REPORT biocat

GOLD SPONSORS: AliraHealth AstraZeneca Johnson&Johnson Roche sanofi

2025 BIOREGION REPORT

CATALONIA HEALTH AND LIFE SCIENCES SECTOR

KEY HIGHLIGHTS 2025 CATALONIA BIOREGION REPORT

Ecosystem landscape

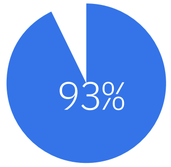
94
RESEARCH INSTITUTIONS

1,650
COMPANIES

81
INVESTMENT FIRMS

464
ACTIVE STARTUPS
30% 141 SPINOFFS

SMEs



BARCELONA

Macroeconomic impact

GDP CATALONIA
7.6%
#3 ECONOMIC SECTOR

	INDUSTRY	HEALTHCARE ACTIVITIES
	4.3%	3.3%

TURNOVER
€48,691 M

60%	40%

JOBS
306,781

7.3% POPULATION EMPLOYED IN CATALONIA

28%	72%

Talent generation

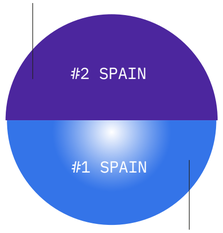
26,000
PEOPLE WITH UNDERGRADUATE, MASTER'S AND DOCTORAL DEGREES
50%

18,500
RESEARCH PERSONNEL IN RESEARCH CENTRES AND INSTITUTES
64%

Industry activity

HOME TO **17 OF THE WORLD'S TOP 20** PHARMA/MEDTECH

€9,403 M
IMPORTS



EXPORTS
€9,165 M

FOREIGN DIRECT INVESTMENT (FDI) (2021–2025)
€2,382 M
5,567 NEW JOBS CREATED

NEW INNOVATION HUBS (2021–2024)
33
+8,000 NEW JOBS CREATED/ANNOUNCED

91%
OF SECTOR EXPORTS ARE PHARMACEUTICAL PRODUCTS

Investment in startups and scaleups

2025

HISTORICAL RECORD
€517 M

63%
FOR VC (€327.6 M)

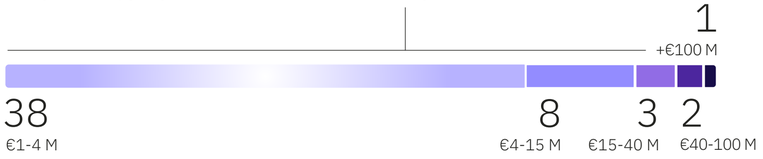
24%
FOR GRANTS (€124.3 M)

44
INTERNATIONAL INVESTMENT FIRMS

36
NATIONAL INVESTMENT FIRMS

38
INVESTMENT ROUNDS

52
DEALS



Clinical development and technology pipeline

ACTIVE CLINICAL TRIALS
5,768
#4 EUROPE
#7 WORLD
92% OF TRIALS IN SPAIN

CLINICAL TRIALS IN ADVANCED THERAPIES
156
#6 EUROPE
#8 WORLD
82% OF TRIALS IN SPAIN

BIOPHARMACEUTICAL CLINICAL PIPELINE
51
MOLECULES IN CLINICS
20
ADVANCED THERAPIES

HEALTHTECH PIPELINE
69%
MEDICAL DEVICES
31%
APPS AND PLATFORMS

Scientific output and impact on research

LEADERSHIP IN THE EUROPEAN RANKINGS (2020–2024)

#1 (1,791)
IN HIGHLY CITED PAPERS (HCP) OVER PUBLICATIONS

#2
PROJECT FINANCING FOR HORIZON PROJECTS PER 1M POP.

#1
HORIZON PROJECTS PER 1M POP.

#4
ERC GRANTS PER 1M POP.

(2015–2024)

#3
PUBLICATIONS IN ADVANCED THERAPIES PER 1M POP.

#3
HCP IN ADVANCED THERAPIES PER 1M POP.

Strengthening strategic areas

ATMP CATALONIA
+70
COMPANIES AND ENTITIES

AI IN HEALTH
184
184 AI TOOLS IN CATALONIA

172
COMPANIES
67%
STARTUPS AND SCALEUPS

SUSTAINABILITY
13 SDG ADDRESSED

46% ENVIRONMENTAL
31% SOCIAL
23% GOVERNANCE

Source: Biocat

SUMMARY

Health, innovation and geopolitics in a new global biotech and pharma order

Plato said that societies should be governed by the wisest and most virtuous, with knowledge and reason. After a few years during which geotechnology was based on talent and collaboration, today there is concern about the increase in geopolitics, confrontation and the struggle for power. Europe's historic position in life sciences faces growing competition from the United States and China. European institutions and Member State governments are at a decisive moment: let the competitiveness gap widen or take advantage of this turning point to strengthen European leadership. However, urgent action is required.

