

**Annual Report
of the Clust-ER Health
Year 2023**





The Clust-ER Health staff

Sauro Vicini | Clust-ER Manager

Nicole Ticchi | Communication Manager

Clémence Foltz | Project Manager

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

Maria Rosa Pettazzoni | Secretary - ART-ER



I have witnessed the evolution of the Clust-ER since its inception and I have had the privilege of acting as its President over the last 3 years.

From the 40 initial members, mainly belonging to the world of laboratories and universities, we have reached 115 members, of which today a significant part comes from the business world. This is a sign that they find added value within the Clust-ER Health that allows them to evolve and achieve useful objectives in their innovation activity.

The European planning activity has grown significantly and we have managed to both participate directly and support our members in the construction of different proposals depending on their profile and type of activity, with important repercussions not only on their structure but on the territory which they operate.

Over time the Clust-ER has grown a lot, a team has been formed thanks to the work of which I have been able to act as President with a real impact, helping to give direction, advice and getting involved myself.

Aldo Tomasi
President
Clust-ER health



Associative life and the functioning of the Association



During 2023, Clust-ER Health was awarded the ESCA Silver Label, which recognises the quality of management at an international level by the European Secretariat for Cluster Analysis. After a thorough analysis of the objectives and targets achieved since 2020, the year in which Clust-ER Health obtained the bronze label, the notable progress made in all the areas examined was recognised.

The Executive Board saw the exit of Board member Marco Fadda and the entry, according to the changes to the regulations approved by the members during the Assembly, of new Board member Ruggero Cadossi. The Executive Board meetings, with Value Chain representatives also in attendance, saw a high and active participation, both for the definition of the strategy and in the discussion of how to set up the various activities. Discussions within the Value Chains also continued, supported by the intense work carried out in the Working Groups created in 2022 for the definition of the Action Plan.

The number of members grew by 8, thanks to the entry of new companies, startups and third sector entities, bringing the total number of members to 115.

During 2023, Clust-ER Health involved its members in numerous activities aimed at presenting project proposals to European calls, internationalisation initiatives and events.

Thanks to the coordination of ART-ER, Clust-ER Health cooperates closely with the other regional Clust-ERs (now 9 in total after the establishment of the 2 new Clust-ERs on the themes of tourism and urban economy) to develop joint actions and optimise the management of activities of common interest (IP Policy, internal training, gender equality, dissemination, events).

The collaboration between the 9 regional Clust-ERs has intensified on various fronts, in order to create transversal interest groups to give rise to new cross-sectoral projects and greater collaboration opportunities.

8 New members

115 Total members

6 Executive Board meetings

2 General Assemblies

The Executive Board



Aldo Tomasi
Tecnopolo di Mirandola
President



Roberta Buti
Chiesi Farmaceutici Spa
Vice-president



Ruggero Cadossi
IGEAM Medical Srl



Paolo Ciampolini
Università degli studi
di Parma



Luca Nicola Ferraro
Università degli studi
di Ferrara



Pierluigi Mangino
Alfasigma Spa



Massimiliano Malvasi
AIAS Bologna Onlus -
Ausilioteca Living Lab



Luigi Ricciardiello
Alma Mater Studiorum -
Università di Bologna



Carlo Tacconi
mHealth
Technologies Srl

European projects: ongoing activities and new projects

SECURE

Within the SECURE project, Clust-ER performs dissemination and awareness activities on what the project has carried out and on the topic of radiopharmaceuticals, which represents a point of strong interest for the Emilia-Romagna Region. With this in mind, an episode of the podcast dedicated to the topic was created, in which our members ENEA and IRST also involved in the SECURE project, intervened to talk about their role and the importance at a strategic level of nuclear medicine and the sustainability of supply chain for the healthcare sector. Furthermore, a meeting was organized on the occasion of BT EXPO which saw the involvement of regional and international actors, including some project partners, to identify further areas of collaboration and co-planning on the topic of nuclear medicine, taking advantage of existing resources on the territory in terms of infrastructure and design.

