

+ COMPETENCE  
INDUSTRY  
MANUFACTURING  
4.0

## DALLA RICERCA ALL'IMPRESA

*Luca Iuliano – Presidente CIM4.0*

*Enrico Pisino – CEO CIM4.0*



**DIH**  
Digital Innovation Hub  
Marche



CONFININDUSTRIA  
Marche



CONFININDUSTRIA  
MACERATA

IL COMPETENCE CENTER PIEMONTESE

+ CIM4.0

MANIFATTURA ADDITIVA E TECNOLOGIE PER  
LA DIGITAL FACTORY A DISPOSIZIONE DELLE  
IMPRESE MARCHIGIANE

 WEBINAR

# COMPETENCE CENTERs within the Italian strategy

The National Industry 4.0 Plan launched by Italian government in 2017 led to the creation of three entities, which constitute the Italian national network for Industry 4.0



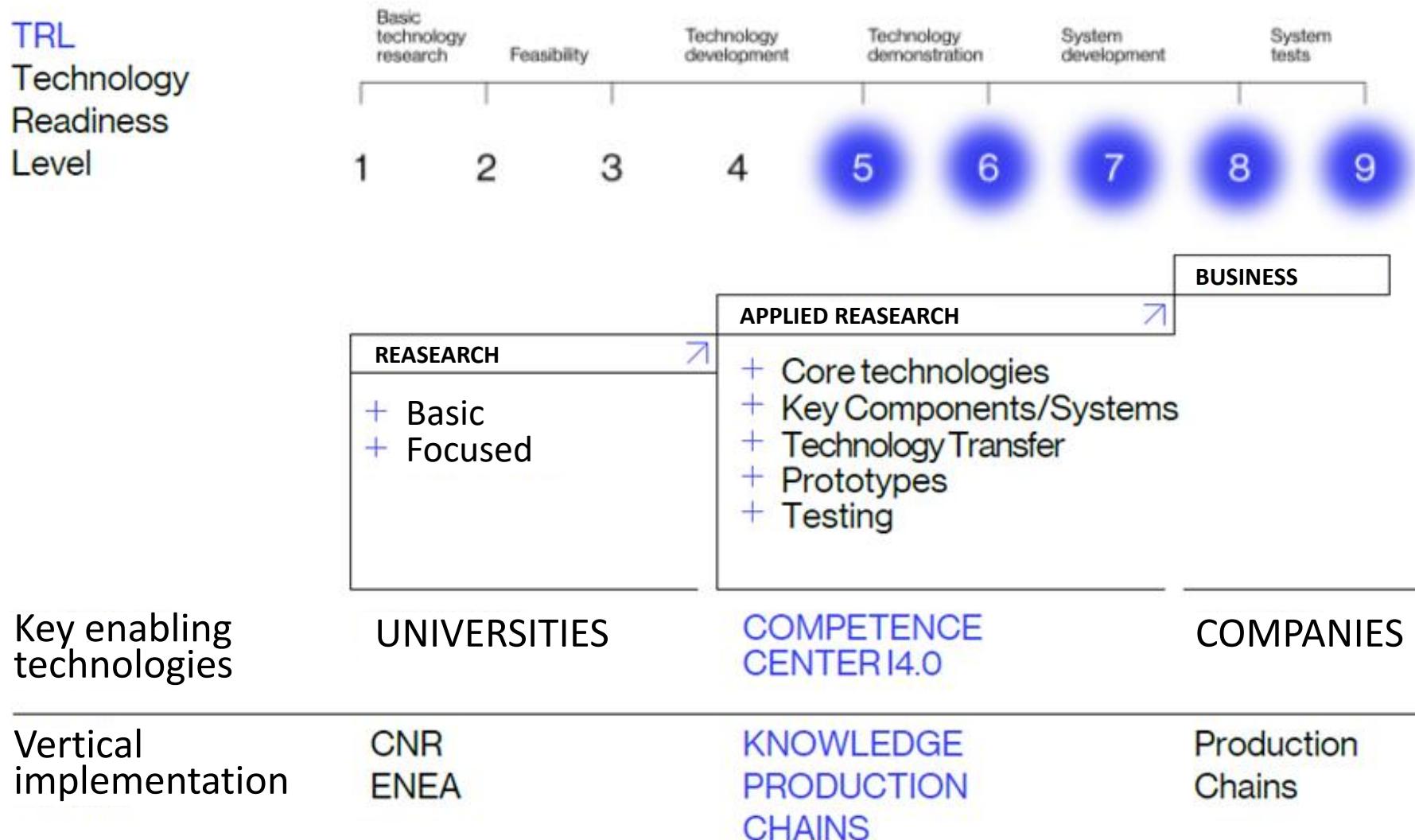
1. **PUNTI IMPRESA DIGITALE (PID):** service structures located at the various Italian Chamber of Commerce, whose main aim is spreading basic knowledge about Industry 4.0 technologies and **give an evaluation of technological maturity level (TRL)** of Factories
2. **DIGITAL INNOVATION HUBS (DIH):** entities led by networked organizations (CONFINDUSTRIA, CONFARTIGIANATO). They operate at regional level with the main aim of **orienting SMEs into digital innovation**
3. **COMPETENCE CENTERS (CC):** **8 centers** of excellence for Industry 4.0, that operate at national level. They are distinguished by specialization areas and deal with **training, orientation and project development**

