

CLUST-ER HEALTH & WELLNESS

EMILIA-ROMAGNA REGION



SUPPORTING THE COMPETITIVENESS OF THE HEALTH AND WELLNESS INDUSTRIES OF EMILIA-ROMAGNA

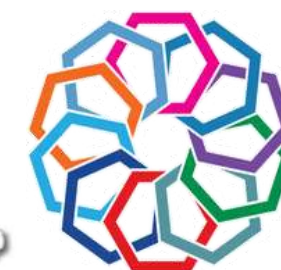


The Regional Resolution n.671 series of 2017, officially founded the Emilia Romagna's Clust-ER associations as Public Private Partnerships.

REGIONAL INNOVATION ECOSYSTEM



11 CLUST-ERs
Including Big Data
Association & MUNER



10 Technopoles
Physical infrastructures

OUR MEMBERS

Universities, labs & research centers (27)



SMEs (47)



Big companies (17)



Hospitals, healthcare and assistance (17)



Accelerators & training organizations (7)



Non-profit, patient associations (5)



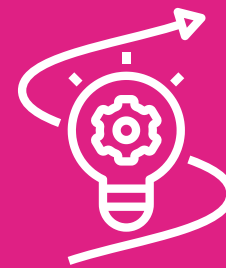
127
MEMBERS

ITALIAN HEALTH'S INNOVATION LANDSCAPE

LEADING THE INNOVATION OF THE HEALTH & WELLNESS INDUSTRIES IN ITALY



**1ST REGION
FOR...**



INNOVATION

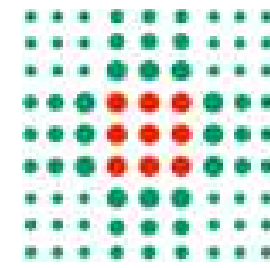
(European Innovation Scoreboard 2021 and Transatlantic Subnational Innovation Competitiveness Index 2022)



EFFICIENCY OF THE HEALTHCARE SYSTEM

(Demoskopika, 2022)

HEALTHCARE SYSTEM



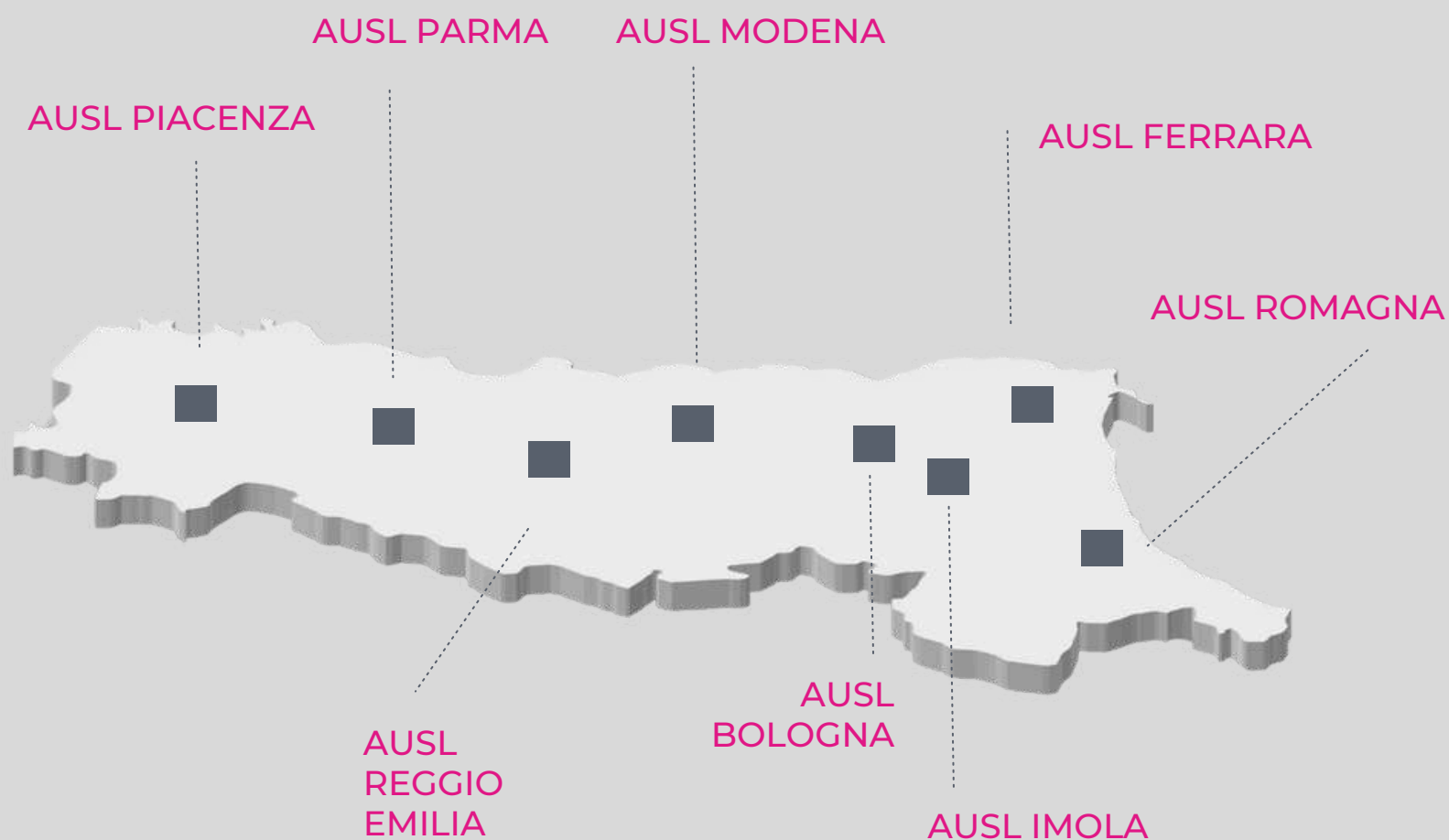
SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA

