



ASTER
innovazione attiva

**PERFORMING
INNOVATION**

EMILIA-ROMAGNA REGION

OVERVIEW



Surface: 22,453 Km²

Inhabitants: 4,454,393

Population density: 200 inhabitants/sq km

Source: ISTAT, 2016

GDP: 144.515 M€

GDP per Capita: 32.487 €

Source: ISTAT, 2011

PRODUCTIVE SYSTEM

Enterprises: 372.719

Manufacturing enterprises: 39.731

Source: ASIA, 2013

MAIN INDUSTRIAL SECTORS

Automotive and Motorcycle

Agrifood

Ceramics

Mechatronics

Machine tools

Packaging

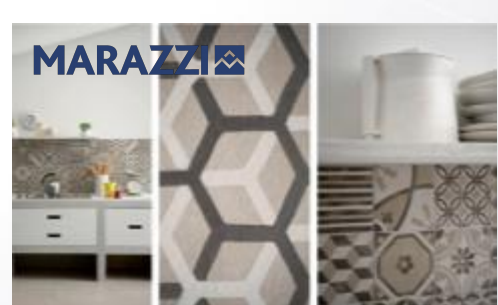
Health, Wellbeing e Biomedical

Agricultural Machinery

Woodworking Machinery

Nautical

INDUSTRIAL EXCELLENCES



RESEARCH SYSTEM

- **6 Universities** with 11 locations → More than **140.000** students
- Hosting the most important **National Research Centres**
- **High technology network:**
- **7 Thematic Associations (Clust-ER)** gathering 28 different research value chain
- **29 Corporate Academy**

RESEARCH&INNOVATION

1st

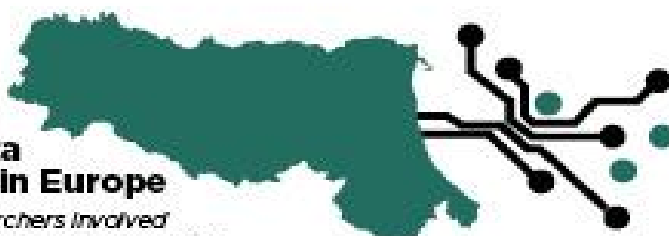
**Big Data
Center in Europe**

1800 researchers involved

230 foreign researchers hosted

100 international events

*60 higher education initiatives including phd courses,
laurea magistrale, master, summer schools*



**Emilia-Romagna
High Technology Network**



**82 Industrial
Research
Laboratories**



**14 Innovation
Centers**

*based on universities and public/private research centers
providing skills, facilities and resources to the business sector*

27,000

**employees
in the R&D
sector**



1 Consortium for Innovation and Technology Transfer (ASTER)
at the core of the innovation ecosystem

- **10 Technopoles**
- **37 Incubators**
- **19 Fablabs**
- **1 Network** for supporting start-ups (*EmiliaRomagnaStartUp*)

S3 - THE SMART SPECIALIZATION STRATEGY

S3 is the Smart Specialisation Strategy that all European Regions implement by exploiting their **competitive advantages**, to specialise in their own **areas of excellence**.

The Emilia-Romagna S3 aims at **supporting research and innovation** connecting the **production system** and the **knowledge system**.

S3 - THE SMART SPECIALIZATION STRATEGY


Pillars of the regional economy (% of the total number of employees)



16,7%
AGRI-FOOD



18,8%
BUILDING
AND CONSTRUCTION



18,2%
MECHATRONICS
AND TRANSPORT



Over **1 million** EMPLOYEES,
more than **50%** of regional employment




80% OF REGIONAL EXPORT

Emerging areas with high growth potential (% of the total number of employees)



8,9%
HEALTH AND WELL-BEING INDUSTRIES



6,9%
CULTURAL AND CREATIVE INDUSTRIES



Over **300,000** EMPLOYEES,
more than **15%** of regional employment

ASTER

ABOUT US

ASTER is the **Consortium** among

- ✓ the **Emilia-Romagna Regional Government**
- ✓ the **6 regional Universities**
- ✓ National Research Centres located in the region (**CNR, ENEA, INFN**)
- ✓ the **Regional system of Chambers of Commerce**

ASTER works in collaboration with regional **Business Associations** and **Innovation Centres**.