# The 8 Italian COMPETENCE CENTER

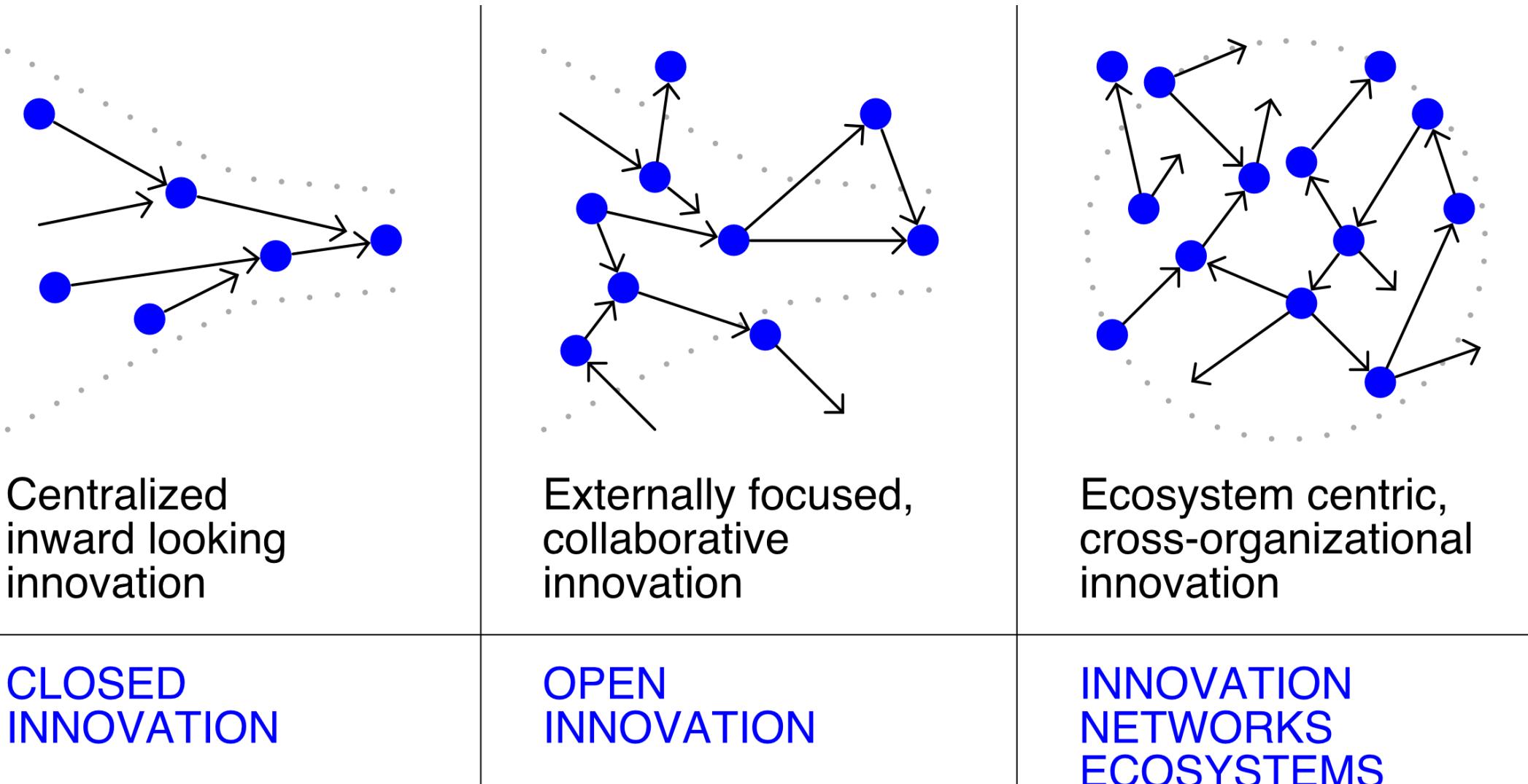


Competence Center	Reference Research Centers	Investigation Areas
CIM4.0	Politecnico of Turin University of Turin	<ul style="list-style-type: none"><li>Aerospace/Automotive</li><li>Digital Factory</li><li>Additive Manufacturing</li></ul>
Made	Politecnico of Milan	<ul style="list-style-type: none"><li>Enabling technologies</li><li>Cyber-physics systems</li></ul>
BI-Rex	University of Bologna	<ul style="list-style-type: none"><li>Smart city &amp; Logistics</li><li>Big data</li></ul>
Artes 4.0	Scuola Superiore Sant'Anna of Pisa	<ul style="list-style-type: none"><li>Advanced Robotics</li><li>AI</li></ul>
Smact	University of Padova and al.	<ul style="list-style-type: none"><li>Agribusiness</li><li>Clothing &amp; Furniture</li><li>Automation</li></ul>
Start 4.0	University of Genova and al.	<ul style="list-style-type: none"><li>Cybersecurity</li><li>Safety (freight transport and infrastructure)</li></ul>
Cyber 4.0	University "La Sapienza" of Rome	Cybersecurity
MediTech	University "Federico II" of Napoli and al.	Integration 4.0: Horizontal and Vertical

