



ASSOLOMBARDA

# Industry 4.0 National Program

## State of Art and opportunities

V. Palmieri

25th November 2019

# ASSOLOMBARDA is



**6,020**

ASSOCIATED  
COMPANIES



**360,907**

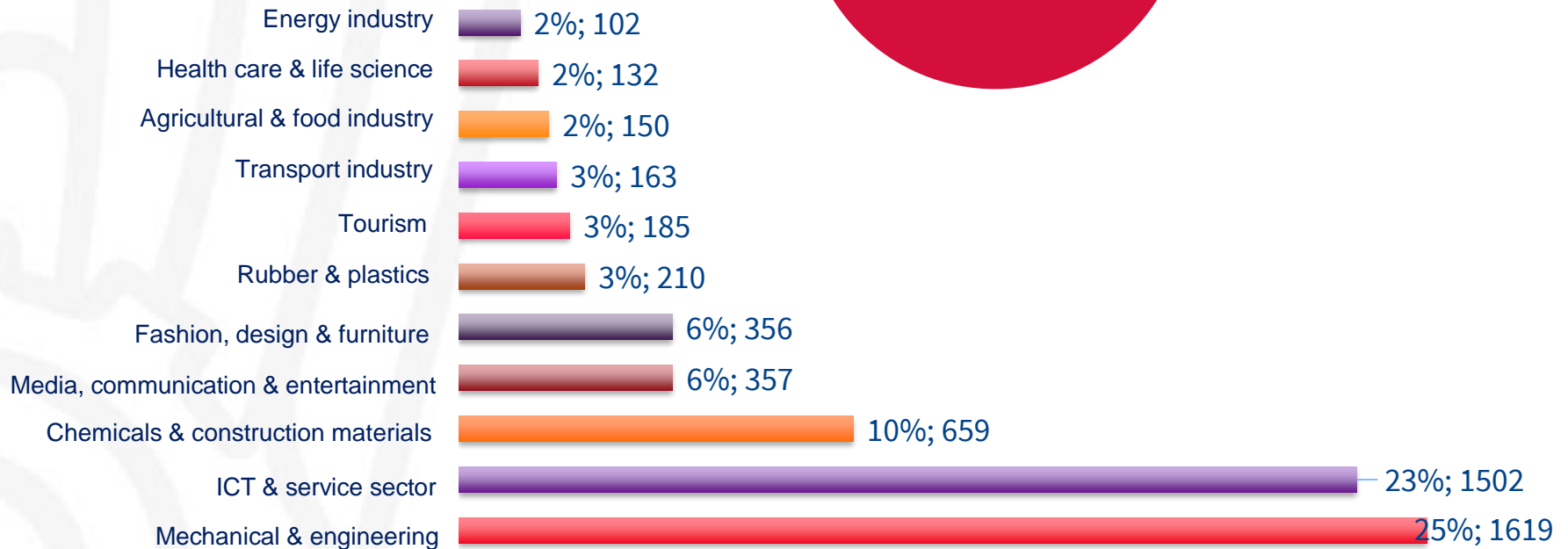
PEOPLE WORKING IN  
ASSOCIATED  
COMPANIES

The largest local entrepreneurial Association in Italy, representing 6,020 companies located in the area of Milan, Lodi and Monza Brianza, employing approximately 360,907 workers locally and several hundred thousands in the whole country.

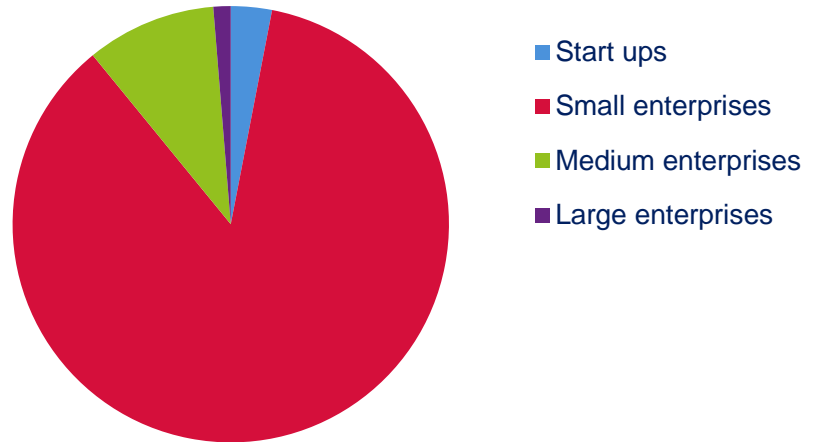
The most important association within the Confindustria system, the national entrepreneurial federation.

