

# BIOMEDICAL CLUSTERS WORLDWIDE: SUCCESS FACTORS AND BEST PRACTICES


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# GOAL AND STRUCTURE OF THE STUDY



 Identify and analyse **the most successful international practices** of promoting biomedical clusters, in which the **cooperation** of universities, firms and clinics, combined with a developed **infrastructure** and public **support** measures led to a significant improvement in the quality of **healthcare**.



## STAGES OF RESEARCH

1. Positive Effects of Biomedical Clusters
2. Global Landscape of Biomedical Clusters
3. Success Factors of Biomedical Clusters
4. Comparison of success factors of biomedical clusters worldwide with the main aspects of MIMC's activities

## METHODS

- Literature review
- Evaluation using brand-new scorecard; cluster analysis
- Case-study
- Comparative analysis, media coverage review

# RESEARCH SUBJECT.

## WHAT IS A BIOMEDICAL CLUSTER?

**BIOMEDICAL CLUSTER** is a territorial concentration of clinics, specialized scientific and educational organizations, biotechnological and pharmacological enterprises, infrastructure related facilities with functional dependence and implementing joint projects to develop medical technologies and improve the quality of whole healthcare sector.

CLUSTER'S FEATURES	TECHNOLOGY PARK	BUSINESS-ASSOCIATION	CONSORTIUM
Geographic concentration (within one or several neighboring regions)	+	+/-	-
Specialization (one or more related activities / industries)	-	+	+
A wide range of members (universities, research organizations, SMEs and large businesses)	-	-	+/-
The purpose of the association of participants is the implementation of joint projects.	-	-	+
Significant impact on the economic development of the region	+/-	-	-
Duration of operation (exceeds the project timeline)	+	+	-



# 1. WHY DO WE NEED CLUSTERS?

## LITERATURE REVIEW

# POSITIVE EFFECTS OF BIOMEDICAL CLUSTERS

## BIOMEDICAL CLUSTERS



FOR PATIENTS

- **New integrated services, due to cooperation between the healthcare sector, hospitality, insurance and medical tourism businesses** [Alberti et al., 2014; De Vera et al., 2008; Horowitz, Rosensweig, 2007; Kandasamy, Rassiah, 2010; Castillo, Conchada, 2010; Harryono et al., 2006]
- **Treatment continuity due to joint medical infrastructure** [Burns, Pauly, 2002; Fulop et al., 2005; Goodwin, 2016; Lê G. et al., 2016; Lewis et al., 2010; Montenegro et al., 2011; Sheiman, Shevski, 2014; Schmidt et al., 2007; Goodwin, 2016]



FOR SCIENCE

- **Development of biomedical research and commercialisation of its results by recruiting R&D personnel worldwide** [Finegold et al., 2004; Rauch, Wappler, 2011; Owen-Smith, Powell, 2004; Prevezer, 2008; Wong, 2007; Qi, 2003]
- **Extension of R&D potential by concentrating advanced equipment and facilities in clusters, and providing collective access to them** [Collins, 2008; Brennenraedts et al., 2006; Sohn et al., 2015]
- **Increased investments in cluster members' joint R&D projects** [Rosiello, 2005; Guimón, 2013; Graham, Woo, 2009; Lee, Tee, 2009]



FOR HEALTHCARE  
SYSTEM

- **Optimisation of medical processes** [World Health Organization, 2013; Amarasingham et al., 2009; Rosiello, Orsenigo, 2008]
- **Improved training of medical personnel** [Kósa et al., 2013; Global Connect, 2010]



