

# Annual Report of the Clust-ER Health YEAR 2024





## **The Clust-ER Health staff**

Sauro Vicini | Cluster Manager Clémence Foltz | EU Program Manager Nicole Ticchi | Communication Manager Ivan Venza | Project Manager Enrica Lombardo | Project Manager Cecilia Maini | Life Sciences and Health Thematic Coordinator - ART-ER Maria Rosa Pettazzoni | Secretary - ART-ER

Six months gao, a new chapter began for Clust-ER Health, with a clear goal of addressing the challenges of a rapidly evolving industry. The technological organisational and regulatory changes we are experiencing require deep reflection and coordinated action. These months have been characterised by constant attention to building an increasinaly solid network between the public and private sectors; it is a path that requires vision, courage and a strong desire to collaborate. Clust-ER Health represents a unique ecosystem where companies, Scientific Institute for Research. Hospitalisation and Healthcare (IRCCS), universities and research centers work together with a multi-stakeholder approach. It is this diversity that makes our cluster a powerful tool to tackle the areat challenges of our time: from digital transformation to personalised medicine. from the sustainability of healthcare systems to patient centricity. Over the past six months we have worked to consolidate our identity and strengthen the dialogue with institutions, international partners and all the actors of the health system. We have participated in round tables, promoted research and innovation projects, and fostered moments of exchange at national and international level.

The path is not without obstacles, but every challenge represents an opportunity for growth. We look to the future with the ambition of building a more resilient, innovative and inclusive ecosystem, capable of responding effectively to the needs of citizens and of enhancing the talent and skills present in our territory.

This annual report is a review of the activities carried out and a dynamic snapshot of a system in motion, where each project, each partnership and each result achieved are pieces of a larger mosaic. The journey continues, with the awareness that the value of our work lies in the ability to transform ideas into concrete solutions for people's health and for the sustainable development of our sector.

Paolo Bonaretti President Clust-ER Health

# Associative life and the functioning of the Association







During 2024, the Clust-ER pursued its objectives defined in agreement with its members, in line with the operational strategy of both internal and external growth. The activities also made it possible to comply with the management standards of the European Cluster Label, which Clust-ER Health obtained in 2023 with the Silver level.

The number of members increased by seven, thanks to the entry of new companies, startups, third sector organisations, bringing the total number of members to 118. During 2024, Clust-ER Health involved its members in

numerous activities aimed at submitting project proposals on European calls, international initiatives and events. The collaboration between the 9 regional Clust-ERs intensified on several fronts, in order to create cross-sectoral interest groups to give rise to new cross-sectoral projects and greater opportunities for cooperation.

The year 2024 also marked the end of Prof. Aldo Tomasi 's term of Presidency and the Board of Directors he has led since 2021, which represented and will continue to be a key point of reference for innovation in the biomedical sector.

During this year, elections for the new Board of Directors were held, with a voting method that was modified and agreed upon during the last Assembly of 2023 and aimed at increasing gender parity in decision-making positions. The positions of President and Vice-President were assigned to Dr. Paolo Bonaretti, representative of Holostem S.r.l., and Dr. Milena Fini, Scientific Director of the IRCCS Istituto Ortopedico Rizzoli, respectively. This event marks the beginning of a new three-year period full of challenges and opportunities for the association.

Among the main objectives that the Board has committed to achieving are the strengthening of synergies between the various players in the health and wellness sector, the promotion of advanced research projects and the increase of training and professional development opportunities for the association's members.

One of the first tasks was the revision and reorganisation of the Value Chains, which were dedicated to topics more consistent with the regional and international strategy of Clust-ER Health.

### **The Board of Directors**



Paolo Bonaretti Holostem srl President

Milena Fini Istituto Ortopedico Rizzoli Vice President



Zzoli Encaplast Spa



Fabrizio Conicella Chiesi Farmaceutici Spa



**Susanna Esposito** COMT | Università di Parma



**Silvia Fantozzi** CIRI SdV | Università di Bologna



Virginia Giovani

Advenias srl



 Massimiliano Malavasi
 Marco Seri

 AIAS Bologna Onlus IRCCS AOU Bologna

 Ausilioteca Living Lab
 Policlinico Sant'Orsola

# Associative life and the functioning of the Association

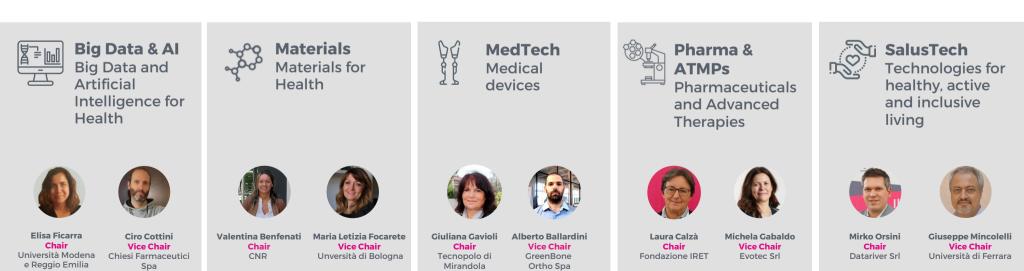


5 Value Chains10 Chairs and Vice Chairs During the last assembly of 2024, the Clust-ER proposed an important change to its organisation, aimed at reviewing the Value Chains (VC), so that they are more representative of the members who joined in recent years and can represent a strategic and visionary support for the newly elected Board of Directors.