# Our Member Companies

## Sectors



## Firm size



# Our role for Industry 4.0

*Producing a knowledge base for decision makers and policy makers prefiguring vision of development and concrete proposals to achieve it*

Participation in the definition of the National Program I4.0

Trilateral participation: Italy Germany France -WG2 SMEs Engagement

Activate the steering Committee INDUSTRIAL POLICIES

*Support the positioning of Assolombarda and its territory as election area for industrial activity and innovation*

Monitoring and updating the policies for the development of the supply chain and the use of technologies and processes I-4.0

Participation in setting up the Lombardy Digital Innovation Hub

Play Strategic role in regional and national clusters

*Raise awareness and support companies*

Services to members: awareness and information on Industry 4.0 opportunities, support on assessments and digital innovation projects, setting up of a desk to provide consultancy to companies

Competence Centers promotion

# Tools for the policy making

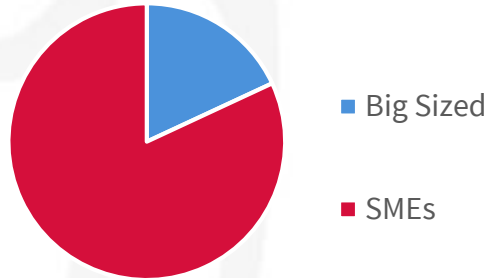
- Lobbying activity towards decision makers (Government, EU Institutions)
- Studies, Researches and booklets (Focus on enabling technologies, Focus Group Manufacturing 4.0, Cybersecurity, Business Models, ...)
- Position paper
- Participation in national working groups / WG on topic 4.0 (Federmeccanica, Confindustria Digitale, Confindustria)
- News and interviews
- Events and media campaigns



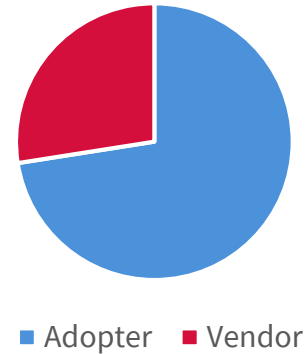
# DESK INDUSTRY 4.0:

500+ assisted enterprises

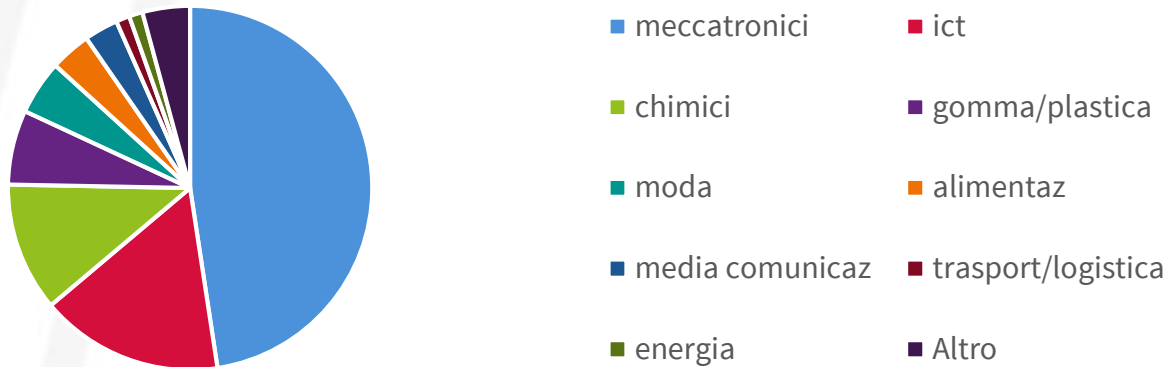
## Dimension



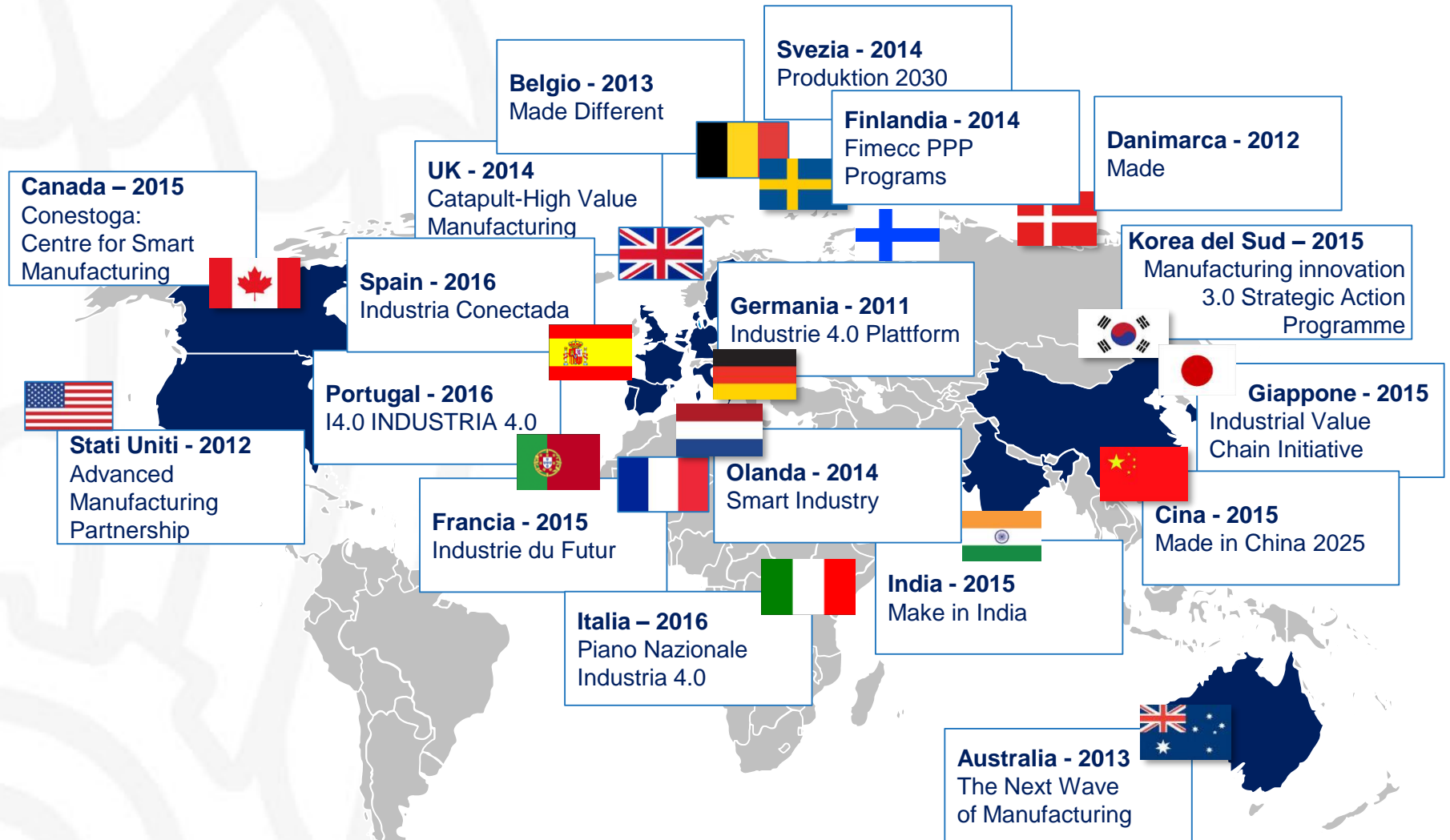
## Typology



## Industry Sectors



# I4.0 around the world



# I4.0 in Europe



Source: Osservatorio Industria 4.0 della School of Management del Politecnico di Milano