1st

REGION IN ITALY
FOR
THE EFFICIENCY OF
THE HEALTH SYSTEM

Source: Demoskopika,
2020

8 TERRITORIAL UNITS



18,000
HOSPITAL BEDS
(80% PUBLIC)



99
HOSPITALS



5 IRCCS - SCIENTIFIC
INSTITUTES FOR
RESEARCH AND
HEALTHCARE



128 COMMUNITY
HOUSES FOR
DEHOSPITALIZATION

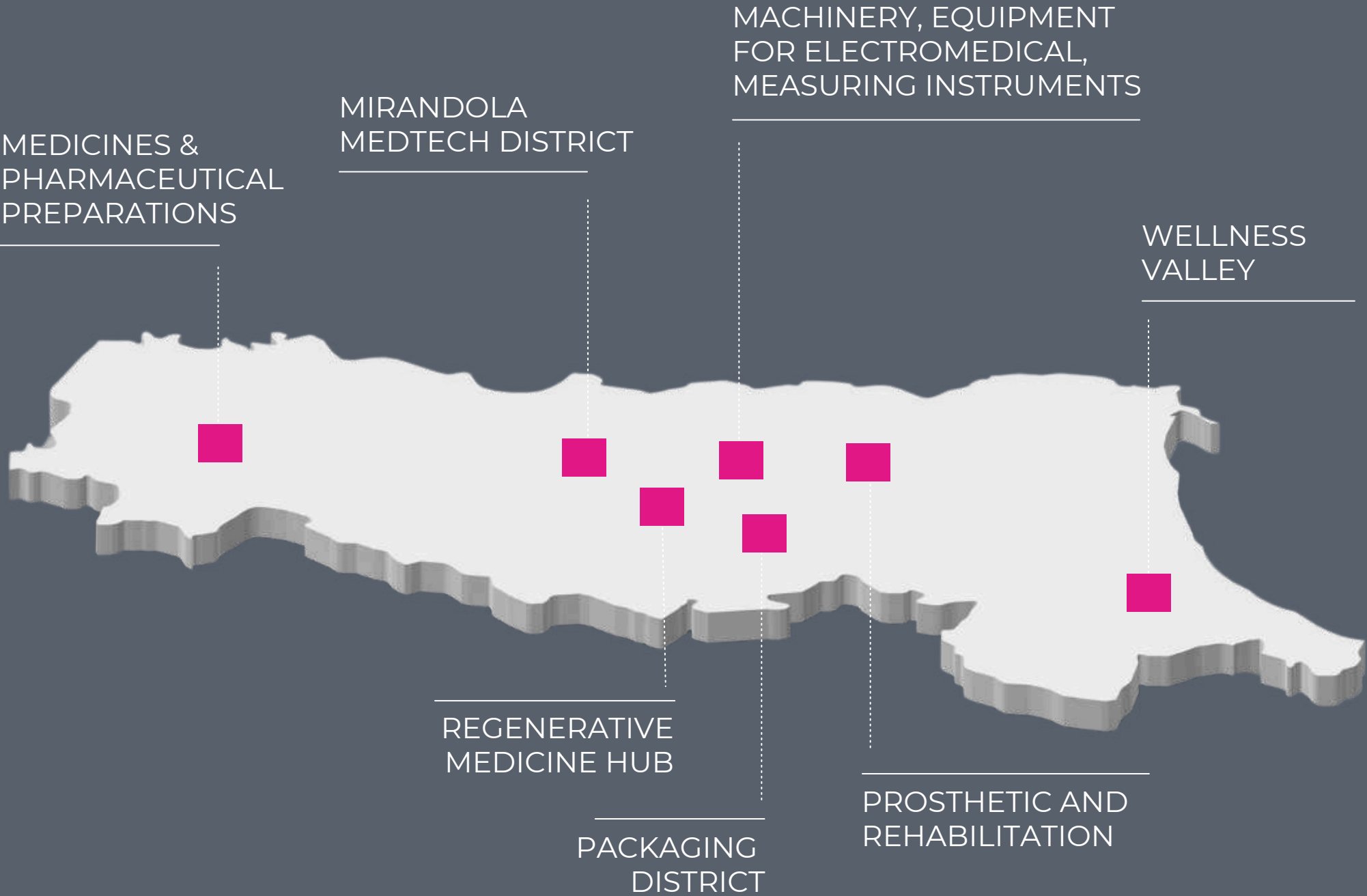
36 ASP - SOCIAL
SERVICES
TERRITORIAL UNITS

Best Specialized Hospitals 2023 (Newsweek)



2nd European Orthopedics Hospital - ISTITUTO ORTOPEDICO RIZZOLI (Bologna) - 1st in Italy/8th worldwide
6th European Cardiosurgery Hospital - POLICLINICO SANT'ORSOLA (Bologna) - 2nd in Italy/22nd worldwide
19th European Gastroenterology Hospital - POLICLINICO SANT'ORSOLA (Bologna) - 5th in Italy/50th worldwide

