ART-ER

ATTRATTIVITÀ
RICERCA
TERRITORIO

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Research & Innovation Area

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The Emilia-Romagna Innovation Ecosystem

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ART-ER

The Consortium for fostering Emilia-Romagna region's sustainable growth through

- **territorial development** and **attractiveness**
- **innovation** and **knowledge**
- **internationalisation**

ART-ER is a non-profit company, estabilished by Regional Law 1/2018

OUR PARTNERS

Emilia-Romagna Region

5 regional **Universities**

National Research Centres located in the region (CNR, ENEA, INFN)

The Regional Union of **Chambers of Commerce**

Other local representatives

OUR TEAM AND RESOURCES

209 people

engineers, economists, humanists

€ 21 mln turnover

Financial resources from Emilia-Romagna Region, European Funds, our shareholders

The Bologna Research Area
CNR - National Research Council

ART-ER MAIN OFFICE
CNR – Bologna Research Area

OTHER OFFICES
4 in Bologna
1 in Brussel
1 in Silicon Valley

S3 AREAS – Innovation Career Guidance
At the Emilia-Romagna Technopoles

Research and Innovation policies in Emilia-Romagna

Emilia-Romagna Region - Overview

REGIONAL DATA

Surface: 22,453 Km2

Inhabitants: 4,454,393

Population density: 200in./km2

Provinces: 9

Municipalities: 340

GDP: 144.515 M€

GDP per Capita: 32.487 €

Enterprises: 372.719

Manufacturing: 39.731

RESEARCH & TRAINING SYSTEM

6 Universities with 11 locations

140.000+ students

Hosting the most important National

Research Centres CNR, ENEA, INFN, IASF, INGV, CINECA, IOR, CNIT, SSICA, CMR

Polythecnic network system:

7 high tech institutes

100+ technical training programs

100.000 Trainees every year

Emilia-Romagna Region - Overview

MAIN INDUSTRIAL SECTORS

Automotive and Motorcycle

Agrifood

Ceramics

Mechatronics

Machine tools

Packaging

Health, Wellbeing,

Biomedical

Agricultural Machinery

Woodworking Machinery

Nautical

Evolution of R&I policies in Emilia-Romagna

2001 - Agreement signed between the Region, universities, research institutes, business associations that identifies **ASTER (now ART-ER) as the regional network agency for technology transfer**.

2002 - **Regional Law n. 7/02** "*Promotion of the regional system of industrial research, innovation and technology transfer*", following the amendment of Title V of the Constitution

2003 - Approval of the first PRRIITT Regional Program for Industrial Research, Innovation and Technology Transfer (Lisbon strategy: towards a knowledge-based economy)

2004 - **L.R. n.11 / 2002** "Development of the regional information society"

2007 - Regional Operational Program **ERDF 2007-2013** - Axis 1 Industrial Research and Technology Transfer

2009/10 - **Launch of the Regional High Technology Network**

Evolution of R&I policies in Emilia-Romagna

2012 - Approval of the second **PRRIITT 2012-2014**

2014 - **The Smart Specialization Strategy (S3)** of Emilia-Romagna (real driver of the regional innovation strategy) **2014-2020**

2014 - New **ERDF-ESF 2014-2020** programming (Europe 2020 strategy: employment objectives, growth, social challenges)

2014 - **L.R. 14/2014** "Promotion of investments in Emilia-Romagna"

2017 - Establishment of **CLUST-ERs**

2019 - **L.R. n. 7** "Investments of the Emilia-Romagna Region in Big Data and Artificial Intelligence, Meteorology and Climate Change"

2021 - The new **Smart Specialization Strategy S3** of Emilia-Romagna **2021-2027**

2022 - **New programming FSER-FSE + 2021-2027**

Regional law 7/2002
Promotion of a regional system for R&D&I

- Improving the capacity of industrial system to invest in R&D&I, fostering in particular:
  - Employment of new researchers
  - Cooperation with universities and research centres
- Building a network of competence centres, organizing the "offer" of research and innovation of the public system
  - Industrial research laboratories
  - Innovation centres
  - Shared governance (ASTER, now ART-ER)

Emilia-Romagna
High Technology Network

Emilia-Romagna High Technology Network

High Technology Network is the instrument promoted by ER Region to organise the offer of industrial research in the Region

It is be made up of Industrial research laboratories and Innovation centres

It provides competencies, technologies, solutions and instrumentations to support innovation

