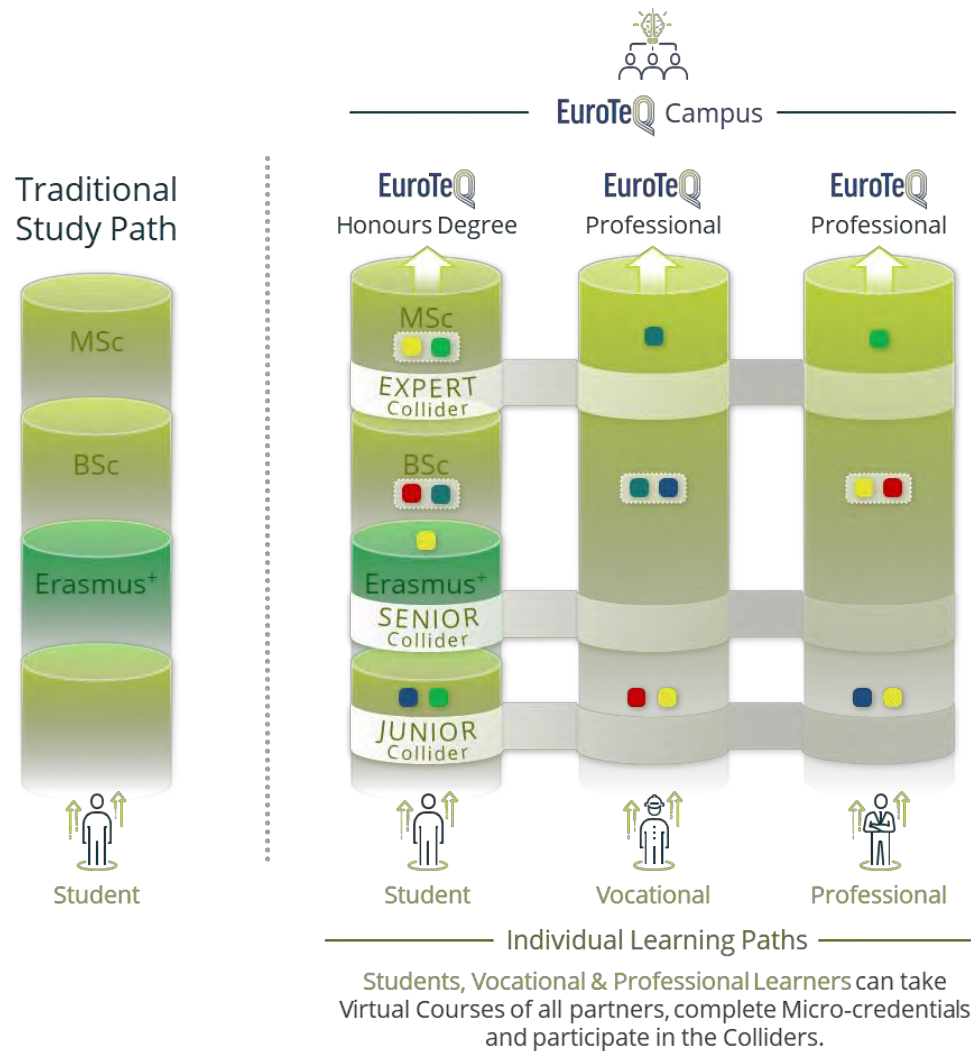


Our **EuroTeQ** Campus will be open to students enrolled at the **partner institutions**, to **vocational trainees** in technical careers as well as **engineers** in the workforce, promoting lifelong learning.

Together with **stakeholders** from industry, **trade associations** and various areas of society, we will explore the great challenges of the 21st century and to jointly **formulate solution strategies**.



