

Origin

Context

Purpose

Details →



Giovanni Mummolo
University of Bari – Dept Jonico

President of the Foundation
European School of IE&M

President of AIM



Politecnico di Bari



Foundation



***‘The European School of
Industrial Engineering & Management’***



Politecnico di Bari



'New Academic – Industry Higher Level Education Models for Industrial Engineering and Management:

Towards the Foundation of a University – Industry European Graduate School'

G7 Event - Bari, Hall of the Municipal Council, Bari - May 20th 2017



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The European Academy for Industrial Management

(founded in 1987)

<http://www.europe-aim.eu>



Map of European Countries (blue colored)
represented in AIM



Board of AIM

Prof. Giovanni Mummolo
AIM President
University of Bari 'Aldo Moro'



Prof. Krzysztof Santarek
AIM vice-President
Warsaw University of Technology



Prof. Hendrik Van Landeghem
AIM Treasurer
Emeritus Ghent University



Prof. Uwe Dombrowski
AIM vice-President
Emeritus TU Braunschweig



Prof. Jan Riezebos
AIM Secretary
University of Groningen



Prof. Joaquín Ordieres Meré
Universidad Politécnica de Madrid



Prof. Jochen Deuse
Technical University of
Dortmund



Prof. Zoran Anišić
University of Novi Sad



Represented 36 Universities from 25 European Countries

**'The European School of
Industrial Engineering & Management'**



Context

**A Technological
Paradox**

Giovanni Mummolo
University of Bari – Dept Jonico

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High Investments in Physical Assets vs. Skills Shortage in EU:

- 25 % of Companies report Knowledge Gap in recruiting
- 77 % of new Companies / startups report Tech/Mgmt Knowledge Gap
- 50 % High Cognitive New Jobs (Projection to 2035)

Draghi Report, The future of European competitiveness - Part A | A competitiveness strategy for Europe, 2024

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Higher Education in Europe: Facts & Figures

<https://ec.europa.eu/eurostat/statistics>
(March 12, 2025)



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While EU is home for:

- 5000 HEIs
- 18.8 million Students in tertiary education (ISCED 5 to 8) (59 % for bachelor's degree)
- 1.35 million people teaching in tertiary education
- 1.17 million researchers
- ...however

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Human Capital Challenges

Giovanni Mummolo
University of Bari – Dept Jonico

President of the Foundation
European School of IE&M

President of AIM



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... in Europe:

- Lack of STEM Graduates
- Gender Gap
- Up / Re – Skilling of Adults Graduates: 40 % (current) vs. 60 % (set by EC)
- Workforce Ageing

A fierce worldwide competition for human capital !

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The European Knowledge Strategy

- 1. A new ERA for Research and Innovation
- 2. On achieving the European Education Area by 2025

EC Communication to EU Parliament (30 Sept. 2020)

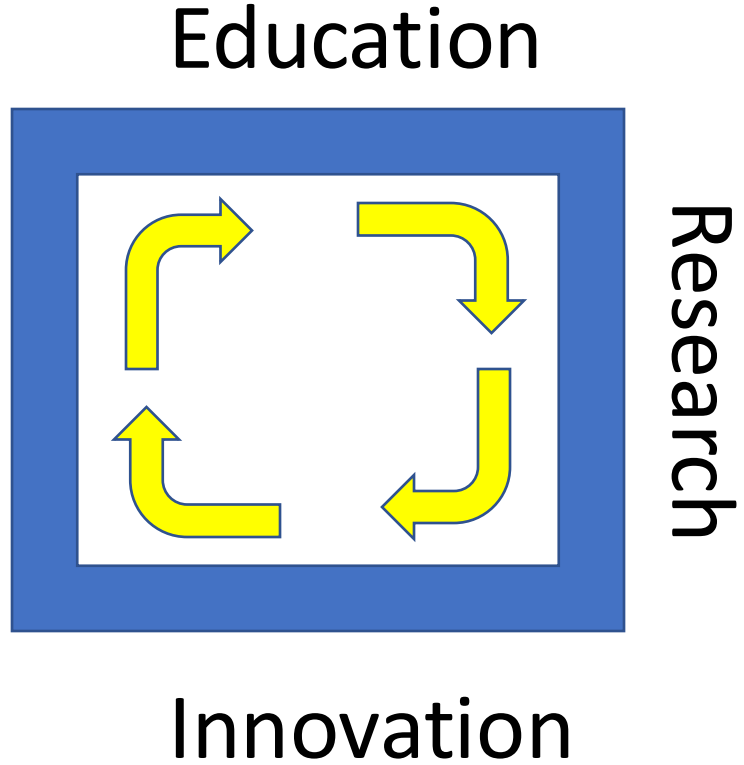
Giovanni Mummolo
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Service to Society



The EU Strategy for Universities

The European Universities
Commission Communication
18 January 2022

The European Degree
Commission Communication
27 March 2024

The Union of Skills
Commission Communication
5 March 2025

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EUROPEAN UNIVERSITIES
A key pillar of the European Education Area

- More than 570 higher education institutions
- Up to EUR 14.4 Million from Erasmus+ per alliance for 4 years
- 65 European Universities alliances
- Teaming up with around 2200 associated partners, including higher education institutions from Bologna Process countries
- 35 countries, including all 27 Member States

WHY EUROPEAN UNIVERSITIES?