Since 1985 **ASTER** has shaped and defined **pathways and tools for innovation, industrial research, technology transfer** and for the improvement of **high quality skills** and careers on innovation.

THE STRATEGIC FRAMEWORK



A VIBRANT ECOSYSTEM

ASTER is at the core of a vibrant eco-system.

ASTER animates it through **joint activities** and **open innovation** actions involving all the relevant stakeholders of the territory: Universities, RTOs, Innovation Centres, Technopoles, Incubators, Startups and Fablabs.

ASTER AT THE CORE OF THE ECOSYSTEM

Supports the Regional Government and provides technical assistance for the definition of **innovation policies**

Represents the regional innovation system at regional, national and international level

Designs and develops **strategic projects**

Coordinates **networks and initiatives on innovation**

ASTER TARGETS

BUSINESSES

RESEARCH

HUMAN CAPITAL

STARTUPS

BUSINESSES AND RESEARCH

Industry innovation pursued through collaboration with research centres is the core business of ASTER

Information on European funds for R&I and support to project planning

Technology transfer and partner search at national and international level thanks to the **Enterprise Europe Network**

Information and tools to help to **access financial resources for innovation**

Business plans and projects ideas evaluation

Information and consultancy on **Intellectual Property Rights protection**

Information on industrial research **contracts**

HUMAN CAPITAL

ASTER fosters **high skills for industrial research and innovation** as key element to attract investments and talents and to achieve qualified jobs.

ASTER promotes the development of career pathways for PhDs and international mobility opportunities.

“S3 AREAS” network
supporting the
implementation of the
researchers High
Competencies

Promotion of the
technical culture
among secondary
schools students

Matching between
industrial research
competencies and
businesses

STARTUP

Since 2000 ASTER provides services to **knowledge-based, innovative and creative startups** in Emilia-Romagna

Managing of EmiliaRomagnaStartUp, the regional **portal** for innovative start-ups

Support to startups in reaching **new partners** all over Europe and worldwide

Incubation services

Support to the creation of **crowdfunding** and reward-based campaigns

Information and consultancy on **Intellectual Property Rights** protection

Meetings with **senior advisors and mentors**

PROJECT DESIGN AND DEVELOPMENT

It is a **cornerstone of ASTER activity.**

Starting from late 80's, ASTER has managed more than **100 European Commission funded projects**, 30% of which as lead partner.

Topics: **R&D, innovation, technology transfer, startup creation, skills and human capital valorisation, regional development.**



INNOVATION PLACES

ASTER AT THE CORE OF THE ECOSYSTEM

High Technology Network

More than 90 R&I
facilities

Technopoles

10
infrastructures

S3 AREAS

Competences at the
center of R&I

Mak-ER

for digital
fabrication

Business Incubators

public and private
spaces

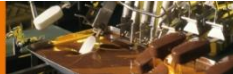
HIGH TECHNOLOGY NETWORK

The High Technology Network is composed by **96 accredited members**, comprising **82 Industrial Research Laboratories** (Universities and Public Research Centres) and **14 Innovation Centres**.

The Network provides **skills, facilities and projects** to the business sector.

REGIONAL THEMATIC PLATFORMS

AGRIFOOD
PLATFORM



CONSTRUCTIONS
PLATFORM



**ENERGY
ENVIRONMENT**
PLATFORM



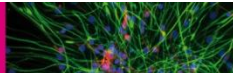
ICT AND DESIGN
PLATFORM



**MECHANICS
MATERIALS**
PLATFORM



LIFE SCIENCE
PLATFORM



The High Technology Network is organized in **6 thematic Platforms**, whose mission is:

- ✓ **Supporting companies** in developing new products/processes
- ✓ **Fostering and inspiring** innovation actions
- ✓ **Identifying relevant international trends** and regional development strategies

THE NETWORK'S TOOLS



Vuoi innovare la tua impresa?