GEOPOLITICS OF HEALTH INNOVATION: RESHAPING THE WORLD

Currently, geopolitics is transforming healthcare innovation at an unprecedented pace. The major powers are using life sciences as an instrument of strategic projection and this global competition is reshaping supply chains, data flows, regulations and industrial models. In this context of tensions, rivalries and emerging opportunities, Europe and its leading regions are forced to rethink their role to maintain their influence, competitiveness and technological sovereignty. The US maintains its scientific leadership, but reinforces sovereignty policies to reduce dependencies and protect sensitive value chains; China, at the same time, has made a leap forward in research and manufacturing, becoming a key player in clinical trials, the manufacturing of advanced therapies, and global pharmaceutical production. This struggle redefines access to medicines, the resilience of health systems and the rules of international trade.

Fragmentation into blocks is driving the industry to bring production to nearer territories. This approach seeks to reduce risks, gain efficiency and strengthen competitiveness, making better use of the resources and capabilities of each region. Increased trade tensions, restrictions on the use and export of biomedical data, and competition for talent and patents have brought about a global awareness: health is a strategic asset. The pandemic and disruptions to supplies highlighted structural vulnerabilities that condition political decisions and private investments. Biomedical innovation is not just research: it is realpolitik and security.

EUROPE RESPONDS THROUGH LEGISLATION, DEFRAGMENTATION AND COMPETITIVENESS

The European Union has assumed the need to strengthen its health ecosystem to avoid critical dependencies and compete in a global market. The response is an unprecedented package of reforms to combine regulatory agility, industrial capacity and healthcare equity.

The Biotech Act aims to reduce fragmentation, accelerate laboratory-to-patient translation, and encourage multinational production and testing. Regulatory sandboxes are added for emerging technologies (AI, advanced therapies, quantum, robotics, etc.) that will allow validating innovation in real conditions more quickly and safely.

The Pharma Package, the largest pharmaceutical reform in two decades, introduces accelerated authorization processes, incentives for antibiotics and orphan drugs, and duties to prevent shortages, with the aim of ensuring the availability of essential treatments. In parallel, the European Health Data Space Regulation establishes an interoperable data model that will transform research and the use of clinical information to lead data-driven innovation and ensure that digital transformation is carried out duly and with social return.

With the AI Act, Europe has opted for the ex ante and rights-based regulation of artificial intelligence, while the United States and China prioritize approaches aimed at scalability and rapid deployment. Asia, however, is not a monolith: Singapore, Japan and South Korea are approaching the European positioning through governance frameworks based on risk, trust and responsibility. Faced with these and other economies, Europe aims to remain a global benchmark for rights, equity/equality, quality, regulation and ethics, but it also seeks to gain industrial speed and capacity.

The double message is clear:
i) without a competitive, coordinated environment, Europe runs the risk of getting caught between two giants; ii) at the usual pace, Europe will inevitably miss the boat.

CATALONIA AND THE BIOREGION STRATEGICALLY POSITIONED IN A NEW SCENARIO

In this context, the BioRegion of Catalonia emerges as one of the most dynamic hubs in Europe in life sciences and health innovation. With more than 1,650 companies and entities, an excellent research ecosystem and a growing entrepreneurial fabric, Catalonia stands out for cutting-edge clinical trials, the quantity and quality of its scientific production, the creation of startups, and attracting international investors. The BioRegion is sought as a partner and test bed in numerous initiatives, and the presence of R&D multinationals and strategic projects in advanced therapies and digital health consolidate a model that combines science, industry and the healthcare system.

The challenge is not just to grow, but to scale and transform. The opportunities arising from the new European regulatory framework require strengthening technology translation, fostering the adoption of innovation by the health system, promoting a more flexible regulation, and developing industrial capacities that allow producing and validating new technologies here. Initiatives such as ATMP Catalonia, PRECISEU, PASS, the adaptation to EEDS, show the potential of Catalonia to contribute to the new European architecture.

Catalonia has a clear window of opportunity: connecting its dynamism with the European agenda to be key in the new health economy. The 2025 BioRegion Report analyses Catalonia's capacities at this time of global transition and provides figures, trends and responses to an ecosystem that already competes internationally, but can still, and must, aspire to more.