In our interconnected world, **addressing global challenges requires a collective effort**. It is a shared responsibility to enable current and future generations to acquire **future-proof skills** for their own and Europe's benefit.

The rapidly evolving labour market and societal transitions require higher education institutions to adapt and provide students, academics, university staff, and lifelong learners with the skills they need to navigate the **twin green and digital transition and build a resilient society**. Beyond their core tasks of **teaching, research and innovation**, universities are key actors in Europe to address big societal challenges, being true **engines of development for cities and regions** and promoting **civic engagement**.

In this context, **transnational education** is no longer an option but a crucial necessity, with a much deeper level of cooperation needed between universities, and with all key actors. The European Universities initiative aims at fostering **excellence, innovation and inclusion** in higher education across Europe and at accelerating the transformation of higher education institutions into the **universities of the future with structural, systemic and sustainable impact**. European Universities embody the freedom to learn, work together, research, innovate, share knowledge and capacity across borders.

WHAT ARE EUROPEAN UNIVERSITIES?

European Universities are **ambitious transnational alliances of higher education institutions** developing long-term structural and strategic cooperation.

Key criteria

- Minimum of **3 higher education institutions**, from **3 EU Member States** or third countries associated to the Erasmus+ programme.

Key cooperation principles

- Alliances develop **joint long-term strategies** for education with, where possible, links to research and innovation to drive systemic, structural and sustainable impact at all levels of their institutions.
- Alliances create and implement **European inter-university campuses**, where:
 - students, academics, university staff, researchers and lifelong learners enjoy **seamless mobility** (physical, virtual or blended) to study, train, teach, do research, work or share services across borders and disciplines
 - transdisciplinary and transnational teams** of students, academics and external stakeholders tackle big issues facing Europe (such as climate protection, digitalisation, health, democracy, migration, security)
 - students can design their own **flexible curricula**, leading to a European Degree
 - practical and/or work-based experience** is provided to foster an entrepreneurial mind-set and develop civic engagement
 - the student body reflects the social, economic and cultural **diversity** of the population
 - Cooperating partners should come from **different parts of Europe**

BLUEPRINT FOR A EUROPEAN DEGREE

#EuropeanDegree #EuropeanEducationArea | 27 March 2024

WHAT A EUROPEAN DEGREE IS:

- A new type of degree awarded after transnational Bachelor, Master, or Doctoral programmes delivered at national, regional, or institutional level
- Automatically recognised everywhere in the EU
- Awarded jointly and on a voluntary basis by a group of universities across Europe
- Based on a common set of criteria agreed at European level

WHY DO WE NEED A EUROPEAN DEGREE?

For students

- More opportunities to study across multiple universities in Europe
- Innovative and transdisciplinary learning opportunities across campuses
- Future-proof skills that Europe needs
- Simplified job applications with a degree that is recognised across the EU

For higher education institutions

- Simpler to create joint degree programmes with several universities across Europe
- Wider and better opportunities offered to students and staff
- Increased competitiveness and attractiveness of EU universities by offering a truly European experience of learning

For employers

- Certified highly-skilled graduates and easier understanding of qualifications
- Enhanced attractiveness of Europe as a place to study and work for talented students
- Increased possibilities to work with universities at European scale

For the European Union and Member States

- Reinforced sense of European identity and belonging
- Closing a gap to achieving the European Education Area
- Balanced student and talent mobility within the EU

'The European School of

Industrial Engineering & Management'



