# Barcelona, a thriving Life Sciences hub

LIFE SCIENCES

Barcelona & Partners®

An initiative by





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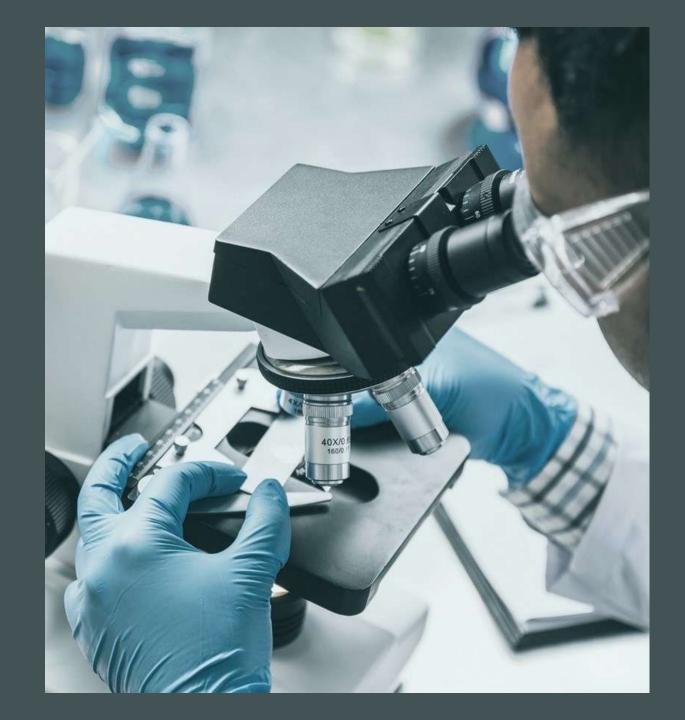
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# Introduction



# Introduction

Life Sciences has become an extremely attractive sector both for talent development and for the investment community. As an industry, it encompasses companies operating in research, development and manufacturing of pharmaceuticals, biotechnology, medical devices, biomedical technologies and other products.

From a Real Estate perspective, interest in creating Life Sciences clusters is growing considerably as it is widely accepted that bringing these types of companies closer together with their main competitors boosts their productivity. As a result, this trend is creating strong demand from leading Real Estate players who are beginning to see the sector as an asset class in its own right and are actively seeking better-located developments that will allow them to take advantage of this opportunity.

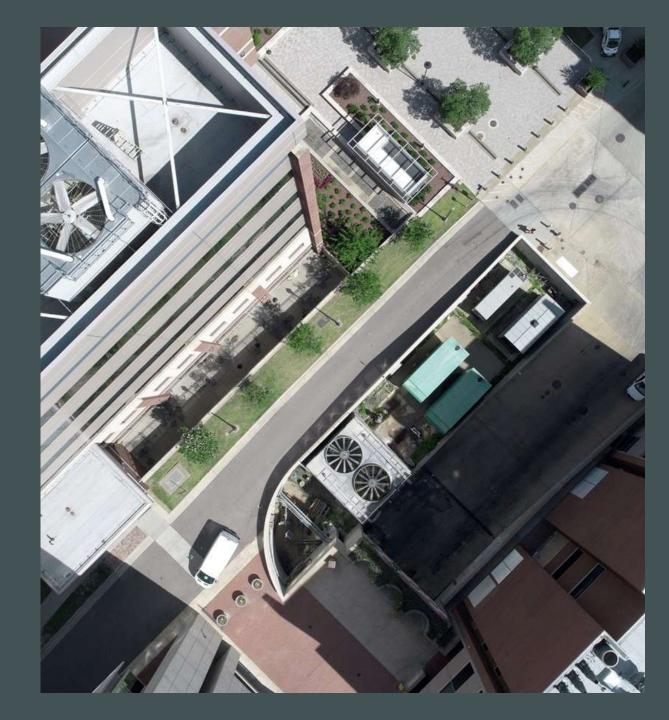
Barcelona ticks all the boxes in terms of what is needed to play a prominent role in the Life Sciences industry: outstanding infrastructures, world-renowned hospitals, a vibrant business ecosystem and a city that is at the cutting-edge of science and offers an exceptional quality of life that continues to attract talent to the city.

There are also numerous projects underway that will further enhance what Barcelona can offer in terms of medicine and science. These projects will also provide space for Life Sciences companies to set themselves up, helping to further raise the city's profile and deliver new investment opportunities.



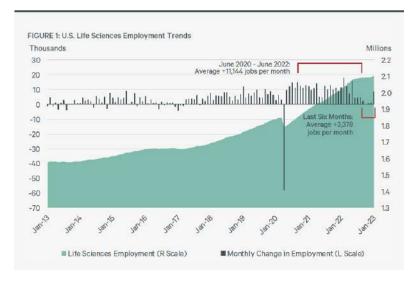
02

# Global hubs



### Life Sciences in the United States

The US Life Sciences sector is the most advanced in the world in terms of private investment, employability and surface area dedicated to laboratories and manufacturing. It boasts mature and consolidated clusters, especially compared to clusters in the EU. As such, investment in Life Sciences real estate is very studied and controlled. The US is home to a number of clusters that are located all across the country and are exclusively dedicated to a range of different areas of Life Sciences. All clusters in the US are very advanced in terms of their sustainability credentials.



#### **Employment**

In 2022, Life Sciences accounted for a near-record 1.4% of the total US labour force. Employment in R&D, mostly in the biotechnology sector, grew by 8.7% and led the overall industry's annual job growth. The San Francisco Bay Area, Boston / Cambridge and Seattle were the fastest-growing markets. At the beginning of 2023, US Life Sciences employment hit a record 2.1 million jobs despite the slowdown in growth.



#### Source: US Life Sciences Outlook 2023 by CBRE

### Venture capital

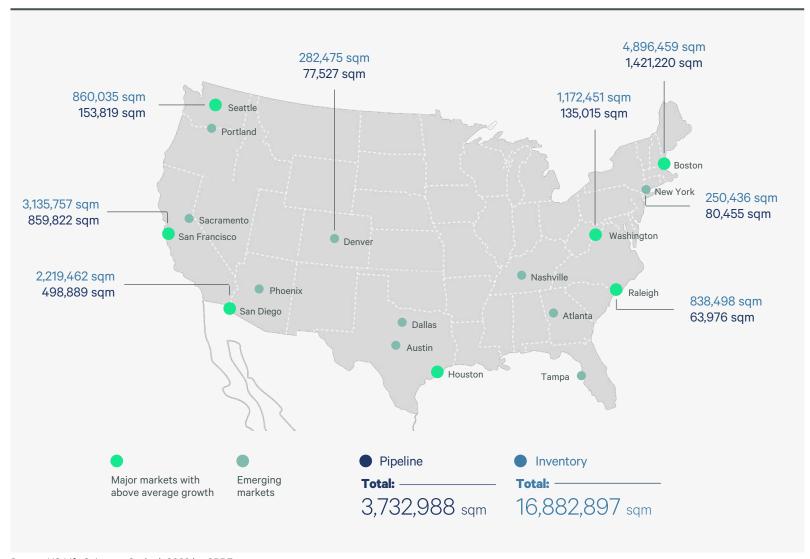
Venture capital plays a pivotal role in the creation and expansion of Life Sciences companies. Despite seeing a 34% year-on-year decline to \$21.7 billion in annual VC funding in 2022, Q4 2022 recorded the first quarterly increase since early 2021, at 20%.

### Life Sciences in the United States

The US Life Sciences laboratory and R&D inventory has grown by 47% over the last five years to 16.9 million sqm, with a record 3.7 million sqm of new construction currently underway. CBRE forecasts that this surface may increase by more than 20% over the next two years and push the vacancy rate up moderately.

Boston/Cambridge currently has the most laboratory and R&D space under construction, followed by the San Francisco Bay Area and San Diego, with new space in each accounting for more than 20% of their existing inventories.

New construction has shifted away from primarily core submarkets to peripheral ones over the past few years. In fact, the share of all new construction in the core submarkets of Boston/Cambridge, the San Francisco Bay Area and San Diego – the leading Life Sciences markets in the US – fell to an average of 40% in 2022, down from 90% in 2018 and 2019.