# Building the EuroTeQ Campus

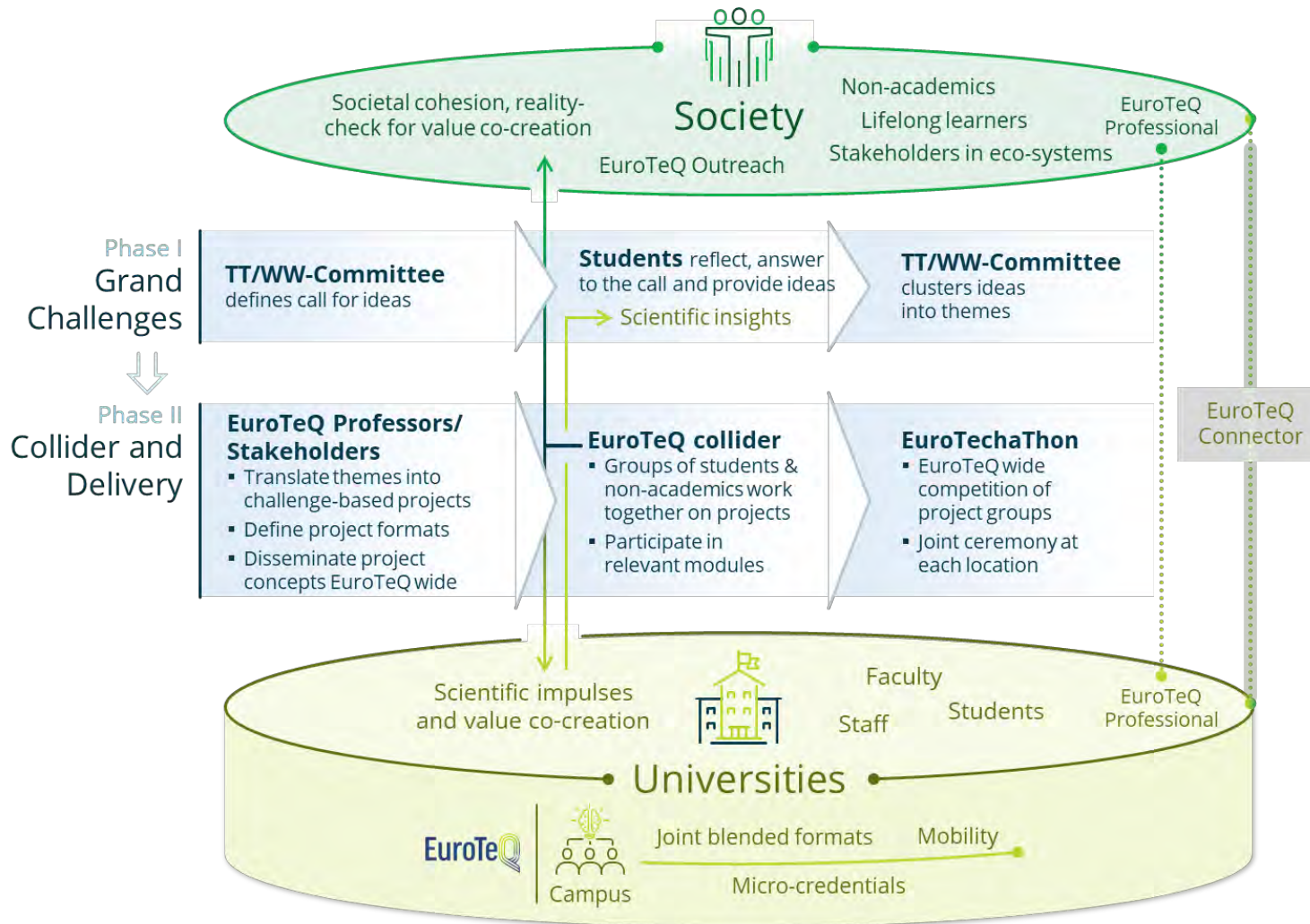


The interuniversity EuroTeQ Campus allows students, as well as vocational and lifelong learners to choose from the courses of six partners universities and participate in the EuroTeQ Colliders.

Individual learning paths enrich traditional study and career paths and can lead to a **EuroTeQ Honours degree** as well as the **EuroTeQ Professional** label.



# Running the EuroTeQ Collider



## Running the EuroTeQ Collider is at the heart of our project.

- Bringing together all stakeholders in education, society and industry, identifying and tackling the grand challenges of the 21st century through a series of co-created, challenge-based projects and competitions.
- A selection of the best projects will be presented in a major high-level event, the EuroTeQaThon.
- The success of the EuroTeQ Collider is ensured by the diversity of our partners' insights, which perfectly reflect Europe's zeitgeist.
- The EuroTeQ Collider is the interconnected and transformative approach that allows the EuroTeQ Engineering University to reshape itself and keep up with current developments.
- We will gain comprehensive experience with the various qualification structures in Europe and learn about the needs of the younger generation.
- These findings will then be integrated in the design of teaching at all the partner universities.





# 03

Promoting Change

# Co-creation and social cohesion

## EuroTeQ Professional

The EuroTeQ Professional will translate gained insights into future-proof technical education and contribute to the European Qualification Framework, to allow for more inter-European mobility among students and professionals in technical fields.

The EuroTeQ Professional is a key feature to implement the long-term vision, shedding light on the differences in the national systems and bridging gaps between engineering cultures in Europe.