Vision and Mission

European School of Industrial Engineering & Management

Giovanni Mummolo
University of Bari – Dept Jonico

President of the Foundation
European School of IE&M

President of AIM



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Vision

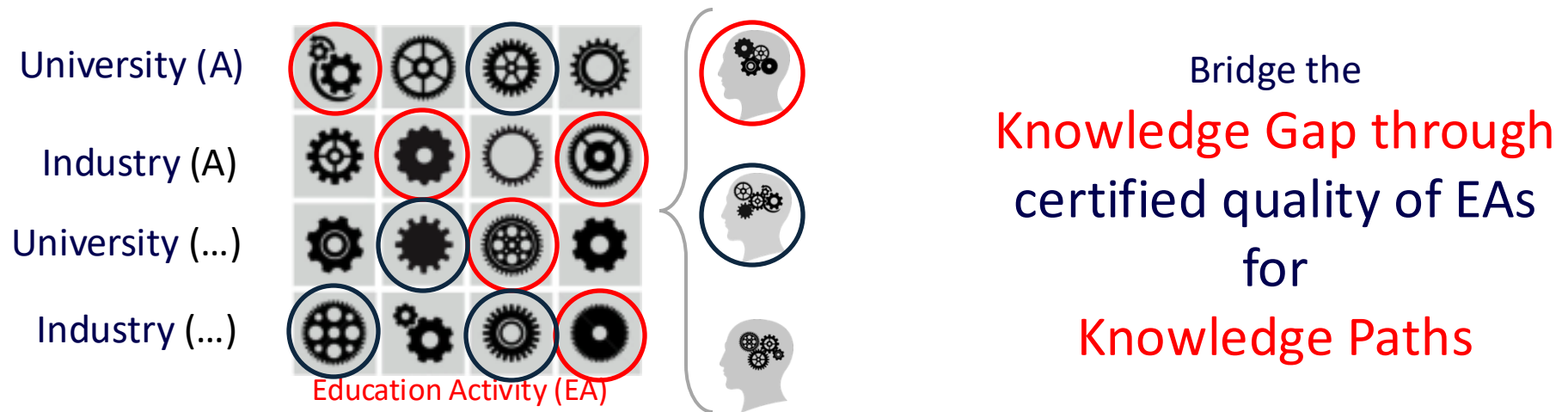
Strategic role of Human Capital for worldwide Competitiveness of European Companies consistently with the Knowledge Strategy of the European Commission: **Society at the Centre.**

Mission

Promote and Support **Innovative Higher Education** in Industrial Engineering and Management in full synergy with HEIs, Companies and Public/Private Institutions.

The Knowledge Transfer Model of the School: Learning (more than Teaching) is the preferred point of view !

Knowledge Source	Education Model Structure	Goal
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Towards the European Degree

Giovanni Mummolo
University of Bari – Dept Jonico

President of the Foundation
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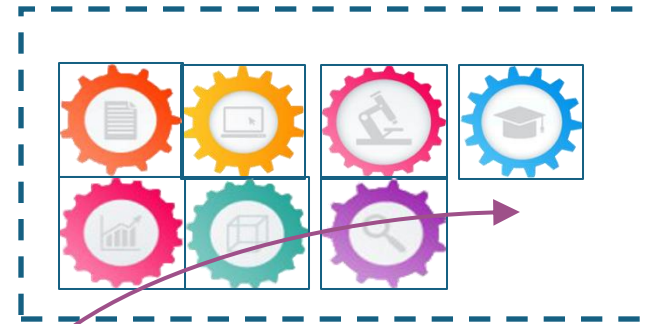


The European School of Industrial Engineering & Management' at a Glance

**European Observatory:
Knowledge Needs & Job Market**



**Knowledge Gap in HE in IE&M:
Body of Knowledge**



Call for Proposals:

Innovative University-Industry Projects in HE in IE&M

co-Funding Projects - Monitoring Results - Labelling Products (*)

Innovative HE Products



(*) Quality standard possibly consistent with the European Degree Guidelines



Sharing HE Products



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Networking (Professor – Managers – Students)



Higher Education activities in IE&M (examples)

Transversal e-Modules

Data Analytics

AI in Ergonomics & Operations Management

Safety of Work and European Directives

Lean Manufacturing

Problem Solving & Decision Making

Team Working and Leadership

Business Games

... Process Oriented e-Modules

De-Carbonizing Processes in Steel Industry

Business Models for (Green) Energy Management

Quality Control in Pharmaceutical Processes

Battery Recovery Industrial Processes

Urban e-Mobility ...

Living / Virtual HE Labs: Teaching Factory ...