# Technology development focus



# Innovation approach





POLITECNICO  
DI TORINO



UNIVERSITÀ  
DEGLI STUDI  
DI TORINO



Agilent Technologies

aizoon<sup>®</sup>  
TECHNOLOGY CONSULTING  
AUSTRALIA  
EUROPE  
USA

Avio Aero<sup>®</sup>  
A FF Aviation Business



YOUR PARTNER  
IN PLASTIC JOINING



LEONARDO

MERLO



PUNCH | Torino

REPLY

SIEMENS  
*Ingegno per la vita*

SKF<sup>®</sup>

STELLANTIS  
life.augmented

ThalesAlenia Space  
a Thales / Leonardo company

TIM

# Consortium Partner

+2 universities

- Politecnico di Torino
- Università di Torino

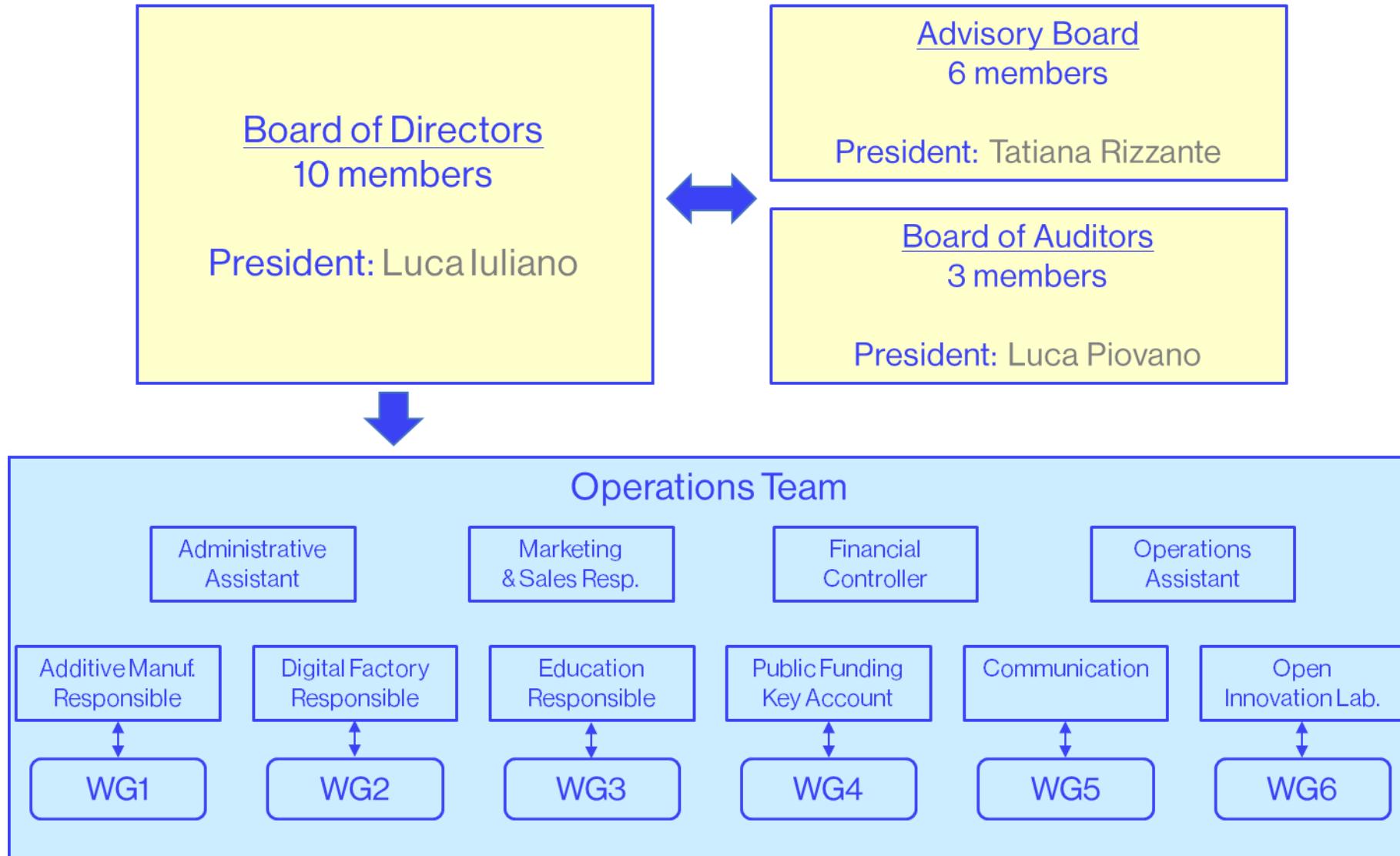
+23 enterprises

+CIM  
4.0

# Consortium value chain

- + Software Technology Providers
- + Hardware Technology Providers
- + Service Providers
- + Automotive Technology Chain Leader
- + Aerospace Technology Chain Leader
- + End Users

# Governance



# Resources, competencies & assets



## PEOPLE

- + #15 CIM4.0 specialised personnel
- + #138 professional employees of the Consortium members involved in the activities
  - 82 senior resources
  - 34 junior resources
  - 7 associate professors
  - 15 full professors

## COMPETENCIES

- + DIGITAL FACTORY
- + ADDITIVE MANUFACTURING

## ASSETS

- + 2 open spaces / 30 PdL / 20 workstations
- + 2 equipped areas dedicated to training
- + Possibility to access the learning centers our consortium
- + 2 Pilot Lines: cutting-edge technologies and machinery

