

Life Sciences Hub



ASSOLOMBARDA

Lombardia and Life Sciences. Our plan for the future



ASSOLOMBARDA

1. THE VALUE OF AN INTEGRATED SECTOR

Lombardia and Milano are the heart of **Life Sciences**¹ in Italy, thanks to an interconnected ecosystem of companies and public and private organizations. Considering both its direct and indirect contributions, the added value of the Life Sciences sector represents 10% of the GDP in Italy. Furthermore, nationally, the sector has about **1.75 million employees**, of whom 25% are in Lombardia.

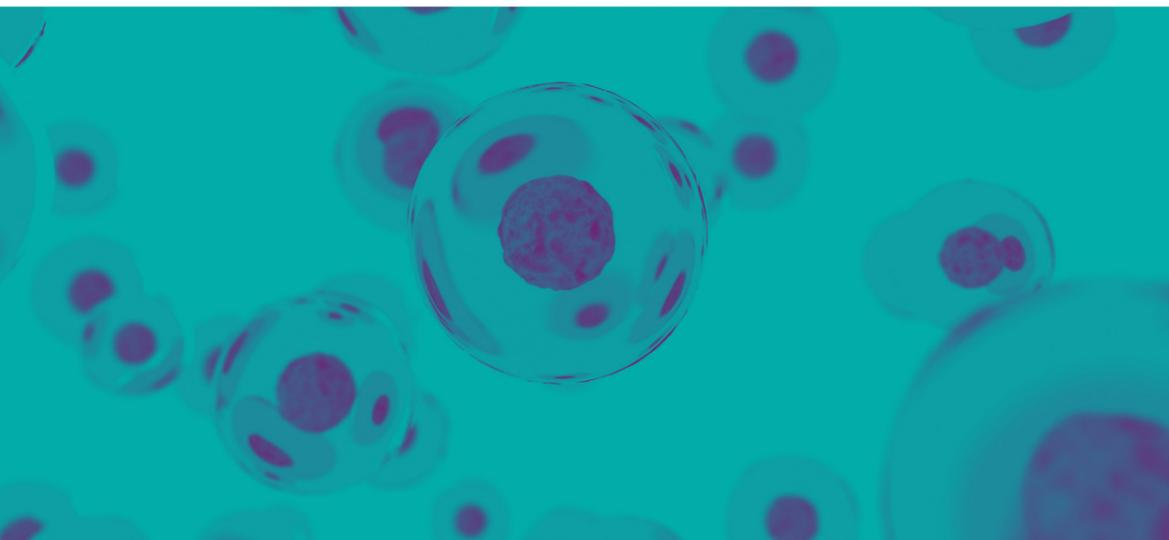
2. LOMBARDIA, EXCELLENCE IN RESEARCH

Lombardia has a high concentration of innovative specialized health facilities and numerous organizations active on the research front.

The Lombardia Regional Healthcare System (RHS) is based on a network of **over 200 public and private health facilities** (which together provide 37,000 beds to citizens), including:

- **30 large public and private hospitals**, of which 12 are emergency care centers that also provide services for foreign patients;
- **2 medical centers** devoted to the expat community living in Milano;
- **19 Clinical Care and Research Institutes (IRCCS)**, constituting 37% of all those in activity in Italy.

The existence of different spheres of excellence has enabled Lombardia Region to specialize in a variety of therapeutic and research areas, becoming an **international reference point in the world of healthcare**.



1 - Assolombarda, *La rilevanza della filiera Life Science in Lombardia: benchmarking tra regioni italiane ed europee*, 2018.

→ **IRCCS. Many areas of high specialization.**

AREA	NUMBER OF IRCCS
CARDIOLOGY	3
ONCOLOGY	2
REHABILITATION	4
NEUROLOGY	3
MOLECULAR MEDICINE	1
PSYCHIATRY	1
RARE DISEASES	1
MUSCULOSKELETAL DISORDERS	1

Genetics and genomics. Avant-garde therapies

Lombardia is also one of the most advanced regions in **genetics and genomics** (and in red biotechnology in general). This Region has been the cradle of various avant-garde therapies such as the first gene therapy approved in Europe (Strimvelis), the first stem cell-based therapy (Holocar) and the first genomic approach, in Italy, to the development of a vaccine against meningococcus B.

In addition, with regards to genetic therapies, Region of Lombardia is among the main stakeholders of a national project to support the **development of cutting-edge oncology care** using CAR-T technology.

Leader in personalized medicine

Another area of specialization in this Region is **personalized medicine**, in which Lombardia is active through both the **Regional Foundation for Biomedical Research**, and its own political agenda.

The Foundation plays a fundamental role in attracting funding to the territory, highlighting the skills in the Lombardia Life Sciences sector.

This is an operation consistent with the objectives of the three-year strategic program for research, innovation and technology transfer in the Region of Lombardia, adopted in 2019.

Life Sciences: the numbers in Lombardia

SECTOR

Accounts for

12.4% of the Region's GDP

10% of the national GDP

347,380

people employed in Lombardia, **20%** of the national total

EDUCATION

240,000

students in an educational network of

14 Universities of which **7** with medical faculties

7 art Academies

COMPANIES

650 active companies that are members of Assolombarda

The pharmaceutical sector represents **48.5%**

of the value of the national production of the pharmaceutical sector, equivalent to **30.7 bln€**

The healthcare services sector represents **18.3%**

of the value of production of the whole national sector

RESEARCH

6,000 researchers

32 Research centers

19 Clinical Care and Research Institutes

50% of clinical pharmaceutical research is carried in Lombardia

PHARMACEUTICAL INDUSTRY

246 Pharmaceutical companies equivalent to **35%** of the national total

The pharmaceutical sector's investment in R&D is about

440 mln€ equivalent to **27%** of the national total

66 biopharmaceutical companies

12 Biotech production plants

More than

28.800

people employed: **43%** of the national total

Lombardia's pharmaceutical industry exports generate

27% for a value of **6,9 bln€**

2.1 bln€

turnover from the Contract Development and Manufacturing Organization (CDMO) sector

MEDICAL DEVICES INDUSTRY

1.213 companies working in the medical devices industry, which employ more than **24,200** people, equivalent to **32%** of the national total

The Industry's exports account for **28.2%** of the national total equivalent to **1.44 bln€**

3. AN INTERNATIONALLY RECOGNIZED EDUCATIONAL SYSTEM

Lombardia's specialization in Life Sciences is also supported by a globally competitive educational and research system.

A competitiveness guaranteed by the system's ability to develop avant-garde projects. One example is the partnership between Humanitas University and Politecnico di Milano, which together have developed a degree course aimed at training medical personnel highly skilled in the field of biomedical engineering.

→ Lombardia's areas of excellence.

