If you want to acquire project management skills, create your own company, commercialize new technologies, or set up processes to streamline supply chains, this Master is for you! It will allow you to understand the functioning of modern businesses in a holistic manner, “think outside the box” in order to develop innovative, entrepreneurial approaches, manage key firm-internal processes, and engage with external stakeholders.
The program allows students with a Bachelor’s degree in engineering or in a technological field to acquire a high employability profile for those leadership positions which require both technology and management skills. Students can choose to specialize either in Strategy, Innovation & Entrepreneurship, in Operations Management & Systems Modeling or in Business Analytics, which provides them with more specific competences in one of these three important areas of management. Students round-off their education with a Minor in a specific technical discipline and may select elective courses according to their preferences and specific future employment goals.

The master MTE offers since 2017-18 an orientation in Business Analytics, which uses data, mathematics and business insights to solve societal and business challenges. This orientation will appeal to students with a deep interest in data science, statistics, machine learning and optimization who are keen to apply these methods in new contexts.

Strategy, Innovation & Entrepreneurship Specialization - Building a more sustainable innovation culture at Logitech

During her Master’s project Ran Li was involved in assessing and implementing a measurement system for innovation management at Logitech. A lot of companies get lost in different metrics and end up with using suboptimal ones to measure their innovation. As an innovation leader, Logitech has realized that such a system should be customized to suit their specific needs. This Master’s project assessed the current innovation capability of a new product and designed a proper metric system to measure the associated innovation activities.

Operations Management & Systems Modeling Specialization - Applying the seven step strategic sourcing method at PepsiCo

The objective of Eirini Kefala’s Master’s project was to support the strategic sourcing process in one of PepsiCo’s Indirect Purchasing categories. Leading firms such as PepsiCo have identified the need to leverage supplier relationships beyond traditional purchasing practices in order to achieve a competitive advantage. The seven step strategic sourcing method focuses on assessing internal and external factors to shape procurement strategies and achieve improved and predictable lifecycle costs, optimized service levels and adoption of more efficient operating models with strategic partners. The end result is building stronger, more collaborative relationships with selected, capable partners that are focused on driving continuous improvement and value globally. During her Master’s Project, Eirini supported the implementation of this approach in a specific category by providing market intelligence, facilitating the stakeholders’ engagement, using advanced sourcing tools, and performing data analysis.
### Master of Science in
**MANAGEMENT, TECHNOLOGY AND ENTREPRENEURSHIP**

2-year program - 120 ECTS

- Core courses: 28 ECTS
- Disciplinary minor: 30 ECTS
- Electives: 12 ECTS
- Orientation: 20 ECTS

Core courses
- Applied corporate & industry analysis (MTE master only): 2 credits
- Applied Probability & Stochastic Processes: 4 credits
- Financial & Managerial Accounting: 4 credits
- Introduction to econometrics: 4 credits
- Principles of Finance: 4 credits
- Principles of Microeconomics: 4 credits
- Project in human and social sciences: 6 credits

Disciplinary minor
- Minor in student's original technical field of study (Bachelor): 30 credits

Orientation
- A network tour of data science: C 4
- Continuous improvement of manufacturing systems: B 4
- Convex optimization: C 4
- Corporate strategy: A 4
- Data science in practice***: C 3
- Economics of innovation and IP: A 4
- Entrepreneurship & new venture strategy: A 4
- Entrepreneurship laboratory (e-lab): A 4
- Industry dynamics, models & trends: A 4
- Information: strategy & economics: B C 4
- Innovation and entrepreneurship in engineering: A 10
- Innovation management: A 4
- Introduction to machine learning: C 4
- Logistique et analyse de la demande: B 4
- Management de projet et analyse du risque: B 4
- Mathematics of data: from theory to computation: C 4
- Network analytics: C 3
- Operations: economics & strategy: B 4
- Optimal decision making: B C 4
- Production management: B 5
- Quantitative systems modeling techniques: B 4
- Statistics for data science: C 6
- Strategic marketing & technology commercialization: A 4
- Supply chain management: B 4
- Technology & innovation strategy: A 4
- Value Chain Management in Practice: B 4
- Venture capital: A 4

Electives
- Corporate governance: 8 credits
- Economics of innovation & management in energy: 12 credits
- Global business environment: 12 credits
- Information technology & digital strategy: 12 credits
- Intercultural presentation skills: 6 credits
- Leading and managing in a global context: 8 credits
- Negotiation techniques: 8 credits
- Organizational behavior: 8 credits
- Practical business law: 8 credits
- Systemic & strategic problem solving: 12 credits
- Technology policy and the energy transition: 12 credits

Career prospects
Graduates will have acquired the knowledge and developed the skills necessary for successfully bridging the worlds of technology and business in a large variety of organizations (such as small start-ups, large established firms, consulting firms, public organizations, VCs, and Tech Transfer Offices). For instance, at the start of the career they may work in junior or associate positions in Production and Manufacturing, Supply Chain and Logistics, Product & Project Management / Development, R&D, Innovation Management or Business Analytics. Their unique profile makes them also particularly attractive candidates for joining a start-up team in a technology environment.

College of Management of Technology
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