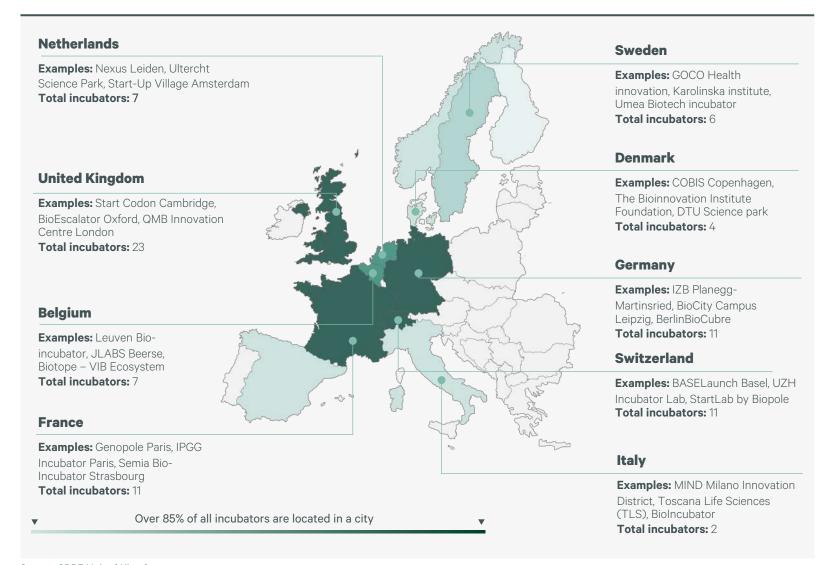


Source: US Life Sciences Outlook 2023 by CBRE

## Life Sciences in Europe

In Europe, the Life Sciences sector is divided into the most stable and advanced markets, such as the United Kingdom and France, consolidated markets such as the Netherlands and Belgium, and emerging markets such as Sweden. Italy is also coming onto the scene with its MIND Milano Innovation District, a development offering more than one million sqm dedicated to Living, Life Sciences, Hospitals and Universities and with an estimated value of \$3.7 billion.

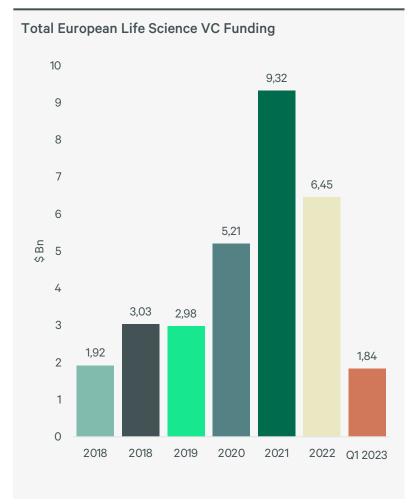


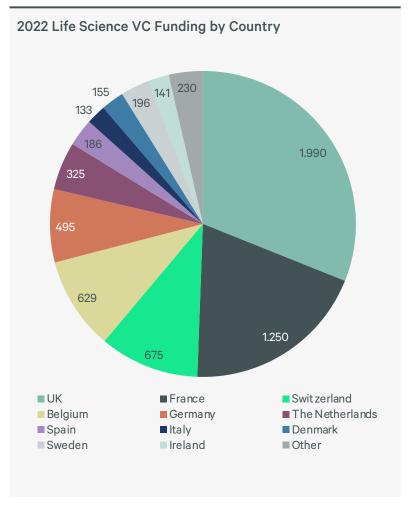


Source: CBRE United Kingdom

# Life Sciences in Europe







Source: PitchBook

## Life Sciences in the United Kingdom

The United Kingdom's Life Sciences sector is by far the most advanced in Europe. Over the past five years, the amount of VC funding has more than doubled, the number of firms has increased by around 20%, and the sector's employment has grown at twice the rate of employment. The United Kingdom also has five universities in the global Top 25 for biomedical sciences, which means there is a rich pool of highly skilled talent. The Real Estate industry is actively responding to the needs of all these occupiers.

The Golden Triangle, a cluster formed by Oxford, Cambridge and London, is the UK's most important Life Sciences real estate market. In the last five years, the number of Life Sciences incubators has doubled, while there is also an ever-greater mix of incubator types. Companies such as AstraZeneca, AKL Research, Galecto, Immtune, Antabio, GSK and Avacare all have laboratories or R&D space in these areas.









#### Milton Park

Located in Oxford, and covering circa 1,000 sqm, Milton Park is home to 250 companies and employs over 9,000 people.



#### **Stevenage Bioscience Catalyst**

Located in London, here more than 40 companies employ a total of over 3,500 people and occupy 21,500 net sqm across the Incubator, Accelerator and Spark buildings, the Cell and Gene Therapy Catapult and Sycamore House, developed by Kadans.



#### **Cambridge Biomedical Campus**

Located in Cambridge, it is the largest medical research and Life Sciences centre in Europe, employing 20,000 people.

## Life Sciences in Spain

# Spain has all the right ingredients to become a fast-growing Life Sciences hub.

Spain's rich pool of skilled talent, first-rate research institutes and thriving knowledge-driven industry make it perfectly poised to become a fastgrowing Life Sciences hub.

The country's high-quality healthcare system guarantees almost universal care for all its residents.

The sector is very strong in terms of employment, exports and innovation and has the foundations for real estate development. For this reason, we are starting to see a growing interest in this type of asset in Spain.





# Integrated healthcare system

- + 830 public and private hospitals.
- The Spanish healthcare system is ranked among the best in the world.



# Growing number of biotech firms

- 4,000 companies involved in biotechnology (+860 biotech firms).
- Catalonia tops the table in terms of number of biotech companies in Spain.
- Spanish biotechnology produces excellent scientific research (26% of articles among the top 10% most cited in the world).



# Top country in clinical trials

- One of the top 5
   countries in Europe
   for number of clinical
   trials and one of the
   top 15 in the world.
- Spain participates in nearly 20% of international clinical trials.



# A robust research and innovation ecosystem

- Almost 80 science and technology parks, research centres, technology institutes and universities.
- Ranked 12th in the world and 5<sup>th</sup> in Europe for its scientific production
- Ranked 6th in the world and 3rd in Europe in Alzheimer's research.



# Solid positioning in the EU pharma industry

- Ranked 4th in both sales and job creation, and 6th in pharma production.
- 425 pharma companies (60% of these are international firms).
- The sector accounts for 20% of all private R&D spending in Spain.

Source: ICEX – Invest in Spain

## Life Sciences in Spain

In terms of real estate, the Life Sciences sector and the laboratories or R&D facilities are mainly located in science or technology parks, which are largely developed with public funds.

According to startups and SMEs, the main handicap of these types of asset is the lack of possibilities to expand, and the lack of housing and basic services, hence why they are usually located in logistics or industrial areas with better infrastructures.

However, sites such as Madrid and Barcelona's Science Parks are fully let and have waiting lists. This is why we are starting to see new private developments, such as the BioCluster project in Hospitalet de Llobregat (Barcelona) and the extension projects at Barcelona's Science Park and the Mercat del Peix.



Source: CBRE Spain

03

Why Barcelona is a leading hub for Life Sciences





Barcelona has everything you need: talent, location, infrastructure and a vibrant business ecosystem.

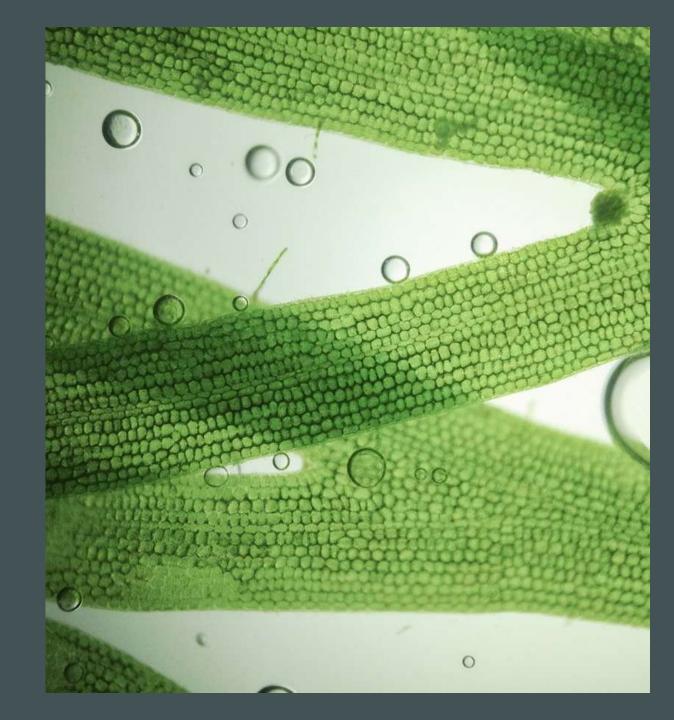
It's a top-level Biohub, with first-rate hospitals and research centres, and a unique mix of startups and corporates in southern Europe

Manuel del Castillo Rey Managing Director of the Hospital Sant Joan de Déu, Barcelona



03.1

The ecosystem up close



## Barcelona in figures

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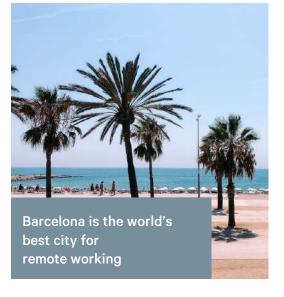
The Barcelona brand is renowned worldwide, and that helps when approaching investors. It's also a great place for attracting talent

Esther Riambau, CEO ONIRIA Therapeutics

ONIRIA Therapeutics is a biotech company, spin-off of VHIO, UB and ICREA, focused on the development of new drugs to modulate and eliminate dormant tumour cells as a novel strategy for overcoming disease persistence.