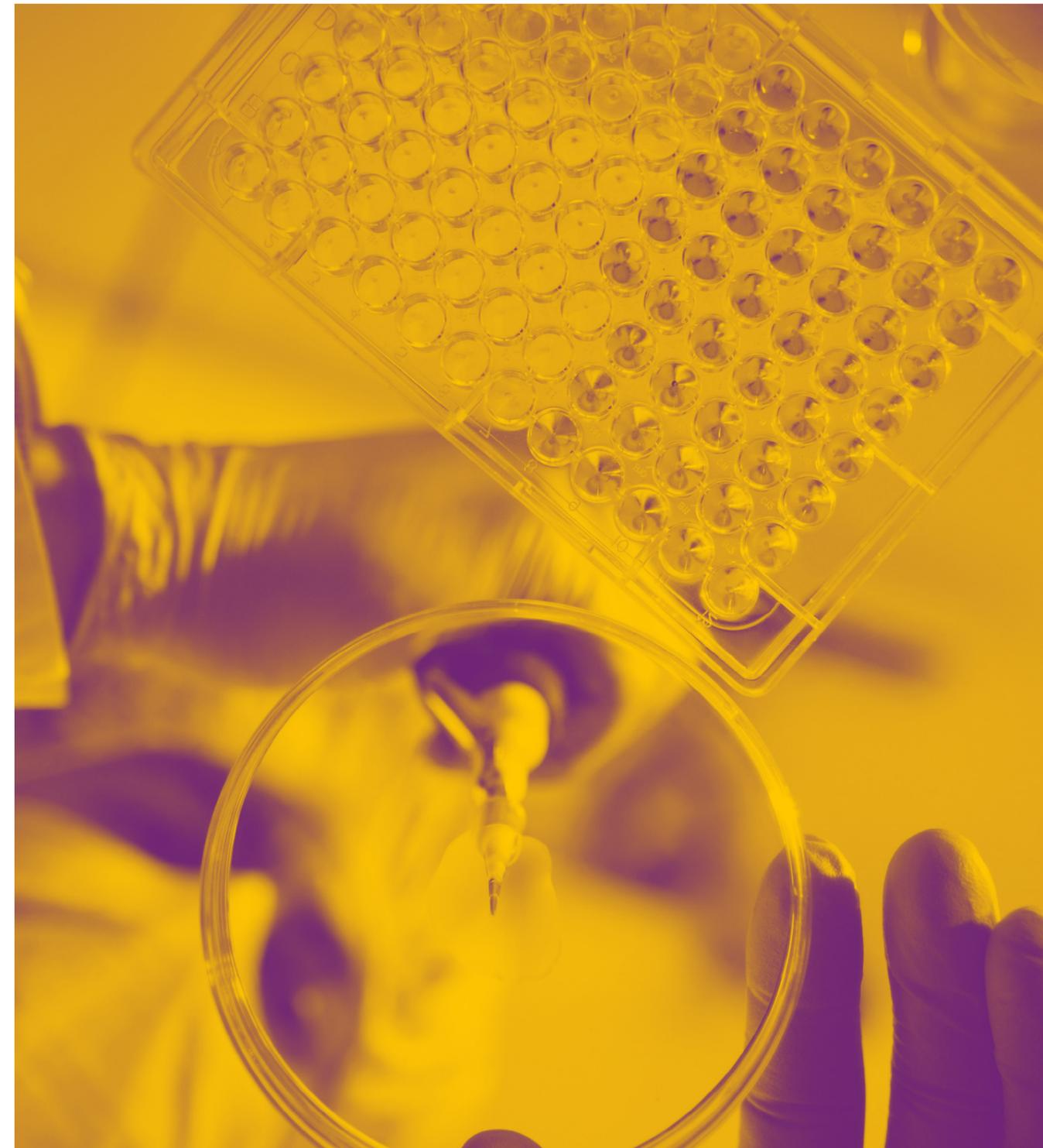
AREA	FACULTY	WORLD RANKING
LIFE SCIENCES AND MEDICINE	Università degli Studi di Milano	74 th
	Università Cattolica	187 th
NATURAL SCIENCES	Politecnico di Milano	124 th
	Università degli Studi di Milano	144 th
MANAGEMENT AND SOCIAL SCIENCES	Università Commerciale Luigi Bocconi	16 th
	Politecnico di Milano	97 th
ENGINEERING AND TECHNOLOGY	Politecnico di Milano	16 th
ARTS AND HUMANISTIC STUDIES	Università degli Studi di Milano	16 th
	Politecnico di Milano	147 th
	Università Cattolica	176 th

Six thousand researchers work in 32 research centers in Lombardia. There are also 240,000 students within an educational network of 14 Universities, 7 of which with medical faculties, and 7 Art Academies.

According to the QS World University Rankings², 45% of students attending a university in Lombardia are in faculties that place the university among the best at an international level³.

2 - Qs World University Rankings, 2019.

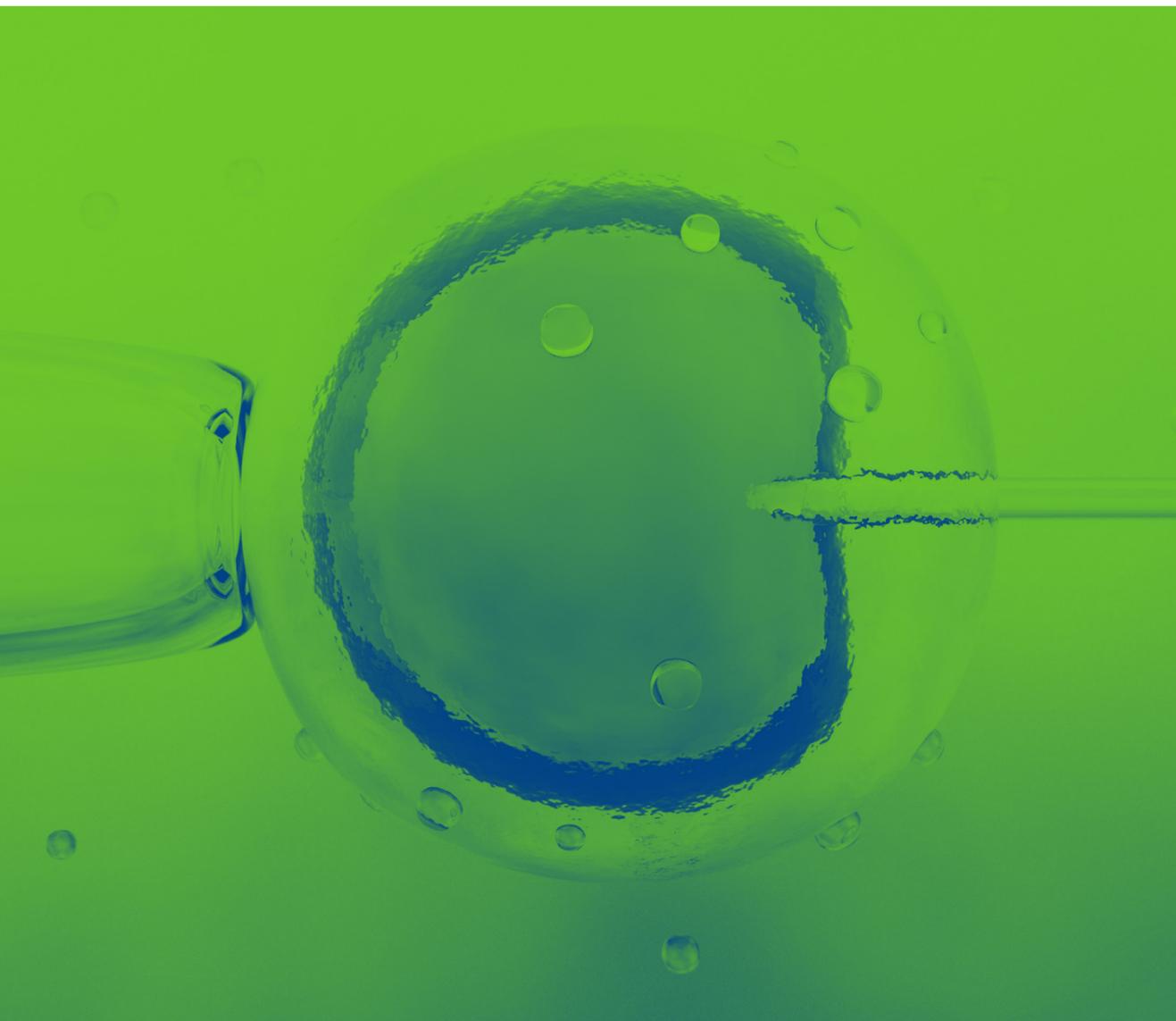
3 - USAT, 2018.