# Industry 4.0: expected benefits



## Flexibility

**Higher flexibility** given by small batches production, with the economies of scale of mass production



## Speed

**Higher speed** from prototyping to production through the use of innovative technologies reducing lead time and costs



## Productivity

**Increased productivity** thanks to lower setup time and reduced downtimes



## Quality

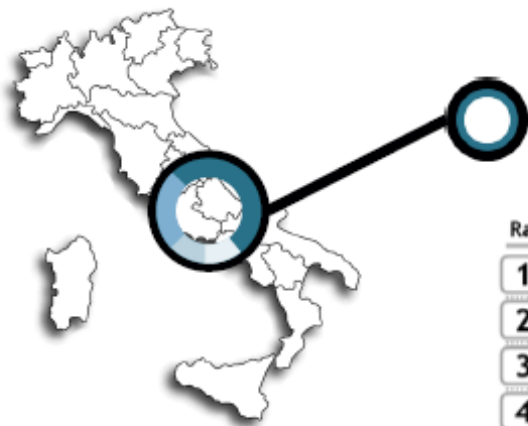
**Improved quality and customization** thanks to real-time production monitoring through advanced sensors and digital connection with customers



## Product Competitiveness

**Higher competitiveness** of products thanks to new functionalities (i.e. tracking) enabled by the Internet Of Things

# Italian manufacturing ranking at international level

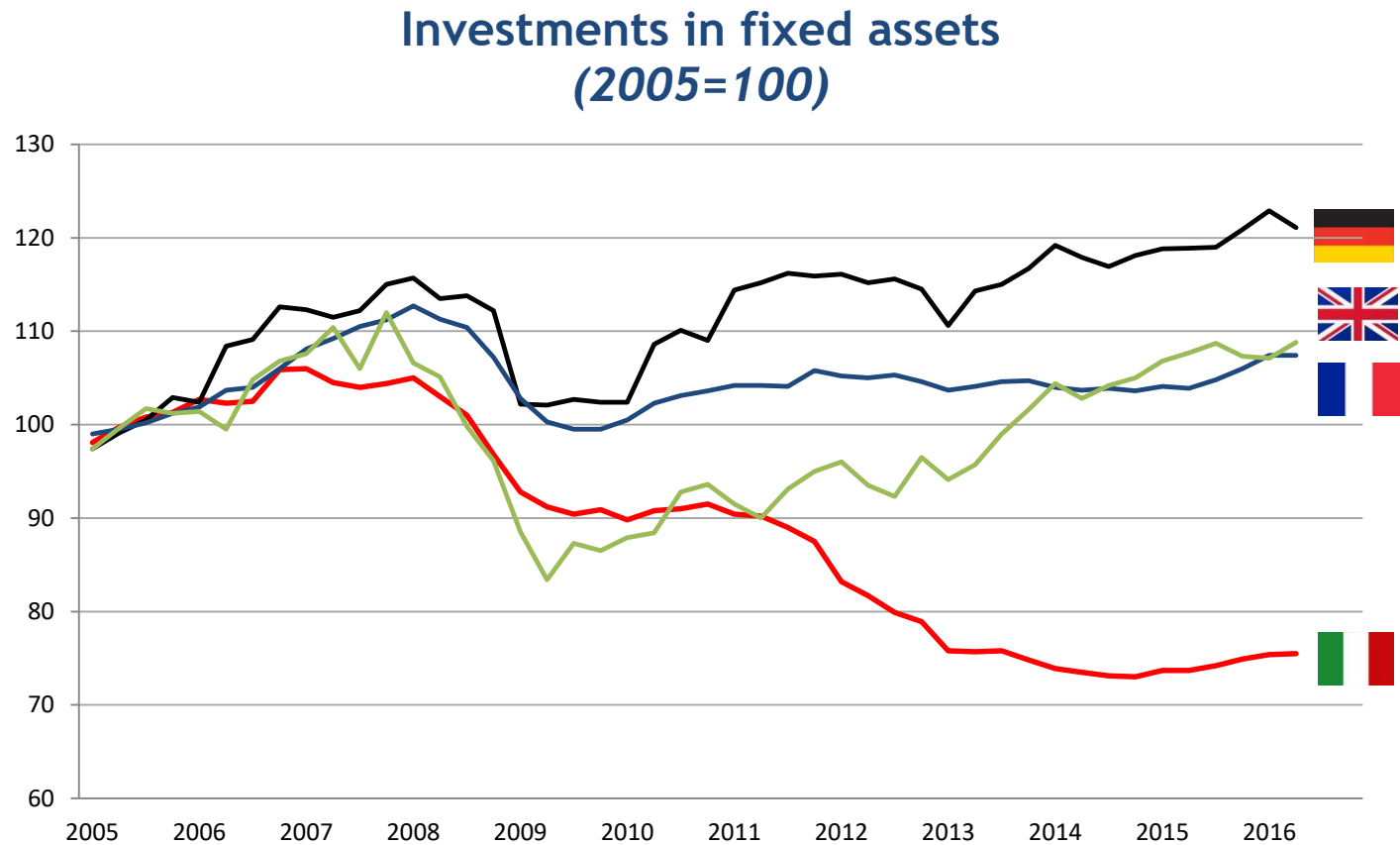


| Rank | 1990        | 2000        | 2010        | 2014        |
|------|-------------|-------------|-------------|-------------|
| 1    | USA         | USA         | Cina        | Cina        |