CATALOGO DELLA RICERCA

Research Competencies
Catalogue



*Cerchi una attrezzatura
di prova, analisi o test?*

CATALOGO DELLE ATTREZZATURE

Research Equipments
Catalogue



*Vuoi conoscere le modalità
di collaborazione ricerca-impresa?*

MODELLI E CONTRATTI

Business - Research
collaboration Contracts



Vuoi assumere un ricercatore?

RicE-Rcami

Highly-qualified industrial
researchers' profiles database



*L'attività della Rete
in numeri*

CRUSCOTTO DELLA RICERCA

Research dashboard:
contracts signed by the
Network



*Vuoi conoscere le migliori soluzioni
tecnologiche della Rete?*

TECHNOLOGY REPORT

Network's Best Practices of
collaboration with businesses

TECHNOPOLES

A network of **10 infrastructures** located throughout the Emilia-Romagna region, **organizing activities and providing services for industrial research, experimental development and technology transfer.**

Technopoles stem from an initiative of the Emilia-Romagna Region in collaboration with universities, research centres and local authorities.

TECHNOPOLES GEOGRAPHIC DISTRIBUTION





AREA S3 NETWORK

Regional ESF+ERDF+EAFRD

Integrated plan for high competences



Spaces within the regional Technopoles, where students, researchers, entrepreneurs and trainers can find information on **how to develop an idea, start a new venture, improve their skills and connect with the regional ecosystem**

Why S3 Area?

- Focus on territories and their different specializations and characteristics
- Established to **support young university graduates and people with high competences** to approach **regional innovation ecosystem and its actors**, such as: incubators, start-up, technologically advanced companies, innovation centers, industrial research laboratories, fab lab, etc.
- Role of Technopoles as multidisciplinary spaces for research and innovation in the emerging areas identified by the Regional **Smart Specilization Strategy (S3)**

Objectives

- **Enhance**

opportunities for young people to approach professional careers, training and research paths, based on competitiveness of the regional productive system

- **Encourage**

networking between entrepreneurs, startupper, university professors, researchers and trainers in order to generate new opportunities and a *reference systems* for accessing knowledge-intensive and innovative professional careers

- **Disseminate**

knowledge exchange opportunities and idea generation processes in the field of innovation