4. TECHNOLOGY AND INNOVATION AT THE SERVICE OF EXPERIMENTATION AND RESEARCH

Thanks to the value of its social and healthcare, educational and university, research and production systems, Lombardia Region is an ecosystem conducive to innovation and research in Life Sciences.

Italy is the third European country for innovative production in the field of **Computer Sciences and Information Systems** (measured by the number of publications and citations⁴) and it is in Lombardia that one of the first **Big Data & Analytics training programs** has been started; both factors that guarantee the skills necessary for the development of digital healthcare, telemedicine, telecare and digital therapies.



With regards to research, according to AIFA data, **more than 50% of the clinical trials carried out in Italy in the pharmacological field are concentrated in Lombardia Region⁵.**

This is thanks to the excellence of Lombardia's healthcare and the national pharmaceutical sector, with Italy being the leading producer of medicines in the European Union (production value of 32.2 billion euros)⁶, and 90% of the employees in the sector being professional university graduates or diploma holders.

5. TWO NEW POLES DEDICATED TO LIFE SCIENCES

A further demonstration of the richness of this ecosystem in Lombardia is the foundation of various poles for research and development in Life Sciences, including: the Milano Innovation District (MIND) and the City of Health.

MIND

MIND is a hub for excellence in the fields of Life Sciences, healthcare, biotech, pharma, agri-food, nutrition, data sciences and big data. It includes:

- the **Human Technopole Foundation**, which in its turn will bring new infrastructures for research in the fields of Life Sciences and big data, specializing in medicine, big data, nanotechnologies and nutrition;
- the **University of Milano**, which will establish a new scientific campus with a capacity for 20,000 people (of whom 18,000 students);
- the **Galeazzi Orthopedic Institute**, first ranking hospital in Italy for number of orthopedic prostheses implanted and top ranking hospital in Lombardia both for number of admissions and number of surgical interventions. This will unite all the structures of the IRCCS in MIND, within a new avant-garde facility.

Città della Salute

The City of Health is a project that will unite **three of the main IRCCS in Lombardia** involved in neurosciences, oncology and molecular medicine, aiming at the development of a research hub.

4 - Shimago Lab, Scopus data (www.scimagojr.com), 2015.

5 - AIFA, *La sperimentazione clinica dei medicinali in Italia. 12° Rapporto nazionale*, 2013.

6 - Farmindustria, *I numeri dell'industria farmaceutica in Italia*, 2019.

6. THE PHARMACEUTICAL INDUSTRY

According to ISTAT data, **246 pharmaceutical companies (35% of the national total)**⁷ operate in Lombardia, contributing to making Lombardia the leading pharmaceutical Region in Italy with **28,852 employees (43% of the national total)** and among the first in Europe.

Lombardia is the **top-ranking Region in Italy for investment in R&D in the pharmaceutical sector, allocating a total of 440 million euros (27% of the national total)**.

Furthermore, the Lombardia pharmaceutical industry produces **27% of the pharmaceuticals exported** from Italy, for a value of 6.9 billion euros⁸.

Within this compartment, the biopharmaceutical sector is playing an increasingly important role. In fact, there are **66 biopharmaceutical companies (40% of the national total) and 12 biotech production plants (23% of the national total)** in the Region. In 2016, companies in this sector invested over 2 billion euros in our country, equivalent to 72% of the total investment in the pharmaceutical sector (9% more than in 2010)⁹.

Italy and Lombardia are also leaders in Europe in the Contract Development and Manufacturing Organization (CDMO), i.e., companies that operate in the production of pharmaceuticals for third parties. In 2017, this sector, in part thanks to investment in the 4.0 context and in production lines, generated a turnover of 2.1 billion (a quarter of the value recorded in Europe)¹⁰.

Given the presence of state-of-the-art plants and high-level scientific and production skills, these companies are able to diversify their production and develop small and large molecules, solid products, sterile liquids, and soft-gel technologies (for the pharmaceutical, nutraceutical and medical devices sectors).

7 - ISTAT, dati riferiti al 2016, 2019.

8 - Farindustria, *Indicatori Farmaceutici*, 2019.

9 - EY-Farindustria, *Rapporto sulle biotecnologie del settore farmaceutico in Italia*, 2018.

10 - Farindustria, *Indicatori Farmaceutici*, 2019.

7. THE MEDICAL DEVICES INDUSTRY

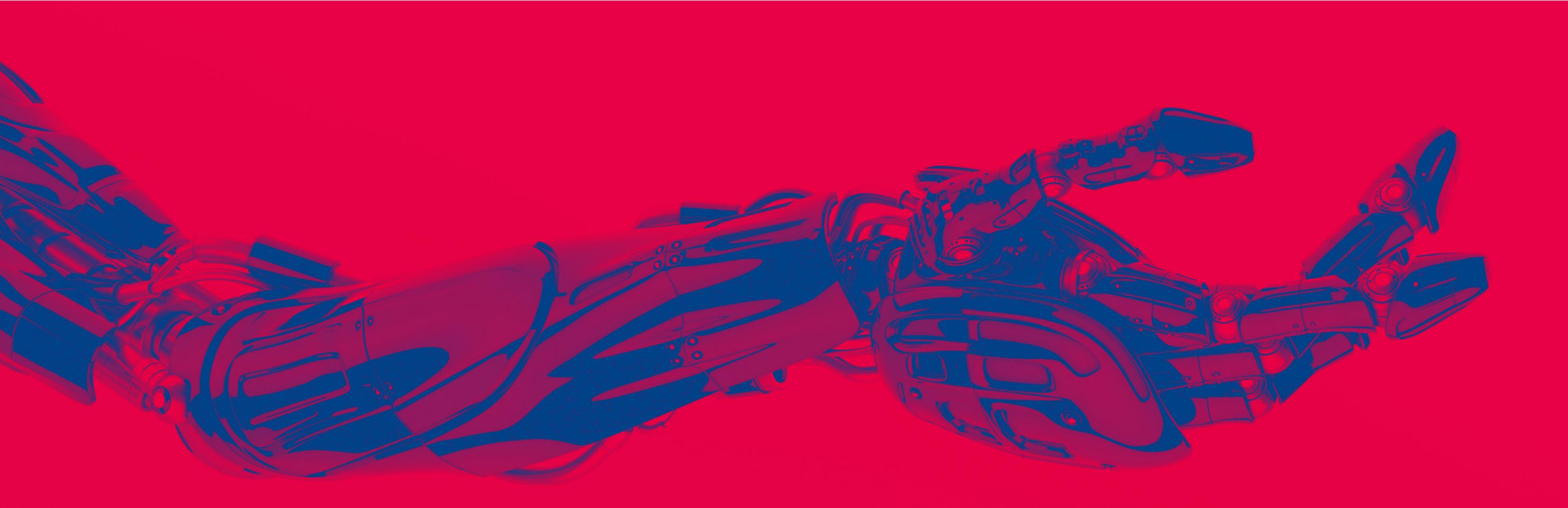
Lombardia has the highest number of companies operating in the medical devices sector (1,213 in Lombardia vs 3,957 in the whole of Italy), with more than **24,200 employees** in the sector (32% of the total of 76,000 employed in Italy).

