

# Piano Nazionale Industria 4.0 – Transizione 4.0, Competence Centers & MADE



Nature of the Initiative	National Project & Initiatives	
Mission	To strengthen basic and applied research, foster technology transfer, promote digital transformation of production processes and investment in intangible assets.	
Sector(s) addressed	Manufacturing, Industry 4.0	
Leading organisation	MADE S.c.a.r.l (Cooperative Enterprise, nonprofit)	
Members (approx.)	47 partners of which 42 private enterprises	
Founded (Year)	2018	
Social Media Presence	<a href="#">LinkedIn</a>   <a href="#">X</a>   <a href="#">YouTube</a>	
Relevance for Industry 4.0	<p>The MADE Competence Center offers its testing facilities for both "Test Before Invest" and "Teaching Factories" services, providing the consortium with an Industry 4.0 large demo center of over 2000 m<sup>2</sup>. It provides an I4.0-based pilot production facility for pioneering tests, demonstrations, and development, divided into six different technological areas:</p> <ul style="list-style-type: none"> <li>• Virtual Design and product development</li> <li>• Digital twin &amp; virtual commissioning, Lean production 4.0, Logistics 4.0</li> <li>• Collaborative robotics and Smart worker assistance systems</li> <li>• Quality 4.0, product traceability and additive manufacturing</li> <li>• Smart monitoring and control of industrial processes, Smart energy monitoring and control, Smart Maintenance</li> <li>• Industrial Cyber-Security and Big Data Analytics</li> </ul>	
Key Information	Levels	Important Links
Data Space Technical Specifications	★	<a href="#">Website</a>
Data Space Governance	★	GitHub/Eclipse Link: N/A
Data Space Demonstration	★★★	Document Library Link: N/A
Data Space Adoption	★	<a href="#">Events</a>
Connected Data Space 4.0 Initiatives	<a href="#">Smart Industry</a> , <a href="#">Plattform Industry 4.0</a>	

## Additional Information

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## Report

### What is Piano Nazionale Industria 4.0?

This investment is an evolution of the previous Industria 4.0 program, compared to which it provides; an expansion of the scope of potentially beneficiary companies with the replacement of the hyper-amortization; the recognition of credit on investments made in the two-year period 2021-2022; the extension of the eligible intangible investments, the increase of the credit percentages and the maximum amount of the incentivized investments.

Inside the Piano Nazionale, 8 National Competence Centres have been created in 2018. The competence centres are public-private partnerships aiming to carry out orientation and training activities for companies on Industry 4.0 issues as well as support in the implementation of innovation, industrial research and experimental development projects aimed at the realization, by user companies, in particular SMEs, of new products, processes or services (or their improvement) through advanced technologies in the industry 4.0 context.

The MADE Competence Center in Milano is a Competence Center for Industry 4.0 that simulates a digital factory, created to carry out orientation, training, and finalization of technology transfer projects with Italian companies, particularly SMEs, on Industry 4.0 issues. A technical interlocutor that companies can contact to be supported during the digital transition towards a smart factory, with the aim of keeping their profile high, competitive, and sustainable.

In this perspective, Data for Manufacturing is an essential domain which MADE is addressing in its BEST services (Business support, Ecosystem building, Skills development, Test before Invest). In order to make this emphasis clearer, MADE compiled the DIH4 INDUSTRY D BEST service portfolio where the Data dimension is made explicit. In this perspective, MADE is participating in several EC funded initiatives for the exploitation and impact of Data in Manufacturing: in the domain of Edge-to-Cloud continuum we can mention HEP aerOS and INCODE; in the domain of data processing and quality for AI advanced applications we can mention HEP AI REDGIO5.0 and CIRC-UIITS.

### Mission

The Piano Nazionale Industria 4.0 aimed to strengthen basic and applied research, foster technology transfer, promote digital transformation of production processes and investment in intangible assets. This investment is an evolution of the previous Industria 4.0 program, compared to which it provides; an expansion of the scope of potentially beneficiary companies with the replacement of the hyper-amortization; the recognition of credit on investments made in the two-year period 2021-2022; the extension of the eligible intangible investments, the increase of the credit percentages and the maximum amount of the incentivized investments.

### Solutions & Key Assets

- MADE Competence Center Activities

The MADE Competence Center is dedicated to guiding companies through their digital and sustainable transformation journeys. Its mission is to lead a comprehensive industry migration towards digital transformation through a phased approach: informing and demonstrating Industry 4.0 technologies, providing specific training activities, and transferring and implementing technological solutions via projects. MADE 4.0 supports Italian manufacturing companies through:

- Education & Training

MADE 4.0 demonstrates the potential of enabling technologies for Industry 4.0 to businesses, particularly SMEs. By utilizing demonstrators within the MADE 4.0 areas, companies can experience the enabling technologies of the smart factory firsthand, facilitating knowledge and understanding.

Through the School of Competencies 4.0, MADE 4.0 organizes courses, paths, and training experiences on Industry 4.0 topics. This practical and operational teaching leverages the technologies available at MADE 4.0.

- Industrial Projects

MADE 4.0 supports companies in executing digital transformation projects aimed at innovating products and related production processes. This support is made possible by the technical resources, human capital, and network of collaborating companies.

- Funded Projects

Digital transformation in manufacturing, aligned with Industry 4.0 principles, involves a sequence of activities that companies must undertake to adapt to new competitive scenarios. MADE 4.0 empowers academic and industrial partners to participate in funded projects, leveraging installed assets and solutions and promoting the "Teaching and Learning Factory" concept. This initiative offers partners access to European networks, fostering the development of international expertise by leveraging consortium partners' know-how.

- Test Before Invest (TBI) Detailed Activities

MADE's TBI services support the implementation and adoption of digital technologies through:

- ✓ Education and assessment activities
- ✓ Access to technology infrastructure
- ✓ Idea generation and management
- ✓ Development of industrial R&I projects (PoC, TestBed, prototypes)
- ✓ Demonstration activities

- Competencies and Training

MADE focuses on developing and producing skills for Industry 4.0 through:

- ✓ Training courses
- ✓ Teaching factory initiatives
- ✓ Skills assessment

- Ecosystem and Network Innovation

MADE aims to develop and expand the R&I Network, including universities, enterprises, and R&D entities, to promote technology transfer projects. Activities include:

- ✓ Tech scouting and trend watching
- ✓ Coordination of the ecosystem (e.g., company visits, B2B)
- ✓ Direction of the ecosystem

### **Events**

MADE organizes webinars and events as part of its Competence Center activities. These events focus on in-depth studies of enabling technologies and methods that characterize the 4.0 manufacturing process. Organized in collaboration with partners, these webinars provide clear and accessible explanations of key concepts. A significant emphasis is placed on data competencies, including data sharing and data spaces, which are crucial for companies to effectively harness the power of data in their digital transformation efforts. This focus on data ensures that companies can optimize their operations and make informed decisions based on accurate and comprehensive data analysis.