Specialization Areas: Mechanics, Materials, Agrifood, Construction, Lifesciensce, Digital Technologies, Energy and Sustainability

Emilia-Romagna
High Technology Network

Born in 2009, 36 Laboratories, funded by ERDF 2007-13

Today it includes 82 Industral Research Laboratories (public/private) and 16 Innovation Centres

Annual accreditation by ER Region to verify and certify
- the capacity to provide industrial research services to customers
- a minium amount of R&D activity (contracts/projects)

Regional Support

ERDF 2007-2013
- 100M€ to support the first 36 laboratories (2009)

ERDF 2014-2020:
- 85 M€ to fund 105 projects (48% ERDF)
- 25 M€ as providers in 480 companies' projects

Economic activity

ART-ER monitors the data relating to personnel, contracts and projects of the Laboratories and Centers of the Network.

They are evaluated for the maintenance of regional accreditation.

400 M€

5800+ Contracts
1300+ Projects
since 2009

11 M€

70+ Projects
started in 2021

23 M€

900+ Contracts
started in 2021

1600

Researchers (FTE)

ART-ER role

Coordination
(Yearly assembly, involvment in activities an projects, regional S3 development, Yent, B2B organisation, meeting with enterprises ….)
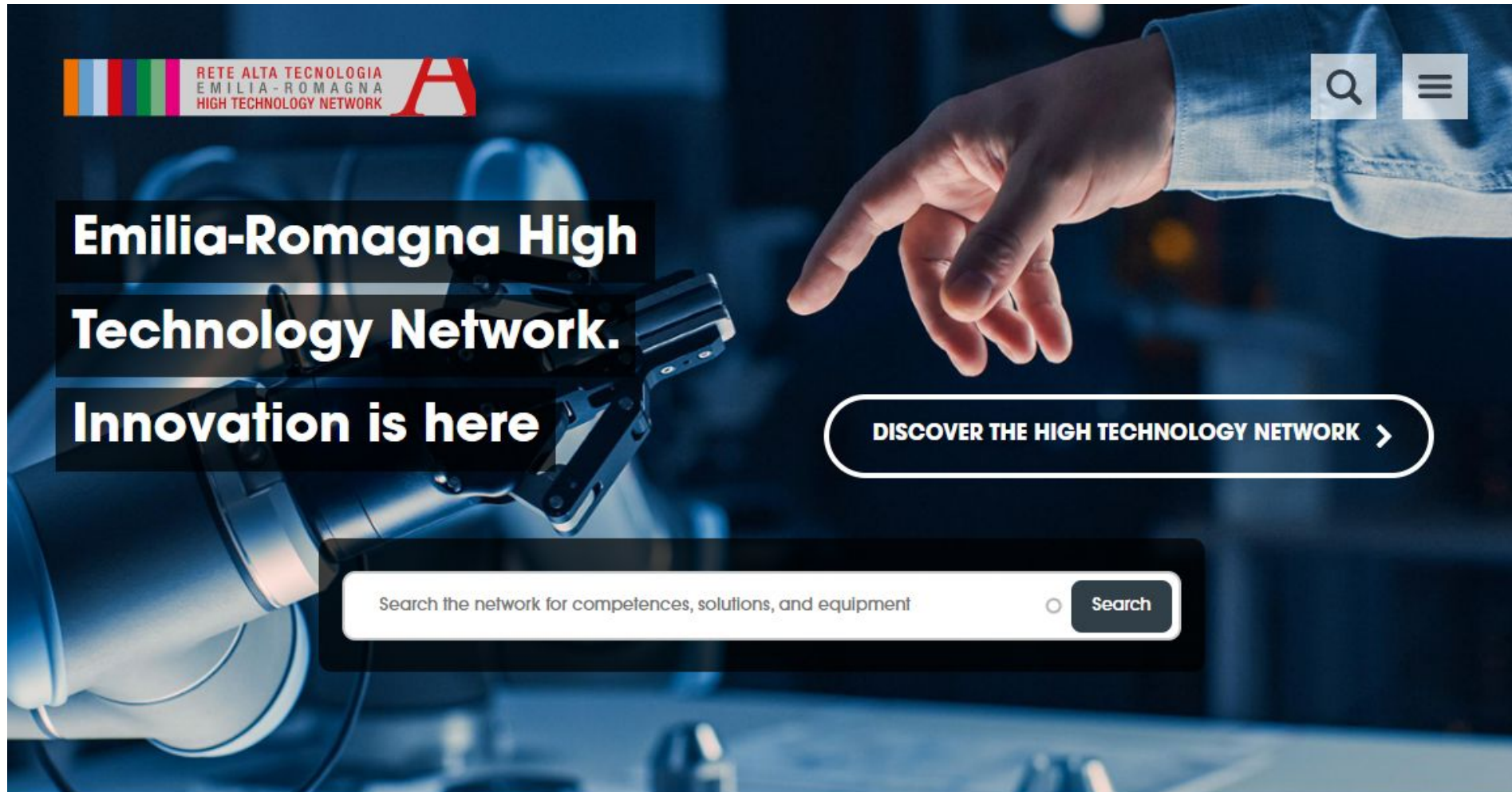
Comunication support