The medical devices sector is projected to developing innovative technologies, compatible with the 4P model of medicine (personalized, participatory, predictive and preventive), which clusters the following sector subgroups: biomedicine, instrumental biomedicine, technical equipment, services and software, in vitro diagnostics, electromedicine and other borderline product categories¹¹.

There are numerous innovative start-ups, SMEs and large companies operating in Lombardia in the various subgroups of the sector.

Among these, the medical services and software sector, through telemedicine, telecare and tele-monitoring systems, **has supported the process of reforming the management of chronic patients by Lombardia RHS thanks to the development of the CreG (Chronic Related Group) projects**, recognized as a benchmark also at a European level.

Furthermore, **Lombardia is home to national and international companies that are leaders in the sectors of prostheses, electromedical products and global solutions for diagnostic imaging**, which are fundamental for the prevention of disorders with a strong impact on health and healthcare expenditure (e.g., oncological disorders) by the National Health System (NHS) and citizens.



8. THE ADVANTAGES FOR CITIZENS AND THE NATIONAL HEALTH SYSTEM

The value of Italian healthcare is internationally recognized thanks to the constant, solid collaboration between the public and private sectors.

This collaboration ensures that the Italian NHS is at the top of the main worldwide classifications: in second place for global performance, according to the World Health Organization, and in fourth place for healthcare efficiency, according to the Bloomberg classification (2018).

This position is strengthened by figures from the Organization for Economic Cooperation and Development (OECD) in Europe, related to 2016, according to which the percentage of Italian citizens (aged 15 years or older) with a good health status is high (70.9%) and surpasses that of other main European economies: France (66.3%), Germany (65.2%) and the United Kingdom (69%).¹²

In 2017, life expectancy at birth in Italy was 85.2 years for women and 80.8 years for men, which is longer than mean in EU28 countries (83.5 years for women and 78.3 years for men).¹³

Even higher values have been recorded in Lombardia Region: 85.5 years for women and 81.2 years for men.¹⁴

But it is also thanks to the innovations introduced by companies and organizations in the Life Sciences sector that the life expectancy of the Italian population has increased exponentially in the last 50 years, such that each citizen has gained an average of 1 month of life every 4 months, making Italians one of the most long-lived populations in the world.

Italy also exceeds the EU28 average and is aligned with the main European economies for years of life lived in good health (67.2 years for women and 67.6 years for men, against a EU28 average of 64.2 years for women and 63.5 years for men).¹⁵

Also in this case, the values in Lombardia are better than the national averages. In fact, every citizen in Lombardia lives on average 1.2 years more in good health than Italians as a whole.¹⁶

The capacity to improve the state of health of a population is strictly related to the presence of a network of public and private healthcare providers able to facilitate the introduction of innovation in healthcare, improving clinical outcomes for patients, as shown by data from the National Agency for Regional Healthcare Services (Agenas).

For example, between 2010 and 2017, an improvement was recorded in the mortality rate at 30 days after an acute myocardial infarction, which decreased from 10.4% to 8.3%.

During the same period, the 30-day mortality for strokes and pulmonary embolism also decreased: the mean percentage of deaths 30 days after a stroke is now 11.3% at a national level and 10% in Lombardia, while that for pulmonary embolism is 10.5% in the country as a whole and even lower in Lombardia, where it is 9%.



In the same period, the data also show an improvement in the capacity of the health system to respond in some situations: for example, there was an increase in the percentage of patients undergoing surgery within 2 days after a femoral neck fracture. Between 2010 and 2017, the number of Regions that reached or exceeded the 60% threshold, set by Ministerial Decree n. 70 of 2 April, 2015 rose from 2 to 15.

Once again, the performance of the Lombardia RHS surpassed the Italian average: in fact, about 70% of the Region's patients with a femoral neck fracture underwent surgery within 2 days of the event.¹⁷

All these data are set on an economic-financial background that is making sustainability of the system ever more difficult and which could, in coming years, cause an inversion in the trend of the indicators of healthcare performance presented here.

¹² - OECD, *Dataset: Health expenditure and financing*, 2018.

¹³ - Eurostat, 2019.

¹⁴ - ISTAT, *HEALTH FOR ALL - ITALIA*, 2019.

¹⁵ - Eurostat, 2019.

¹⁶ - ISTAT, *Rapporto BES 2018*, 2018.

¹⁷ - Agenas, *Piano Nazionale Esiti - PNE. Edizione 2018, 2019*.

From Assolombarda, a project to support the future of Life Sciences

In the areas of Milano, Monza, Brianza and Lodi alone, **650 companies affiliated with Assolombarda operate in the Life Sciences sector** in various fields, including pharmaceuticals and biopharmaceuticals, medical devices, healthcare and research.

This is a substantial core of companies, accounting for more than 10% of the association's members.

In order to enhance Lombardia's potential in the life sciences sector, the **Lombardia Life Sciences Hub project** was established, with the support and indications of the main stakeholders in this sector and in healthcare.

This project has the mission of **enhancing the value of the industrial chain and the RHS by attracting investment to the Region**, in synergy with regional and national initiatives and organizations working in the Life Sciences sector.

The aim of this project is to support the healthcare system in guaranteeing citizens access to innovative products and services that, although appearing incompatible with the current levels of financing of the NHS, will be able to positively affect the quality of life of patients and caregivers, generating savings for the country's system.

Through the Lombardia Life Sciences Hub we support excellence, with projects and actions implemented by an interconnected system of public and private stakeholders operating in the Life Sciences sector at local, regional, national and international levels.

