EuroTeQ Micro-credentials

Micro-credentials as innovative educational offerings – from creation to implementation

EuroTeQ Engineering University

Lisa Wintersberg und Patrick Lenz, TUM Institute for LifeLong Learning, 05.12.2025

TUM. The Entrepreneurial University

YOUR PARTNER FOR LIFELONG LEARNING

EuroTeQ Engineering University
– founded in 2020, extended in 2023

Agenda

1. EuroTeQ professional education
2. Micro-credentials in the EuroTeQ context
3. Micro-credential project under the Erasmus+ policy experimentation
4. Micro-credential development process

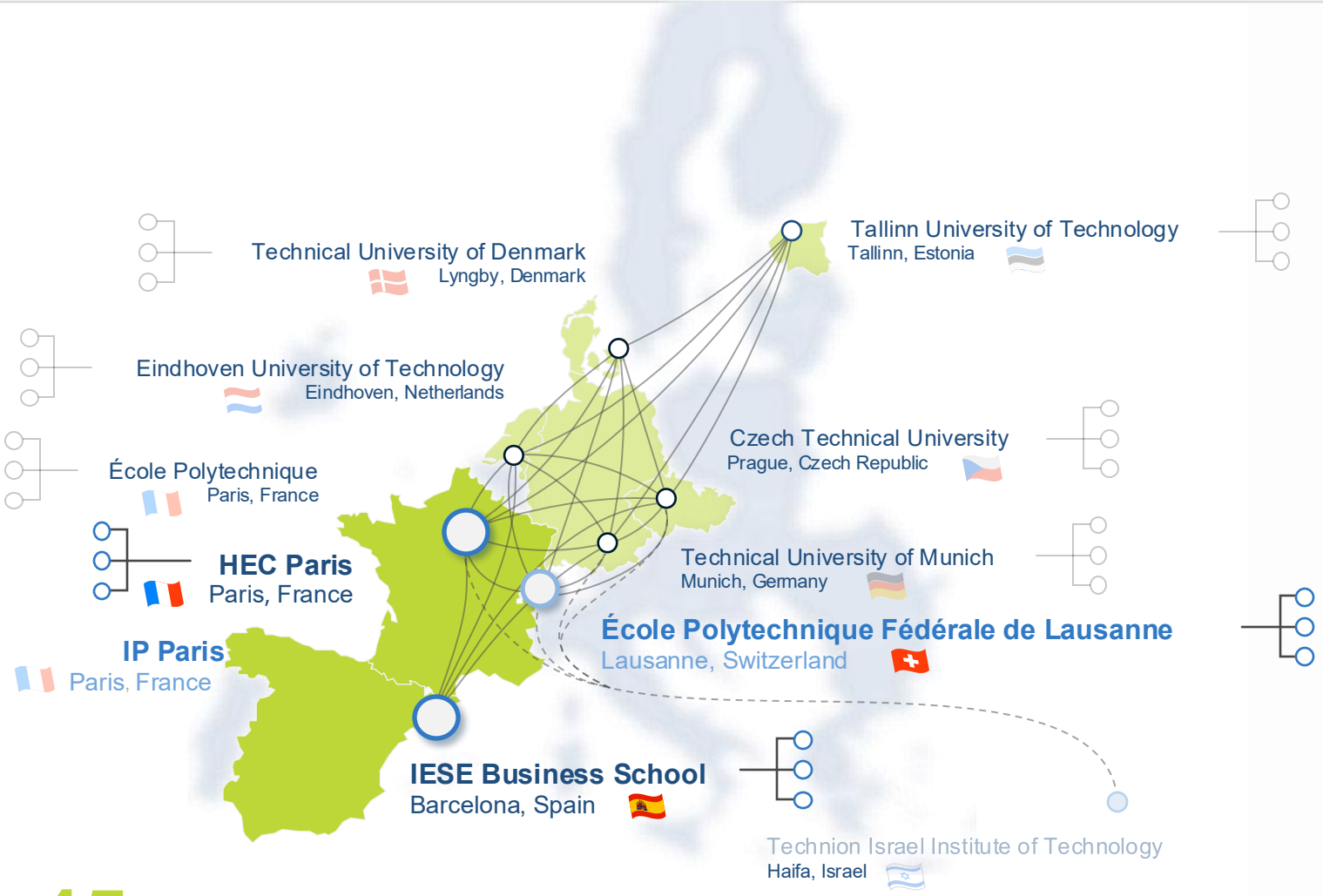
01

EuroTeQ professional education

EuroTeQ Engineering University

EuroTeQ Engineering University Alliance

6 Technical Universities, 2 Business Schools, strong associated Partners



45 associated partners from industry & society

- **2020-2023**, Partners have built a strong governance model that builds on an equal and trusted partnership.
- **2023-2025**, Extension to two new partners, HEC and IESE, and full integration of EPFL. IP Paris associated partner.
- **Strong connections to ecosystems** as one of our USPs to ensure innovation and business inspiring learning environments.

Project Structure

Work Packages & Flagships

2020 – 2023, 2023 – today

- Build on the growing EuroTeQ Campus and Collider experiences and increases offers and participation
- Integrate diverse target groups of academia as well as non-university stakeholders
- Boost the EuroTeQ Professional by offering Micro-Credentials and an Executive Program as agile lifelong learning paths
- Promote the EuroTeQ (Collaboration) Hub, as a bridge between educational research and pedagogical practice
- Further establish the EuroTeQ brand and celebrate the EuroTeQ Day across campuses

WP4 Mission and vision

Vision

By 2030, we aim at a coherent EuroTeQ Lifelong learning portfolio marketed across Europe

Mission

- Achieve a close **collaboration** between the Lifelong learning structures of all EuroTeQ partner universities