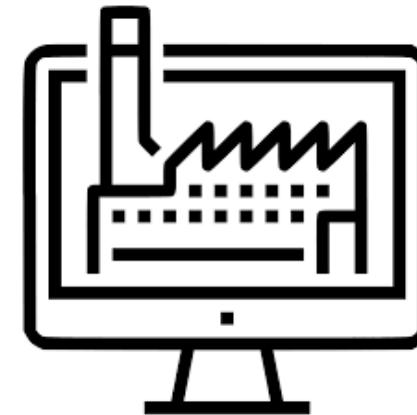
# CIM4.0 focus technologies

## ADDITIVE MANUFACTURING



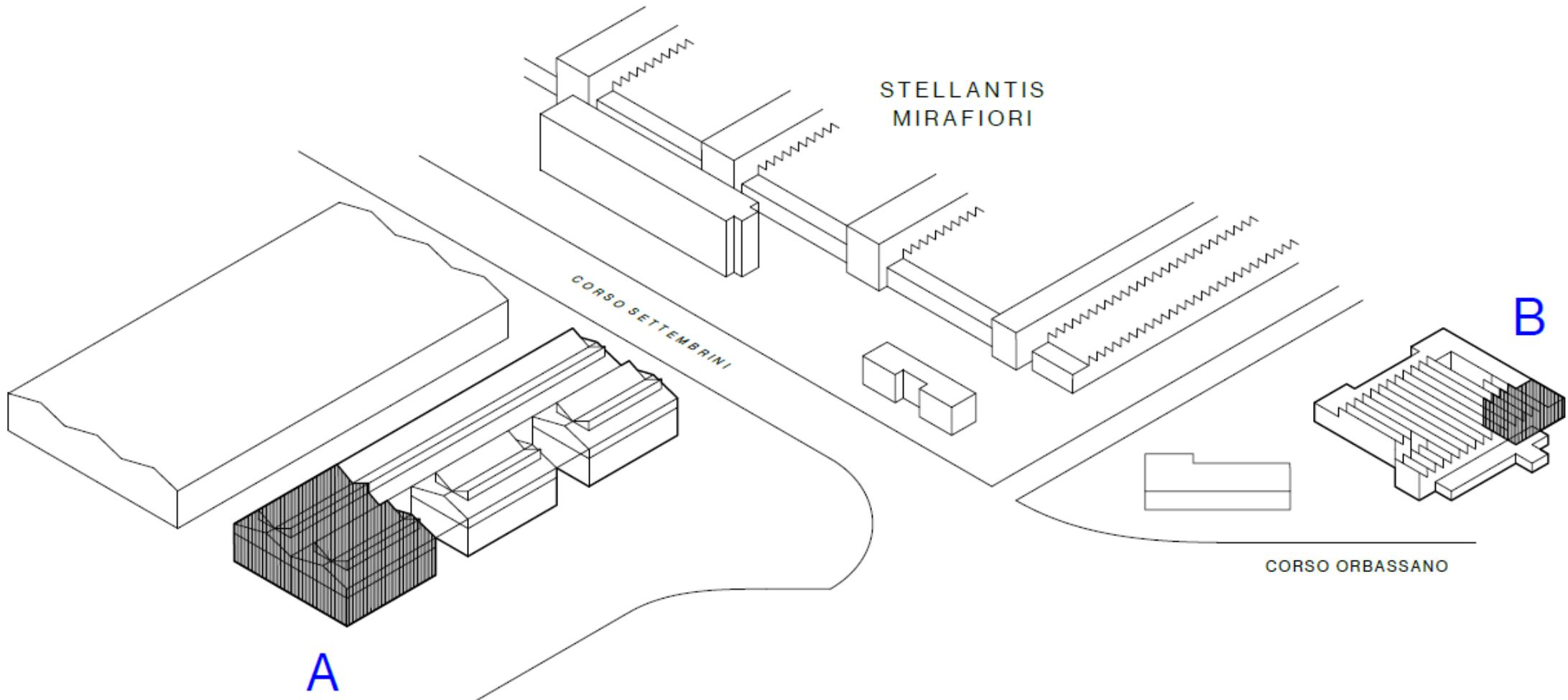
- + Product development
- + Process development
- + Business and cost analysis
- + Materials
- + Quality and certifications

## DIGITAL FACTORY



- + Artificial intelligence, Data Analytics, Predictive Maintenance
- + Ergonomic & WCM
- + Industrial IoT, Platforms HW/SW
- + Cyber Security and data protection
- + X-Reality
- + Next generation network