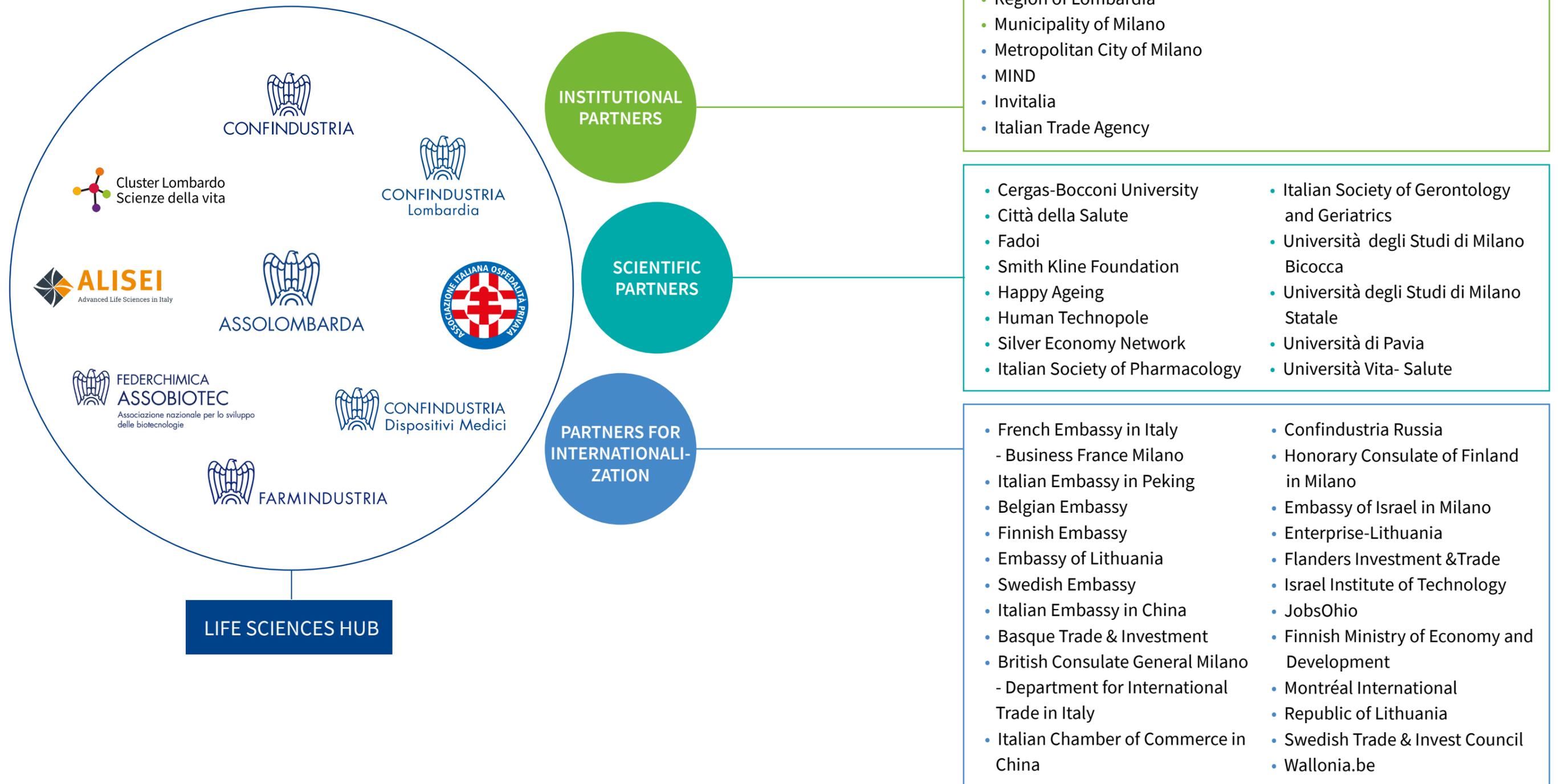
Our Mission

To promote the development of the Life Sciences ecosystem in Lombardia by strengthening a unified identity, activating services, initiatives and system planning aimed at increasing research capacity and innovation, enhancing both attractiveness and internationalization of the whole sector.

Our Vision

To make the Lombardia Life Sciences Sector and Healthcare System recognized areas of excellence at the international level.

All the partners of a virtuous ecosystem



Area of action



Strategic goals

- 1 COMPETITIVENESS AND INTERNATIONALIZATION**
PROMOTE COMPETITIVENESS AND INTERNATIONALIZATION OF THE LIFE SCIENCES SECTOR AND LOMBARDIA REGIONAL HEALTHCARE SYSTEM
- 2 SERVICES AND ADVOCACY**
REPRESENT THE REGIONAL REFERENCE POINT FOR TRADE ASSOCIATIONS AND ORGANIZATIONS OPERATING IN THE LIFE SCIENCES SECTOR
- 3 RESEARCH**
CREATE AN ECOSYSTEM FAVOURABLE TO THE DEVELOPMENT OF RESEARCH AND CLINICAL TRIALS
- 4 TECH TRANSFER**
DEVELOP INNOVATION AND PROMOTE THE TECHNOLOGY TRANSFER
- 5 EDUCATION**
STIMULATE THE CREATION OF AN INTEGRATED ECOSYSTEM OF DEMANDS AND OFFERS FOR EDUCATION AND UPDATING OF PROFESSIONAL IN THE SECTOR AND FOR ATTRACTING TALENT
- 6 HUMAN TECHNOPOLE**
ENABLE CONTINUOUS INTERPLAY BETWEEN PUBLIC AND PRIVATE ENTITIES, FACILITATING IN PARTICULAR THE DEVELOPMENT OF THE HUMAN TECHNOPOLE
- 7 VENTURE CAPITAL**
STIMULATE THE CREATION OF A CULTURE OF CORPORATE VENTURE CAPITAL, TO ATTRACT INVESTMENT AND PROMOTE INNOVATION
- 8 COMMUNITY**
DEVELOP THE LIFE SCIENCES COMMUNITY IN LOMBARDIA THROUGH ADVOCACY, COMMUNICATION, EVENTS AND PROJECTS FACILITATING PATIENTS' ACCESS TO INNOVATIVE PRODUCTS AND SERVICES CAPABLE OF IMPROVING CARE OUTCOMES

Competitiveness and internationalization

GOAL

Support and promote, also internationally, the competitiveness and capacity of the system to offer advanced services and therapies.

HOW

- 1** **COMMUNICATION:** ACTIVATION OF PROJECTS, INSTRUMENTS AND ACTIONS THROUGH WHICH TO COMMUNICATE THE VALUE OF THE LIFE SCIENCES ECOSYSTEM IN ITALY AND ABROAD
- 2** **STUDIES:** SUPPORT THE DEVELOPMENT OF STUDIES AND RESEARCH THAT HIGHLIGHT THE EXCELLENCE OF THE SYSTEM AND SUPPORT THE COMMUNICATION STRATEGIES

AREA OF ACTION

COMMUNICATION

ACTIVITIES ENGAGED

- INSTITUTIONAL MEETINGS WITH FOREIGN DELEGATIONS
- PROJECTS TO PROMOTE THE EXCELLENCE OF THE LOMBARDIA LIFE SCIENCES SECTOR ABROAD
- REALIZATION OF EVENTS OF INTERNATIONAL VALUE IN MILANO
- SUPPORT OF THE WELFARE DIRECTORATE GENERAL IN ACTIVITIES TO PROMOTE THE RHS, THROUGH THE LOMBARDIA LIFE SCIENCES CLUSTER

STRATEGIC PARTNERS:

Region of Lombardia; Municipality of Milano; Confindustria; AIOP – Italian Association of Private Hospitals; Medical Devices Confindustria; Farmindustria; Federchimica - Assobiotec; ALISEI - Advanced Life Sciences in Italy; Lombardia Life Sciences Cluster; Italian Trade Agency; Israel Trade & Economic Office - Embassy of Israel; British Consulate-General Milano; Enterprise Lithuania

Services and advocacy

GOAL

Local amplification of the activities of trade associations, developing joint initiatives.