The new Chairs and Vice Chairs had the opportunity to share their ideas on priority issues and future programmes, outlining visions oriented towards growth and innovation. They will coordinate the VC activities, monitor progress and represent the cluster as "Ambassadors" at national and international events. In this sense, the amendments to the regulation governing Value Chain activities were discussed and approved, which came into force on 1 January 2025. This will make the Value Chains more dynamic, inclusive and focused on the strategic objectives of the cluster, to allow for more effective coordination and a collaborative environment between companies, universities and research centres. The changes also concern the definition of leadership roles and the term of office, set at three years, which ensures stability and coordination with the Board of Directors.

The appointments were made upon proposal of the Board, which is reponsible for promoting a balanced representation between companies, universities and research centres, and were confirmed by the Assembly.

### The new value chains and the people who drive them



#### health.clust-er.it

# Environmental sustainability & innovation: a combination for tomorrow's health







Education Congress







**Read the news** about the Pack to the Future conference

In 2024, Clust-ER Health continued to resolutely pursue its mission of integrating environmental sustainability and innovation following an approach based on the pillars of "One Health", the fight against climate change and the circular economy. This strategic vision recognises that human, animal and environmental health are deeply interconnected and that only through coordinated action is it possible to transform the health sector in the light of sustainability.

ENVIRONMENTAL

SOCIAL

Every project, event or activity carried out in collaboration with local stakeholders and promoted by the Clust-ER is based on these principles, with the aim of rethinking production chains and research processes to reduce emissions, optimise the use of resources and minimise environmental impact. One of the new European projects in which the Clust-ER participates is based precisely on the principles of sustainability in the packaging sector and on the development of European ecosystems where there are companies operating in this sector.

The fight against climate change is approached not only as an ethical commitment, but as an opportunity to redesign a more resilient healthcare system in harmony with the environment, capable of preventing and mitigating pollution-related diseases.

GOVERNANCE

The Clust-ER constantly promotes moments of discussion between the various actors of the ecosystem, creating a constructive dialogue that unites research, industry, institutions and civil society.

Through networking initiatives, training courses and outreach activities, we work to spread a culture of sustainability that can permeate every area of the healthcare sector. This commitment is not limited to research laboratories, but also involves hospitals, nursing homes and the entire production system related to healthcare, with particular attention to the management of materials, procurement processes and the quality of indoor spaces.

Following the principles of the circular economy, Clust-ER Health promotes the adoption of innovative solutions to reduce waste and improve resource efficiency, stimulating interdisciplinary collaboration between seemingly distant sectors such as biomedical, packaging and mechanical engineering. These synergies represent a concrete response to global challenges, turning sustainability into a driver for development and change.

Thanks to this philosophy, Clust-ER Health stands as a reference point for a future-oriented regional ecosystem, capable of addressing environmental emergencies with an integrated vision and generating a lasting positive impact on health and the environment.

# Promotion, communication and networking



# **Research Retreat: regional excellences in life sciences**





In 2024, a major event was organised with an innovative format.

The Research Retreat, in fact, aims to be a unique platform to share progress and discoveries in the field of biomedical research, from basic and clinical research to new technologies. The event was created to promote networking among those involved in health research and facilitate the emergence of new ideas, stimulating collaboration between institutions and collectively addressing the main challenges of scientific research.

Discover the programme



Watch the video of the Retreat

This event is the result of a collaboration between various participating institutes, including Scientific Institute for Research, Hospitalisation and Healthcare (IRCCS), University Hospitals and centers of the High Technology Network of the Emilia-Romagna region. The aim is to present and compare the best scientific work, promoting the development of new projects and collaborations. The opening round table was an opportunity to reflect on the methods of collaboration and the transversal themes that the regional network may consider to optimise and make research processes more efficient in the future, with the participation of the scientific directors of the research centres and other members of the ecosystem, and followed by a keynote lecture held by Nino Cartabellotta, President of the Gimbe Foundation.

The event programme was divided into ten parallel sessions, with 138 scientific talks, covering a wide range of topics including biomarkers, omics and the microbiome, Artificial Intelligence and Digital Health, cellular and oncological therapies, new therapeutic and surgical strategies, biomaterials and 3D printing, imaging, technology transfer, sustainability and internationalisation, organisational research and infrastructures and methodologies for clinical research.



Browse the Retreat gallery

The event concluded with an award ceremony for 22 young researchers working at the institutions involved, recognising the efforts and innovations that are shaping the future of medicine and health. The event was also attended with great enthusiasm by the regional Councilor for Economic Development and Green Economy <u>Vincenzo Colla</u>, who in his opening remarks reiterated the importance of believing in talent and creating increasingly better conditions so that they can create value and knowledge in the region. A vision shared and supported by the Emilia-Romagna region, which continues to invest resources and commitment to promote excellence in research and knowledge.