01

OVERVIEW OF THE ECOSYSTEM AND MACROECONOMIC CONTEXT

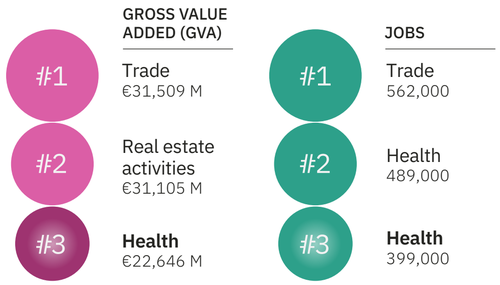
Photograph:
Aerial view of the Barcelona coast

The BioRegion ecosystem, expanding

The health innovation ecosystem in Catalonia reinforces its position as one of the most dynamic hotspots in Europe. With a growth of 8.3% over the previous year, in 2025 **the BioRegion of Catalonia has a total of 1,650 companies and 94 research institutions**.

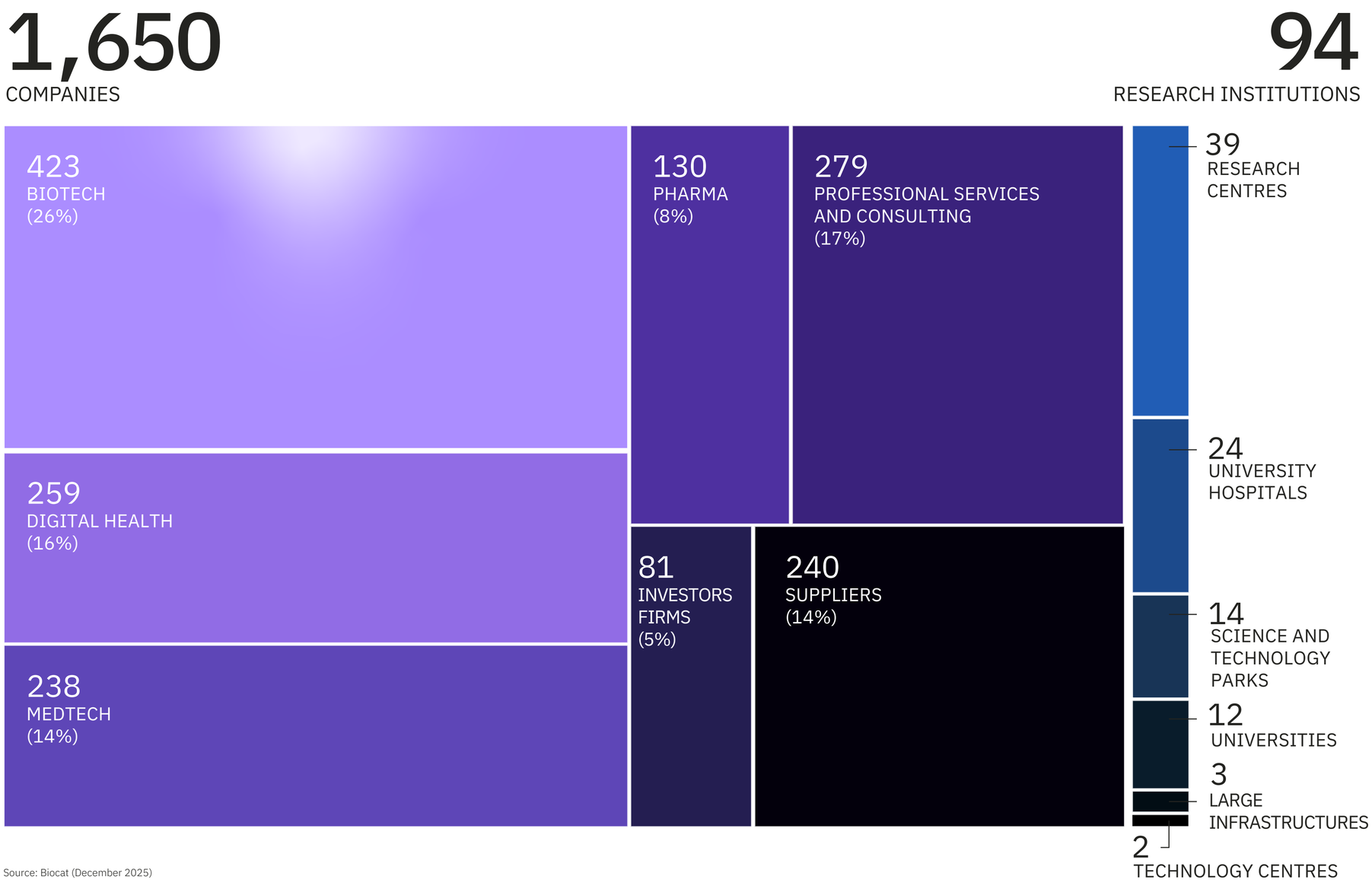
This strategic sector consolidates its macroeconomic relevance, contributing **7.6% of Catalan GDP** —the result of combining industry (4.3%) and healthcare activities (3.3%)— and stands out as the 3rd economic activity in Catalonia in terms of gross value added (GVA) and employment. Almost two-thirds of the ecosystem correspond to the biotech, digital health, medtech and pharma subsectors supported by a strong network of specialized investment firms and a broad base of specialized service providers and consultancies that that have driven the growth of the landscape in 2025.