HOW

- 1** **PROJECT AND SERVICES:** DEVELOPMENT OF TARGETED MATTERS THROUGH THE SPECIFIC SKILLS OF TRADE ASSOCIATIONS AND THE TERRITORIAL PENETRATION OF ASSOLOMBARDA (EVENTS, EDUCATION, WORKING GROUPS, STUDIES AND RESEARCH)
- 2** **ADVOCACY:** STRENGTHENING PROMOTIONAL ACTIVITIES OF TRADE ASSOCIATIONS AT A LOCAL LEVEL AND CONSOLIDATION OF ASSOLOMBARDA'S ROLE IN ISSUES RELATED TO LIFE SCIENCES AT THE NATIONAL LEVEL

AREA OF ACTION

EXPERIENCE SHARING & COMMUNITY

ACTIVITIES ENGAGED

- ACTIVATION OF THEMATIC WORKING GROUPS
- DEVELOPMENT OF CONCRETE PROJECTS TO FAVOR RESEARCH AND INNOVATION
- CO-ORGANIZATION OF THE MAIN NATIONAL EVENT AND FLAGSHIP OF THE ALISEI CLUSTER DEVOTED TO LIFE SCIENCES "MEET IN ITALY FOR LIFE SCIENCES"
- REALIZATION OF A REPORT OF NATIONAL AND INTERNATIONAL RELEVANCE ON THE VALUE OF THE LIFE SCIENCES SECTOR, IN ITALY AND IN PARTNERSHIP WITH THE MAIN NATIONAL TRADE ASSOCIATIONS

STRATEGIC PARTNERS:

Region of Lombardia; ARIA – Regional Agency for Innovation and Purchases; Confindustria Lombardia; AIOP - Italian Association of Private Hospitals; Medical Devices Confindustria; Farmindustria; Federchimica – Assobiotech; ALISEI - Advanced Life Sciences in Italy; Lombardia Life Sciences Cluster

Research

GOAL

Promote the development of the clinical trials system and biomedical research in Lombardia Region.

HOW

- 1** SUPPORT AND COORDINATION FOR THE TRANSPOSITION OF NEW STANDARDS
- 2** ANALYSIS OF THE VALUE OF THE SECTOR AND CURRENT BEST PRACTICES IN ORDER TO CREATE SHARED GUIDELINES, STANDARDIZE PROCESSES AND INCREASE THE ATTRACTIVENESS OF LOMBARDIA REGION SYSTEM
- 3** PROMOTION OF LOMBARDIA REGION SYSTEM BOTH THROUGH STUDIES AND COMMUNICATION AND THROUGH ENCOURAGEMENT OF NEW COLLABORATIONS BETWEEN COMPANIES AND TRIAL AND RESEARCH CENTERS

AREA OF ACTION

FUNDS; RESEARCH AND OPEN INNOVATION

ACTIVITIES ENGAGED

- CREATION OF A **WORKING GROUP** WITH THE MAIN STAKEHOLDERS IN **CLINICAL TRIALS** TO SUPPORT THE TRANSPOSITION OF NEW STANDARDS AND ENCOURAGE THE DEVELOPMENT OF COLLABORATIONS
- ORGANIZATION OF **EDUCATIONAL AND INFORMATIVE EVENTS** FOR EXCHANGES BETWEEN PUBLIC AND PRIVATE ENTITIES AND INSTITUTIONS
- DEVELOPMENT OF A **RESEARCH PROJECT AND ANALYSIS** OF THE PERFORMANCE OF THE CLINICAL TRIALS SECTOR

STRATEGIC PARTNERS:

Region of Lombardia; Confindustria; Confindustria Lombardia; AIOP - Italian Association of Private Hospitals; Medical Devices Confindustria; Farindustria; Federchimica - Assobiotec; ALISEI - Advanced Life Sciences in Italy; Lombardia Life Sciences Cluster; FADOI

Tech Transfer

GOAL

Promote the interplay between companies and research, enhancing the capacity for research and innovation of the whole public-private ecosystem.

HOW

- 1** DEVELOPMENT OF A CULTURE OF TECH TRANSFER AT REGIONAL AND NATIONAL LEVEL
- 2** CREATION OF EDUCATIONAL MATTER ON TECH TRANSFER IN THE SETTING OF LIFE SCIENCES THROUGH THE LOMBARDIA LIFE SCIENCES CLUSTER
- 3** ORGANIZATION AND PATRONAGE OF EXPERIENCE-SHARING MEETINGS, MATCH-MAKING BETWEEN ENTERPRISES AND RESEARCH CENTERS AND VISITS TO MAJOR INTERNATIONAL TECH TRANSFERS

AREA OF ACTION

RESEARCH AND OPEN INNOVATION

ACTIVITIES ENGAGED

- DEVELOPMENT OF **DOCUMENTS** USEFUL FOR SPREADING THE PRINCIPLES OF TECH TRANSFER IN THE LIFE SCIENCES SECTOR
- ORGANIZATION OF **INTERNATIONALLY RELEVANT MEETINGS** ON THE PROMOTION OF RESEARCH AND INNOVATION
- PLANNING **MISSIONS ABROAD** TO SHARE BEST PRACTICES AND DEVELOPMENT OF PROJECTS TO FACILITATE ENCOUNTERS BETWEEN COMPANIES AND RESEARCH, WITH THE SUPPORT OF LOMBARDIA LIFE SCIENCES

STRATEGIC PARTNERS:

AIOP - Italian Association of Private Hospitals; Farindustria; Federchimica – Assobiotec; ALISEI - Advanced Life Sciences in Italy; Lombardia Life Sciences Cluster; Bioindustry Park; Israel Institute of Technology

Education

GOAL

Support initiatives that foster the development of skills and professionals in line with the needs of the Life Sciences industry.

HOW

- 1 COLLABORATION WITH UNIVERSITIES, RESEARCH CENTERS AND ENTERPRISES FOR THE DEVELOPMENT OF AN EDUCATIONAL OFFER THAT COMBINES BUSINESS THEMES WITH OTHER SKILLS ESSENTIAL FOR INNOVATION (TECH TRANSFER, REGULATORY ISSUES, HEALTH ECONOMICS, ...)
- 2 FACILITATING ENCOUNTERS BETWEEN COMPANIES IN THE SECTOR AND THE INSTITUTIONS INVOLVED IN THE EDUCATION OF PROFESSIONALS AND STUDENTS, FROM HIGHER EDUCATION INSTITUTES TO UNIVERSITIES
- 3 FACILITATING THE INTRODUCTION OF NEW PROFESSIONALS IN THE BUSINESS WORLD THROUGH INTERNSHIPS AND OTHER TRAINING PROJECTS

AREA OF ACTION

EDUCATION

ACTIVITIES ENGAGED

- ACTIVATION OF A **WORKING GROUP DEDICATED TO TRAINING** IN LIFE SCIENCES
- CREATION OF **OCCASIONS FOR ENCOUNTERS BETWEEN COMPANIES AND INSTITUTIONS** THAT OFFER FIRST AND SECOND LEVEL EDUCATION IN ORDER TO OPTIMIZE THE EXISTING EDUCATIONAL PATHWAYS AND STIMULATE NEW COLLABORATIONS
- STARTING A **PARTNERSHIP** TO DEVELOP A PROCESS OF **ALTERNATION BETWEEN SCHOOL AND WORK**, INVOLVING MORE THAN 20 PHARMACEUTICAL COMPANIES AND 3 HIGHER SCHOOLS, WITH THE COLLABORATION OF FARMINDUSTRIA AND THE EDUCATIONAL DEPARTMENT OF THE REGION OF LOMBARDIA
- SUPPORT FOR THE DEVELOPMENT OF A **NEW ITS COURSE** IN THE BIOMEDICAL SECTOR

STRATEGIC PARTNERS:

Region of Lombardia; Farmindustria; ALISEI - Advanced Life Sciences in Italy; Lombardia Life Sciences Cluster; Education Department of the Region of Lombardia; Lombardia Universities and Research Institutes

Human Technopole

GOAL

Encourage the settlement of companies in MIND and the development of partnerships with the Human Technopole (HT).