INDUSTRIAL SECTOR



10.7
billions
turnover
2023

33.2
thousand
local units
2023

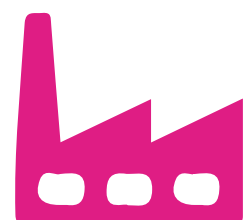
137
thousand
employees
2023

4.48
billions
export
2023

PHARMA, MEDTECH,
PROSTHETICS, WELLNESS



PHARMA & ATMPS



1.4 Billion euros in turnover
More than 5,000 jobs



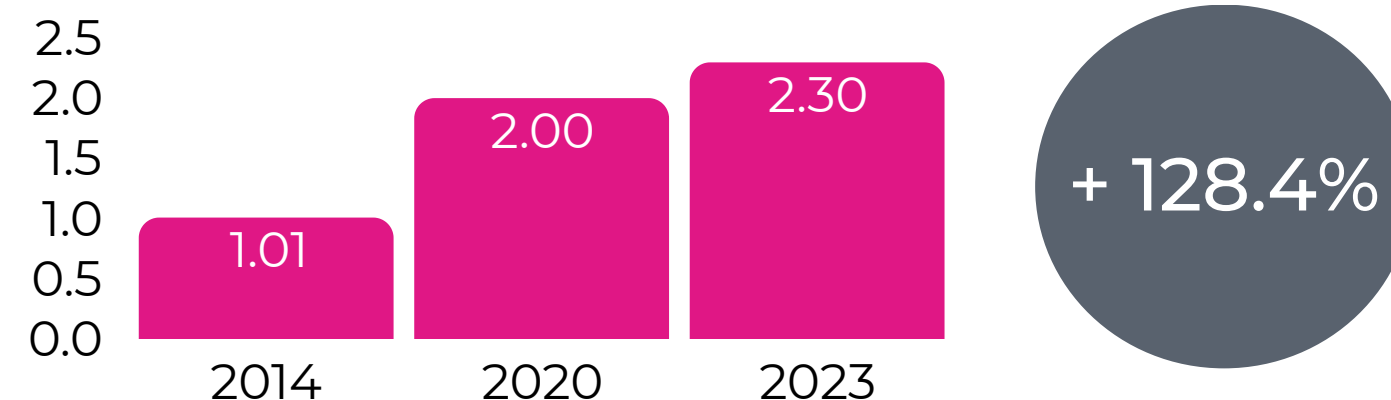
CNR NANOTEC
INSTITUTE OF NANOTECHNOLOGY

ATMPs: University of Bologna ranks 95th worldwide with 1,852 publications



The world's first stem cell-based drug was created by Holostem, a spinoff of Modena University

REGIONAL EXPORT (B€)



KEY PLAYERS WITHIN THE REGION

Chiesi

ALFASIGMA

GSK

Ice
PHARMA

CONTENT
group



evotec

DOPPEL
DMX PHARMA GROUP



Valpharma
GROUP



HOLOSTEM



Miltenyi Biotec



Biofer

LAMP
PHARMACEUTICALS



GPOCRIN

Tecnologie Analitiche Avanzate
AAT
Advanced Analytical Technologies

QUINCE
THERAPEUTICS

ACEF
THE STARTING POINT

FD
FARMA • DERMA

SOL
SOLGROUP

SOL



Ghimas
HEALTH INNOVATION

TYDOCK
PHARMA

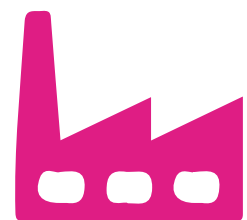
BIO SPHERE
Your biotech partner



BIOGENER



VETERINARY PHARMA



250 million euros in turnover
More than 780 jobs



University of Bologna ranks 85° on 160 with
488 publications



13 production sites for veterinary
pharmaceutical, out of a total of 81 in Italy,
are located in Emilia-Romagna

HEALTH ASSETS IN EMILIA-ROMAGNA by **EY**

GLOBAL TREND

(2020 – 2025)

+ 6 %



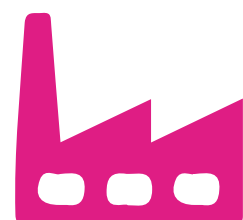
KEY PLAYERS & EXCELLENCES



Istituto Zooprofilattico Sperimentale della
Lombardia e dell'Emilia-Romagna
"B. Ubertini"



NUTRACEUTICALS



Emilia-Romagna is among the regions with a greater number of companies producing nutraceutical products



University of Bologna ranks 32° on 160 with 366 publications



COSMOFARMA[®]
EXHIBITION

HEALTH ASSETS IN EMILIA-ROMAGNA by 

GLOBAL TREND

(2020 – 2025)

+ 7 %



KEY PLAYERS & EXCELLENCES

ALFASIGMA 

 Valpharma
GROUP


Pharma CDMO


FARMAC-ZABBAN


ACEF
THE STARTING POINT


COR.CON. INTERNATIONAL


shedirpharma[®]
FEDELI ALLA SALUTE

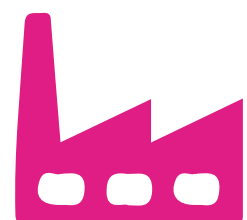
 Nutraceutica

 PharmExtracta[®]





LAB EQUIPMENT & MANUFACTURING



With more than 200 companies focused on packaging, Emilia-Romagna is considered the European Packaging Valley



Specialized University Lab in Parma (CIPACK) and Packaging Observatory from Bologna University



Every year, Parma hosts the International fair for lab equipment



ANALYTICAL INSTRUMENTS

CellPly



MENARINI
silicon biosystems

Stem Sel[®]

callegari
1930



IN2IMILI

CELL
dynamics

ISOLATORS & MANIPULATORS



COMECER GROUP

TEMA
SINERGIE
High tech, high care

PBL
Performing beyond limits

ITECO
ENGINEERING

PACKAGING



bormioli pharma



MARCHESINI
GROUP
PHARMA

IMA
SPA

coesia

FPS
CONTAINMENT | MILLING | MICRONIZATION

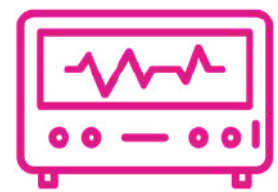
MG2[®]

ENABLE
INNOVATIONS

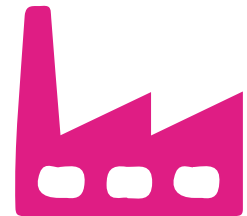


IndustrialPack

GB
GB GNUDI BRUNO spa



BIOMEDICAL TECHNOLOGIES



1.6 billion euros in turnover
More than 10.000 jobs



University of Bologna ranks 86th on
160 with 1,164 publications



In Mirandola is located one of the biggest
Medtech district of the world, with over 100
companies and 5.000 people employed

HEALTH ASSETS IN EMILIA-ROMAGNA by **EY**

GLOBAL TREND

(2020 – 2025)