#### **Demographic indicators (2021)**

- Catalonia has a total population of 7,739,758 inhabitants, 4,931,245 of which live in the Barcelona Metropolitan Area.
- 22.4% of the city's population are foreign nationals, topping the national average of 11.21%.
- The average age of the population in Barcelona is 43.35 years old.

#### **Economy**

- In 2021, the Catalonia region represented 20.03% of the country's GDP.
- The GDP per capita in Catalonia is €34,534.72.
- The unemployment rate in the city of Barcelona is 9.7%, below Spain's national rate of 12.9%.

#### **Quality of life**

Barcelona is the sixth most attractive city in the world to live and work in. It has:

+ 30 km of beachfront

of sunshine a year

2.500 hours

+ 300 km of bicycle lines + 8,900 international companies

+ 11,000 architectural spaces

+ 1,900 public sports spaces

+ 60 parks 67 museums

Source: World's Best Cities report 2022, Resonance Consultancy

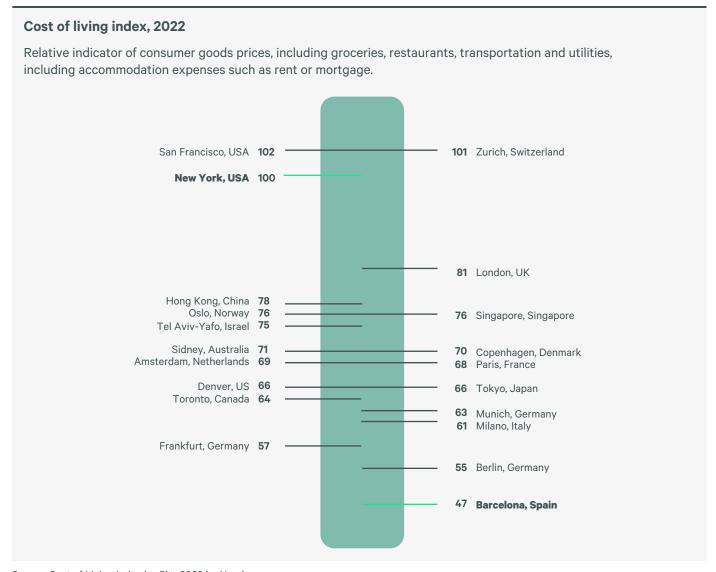
Source: Barcelona in figures 2021/2022. Ajuntament de Barcelona Source: Idescat and INE

# A highly competitive city

Barcelona offers an unparalleled balance between quality of life, talent and cost structure.

Barcelona offers a very attractive European and global investment proposition thanks to a favourable mix of factors. The city's local innovation culture, strong industrial base and pool of qualified professionals are all complemented by highly competitive salaries, office spaces and service providers.





Source: Cost of Living Index by City 2022 by Numbeo

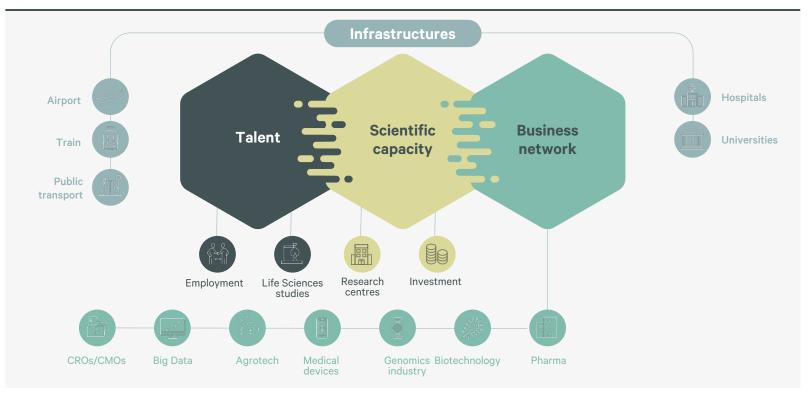


Barcelona offers an attractive combination of diverse talent, quality of life, infrastructures, scientific capacity and a dynamic entrepreneurial ecosystem.

These factors make Barcelona an enticing place to do business, live and work.

Marc Ferre, Managing Director at Bayer GBS Barcelona

Bayer is a global enterprise with core competencies in the Life Science fields of health care and nutrition. Its products and services are designed to help people and planet thrive by supporting efforts to master the major challenges presented by a growing and aging global population. The Bayer brand stands for trust, reliability and quality throughout the world. In the 2022 fiscal year, the Group employed around 101,000 people and recorded sales of €50.7 billion. R&D expenses before special items amounted to €6.2 billion.



#### What does a cluster need?

To become a Life Science hub, a city must have strong offering in the following areas:

- Infrastructure: the city's communications, educational and health facilities are key in its ability to attract the Life Sciences sector.
- Talent: the city's provision of top-level universities that train
  professionals in the sector and work to integrate them into the
  working environment are an essential pre-requisite for Life
  Sciences hubs.
- **Scientific capacity:** the R&D projects carried out in any given area, with both private and public funding, are a clear indication of its potential to become a Life Sciences hub.
- **Business network:** how many Life Sciences companies are currently located in the area and their fields of activity are important factors to consider when it comes to creating a Life Sciences hub.

Barcelona's a dynamic business network is complemented by the perfect mix of infrastructure, talent, scientific capacity.

### Infrastructure

A Life Sciences hub, following the trends of the most advanced and developed markets in the European Union, must be close to universities and hospitals in order to increase the transfer between researchers, the health system and the business world.

Only a handful of cities in the world have an international airport, a port, and a platform for free trade and logistics activities within

international airport, a port, and a platform for free trade and logistics activities within a radius of just five kilometres. Barcelona is one of them. It is also part of the Mediterranean Corridor, which crosses six EU countries and covers more than 6,000 km.







### **Transport connections**

#### **Airport**

 More than 41 million passengers and 4.4 million intercontinental passengers in 2022.

#### Train

 12.1 million passengers travelling between Madrid and Barcelona in 2022.

#### Port

 The Port of Barcelona received 2.3 million cruise passengers in 2022 and has exported and imported 70.9 tons.

#### **Public transport**

 The Barcelona metropolitan area has 12 metro lines with more than 186 metro stations and 108 bus lines.

#### Fairgrounds

 Barcelona has more than 500,000 sqm where more than 150 events are held every year.





### Hospitals

One of the main components of Barcelona's ecosystem is its network of high-quality hospitals. Barcelona has 58 hospitals, 12 of which are public and 46 private.

Barcelona's hospitals have achieved global recognition for their excellence in oncology, thoracic and cardiac surgery, kidney transplants and ophthalmologic surgery.

Some of the city's hospitals are considered benchmarks at global level, such as the Hospital Clínic and Hospital de la Vall d'Hebron, both ranked among top 100 best hospitals in the world, according to Newsweek magazine.

58 hospitals, 12 of which are public and 46 private

#### Universities

Catalonia has 12 universities, with more than 282,000 students enrolled. The Barcelona metropolitan area alone, with its eight public and private universities, accounts for 82% of total enrolled students. Barcelona is the only city in Europe to have two of its teaching institutions ranked among the ten best business schools: IESE and ESADE are ranked in the top five of the world's best business schools for executive education, according to Financial Times 2023.