STARTUPS INCUBATORS NETWORK

Incubators are geared towards assisting the **growth of startups.**

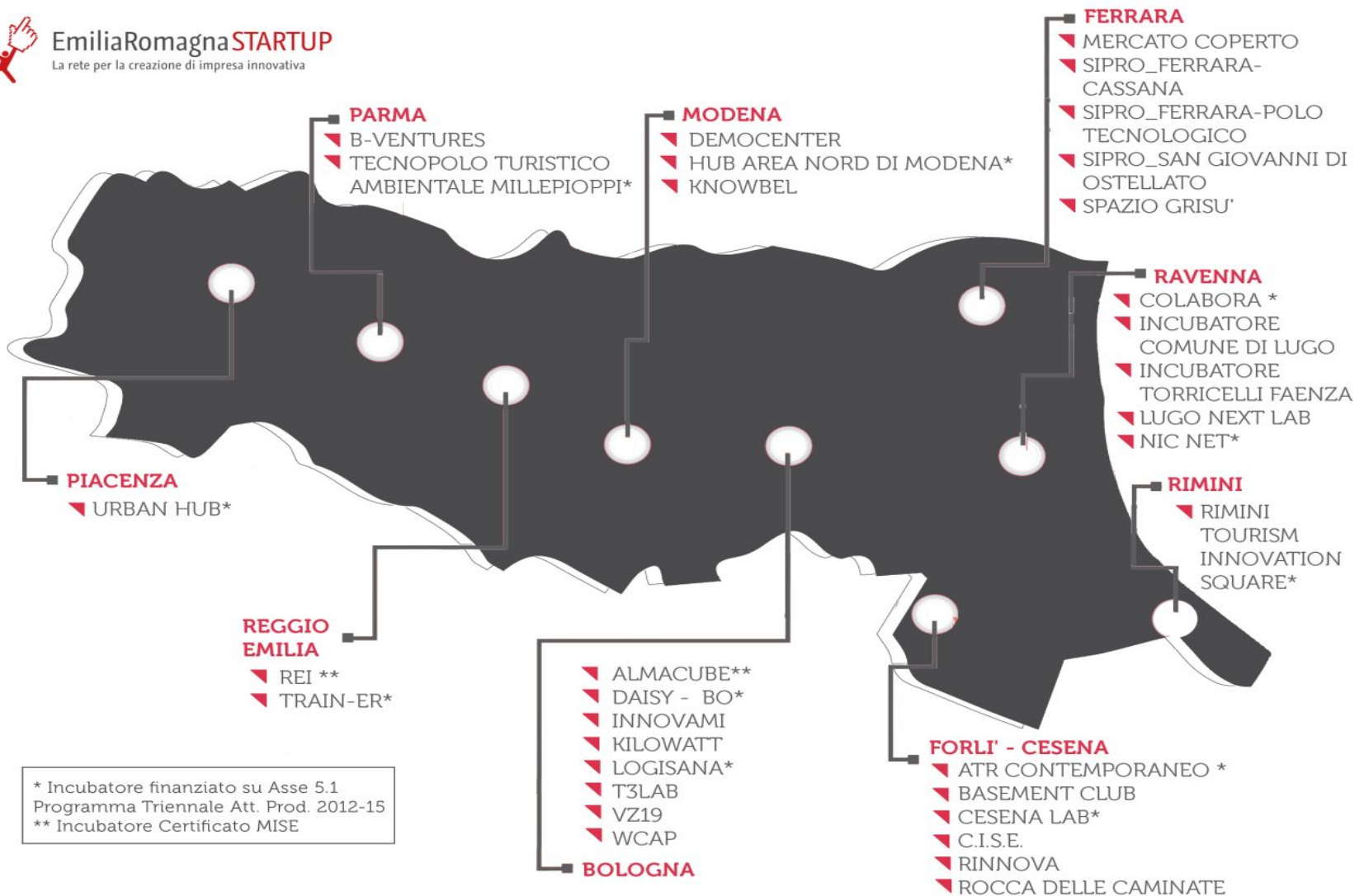
They offer services for startup business development in all stages: idea support definition, training, consultancy, fundraising, direct grants, working spaces, networking opportunities.

THE INCUBATORS NETWORK



EmiliaRomagnaSTARTUP

La rete per la creazione di impresa innovativa



* Incubatore finanziato su Asse 5.1
Programma Triennale Att. Prod. 2012-15
** Incubatore Certificato MISE

THE FABLABS NETWORK

Mak-ER is the regional network for digital manufacturing.

It brings together communities of people in Emilia-Romagna who share **digital fabrication** and **advanced manufacturing** laboratories.

Mak-ER aims to **increase distributed creativity** and establish itself with local, national and international players by **promoting its members' activities**.

19 fablabs and maker spaces are part of an ecosystem fostering innovation for the territory

