

Annual Report of the Clust-ER Health

Year 2022



The Clust-ER Health staff

Sauro Vicini | Clust-ER Manager

Nicole Ticchi | Communication Manager

Clémence Foltz | Project Manager

Fabrizio Conicella | European Affairs Manager

Cecilia Maini | Life Sciences and Health thematic Coordinator - ART-ER



2022 was a year of recovery and of extraordinary intensity. Many of the activities that we had fully converted into digital form in the last two years have returned in person, strengthened by greater use of technology. This has led to a rediscovered spirit of cohesion and pro-activity, fundamental for the growth of our Association

The staff



Associative life and the functioning of the Association

In 2022, the number of members belonging to Clust-ER Health grew by 13, thanks to the adhesion of new companies, startups, hospitals and laboratories, bringing the total number of members to 112.

During 2022, the Clust-ER Health continued to involve its members in ordinary activities, presented in the two general assemblies and in operational activities, also thanks to a greater number of meetings within face-to-face events, made possible with the improvement of the pandemic situation.

The coordination activities by the Executive Board and the representatives of the Value Chains saw a high and active participation, both in the definition of the strategy and in the discussion on how to set up the various activities.

Dialogues also continued within the Value Chains, supported by the intense work carried out in the working groups that were created for the definition of the Action Plan.



The Executive Board



Aldo Tomasi
President
Democenter-SIPE



Roberta Buti
Vice-president
Chiesi Farmaceutici



Paolo Ciampolini
Università degli studi
di Parma



Luca Nicola Ferraro
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Luigi Ricciardiello
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Marco Fadda
Comecer Spa



Pierluigi Mangino
Alfasigma Spa



Massimiliano Malavasi
AIAS Bologna Onlus -
Ausilioteca Living Lab



Carlo Tacconi
mHealth
Technologies Srl

Regional strategic support and systemic actions

During 2022, the Clust-ER carried out an intense work of coordination of the working groups operating on the 11 strategic priorities of the Action Plan (2 included in 2022 to ongoing work). This led to the consequent definition, and in some cases launch, of the projects to be developed in the coming years.

To involve the members, 40 meetings of the working groups were organised, in addition to moments of public discussion, such as on the occasion of the international healthcare exposition Exposanità.

Based on the progress of the work and the degree of maturity reached in the 37 lines of intervention identified, projects were presented in calls (Horizon Europe, I3, PNRR, EURATOM, EIC) for a total of approximately 260 millions € of funding requested.

To monitor the status of projects and identify actions to be taken in the coming years, an index called Project Readiness Level (PRL) was created, on the basis of which the project implementation strategy will be set for the seven-year European programming period 2021-2027.



Strategic priority	Line of intervention	Type of project(s)
1 INNOVATION OF MATERIALS FOR HEALTH	New biomaterials and manufacturing and nanomanufacturing techniques, Functionalisation of biomaterials, Innovative materials for tissue engineering and drug delivery	R&I projects
	Creation of a database for health materials and of a technology transfer hub	Innovation hub - Competence centre
	Advanced training for the development of skills on biomaterials	Training and high skills
2 PRODUCTION AND PRECLINICAL DEVELOPMENT OF NEW DRUGS	Development of pharmaceutical and natural extract-based formulations	R&I projects
	Neurohealth: an innovative and integrated approach to the diagnosis and therapy of neurological diseases	R&I projects
	Regional infrastructure for the development of new radiopharmaceuticals	Infrastructure

Strategic priority

Line of intervention

Type of project(s)

3

DEVELOPMENT AND INDUSTRIALISATION OF MEDICINAL PRODUCTS FOR ADVANCED THERAPIES AND REGENERATIVE MEDICINE

Regional network for advanced therapies and regenerative medicine

Innovation hub -
Competence centre

ATMPs for cell and gene therapies for rare and/or orphan diseases

Policy - New policies

ATMPs for high impact chronic diseases

R&I projects

Innovative strategies for enhancing the "self-repair" of organs and tissues - Reparative medicine for the neurological field: a possible challenge

R&I projects

Innovative 3D cell techniques and systems for diagnostics, drug discovery/repositioning, and chemical screening

R&I projects

The supply chain of advanced therapies: GMP isolators, cold chain, packaging

R&I projects

4

DEVELOPMENT AND VALIDATION OF DRUGS, MEDICAL DEVICES, ELECTRO/BIOMEDICAL INSTRUMENTS AND IN VITRO DIAGNOSTICS

New biological/in silico models for the validation of medical devices and drugs

R&I projects

Development and validation of innovative medical devices

R&I projects

Competence centre for pre-clinical and clinical validation of electromedical devices

Innovation hub -
Competence centre

5

BIG DATA AND ARTIFICIAL INTELLIGENCE FOR HEALTH AND WELLNESS

Interoperable and shared health record

R&I projects

Digital Twin in clinical practice

R&I projects

In Silico Trials for animal experimentation and clinical trials

R&I projects

Data-driven services and digital therapies

R&I projects

Big Data for drug repositioning

Innovation hub -
Competence centre

Enhancement of skills and training courses on Big Data and Artificial Intelligence, usability and human-centered customization of health services

Training and high skills

Center of excellence for modeling and simulation applied to the design of products and production processes

R&I projects



Promotion and development of the Association

45 Information emails

1.5k Followers on 5 social channels

12 New videos on Youtube

20 Live streamings

At the beginning of 2022, information materials were produced to disseminate the Regional Assets of the Health and Wellness Industries, identified over the previous years with the support of the consulting agency EY, and presented in international contexts such as the international exhibition of Dubai.



