

# Master's Degree in Management Engineering



# Why a Master's Degree in Management Engineering at Unipd

One of the first in Italy, long history of success (35 years)



- **Overall satisfaction of MS students (2023/2024): 8,14** (on a scale from 1 to 10)
- **Expressed overall satisfaction with 2nd-level degree programme: 95%** (Almalaurea 2023)

MASTER'S  
DEGREE IN  
MANAGEMENT  
ENGINEERING

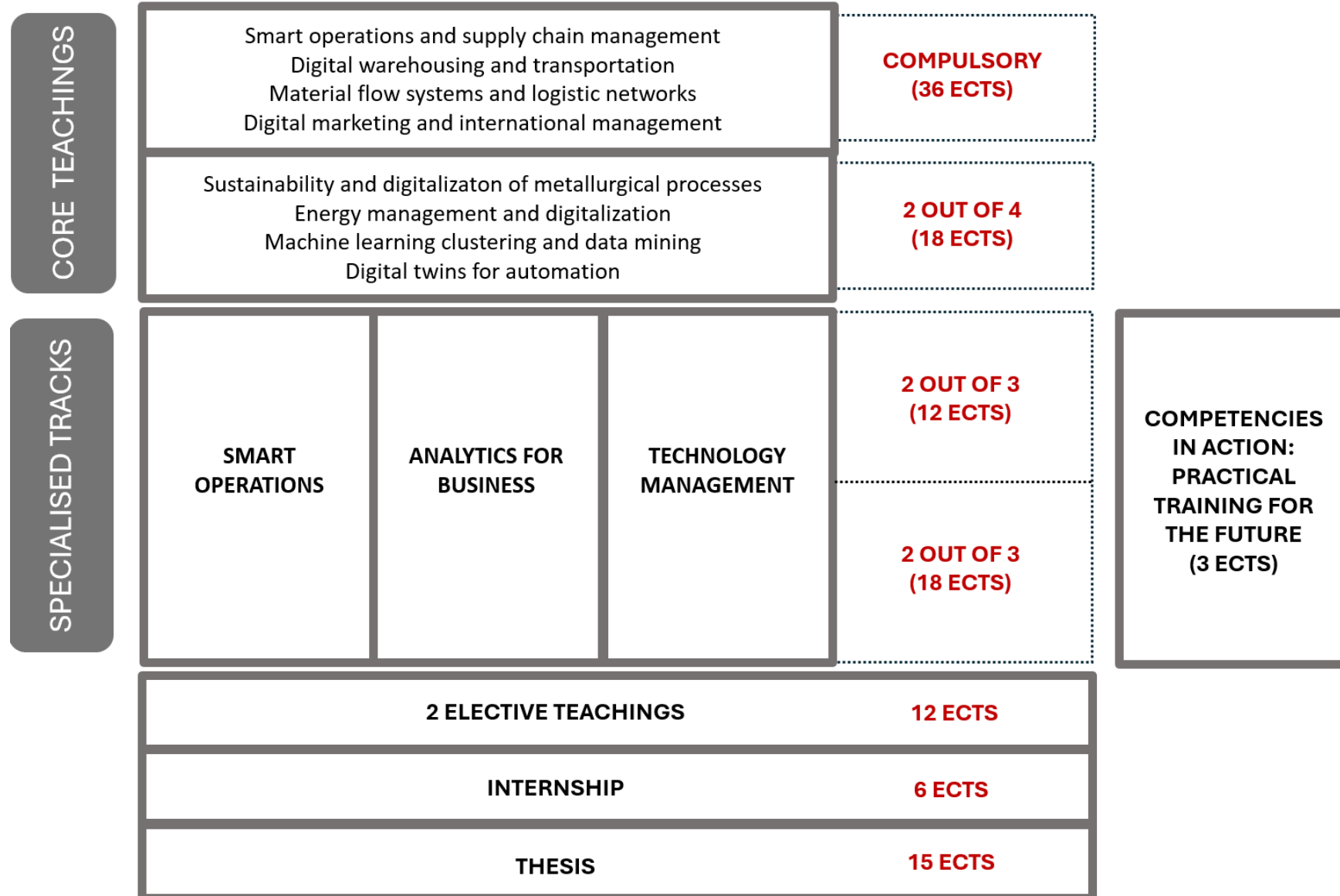


- Established to meet the **request of companies** for an engineer with both technical and managerial competences and skills
- **Employment rate: 98.1%** (Almalaurea 2023)
- **Time from the start of the job search to finding the first job: 0,7 month** (Almalaurea, 2022)