THE FABLABS NETWORK

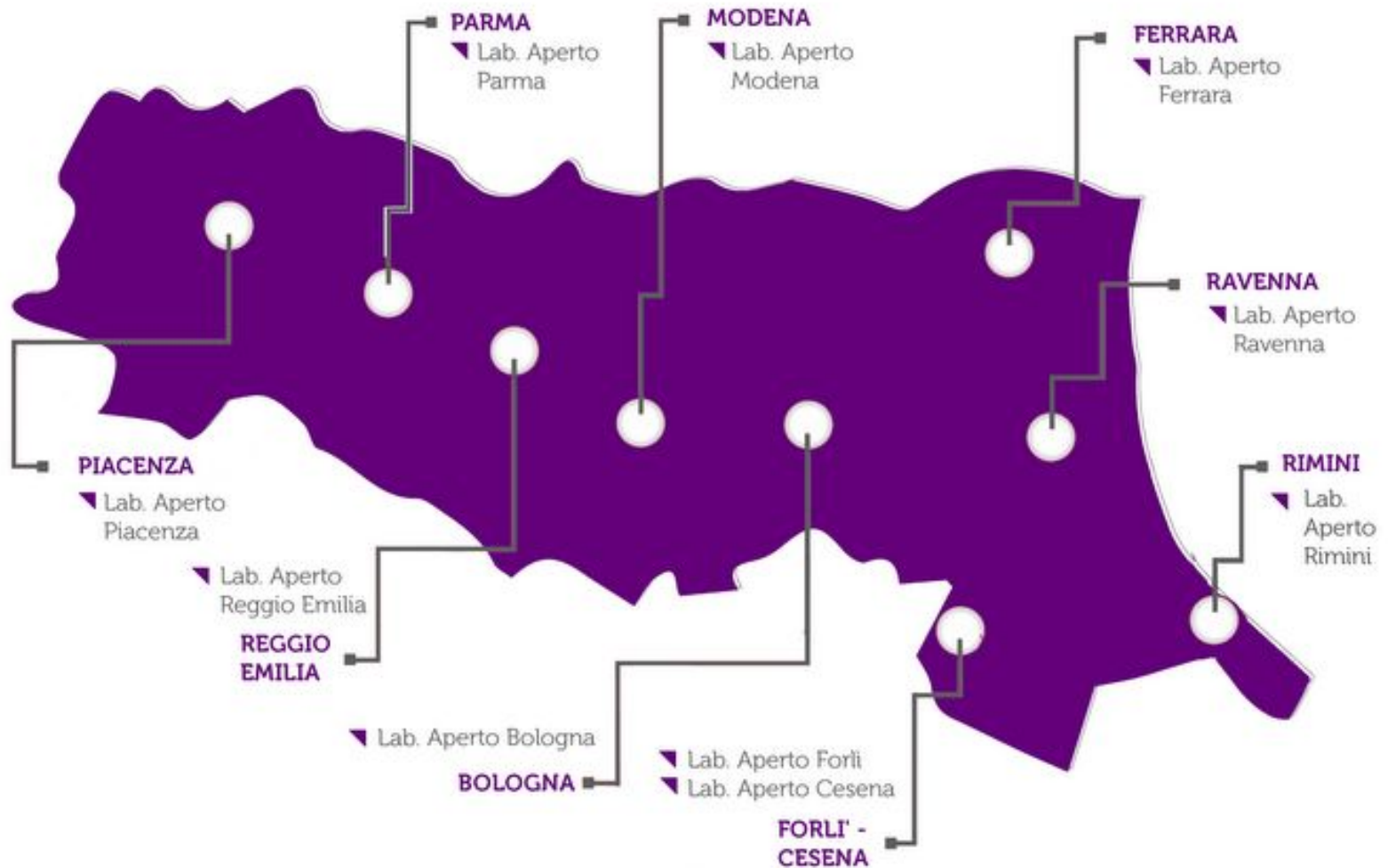


THE OPEN LABORATORIES NETWORK

Open Laboratories are areas equipped with hi-tech solutions where **new models of collaboration** among citizens, public authorities, third sector, universities are developed.

They involve all players with an important role in the **transformation of the information society in urban areas**