[Read the brochure](#)



[Watch the video](#)

The internal communication activity, addressed to the members of Clust-ER Health, was carried out through monthly newsletters and *ad hoc* communications aimed at spreading opportunities, funding calls, events and activities of potential interest to all subscribers.

The external communication concerned the dissemination of the activities of the members and of the Clust-ER, including project results, events of interest to national stakeholders, institutional missions carried out by the staff of the Clust-ER and by its members. To increase dissemination also on a national scale, a collaboration has been started with the National Cluster of Life Sciences ALISEI, which every month selects some relevant news and shares them via its newsletter.

The activity on social media has allowed to experiment with different formats for the dissemination of content and the engagement of different types of audience, intercepting both the corporate sector and that of public bodies.

Explore and follow the social channels of Clust-ER Health



Internationalisation

In 2022, internationalisation activities resumed more vigorously also thanks to the improvement in the health situation. This has made it possible to participate in several international fairs and missions, also in synergy with the activity of the regional authority and other regional clusters. Furthermore, thanks to the increase in staff, which saw the arrival of a new figure dedicated to the relationship with the European institutions, the Clust-ER has strengthened the collaboration with the other European clusters active on the same topics.

With a view to making the internationalisation activity more effective, the Clust-ER created a survey aimed at identifying the needs of its members, which was subsequently also taken up by other Italian clusters (Piedmont, Lombardy and Tuscany). According to this data collection, the interest of members is concentrated on the following countries:

- Europe: France, North Europe, Spain and Portugal
- Extra-Europe: USA, Canada, Japan, Middle-East

This analysis constitutes the starting point for the construction of the internationalisation strategy for the coming years and a tool for comparison with other European clusters.

Along this line, the Clust-ER has joined the Council of European Bio Regions (CEBR), the main European network for Life Sciences clusters.

In addition to this, a mission was carried out in the United States, with the President of the Region Stefano Bonaccini to sign an agreement between Emilia-Romagna and the state of Pennsylvania (the so-called Cellycon Valley) with the aim of intensifying collaboration in the field of advanced therapies. The mission saw the participation of members who joined the "Bridging Innovation - Gene and cell therapy" programme promoted by ART-ER during 2022.

Furthermore, to support the international development actions of applied research projects, startups and small businesses, the network of international and national collaborations has been expanded through the signature of three agreements with:

- Bio4Dreams: with the aim of promoting access to capitals both nationally and in the USA
- Enrich USA: for the promotion of research activities and projects in the USA
- iVita: Lithuanian cluster with which it is intended to activate a capacity building programme on the theme of entrepreneurship.

5 International fairs

2 Institutional missions

5 European conferences

9 Members involved in missions

3 Collaboration agreements

The events of the Clust-ER Health

Expo Dubai and Arab Health

The Clust-ER organised a mission to Dubai in the week of 24 January to 1 February 2022, participating in two key events for the sector: Arab Health 2022 and Expo Dubai during the week dedicated to health. Thanks to a dedicated regional funding, the Clust-ER presided over the spaces of the Italian pavilion, supporting the project of the Emilia-Romagna universities on the theme of personalised medicine and promoting the projects funded by the Region in the POR-FESR programme.



[Read the news](#)



[Watch the live on Instagram](#)



[Watch presentations of the POR-FESR projects](#)

Exposanità

The 2022 edition of Exposanità, resumed after a long hiatus from 2018 due to the pandemic, has attracted actors of the healthcare sector from all over the country to Bologna. The Clust-ER Health, in a dedicated space, organised an intense programme of interventions involving its members in workshops focused on the nine strategic priorities initially identified in its Action Plan.



[Read the news](#)



[Watch the playlist of the workshops](#)

Institutional mission in the USA

Clust-ER Health and its partners fully immersed in Philadelphia within the Bridging Innovation programme, organized by the Region and ART-ER in the field of advanced therapies. Representatives of Holostem, Comecer, IRCCS IRST and Stem Sel participated together with the Clust-ER to meet local stakeholders such as incubators, laboratories, companies and universities active in research and in the development of entrepreneurship in the advanced therapy sector.



[Read the news](#)

Sustainable Healthcare

In the context of the visit of the Swedish delegation of the Nordic Center for Sustainable Healthcare and the Swedish Energy Agency, an event on the theme of Sustainable Healthcare was held. It brought together companies producing green solutions in the fields of energy, hospital services, management, waste, medical devices, equipment and interested in collaborating with Italian companies in the sector.



[Read the news](#)



[Watch the recording](#)

European Cluster Conference

As part of the 2-day meeting dedicated to European Clusters, the Clust-ER Manager Sauro Vicini participated along with other regional cluster managers in matchmaking sessions and interventions related to the role of clusters in the innovation process.