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BIOMATDB

Clust-ER Health has carried out some activities aimed at identifying the needs of stakeholders involved in research on biomaterials, with targeted interviews and a collection of information useful for the construction of the database and marketplace planned as project outputs. The Clust-ER also participated in the annual project meeting in Barcelona, where updates and critical issues to be resolved were reported. During the meeting, a workshop was held to introduce metadata curation, a process necessary for identifying the key terms for retrieving scientific information in the database. The next months will be dedicated to the implementation of the database and the marketplace and the training for its use, in which the different types of stakeholders who will constitute the future adopters will be involved, also at an Italian level thanks to the Clust-ER's network.

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AMBITIOUS Digital solutions for the 5G era

The AMBITIOUS project began in October 2023, driving European digital innovation for a sustainable future, addressing the challenges of climate change, urbanisation, digitalisation and connectivity. The project is funded within the I3 program of EISMEA and also involves the partner DataRiver and the Clust-ER Innovate, as well as another regional company, a member of Innovate. Focusing on AI, 5G and IoT, the project enables SMEs to compete globally, improve security measures and minimize energy waste. It promotes cross-regional collaboration and growth opportunities for small businesses, while providing testbeds, funding and support for innovation activities. Through technological development and partnerships with large companies and academic institutions, the project accelerates innovation and improves the visibility and integration of SMEs into EU value chains.

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European projects: support for networking and proposal submission

15

Collaborative projects submitted

35












ER members and stakeholders involved

12
























Proposals with Clust-ER as partner

The activity carried out in 2022 for the production of an action plan and the identification of strategic priorities and lines of intervention on which to build the innovation activities of the regional ecosystem, has triggered a virtuous mechanism of co-design in which the Clust-ER Health has been able to participate in research and innovation programmes and to support its members in accessing European funding on different topics of interest. In particular, with this type of activity, several small enterprises that had not yet participated in European projects, have been included in networks and partnerships able to enhance the contribution of innovation and create a virtuous process for the growth of the companies themselves.

The collaboration with public and private bodies in the region has also made it possible to act not only on the scientific and technological content for innovative solutions, but also to better explore and focus on the part of services and usability and their impact on the territory. Below are the projects presented during 2023, where Clust-ER had a role of both direct participation and support in the process of designing and creating the consortia. At the beginning of 2024, there is already one funded project, while most of the proposals are still in the evaluation phase.

Programme	Call	Partner ER	Clust-ER role	Budget ER
Interregional Innovation Investments Instrument (I3)	Capacity Building Strand 2b		Partner	161.746,55 €
Interreg VI Italy-Croatia Programme 2021-2027	1st Call for Proposals	 	External support	385.120,00 € 
Horizon Europe	The Silver Deal - Person-centred health and care in European regions	 	Partner	495.000,00 €
Horizon Europe	Specialist Advisory Services to build capacities on innovation procurement	 	Partner	177.500,00 €
Horizon 2020	Pharaon Project Second Open Call	  	Support for dissemination	183.662,00 €

European projects: support for networking and proposal submission

Programme	Call	Partner ER	Clust-ER role	Budget tot.
Interregional Innovation Investments Instrument (I3)	Interregional Innovation Investments Strand 1	     	Partner	8.599.835,03 €
Horizon Europe	Implementing co-funded action plans for connected regional innovation valleys	  	Partner	22.730.100,00 €
COST Actions		 	Partner	n/a
COST Actions		    	Partner	n/a
Horizon Europe	Towards a holistic support to children and adolescents' health and care provisions in an increasingly digital society (2 stage)	 	Partner	10.000.000 €
Horizon Europe	Towards a holistic support to children and adolescents' health and care provisions in an increasingly digital society (2 stage)	 	Partner	8.590.000 €
Horizon Europe	Towards a holistic support to children and adolescents' health and care provisions in an increasingly digital society (2 stage)		Partner	10.000.000 €
Horizon Europe	Towards a holistic support to children and adolescents' health and care provisions in an increasingly digital society (2 stage)	 	Informed, ART-ER management	8.000.000 €
Horizon Europe	Personalised prevention of non-communicable diseases - addressing areas of unmet needs using multiple data sources	  	Partner	10.000.000 €
Horizon Europe	Personalised prevention of non-communicable diseases - addressing areas of unmet needs using multiple data sources		Partner	12.000.000 €



Support for SMEs

In addition to the collaborative projects, thanks to the support of Clust-ER Health, during 2022 and 2023, 10 small and medium-sized enterprises participated in the EIC Accelerator program, which supports the development of new products and expansion into new markets.