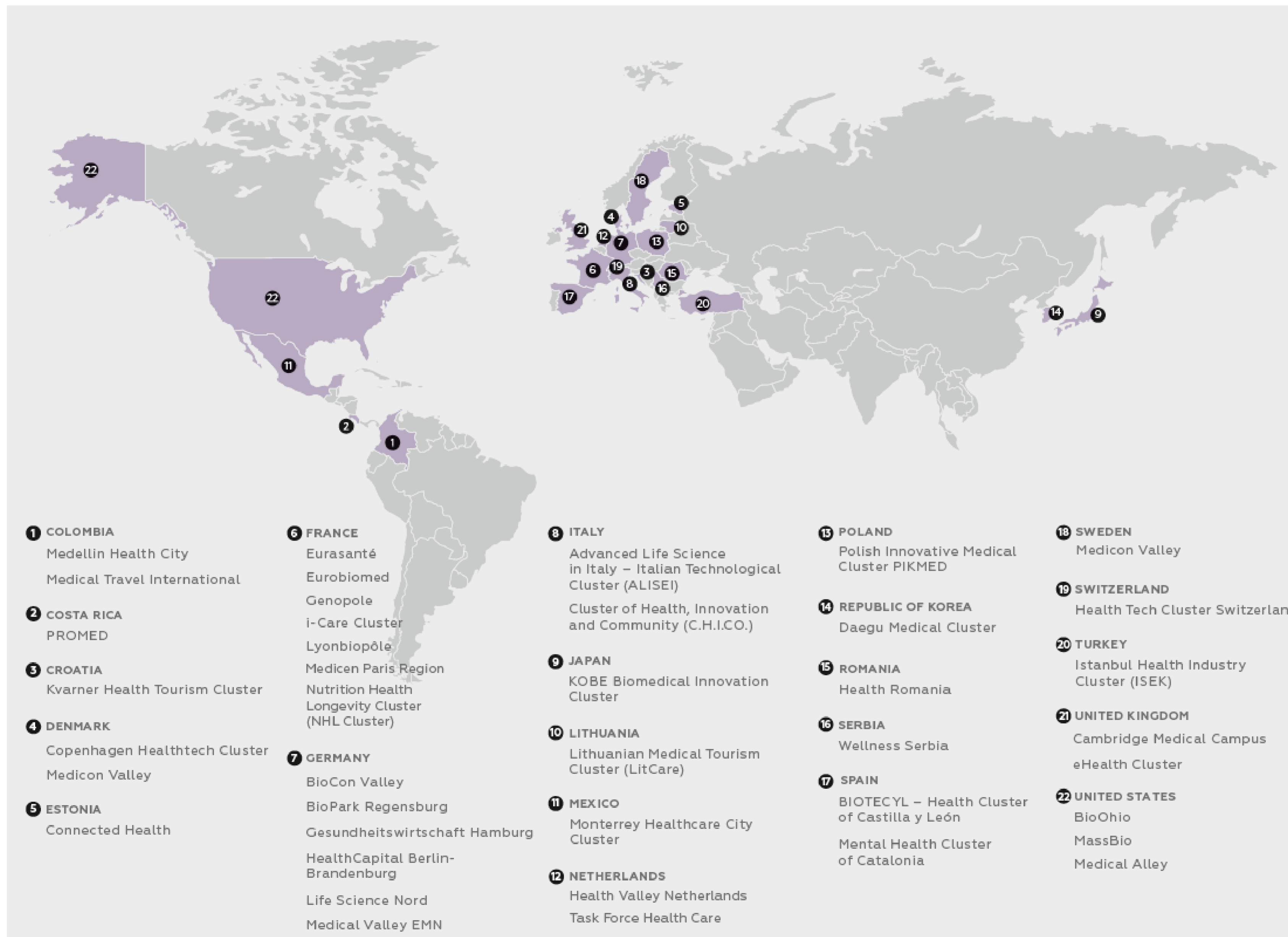
FOR BUSINESSES

- **Increased number of healthcare start-ups** [Bagchi-Sen, 2007; Serwatka, 2018]
- **Accelerated application of innovations in medical practice** [De la Lama, 2006; Europe Innova, 2008]



## **2. WHAT IS A MODERN BIOMEDICAL CLUSTER?**

**GLOBAL LANDSCAPE OF BIOMEDICAL CLUSTERS:  
THE RESULTING GROUPS AND TARGET MODELS**



## DATABASES

- EUROPEAN CLUSTER COLLABORATION PLATFORM
- TCI NETWORK
- EUROPEAN CLUSTER OBSERVATORY

# 22

**COUNTRIES**

# 40

**CLUSTERS**

# BIOMEDICAL CLUSTERS EVALUATION CRITERIA

## HOME COUNTRY



Cluster's home country on the global healthcare market

- Annual revenue from medical tourism per year
- Number of foreign patients per year
- Position in the Bloomberg Healthcare Efficiency Index
- Medical Tourism Index value
- Inclusion on the PwC list of leading medical tourism destinations (top 10)
- Ranking by medical tourism aggregators