Barcelona is the only city in Europe to have two of its teaching institutions ranked among the ten best business schools: IESE and ESADE.

Source: 2022 BioRegion Report, Biocat and Barcelona in figures 2021-2022, Ajuntament de Barcelona

### **Talent**



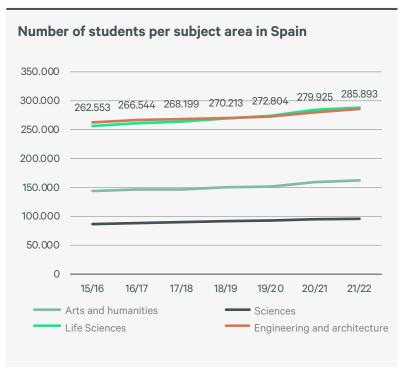
Barcelona offers unique access to highly talented professionals with a very good command of English and an innovative ecosystem which has attracted a range of leading multinationals. This combination also makes Barcelona an attractive destination for international talent.

99

Carlos Nueno, President at Teladoc Health International

Teladoc Health, the world leader in wholeperson virtual care, has set up an international headquarters in Barcelona to manage all its international business. With one of Europe's highest student populations and international campuses of excellence, Barcelona is a hive of local and international talent, with students having access to a wide range of Life Sciences degrees and master's courses. This is a key factor that continues to attract international companies to the city.

With more than 1,050 degrees and master's courses and more than 265,000 university students (over 30% of these from overseas), Barcelona has one of the highest student populations in Europe. 46.9% of Catalonia's working population are university graduates.



Source: Ministerio de Universidades and Idescat

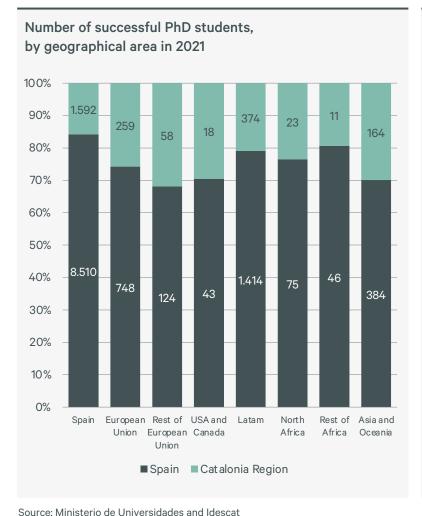
#### **Number of Life Sciences students in Spain**

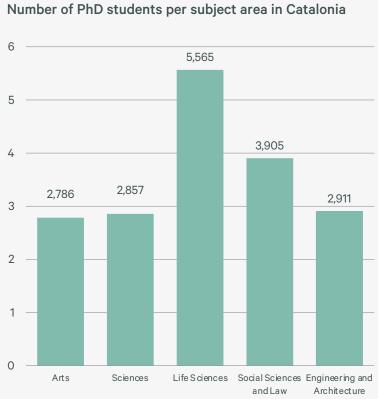


The autonomous region of **Catalonia** has more than 200 academic degree programmes and over 52,000 students enrolled in Life Sciences, making it **the region with the highest number of students enrolled in Spain**.

Barcelona is one of the leading regions for research both at the European and global level, **ranking as the fifth city in scientific production in the European Union and 20th worldwide in 2022.** 

### Talent





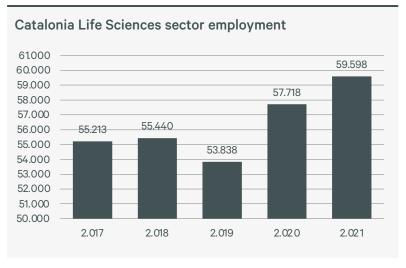
When analysing the distribution of PhD students per subject area in Catalonia, Life Sciences stands out as the leading field in terms of the highest number of students.

Source: Ministerio de Universidades and Idescat

### **Employment**

Employing almost 247,598 people, the Life Sciences sector accounts for 7% of the employed population in Catalonia:

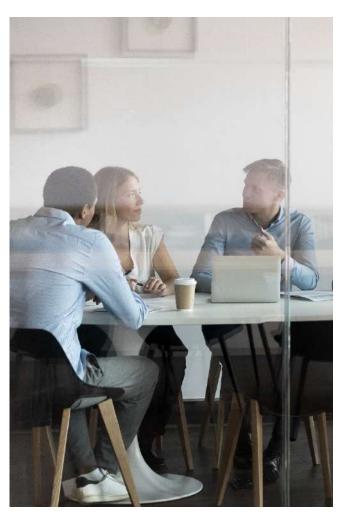
- 188,000 employees on health services
- **59,598** employees in industry



In the Barcelona area, Life Science accounts for 11,700 innovation-intensive employees out of more than 59,000 total sector employees:

- 9,300 in pharmaceutical manufacturing and research
  - **2,400** in medical technology manufacturing and services

### **Talent**



Catalonia is among the **top five in Europe** (per million inhabitants) for indicators like scientific publications, competitive resources secured for research projects, and grants from the European Research Council (ERC) in Life Sciences and health.

57.786

€571 M

85

Sant Joan de Déu: 235 active researchers in pediatrics.

Top fields: pediatric disease diagnostics, child epidemiology,

juvenile mental health, neurogenetics and molecular biology

scientific publications in Catalonia (2016-2021)

H2020 funds secured (2016-2021)

ERC grants (2016-2021)

#### Life Science research highlights in the Barcelona area:

- UB Medical: 519 active researchers.
   Top fields: medical research, surgery, clinical sciences, oncology, disease diagnostics, nutrition and nutriomics, clinical psychology, bioengineering, pathologies and therapeutics and odontology.
- UB Pharma and Biotech: 574 active researchers.
   Top fields: evolutive biology, genetic research, clinical trials, physiology, and cellular biology.
- IGTP Complex in Badalona: 697 researchers, and 254 active researchers.
   Top fields: oncology/cancer research, leukaemia, viral diseases,

surgery, and infectious diseases.

- and endocrinology.
- UIC: 152 active researchers.
- URL network: 210 active researchers.
- IQS: 67 active researchers.

# Scientific capacity

Barcelona is home to leading science facilities, giving the city the potential to play a key role in advancing health sciences and the production of new medicines.



91 Research Institutes

40

research centres (32 of which are CERCA)

**2**C

university hospitals

12

universities offering Life Sciences studies

3

large scientific infrastructures (the ALBA synchrotron, the Barcelona Supercomputing Centre, and the National Centre for Analysis and Genomics)

2

technology centres

14

science and technology parks with businesses involved in Life Sciences

Barcelona is a leading force in genomics and structural biology, excelling in areas such as medical chemistry, nanomedicine, omics sciences, bioinformatics and big data.

The city is also renowned for oncology and immunotherapy, neurosciences, global health, veterinary, genomics and epigenetics, nanotechnology, bioengineering, photonics, and medical chemistry.

#### Barcelona, a leading destination for clinical trials

The Barcelona region is currently participating in over 1,240 active clinical trials to test new therapies and drugs in patients. 75% of the clinical trials run in Spain involve the participation of a Catalan centre.

The region is ranked sixth in Europe and eighth in the world in terms of the number of active clinical trials.

In oncology, the Catalan life sciences and healthcare ecosystem ranks fifth in Europe and seventh in the world.

# Scientific capacity

# Life Sciences Research and Scientific Institutes

- Hospitals & Research Institutes
- Pharma & Biotech companies
  Research Centres
- Life Science & Technology
- Science & Technology Parks
   Life Science Universities
   Life Sciences
- Venture Capital
- Hubs & Ecosystem Supporters



















#### CRG:

International biomedical research institute of excellence focused on genomics.

#### IBEC:

Multidisciplinary research institution specializing in bioengineering and nanomedicine. Recently partnered with Fraunhofer

#### **IDIBAPS:**

A leading biomedical center dedicated, t to the ongoing pursuit of knowledge regarding diseases, their treatmen clinical application, and dissemination.

#### **IDIBELL:**

It is a research centre in biomedicine focused on cancer, neuroscience, translational medicine and regenerative medicine.

#### IRB:

A biomedical research centre with the mission to carry out research of excellence to cure cancer and other diseases linked to ageing.

#### IRSantPau:

Committed to advancing research in basic, clinical, epidemiological, and healthcare services within health sciences and biomedicine.

#### **IRSI Caixa**

An international leader in HIV/AIDS research and a reference in the study of emerging infectious diseases, the microbiome, and cancer.