- Identify (update) and **map** the existing local lifelong learning structures and offers, as a strong basis to develop EuroTeQ joint offers
- Develop and co-create **micro-credentials** and a **joint executive program**
- Build a coherent **learning paths** based on the future competencies, regularly updated, and on our strong expertise on technology key issues, in continuous dialogue with the ecosystems
- Gather the stakeholders at a yearly Academy **event**
- Put **EuroTeQ** as a key asset on the European lifelong learning map

02

Micro-credentials in the EuroTeQ context

EuroTeQ Engineering University

EuroTeQ Course Catalogue Criteria

1. Format

- ✓ The courses have to be **either in English or French** (at least 2 partners from French speaking universities)
- ✓ Hybrid / online / digital / on-site

2. Further development

- ✓ The courses will be **developed with a further aim** as **joint MCs** across EuroTeQ Consortium

3. Topic

- ✓ The courses will **also integrate learning on entrepreneurship and innovation**
- ✓ Interdisciplinary approach

4.Certificate

- ✓ The courses will **end with a digital certificate/credential (first EuroTeQ partners**, further joint EuroTeQ certificate)

EuroTeQ Course Catalogue

https://eduxchange.eu/euroteq/for-professionals/explore

Explore

Explore the catalogue

Search

First application period

- [x] Enrolment open (24)
- [ ] Starting soon (0)

Academic year

- [ ] 2024 - 2025 (5)
- [ ] 2025 - 2026 (15)
- [ ] 2026 - 2027 (4)

Starts in

- [ ] Mar 2025 (5)
- [ ] May 2025 (0)
- [ ] Jun 2025 (0)
- [ ] Aug 2025 (0)
- [ ] Sept 2025 (4)
- [ ] Oct 2025 (0)
- [ ] Nov 2025 (0)
- [ ] Dec 2025 (1)
- [ ] Jan 2026 (3)
- [ ] Feb 2026 (2)
- [ ] Mar 2026 (3)
- [ ] Apr 2026 (1)
- [ ] Jun 2026 (1)
- [ ] Sept 2026 (1)

24 Results

Sort by: Name A-Z

AI for business

Les avancées de l'Intelligence Artificielle (IA) représentent un puissant levier d'innovation et de productivité. Maîtriser tout le potentiel de cette technologie reste aujourd'hui...