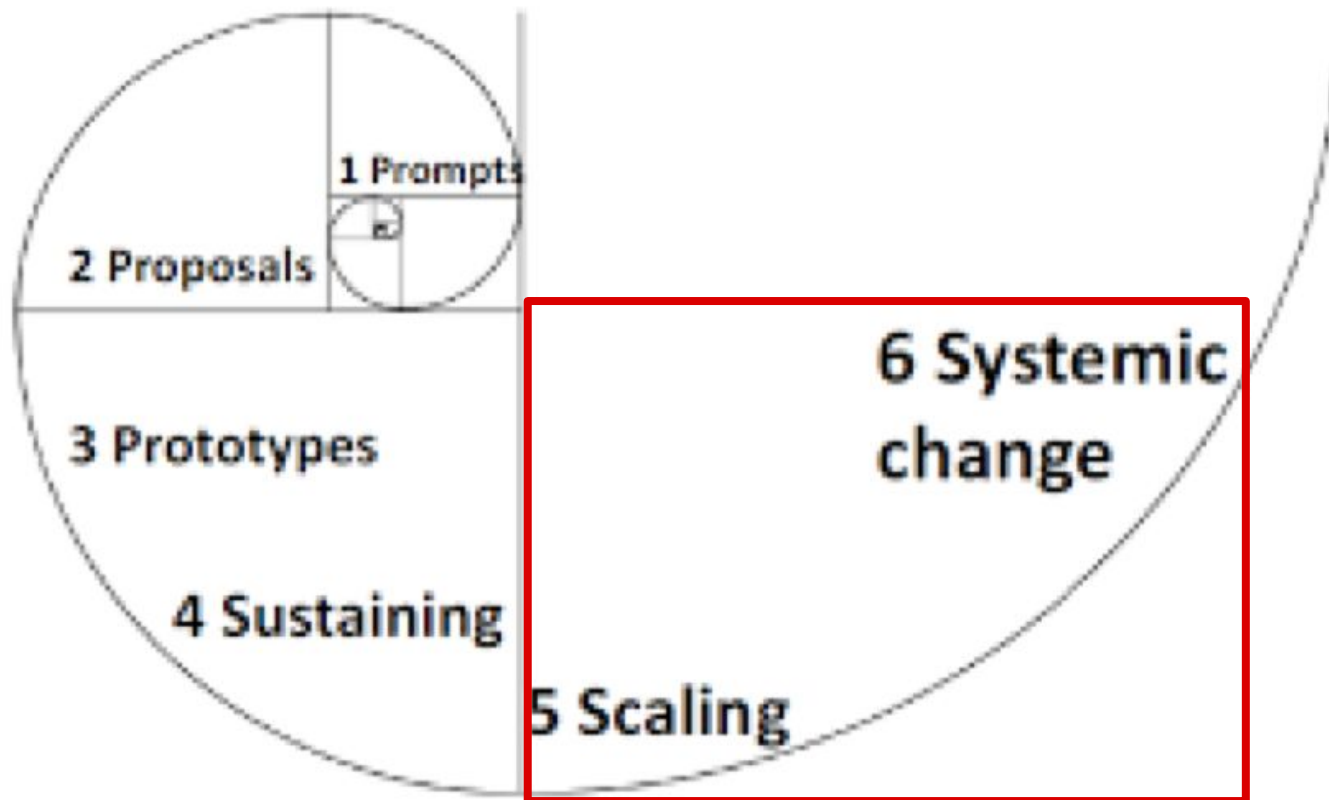
THE OPEN LABORATORIES NETWORK





Pave the way to social innovation...

Why social innovation?



The process to engage in social innovation

1. Mapping internal resources and projects
2. Defining our role
3. Discussing strategies with our “sister” ERVET
4. Identifying some experiments and projects

Mapping units and projects

Industrial research

- Life sciences
- Buildings and housing
- Sustainable economy observatory
- Service innovation value chain