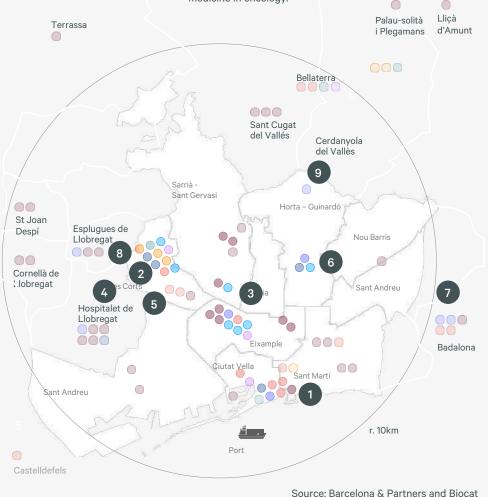
#### **IRSJD:**

A European reference in comprehensive biomedical research into the health of individuals in the pediatric age.



#### VHIR & VHIO

VHIR conducts cutting-edge research in oncology, neurosciences, infectious diseases among others. VHIO is a reference center for personalized medicine in oncology.



# Scientific capacity

# Multi-sector Research and Scientific Centres

- Hospitals & Research
- Pharma & Biotech companies
- Research Centres
  Life Science & Technology
- Science & Technology Parks
  Life Science Universities
- Life Sciences

  Venture Capital
- Hubs & Ecosystem Supporters



Though we are not a life-science research centre, we do work in nanobased applications for health and medicine. We are deeply committed with transferring our technologies to society, and in this sense, of the 14 spin-offs that have been generated at ICN2 over the years, half of them have health related products.

Margarita Navia de Roux, Head of Strategy at ICN2



#### Barcelona Super Computing Centre:

National supercomputing centre in Spain



#### ICN2:

Flagship research centre in nanoscience and nanotechnology



#### Alba Synchrotron:

Prominent research facility that attracts scientists from all over Europe



#### IFAE:

Performs research in highenergy physics, astroparticle physics and cosmology



#### ICFO:

Centre of excellence with research encompassing a range of areas in which photonics plays a decisive role



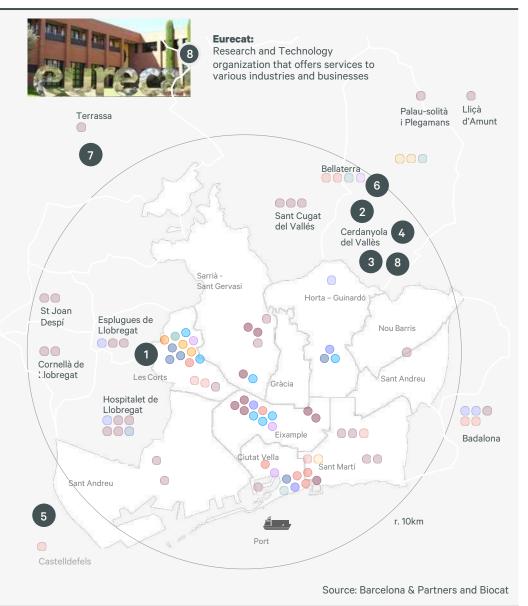
#### IMB-CNM:

Spain's largest centre for R&D in micro and nano technology (MNTs), with unmatched capabilities in silicon technology



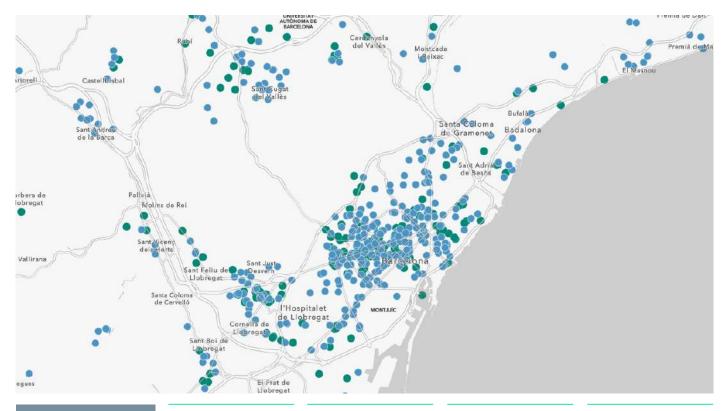
#### Leitat:

The centre manages technology to create sustainable value for businesses and organisations



The Life Sciences ecosystem in Catalonia is principally located in the Barcelona region (98%). Along with healthcare services, they generate a combined turnover of €39.4 billion (8.7% of Catalonia's GDP) and employ more than 247,500 workers.





The Catalan
healthcare and
Life Sciences
sector,
known as the
BioRegion,
comprises more
than 1,350
companies.

348

Biotech companies

213
Professiona

Professional services and consultancies

129

Pharmaceutical companies

182

Suppliers

201

MedTech companies

66

Investors

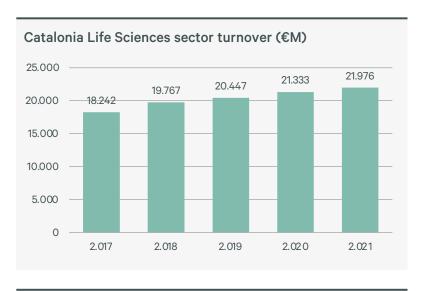
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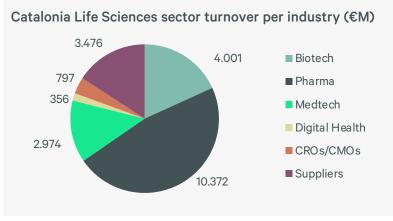
Digital health companies

Source: Biocat and CBRE

Based on the Biocat's latest report, 'The 2022 BioRegion Report', the Life Science sector in the region of Catalonia has seen an increase (CAGR) of around 3% in terms of both employment and turnover. This is largely down to the growth registered in the subsectors of digital health (+16%) and suppliers (+37%).







#### Source: Biocat

#### A leading destination for investing in tech:

Between 2017 and 2021, Barcelona was Spain's number one destination for foreign direct investment.

- Barcelona ranks as Europe's 2nd best place to invest in biotech.
- Barcelona has been named the best city in Europe for attracting foreign investment (Financial Times, 2023).
- Barcelona ranks among the top 20 cities for global competitiveness (Global Power City Index, 2022).

The Barcelona region is Europe's densest pharma ecosystem and accounts for 45% of the industry's total exports in Spain.



# Barcelona is home to the biggest pharma and biotech companies in the world

Based on the latest Biocat report, Catalonia is home to 46% of all medicine production plants in Spain, including biological medicines and chemical synthesis medicines for human use, APIs, and veterinary medicines.

Catalonia also houses half of the industrial pharma companies in Spain: a total of 79 industrial plants are located in the region employing 15,806 people.

More than 50% of the industry's leading multinationals operate within the Barcelona region.

A number of top global pharma and biotech companies have chosen to invest and develop their businesses in the region, setting up production centres and R&D departments.







































Spain's top pharmaceutical companies all originated out of Barcelona.















Source: Biocat

# Barcelona, one of the most attractive cities for startups

Home to more than 2,000 startups (76% work with Industry 4.0 technologies and 79% invest in R&D) and employing over 19,100 people, Barcelona is one of Europe's most dynamic cities, and one of the world's most popular cities to live in.



# Life Sciences startups in the Barcelona area

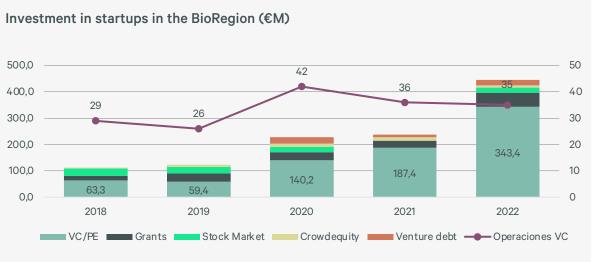
420 out of the more than 2,000 startups in the Barcelona area are Life Sciences related to:

- Healthcare (290 startups): digital health, bioengineering and regenerative medicine, frontier materials, Al and Big Data health applications, etc.
- Cutting-edge R+D Services (121 startups).
- Food and nutrition science-related (97 startups).
- Al and Data Science for medical and pharmaceutical services (62 startups):
  - Bioengineering startup (45)
  - Digital health startups (30)
  - Automation for medical procedures, devices and equipment (24)
- Beauty and personal care (27 startups).