**Discover the list of winners** 

# Communication for the promotion of the ecosystem



Events in which the Clust-ER 3 main pillars: participated Posts on social media **3.5K** Followers on social media Podcast episodes Information emails for members and stakeholders International bi-annual newsletters

# Explore and follow our social networks



The promotion and communication strategy implemented by the Clust-ER, strengthened by the update of the two-year communication plan, is based on 3 main pillars:

AWARENESS, ENGAGEMENT and CONSIDERATION.

During 2024, Clust-ER Health consolidated the results achieved in previous years, strengthening brand awareness both nationally and internationally by participating, organising and co-organising 93 events of various types, with the aim of:

- disseminating and enhancing the innovative solutions developed by its members in the health and wellness sector, promoting a culture of knowledge sharing through targeted communication activities and scientific and technological dissemination initiatives.
- actively promoting the participation of members in European programmes, both through direct involvement and by facilitating synergies and strategic partnerships, to maximise the impact of funded projects and strengthen international competitiveness.
- expanding and consolidating the network of members and stakeholders, promoting a dynamic and collaborative network that fosters the creation of new alliances and the exchange of best practices between key players in the sector.
- stimulating the creation of new opportunities for cooperation between regional and international institutions to generate sustainable and lasting impacts.

In 2024, Clust-ER Health maintained its commitment and close collaboration with the ALISEI National Life Sciences Cluster, continuing the path started in 2023. The monthly dissemination of content to the national network of members has been further enhanced to ensure an increasingly broad and effective dissemination of key news, reaching a diversified audience outside the regional context.

In continuity with the 2023 initiatives, the bi-annual international newsletter has been maintained. Ddicated to the European life sciences clusters and stakeholders met during the events organised from 2018 to date, it strengthens the network of international relations.

2024 also saw the experimentation of new communication formats, with the aim of encouraging engagement in events and telling in a more dynamic and engaging way the strategic lines of innovation, which were born from the work started in 2022 and developed through ongoing projects.







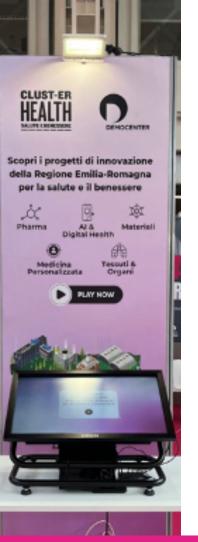
Fairs & B2B

Members' Institutional events missions

Meetings, workshops, working groups

# Educational formats to tell the story of innovation





At Exposanità, the Clust-ER Health stand presented an innovative outreach activity: an interactive video game dedicated to the twelve health projects funded by the Emilia-Romagna region under the ERDF 2021-2027 strategy. Developed in collaboration with Fondazione Democenter, the video game offered participants an immersive and engaging experience, allowing them to explore key themes such as Pharma, AI & Digital Health, Materials, Personalised Medicine, Tissues and Organs.

Through this playful approach, Clust-ER Health has made scientific dissemination more accessible and stimulating, highlighting the concrete impact of research on people's health and promoting new opportunities for collaboration between stakeholders. After the official launch at Exposanità, the video game was made available online, allowing a wider audience to discover regional research excellence in a dynamic and interactive way. It was also used in national and international events and fairs, such as the Research Retreat, R2B, Bio USA, Bio Japan, Bio Europe. The Italian and English versions allow a more engaging audience to learn about regional projects, even from a more heterogeneous point of view of origin. During Exposanità, the dissemination of projects also continued through live streaming. The format "Health in Progress", born as a podcast on Spotify, was physically brought to the fair to tell the objectives, news and impacts of the projects, making them accessible to both the public present and the online audience. This informal sharing space expanded the scope of the event, reaching those who could not attend in person. The interviews, curated by the Clust-ER Health staff, offered valuable insights into key topics in the health sector, creating a virtual bridge between the project leaders and the local scientific and business community.





# **Project activities**



# European projects: networking support and proposals



In 2024, Clust-ER Health continued and consolidated the activity initiated in the previous year, built on the action plan developed in 2022 to identify strategic priorities and lines of intervention aimed at innovation in the regional ecosystem. This approach continued to foster a virtuous co-design mechanism, allowing Clust-ER Health to actively participate in European research and innovation programmes, such as Horizon Europe, I3 and other strategic funding initiatives.

Thanks to this participation, Clust-ER Health has been able to position itself as a key player in European consortia, contributing not only with technical and scientific expertise, but also with a strong capacity to facilitate partnerships in its own ecosystem.

The 13 proposals submitted during the year, across 5 different funding frameworks and 4 different types of actions, were also the result of an intense international networking activity, which saw Clust-ER Health as the protagonist of meetings, events and collaborations with strategic partners at European level. This consolidated network has further strengthened Clust-ER Health's position as a solid and reliable partner, recognised for its ability to generate concrete value within complex international consortia. In particular, the support offered to small and medium-sized enterprises (SMEs) proved crucial. Several entities that had never had direct access to European funding were accompanied in the application process and integrated into high-profile networks and partnerships, thus enhancing their innovative contribution and triggering structured and sustainable growth paths.