| 2    | Giappone    | Giappone    | USA         | USA*        |
| 3    | Germania    | Cina        | Giappone    | Germania    |
| 4    | Italia      | Germania    | Germania    | Giappone*   |
| 5    | Francia     | Regno Unito | Korea, Rep. | Korea, Rep. |
| 6    | Regno Unito | Italia      | Italia      | India       |
| 7    | Cina        | Francia     | Brasile     | Italia      |
| 8    | Brasile     | Korea, Rep  | Francia     | Regno Unito |
| 9    | Spagna      | Messico     | India       | Francia     |
| 10   | Canada      | Spagna      | Regno Unito | Russia      |
| 11   | Korea, Rep  | Brasile     | Russia      | Brasile     |
| 12   | Olanda      | Canada      | Spagna      | Messico     |
| 13   | Messico     | India       | Messico     | Canada      |

Fonte Dati: The World Bank

\*Ultimo anno con informazione disponibile (2013)

# Investments in fixed assets



Source: Eurostat, National Accounts

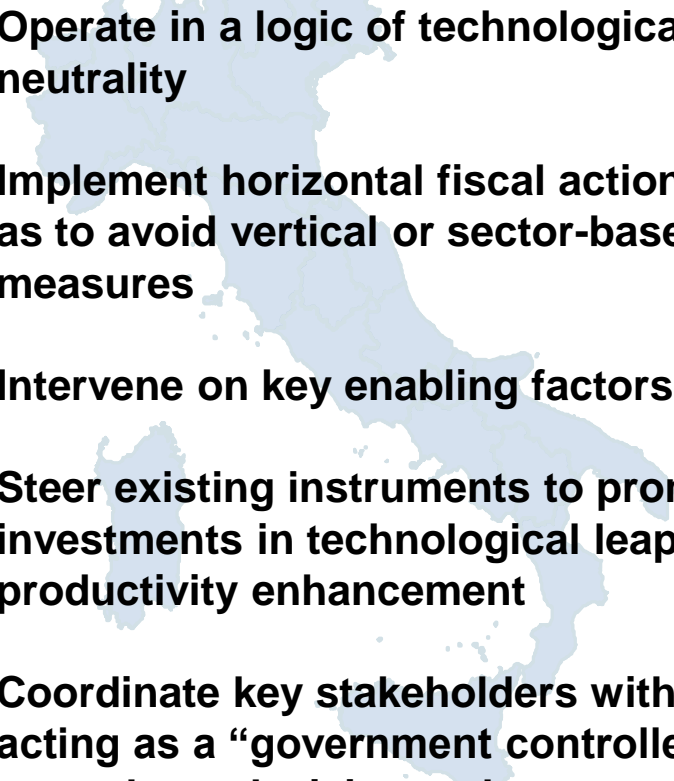
# Industria 4.0: policy design and approach