# Master's Degree in Management Engineering

- **Course Coordinator:** Prof. Anna Nosella
- **Language of instruction:** English
- **Duration:** 2 years (4 semesters, 120 ECTS)
- **Department of affiliation:** Department of Management and Engineering
- **Location:** Vicenza

# Master's Degree in Management Engineering Curriculum in English



# Master's Degree in Management Engineering Curriculum in English

## Core teachings

### 4 COMPULSORY TEACHINGS (36 ECTS)

- Smart operations and supply chain management
  - NEW!** • Digital warehousing and transportation
- Material flow systems and logistic networks
- NEW!** • Digital marketing and international management

### 2 TEACHINGS OUT OF 4 (18 ECTS)

- Sustainability and digitalization of metallurgical processes
  - Energy management and digitalization
- Machine learning clustering and data mining
  - Digital twins for automation

### 2 ELECTIVE TEACHINGS (12 ECTS)

- Circular economy
- Urban mining and circular economy
  - Game Theory
- NEW!** • Industrial and collaborative robotics
- Innovation in metallurgical production
  - Additive manufacturing
- Ottimizzazione della fabbricazione manifatturiera
  - Gestione snella dei processi
    - Finanza aziendale
    - Controllo di gestione
  - Gestione delle energie rinnovabili
  - Soluzioni digitali per il management
- Any other belonging to any different specialized program

+

## Paths

### Smart operations

#### 2 TEACHINGS OUT OF 3 OF 6 ECTS

- New product and project management
- NEW!** • Digital operations
- Service operations management

#### 2 TEACHINGS OUT OF 3 OF 9 ECTS

- Digital customization
- Strategy and digital transformation
- Digital manufacturing

### Analytics for business

#### 2 TEACHINGS OUT OF 3 OF 6 ECTS

- NEW!** • Business analytics and decision making
- Digital operations
- Data driven quality management

#### 2 TEACHINGS OUT OF 3 OF 9 ECTS

- Organizational change and performance measurement
- Strategy and digital transformation
- Digital manufacturing

### Technology management

#### 2 TEACHINGS OUT OF 3 OF 6 ECTS

- Technology and innovation management
- Maintenance management
- Quality and metrology in manufacturing

#### 2 TEACHINGS OUT OF 3 OF 9 ECTS

- Digital customization
- Organizational change and performance measurement
- Digital manufacturing

+

Internship (6 ECTS)  
Thesis (15 ECTS)

# Master's Degree in Management Engineering

## ➤ **Competences in action: practical training for the future (3 ECTS)**

Training based on real experiences through which students can learn how to solve problems they will face in working contexts.



**pwc**

Sustainability in action:  
innovations  
and models for  
responsible  
business



COMUNICAZIONE  
E SOFT SKILLS



International  
scenarios:  
financial  
risks and  
impacts on  
firms

**LUTECH**  
KNOW-HOW

**DIGITAL  
TRANSFORMATION AND  
ERP SYSTEM 2025**



**ACT-IN  
CLASS**

Partner  
**azzurro digitale**

# Master's Degree in Management Engineering

## ➤ Learn through a more active and participative teaching

### *Beyond traditional taught classes:*

- ✓ Use of active and innovative teaching methodologies to push students towards «building their own knowledge», also through practical experience, observation and simulation, discussion and project works in groups:
  - **Use of «e-learning» technologies (instant quiz, shared boards, audio- and video-presentations, artificial intelligence, etc.)**
  - **Seminars and practica exercises in classroom**
  - **Virtual laboratories**
  - **Company visits**
  - **Discussions and presentations of case study, project works, simulations**
- ✓ Professors are continuously trained through dedicated courses at UNIPD regarding innovative teaching methodologies and technologies in line with international best practice (Digital Learning and Teaching4Learning projects)



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➤ Learn through a more active and participative teaching

Business plan preparation



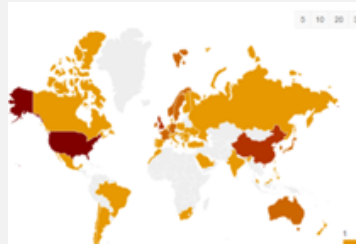
Evaluation of alternative investments in



**SIMULATION OF  
REAL  
SITUATIONS**



Decarbonization plan preparation

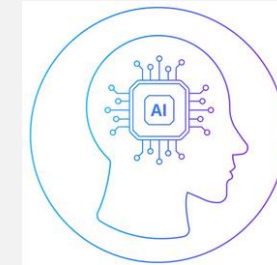


Patent landscape on emerging technologies

Supply chain game – Project management business game



Challenge Predictive Workforce



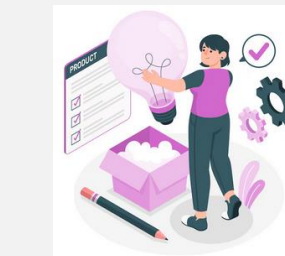
Challenge automatic warehouse design



Challenge DoE and Consumer Studies



**CHALLENGES  
WITH  
COMPANIES**



Innovation Challenge (innovative product)