At the same time, the collaboration with public and private entities in the area continued successfully, making it possible to not only act on the scientific and technological contents of the proposed solutions, but also to explore, optimise and make the related services more usable, guaranteeing a concrete and lasting impact on the territory.

The synergic approach adopted by Clust-ER Health has allowed to align local skills with international opportunities, building bridges between regional and European innovation ecosystems and ensuring greater visibility and competitiveness of the territory's excellences on European discussion tables.



# European projects: ongoing activities and new projects



# BIOMATDB

The BIOMATDB project aims to develop an Al-powered database and marketplace for biomaterials, facilitating research, collaboration, and commercialisation. In 2024, the project advanced significantly through key activities.

At the Research to Business (R2B) event, Clust-ER Health emphasised the importance of new tools such as the BIOMATDB database to support and promote gender equality in innovation. Clust-ER Health also participated in the final consortium meeting in Vienna, where partners conducted hands-on internal testing of the BIOMATDB <u>database</u> and <u>marketplace</u>, providing valuable feedback for improvement. Clust-ER Health then played a leading role in the launch of external testing, inviting stakeholders to explore the platforms and assess their features.

Through these efforts, the Clust-ER reinforced its commitment to supporting the strategic priority "Innovation of materials for health " as identified by the regional working group for materials.



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## AMBITIOUS Digital solutions for the 5G era

The objective of the AMBITIOUS project is to enhance the competitiveness of European SMEs by advancing data analysis, artificial intelligence, 5G, and the Internet of Things (IoT), while promoting interregional collaboration. In 2024, together with Clust-ER Innovate, Clust-ER Health organised a workshop at Exposanità, focused on the theme of telemedicine, artificial intelligence, and immersive technologies. The event addressed the challenges facing the healthcare ecosystem, with a focus on improving care. connectivity, and digitalisation for the health of individuals. It highlighted how collaborative projects like AMBITIOUS support the development of strategic partnerships, facilitating the adoption of advanced technologies. The Clust-ERs also co-organised the annual project meeting in Bologna, bringing all the European partners together to discuss the integration of their solutions into two key infrsatructures. It was also an important occasion to plan the testing phase and the onboarding of new partners. As leader of the Communication and Dissemination task, Clust-ER Health announced the Open Call to attract 10 new SMEs into the consortium, which will be selected in 2025.



# INNOMEDCATALYST

The InnoMedCatalyst project, which started in October 2024, aims to enhance the regional innovation capacity of precision and personalised medicine ecosystems across Europe, where start-ups, spin-offs, scale-ups, innovators and healthcare providers will increase their capabilities to develop, test and refine digital health solutions as business cases, while simultaneously preparing a set of inter-regional investment projects ready for further investment and exploitation by 2026.

Clust-ER Health is the task leader of the acceleration program to increase the capacity of innovation actors, which will last 24 months and will aim to design and implement a digital precision medicine acceleration program for MedTech companies to strengthen the capacity of digital innovators to develop business ideas. The final goal is to create a sustainable entrepreneurial empowerment program aimed at offering mentoring to advance the most promising digital technologies identified in partner countries.

# EPIC

The EPIC project, which started in December 2024, aims to strengthen innovation ecosystems in less developed regions to promote the transition towards sustainable packaging, in line with the European Green Deal and the New Circular Economy Action Plan. Through interregional collaboration and the involvement of public, private and civil society stakeholders, EPIC intends to create new value chains, improve smart specialisation strategies and foster the adoption of innovative solutions. The project focuses on the reduction of packaging waste, the use of recycled and biodegradable materials, and on supporting SMEs in developing sustainable business cases. EPIC promotes the interconnection between demand and supply of innovation, fostering targeted investments and economic growth in the participating regions.

Clust-ER Health participates by promoting sustainable solutions for biomedical packaging and facilitating innovation through collaboration between industry, research and institutions, with a focus on the biomedical district of Mirandola.



# SECURE

The SECURE project focuses on enhancing the sustainability and safety of medical isotope production for nuclear medicine in Europe, which represents a point of strong interest for the Emilia-Romagna region.

Clust-ER Health participated in two plenary meetings in 2024, in Alkmaar and London. Discussions focused on the development of irradiation targets, production methods, clinical trial guidelines, as well as on new radionuclides, production routes, and their clinical applications. Both meetings were crucial for advancing the project's objectives of sustainable and safe medical isotope production. Within the SECURE project, the Clust-ER takes care of the dissemination and awareness activities of the project's achievements. It promoted a key deliverable led by member IRST, which provides a set of strategic recommendations on clinical applications of alpha particle therapy, ensuring the safe and efficient application of radionuclides in nuclear medicine.



# **ESENBURN COST**

The ESENBURN COST project, which started in October 2024, aims to create a network of experts, burn centres, regulators and research departments to promote the safe and effective use of advanced therapy products (ATMPs) for burn patients. The aim is to collect and organise fragmented knowledge in an information platform, foster collaboration between clinicians, regulators and patient associations to overcome regulatory barriers, and disseminate guidelines and standards for manufacturing and clinical use. In addition, the project will train medical staff and create ethical and regulatory guidelines to ensure safety and efficacy. The aim is to keep the network active and sustainable to support patients, research and the medical community globally.