# CIM4.0 Location

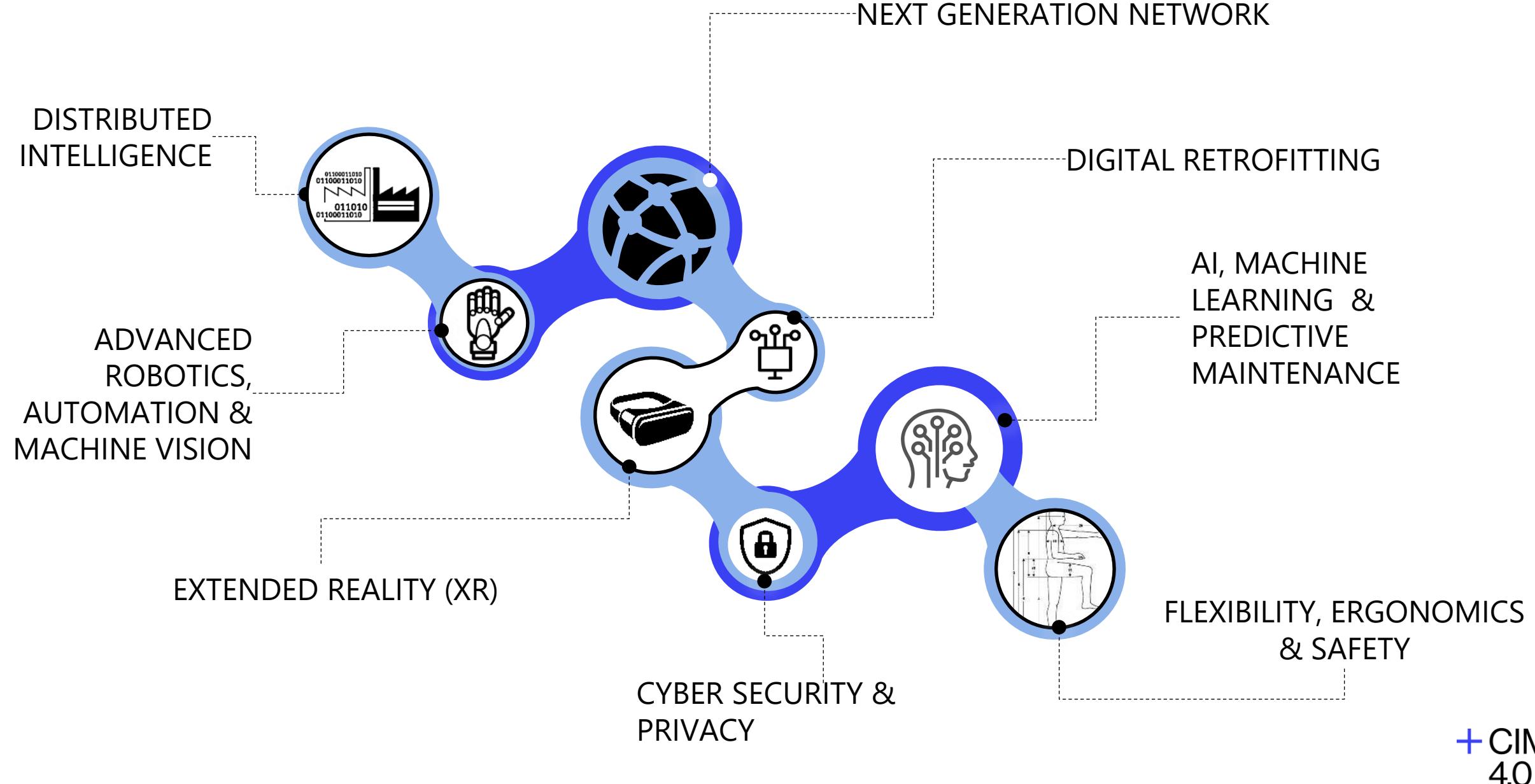


A — Sede centrale CIM4.0, corso Settembrini 178

B — Additive Manufacturing Pilot Line, strada della Manta 22

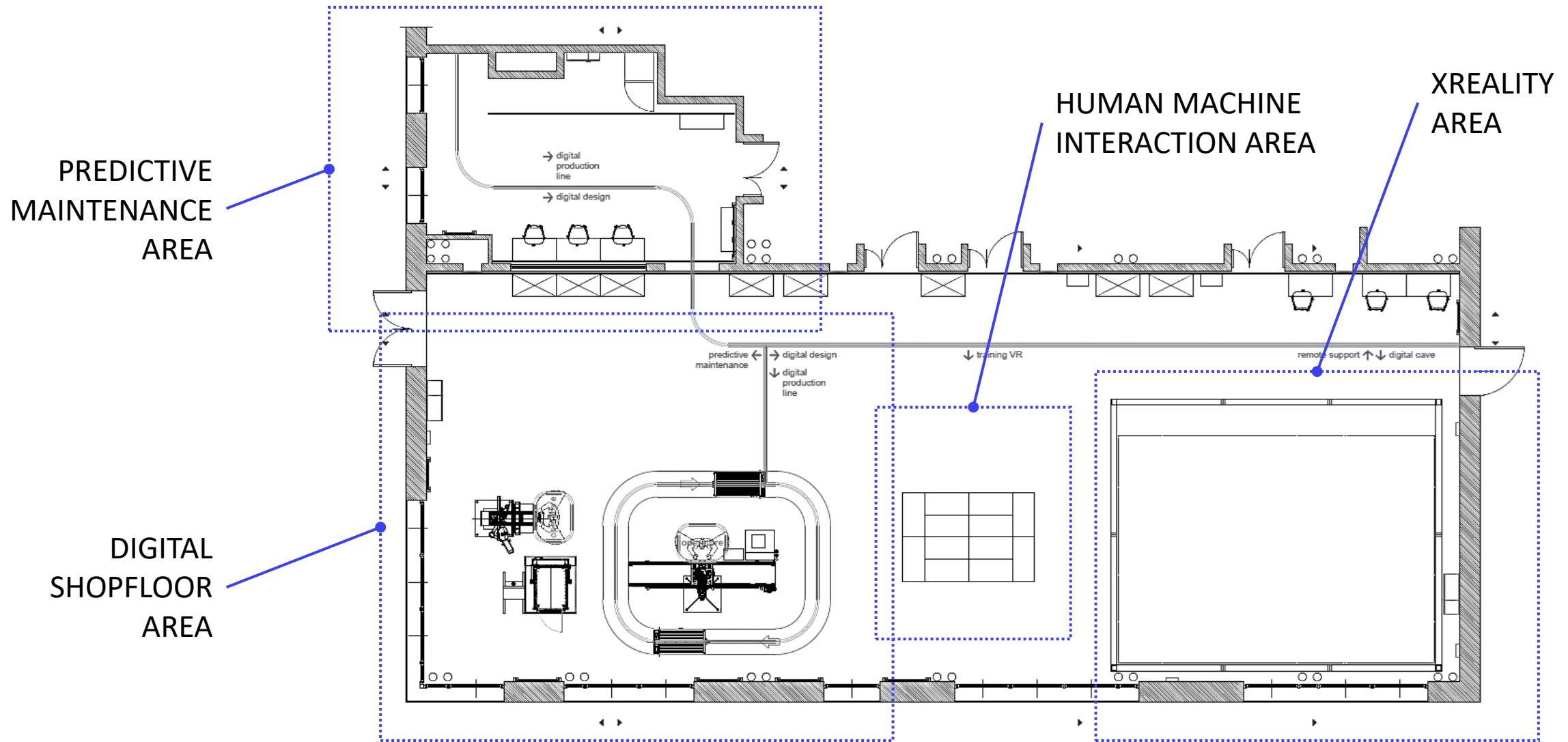
# DIGITAL FACTORY

# Digital Factory focuses

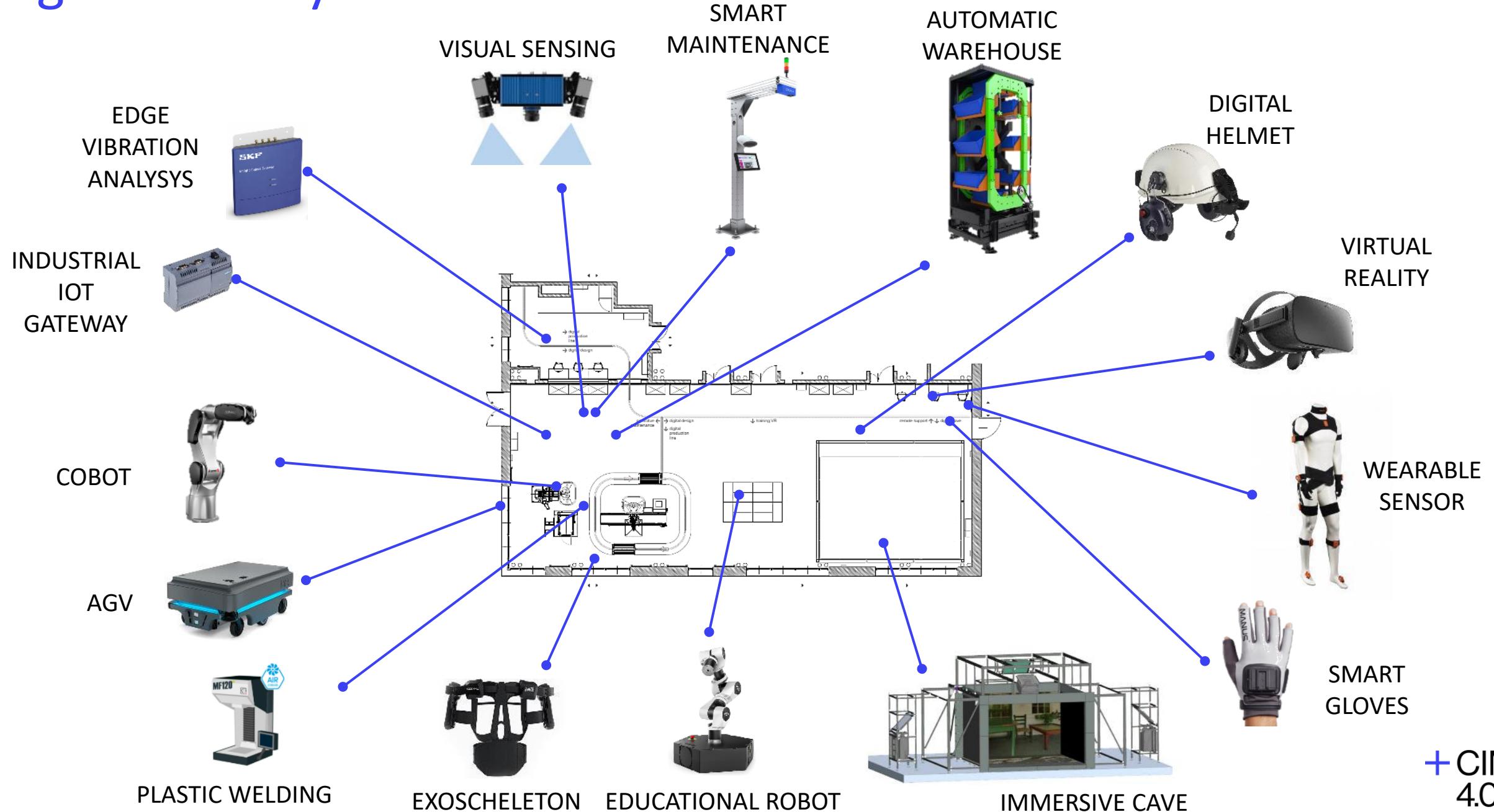


# Digital Factory Pilot Line

## OVERVIEW



# Digital Factory assets





+CIM  
4.0



+ CIM  
4.0



+CIM  
4.0





+CIM  
4.0



+ CIM  
4.0



+ CIM  
4.0



+ CIM  
4.0





+ CIM  
4.0



"In quasi tutti i lavori,  
e soprattutto  
nello sviluppo  
dell'innovazione,  
non basta la  
conoscenza, ma  
ci vuole la  
competenza, devi  
cioè sapere e  
sapere applicare  
quanto sai "

GIANCARLO MICHELLONE

# EDUCATION – Reskilling / Upskilling

# Learning hub

Permanent training center for ***skills transfer*** toward the digitalization of industrial and business processes.