Management Challenge



# Master's Degree in Management Engineering

## National and international competitions



International competition  
"Management plan" award



University Management  
Competition (UMC)

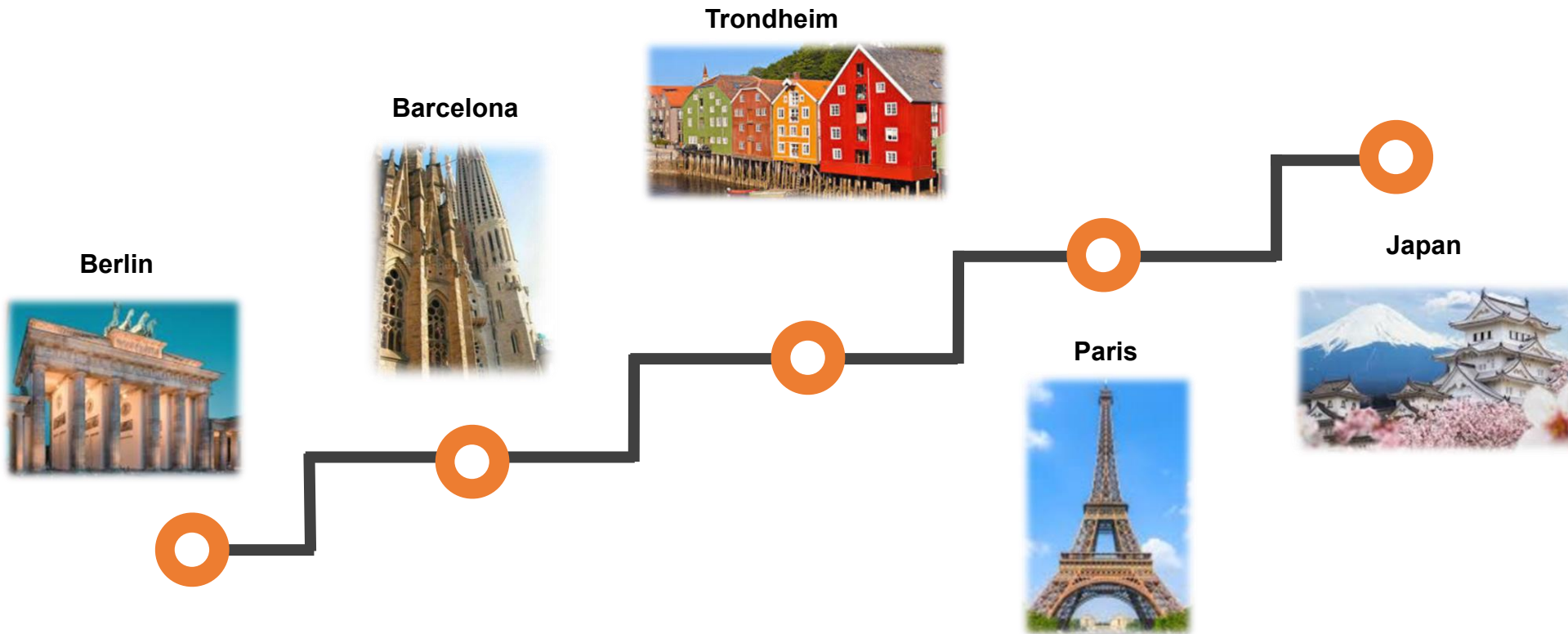
18 Italian  
Universities

Around 1000  
students



# Master's Degree in Management Engineering Internationalization

More than 40 Erasmus+ destinations...



...plus additional bilateral agreements!

