# What is EIT Manufacturing?

EIT Manufacturing is an Innovation Community within the European Institute of Innovation & Technology (EIT) – that connects the leading manufacturing actors in Europe. Powered by a strong interdisciplinary and trusted community, it will add unique value to European products, processes, services – and inspire the creation of globally competitive and sustainable manufacturing. Learn more at: https://eitmanufacturing.eu/

## The EIT-Manufacturing Master's School

The programme offers mobility, mentorship, networking, innovation & entrepreneurship, and business modules. EIT-M Master's graduates will generate start-ups or innovate within manufacturing companies and ecosystem, contributing to European competitiveness, environmental sustainability and to the creation of new quality jobs.

Moreover, the EIT-M Master's Programme is also enhanced by a strong interaction with the world of industry, which unfold through real case studies, testimonies and company visits, and internships.

## About the EIT-M Programme

EIT-M offers 5 different learning tracks, one of which is currently available for Politecnico di Milano Management Engineering students, as explained below:

- People and Robots for Sustainable Work
- Additive Manufacturing for Full Flexibility
- Zero-Defect Manufacture for a Circular Economy
- Platforms for digitalized value networks
- Data Analysis and AI for Competitive Manufacturing.

Students move from their *entry* university at the end of the first year to their *exit* university in a different country for the second year. Politecnico di Milano Management Engineering students may select one of the three international partner institutions as the *exit* university for their second year. The language of instruction throughout is English.

Graduates of the EIT-M programme are awarded two Master degrees - one from each university. An **EIT Label certificate** is also conferred to participants who have followed one of the 4 tracks (with international mobility), taken part in the Innovation & Entrepreneurship courses (in particular the summer school) and successfully completed an internship in industry.

# Track for Management Engineering students: Platforms for digitalized value Networks

This track is a combination of studying different manufacturing sciences, including the usage and adoption of advanced digital solutions and platforms.

In Platforms for digitalized value Networks, relevant fields include modelling and simulation, virtual prototyping, system engineering, industrial processes and operations.

Students learn the latest theoretical knowledge and know how to apply their skills in practical real-life problems. Typical application areas of Platforms for digitalized values networks: Cyber-physical systems (CPS), Information system management, digital monitoring

A student who graduates from the Platforms for digitalized value Networks Master shall:

- have broad knowledge of theories and concepts in Cyber-physical systems (CPS), Information system management, digital monitoring
- be able to critically, independently and creatively participate in strategic work to meet manufacturing-related problems and to be able to relate these measures to sustainable social development
- be able to implement the gained engineering expertise to create new or improved methods, techniques, products, and services in the field
- be able to think beyond traditional disciplinary boundaries to find innovative solutions to real-world problems and to come up with new ideas
- be able to draw up plans and to make decisions foreseeing future consequences from a scientific, ethical, and societal perspective
- be able to turn innovations in the area into feasible and successful business solutions;
- be able to profitably work in small size teams and contexts by taking into account all relevant elements and showing effective decision-making and leadership abilities

## Who are the Partner Universities?

- University of Applied Sciences and Arts of Southern Switzerland (SUPSI)

- Politecnico di Milano (POLIMI), Italy

- Ecole Centrale de Nantes (ECN), France

- University College Dublin (UCD), Ireland

## What qualifications are awarded?

- 2 Master degrees (conferred by the *entry* and *exit* universities)

- An EIT Label Certificate

## What will you learn at Politecnico di Milano?

Students are required to earn 120 ECTS divided as follows: 90 ECTS of technical courses and 30 ECTS of Innovation and Entrepreneurship (I&E) courses[1].

### General structure of the EIT-M Master Programme

| Type of modules | Total credits for EIT-M Master | Total credits 1st year | Total credits 2nd year |
|---|---|---|---|
| Technical courses (TC) | 45 | 40-50 | 10-20 |
| Specialization courses (SC) | 15 | | |
| Innovation & Entrepreneurship courses (I&E) including SUMMER SCHOOL (5 credits) | 30 | 10-20 | 10-20 |
| Master thesis (MT) | 30 | 0 | 30 |
| Tot | 120 | 60 | 60 |

## EIT-M Mobility Experience:

| Entry University – Year 1 | Exit University – Year 2 | Qualifications awarded |
|---|---|---|
| Politecnico di Milano | University of Applied Sciences and Arts of Southern Switzerland | ❖ Master of Science in Management Engineering, specialization in Industry 4.0 – POLIMI <br><br> ❖ Master of Science in Engineering, specialization in Business Engineering – SUPSI |
| Politecnico di Milano | Centrale Nantes | ❖ Master of Science in Management Engineering, specialization in Industry 4.0 – POLIMI <br><br> ❖ Master of Science, Technology and Health, specialization in Industrial Engineering – ECN |
| Politecnico di Milano | University College Dublin | ❖ Master of Science in Management Engineering, specialization in Industry 4.0 – POLIMI <br><br> ❖ Master of Engineering Science (Manufacturing)-UCD |

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[1] More details about the Study Plan are included in the PowerPoint presentation of the Programme.

## How to apply?

The EIT Manufacturing Master School is open to students who have a Bachelor of Science Degree of 180 ECTS in Management Engineering. Those interesting in participating to the Programme, must submit their application to the EIT-M Master School portal, while also following the Politecnico di Milano enrollment procedure on "POLIMI's Online Services portal".

Requirements for the application are:

- Degree or Statement of final year enrollment
- English Certificate
- Curriculum
- Motivation letter (max. 2 pages)
- Passport/ID Copy.

**The application deadline for the academic year 2022/23 is March 1st 2022.**

## Contacts

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## Download the track flyer at the following link