## Distinctive traits of the Italian industry

- ✗ Few large industrial and ICT private players capable of leading the manufacturing transformation
- ✗ Scarcity of industry champions capable of coordinating the evolution and integration of value chains
- ✓ Industrial sector centered on Small and Medium Enterprises
- ✓ Key role of universities and research institutions in development and innovation
- ✓ Strong cultural heritage of finished products



## Government guidelines

- 
- A light blue map of Italy is positioned in the background of the 'Government guidelines' section.
- Operate in a logic of technological neutrality
  - Implement horizontal fiscal actions, so as to avoid vertical or sector-based measures
  - Intervene on key enabling factors
  - Steer existing instruments to promote investments in technological leap and productivity enhancement
  - Coordinate key stakeholders without acting as a “government controller” or a top-down decision maker

# Industria 4.0 National Program

2017-2020 Measures

## Strategic measures



### Innovative investments

- Stimulate private investments in I4.0 technology drivers
- Increase private expenditure in research & development & innovation
- Expand open innovation relationships between mature companies and high-tech startups



### Skills

- Spread the I4.0 culture through "*Scuola Digitale*"<sup>1</sup> and "*Alternanza Scuola Lavoro*"<sup>2</sup> programs
- Develop I4.0 skills through vocational training, strengthening "*Istituti Tecnici Superiori*"<sup>3</sup>
- Finance the I4.0 Technological Clusters and Industrial PhDs
- Create Competence Centers and Digital Innovation Hubs

## Complementary measures



### Enabling Infrastructures

- Ensure adequate network infrastructure – Ultra Broadband Plan
- Cooperate in the definition of IoT open standards and interoperability criteria
- Cybersecurity



### Additional support measures

- Channel finance to support the I4.0 transformation: Private Debt/Equity, VC
- Support Public Guarantee scheme on investments
- Reinforce internationalization of Italian companies
- Strengthen the productivity-salary taxation exchange and decentralized negotiation



### Governance and awareness

- Generate interest on I4.0 opportunities and create a shared public-private governance

1. Digital classes at primary and secondary schools ; 2. Work-related learning; 3. Italian professional high schools  
Source: Steering Committee "*Industria 4.0*"

# Hyper-Depreciation and Super-Depreciation schemes

## Innovative investments



Not only manufacturing

## Advantages

### Hyper-Depreciation

- Increase of amortization rate for investments in I4.0 technologies

As is

140%



To be

270%

### Super-Depreciation

- Super-Depreciation with a flat rate (**140%**) for intangible investments (when related to I4.0 technologies)

### Deadline

- In order to guarantee a broad diffusion of Hyper and Super-Depreciation schemes, the item delivery date is extended to **31/12/20**; however, the order and a >20% deposit must be finalized by 31/12/19