Life Long Learning course - 51 hours — Enrolment open

Applied AI for Technical Innovation – Insights into a Key Enabling Technology

The certificate program combines theoretical knowledge, academic use cases, and concrete applications of Artificial Intelligence (AI) in different industries, emphasizing Trustwort...

Life Long Learning course - 125 hours — Enrolment open

Applied Data Science: Communication and Visualization

This is a course that explains how to make any kind of data speak loud and clear with two critical areas of the data science pipeline: communication and visualization. It is target...

Life Long Learning course - 420 hours — Course is currently running

Applied Data Science: Machine Learning

This online program, will give you hands-on experience in one of the hottest areas of

A Course Catalogue for Professional Learners

As it aligns with the alliance's mission, EuroTeQ partners universities have developed a course catalogue dedicated to professional learners looking to enhance their educational journey.
This diverse selection covers a range of topics, such as engineering, technology innovation end entrepreneurship.

While most subjects are conducted in English, some are also available in other languages to cater to local audiences. Upon completion, participants receive a certificate from the university offering the course.

The course catalogue ensures professionals can access the resources they need to innovate, collaborate, and lead.
Explore the course catalogue today and take the next step in your professional journey!

Boost your career with the EuroTeQ course catalogue—specially designed for professionals eager to **expand their expertise** and **stay ahead in a rapidly evolving world**. Developed by **leading European technical universities**, our diverse selection of courses covers key topics like **engineering**, **technological innovation**, and **entrepreneurship**.

Most courses are **offered in English**, with some available in other languages to better serve local professionals. Upon completion, participants receive a **certificate** from the university delivering the course, **enhancing their credentials and career prospects**.

03

Micro-credential project under the Erasmus+ policy experimentation

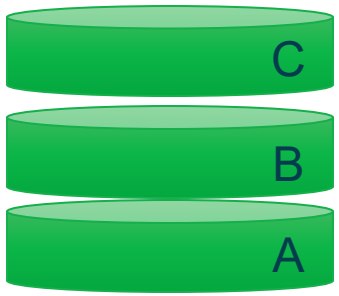
EuroTeQ Engineering University

MC project under Erasmus+ policy experimentation

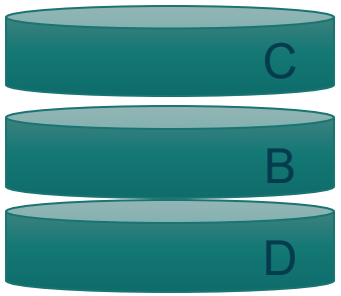
Each university to develop 1 or 2 MCs in green and/or digital transition that should potentially be stackable with other MCs from partner Universities.

The goal is to create MCs that can both individually and as a whole (stacked) contribute to Europe's green and digital transition.

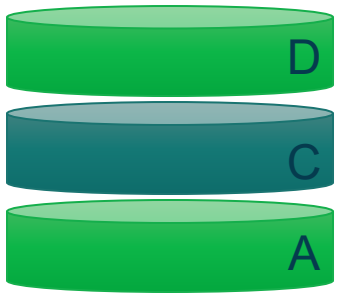
Several potential combinations
Stack Green : Solar, Wind, energy storage, hydrogen
Stack Digital : data treatment, E-governance, Cyber-security
Stack Green+Digital : solar energy, Imaging, modelisation,