Innovation ecosystem

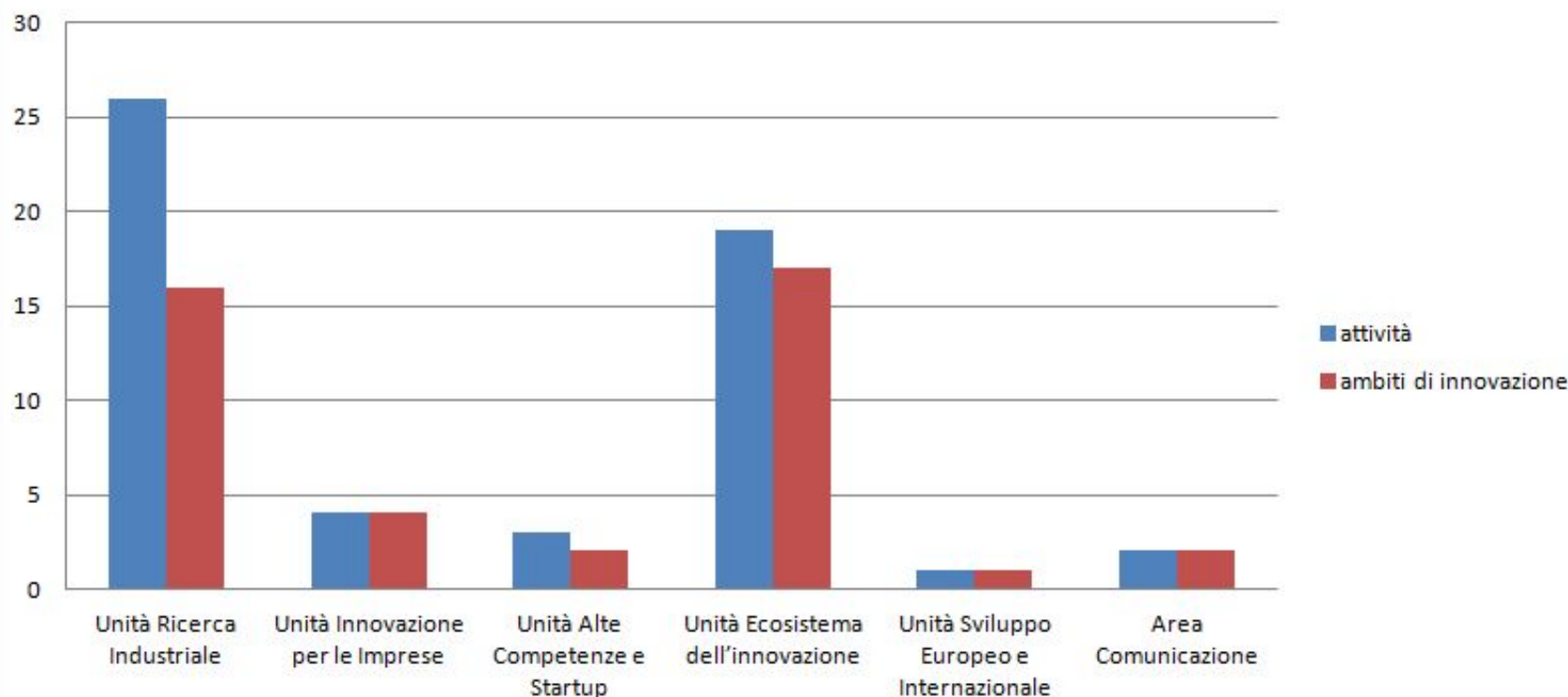
- Mak-ER network
- Kick-ER crowdfunding platform
- Creative and Cultural Industries
- Urban Agenda
- Digital Agenda

High Competences and Startup

- S3 Area
- Startup ecosystem

Some data

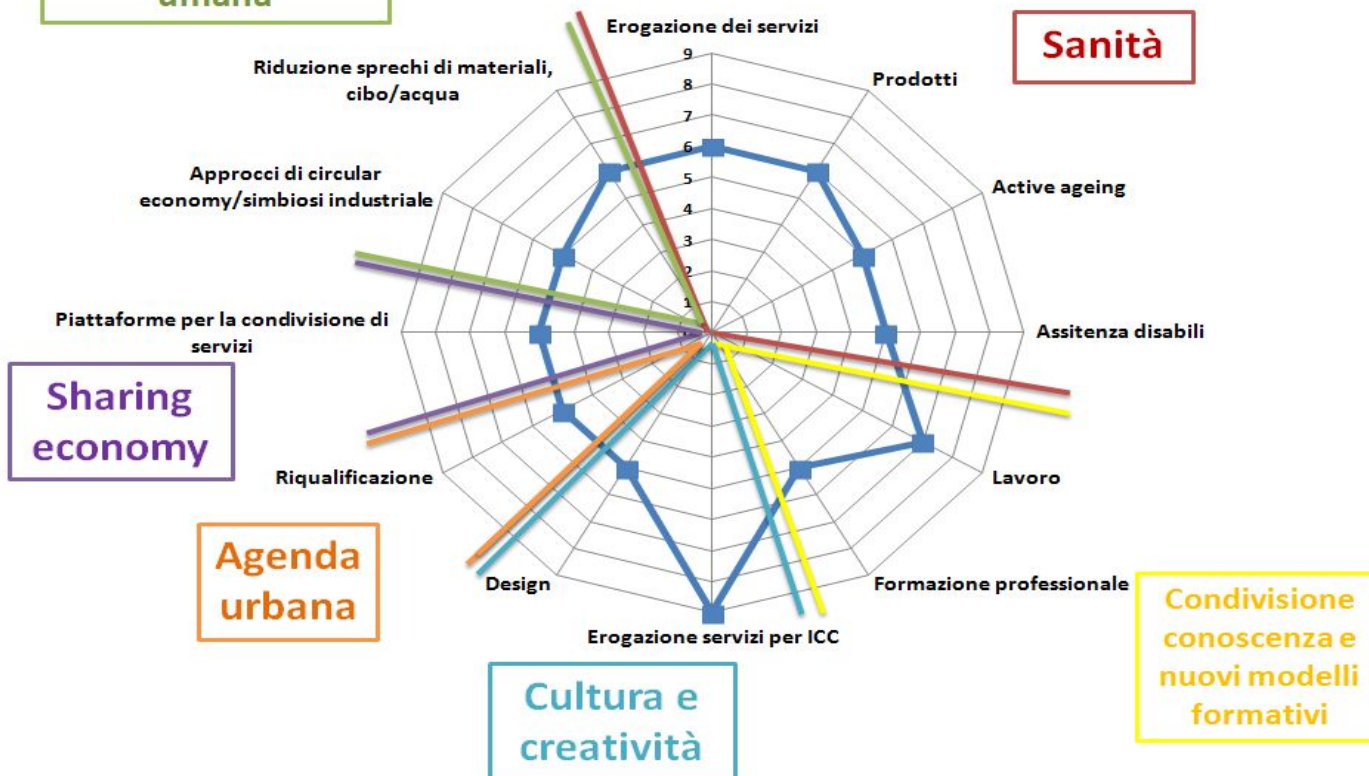
Attività e ambiti di innovazione sociale coperti dalle Unità di Aster