## MEMBERS



Specialisation

- One or more of the following activities:
  - Medical services (diagnostics, treatment, rehabilitation, wellness)
  - Biomedical R&D
  - Production (pharmaceuticals, medical equipment)



Cluster size

- Number of organisations that have officially confirmed their membership in a cluster



Diversity of cluster members

- Having members that belong to one or more of the following groups:
  - Clinics
  - Production companies
  - R&D organisations and universities
  - Public authorities
  - Support organisations



Innovation activity

- Two or more innovation infrastructure facilities
- Two or more start-ups

## MANAGEMENT



Ppp-based management

- Having public authorities represented within a cluster's governance structure



ESCA Label\*

- Having ESCA cluster management quality label (bronze, silver, or gold)



Goals

- Indicating one or more of the following goals in the cluster's strategy:
  - Promoting members
  - Contributing to socioeconomic development of its home region
  - Contributing to S&T development of its home region



International visibility

- Availability of information in English on the cluster's website (home page and structure only, or full version)



# GROUPS OF BIOMEDICAL CLUSTERS

CHARACTERISTICS	1. GLOBAL HIGH-TECHNOLOGY MEDICINE CLUSTERS	2. WORLD-CLASS BIOMEDICAL RESEARCH CLUSTERS	3. INTERNATIONAL MEDICAL TOURISM CLUSTERS
<b>Home country</b>	Germany, the United States, and the Republic of Korea	European and Asian countries	European and Latin American countries
<b>Specialisation</b>	Biomedical R&D (100% of clusters), medical services: treatment and rehabilitation (over 55%)		Medical services: treatment and rehabilitation (90%), biomedical R&D (30%)
<b>Competitive advantage</b>	High external demand for medical services	Strong university clinics and knowledge centres	Medical treatment at relatively low prices
<b>Focus of activity</b>	Interdisciplinary cooperation: medicine and ICT; treatment and tourism	Application of R&D results in clinical practice	Full range of medical tourism services
<b>Size</b>	Over 100 organisations		Less than 100 organisations
<b>Innovation activity</b>	High-level innovation infrastructure (over 60%), supporting start-ups (over 45%)		High-level tourism infrastructure, supporting start-ups in some clusters
<b>Establishment initiative</b>	Predominantly public	Predominantly private	
<b>Public agencies' involvement in management</b>	Public agencies usually involved in cluster management (70%)	Management usually independent from the state	
<b>ESCA management quality</b>			

# 40

**CLUSTERS**  
in biomedical sphere

# 15

**INDICATORS**  
cluster assessment indicators: home country, members, management

# 3

**GROUPS OF CLUSTERS**

according to the results of cluster analysis

# TARGET MODELS OF BIOMEDICAL CLUSTERS

**Target model** – the basis of cooperation between clinics, enterprises, knowledge centres, and public administration agencies that reflects the prerequisites for cluster emergence.

TARGET MODELS	1. COORDINATING THE ACTIVITIES OF REGIONAL HEALTHCARE PLAYERS	2. SETTING UP A FRAMEWORK FOR THE COOPERATION OF R&D ORGANISATIONS AND BUSINESSES WITHIN THE TECHNOLOGY TRANSFER	3. ESTABLISHING A GLOBAL NETWORK OF MEDICAL AND PHARMACEUTICAL COMPANIES, R&D ORGANISATIONS, AND UNIVERSITIES	4. PROMOTING COOPERATION BETWEEN MEDICAL ORGANISATIONS, TRAVEL AGENCIES, AND INSURANCE FIRMS TO PROVIDE A BROADER RANGE OF SERVICES FOR PATIENTS
<b>1. GLOBAL HIGH-TECHNOLOGY MEDICINE CLUSTERS</b>	<ul style="list-style-type: none"> <li>Cluster's priority is to strengthen their home region's competitiveness and increasing its investment.</li> </ul>		<ul style="list-style-type: none"> <li>Clusters operate as <b>international associations</b>, including both national and foreign companies.</li> </ul>	
<b>2. WORLD-CLASS BIOMEDICAL RESEARCH CLUSTERS</b>	<ul style="list-style-type: none"> <li>Appeal by concentrating public and private resources in the healthcare sector.</li> <li>Cluster organisation is typically established on the basis of a <b>regional development institute</b></li> </ul>	<ul style="list-style-type: none"> <li>Clusters usually concentrate on <b>promoting the application of R&amp;D results</b> in clinical practices or by pharmaceutical and biotechnology companies.</li> </ul>	<ul style="list-style-type: none"> <li>The aim is to <b>exchange knowledge</b> among health sector organizations, including information on scientific advances and advanced technological developments.</li> </ul>	
<b>3. INTERNATIONAL MEDICAL TOURISM CLUSTERS</b>				<ul style="list-style-type: none"> <li>Clusters aim at facilitating the collaboration of primarily private companies into a <b>single chain to minimise the costs</b> of services integrated.</li> </ul>