The training offer (+80 advanced courses) is structured on the basis of skills and assets of the 23 Industrial Consortium Members and of the 2 Academies, which play the role of scientific coordination and carry out the courses



## GOALS

- > UPSKILLING
- > RESKILLING



## OVERVIEW & EDUCATION

### CIM4.0 Learning Hub

- + 80 corsi disponibili
- + 20 corsi realizzati nell'ultimo anno
- + 2.500 partecipanti

#### CATALOGO CORSI

- + Additive Manufacturing
- + Cyber Security
- + Data Science
- + Metodi e strumenti per la trasformazione digitale
- + Predictive Maintenance
- + WCM
- + Virtual & Augmented Reality

<https://cim40.com/corsi/>

# OVERVIEW & EDUCATION

## CIM4.0 Learning Hub



+ COMPETENCE  
INDUSTRY  
MANUFACTURING  
4.0

+ CIM4.0  
ACADEMY

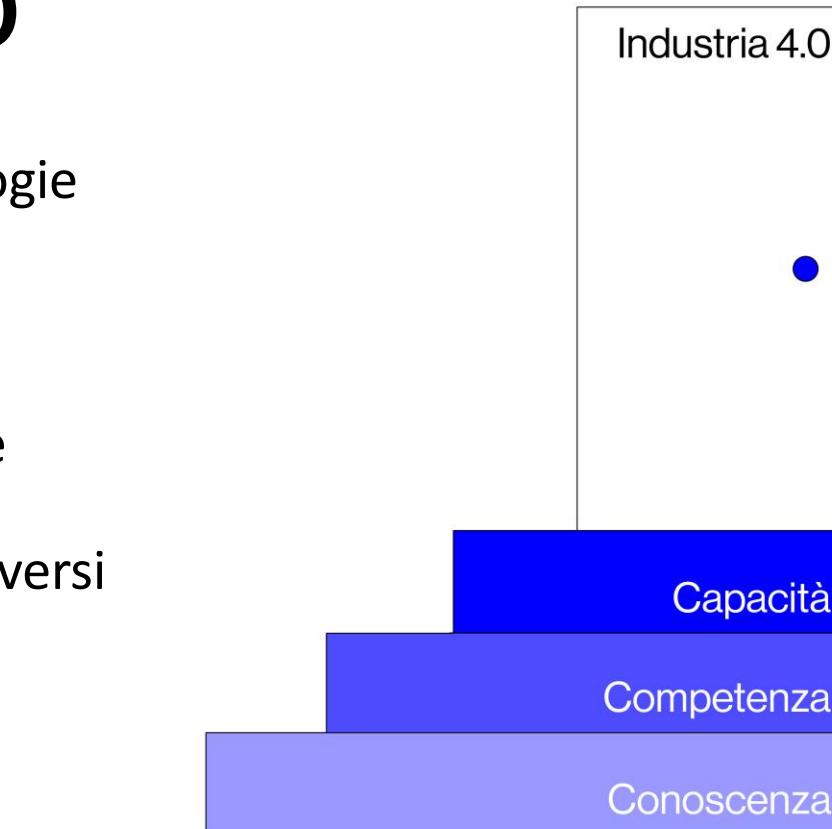


Enhancing capacity, empowering business

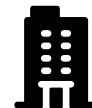
# Obiettivo formativo

Formare alle competenze trasversali sulle tecnologie e sui modelli operativi da queste abilitati.