MAIN ECONOMIC ACTIVITIES OF CATALONIA



Source: CTESC, update of the report *The health sector in Catalonia* (2024)

MAP OF THE BIOREGION OF CATALONIA ECOSYSTEM 2025



Source: Biocat (December 2025)

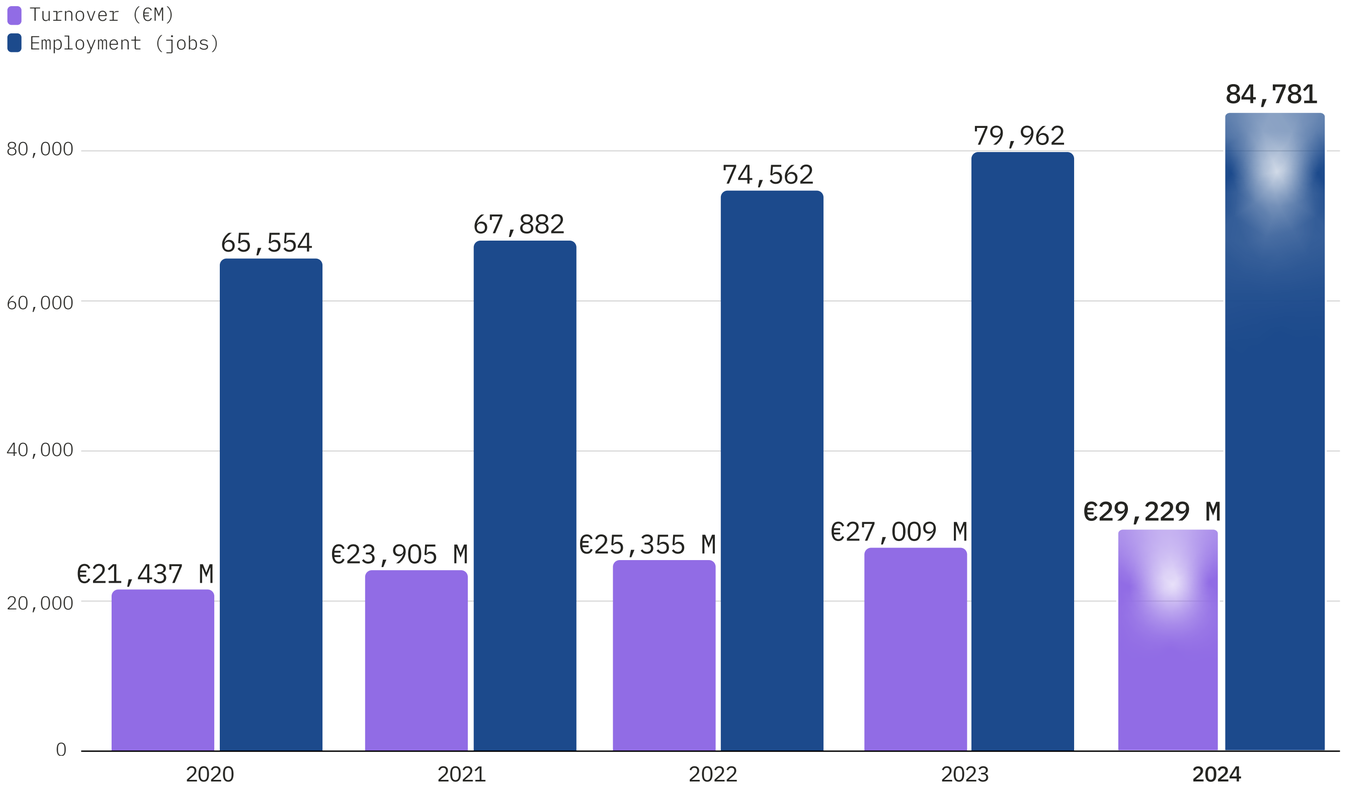
Growth of macroeconomic indicators

The industry's turnover and employment continue their upward trend, with an average annual growth rate (CAGR 2020–2024) of 8.1% and 6.6%, respectively.