Intellectual property protection: the IP Policy path



Clust-ER Health acknowledges that an appropriate management of intellectual and industrial property rights constitutes one of the cornerstones of the processes of collaboration between research and enterprise and of the technological transfer on strategic projects of high impact. The adoption of policies, procedures and tools shared within the association on the subject of IP contributes to generate a climate of mutual trust, improve management and operating processes, facilitate value creation and extraction processes and represent critical success factors for the launch and implementation of R&I projects/initiatives.

The Clust-ER therefore proposed to start a shared discussion path to converge on the definition of Guidelines on intellectual and industrial property, which will be followed, during 2024, by dedicated training actions.

The guidelines (IP Policy) are intended for members of Clust-ER Health and contain the essential principles and codes of conduct to be followed in managing the aspects and implications of intellectual and industrial property in the activities and projects promoted and implemented by the members themselves in the scope of the activities of the Clust-ER.

In this process, 4 focus groups were held in person in which all the regional Clust-ERs were involved and, for each of them, the Clust-ER managers, representatives of the Boards of Directors and some members. Thanks to this collaborative process, guidelines have been drawn up that take into account the needs of the different types of actors who, within the ecosystem, actively collaborate to promote innovation in the different strategic areas.

Clust-ER Health thanks the Councilor Dr. Carlo Tacconi, Dr. Nicola Fazio (Rizzoli Orthopedic Institute), Dr. Sara Bene (IRST), Dr. Silvia Pari (Sant'Orsola Hospital) and Dr. Stefania Bassini (ENEA).

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Download the guidelines (in Italian)

Gender equality for innovation: Clust-ER Health actions and the Gender Equality Plan

The innovation sector, from research to entrepreneurship, has a fundamental role in defining the strategic lines, vision and resources within an ecosystem.

The participation and representation of all people in scientific progress is necessary for there to be a real impact on everyone's lives. The European Commission has introduced, for all public entities, the obligation to draw up an operational plan to promote gender equality in all areas of competence, from working conditions, to research topics, up to training and fight against all forms of discrimination and violence.

Clust-ER Health, as a key player in facilitating innovation processes, considers it is important to adopt this approach not only within its own organisation, but also by promoting gender culture in its membership base. In 2023 it provided its members and stakeholders with a series of recommendations to promote gender equality in the workplace, with useful suggestions and ideas that can be easily applied even in small businesses.

Furthermore, to follow up on this approach and make the objective even more concrete, Clust-ER Health has started to draw up its Gender Equality Plan, which will be finalized during 2024. The most important points of attention will be aimed at training, stimulating the use of the gender dimension within research programs and dissemination within events, as well as the development of communication guidelines towards national and international stakeholders. Among the first measures introduced to implement a concrete change, during the last General Assembly of 2023, the modification of the regulation for the elections of the Executive Board was approved, so that there is a balanced representation of men and women in the top positions involved in the definition of the strategic activities of the Clust-ER.

Clust-ER Health also participates as a stakeholder in the Interreg project DEBUTING, aimed at promoting and sharing measures to encourage gender equality in small and medium-sized European businesses and make it a competitive factor for economic growth and development.

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**Download the document
(in Italian)**



**Read the news about the
DEBUTING project meeting**

Dieci raccomandazioni utili per promuovere la **gender equality** nell'innovazione e nell'imprenditoria

1 Consapevolezza ed eliminazione dei pregiudizi di genere nell'istruzione e nel business

Sollecitare le Autorità, le associazioni imprenditoriali, i centri di formazione professionale e gli agenti sociali a:

- Fornire **educazione sulla prospettiva di genere** a livello di istruzione primaria e scolastica, rendere visibili le donne leader e lanciare inviti a presentare progetti per identificare i pregiudizi di genere;
- Fornire **formazione continua** per il settore pubblico e privato sulla prospettiva di genere, con relativi certificati e benefit;
- Incoraggiare l'uso generalizzato e istituzionalizzato di un **linguaggio inclusivo** e rivedere il linguaggio e le descrizioni utilizzate nelle offerte di lavoro;