Italy is represented in the project by Fondazione IRET ETS, which is in the management committee, and by Clust-ER Health, which is active in involving territorial stakeholders.





# **Regional Innovation Valleys and personalised medicine**

# CLUST-ER HEALTH SALUTE E BENESSERE

# **PRECISEU**

The PRECISEU project, part of the European Commission's Horizon Europe programme, started in July 2024 and will address the main challenges defined in the Strategic Research and Innovation Agenda for Personalised Medicine, agreed by the experts of the large European consortium EP Permed.

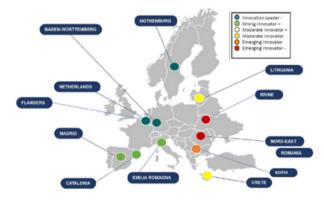
#### The objectives of the project

The overall objective of PRECISEU is to foster the seamless integration of personalised medicine into European healthcare systems. The project aims to achieve this through several key objectives:

- Accelerating the adoption of personalised medicine, reducing fragmentation and inequalities in the EU, facilitating the implementation of advanced technological innovations in various ecosystems with different levels of innovation, resources, strategies and policies.
- Connecting innovation ecosystems, creating networks that link innovation ecosystems across Europe, to advance towards truly personalised healthcare.
- Helping the transfer of practices and solutions between European regions, ensuring that successful innovations in one region can be replicated and adapted in others.
- Supporting technological innovations, regarding the scaling of advanced technological innovations in the healthcare sector, including diagnostics and treatments tailored to the individual needs of patients.

#### **Key Stakeholders & Consorzio**





#### The role of regional actors

Clust-ER Health, one of the main Italian partners of the project, plays a crucial role in connecting the different regional expertise and infrastructures. It will be involved in several work packages, which concern interregional collaboration and partnership building, mapping processes of methodologies used in the field of personalised medicine, the creation of multi-stakeholder infrastructures for access to ATMPs, and the improvement of health data interoperability.

ART-ER will be the main beneficiary of WP4, which focuses on the use of health data.

The Emilia-Romagna region (RER) is involved with two General Directorates within the project: the Innovation in Health and Social Services sector of the General Directorate for Personal Care, Health and Welfare; and the Research, Innovation, Energy and Sustainable Economy sector of the General Directorate for the Economy of Knowledge, Work and Enterprise.



# Regional Innovation Valleys and the value of inter-regional collaborations

The project harnesses the experience and capabilities of a diverse consortium of 25 partners from 12 European regions, 10 European Member States and one associated country (Ukraine). The project will also play a crucial role in supporting policy and decision-making processes by developing guidelines and models for the adoption of personalised medicine. This includes reimbursement models and strategies to integrate personalised medicine into national healthcare systems.

PRECISEU has secured a budget of almost €23 million for a duration of five years, starting on 1 July 2024 and running until 30 June 2029. This significant investment underlines the EU's commitment to fostering innovation and addressing critical challenges in personalised medicine. It will fund 4 large interregional consortia to develop research and innovation projects on digital health innovation and advanced therapies.

Also thanks to its participation in this project, the Commission has identified Emilia-Romagna among the <u>151 regions</u> as "Regional Innovation Valleys" (RIVS), under the <u>New European Innovation</u> <u>Agenda (NEIA)</u>. By bringing together a number of regions from across Europe with different levels of innovation and connecting their key innovation actors, RIVs aim to strengthen regional innovation ecosystems, close the innovation divide in Europe and improve Europe's overall innovation performance.





Read the news on Regional Innovation Valleys

# **Regional projects: territorial laboratories**



Projects
 presented and
 funded

FR members and

stakeholders

22

Regional territories involved

involved

The Emilia-Romagna region, with its 2024-2025 call for proposals, is supporting 8 territorial laboratories for innovation and sustainability, in line with the 2030 Agenda and the Pact for Work and Climate. The initiative involves businesses, local authorities, research centres and Clust-ER associations to experiment with innovative solutions in key sectors. The laboratories focus on crucial issues such as personal services (autonomy and telemedicine), sustainable logistics (deliveries in historic centres and drones for medicines), and collaborative corporate welfare. The goal is to create replicable models for more sustainable and inclusive development.

Clust-ER Health actively participates in 3 funded projects with 22 members and regional stakeholders, dealing with innovative solutions for humanitarian logistics, enabling spaces and technologies for the development of autonomy, and innovative solutions for healthcare via telemedicine.

The role of the Clust-ER is twofold: on the one hand, it is to promote the results of the project, on the other hand it is the involvement of businesses and territorial actors by stimulating the adoption of existing technologies but also the emergence of innovative solutions that arise from listening to the needs and challenges expressed at the territorial level.