# **3. WHAT IS THE SECRET OF A BIOMEDICAL CLUSTER'S SUCCESS?**

**INTERVIEW AND CASE-STUDY RESULTS**

# EXPERTS: REPRESENTATIVES OF MANAGING COMPANIES OF BIOMEDICAL CLUSTERS



**Petter Hartman,**  
CEO Medicon  
Valley alliance  
(Denmark –  
Sweden)



**Chris Doomernik**  
Managing Director  
Health Valley  
Netherlands  
(Netherlands)



**Dr Kai Uwe  
Bindseil,**  
Cluster Manager  
HealthCapital Berlin  
Brandenburg  
(Germany)



**Dr Hinrich  
Habeck,**  
Managing Director  
Life Science Nord  
Management Gmb  
(Germany)



**Dr Patrick  
Dümmler,**  
Cluster Manager  
Health Tech  
Cluster  
(Switzerland)



**Gražvydas  
Morkus,**  
Managing Director  
Lithuanian Medical  
Tourism Cluster  
(Lithuania)



**Piret Hirv,**  
Cluster Manager  
Connected Health  
(Estonia)



**Caroline Simoes-  
auberger,**  
Communication  
and Strategy  
Manager GIE  
Eurasanté  
(France)



**Seda Şenol,**  
Cluster Manager  
Istanbul Health  
Industry Cluster  
(Turkey)





# SUCCESS FACTORS OF BIOMEDICAL CLUSTERS: RESULTS OF THE INTERVIEW

## COMMUNICATION AS THE ULTIMATE VALUE

- In Cluster Networks
- Communication Ecosystem
- Joint projects
- Welcome to the Group!
- Communication platform
- Single brand

## INTERDISCIPLINARY COOPERATION

- Healthcare under the Cluster's Umbrella
- One Window
- Single chain of participants
- Everyone Will Be Heard

## PARTNERSHIP-BASED MANAGEMENT

- Collaborate Like Never Before
- Balanced Interests
- PPP-Based management
- Three in One
- The Management of Support

## SUPPORT FROM THE REGIONAL AUTHORITIES

- Two Regions' Common Success
- Peaks in the Delta
- Our Mission is to Help All Members of the Regional Ecosystem
- Medical Confederation

## NATIONAL-LEVEL RECOGNITION OF THE CLUSTER

- Rivalry is Losing, Cooperation is Winning
- Moving towards E-Health Together
- National Partnership for Digital Medicine
- Cluster as a National Initiative

## INVOLVING PATIENTS AND DOCTORS

- «Where Does It Hurt?» or technology contests
- «We Want to Design Solutions with You, Not for You»
- FieldLabs: Patients- and Technologies-Based Healthcare

## COMPREHENSIVE APPROACH TO SUPPORTING INNOVATION: INFRASTRUCTURE, START-UPS, AND UNIVERSITIES

- The Öresund Bridge: Two Countries, One Cluster
- Innovation Infrastructure Hub Berlin and Brandenburg
- Eurasanté Bio Incubator: From Start-Ups to Major Companies
- The Founding Fathers of the Cluster
- The Cluster's Cradle



# 1. COMMUNICATION AS THE ULTIMATE VALUE

**A FULL COMMUNICATION AGENDA IS A COMMON FEATURE OF ALL BIOMEDICAL CLUSTERS AND A KEY RESPONSIBILITY OF THEIR MANAGEMENT COMPANIES. WITHOUT SUCH TIES, IT WOULD BE IMPOSSIBLE TO ARRANGE A FLOW OF JOINT PROJECTS CARRIED OUT BY R&D ORGANISATIONS AND ENTERPRISES, SYSTEMATICALLY PROMOTE RESEARCH RESULTS, APPLY INNOVATIONS IN CLINICAL PRACTICE, AND DEVELOP INTERNATIONAL COLLABORATION.**



Medicon Valley Alliance helps cluster companies step up cooperation and implement joint projects by **involving them in various networks**: Medicon Valley Alliance Executive Club, Medicon Valley Alliance Oncology Network, Medicon Valley Medtech Network.