### Barcelona is the second most preferred EU hub for founders of startups, it also has the second-highest number of startup founders among local university alumni in Europe.

The healthcare startup ecosystem in Catalonia defies the downward trend being seen at the global level. According to the 'Study on investment in Life Sciences & Health sector in Catalonia 2022' promoted by CataloniaBio & HealthTech and EY, with investment in these startups registering a year-on-year increase of no less than 87% to reach €445 million in 2022.





Source: Biocat



#### Some of the most promising Barcelona-based Life Sciences startups















































#### Supporting associations that foster the Life Sciences ecosystem in Catalonia



BHH is a private non-profit association that promotes innovation in digital health and its transfer to the sector, linking startups, health organizations, companies, and investors.

### **farmai**ndustria

Farmaindustria is the National Trade Association of the pharmaceutical industry.



Biocat coordinates and promotes the biosciences sector in Catalonia.



Tech Barcelona, the private, non-profit association that represents the city's digital and technological ecosystem, has presented Pier07, the benchmark hub for business innovation in the health and life sciences sector.



Catalonia Bio&HealthTech represents the biomedicine and health companies in Catalonia. It boosts their competitiveness and size and creates value by promoting innovation, entrepreneurship and the network.



FENIN is an intersectoral federation that brings together manufacturing companies, importers, and distributors.



ACCIÓ offers financial aid, guidance, and resources for research and innovation, facilitating networking and international growth for Life Science companies.



Barcelona Activa offers programs, funding, and resources, fostering innovation and growth in research, development, and commercialization.

### **Hubs in Barcelona**

The Barcelona metropolitan area has everything needed for Life Sciences hubs.



### Science Park Area - Hospital Clínic extension

- Hospital Clínic (pending relocation)
- Parc Científic de Barcelona (PCB)
- Parc de Recerca i Innovació de la UPC (Parc UPC)
- Institut de Recerca en Biomedicina (IRB)
- Institut de Bioenginyeria de Catalunya (IBEC)
- Hospital de Barcelona
- Clínica Corachan
- Universitat Politècnica de Catalunya (UPC)
- Universidad de Barcelona (UB)
- Barcelona Supercomputing Centre (BSC)
- **Biocat**
- CataloniaBio & Health tech
- Caixa Capital Risc (investor)
- Inbeready (investor)
- Ferrer (company)

#### Ciutadella Knowledge Hub

(Current location)

- Hospital del Mar
- Parc de Recerca Biomèdica de Barcelona (PRBB)
  - Instituto de investigaciones médicas Hospital del Mar (IMIM)

  - Centre de Regulació Genòmica (CRG) Instituto de Salud Global de Barcelona (ISG)
  - Instituto de Biología Evolutiva (IBE)
  - Barcelona Laboratorio Europea de Biología Molecular EMBL
- IRAB Instituto de Radiofarmacia aplicada de Barcelona
- Fundacio Pascual Maragall
- Mercat del Peix (in construction)
- Universitat Pompeu Fabra (UPF)
- Amgen (company)
- Barcelona Tech City Pier 07
- Asabys (Investors)

#### Vall d'Hebron

Vall d'Hebron Campus Hospitalari de Barcelona

- Instituto de investigación Vall d'Hebron VHIR
- Vall d'Hebron Instituto de Oncología (VHIO)

#### **Cluster Hospital Clinic**

- (Current location)
- Hospital Clínic Instituto de Investigaciones Biomédicas August Pi i Sunyer (IDIBAPS)
- Alta Life Sciences (Investors)
- Invivo Ventures (Investors)
- Universidad de Barcelona (UB)



#### **Innovation and Health BioCluster**

- Hospital Infantil SJD de Barcelona (SJD)
- Hospital Universitari de Bellvitge
- Institut Català d'Oncologia (ICO)
- Institut de Recerca Biomèdica de Bellvitge (IDIBELL)
- Universidad de Barcelona (UB)
- Centre d'Innovació en Ciències de la Salut de Nestlé



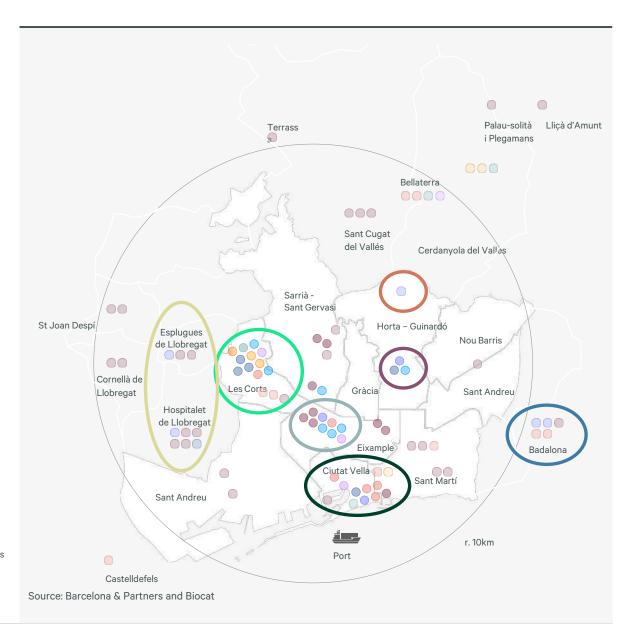
#### Can Ruti

- Hospital Universitaru Germans Trias i Pujol Instituto de Investigación Germans Trias i Pujol (IGTP)
- Institut Guttmann
- Institut de Recerca de la Sida (IRSI Caixa)
- Institut de Recerca contra la Leucemia Josep Carreras
- Invivo Ventures (investor)
- Universidad de Barcelona (UB)



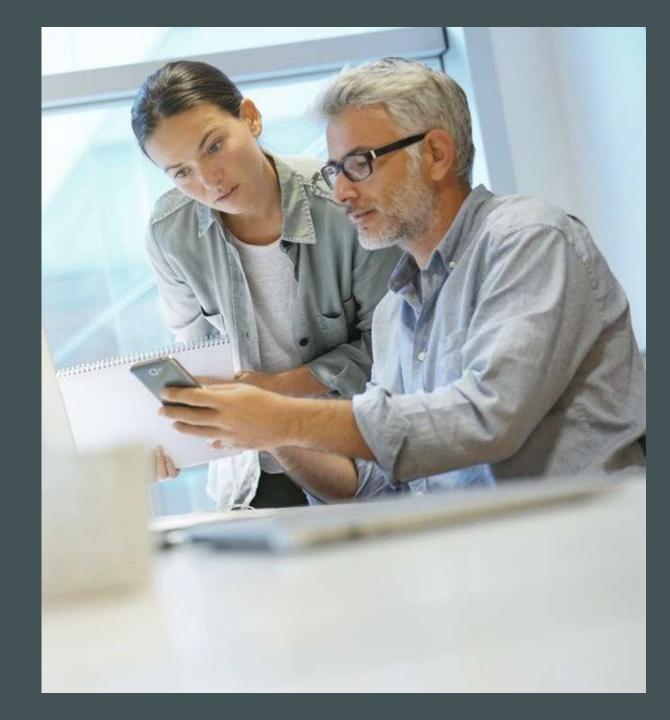
#### Sant Pau

- Hospital de la Santa Creu i Sant Pau
- Investigación Biomédica Sant Pau (IB)
- Institut de Recerca Sant Pau (IR Sant Pau)
- Barcelona Health Hub
- Nina Capital (investor)
- Hospitals & their Research Institutes
- Pharma & Biotech firms
- Research Centres Life Science & Technology Infrastructure
- Science & Technology Parks Life Science Universities
- Life Sciences Venture Capital
- Hubs & Ecosystem Sponsors



03.2

New projects



# Barcelona has everything a city needs to become a fastgrowing Life Sciences hub

Barcelona is home to a number of ongoing projects that will enhance the city's medical and scientific capacity and provide space for Life Sciences companies to set themselves up; raising the profile of the city and opening up new investment opportunities.



IDIBELL, with over 1,000 researchers in oncology, neuroscience and regenerative and translational medicine, strongly supports the BioCluster Innovation and Health project.