# DroneCare - Territorial laboratory for innovative humanitarian logistics solutions



Chamber of Commerce of Romagna - Forli-Cesena and Rimini

Clust-ER Mech Clust-ER Health Clust-ER Innovate Centro EN&TECH -Università degli Studi di Modena e Reggio Emilia

# CASA CARE (Enabling Home for the Development of Autonomy in CAlderara di REno)



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## Municipality of Calderara di Reno

Clust-ER Health AIAS Bologna onlus – Unità Operativa Centro WeCareMore Distretto Pianura Ovest dell'Asl di Bologna Laboratorio TekneHub dell'Università degli Studi di Ferrara Tele Community Lab - Innovative solutions for healthcare via telemedicine



#### Municipality of Mirandola

Democenter Clust-ER Health Azienda USL di Modena – Distretto sanitario di Mirandola Unione Comuni Modenesi Area Nord Fondazione ITS Academy Tecnologie della Vita



# Projects for social innovation and inclusion

# CLUST-ER HEALTH SALUTE E BENESSERE

Social innovation and inclusion in the health sector are fundamental levers to address emerging challenges and improve people's quality of life. In a context where health needs are becoming increasingly complex and diversified, the adoption of innovative approaches is no longer an option, but a necessity. Social inclusion, combined with the intelligent use of technologies and collaboration between different actors, allows to overcome structural and cultural barriers, ensuring equal access to health services. Participation in funded projects is an opportunity to develop concrete solutions that respond to the needs of increasingly diverse and complex communities. In this context, collaboration between public and private bodies. research centres and associations such as the Clust-FR becomes crucial for experimenting with innovative models. Clust-ER Health has in fact played a key role in supporting the presentation of these innovative project proposals together with the Fondazione Maratona Alzheimer ETS, actively contributing to their success and the subsequent implementation phase.

The active involvement of patient associations, which represent a valuable interlocutor for health innovation actors in accordance with the quadruple helix model, is an added value in the construction of projects of this type. Initiatives have thus been born that promote new approaches for the inclusion of the most fragile people, offering concrete tools to ensure greater autonomy and support.

The ADRINCLUSIVE project promotes the creation of an innovative, sustainable and inclusive tourism offer in the Adriatic area for people with dementia and people with reduced cognitive abilities and their caregivers, strengthening innovation and technology transfer in order to develop new personalised services and tourism solutions.

Casa Fabbrani, in Mercato Saraceno, was created with the aim of promoting the dissemination of available knowledge on the topic of dementia and encouraging the sharing of the various experiences that arise in the contexts of assistance and care. The Centre will be a place for collecting and disseminating information for greater awareness of the disease, with an innovative synthesis approach that combines knowledge, access to sources, research and practice.



## ADRINCLUSIVE

Sustainable tourism offer for equal access and social inclusion of people with dementia

#### **Municipality of Brindisi**

City of Novigrad (Cittanova) – Associated organisation: Parenzo Fondazione Maratona Alzheimer ETS – Associated organisation: Comune di Cesenatico Healthy City Hrvatska Zdravi grad AFAM - Alzheimer Uniti Marche Romagna Tech RERA SD, Public Institution for coordination and development of Split Dalmatia County



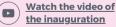
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# Alzheimer Documentation, Study and Research Centre "Giovanni Bissoni"



Fondazione Maratona Alzheimer ETS



# Human capital and training



# Training: promoted and ongoing initiatives

# CLUST-ER HEALTH SALUTE E BENESSERE

During 2024, Clust-ER Health placed particular focus on the development of human capital, promoting advanced training courses to respond to the growing needs of the healthcare and biomedical sector, with the aim of creating a skilled workforce capable of facing the challenges posed by emerging technologies and digital transformations.

#### **ITS and IFTS**

Collaboration with local training institutions, in particular with the ITS of Mirandola and the Fondazione Aldini Valeriani, has been strengthened and has led to the exploration of initiatives with an international vision and scope. In this regard, a noteworthy initiative was the creation of an IFTS (higher technical education and training) course in English, designed to train technicians specialised in the installation and maintenance of medical devices with advanced software. The choice of English as the teaching language not only facilitates the participation of international students, but also positions the course in a global context, responding to the needs of an increasingly international labour market.





#### **University Masters**

A highlight of the 2024 training initiatives was the eighth edition of the Master in Materials and Processes in the Production of Devices for the Health Sector (MaBioMed). Promoted by the University of Bologna and the University of Modena and Reggio Emilia, this programme focused on advanced materials for the biomedical sector, responding to the growing demand for specialised skills in the sector. The Master course saw the participation of the Clust-ER staff with a module dedicated to open innovation and entrepreneurship, with the collaboration of the accelerator Materias. Similarly, the Master in Artificial Intelligence and Telemedicine (ARTE) at the University of Parma represented an example of multidisciplinary training, addressing crucial issues such as the use of AI in the healthcare sector and the adoption of telemedicine solutions to improve access to healthcare services.

During 2025, the Master in Scientific Communication at the University of Parma will also host presentations from Clust-ER Health on health communication in the field of regional innovation.

#### **Higher education**

The DIGItal Technology and Telemedicine for healthCARE (DIGICARE) project, funded by the European Social Fund, entails the creation of four seasonal schools of advanced training distributed among the main universities of the Emilia-Romagna region, and involves both Clust-ER Health and the Italian Telemedicine Society (SIT).