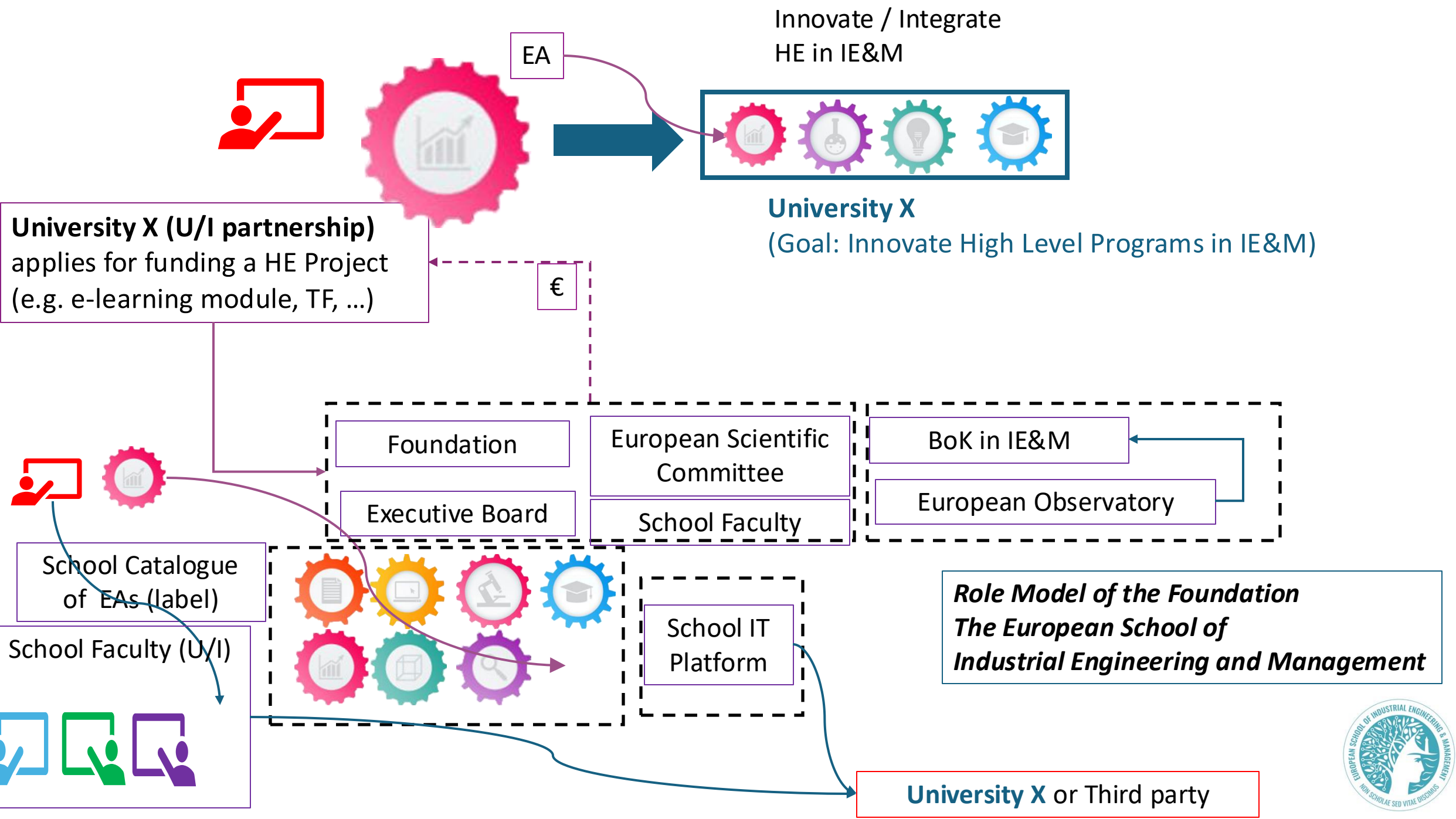
<https://www.eitmanufacturing.eu/what-we-do/education/resources/teaching-factory/>

Teaching Factory:

Collaboration space between practitioners, students, and faculty



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Legal Entity: Participatory Foundation

Funded by Financial Italian State Law (n. 197, 29.12.2022)

Site Location: Polytechnic University of Bari



Giovanni Mummolo
University of Bari – Dept Jonico
President of AIM
IE3 E+ Project Coordinator



Members of the Foundation

Founding (I) & Supporting (EU) Members:

Members 'at start'

- Polytechnic University of Bari – Founding
- European Academy for Industrial Management (AIM) – Supporting *
- European Students of Industrial Engineering and Management (ESTIEM) – Forthcoming Supporting *

Executive Board:

Giovanni Mummolo, Mario Carpentieri, Giorgio Mossa, Pierpaolo Pontrandolfo

Statutory Members

- Italian and European Universities & Companies
 - Public Authorities
 - Academic / Industry Associations

...

**Members pursue Innovation of HE in IE&M
for worldwide competitiveness of European Companies**





Politecnico di Bari

*A School to innovate Higher Education to contribute
in addressing the big challenges of Society*

'Non Scholae sed Vitae Discimus'

Seneca, Epistulae morales ad Lucilium, XVII-XVIII, 106, 12.



Motto and Logo of the School

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