The cluster management company hosts about 30 members' meetings annually. Several staff members of the cluster organisation are responsible for the production and dissemination of information materials about the cluster's and its members' activities and for maintaining their visibility in media and social networks. Health Valley Netherlands **launched a special platform – Stay-connected! – to support communication** among members.



HealthCapital Berlin-Brandenburg promotes cooperation between cluster members using **various tools in coordination of joint R&D projects of business and science.**



**Digital collaboration platform** (called LSN XCHANGE), which operates as a **social network**: cluster members have their own profiles, talk to each other, join working groups, exchange experience and documents, etc.



Top managers of the cluster organisation **personally meet representatives of the 250 member companies to discuss their objectives, needs, and problems. Presentations are organized** with small things to eat and something to drink. The cluster has a regular event, which focuses on data security in healthcare, and this comes with speakers from abroad.



A **common marketing strategy** was developed for the cluster. LitCare is represented on **international and national cluster platforms** (TCI Network, European Cluster Collaboration Platform, KlasterLT, Lithuanian Clusters Association). The cluster actively promotes its members on **medical tourism aggregators and social networks**; presents its activities at international fora and arranges **publicity tours** for partner travel agencies.



## 2. INTERDISCIPLINARY COOPERATION

**MANY BIOMEDICAL CLUSTERS BRING TOGETHER DIFFERENT MEMBERS – PATIENTS, DOCTORS, RESEARCHERS, AND MANUFACTURERS – TO DEVELOP MARKETABLE INTERDISCIPLINARY HIGH-TECHNOLOGY SOLUTIONS. AT THE JUNCTION OF HEALTHCARE, PHARMACEUTICALS, THE PRODUCTION OF MEDICAL EQUIPMENT, CONSTRUCTION, ICT, AND OTHER AREAS, NEW, RAPIDLY GROWING AND RESEARCH-INTENSIVE ACTIVITIES ARE EMERGING THAT INTEGRATE CLUSTER MEMBERS’ VARIOUS INDUSTRIAL AND TECHNOLOGICAL COMPETENCIES IN A NOVEL WAY (E.G., HEALTHY LONGEVITY).**



The Berlin-Brandenburg cluster comprises more than 20,000 participants (including more than 500 major biomedical, pharmaceutical, and medical equipment firms; **25** universities; **18** R&D organisations; and **8** specialised industrial parks). Among other members, there are **130** hospitals.



Lithuanian private healthcare organisations, dental clinics, spas, hotels, sanatoriums, and hospitality industry companies joined forces to create a cluster of medical tourism – LitCare. Their objective was to **provide a full range of high-quality treatment** and make the best possible offers to patients. Medical tourists can receive numerous basic and additional services along the way.



The cluster brings together more than **250 organisations**. They comprise clinics, sanatoriums, diagnostic centres and laboratories, manufacturers of medical equipment and pharmaceuticals, insurance and consulting firms, engineering and IT companies. Furthermore, **13 cluster members** (mainly medical equipment manufacturers) **operate abroad**: in Germany, Italy, Austria. Every month three to four new members join the cluster.



The cluster comprises more than **80 members**; some of them are start-up companies, IT firms, biomedical technology developers, and pharmaceuticals producers. The cluster actively cooperates with **universities**, and infrastructural organisations (e.g. Tallinn Science Park Tehnopol). Two **national ministries** (the Ministry of Economy and the Ministry of Social Affairs) are the main public partners of Connected Health.