+ 7 %



KEY PLAYERS & EXCELLENCES

B | BRAUN
SHARING EXPERTISE

Medtronic ***Baxter***


EUROSETS
EVERY LIFE MATTERS


**FRESENIUS
KABI**
caring for life

LivaNova 
Health innovation that matters

GVS
FILTER TECHNOLOGY

 **Elcam
MEDICAL**
Where everything connects

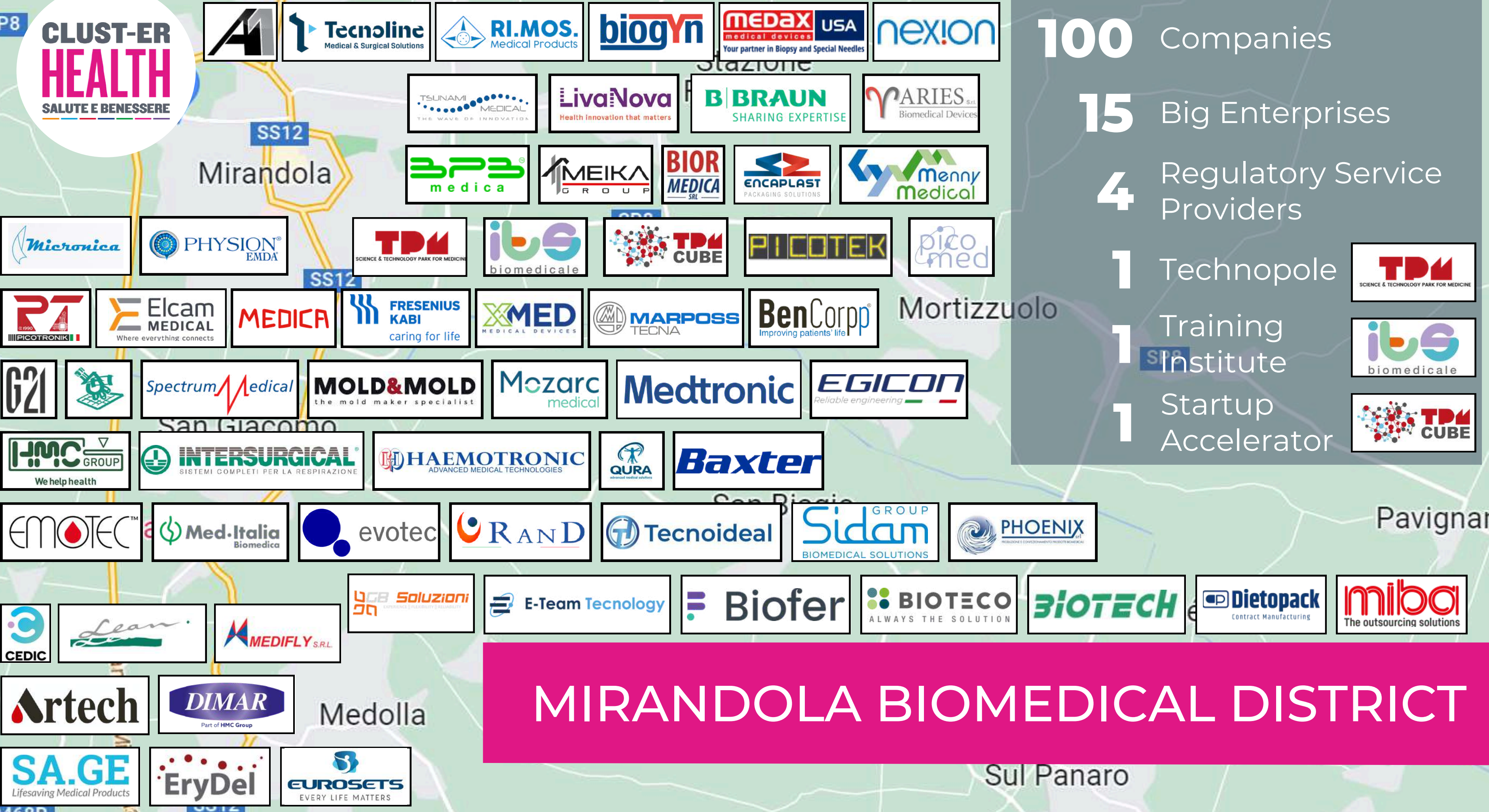
MEDICA

sicare
ENGINEERING
INTERNATIONAL GROUP s.r.l.

TPM
SCIENCE & TECHNOLOGY PARK FOR MEDICINE

teoresi
med tech

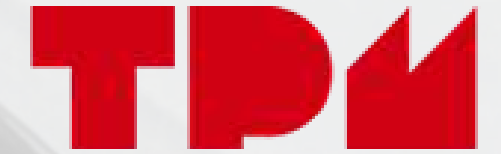
Aferetica
Purification Therapies



SUSTAINABILITY



TERRITORIAL LABORATORY FOR INNOVATION AND SUSTAINABILITY OF THE BIOMEDICAL DISTRICT



SCIENCE & TECHNOLOGY PARK FOR MEDICINE
TECNOPOLO MARIO VERONESI MIRANDOLA



Unione Comuni
Modenesi
Area Nord

GOAL

REPLACING THE USE OF PLASTICS IN MEDICAL DEVICES AND THEIR PACKAGING

Raising awareness of biomedical companies

Starting from the characteristics of the materials used in the district, such as the types of plastic currently in use, with the aim of reducing the ecological impact of hospitals or improving industrial processes.

Creation of networks

Networking through the organization of workshops aimed at studying new biomaterials also in relation to the new MDR 2017/745

Design of new proposals

Interaction with research centres, universities national and non-national, the main interlocutors local, regional and national



The EPIC project, funded under the I3 Instrument, focuses on capacity building within innovation ecosystems, driving the transition to sustainable packaging in the biomedical, pharmaceutical, food, and cosmetics sectors.