HOW

- 1** COORDINATION BETWEEN THE REGION OF LOMBARDIA, MUNICIPALITY OF MILANO, MIND AND THE HUMAN TECHNOPOLE TO CREATE CONDITIONS THAT ENCOURAGE COMPANIES TO SETTLE WITHIN THE MILANO INNOVATION DISTRICT
- 2** FACILITATION OF CONNECTIONS BETWEEN COMPANIES AND THE HUMAN TECHNOPOLE TO DEVELOP COLLABORATIONS AND PROJECTS
- 3** MONITORING AND SUPPORT OF THE DEVELOPMENT OF THE HUMAN TECHNOPOLE PROJECT

AREA OF ACTION

RESEARCH AND OPEN INNOVATION; EXCELLENCE IN LOMBARDIA

ACTIVITIES ENGAGED

- **PERIODIC MEETINGS** WITH THE MAIN STAKEHOLDERS IN MIND AND THE HUMAN TECHNOPOLE
- ORGANIZATION OF **ROUND TABLES** BETWEEN COMPANIES, MIND AND THE HUMAN TECHNOPOLE TO FACILITATE THE DEVELOPMENT OF PARTNERSHIPS AND ENCOURAGE THE SETTLEMENT OF COMPANIES WITHIN THE AREA

STRATEGIC PARTNERS:

ALISEI - Advanced Life Sciences in Italy; Lombardia Life Sciences Cluster; Human Technopole; Arexpo, Lendlease

GOAL

Promote a Venture Capital culture and the creation of funds to facilitate investment in Life Sciences research and innovation projects.

HOW

- 1** ESTABLISHMENT OF PARTNERSHIPS WITH VENTURE CAPITAL FUNDS ACTIVE IN THE LIFE SCIENCES SECTOR
- 2** PROMOTION OF ACTIVITIES AND PROJECTS THAT FACILITATE MATCH-MAKING BETWEEN COMPANIES AND INVESTORS
- 3** PROMOTION AND ORGANIZATION OF NATIONALLY RELEVANT THEMATIC EVENTS, TO STIMULATE BOTH PUBLIC AND PRIVATE INVESTMENT IN LIFE SCIENCES

AREA OF ACTION

FUNDS; RESEARCH AND OPEN INNOVATION

ACTIVITIES ENGAGED

- ORGANIZATION OF **INFORMATIVE MEETINGS AND EVENTS** TO PROMOTE VENTURE CAPITAL, FACILITATE THE ACTIVATION OF NEW INSTRUMENTS FOR FINANCING ENTREPRENEURSHIP IN LIFE SCIENCES
- **MONITORING AND COMMUNICATION** WITH COMPANIES ABOUT THE MAIN VENTURE CAPITAL INITIATIVES IN FAVOR OF ENTREPRENEURSHIP IN THE LIFE SCIENCES SECTOR
- CREATION OF **CHANNELS OF CONTACT** BETWEEN COMPANIES AND INVESTORS

STRATEGIC PARTNERS:

Ministry of Economic Development; CDP - Cassa Depositi e Prestiti; ALISEI - Advanced Life Sciences in Italy; Lombardia Life Sciences Cluster; Investment funds dedicated to the Life Sciences sector

Community

GOAL

Promote the creation of a solid, vigorous Life Sciences community in Lombardia Region.

HOW

- 1** DISSEMINATION OF NEWS ABOUT LOMBARDIA INITIATIVES AND RESEARCH AND INNOVATION ACTIVITIES OF LIFE SCIENCES COMPANIES
- 2** ORGANIZATION OF EXPERIENCE-SHARING EVENTS ON SPECIFIC THEMES, WHICH CAN BE HELD IN THE AFFILIATED COMPANIES AND IN THE ASSOCIATION
- 3** PROMOTION OF B2B EVENTS IN ITALY AND ABROAD WITH THE AIM OF PRESENTING THE EXCELLENCE OF LOMBARDIA AND ENCOURAGING NEW PARTNERSHIPS
- 4** PROMOTION AND DEVELOPMENT OF PROJECTS INVOLVING ALL THE COMPONENTS OF THE LIFE SCIENCES SECTOR