## EuroTeQ Connector

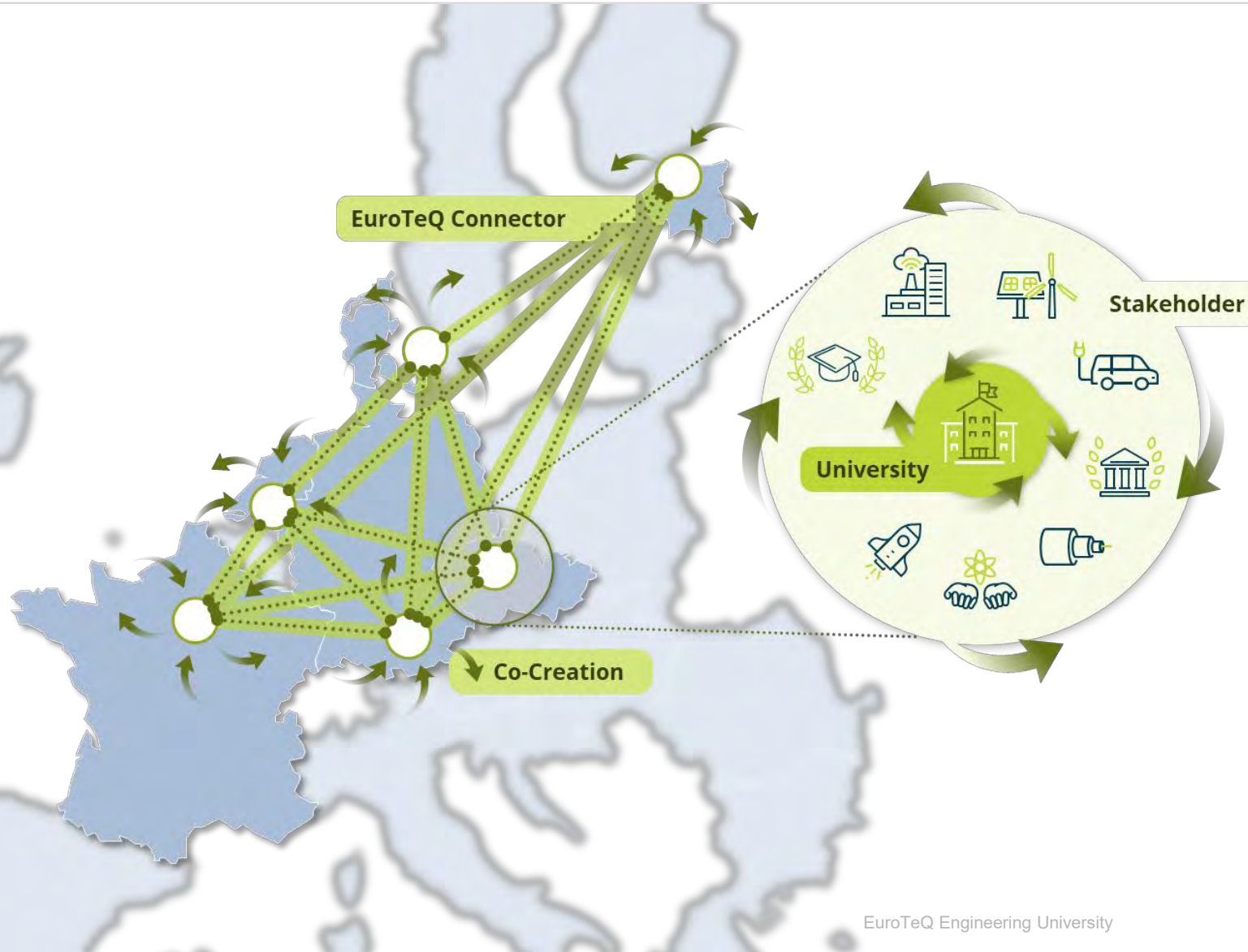
The EuroTeQ Connector will scientifically analyse, publish and document the observations in order to further develop the EuroTeQ Engineering University. It will shed light on previously hidden differences that become visible due to new types of interactions.

Attitude and problem-consciousness of the young generation will be its focus, as well as the different realisations of the European Qualifications Framework, different approaches for vocational learning and continuing education and different solutions for supporting start-ups and for the interaction with local and global industries.

The EuroTeQ approach to quality assurance includes a broad societal perspective, actively assessing the interaction with different societal actors and the impact of the paradigm change in education.



# Co-creation and societal cohesion



## Boosting the EHEA through enhanced quality, openness and policy dialogue

The EuroTeQ Connector gives a considerable reflection on a range of social, cultural and political issues that affect European society at a certain stage in time. Knowledge that is crucial in shaping European policies and programmes in the future.