Concretizzare le competenze, attraverso sfide aziendali reali, in capacità di indirizzare, guidare e gestire la trasformazione digitale ed il relativo re-engineering dei processi di aziende operanti in diversi settori industriali e manifatturieri.



# Creazione di valore

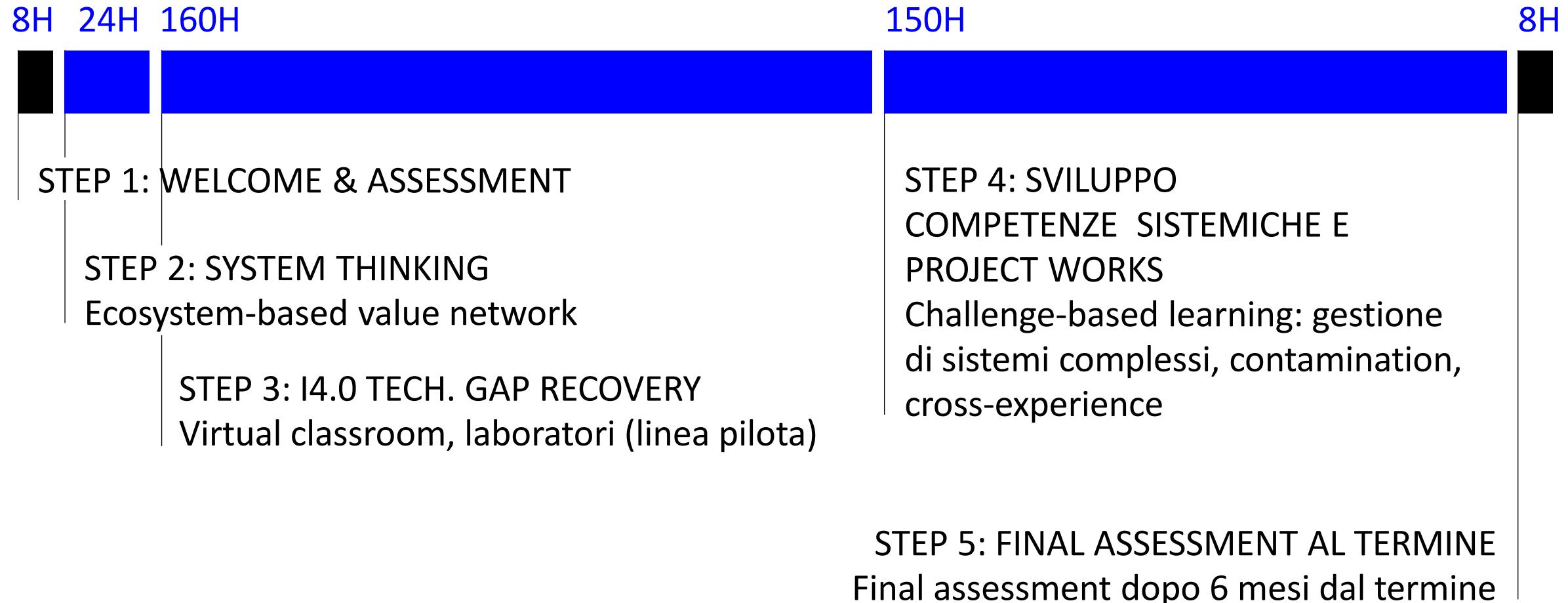


PARTECIPANTE	IMPRESA	TERRITORIO
Tangibilità dell'acquisizione di capacità tramite applicazione concreta e collaborativa delle competenze	Creazione assets e miglioramento processi per un efficace posizionamento competitivo tramite potenziamento rapido delle capacità delle risorse con applicazione trasversale delle competenze	Miglior qualificazione del mercato del lavoro e attrattività per investimenti in industria e servizi
Gestione consapevole del percorso di crescita professionale, coadiuvato da partecipazione al network di managers di altri settori	Definizione ed implementazione nuovi modelli di business trasversali	Creazione di opportunità nuovi modelli di business sistematici con utilizzo risorse presenti