Stack Green



Stack Digital



Stack Green+Digital

Univ. A,B,C, D

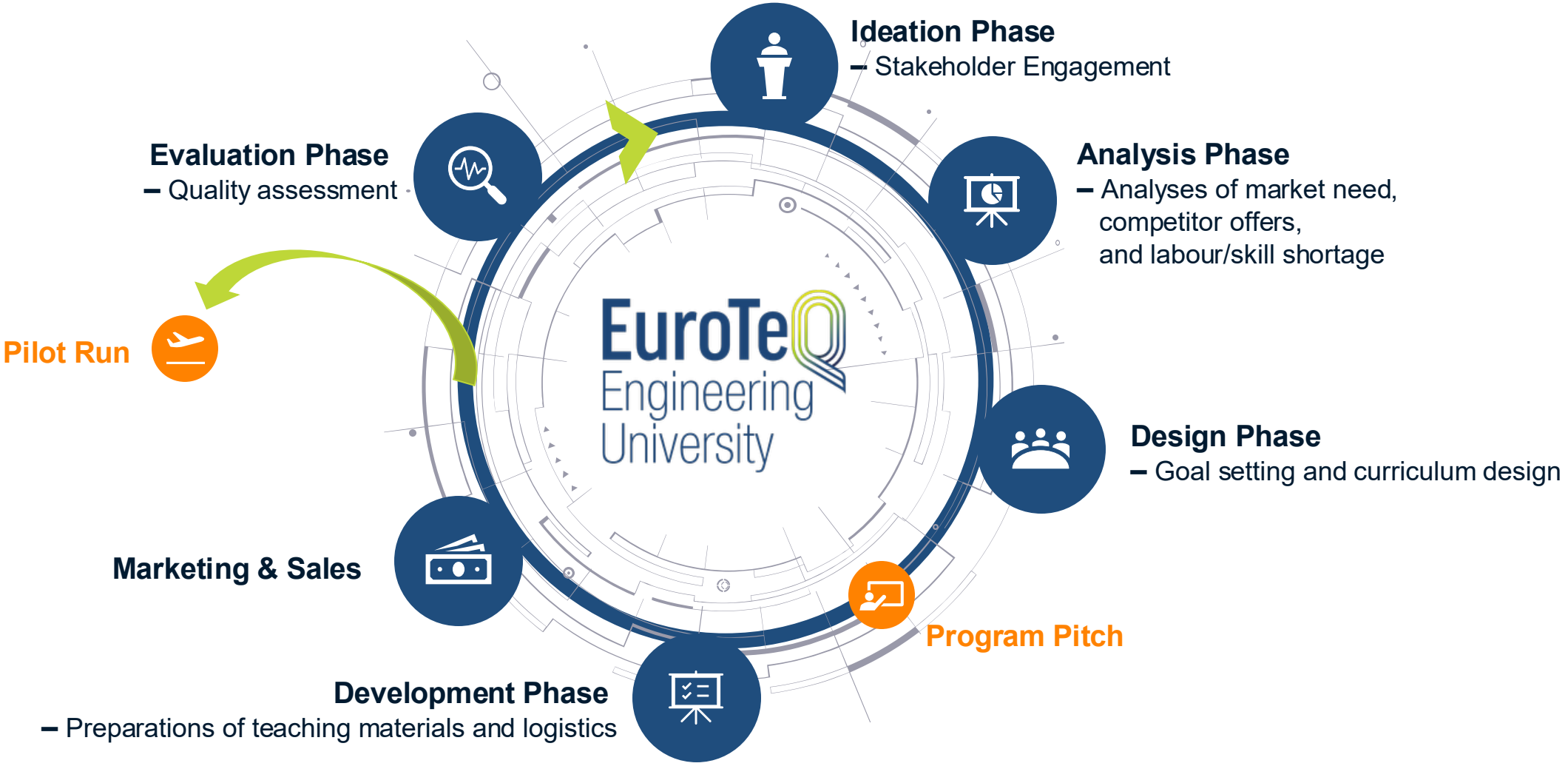
1 MC : 1-9 ECTS / pref. 5-6
Stackability as a future goal

04

Micro-credential development process

EuroTeQ Engineering University

Program Development Process



Ideation Phase

Objectives:

- Increase **feasibility and competitiveness** in advancing Europe's green and digital priorities.
- Strengthen societal awareness and commitment to the **green and digital transitions**.
- Foster **knowledge sharing and best practices** across European professionals and ecosystems.
- Build **collaboration** infrastructure between Partner institutions' educational and professional ecosystems.

Output:

- Create a **portfolio of 10–20 micro-credentials**, totaling over **1,500 learning hours** for European professionals
- Address **technological innovations** that support the **green and digital transitions**.

Additional considerations:

- Develop **standards** for the entire programme development cycle, including structure, organization, ecosystem involvement, and marketing.
- Ensure **quality, traceability, and comparability** of micro-credentials across Europe.
- Enable **recognition and stackability** for earning larger certificates across Partner institutions.

