



*Unione Parmense degli Industriali*



# smi)e

il Digital Innovation Hub europeo per la Fabbrica 4.0





*ICT Innovation for manufacturing SMEs*

Proposal:

**smi)e** Smart Manufacturing Innovation Lean Excellence centre

For the establishment of a feasibility study for a Regional Digital Manufacturing Innovation (RDMI) Hub

**PARMA  
(ITALY)**



**University  
of Parma**



*Unione Parmense degli Industriali*





## ICT INNOVATION FOR MANUFACTURING SMES

I4MS (ICT Innovation for Manufacturing SMEs) is the initiative promoted by the EC to **support** the European leadership in manufacturing through **the adoption of ICT technologies**. In fact, Europe's competitiveness in that sector depends on its capacity to deliver highly innovative products, where the innovation often originates from advances in ICT.

Therefore, **I4MS aims at promoting leading edge technologies**, developed in FP7 large ICT projects, in the following areas:

- ✓ Robotics
- ✓ HPC cloud based simulation services
- ✓ Laser based applications
- ✓ Intelligent sensor-based equipment

The initiative is dedicated to the whole European manufacturing industry with special focus on SMEs to address their needs to access to technology, infrastructures and new markets.



## OPEN CALL PROCESS DIGITAL INNOVATION HUBS

In the two phases of the open call process, a total number of **41 consortia submitted proposals** to prepare **feasibility studies** to **establish Digital Innovation Hubs (DIH)** in their regions.

The evaluation process resulted in the selection of **29 proposals** which will receive financial support as well as mentoring and coaching services. Contracts will be established between relevant I4MS projects and the DIH consortia.

The mentoring and coaching will start at a summer school which will also serve as the kickoff meeting and which is to be held in September.



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# Overview selected proposals

IoT/CPS

Robotics

HPC/Cloud-Based Modelling

Laser



## PROPOSAL

The goal of **SMILE** project is to create a technological transfer between academia and industry, by supporting companies to **change business models** thanks to the **digitalization** of their operations and the implementation of **innovative lean based principles** supported by **smart technologies**.

Our focus will be on **Cyber-Physical Systems (CPS)** and **Internet of Things (IoT)** technologies as a way to enhance **manufacturing automation** and **operation excellence**

During the feasibility study we will:

- *define the business model of the Hub*
- *define the portfolio of services offered by the Hub*
- *map the Regional ecosystem and then define the list of possible use cases to be developed in the next step.*

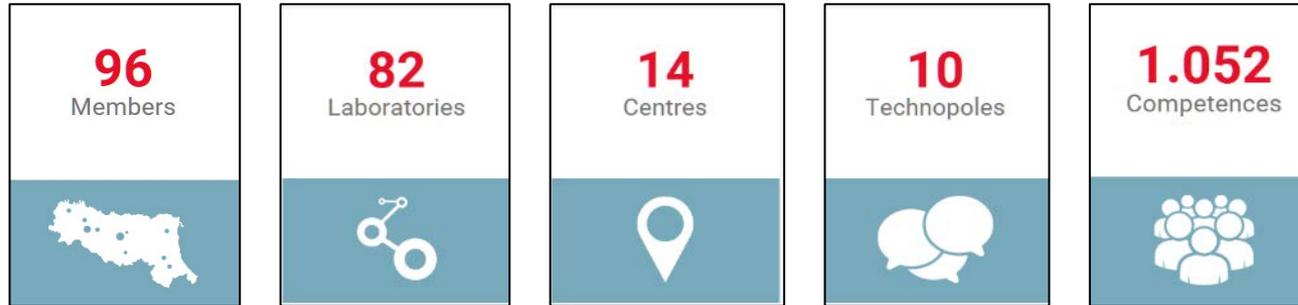
## CONSORTIUM PARTNERS

NO.	CONSORTIUM PARTNER	COUNTRY
1	<p><b>University of Parma</b></p> <p>Almost 900 professor and researcher – main departments involved is management engineering, ICT and mathematics</p> <p>Skill: new business model development, lean principles, operational excellence, industrial internet of things, cyber physical system</p>	Italy
2	<p><b>Unione Parmense degli Industriali</b></p> <p>Italian Association of manufacturing and IT companies</p> <p>- Knowledge of Regional ecosystem, involvement of Regional SMEs</p>	Italy
3	<p><b>Casappa SpA</b></p> <p>Mid-cap manufacturing company (oil dynamic pumps and systems)</p> <p>- “pioneer” in industry 4.0 implementation</p>	Italy
4	<p><b>CDM Technoconsulting SpA</b></p> <p>IT system integrator</p> <p>- Knowledge in IoT</p>	Italy