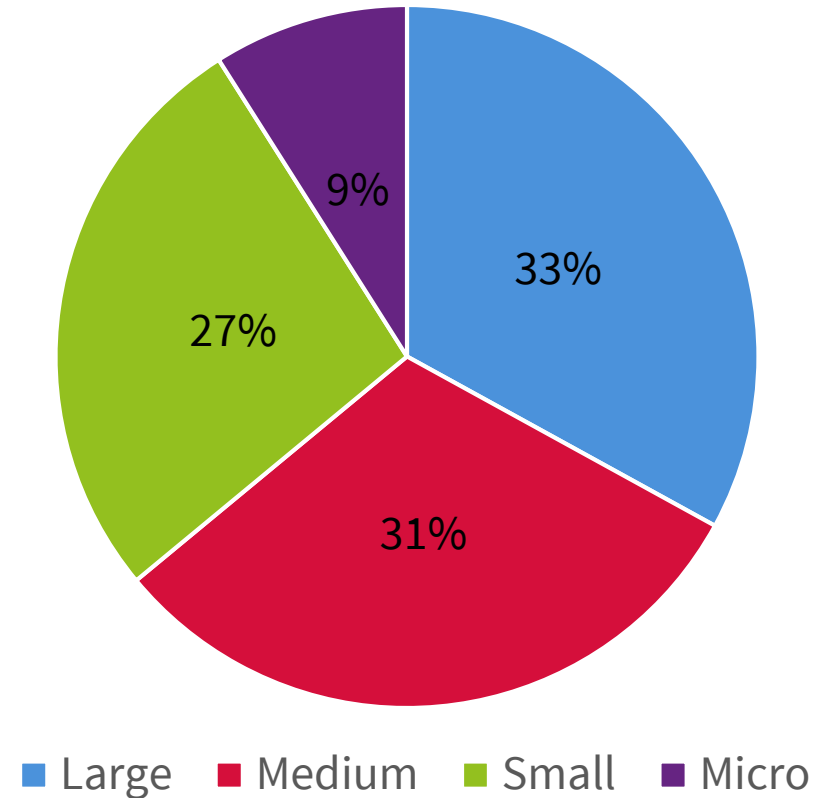
# First results (2017)

**15000 companies**  
used the  
Hyper-Depreciation

## Investments

10 billion in tangible assets

3,3 billion in intangible assets



# Digital Innovation Hubs and I4.0 Competence Centers

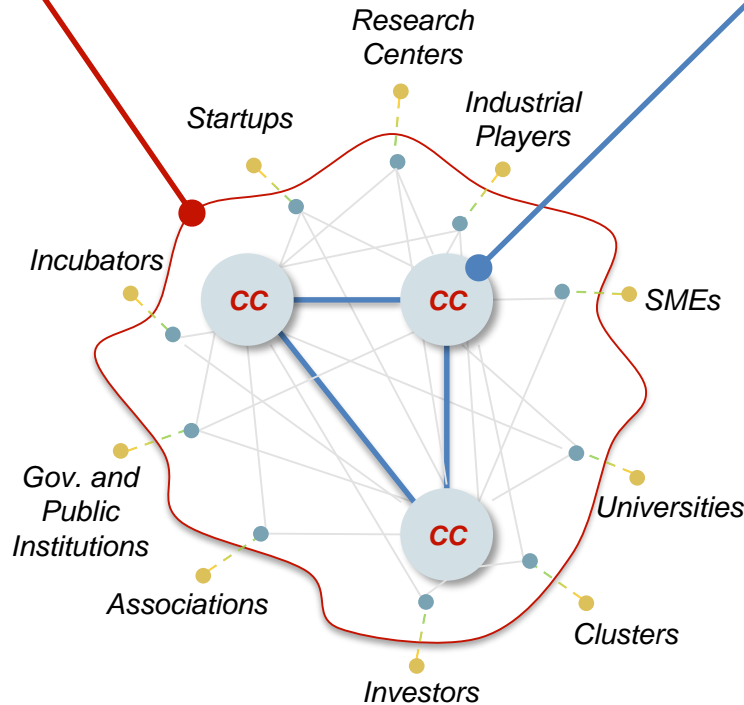
## Digital Innovation Hubs

### Features:

- Selected DIH located at *Confindustria's* and *R.E. TE. Imprese Italia's* branches
- Contact point between companies, research institutions and public/private investors

### Mission:

- Create awareness on I4.0 opportunities
- Support in developing innovative investment plans
- Orientation to I4.0 Competence Centers
- Support in accessing to public and private financing solutions/investors
- Interactions with European DIHs