[Watch the pictures](#)

BT Expo

BT Expo is the biomedical fair that takes place in Modena in October. Clust-ER Health participated with an exhibition stand and contributed to the realisation of two conferences held on Wednesday 5 October.



[Read the news](#)



[Watch the pictures](#)

Startup Roadshow

Thanks to the precious collaboration with the Rimini Technopole, which participated in the scouting of startups, the Clust-ER Health organised a session for the presentation of projects related to the themes that most distinguish the Romagna area and devoted to wellness, nutraceuticals and sport.



[Read the news](#)

Ecomondo

In line with the activities undertaken in 2022 on the theme of sustainability in the healthcare sector, the Clust-ER participated together with regional and national players in the stand of the Emilia-Romagna Region with a workshop dedicated to solutions for reducing the environmental impact of places and processes responsible for the care of citizens, valorising innovation and the skills necessary to implement it.



[Read the news](#)



[Watch the playlist of the workshops](#)

Institutional mission in Japan

The mission was attended by representatives of the European regions involved in the IURC project (www.iurc.eu), with the participation of representatives of regional governments, development agencies and some thematic clusters in line with the mission's themes. Among the health clusters, in addition to the Clust-ER Health of Emilia-Romagna, we mention BIOCAT, the organisation that coordinates and promotes life sciences and biotechnology in Catalonia.



[Read the news](#)

European and national projects

3 European projects

2 Participation in PNRR projects

10 EIC Accelerator proposals for regional SMEs

In 2022, the Clust-ER became a partner of three European projects, with roles ranging from the involvement of its associates in the definition of specifications and in the validation of support tools for technology transfer, up to the communication and dissemination of project results. The Clust-ER also participated in the writing of two proposals financed by the PNRR.

Thanks to the activities carried out for the definition of the Action Plan, members of the Clust-ER themselves submitted proposals for collaborative projects in national and European programmes, as well as 10 proposals for the EIC Accelerator programme submitted by individual regional SMEs, with other Clust-ER partners involved as suppliers of products, services and technologies.

The European projects awarded in 2022 are:

BIOMATDB

Advanced Database For Biomaterials With Data Analysis And Visualisation Tools Extended By A Marketplace With Digital Advisors

CSA | Coordination Support Action

Duration: 30 months | Start: June 2022

The Clust-ER Health takes care of the collection of information for the construction of the database through questionnaires for various potential users and qualitative interviews with members.

SECURE

Strengthening the European Chain of Supply for next generation medical Radionuclides

EURATOM-RIA | Research & Innovation Action

Duration: 36 months | Start: October 2022

The Clust-ER Health will take care of the diffusion and dissemination of the results. The consortium includes ENEA and IRST-Institute for the study of tumors Dino Amadori.

TCLOCK4AD

Targeting Circadian Clock Dysfunction in Alzheimer's Disease

Marie Skłodowska-Curie Actions (MSCA) - Doctoral Network

Duration: 48 months | Start: March 2023

University of Bologna is coordinator, the Clust-ER is Associated Partner and will support the training phase on the exploitation of results.



[Visit the page dedicated to projects](#)

System actions for human capital, skills and training

Among the activities carried out in 2022, the Clust-ER Health participated, with some of its members, in the focus groups for the realisation of the "Skills Intelligence" tool created by ART-ER, with the aim of identifying skills and competence needs present in the job advertisements of regional companies in the sectors in which the seven regional Clust-ER Associations operate.

The Clust-ER Health then promoted the tool in two important industry events: Exposanità and BT Expo.

The Clust-ER collaborated in the organisation and execution of the Project Work for the students of the Future Earth Research School organised by the Mediterranean Center for Climate Change (CMCC) with the involvement of the Sant'Orsola Hospital within the course "Adaptation and sustainable risk management", with consequent sharing and dissemination of the results at Ecomondo in the pavilion of the Emilia-Romagna Region.

In the context of higher education and skills for the territory, the Clust-ER coordinated and organised the participation of representatives from the ITS New Technologies of Life in the "Recruitment of Talents" workshop within BT Expo 2022, dedicated to biomedical technologies.

In June 2022 the Clust-ER supported the organisation of the mission to the USA with the participation of young researchers and managers of the IRST Institute and of the companies Stem Sel, Holostem and Comecer in the field of advanced therapies.

Finally, the Clust-ER Health contributed to the communication actions for the recruitment of students and companies for the Master in Polymeric materials and products for the biomedical sector, promoted jointly by the University of Bologna and the University of Modena and Reggio Emilia. In this context, a collaboration was also established to involve the companies of the Clust-ER that deal with this theme to update the contents and teachings of the Master, as well as to better respond to the training needs of the students.



[Discover the dashboard
SKILLS INTELLIGENCE](#)



[Visit the website of the
Master in Polymeric materials
for the biomedical sector](#)



[Discover the Future
Earth Research School](#)

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SALUTE E BENESSERE

**Associazione Clust-ER
Industrie della Salute e del Benessere**

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