2 Azione decisa con politiche e per applicare la prospettiva di tutte le sfere pubbliche e private

Sollecitare le Autorità, le istituzioni e i soggetti decisionali a:

- Rafforzare la **prospettiva di genere** nel piano regionale, con tempestività, finanziando la prioritizzazione finanziaria, assegnando questo in tutti i dipartimenti della Regione;
- Introdurre **incentivi per le aziende** per parità di genere in tutto il loro organigramma, particolare attenzione alla leadership; possibili sanzioni per il mancato rispetto;
- Rivedere i **criteri per incoraggiare la partecipazione delle donne** nella sfera delle posizioni decisionali.

3 Incoraggiare la presenza di ragazze nelle STEM

Con i Dipartimenti dell'Istruzione, della Ricerca e dell'Università, con il supporto delle associazioni di categoria, dei media, dei comunicatori e degli opinion leader:

- Rafforzare la **formazione e l'istruzione delle nuove generazioni in uguaglianza** con workshop, conferenze e congressi per suscitare la curiosità delle ragazze per le STEM;
- Non avviare un laboratorio o un'attività in ambienti educativi se non ha una **percentuale minima di ragazze**;
- Incoraggiare l'**accesso a una formazione tecnica equa** e rivedere i fattori di uguaglianza negli attuali corsi di formazione regolamentati.

4 Rimuovere il soffitto di cristallo e ridurre le forbici di genere nei circuiti accademici e di ricerca

Sollecitare le Autorità, le Università e i gli organi di governo delle istituzioni e di ricerca a:

- Rivedere la **valutazione delle competenze e dei risultati**, rivedere i titoli e applicarli se necessario per rafforzare la prospettiva di genere;
- Implementare **quote e meccanismi di discriminazione positiva** nei bandi di finanziamento competitivi;
- Incoraggiare l'**attuazione di efficaci misure di follow-up** in tutte le parti degli organi interni e di governance.

5 Promuovere il ruolo delle donne nei futuri ambienti tecnologici

Sollecitare le Pubbliche Autorità, le imprese e le istituzioni a:

- Introdurre **incentivi aziendali e amministrativi** (es. accreditamenti) per l'incorporazione delle donne nelle aziende deeptech;
- Incoraggiare la **presenza e la voce delle donne** in forum, riunioni, corsi, panel, ecc. dove si discute di tecnologia e innovazione;
- Garantire che gli **eventi organizzati dalle istituzioni pubbliche** non possano svolgersi senza la partecipazione di donne;
- **l'uguaglianza tra le persone che vi partecipano**, e incoraggiare i personaggi pubblici a partecipare a qualsiasi evento privato che non rispetti l'uguaglianza.

Adattato da "La brecha de género al sector de ciencias de la vida i la salut". Biotat, Ottobre 2022

System actions for human capital, skills and training

2023 was the European Year of Skills, proclaimed by the European Union to relaunch the importance of training as a decisive element for seizing the opportunities offered by the green and digital transition.

Clust-ER Health, as an ecosystem actor, stimulates initiatives aimed at identifying training needs and skills that can be functional to advance innovation in the health sector.

In 2023, the Clust-ER continued to support the ongoing system actions at the regional level and deployed the skills and resources of its network to intensify its activity in the field of training.

Skills Intelligence

The Skills Intelligence dashboard has seen an important phase of updating and optimisation, aimed at showing, in interactive mode, data on skills and professional profiles sought by Emilia-Romagna companies operating in the specialization areas of the regional Smart Specialization Strategy.

The objective is to allow in-depth analyzes also to encourage the updating of training courses in line with the real needs of the regional labour market.

The Regional Clust-ERs also participated in this update phase, as happened previously, with a vertical analysis of the various sectors to identify the specific needs in terms of professional figures, skills and level of professionalism required.