THE CONSORTIUM COVERS

5 less developed regions

1 in transition region

3 more developed regions

10 PARTNERS 8 EUROPEAN COUNTRIES



The project seeks to provide a novel and comprehensive solution to the existing and future challenges in the packaging industry



Funded by
the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or EISMEA. Neither the European Union nor the granting authority can be held responsible for them.

DIGITALIZATION



BIG DATA TECHNOPOLE



LEONARDO
SUPER COMPUTER

4th place on world's Top500.org Supercomputers:

- 240 pFlops HPL
- 4992 calculus nodes with liquid cooling
- 111 pByte di storage

The European Data Valley

90% *COMPUTING RESOURCES FOR PUBLIC RESEARCH MANAGED BY BDA MEMBERS*

2.1 *BLN€ OF INVESTMENT*

140 *EUROPEAN FUNDED PROJECTS*

CINECA



Istituto Nazionale di Fisica Nucleare

BigData
associazione
from volume to value

iFAB

ICSC
Centro Nazionale di Ricerca in HPC,
Big Data and Quantum Computing

FOCUS

LIFE SCIENCE & HEALTHCARE
CLIMATE, WEATHER & SUSTAINABILITY
INDUSTRY 4.0
SMART CITIES,
SMART MOBILITY

**EDU &
TRAINING**

Founded by
the European Union

MASTER DEGREES
AI ACADEMY MUNER
PHD COURSES
RESEARCH FELLOWSHIPS BD&AI
DATA LABS

AI & BIG DATA PROJECTS PIPELINE



DIGITAL TWINS

EDITH - European Virtual Human Twin (<https://www.edith-csa.eu/>)
Digital Twin in Orthopedics



IN-SILICO TRIALS & DRUG REPOURPOSING

In Silico World (<https://insilico.world/>)
Exascale4CoV (<https://www.exscalate4cov.eu/>)
REMEDI4ALL (<https://remedi4all.org/>)



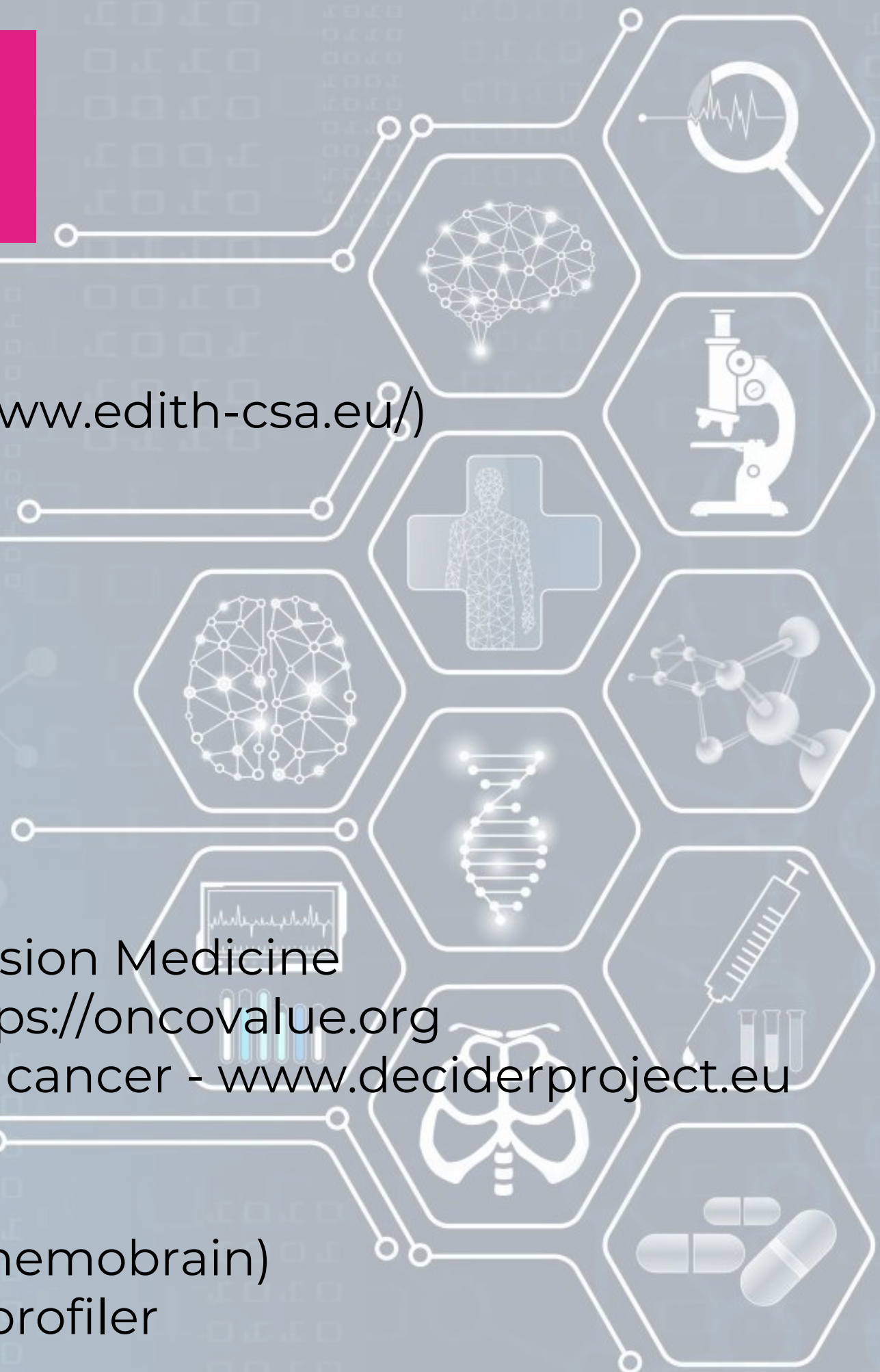
PRESISION MEDICINE

PRECISEU - Regional Innovation Valleys for Precision Medicine
ONCOVALUE - AI for novel cancer therapies - <https://oncovalue.org>
DEDICER - AI-based tools for high-grade ovarian cancer - www.deciderproject.eu