# Master's Degree in Management Engineering

## Internship opportunities

**Consolidated collaborations with companies in all sectors**



**Lamborghini, FCA, Dallara,  
Audi**



**Boeing, Airbus**



**Electrolux, DAB, Saipem**



**Zara, Luxottica, Benetton**



**Conad, Acqua&Sapone**



**Danieli, Cimolai**

**....and many others (national and international)**



# Master's Degree in Management Engineering

## Healthcare facilities

- Healthcare Management
- Lean health processes
- Digital technologies in healthcare



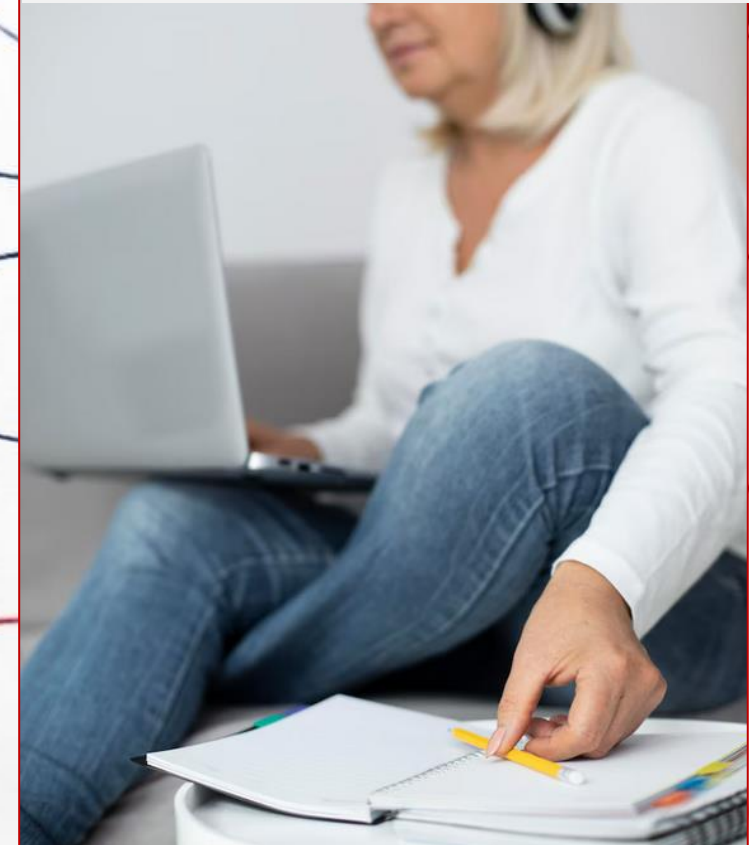
## Internationalization

- European projects
- Agreements with foreign universities
- Training programs



## Lifelong learning

- Innovation Management & I4.0
- Lean Manufacturing
- Lean Office & Service Innovation



**A large network  
of opportunities**

## Projects with companies

- Long-lasting collaborations
- National projects
- Involvement in teaching



## Career/Study awards



- Financed by companies
- Financed by other entities
- «At the memory» awards

# Master's Degree in Management Engineering

## Career opportunities: many sectors

### Consulting

Management consulting,  
ICT, marketing



### Public organizations

Lean processes; Data  
management

### Banks

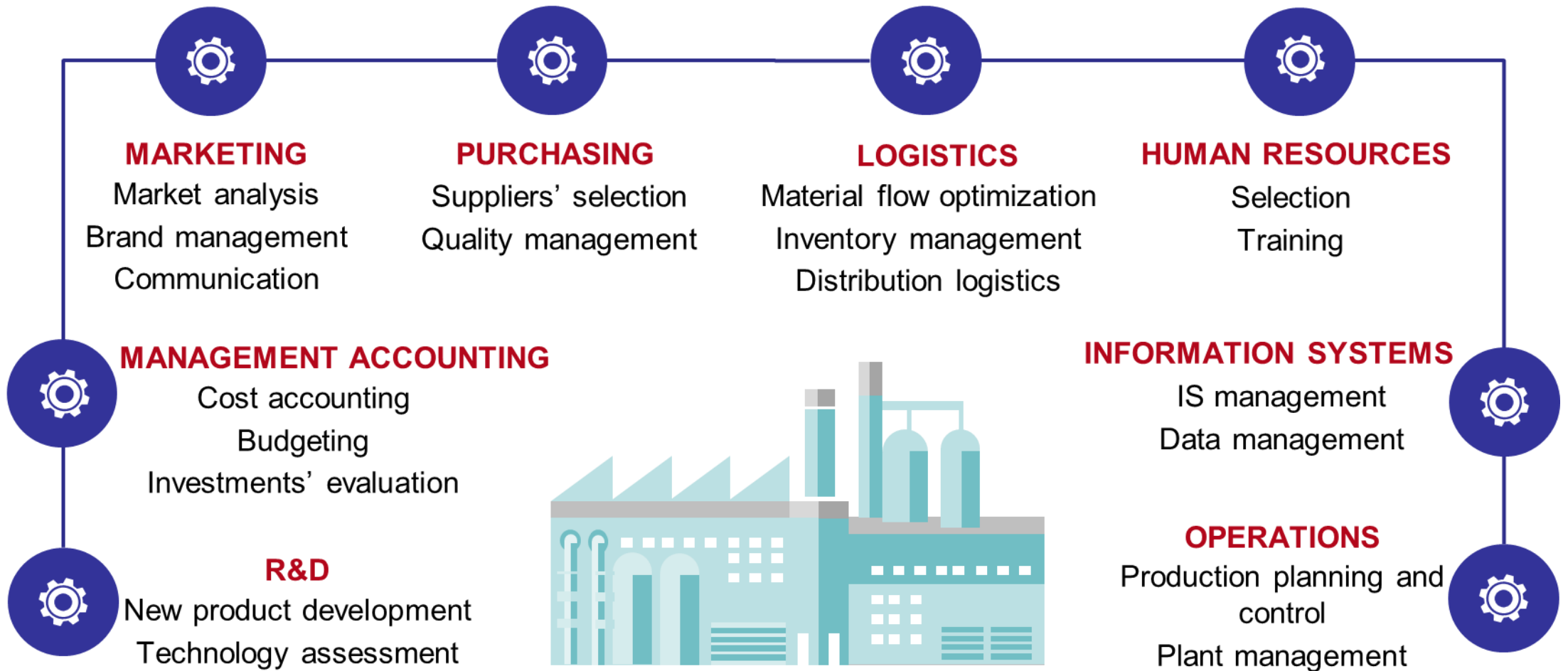
Customer  
management; Financial  
market analysis