### 3. PARTNERSHIP-BASED MANAGEMENT

A FEATURE OF MANY BIOMEDICAL CLUSTERS IS THAT THEY BRING TOGETHER COMPANIES AND ORGANISATIONS WHOSE ACTIVITIES GO BEYOND A SINGLE INDUSTRY OR RESEARCH AREA. THIS REQUIRES SETTING UP A MANAGEMENT SYSTEM, WHICH WOULD ALLOW ONE TO BALANCE THE INTERESTS OF KEY MEMBERS FROM VARIOUS SOCIOECONOMIC SPHERES. MOST OF THE CLUSTERS WE HAVE SURVEYED ESTABLISH A MULTILEVEL MANAGEMENT SYSTEM. STRATEGIC MANAGEMENT IS A RESPONSIBILITY OF THE CLUSTER BOARD. A CLUSTER ORGANISATION IS SET UP TO HANDLE THE DAILY ROUTINES.



The cluster was established at the initiative of universities, regional governments and a few big companies. The main goal is **to bring knowledge to the society, they had to cooperate more** than they had done before. Now there is **a board** with representatives from R&D and education, the industry, healthcare sector, and **a team bureau** with eight employees.



The cluster comprises members from **two German states**, Berlin and Brandenburg. **Two top managers, who are representatives of the regional organisations:** Berlin Partner for Business and Technology and Economic Development Brandenburg co-manage the cluster on a parity basis, in line with the **partnership agreement**.



The cluster is based on a **PPP** model. The combined share of Schleswig-Holstein and the Free and Hanseatic City of Hamburg in the **authorised capital of the cluster organisation** (Life Science Nord Management GmbH) is **80%**, and the remaining **20%** is provided by Association Life Science Nord e.V. (a voluntary consortium of 260 cluster members).



Eurasante is organised as a “**group of economic interests**”, which implies various members’ joining forces to accomplish common objectives while remaining legally independent. Eurasante animates the **Bio-business Park** and two specialised clusters: **Nutrition Health Longevity Cluster** and **Clubster Santé**.



Cluster organisation is **Tallinn Science Park Tehnopol**. It reports to the national business development agency Enterprise Estonia, which administered the EU grant allocated to fund the cluster’s creation.



# 4. SUPPORT FROM THE REGIONAL AUTHORITIES

**BIOMEDICAL CLUSTERS BRING TOGETHER THE WHOLE REGIONAL COMMUNITY OF COMPANIES AND ORGANISATIONS ACTIVE IN THE HEALTHCARE SECTOR AND RELATED INDUSTRIES (SUCH AS THE PRODUCTION OF MEDICAL EQUIPMENT AND PHARMACEUTICALS, ICT, THE FOOD INDUSTRY, ETC.). THE REGION SERVES AS A CLUSTER'S INSTITUTIONAL BASIS; IT PROVIDES SPECIALISED INFRASTRUCTURE, ACCESS TO WHICH IS VITALLY IMPORTANT FOR CLUSTER MEMBERS. REGIONAL BUDGET IS FREQUENTLY THE MAIN SOURCE OF INITIAL FUNDING FOR THE CLUSTER ORGANISATION.**

medicon valley alliance

Creating Opportunities

Medicon Valley is supported by **two regions of Denmark and Sweden**, which make up a **single Öresund macro region**. The cluster joint project – **ReproUnion** – is to establish the multidisciplinary Reproductive Medicine Centre and make a **patient mobility agreement** between Sweden and Denmark, which gives people in both countries the opportunity to receive the best possible infertility treatment in 13 clinics and research organizations.



At the beginning, **regional funding** was **90%** of the whole cluster budget. Until now, a subsidy from the regional government is to pay for the labor of employees of a cluster organization.



At the initial stage of the cluster's creation, all Eurasante's costs were met from public sources. Today, Eurasanté provides services to all participants in the regional ecosystem **for free** (that is, **through a subsidy** from Hauts-de-France regional government).



In the beginning, the cluster was an **initiative from the canton of Schwyz**. The canton thought it would make sense to have a regular exchange with companies focusing on health technology. Today **all cluster members including the canton councils pay membership fees**. Regional authorities' contribution amounts to 10% of the cluster's budget.