## PROGRAMMA CIM4.0 ACADEMY

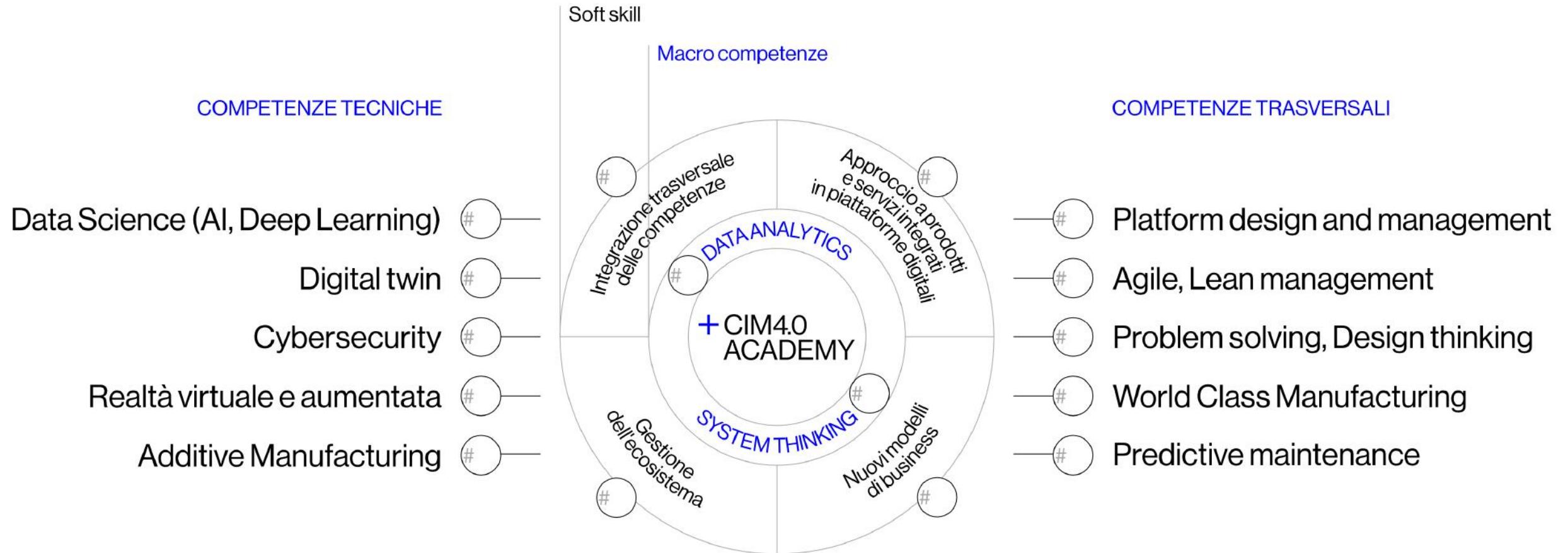
Durata full-time: 2 mesi                    TOTALE 350 ore

Durata part-time: 5 mesi                    TOTALE 350 ore

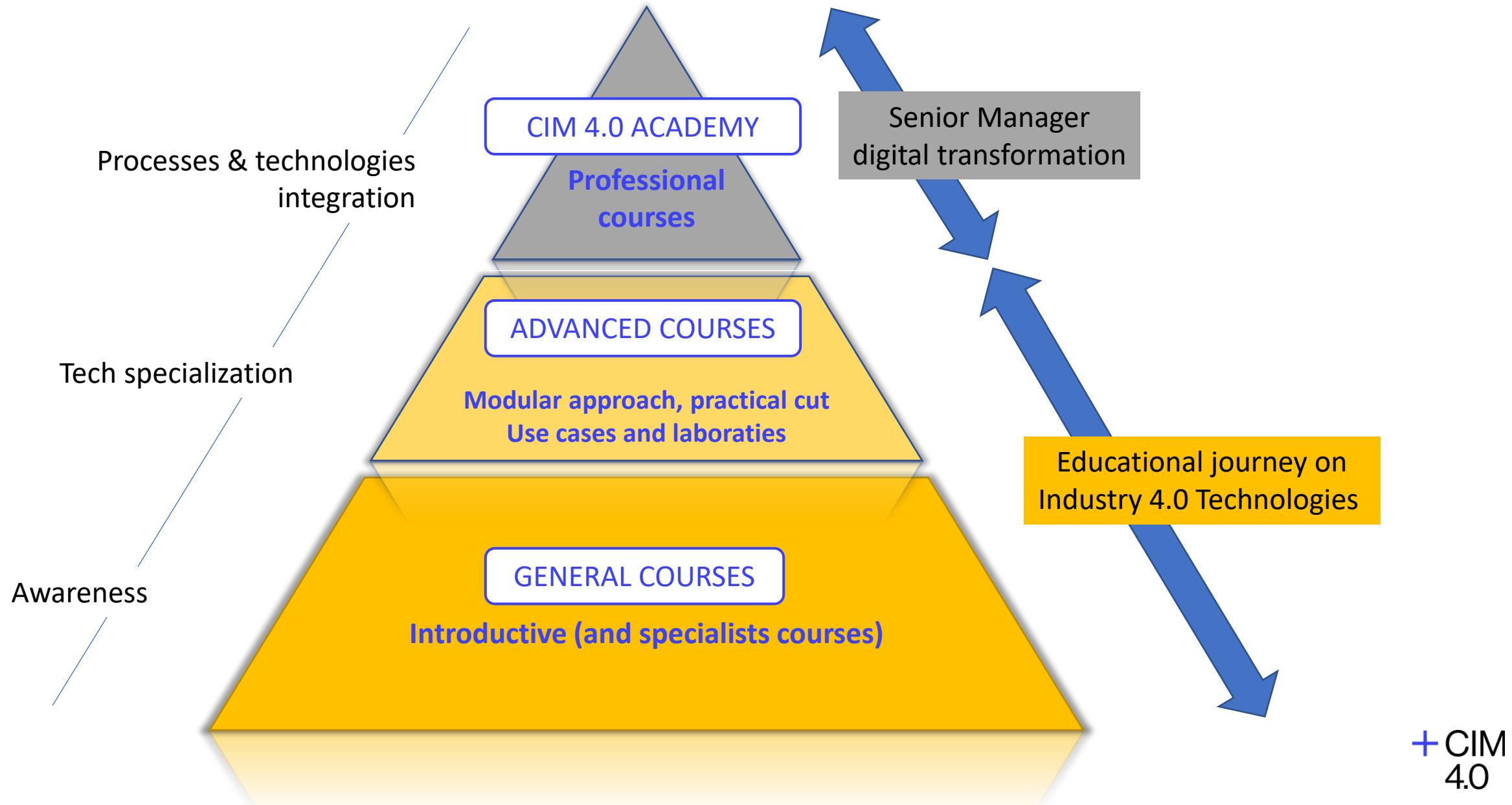


# PROGRAMMA CIM4.0 ACADEMY

## Valutazione Know-How e competenze per l'Industria 4.0



# Educational offering



**Thanks for your  
attention!**



**+ COMPETENCE  
INDUSTRY  
MANUFACTURING  
4.0**