### Service providers

New services development;  
Customer relationship  
management

# Master's Degree in Management Engineering

## Career opportunities: many roles





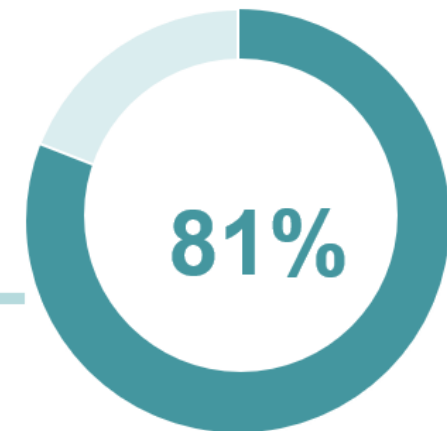
# Master's Degree in Management Engineering Internship

Possibility to carry out the Thesis in a company

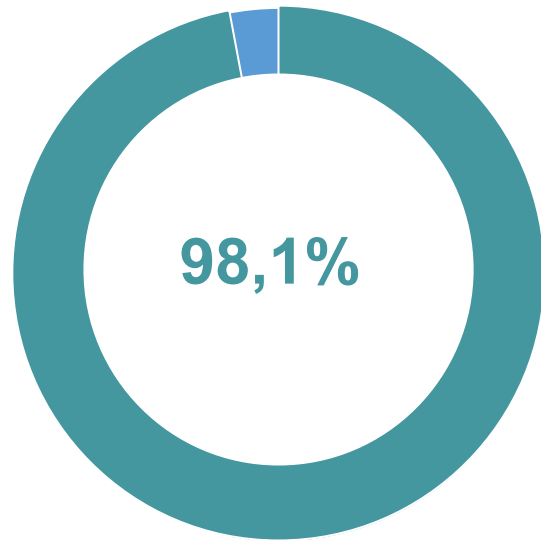


Mean duration of the internship: 5 months

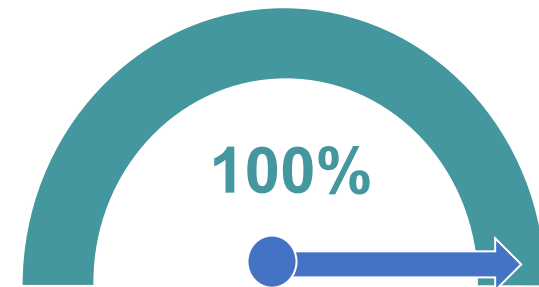
Students who received job offers  
during the internship



# Master's Degree in Management Engineering



Employment rate 1 year  
from the graduation



Effectiveness of the  
Master's degree in the job

# **Master's Degree in Management Engineering**

## **Entry requirements**

**Bachelor's degree (or higher) in Management Engineering, Mechanical Engineering, Industrial Engineering, or related subjects**, e.g. Management of Technology, Production Engineering, with a basic engineering knowledge.

**Bachelor's degree in other Engineering Fields** (e.g., Electronics, Computer, Civil) with a high GPA.

# Master's Degree in Management Engineering

## BRIDGE MANAGEMENT AND ENGINEERING FOR A SMARTER FUTURE!

<https://orientamentodtg.gest.unipd>