The schools are:

- Spring School University of Parma: Telemedicine, Digital Health and Personalised Medicine
- Summer School University of Modena and Reggio Emilia: Big Data and Artificial Intelligence for Personalised Medicine
- Autumn School University of Bologna: Certifications and Regulations for Personalised Medicine
- Winter School University of Ferrara: Immersive Medical and Surgical Robotics The project involves professionals, students and stakeholders, offering high-level training courses with an interdisciplinary approach.



# Skills: Actions to map and modernise them

# CLUST-ER HEALTH SALUTE E BENESSERE

#### The Training working group

The Training working group, formed by representatives from a number of public and private members, is responsible for analysing the regional sectoral training context and systematising the strategies that each expresses to respond to the emerging needs for skills in the healthcare, industrial and technological sectors. Through participation in international initiatives such as the Forum on Artificial Intelligence and Erasmus+ projects, the group aims to create synergies between training providers, companies and academic institutions, promoting innovative and multidisciplinary training models. Particular attention is paid to defining the skills needed for the future, both through the creation of summary documents shared with regional institutions and through the implementation of Corporate Academies open to public-private collaboration. In addition, the training courses that universities devote to doctoral students are promoted to bridge the gap in soft skills and enhance their ability to deal with international market dynamics. The group also explores new formats of transversal training events, with a focus on key topics such as sustainability, artificial intelligence and digital skills, in order to ensure constant updating of the professionals involved.

#### **Skills Intelligence**

The Skills Intelligence dashboard has undergone an important updating and optimisation phase on the skills and professional profiles sought by companies in Emilia-Romagna that operate in the areas of specialisation of the regional Smart Specialisation Strategy. The goal is to allow indepth analyses also to promote the updating of training courses in line with the real needs of the regional labour market.

Skills Intelligence contributes to the strengthening of the regional system through the anticipation of highly specialised skills needs represented by 4 macro-activities: the interactive tool, the focus groups, the reports and the support of training institutions.





Discover the SKILLS INTELLIGENCE dashboard A focus group on skills for the biomedical industry was held in 2024, as the technological evolution and emerging needs of the biomedical sector require a constantly updated workforce capable of responding to the challenges of innovation and digitalisation, ensuring global competitiveness and long-term sustainability for the regional ecosystem.

The dedicated working table was attended by subjects from different types of organisations, including universities, ITS (higher technological institutes), industrial management schools and companies. Based on the needs and critical issues identified, a number of interventions were proposed as priorities in the field of digitalisation of cultural heritage were proposed according to orientation, training, matching of job supply and demand, company retention, *etc.* The objective was to comment on the main trends that impact the supply and demand of highly specialised skills, as well as identify the needs of companies with respect to the perimeter of analysis and to collect proposals for

regional system actions in synergy with the objectives of Regional Law 2/2023, to be presented to the Regional Committee for the attraction, retention and valorisation of talents L.R. 2/2023.

# Gender equality for innovation: communication, events and best practices

# CLUST-ER HEALTH SALUTE E BENESSERE

The actions that Clust-ER Health has carried out in the field of gender equality aim to create the conditions for a more careful and modern management of the association itself. Female participation in the new Board of Directors, encouraged by Clust-ER Health and its members, who approved an *ad hoc* measure to promote greater equity in gender representation within decision-making bodies, has resulted in the presence of 5 women out of 9 directors, ensuring more equal representation.

In addition to this, the association is committed to promoting gender equity not only internally, but also in its actions on the regional and European territory, through awareness-raising events, research and strategic collaborations. The promotion of gender equity will be a fundamental lever to fuel innovation and ensure a more inclusive and fair future for all people.

The amendment to the regulation for the elections of the Board of Directors and the subsequent implementation process have been identified as good practice at the level of European regions within the Interreg DEBUTING project. Within the plan for the promotion of gender equality that Clust-ER Health has developed, there are a number of actions aimed at implementing this objective in various activities that are carried out on a daily basis.

Clust-ER Health, in collaboration with ART-ER, developed the Guidelines for Inclusive Communication, a crucial step to build an innovation ecosystem capable of giving voice to all people. This document is based on an intersectional vision that recognises and values the richness of human experiences, promoting a culture of diversity that not only reflects the values of equity, but also stimulates innovative solutions in the field of health and technology.

In the healthcare ecosystem, the ability to understand and respond to the needs of an increasingly diverse society represents a competitive advantage. The Guidelines for Inclusive Communication are a practical tool for those who wish to make their communication more respectful and representative. Organised into three main chapters, they provide clear guidance on language, images and events, with recommendations and reading suggestions.





<u>Read the news about the good</u> practice of the DEBUTING project



**Download the guidelines** 

# Internationalisation





7	International fairs
2	Institutional missions
6	European conferences
9	Members involved in missions



# Download the brochure Investments opportunities

In 2024, Clust-ER Health pursued an ambitious internationalisation plan, strengthening the positioning of Emilia-Romagna as a center of excellence for research and innovation in the health and biomedical fields. Through intense networking activities, participation in global events and the development of strategic partnerships, the cluster consolidated its presence in European and international markets, opening up new opportunities for local businesses and research institutions.