Gabriel Capellá, Director at IDIBELL



**Innovation and Health BioCluster**Bellvitge area

556,000

50,000 new jobs

€7 billion

in annual revenue



Science Park Area Hospital Clínic extension

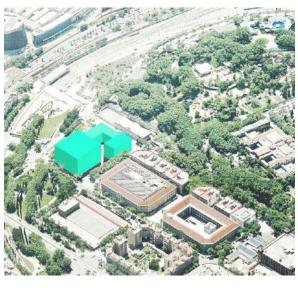
330,000

290.000 sqm. Hospital Clínic

15.000 sqm. Sant Joan de Déu

15.000 sqm. Campus Esplugues

10.000 sqm. Parc Científic



Ciutadella Knowledge Hub Mercat del Peix extension

45,000

# 3 buildings

dedicated to biomedicine, biodiversity and the well-being of the planet

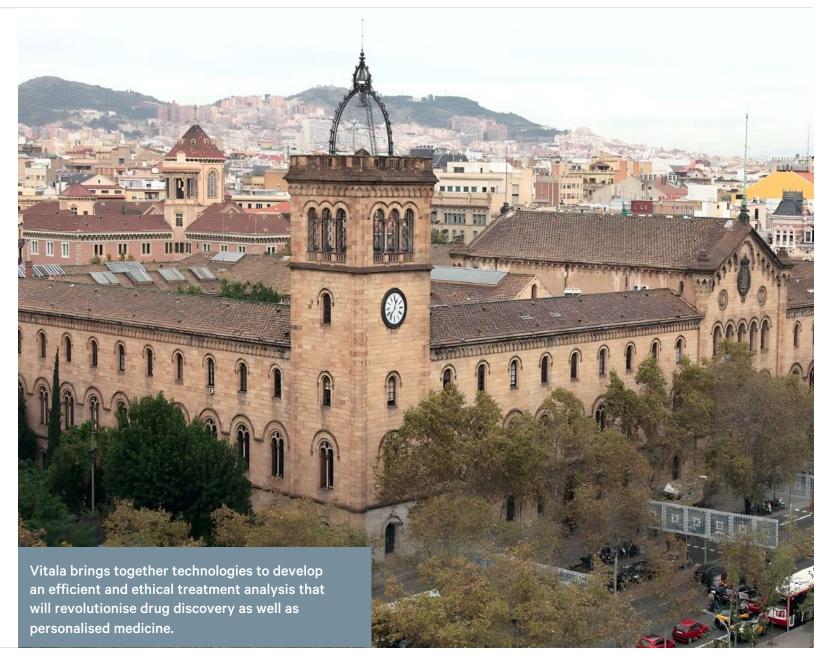
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What holds the greatest value for us is the close proximity to other companies, clients, consultants, technology hubs, research centres and laboratories. That's why we put efforts to locate Vitala Technologies at Barcelona's Scientific Park (PCB), as it offers infrastructure and proximity to other players.

There is need to promote more ecosystems like this one because the demand and initiatives in life sciences in the city are growing considerably.

99

María Alejandra Ortega Phd. WomenTech EU 2023 and co-founder, COO and CTO at Vitala technologies



# Innovation and Health BioCluster Bellvitge area

Over the next decade, the new Life Sciences hub will be developed in the area surrounding the Hospital Universitari de Bellvitge in Hospitalet de Llobregat.

The BioCluster project aims to completely transform the area, which extends more than one million sqm. The goal is to create a leading R&D Life Sciences hub that will benefit from access to a world-class hospital with close to 1,000 beds, the Catalan Oncology Institute and its proximity to the University of Barcelona's Bellvitge Life Sciences Campus which houses the medical and nursing faculties.

#### Hospitals

- Hospital Universitari de Bellvitge 958 beds
- Institut Català d'Oncologia 126 beds
- Hestia Duran i Reinals 428 beds

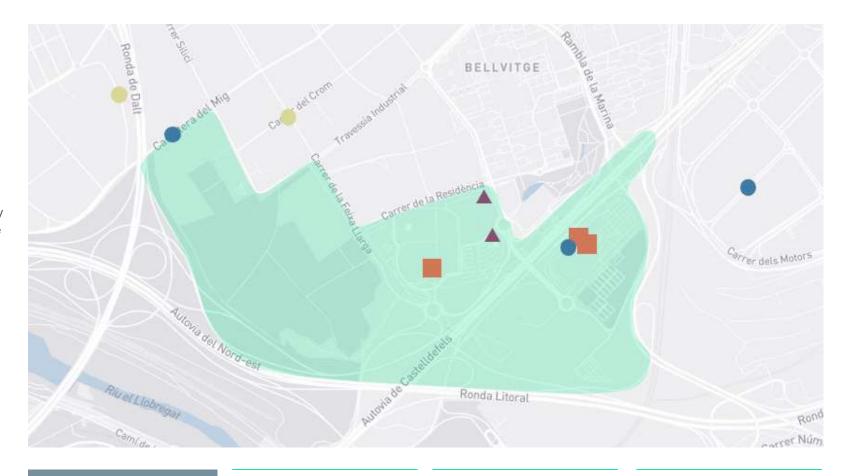
#### **▲** Universities – Science Parks

Bellvitge Life Sciences Campus – University of Barcelona

#### Companies

 Werfen, Olympus, GP Pharma, Chiasi, Palex Medical, Sincrofarm, Merck, AstraZeneca, Qualix Pharma, Laboratorio Genove, Antonio Puig, Dermofarm, Zimmer Biomet. etc...

#### CSIC Centres



The BioCluster project aims to completely transform the area, which extends more than one million sqm 556,000

sqm of green areas

A project set to create 50,000 new jobs and €7 billion in annual revenue.

66

The Innovation and Health BioCluster - Smart Health Community - a project headed up by L'Hospitalet de Llobregat, and in collaboration with Hospital de Bellvitge, IDIBELL, the Catalan Institute of Oncology, Hospital de Sant Joan de Déu and the University of Barcelona (the Bellvitge Campus Health Sciences Faculty) seeks to enhance and further consolidate the health innovation ecosystem by promoting personalised medicine, championing an innovation and knowledge-based economy in the Barcelona metropolitan area. A project that will attract new companies to the prized Gran Via de l'Hospitalet hub.

99

Francesc Josep Belver Deputy Mayor of Planning, Territory and Economy at L'Hospitalet City Council



# Science Park Area Hospital Clínic extension

Barcelona's Science Park is one of Europe's model ecosystems for research, technology transfer and innovation, and the most important Life Sciences hub in Spain. The Hospital Clínic will have a built area of more than 290,000 sqm and more than 3,000 employees working mainly in the health sector.

#### Hospitals

- Hospital San Joan de Deu 318 beds
- SJD Pediatric Cancer Centre 40 beds
- Hospital Casa de Maternitat 130 beds
- Hospital Universitario Quirón Dexeus 139 beds
- Hospital General de L'Hospitalet 262 beds
- Hospital de Barcelona SCIAS 273 beds
- Clínica CIMA 86 beds

#### ▲ Universities – Science Parks

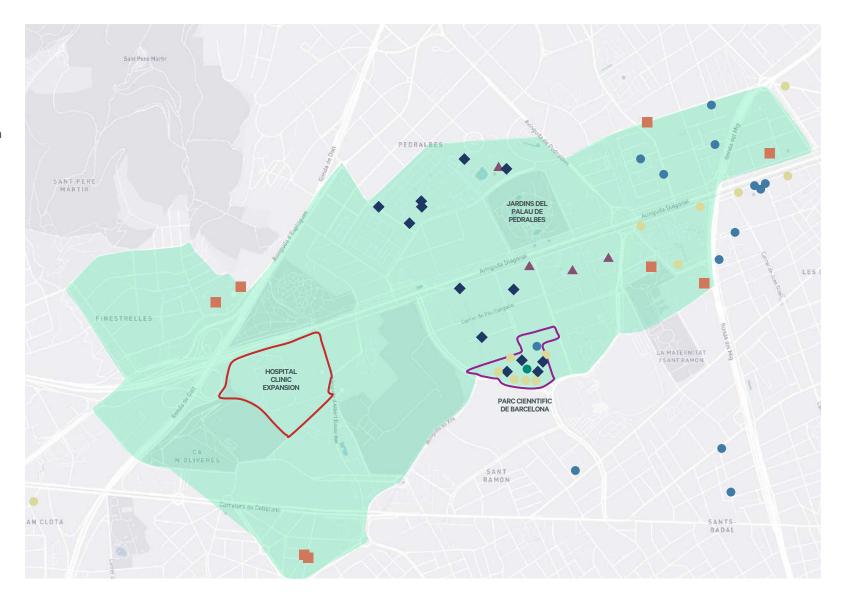
University of Barcelona, Chemistry Faculty, Biology Faculty, Pharmacy Faculty

#### Companies

Biocat, Oncoheroes Biosciences, SOM Innovation Biotech, Fundació Parc Científic de Barcelona, Accure Therapeutics, Instituto Empresarial de Biotecnología, Bioingenium, Qiagen Iberia, Smiths Medical, Echevarne, Pharma Mar, Ordesa etc...