Analysis Phase

Goal of analysis phase: Assess the situation in Europe in terms of short courses that can address the needs of our economy and society in skills and knowledge related to the green and digital transition.

Methods chosen: Extensive desk research, surveys, and interviews of key academics and professionals.

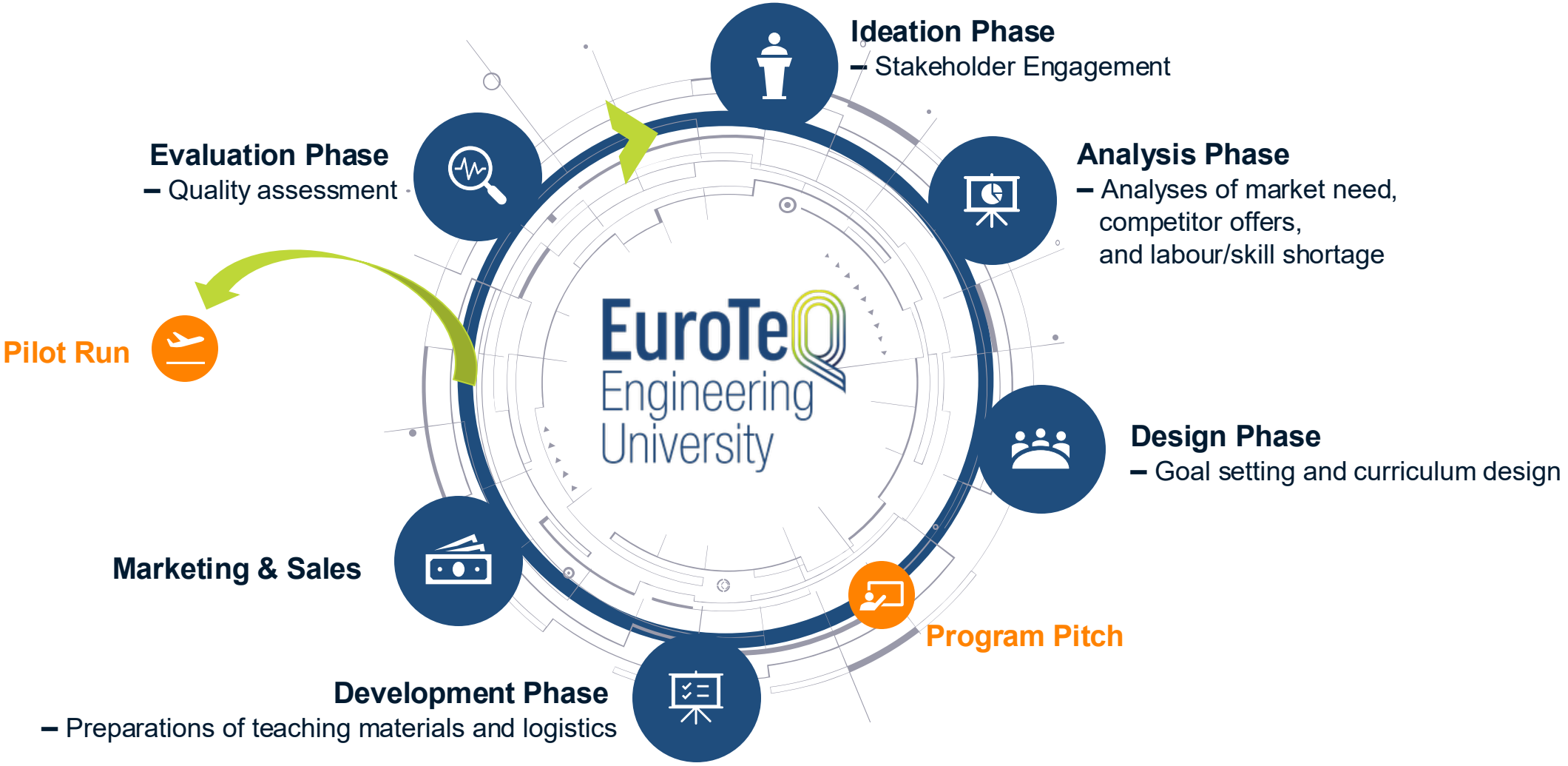
Output: A list of potential micro-credentials, which the EuroTeQ partner universities will use to start developing relevant courses to address skills gaps in the European market.