Accreditation Management

Economic activity monitoring

Website management

HTN Website
www.retealtatecnologia.it

HTN Website
www.retealtatecnologia.it

Competences catalogue

Equipment catalogue

Technology Report

Projects

1000+ Competencies

1900+ Equipments

340 Technology Reports

105 Regional Projects

How to get in touch with HTN

THE TECHNOPOLES

10 infrastructures in 20 locations throughout the Emilia-Romagna region, hosting and developing activities and services for industrial research, experimental development and technology transfer.

10 infrastructures in 20 locations throughout the region

1400+ companies involved

2700+ Technology Transfer, needs analysis and skills matching services

2000+ implemented projects

1100+ Research projects

200+ training activities

EROI - Emilia-Romagna Open Innovation

A digital open innovation community to foster collaboration, knowledge exchange

It offers: **news**, **discussion groups**, **partner search**, **challenges**

http://eroi.art-er.it/

Clust-ER associations

S3 − Smart Specialization Strategy (2014-2020)

5 (+2) AREAS OF SPECIALIZATION FOR INNOVATION POLICIES

Developed by all EU Regions to receive ERDF funds

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

THE CLUST-ERS ASSOCIATIONS

Communities of public and private bodies (research centers, companies,training bodies) created to support the competitiveness of the most important production systems in Emilia-Romagna.