#### CSIC Centres

- Laboratorio de RMN de la Universitat de Barcelona
- Plataforma de Secuenciación CNAG CRG y Proteómica
- Institute for Research in Biomedicine
- Instituto de Robótica e Informática Industrial
- Centro nacional de Supercomputación de Bccn



# Ciutadella Knowledge Hub Mercat del Peix extension

The Mercat del Peix extension project will see the development of a new 45,000 sqm research and innovation centre comprising three buildings dedicated to biomedicine, biodiversity and planetary welfare. The project will be located on the site once occupied by the market and next to the Universitat Pompeu Fabra's Ciutadella campus.

The project, headed up by UPF, also benefits from the joint collaboration of three strategic partners: the Barcelona Institute of Science and Technology (BIST), the Spanish National Research Council (CSIC) and the University of Barcelona (UB), and is supported by the Barcelona City Council and the Generalitat de Catalunya.

#### Hospitals

Hospital del Mar – 418 beds

#### ▲ Universities – Science Parks

- Parc de Recerca Biomèdica de Barcelona
- Parc de Recerca Universitat Pompeu Fabra

#### Companies

Fundación Centre Regulació Genómica, Robapharma España, Pierre Fabre Iberica, Fresenius Kabi España, Sanofi Aventis, Merck, Grunenthal Pharma, etc...

#### CSIC Centres

- Barcelona Graduate School of Economics
- Centro de Regulación Genómica
- Institut de Ciencias del Mar



# Other ongoing projects CaixaResearch Institute

Barcelona will unveil the CaixaResearch Institute in 2025, which will be **Spain's first research center specialized in immunology** and one of the first in Europe. Spearheaded by the La Caixa Foundation, it will involve an investment of 100 million euros and will have the capacity for up to 700 professionals when operating at full capacity.

The CaixaResearch Institute will focus on examining the interactions of the immune system prevalent pathologies, including neurological, oncological, and infectious diseases, while also analyzing associated environmental factors. The institute will conduct independent research, emphasizing a multi- and interdisciplinary approach, the advancement of state-of-the-art technologies, and the dissemination of findings to society.

The CaixaResearch Institute will carry out its own scientific program of maximum impact, but it will also generate a stable ecosystem for collaboration between the four leading centers with which "la Caixa" Foundation has a particular connection:

- The IrsiCaixa AIDS Research Institute
- The Barcelona Institute for Global Health (ISGlobal)
- The Vall d'Hebron Institute of Oncology (VHIO)
- The Barcelonaβeta Brain Research Center (BBRC).

19,000

+300

researches



04

# Conclusions



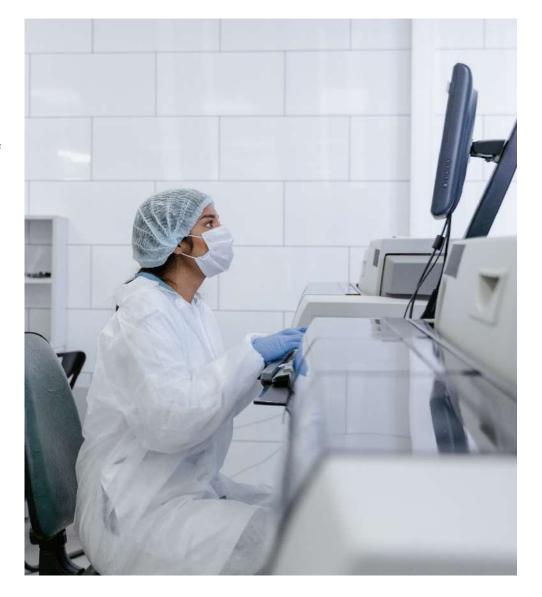
# Conclusions

Barcelona is home to world-class scientific and research institutes, boasting cutting edge facilities that generate a remarkable impact on the science industry as a whole. The city is a leading light in genomics and structural biology and in areas such as medical chemistry, nanomedicine, omics sciences, bioinformatics and big data.

Barcelona also has a remarkable public health system that offers the highest quality of services and innovation, with a rich offering of exceptional public and private hospitals. The city has one of the world's best healthcare systems, with care accessible to all residents. Its hospitals are world-renowned in the fields of oncology, thoracic and cardiac surgery, kidney transplants and ophthalmologic surgery.

Barcelona is also a European and world leader in clinical trials and has the densest pharma ecosystem in Europe. Its location, infrastructure, talent pool and quality of life continue to attract innovation centres, multinational corporations such as Top global Pharma and biotech companies such as AstraZeneca, Sanofi, Roche, Bayer, Boehringer Ingelheim, Novartis and Amgen, among others; just some example of firms that have chosen to invest, develop their businesses and set up production centres in Barcelona.

Five of Spain's largest pharmaceutical companies all originated out of Barcelona (Almirall, Esteve, Ferrer, Grífols, Werfen and Uriach).



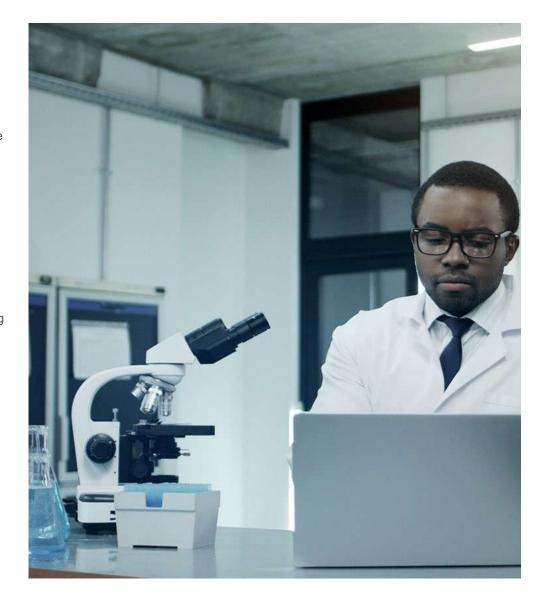
# Conclusions

Barcelona is on the cusp of exponentially increasing its scientific capacity, with major new developments expected to break ground in 2024. Projects that will take this capacity to the next level and provide additional space for companies looking to set themselves up in the area. Standout projects include:

**Health BioCluster** – This Innovation and Health Cluster is a unique business park for entrepreneurs and companies working at the forefront of healthcare innovation. With more than 550,000 sqm, it is expected to create 50,000 new jobs and generate €7 billion in annual revenue.

**The Hospital Clínic**, a leader in transplant procedures, infectious diseases, and research, is preparing a major project for a new site next to the University of Barcelona's Science Park.

**Ciutadella Knowledge Hub.** With an area of more than 150,000 sqm and headed up by the Pompeu Fabra University, along with the collaboration of three strategic partners, the Barcelona Institute of Science and Technology (BIST), the Spanish National Research Council (CSIC) and the University of Barcelona (UB); this hub will champion multidisciplinary research and innovation in the fields of biodiversity, biomedicine, and planetary welfare. This new hub will house 1,200 researchers and is expected to start operations by the end of 2025.



# **CBRE**

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#### Barcelona & Partners®

Barcelona & Partners is a private and selective investment agency which aims to attract innovative companies, ambitious projects and initiatives that will have a significant socioeconomic impact on Barcelona. Barcelona & Partners is an initiative created by Barcelona Global (a private, independent and non-profit association composed by 244 of the city's leading companies, research centres, entrepreneurs, business schools, universities and cultural institutions, and more than 930 professionals aiming to make Barcelona one of the world's best cities for talent, and economic activity).

Barcelona & Partners is funded by major corporations and public institutions, allowing us to provide companies with unique and direct access to key stakeholders in the ecosystem, ensuring them a successful landing in the city.

Since its creation in 2021, Barcelona & Partners has helped leading global companies expand their operations to Barcelona, with one standout project being the 37th America's Cup Barcelona 2024.

# Acknowledgements

This report was made possible thanks to the collaboration of:

























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