# 5. NATIONAL-LEVEL RECOGNITION OF THE CLUSTER

**CLUSTER MANAGEMENT COMPANIES AND MEMBERS ARE INVOLVED IN THE NATIONAL HEALTHCARE POLICY. THEY TAKE PART IN EXPERT COMMISSIONS' MEETINGS; ACTIVELY INTERACT WITH THE PUBLIC AUTHORITIES AND THE MEDICAL COMMUNITY AS PARTICIPANTS OF, OR CONSULTANTS FOR, VARIOUS HIGH-LEVEL PROJECTS AND PROGRAMMES. HEALTHCARE IS QUITE A CONSERVATIVE (AS MANY PEOPLE BELIEVE) SOCIOECONOMIC SPHERE REGULATED USUALLY AT THE COUNTRYWIDE LEVEL OF GOVERNANCE.**

medicon valley alliance

Creating Opportunities

Stockholm and Copenhagen filed a single application for the EU competition to determine the country for the construction of the **European Spallation Source**. All ESS research infrastructure is currently being constructed on the Lund University campus, while the data centres are already operating in the COBIS science park in Copenhagen.



In 2017, the Dutch Ministry of Health, Welfare and Sport proposed an initiative to establish a **national e-health system**. The goal was to improve the quality and accessibility of medical services through active application of ICT. The clusters' role was to identify barriers hindering the application of ICT in medical practices and suggest the best ways to accelerate the transition to an e-health system.



The cluster companies operate at the junction of ICT and medicine to develop software products for **the National e-Health System**. Nortal advises the government and cluster member companies on the application of General Data Protection Regulation. Helmes developed an electronic system that allows doctors and pharmacists to have joint access to the prescriptions database.



Cluster has been funded by the **Turkish Ministry of Industry and Technology**. Between 2017 and 2022, public support for Istanbul Health Industry Cluster should amount to about 2.5 million euros. **The government is the main purchaser of medicines and medical devices in Turkey.**

## 6. INVOLVING PATIENTS AND DOCTORS

**MEDICAL DISCOVERIES CAN BE TRANSFORMED INTO COMMERCIAL PRODUCTS OR SERVICES, BUT THEY BECOME REALLY SUCCESSFUL ON THE MARKET ONLY IF THERE IS SUFFICIENT DEMAND FOR THEM. INVOLVING PATIENTS AND DOCTORS IN THE DEVELOPMENT AND TESTING OF INNOVATIONS HAS BECOME A COMMON PRACTICE IN MANY BIOMEDICAL CLUSTERS.**



The cluster actively works with doctors and patient associations via **competitions (e.g. Silver Surfer)**. It involves old people living at home or in geriatric facilities and their caregivers; together they decide what an innovation should be. To organise the challenge, the cluster team formed partnerships with hospitals, associations of disabled seniors, and retirement homes.



Health Valley Netherlands helps members launch new projects or join existing initiatives on testing innovations with the participation of patients via **living labs**. For example, the **FieldLab Disabled Care** project was launched by the cluster member Siza (provider of care for people with physical or mental disorders, autism, or acquired brain injuries). It is the GoOV cell phone application, which allows people with limited mobility to freely and safely use public transport.



One of the ways to work with patients is **hackathons**. For example, one such activity was part of the **HIVdigital** competition in 2017. The largest issues in treatment of AIDS were identified after talks to people with the HIV-positive status and their doctors. Then hackathons were organised to find what can be solved with digital tools.

# 7. COMPREHENSIVE SUPPORT TO INNOVATIONS: INFRASTRUCTURE, START-UPS, UNIVERSITIES

THE BIOMEDICAL CLUSTERS WE HAVE ANALYSED ARE LOCATED IN THE AREAS WITH HIGH CONCENTRATION OF WORLD-CLASS RESEARCH AND PRODUCTION FACILITIES. CLUSTER MANAGEMENT COMPANIES OFTEN HAVE PARTNERSHIP AGREEMENTS WITH SCIENCE PARKS OR BUSINESS INCUBATORS, WHICH, AMONG OTHER THINGS, IMPLY SPECIAL CONDITIONS FOR START-UPS (E.G. NO MEMBERSHIP FEES, OR FREE ACCESS TO VARIOUS SERVICES). IN THE MAJORITY OF CASES, RESEARCH-INTENSIVE INITIATIVES ARE BASED UPON THE INTELLECTUAL POTENTIAL OF UNIVERSITIES AND OTHER KNOWLEDGE CENTRES.

medicon valley alliance

Creating Opportunities

**The Oresund Bridge** created basic conditions for much easier contact between participants of the cross-border macroregion's innovation ecosystem. **The competencies of major companies** Novo Nordisk, Lundbeck, Ferring Pharmaceuticals, and LEO Pharma located on the Danish side of the Oresund strait were reinforced with the unique innovation infrastructure facilities in the **Swedish part of the cluster**.