OMICS

AI4CHEMOBRAIN (<http://smartdata.cs.unibo.it/chemobrain>)
IT-TCP-Platform - Italian tumor chemogenomic profiler



TECHNOLOGICAL SUPREMACY



Strategic Technologies for Europe Platform (STEP)

Boosting investment for innovation

STEP OBJECTIVES

- ▶ Support the **development and manufacturing** of critical technologies, safeguarding and strengthening their respective **value chains**
- ▶ Address shortages of **labour and skills**

SECTORS

- **Digital / Deep Innovation Technologies**
- **Clean and resource-efficient technologies**
- **Biotechnologies**

PRESS RELEASE | Mar 4, 2025 | Brussels | 3 min read

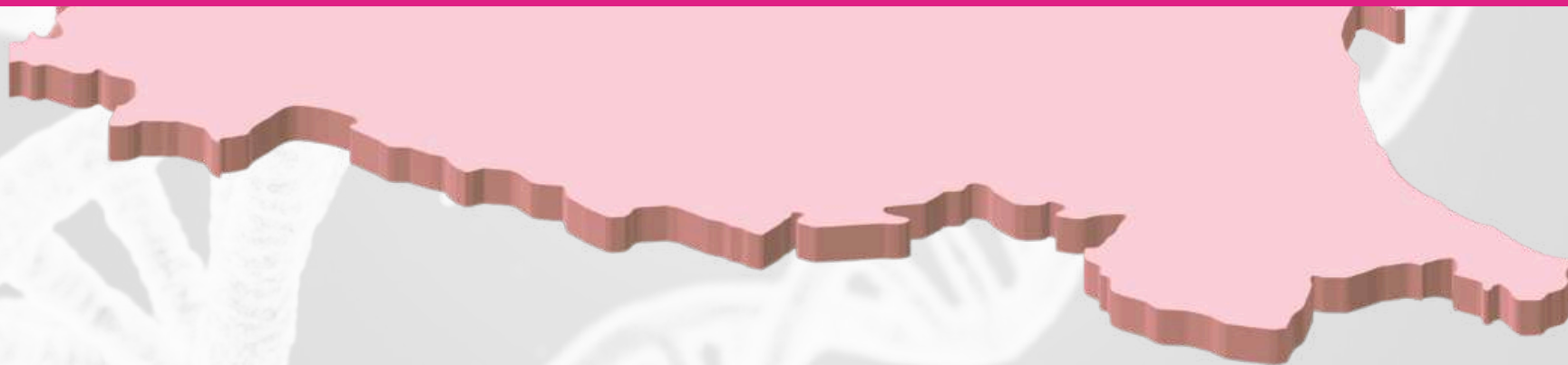
Strategic Technologies for Europe Platform mobilises over €15 billion to boost investments in Europe in its first year.

By providing financial incentives in cohesion policy funds in the form of higher pre-financing and co-financing, Member States are encouraged to reprioritise their programmes. Every 5% of reprogramming towards STEP priorities leads to €18.9 billion of resources made available, in addition to €6 billion to be paid out from the Just Transition Fund. The increase of the ceiling under the RRF to use resources for InvestEU products via its national compartments represents an additional flexibility for Member States of €30 billion potentially available for such sovereignty investments.

Altogether, the total estimated amount of new investments through STEP could reach up to €160 billion.

EMILIA-ROMAGNA BIO HUBS

Empowering regional Life Sciences Ecosystem



Strengthening the Regional Biotech Innovation Backbone



WHY

Enhance existing regional centers of excellence (Technopoles, research centers, IRCCSs)
Build a network of BioHubs with different specializations in biotechnology

Increase regional stakeholders' capacity to develop and submit strategic R&I projects
Contribute to a stronger European ecosystem in biotech, in line with the STEP program

Establish a regional backbone of infrastructures serving as hubs and competence centers
Attract private foreign investments, leveraging Regional Law 14 and European funding (e.g. Horizon Europe, EU4Health)
Expand biotech infrastructures and launch new R&I initiatives



HOW

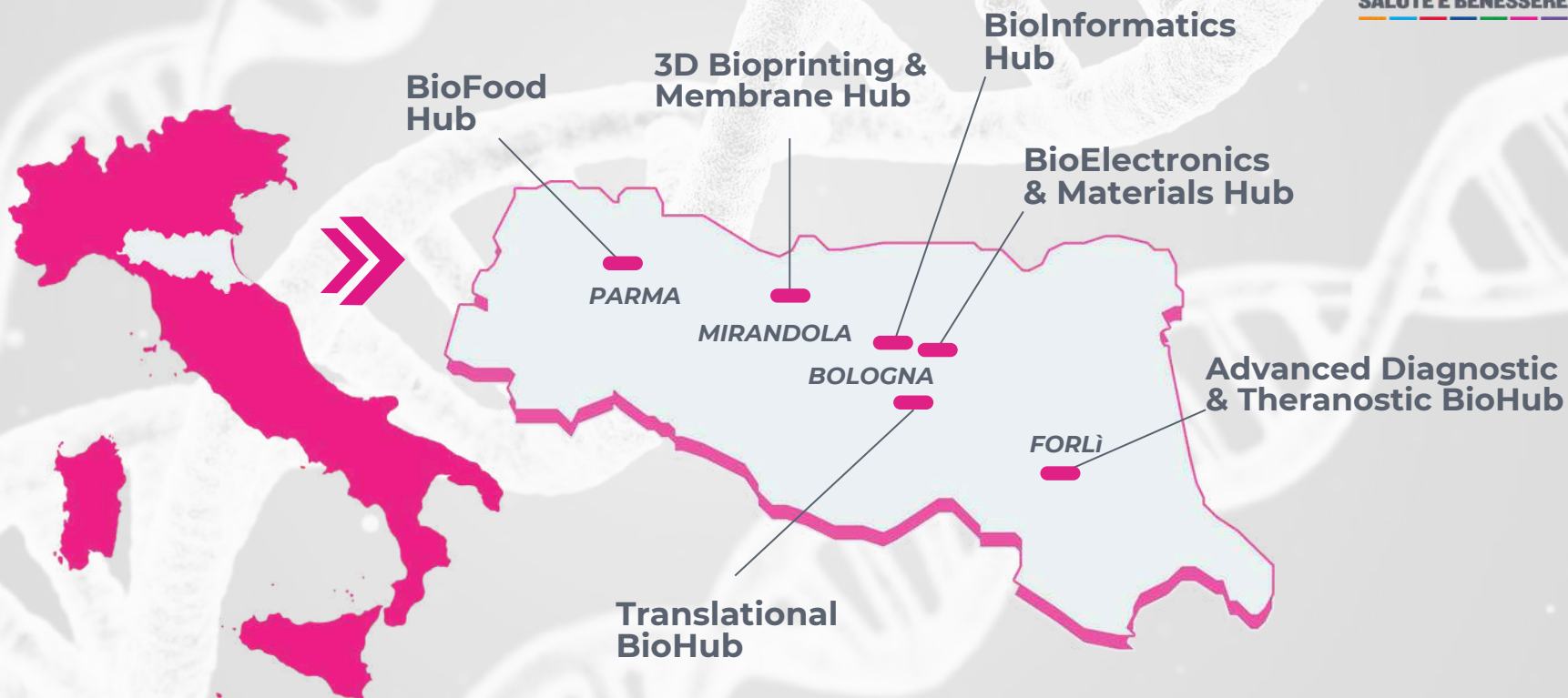
Set up working groups connecting universities, companies, and healthcare institutions
Promote the co-design of collaborative biotech innovation projects