The Working Group on Training

To give greater value to initiatives for the growth of skills, with particular reference to the figures already included in the working context, in the sub-sectors in which its members operate, Clust-ER Health has established a dedicated working group, which sees the participation of some member representatives (training managers, HR, ...) who have already carried out an initial survey of training needs. The first mapping activities of the training initiatives already available and which can be shared within the network for usability by members was therefore launched in 2023. The Working Group will also work to identify transversal themes to be proposed both within already existing university training courses, such as degree courses, master's and specializations or ad hoc learning experiences (e.g. summer school).

Open innovation and entrepreneurship

As a subject in close contact with the various innovation actors, Clust-ER Health can act as a point of reference to foster a greater culture of the dynamics that favour the emergence of new ideas and entrepreneurship, especially within the more technical and specialised training courses.

For this reason, as part of the process of revision the level II Master in Materials and processes in the production of devices for the health sector (MABIOMED), promoted by the University of Bologna and of Modena and Reggio-Emilia, a module related to these skills has been included.

In particular, the staff of the Clust-ER itself, with the collaboration of the accelerator Materias, will hold courses related to open innovation, technology transfer and entrepreneurship, giving the opportunity to stimulate new ideas in future professionals of applied research and innovation in the biomedical field.



Discover the dashboard
SKILLS INTELLIGENCE
(in Italian)



Visit the website of the
Master MABIOMED
(in Italian)

Clust-ER Health: the activities of 2023



**CLUST-ER
HEALTH**
SALUTE E BENESSERE

Climate change and health: actions to promote a more sustainable research



Attention to the climate crisis is also progressively increasing in the health and well-being sector, among the last to have been analysed in terms of emissions and environmental impact. Research and innovation, which in this area involve a large quantity of material resources, long and complicated supply chains and a large production of special waste, can be addressed with an approach more oriented towards environmental sustainability, so that these processes do not themselves contribute to the onset of pathologies linked to environmental pollution.

In this perspective, therefore, the Clust-ER continued during 2023, with a further boost from the Emilia-Romagna Region, to create opportunities for discussion and awareness of the actions that can be put in place to reduce the environmental impact in the health sector, starting from the places that represent the heart of the research: the laboratories.

Thanks to the collaboration with My Green Lab and the Green Labs section of the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM), two international organisations that deal with the promotion of sustainability practices in research laboratories, workshops for members and information meetings were organised on several occasions.

Furthermore, thanks to the Territorial Laboratories for innovation and sustainability project led by the Municipalities Union of Modena North Area in collaboration with the Tecnopolo Mario Veronesi, the topic of materials that can be used to reduce the environmental impact in the biomedical sector was addressed. In this context, information events were held, which in particular saw the involvement of the packaging sector, in order to encourage networking and involve the various actors in practical actions and projects shared between different sectors, such as that of mechanics.

A collaboration has been started with Clust-ER Greentech on the topic of Indoor Air Quality, broadening the interest also to health places. In particular, hospitals and some entities that manage patient residences were involved.

At the end of the year, the Clust-ER participated in the presentation event of the Future Earth Research School (FESR), an event of the CMCC with which it carried out activities during 2022 together with the IRCCS Sant'Orsola, held as part of COP28 with the authorities of the Emilia-Romagna Region and the Municipality of Bologna. On this occasion, the commitment of the regional ecosystem towards sustainability actions in the health sector was highlighted.



**Watch the recording at
Ecomondo**

Promotion and development of the Association

91 Events

6 Podcast episodes

48 Information emails

2 International bi-annual newsletters



Fairs & B2B



Member events



Institutional missions



Meetings, workshops, Working Groups

The promotion and communication strategy implemented by the Clust-ER has been strengthened by updating the communication plan, identifying 3 main objectives:

AWARENESS >> Strengthen the Clust-ER's reputation and its role as a player for the regional ecosystem through online and offline activities.
ENGAGEMENT >> Increase the involvement of members, stimulating the sharing of ongoing projects with the cluster and participation in events.
CONSIDERATION >> Strengthen the positioning of the cluster at national and international level.

In 2023, Clust-ER Health therefore further intensified its online and offline presence in order to increase its brand awareness both nationally and internationally. In fact, it participated, organised and co-organised 91 events of different types, with the aim of:

- promoting the dissemination of projects and solutions developed by its members in the field of health and well-being;
- encouraging collaboration for projects in European programs, both with direct involvement and by promoting the participation of its members;
- expanding the network of members and stakeholders and promoting mutual knowledge;
- creating new opportunities for exchange and collaboration between regional and international institutions, in terms of investments, training and scientific research.