HealthCapital  
BERLIN BRANDENBURG

The cluster is located at the core of Berlin and Brandenburg's innovation infrastructure, which comprises more than **60** facility units. Many of them **are focused on the healthcare sector**. For example, Bayer Grants4Apps Accelerator, Pfizer Healthcare Hub Berlin, Flying Health Incubator, helios. hub, Startupbootcamp Digital Health, Heartbeat Labs, and B. Braun Accelerator.



eurasanté  
Entreprendre et Réussir

Cluster's special unit is a **Eurasanté Bio Incubator**. It was set up by the French Ministry of Higher Education and Research. The incubator facilitated 140 projects and contributed to the establishment of 75 companies and 500 jobs. It was ranked among **the top 15 best biotech incubators in Europe** for the emergence of innovative start-ups and has the "French Tech Ticket" label, which means that it is able to welcome young foreign entrepreneurs willing to set up a new branch in France.

**ISEK**  
Istanbul Health Industry Cluster

It is a platform for cooperation between businesses and R&D organisations in the biomedical area founded by the Bosphorus University Centre for Life Sciences and Technologies. The cluster currently includes **19 university R&D divisions**.



## **4. THE MIMC: A UNIQUE PATH OR THE MAINSTREAM?**

**RESULTS OF INTERVIEWING THE REPRESENTATIVES OF PROFESSIONAL COMMUNITY AND REVIEWING THE MIMC'S MEDIA COVERAGE**



# MIMC is a CLINICAL, EDUCATIONAL AND R&D PLATFORM

The mission of the Moscow International Medical Cluster is to provide and develop world-class patient treatment services in Russia. Therefore, one of the cluster's priority goals is introducing advanced international practices in the Russian healthcare system.



TERRITORY

~60 HA

TOTAL AREA

~420 K. M<sup>2</sup>





# MIMC: FROM A DEVELOPMENT PROJECT TO A WORLD-CLASS CLUSTER



## ACTIVE COMMUNICATION, PATIENTS AND DOCTORS INVOLVEMENT

**Application of best global medical practices in healthcare and clinic management. Establish a center for patient literacy**

- 20 events in 2018
- Discussion clubs
- Training programmes

- the formation of an international center for communications and the exchange of medical competencies in Moscow
- basic patient literacy training



## SYSTEM APPROACH TO INNOVATIONS AND SUPPORT FROM THE REGION

**Implementation of integrated infrastructure development projects and international educational programs**

- opening a simulation center
- co-financing from the budget of Moscow construction of pilot sites

- construction of a technopark (20 ha), production sites and R & D facilities
- implementation of own educational programs
- opening of an international medical university



## RECOGNITION AT THE NATIONAL LEVEL AND PARTNERSHIP IN MANAGEMENT

**Development of the territory of advanced legal regulation in health care. Organization of the work of the cluster on the PPP model**

- Federal Law No. 160 "On MIMC" dated June 29, 2015
- Operator (Hadassah) + investor (Hadassah and the Government of Moscow) + management (MIMC Foundation, founder - the Government of Moscow)

- discovery of Bundang (Republic of Korea) and Roman Fernandez (Spain), ORPEA (France),
- rendering honey protocol and drug-based services from OECD countries



## INTERDISCIPLINARY COOPERATION

**Intensive interdisciplinary research in areas such as nanotechnology, biotechnology, information technology, and cognitive science. NBIC-convergence fostering**

### MEDICINE OF THE FUTURE IN MOSCOW

The concentration of branches of leading foreign clinics

International training and career opportunities for Russian specialists

Projects at the intersection of industries, technologies, research areas

Development of medicine based on the opinions of the patient and the physician (living labs)

Global transfer of best clinical and management practices

Improving the position of Moscow in the world medical tourism rankings

MIMC

→ RESULT

→ PLAN



# Thank you!