## Universities as servants of the local community

EuroTeQ partners host events to serve the local community. Open-doors policy, public lectures, science fairs, showcasing their work as institution of education, research and innovation that actively engage the public.

## Serving the current, the past and the future generation of learners

EuroTeQ partners join forces to nurture a shared alumni network and offer formats of continuing education to lifelong learners, co-created with industry.

# Reaching Out



## Raising awareness

for evolving challenges in society, in technology and in their interplay, and for the resulting necessary changes to transform engineering education.



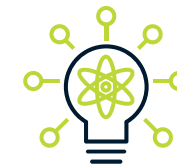
## Leading by example

we will deliver a successful blueprint for a transformational change in the approach to university education for the future.



## Lobbying for change

to be first-movers, to push the boundaries of what is possible, to identify the obstacles inherent in existing regulations, and address them towards decision makers. To improve the necessary framework conditions across Europe, to pave the way for other institutions to follow our example.



## Dare to make it fun!

We encourage everyone to join us!  
Share your ideas in a stimulating atmosphere of change.

# 04

Offers for the TUM-family

# Engineer the future with us!

## Opportunities

- Enriching the offers for our students
- Synergies with our TUM Agenda 2030
- New options for innovative teaching and project-based learning, supported with seed funding
- Contact to industry and exchange with professionals
- Enhanced physical & virtual mobility options
- Insights into other European societies and ecosystems from a technological perspective
- Facilitating research cooperation among the partner universities in the long term perspective
- Strengthening Europe as a technology hub