EMILIA-ROMAGNA BIO HUBS

Empowering regional Life Sciences Ecosystem



**CLUST-ER
HEALTH**
SALUTE E BENESSERE



Supporting Innovation & Growth in Biotech

Technology Transfer

- Coordinated support for licensing and commercialization of innovations
- Closer connection between BioHubs and industry, led by Clust-ER Health
- Business development, market access, and commercialization strategies

Public Fundraising

- Guidance for EU calls (e.g. Horizon Europe, EU4Health, Digital Europe)
- Support in proposal writing, partner search, and admin tasks
- Training and workshops to strengthen EU project skills

BioBusiness Capacity Building

- Training & coaching for startups and researchers
- Topics: market strategies, IP, pharma regulation, fundraising
- Mentorship and networking with experts and industry stakeholders

Private Investment Attraction

- Activities to connect BioHubs with investors, VC, and industry
- B2B meetings, investment pitch sessions, support for JV agreements
- Advisory services to improve startup business models and investor readiness

FUNDRAISING



EIC Accelerator - Companies supported in EU funds

European
Innovation
Council



angioidroid

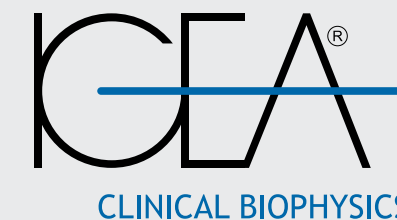
Passive counterpulsation device for the biomechanical adaptation of the insufficient ventricle



Spectral analysis system for the quality and safety assessment of pharmaceutical products

MediCon

Medical device for continuous slow ultrafiltration



Cutting-edge technological medical devices

Aferetica
Purification Therapies

Platform for ex vivo organ perfusion of the liver or kidney



Custom wearable technology for tele-rehabilitation services catering to multiple sclerosis patients.

neupharma

Antibiotic for pneumonia induced by MRSA



Platform for training programs designed to promote health and well-being.

2OmniDermal
intelligence for your health

Device for monitoring voluntary muscle activity

FUNDRAISING & INVESTMENT'S ATTRACTION

INVEST
IN ITALY

ITA
ITALIAN TRADE AGENCY



INVITALIA

madeinitaly.gov.it

CLUST-ER
HEALTH
SALUTE E BENESSERE

INVEST IN LIFE SCIENCES IN EMILIA-ROMAGNA

Pharma, biotech, medical devices, digital health & wellness

Investment opportunities promoted by Clust-ER Health

Brochure to bring members' projects to higher development stage and to establish collaborations



DOWNLOAD NOW

ALS monitoring by eSteps



eSteps is specialized in remote monitoring of multiple sclerosis and other neurodegenerative diseases to improve patient management. The company has developed a high-tech shoe insole connected via Bluetooth to an app that allows patients and their physicians to constantly monitor stability, gait and disease progression, enabling rapid treatment adjustments when indicated.

Field of activity and technology
Remote monitoring, health technology

Development stage
The company, with its headquarters in the United States, is finishing clinical validations to proceed to FDA clearance thereafter.

Capital raised
Is actively fundraising and has already joined two institutional VCs with \$350.000

Requested	1.5 Mln USD
Investment target	Pharma Company, Healthcare VC

WHY INVEST

eSteps is a fast-growing company that collaborates with major advisors who support the work in the field of multiple sclerosis and neurodegenerative diseases. The company is seeking \$1.5 million to clinically validate the service in movement disorder-related diseases and enter the market by the end of 2023.



16

Celector by Stem Sel



Stem Sel® is a spin-off company of the University of Bologna active in the development, production and sale of Celector® - the cell chromatograph.

Field of activity and technology
With Celector®, the cell suspension is separated and collected based exclusively on cellular physical parameters such as size, morphology, density and membrane rigidity. Cells that are not identified by a single marker, or are derived from complex biological samples, can be identified and sorted.
As an example, mesenchymal stem cells can be isolated from fresh bone marrow and immediately used for further purposes without additional manipulation or the senescent cells are depleted from the expanded cell culture of adipose stem cells to obtain the most vital and proliferative cells.

Development stage
MKT growth and GMP compliance.