## I4.0 Competence Centers

### Features:

- Few and selected national Competence Center
- Strong involvement of leading Italian universities and large private players
- Support to key stakeholders (e.g. research institutions, startups,...)
- Mission-oriented and focused on facilitating I4.0 transformational projects in all domains
- Appropriate legal and managerial skills

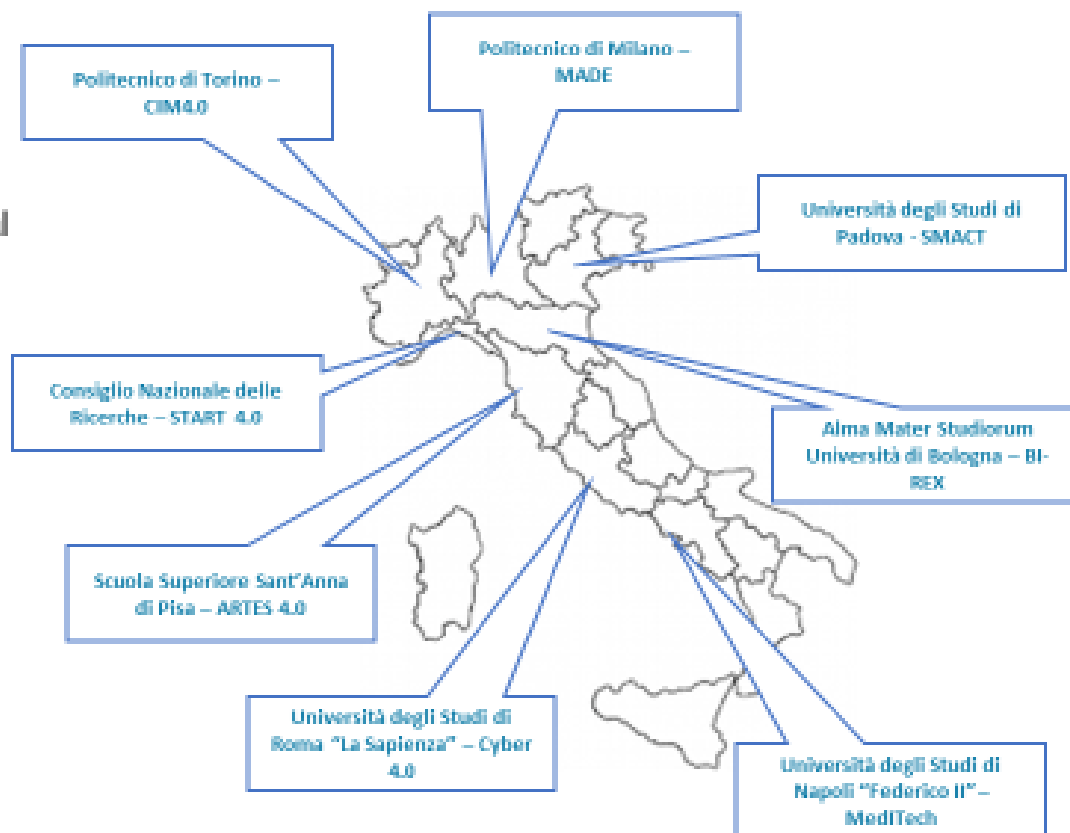
### Mission:

- I4.0 training and awareness
- Live demos on new technologies and access to I4.0 best practices
- Technical advisory on I4.0 for SMEs
- Launch and acceleration of technological development and innovative projects
- Trial support and "on-site" development of new I4.0 technologies
- Coordination with European CC



# The Competence Centers in Italy

|           |  |
|-----------|--|
| MADE      | digital technologies for manufacturing             |
| CIM 4.0   | aerospace, automotive and additive manufacturing   |
| SMACT     | agrifood, automation, general industry             |
| START 4.0 | security for infrastructure                        |
| BI-REX    | smart city, logistics, big data, traceability.     |
| ARTES 4.0 | advanced robotics                                  |
| Cyber 4.0 | cybersecurity                                      |
| MedTech   | advanced transportation systems, construction, ... |





**ASSOLOMBARDA**  
Confindustria Milano Monza e Brianza