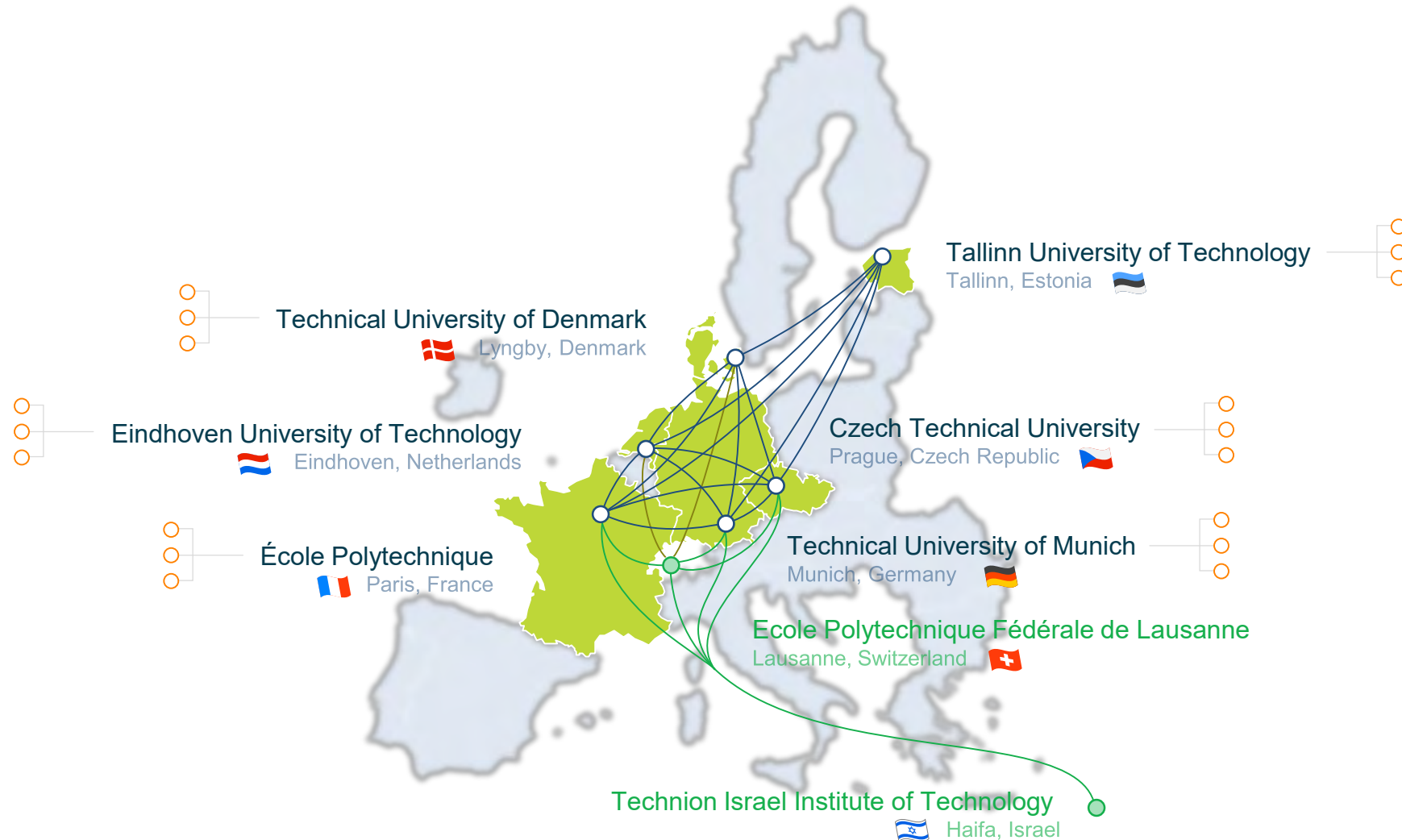
## Challenges

- Identifying the most suitable people and bring them together
- Align on competence profiles and the composition of Micro-Credentials and the EuroTeQ Honours degree
- Invest in information systems interoperability
- Integration into curricula vs. extracurricular approaches
- Legal issues for virtual mobility, connectivity of campus management systems, seamless mobility and automated recognition



# EuroTeQ Engineering University

Offers for the TUM-family



We will build a  
**EuroTeQ Campus**  
and enhance Student &  
**Staff Mobility**

The goal is to create an unprecedented integration of Universities of Technology, benefiting from the different cultures and traditions of engineering education across Europe and leading to **EuroTeQ Campus**.

**Students and staff members** shall benefit from these actions and engage in vivid **virtual and physical staff mobilities** and best practice exchanges across Europe.

First **virtual courses open autumn 2021**. Staff exchanges are possible at all times through the Erasmus+ Programme.

## EuroTeQ Teaching Fund

### Design the future of European Education

Call for applications 2021



Co-funded by the  
Erasmus+ Programme  
of the European Union



**TAL  
TECH**



**TU/e** Technische Universiteit  
Eindhoven  
University of Technology



CZECH  
TECHNICAL  
UNIVERSITY  
IN  
PRAGUE

Technical  
University  
of Munich



**EuroTeQ**  
Engineering  
University

## Seed Funding for innovative formats Ausschreibung 2021

Der EuroTeQ Teaching Fund unterstützt Lehrende der Technischen Universität München bei der Realisierung von Projekten digitaler Lehre in Kooperation mit europäischen Partnern.

Each project can receive up to 15.000€ for student assistants, software licenses, equipment, travel costs, video production

Bewerben Sie sich jetzt für eine Förderung in 2021. Die Bewerbungsfrist endet am 30. April 2021.

<https://www.international.tum.de/euroteq/>



## Intercultural competences for working in multicultural teams

Join our online workshops in the  
Summer Semester 2021



Co-funded by the  
Erasmus+ Programme  
of the European Union



**TAL  
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**TU/e** EINDHOVEN  
UNIVERSITY OF  
TECHNOLOGY



**EuroTeQ**  
Engineering  
University

- **Workshops** for TUM  
& EuroTeQ students
- **Sommer Semester  
2021**

Die Workshops der EuroTeQ Engineering University konzentrieren sich auf die interkulturelle Agilität, die für das Studieren und Arbeiten in einer multikulturellen Umgebung essentiell ist. .

The course is designed for students in engineering-related programs, but is open to all TUM students who see themselves working in a European context later on.

Studierende können sich noch bis zum 30. April 2021 beim TUM Sprachenzentrum registrieren.

<https://www.international.tum.de/euroteq/>



# Save the date



## Wednesday

7 July 2021

15.30 – 17.30 CET  
ONLINE

**EuroTeQ**  
Engineering  
University

Educating responsible  
professionals in Europe

## Educating responsible professionals in Europe.

The future holds opportunities and challenges for engineers in Europe: **digitalization, climate change** and the **need for sustainable innovation**.

But how can we ensure that today's students and professionals are equipped for the **ever changing needs of the European job market and our society?**

Together with stakeholders from inside and outside the university, we will discuss how the EuroTeQ Engineering University can initiate co-creative processes that ensure the **alignment between challenges and skills for a prosperous Europe**.

[www.international.tum.de/tumglobalweek/](http://www.international.tum.de/tumglobalweek/)



# Q & A



## Sprechen Sie uns an!

Sollten Sie im Nachgang zu unserer Projektvorstellung an der Mitarbeit im Projekt interessiert sein, sollten Sie Ideen haben, die Sie mit uns teilen möchten, dann nehmen Sie bitte direkt mit uns Kontakt auf. Wir freuen uns auf den Austausch mit Ihnen!

Marita Mau

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[EuroTech Universities Alliance](#)