Design Phase

Result: Program curriculum

- Clarifying the program's target group
- Identifying competence-oriented program outcomes
- Defining program goals
- Developing a program curriculum (content structure, methods, assessment, evaluation plan, resources)

Program Development Process



Development Phase

Result: Instructional material

Stakeholder Mobilization	Content Creation
Actively involving all relevant stakeholder in the planning and development of the program	Preparing learning materials, media, and teaching guides

Marketing & Sales

EuroTeQ Engineering University

Benefits

01

Benefit from the Strong Network of European Technical Universities

The certificate program "Applied AI for technical innovation – Insights into a Key Enabling Technology" was developed within the EuroTeQ alliance by the Czech Technical University in Prague (CTU), Technical University of Munich (TUM), and AppliedAI, the German expert for applying AI in industry. The EuroTeQ alliance offers a unique and valuable certificate program experience, combining international collaboration, quality assurance, cross-cultural exposure, networking opportunities, and recognition to participants.

02

Empowering European Leadership in Key Enabling Technologies

This executive program brings together senior industrial specialists & scientists from industry with leading professors and researchers from the most highly ranked technical universities in Europe to catalyze the development of leadership in the field of key enabling technologies and thereby strengthen the competitiveness of European industries of tomorrow.

03

Pedagogical Framework

We have pioneered a unique method designed specifically for senio
teaching strategy of the ELPIS program includes:

- **A science-driven leadership mindset**: This approach is deeply roc curiosity, critical self-reflection, evidence-based rigor, combinatori
- **A process for creating opportunities:** This process is woven into t industry or technological tipping points, generating thought-provo experimentation, and aligning them with the broader innovation st
- **A strategic blend of activities to demonstrate principles in action** studies, workshops, peer learning sessions, networking events, ar enhancing tangible opportunities for your organization.

TUM Institute for LifeLong Learning, Technical University of Munich

MBA & MASTER | CERTIFICATE PROGRAMS | FOR ORGANIZATIONS | PROGRAM FINDER | DE EN

Applied AI for Technical Innovation – Insights into a Key Enabling Technology

Language:	English
Location:	Munich, Garching near Munich
Duration:	4 days in one week
Start:	20 January 2026
Cost:	4,400 EUR
ECTS:	5

APPLY NOW

Home › Applied AI for Technical Innovation – Insights into a Key Enabling Technology

Share

…ines theoretical knowledge, academic use cases, and concrete applications of …ifferent industries, emphasizing Trustworthy AI Principles.

…be part of the program "The European Leadership Program for Industrial Scientist: …gy Impact Across Industries" which will be launched in August 2025. This …gether senior industrial specialists & scientists from industry with leading …e most highly ranked technical universities in Europe (DTU, CTU, TalTech) …e development of leadership in the field of Key Enabling Technologies an …etitiveness of European industries of tomorrow. More information will fo… …ight away, feel free to contact us directly.

…gible as an elective for our Executive MBA students if you do both the mo…

Quick Infos

Here you will find all the information you need for this course.

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Global competition and technological disruption are rewriting the rules of manufacturing. Today's production leaders need more than technical expertise – they need strategic foresight, interdisciplinary agility, and the ability to drive …more

Jennifer Fenske and 4 others

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Modules

LEADERSHIP

What will you learn ?

Explore how to lead and innovate in science- and technology-driven environments by transforming research and development into impactful business and aligning innovation with strategy for competetiveness. Gain personal leadership skills for industrial science and innovation.

Where ?