AREA OF ACTION

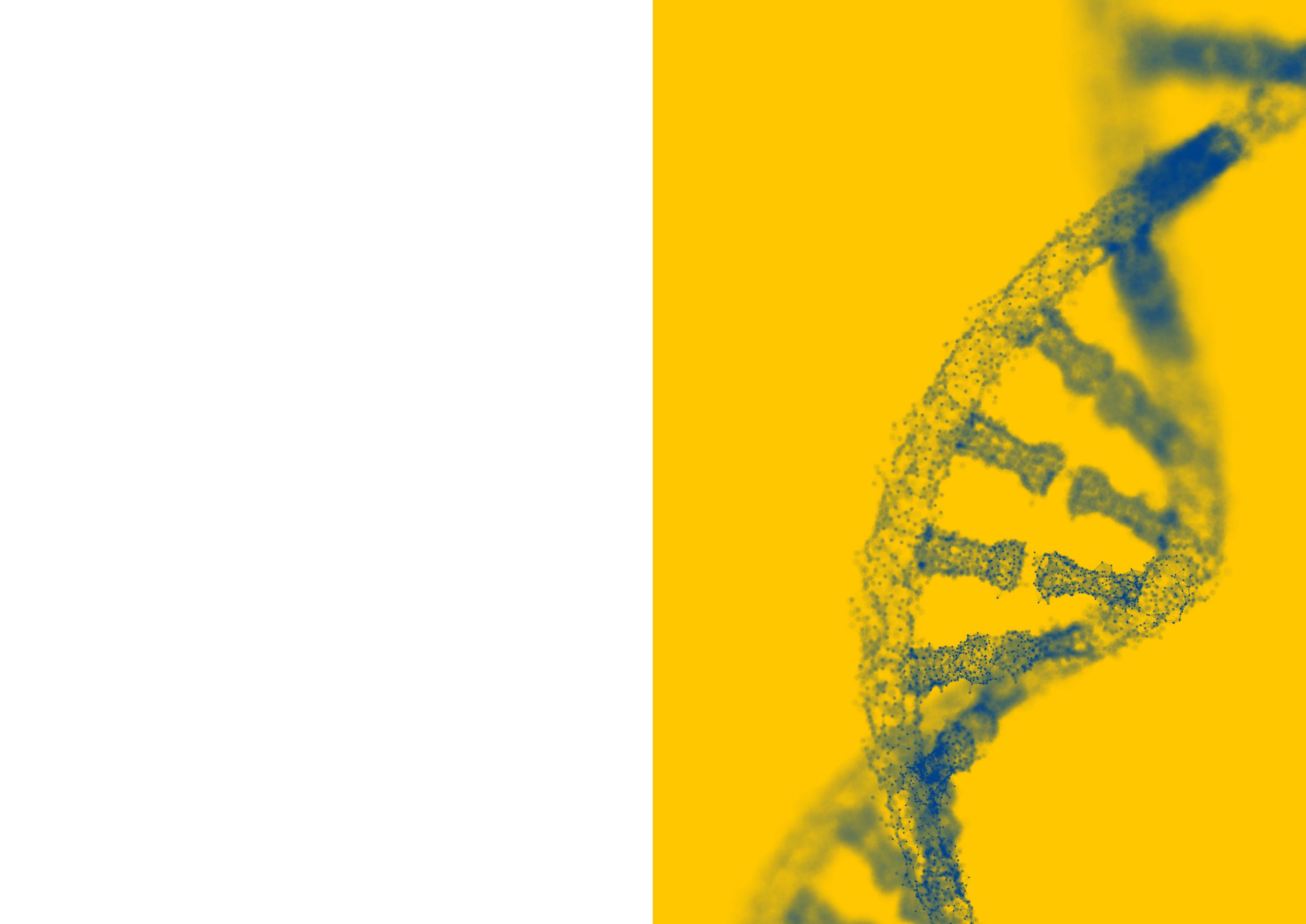
EXPERIENCE SHARING & COMMUNITY

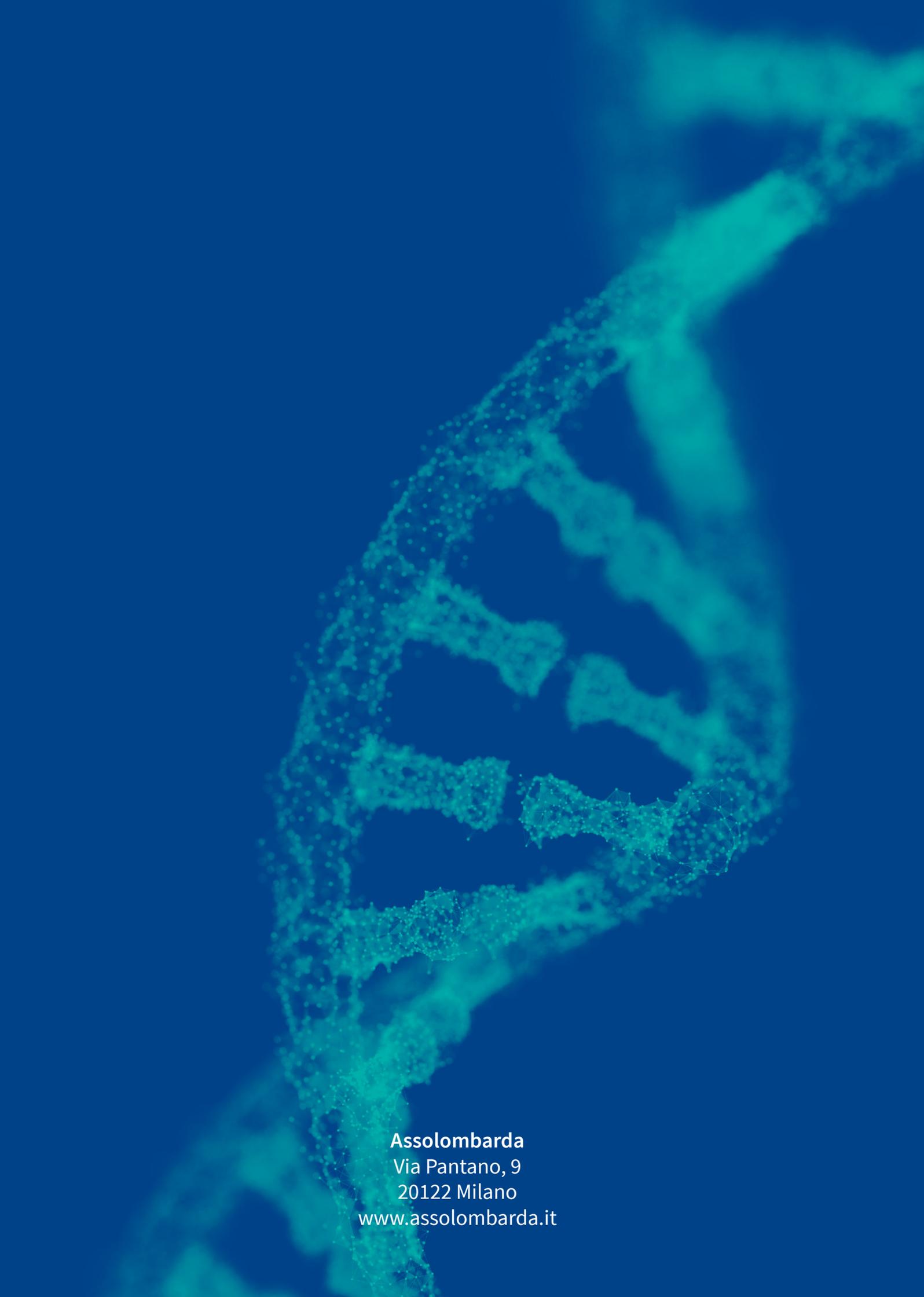
ACTIVITIES ENGAGED

- **TARGETED COMMUNICATIONS AND A MONTHLY NEWSLETTER** TO PROVIDE UPDATES ON MEETINGS, NATIONAL AND INTERNATIONAL EVENTS, TENDERS AND SUBJECTS OF CURRENT INTEREST, IN COLLABORATION WITH LIFE SCIENCES PARTNERS IN ITALY AND ABROAD
- MONTHLY MEETINGS FOR UPDATES ON ISSUES RELEVANT ACROSS THE SECTOR AND BUSINESS VISITS **TO PROMOTE ENTREPRENEURSHIP** IN LIFE SCIENCES
- PROMOTION OF A PROJECT TO DEVELOP THE **SILVER ECONOMY NETWORK** THROUGHOUT THE COUNTRY
- CREATION OF A SINGLE DIRECTING BODY FOR THE TRANSFER OF A **SYSTEM VISION** ON POLICY THEMES AND THE REALIZATION OF **SPECIFIC PROJECTS** OF NATIONAL AND INTERNATIONAL VALUE (MEET IN ITALY FOR LIFE SCIENCES, IPCEI FORUM...)

STRATEGIC PARTNERS:

European Commission; Region of Lombardia; Municipality of Milano; Confindustria; Confindustria Lombardia; AIOP - Italian Association of Private Hospitals; Medical Devices Confindustria; Farmindustria; Federchimica – Assobiotec; Silver Economy Network; ALISEI - Advanced Life Sciences in Italy; Lombardia Life Sciences Cluster





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