In Europe, Clust-ER has carried out several initiatives to strengthen collaborations and promote innovation for health. It took part in the European Cluster Conference in Brussels and the final conference of MEDIC NEST, the European alliance for innovation in precision medicine; formalised its membership and launched the InnoMedCatalyst project; and contributed to initiatives that look to the extra-European context such as the project "Accelerating European Ukrainian Clusters Partnership in Health".

At the annual meeting of the Council of European BioRegions (CEBR), it laid the foundations for the writing of important projects such as PRECISEU and the proposal for the Eurocluster call.

Participation in the meetings of the VI Smart Health Pilot and the S3 MedTech Platform also helped to expand the network with a view to building new projects.

Participation in the BIO Europe fair in Stockholm allowed to strengthen collaborations with key players in the pharmaceutical sector. Outside Europe, in Asia, the Clust-ER took part in a mission to South Korea, meeting institutions with which collaboration prospects in research, innovation and the use of big data in healthcare were opened up, also strengthening ties in view of the Osaka 2025 Universal Exposition.

In the United States, the Clust-ER represented Emilia-Romagna at the BIO International Convention in San Diego, the world's largest biotechnology event. There, collaborations with international partners were consolidated, including American clusters (Pennsylvania first and foremost) and those from other continents, opening up new opportunities for collaboration.

In Canada, the Clust-ER participated in the Forum on Artificial Intelligence, with a delegation of regional universities and companies that were the protagonists of various interventions on the activities and projects in progress. In the Middle East, it participated in the Arab Health fair in Dubai, where it organised a networking side event and supported regional companies such as CorCon International, Runner and Sidam. This engagement format was also proposed at Medica, the leading European fair for the biomedical sector, in collaboration with other Italian clusters from the Piedmont and Friuli-Venezia-Giulia regions.

#### **South Korea**

**Life Sciences** 

#### Forum Canada

Artificial Intelligence and Wellbeing







# International events and missions

#### WORLD ENVIRONMENTAL CLUSTERS MEET **EDUCATION CONGRESS** REGIONS

Abu Dhabi

Seoul

**SYSTEM** 

MISSION

**PLENARY MEETING** 

**VI SMART HEALTH** 

**EUROPEAN CLUSTER** 

**CONFERENCE 2024** 

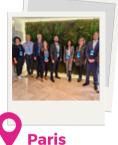
**Brussels** 

**INVESTOR SUMMIT** 

HEALTHTECH

**PARTNERS MEETING** 

**CEBR ANNUAL** 



**S3P MEDTECH & VI SMART PILOT** 





Milan



FORUM CANADA AI WELLBEING

Montreal

**CLUSTERS MEET** REGIONS

Ghent









**S3 CONFERENCE** 

2024





# Road to Japan



2025

2024

2023

2022

2019

Emilia-Romagna Week: Osaka, September 21-27



Osaka June 25-27



Yokohama October 8-10





BioJapan 2023







Over the years, the Clust-ER has established important relationships with Japanese stakeholders thanks to its constant participation in important events such as Bio Japan as well as institutional missions and policies of international vision.

In the year of Expo Osaka, the Clust-ER is preparing to preside over 3 important moments of discussion with Japanese stakeholders:

- Japan Health, Osaka 25-27 June: dedicated to regional biomedical companies, which will be able to exhibit at the first edition of the international exhibition on advanced technologies in the pavilion organised by the Emilia-Romagna Region and ICE.
- Institutional mission to Expo Osaka, from 21 to 27 September: during the week dedicated to Emilia-Romagna, representatives of universities, research centres and companies will accompany the institutions.
- BioJapan, in Yokohama from 8 to 10 October: dedicated to the biotechnology and pharmaceutical sector, where companies and research centres will participate.



health.clust-er.it

# **STEP: future development opportunities**

The Strategic Technologies for Europe Platform (STEP) was created to improve the EU's industrial competitiveness by focusing on the development of technologies that are crucial for a sustainable and competitive future. It therefore tests new strategic measures and strengthens the EU's industrial policy.

## Clust-ER Health. thanks to a new regional call. will involve its members and promote the development of projects eligible for the European STEP calls. on biotechnology and on cross-cluster collaboration themes

STEP focuses on projects in the development and production phases in three sectors relevant to the green and digital transitions:

# **Tools available**

calls

**CLUST-ER** 

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Visit the site and receive

updates

and deeptech

innovation

**Certifications** for high quality projects and support in accessing funding

Portal to consolidate access to funding opportunities

Support desk for questions, requests for industry and institutions



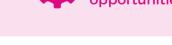














## **Contact us for ideas and** project proposals





Clean and resourceefficient technologies



**Biotechnology** 

technologies, as well as safequarding and strenathening their



# **Together to innovate health**

# Collaborate

Actively participate in new projects and co-design initiatives to strengthen your institution's positioning in European networks and contribute to the development of innovative solutions.



Expand your network by participating in thematic events and meetings organised by the Clust-ER, creating new synergies with local and international strategic partners.



Take advantage of opportunities to develop innovative projects and enhance your organisation's technological contribution to the health and wellness landscape.





# Associazione Clust-ER Industrie della Salute e del Benessere

<u>health.clust-er.it</u>