Also in 2023, Clust-ER Health maintained its relationship with the National Life Sciences Cluster (ALISEI) and enriched the release of their monthly newsletter, in order to reach a wider audience with key news. It also established its own biannual international newsletter aimed at all European life science clusters and stakeholders met during the events held from 2018 to today.

It also explored new communication formats to tell, through ongoing projects, the strategic lines of innovation born from the design work carried out during 2022.

Health in progress: the podcast of Clust-ER Health



[Listen here](#)



Or scan the QR code

Explore and follow our social networks



Internationalisation

- 5 International fairs
- 2 Institutional missions
- 5 European conferences
- 9 Members involved in missions
- 3 Collaboration agreements



In 2023, thanks to the activity of consolidating relationships with some European and international networks and to the information collected from members with the survey on needs related to internationalisation, the Clust-ER participated in numerous events and initiatives both in Europe and in other foreign countries that are crucial for its strategy. Collaboration within the Council of European BioRegions (CEBR) has also intensified thanks to the entry of the manager Sauro Vicini into the Board and the participation in the monthly working tables dedicated to vertical themes of interest for the activities of the Clust- ER. In October, the two-day meeting of the Vanguard Initiative Smart Health Pilot took place in Bologna, with the participation of numerous European partners.

The Clust-ER participated in the main international trade fairs such as Bio USA, Bio Japan, Bio Europe and Medica and contributed to increasing the international reach of the BT Expo fair by inviting European delegations from regions active on the topic of health and well-being.

The Clust-ER, to strengthen its internationalisation activities, involve members more effectively on different fronts according to needs and present the regional innovation ecosystem in a more coherent manner, has entered into collaboration agreements with some subjects present on the regional and European territory.

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Download the report
(in Italian)

In 2023, two important institutional missions were also carried out with the Presidency of the Emilia-Romagna Region and regional businesses and universities.

In March, in particular, Clust-ER participated together with its member IRST in the mission in Texas dedicated to aerospace and health issues, where it had the opportunity to visit centers of excellence such as the MD Anderson Hospital, the Texas Medical Center and numerous world-class companies.

In November, another large regional delegation carried out a mission to Japan which saw the participation of not only IRST, but also the IRCCS Sant'Orsola. Numerous research centers, hospitals and clusters were visited in the prefectures of Tokyo and Ibaraki and in the cities of Osaka and Kobe. This has allowed to strengthen pre-existing relationships, establish new connections and lay the foundations for future collaborations and exchanges between researchers with a view to higher education, as well as representing an important stage in the path to Expo 2025 to be held in Osaka.

Houston
Aerospace & Life Sciences



[Read the news](#)

Tokyo, Ibaraki, Osaka
Road to Expo Osaka 2025



[Read the news](#)

International fairs and events of Clust-ER Health



Boston, USA



5-8 June



Modena, Italy



3-4 October



**Osaka/Yokohama,
Japan**



10-13 October



Munich, Germany



10-14 October



**Düsseldorf,
Germany**



13-16 November



BIO-EUROPE®



International fairs and events of Clust-ER Health



EUROPEAN CLUSTER EXCHANGE

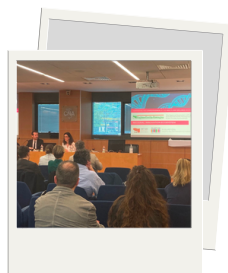


Iasi, Romania



7-9 February

INCOMING DELEGATION HEALTH CANADA



Modena, Italy



31 March

ANNUAL MEETING COUNCIL OF EUROPEAN BIOREGIONS



Stuttgart,
Germany



15-17 May

INCOMING DELEGATION CATALONIA



Bologna, Italy



20-21 June



LIFE SCIENCE BALTICS



Vilnius, Lithuania



26-28 September



VANGUARD INITIATIVE SMART HEALTH PILOT



Bologna, Italy



18-19 October



Associazione
Clust-ER Industrie della Salute e del Benessere

health.clust-er.it