9 Associations

2 New Clust-ER: Tourism and Urban Economy

690+ Associates

390+ Companies

300 Research Centres, Training Bodies, others

32 Value Chains

AGRIFOOD

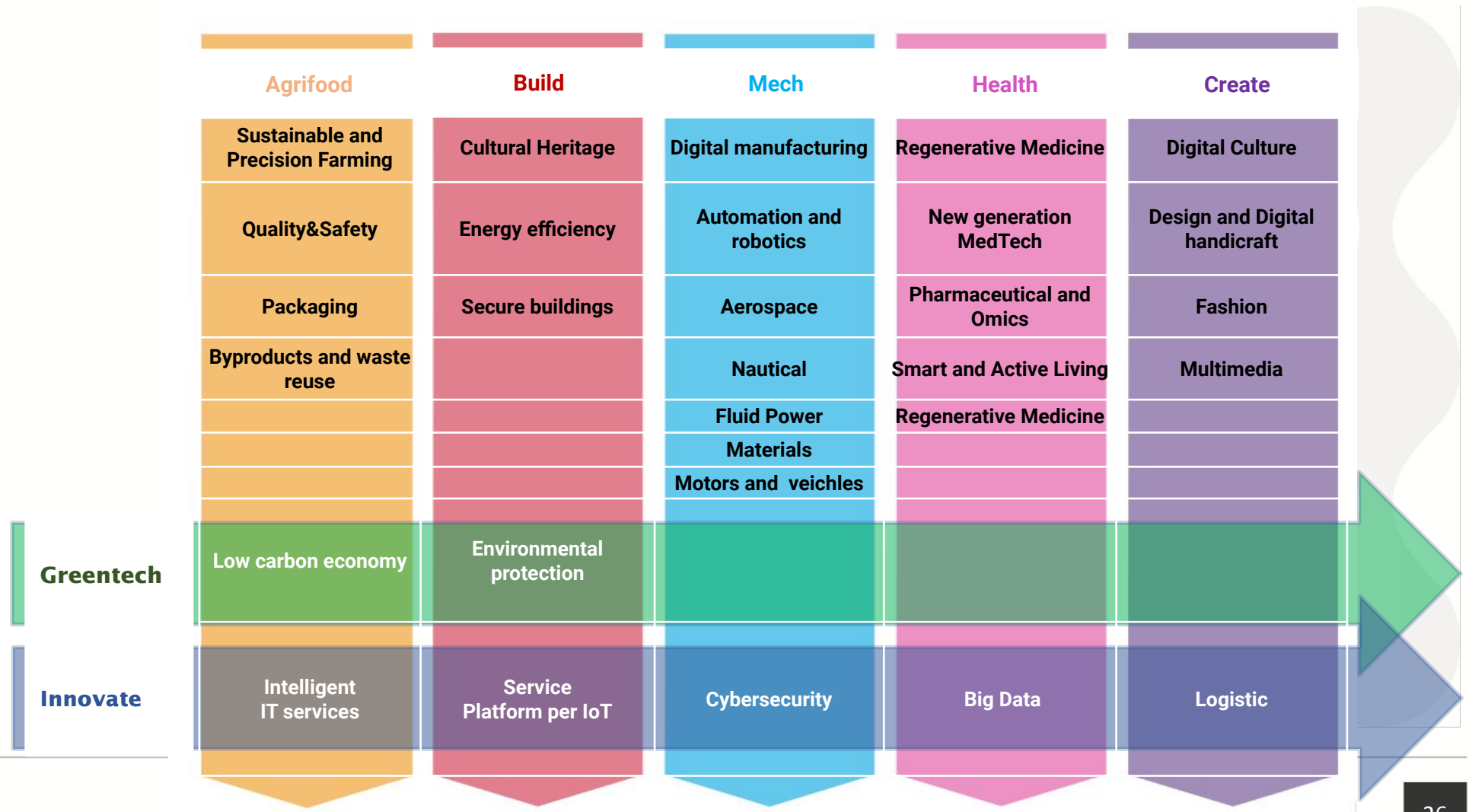BUILDING AND CONSTRUCTIONS

MECHATRONICS AND MECHANICS

HEALTH AND WELLBEING

SERVICES INNOVATION

CULTURE AND CREATIVE INDUSTRIES

ENERGY AND SUSTAINABLE DEVELOPMENT

Clust-ER organization: the Value Chains

Each Clust-ER focuses its action on strategic lines of research and innovation enabled through working groups, representing the most relevant **value chain** for Emilia-Romagna regional production system

Agrifood	Build	Mech	Health	Create
Sustainable and Precision Farming	Cultural Heritage	Digital manufacturing	Regenerative Medicine	Digital Culture
Quality&Safety	Energy efficiency	Automation and robotics	New generation MedTech	Design and Digital handicraft
Packaging	Secure buildings	Aerospace	Pharmaceutical and Omics	Fashion
Byproducts and waste reuse		Nautical	Smart and Active Living	Multimedia
		Fluid Power	Regenerative Medicine	
		Materials		
		Motors and veichles		

Greentech

Low carbon economy	Environmental protection			

Innovate

Intelligent IT services	Service Platform per IoT	Cybersecurity	Big Data	Logistic

Clust-ER Members

	Members	Laboratories	Companies	Other
AGRIFOOD	**82**	32	41	9
BUILD	**109**	21	67	21
MECH	**128**	37	84	7
HEALTH	**109**	31	60	18
CREATE	**88**	19	47	22
INNOVATE	**80**	26	42	11
GREENTECH	**101**	29	61	11
TOTAL	**697**	**195**	**403**	**99**

Last data update: July 12, 2022

Emilia-Romagna Region Smart Specialisation Strategy S3 2021 - 2027

New approach 2021-2027

Challenge based

The challenges of EU cohesion policy 2021-27:
A Europe more
green
smart
connected
social
close to citizens

+

Social driven

Innovation and research in response to social challenges, not only as a factor of competitiveness.

Not only technology, but also **social, organizational, creative innovation**

+

Cross sectorial

Definition of priorities with a **strong multidisciplinary and transversal dimension** with respect to sectors

15 Cross-Sectoral Thematic Areas

ART-ER

15 CROSS-SECTORAL THEMATIC AREAS

Sustainable Transition
- Clean, affordable and secure energy
- Circular economy
- Climate and natural resources (air, water and land)
- Blue growth
- Innovation in materials

Digital Transformation
- Digitalisation, Artificial Intelligence, Big Data
- Manufacturing 4.0 and future evolutions
- Connectivity of ground and space systems
- Sustainable and innovative mobility and motor industry

Health, Wellbeing, Nutrition
- Wellbeing, nutrition e lifestyle
- Health

Territory, Cities, communities
- Cities and communities of the future
- Heritage and identity of the region
- Social innovation and social participation
- Inclusion and social cohesion, education, jobs, territories

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