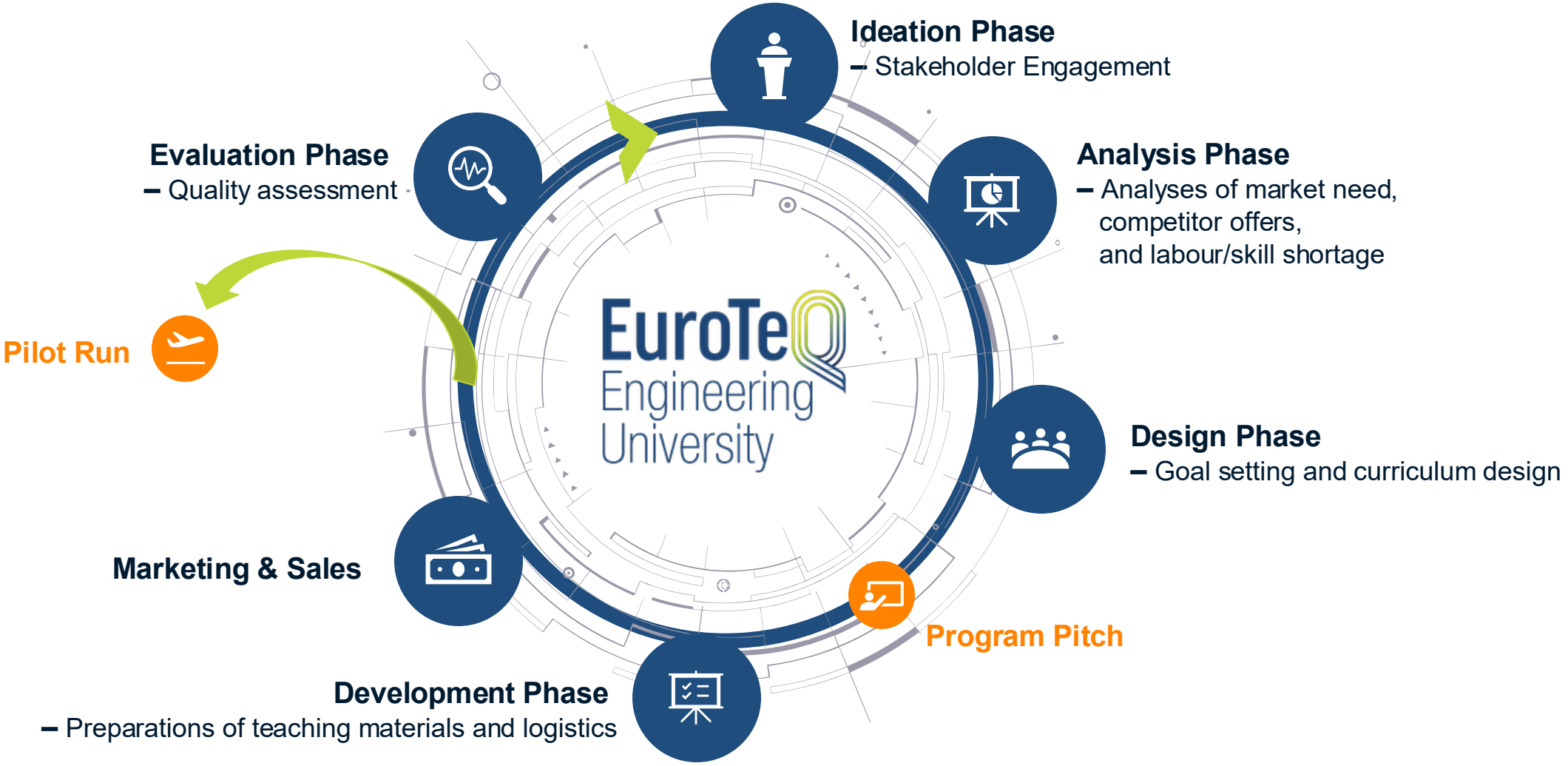
DTU – Denmark

Next date

3-6 November 2025

More info here

Program Development Process



Evaluation Phase

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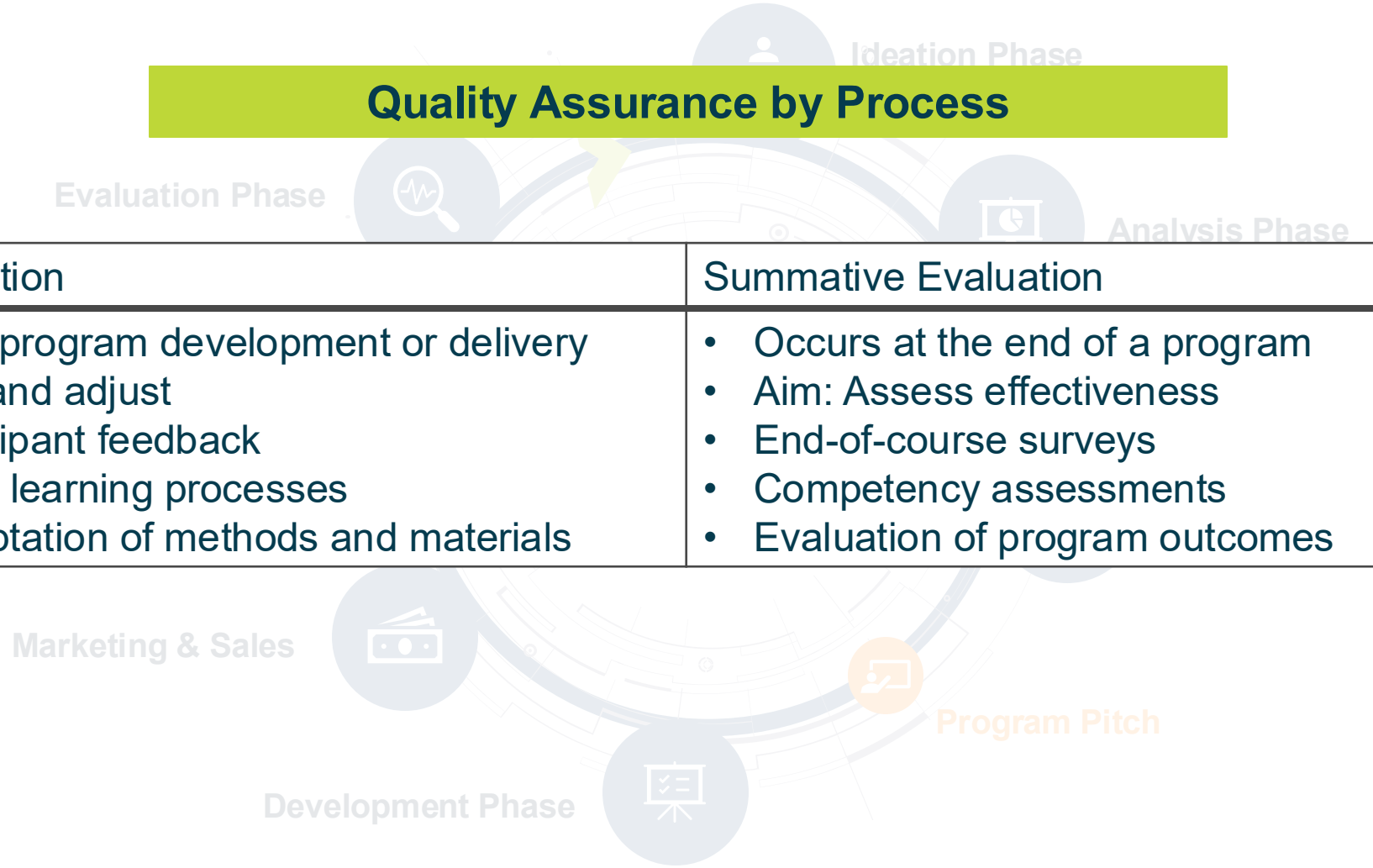
Quality Assurance by Process

Formative Evaluation	Summative Evaluation
• Occurs during program development or delivery • Aim: Improve and adjust • Ongoing participant feedback • Observation of learning processes • Real-time adaptation of methods and materials	• Occurs at the end of a program • Aim: Assess effectiveness • End-of-course surveys • Competency assessments • Evaluation of program outcomes



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