Some data

Riduzione impatto
ambientale attività
umana

Sanità



Main findings and next steps

3 main topics:

- **Social entrepreneurship and impact investing**
- **Shared value**
- **Spaces and networking**

Main findings and next steps

Social entrepreneurship and impact investing:

- Supporting sustainable and responsible business development, identifying best practices and processes
- Supporting impact investing networks through regional joint studies with the local financial and economic actors
- Promoting innovative startups (even socially oriented)
- Supporting open innovation approaches to corporate social responsibility
- Studying tools and methods to analyse the impact of our activity

Main findings and next steps

Sustainable and responsible industries:

- More efficient and effective industrial activities through the implementation of industrial symbiosis and circular economy
- Support the new urban planning regional law through a participatory approach, focusing on topics such as social housing and fuel poverty
- Participation to the regional sustainability observatory
- Opportunities related to quadruple helix approach to open innovation in the research and innovation framework

Main findings and next steps

Spaces and networking:

- Interaction within technopoles, incubators and S3 Areas and between these and the local entrepreneurial environment
- Supporting the regional Mak-ER network
- Supporting the regional open lab network implementation

Some activities

Networking

- Member of the Interreg Europe [MARIE](#) (CISE Lead partner) - Mainstreaming Responsible Innovation stakeholder group
- Member of the Social Innovation Group of the Enterprise Business Network (EBN)
- Participation to the Digital Social Innovation [Manifesto](#) workshop and consultation

Some activities

Piloting

- Participation to working group drafting the new regional law on urban planning
- Submission of a proposal to the COSME (EEN) call on sharing economy (waiting for the evaluation)
- Supporting [Ashoka Italia](#) in the [*Social Innovation to tackle fuel poverty*](#) competition

Some activities

Supporting

- [Inclusive Project](#): Horizon 2020 project to enable smart and adaptive interfaces for inclusive work environment
- [SPARK](#): Scan, Plan, Act Revolutionary Kit, directed to support regional research and innovation project such as [HABITAT](#), a project for Home Assistance Based on the Internet of Things for the AuTonomy
- [Liberex](#): working to analyse the effect of complementary currencies in local economic systems (particular topic: green economy)

Some activities

- Participation to the [High Level Task Force on Social Infrastructure](#) (European Parliament Intergroup)
- Writing a “Supporting Social Impact Finance in Regione Emilia-Romagna” report (Autumn)
- In collaboration with ERVET:
 - Regional working group on social innovation policies and impact analysis
 - Regional smart communities analysis
 - Liberex project



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