# EMILIA ROMAGNA COMPETENCE CENTERS NETWORK

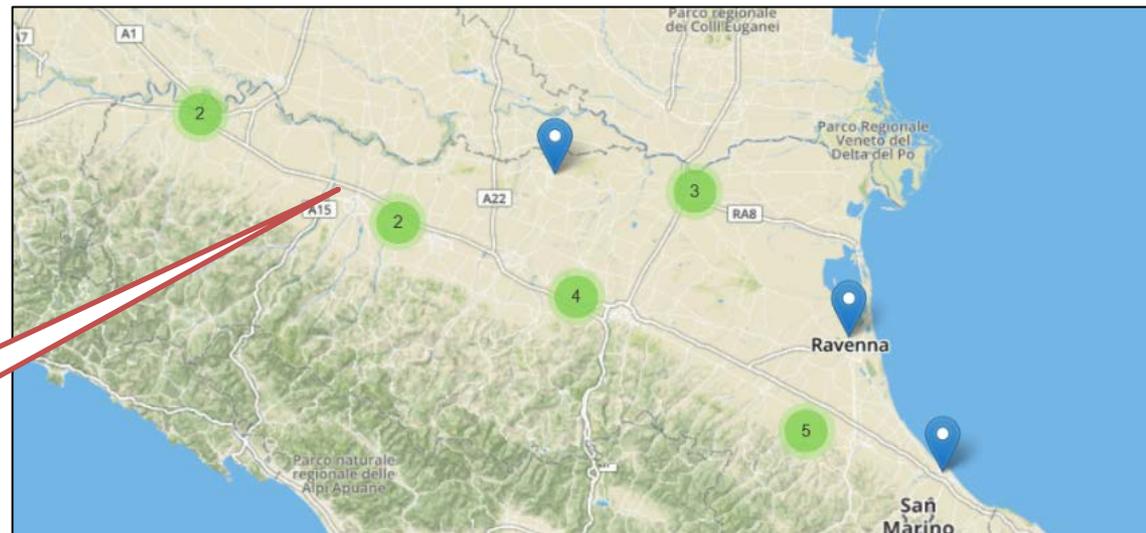
## Members, Laboratories, Centres, Technopoles, Competences



<http://www.retealtatecnologia.it/>



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## VALUE PROPOSITION

Technologies alone are particularly effective in the short-medium term. To get a long term competitive edge it is necessary to **combine technologies with adequate business models**

**Lean** has proven to be successful in manufacturing optimization (and not only in manufacturing ...), but **lean cannot remain a paper and pencil based technique.**

To be fully exploited, it must be supported by **brand new IT tools fully integrated with the manufacturing environment.**

## Cosa fanno i DIH europei? Idealmente...

Objectives	Activities
 Creano Ecosistemi	Workshops, visite, conferenze, brokerage, sviluppo di progetti
 Disseminazione & Informazione	Conferenze, newsletter, lobbying, pubblicazioni
 Formazione	Corsi di formazione, ospitare strutture formative, webinars
 Analisi di mercato	Business assessments, studi di fattibilità, IPR analisi
 Analisi dei trend	Studi Foresight, indagini di mercato,
 Valutazione di prodotto	“Voce del consumatore”, business development
 Fornire competenze	Progetti R&D, consulenza,
 Fornire infrastrutture	Infrastrutture per produzioni pilota, laboratori, dimostrazioni, validazioni
 Brokerage	Marketplace digitale, sessioni di innovazione/brokerage sessions, accesso al credito

## Modelli diversi possibili

	Fattori	
Sede strutturata	<i>Location</i>	Network virtuale
Regionale	<i>Market focus</i>	Internazionale
Dalla ricerca allo sviluppo di scala	<i>Innovation focus</i>	Produzioni pilota, un po' di ricerca
Semi-aperto, dopo negoziazioni	<i>Openness</i>	Completamente aperto
Industry driven	<i>Governance</i>	Research driven
Pienamente commerciale	<i>Finanziamento</i>	Co-finanziamento pubblico di lungo periodo
Large companies	<i>Clienti Target</i>	SMEs
Legal entity	<i>Forma giuridica</i>	Consortium di partner
Confidenzialità	<i>IPR</i>	Proprio sistema di IPR e licenze



## Criteri... (secondo CSIT)

### Devono avere

- Accesso aperto ai nuovi clienti (PMI)
- Avere accesso a competenze **business oriented per sostenere l'industria**
- **Capacità di Ingegneria finanziaria per sostenere le PMI**
- **Contatti formalizzati con acceleratori, investitori, ricerca.**
- **Infrastruttura tecnologica, o attraverso un CC o in house**
- Inclusione nella governance di industria, università e ricerca
- Focus sullo sviluppo dell'ecosistema
- **One-stop-shop** e market place per collegare la manifattura ai servizi

### Potrebbero avere in più

- **Attività di formazione** e collegamenti con istituti di formazione
- **Programmi strategici** di innovazione per assicurare una base tecnologica di avanguardia
- **Collegamento** formalizzato con associazioni industriali e governo

Focus su digitalizzazione e  
PMI/Medie imprese



## Quindi arriviamo ad una definizione

### Un Digital Innovation Hub

è un virtuale e/o fisico **'one-stop-shop'** per ogni business per accedere a strumenti di supporto per comprendere le **Tecnologie digitali** e supporto di come **finanziare**/sviluppare gli investimenti necessari alla trasformazione digitale.

La funzione specifica di un DIH è di essere un connettore ed una infrastruttura soft di business service

### Un Competence Center

è il cuore tecnologico di un Digital Innovation Hub  
Spesso è una struttura tecnica “fisica”.