Requested	2Mln USD
Investment target	Growth/Strategic Corporate Investor

WHY INVEST

Celector® is the only instrument in the world that tag-less analyses and separates living cells exploiting solely their physical characteristics - highlighting even minimal differences: no antibody labeling, as it is necessary with current reference techniques.
Dual features: label-free cell sorting technology and quality control in ATMP production.
Technology and device worldwide are patented. Cells are not manipulated, sterility is kept, and cells can be amplified in a bioreactor for cell production after collection. Celector plays also as a QC system to check the purity and homogeneity of cell products.



8

Lazarus by Omnidermal



Lazarus is the first telerehabilitation solution integrating remote monitoring with a connected stimulation system in one miniaturized device. It's composed by a wearable device enabling remote rehabilitation therapy for patients, through continuous monitoring of muscle response and modulated stimulation of patients' muscles.

Field of activity and technology
Lazarus is an innovative medical device for telerehabilitation, and a potential tool for practitioners working in healthcare. It enables the movement of the healthy subject (e.g., a therapist) to be analyzed by an AI algorithm and then replicated on the patient through FES stimulation, making remote therapy implementation more accurate and effective, thus improving life-quality of patients while lowering costs.

Development stage
Omnidermal developed a first prototype and successfully tested it on a group of patients. Next steps: Multicentric clinical trial and MDR certification

Capital raised: 200.000€

Requested	2.35 Mln USD
Investment target	Healthcare investors, companies active in the field of medical devices for rehabilitation

WHY INVEST

Lazarus can perform real remote rehabilitation without the need for direct contact between therapist and patient. It is also possible to use pre-recorded stimulation patterns previously collected by the therapist. This innovative system will be an important tool for healthcare professionals that will also guarantee continuity of care for all patients. In addition, Lazarus will make rehabilitation therapy more accessible and will allow for a better and faster patient recovery in hospitals, clinics, and nursing homes.



12

HyperTorque by Xenturion



Xenturion Diagnostics srl is a SME dedicated to develop molecular Point Of Care Testing (POCT) diagnostic systems for the detection of pathogens and Anti Microbial Resistance with a One-Health Perspective

Field of activity and technology
Xenturion diagnostic POCTs are based on a:
• isothermal proprietary technology Hyperfluux® for the simultaneously detection of multiple targets (i.e. pathogen + Internal Control in the same reaction) combined with
• easy & quick solution for biological sample preparation Xample-Prep
HyperTorque is designed to significantly reduce the economic impact due to miniaturization and for the fact to be "all in one"; thanks to GPS integration remote monitoring and assistance are possible as well as a prompt communications of positive results to public authority.

Development stage
Hyperfluux technology and Xample prep are currently in use in CE-IVD diagnostics kits thus already on the market (TRL9).
Miniaturized device with special and innovative biosensor is a TRL 4/5
Capital raised: 200.000 €

Requested	1 Mln USD
Investment target	Healthcare VC, Growth/Strategic Corporate Investor, In Vitro Diagnostic Corporation

WHY INVEST

Point of care Testings (POCT) is a part of the «Decentralized Diagnostics» that can be performed bedside to the patient thus directly «on field» permitting prompt diagnosis and consequent timely treatments.
HyperTorque is a project to miniaturize and compact all the instrumentations and equipments needed to perform Xenturion POCT in a single portable device.
The main feature is an Innovative Biosensor affordable in terms of costs effort and with a high sensitivity.



12

INTERNATIONALIZATION





Smart Specialisation Platforms



Wireless ICT



Personalised Medicine



Medical Technology

SMART HEALTH
VANGUARD INITIATIVE



INTERNATIONAL NETWORKS

U.S.A.



**Memorandum of Understanding
with Pennsylvania (2022)**



Innovation Hub in Silicon Valley

Development and internationalization
programs in the Bay Area since 2015

INTERNATIONAL EVENTS

USA 

Europe 

Japan 

Düsseldorf,
Germany 

Dubai,
UAE 



BIO-EUROPE®



Bologna,
Italy 

Rimini,
Italy 

Rimini,
Italy 



RIMINIWELLNESS
THE WELLNESS EXPERIENCE SHOW

ECOMONDO
The green technology expo.



CLUST-ER HEALTH GOES TO U.S.A.



2021 Bridging Innovation Digital Health

Members & companies involved:
Datariver, Burn Down Studio, Theras Group, eSteps, Rejoint, Università di Bologna, IRCCS IRST

Online (focus Boston)



2022 Bridging Innovation Cell & Gene Therapies

Members & companies involved:
Holostem, Comecer, IRCCS IRST, Tecnopolo di Mirandola, Università di Modena e Reggio Emilia

Philadelphia



Memorandum of Understanding
ER-Pennsylvania



2023 Aerospace & Life Sciences

Members & companies involved:
GVM Assistance, IRST
Houston

2023-2024 2025-...

Members involved:
HNP, IRCCS IRST
Boston/ San Diego



2019 Mindset Program in Silicon Valley San Francisco

2019 BIO 2019 Members involved: IRCCS Rizzoli IRCCS IRST Fondazione IRET **Philadelphia**

ROAD TO OSAKA 2025



2019

Covid Pandemic

BioJapan 2019
Y O K O H A M A

IRI 再生医療 JAPAN
Regenerative Medicine Japan



Clust-ER Health @ BioJapan 2019 / Regenerative Medicine Japan, together with IRCCS IRST Hospital

2022

IURC
INTERNATIONAL URBAN AND REGIONAL COOPERATION



**EU-Japan Region-to-Region Innovation Cooperation
Study Visit of the EU Regions to Japanese Prefectures
14-18 November 2022**



2023



Osaka, Japan
**EU-Japan Biotech & Pharma
Partnering Conference 2023**

- June - IURC Project (Japanese delegation in Europe)
- October - BioJapan / Regenerative Medicine Japan
- November - Emilia-Romagna delegation in Japan

2024



Osaka, Japan
**EU-Japan Biotech & Pharma
Partnering Conference 2024**

2025





Clust-ER Health & Wellbeing

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info@health.clust-er.it

www.health.clust-er.it