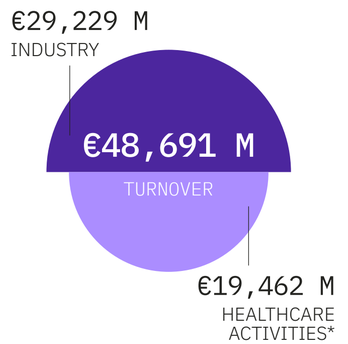
In terms of turnover, a **new maximum of €48,691 M** has been reached, driven by industry (to which pharma contributes 46%). Regarding employment, the ecosystem exceeds 306,000 jobs (+9%), equivalent to **7.3% of the employed population** of Catalonia, where 72.4% concentrated in healthcare activities stands out.

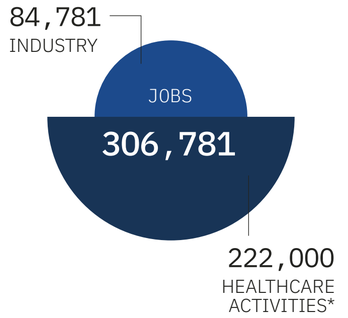
The vast majority of companies, **90%, are SMEs** and **93.4%, are located in Barcelona.** However, a progressive territorial deconcentration is noted: the number of companies established outside the metropolitan area is accelerating by 22.5%, mainly in Girona, which already concentrates nearly 3% of the companies in the sector.

INDUSTRY MACROECONOMIC INDICATORS (2020–2024)



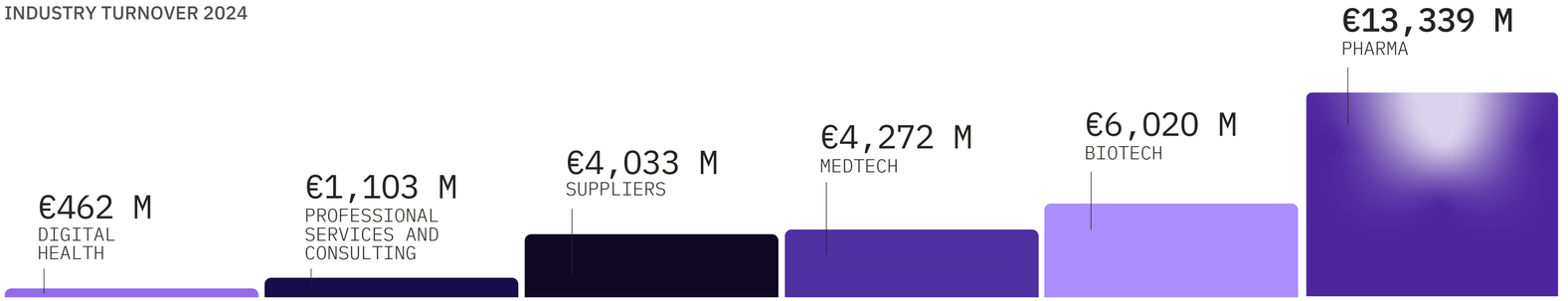
SECTOR TURNOVER AND EMPLOYMENT 2024



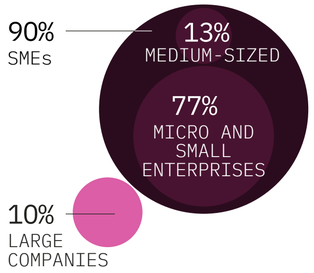


*Healthcare activities: includes the provision of healthcare and community health services in inpatient centres that offer patient diagnosis, treatment and accommodation.

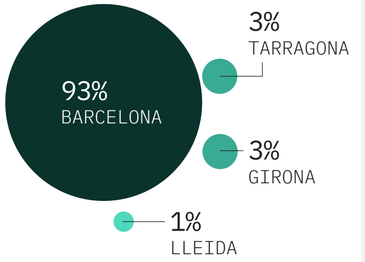
INDUSTRY TURNOVER 2024



COMPANY DISTRIBUTION 2024



BUSINESS LOCATION 2024



Sources: Biocat, SABI 2024 and Idescat 2022 (latest available data)

Catalonia, 1st in healthcare product exports in Spain

EXPORTS

€9,165 M

Exports of life sciences and healthcare products (2024), 2.5% less than the previous year.

45.7% of Spain

In 2024, Catalonia regains first position for exports of healthcare products, reinforcing its leadership with a significant increase compared to the 41% of the previous year.

9.2%

Over total exports of Catalonia.

IMPORTS

€9,403 M

Imports of life sciences and healthcare products (2024), 3% less than the previous year.

31% of Spain

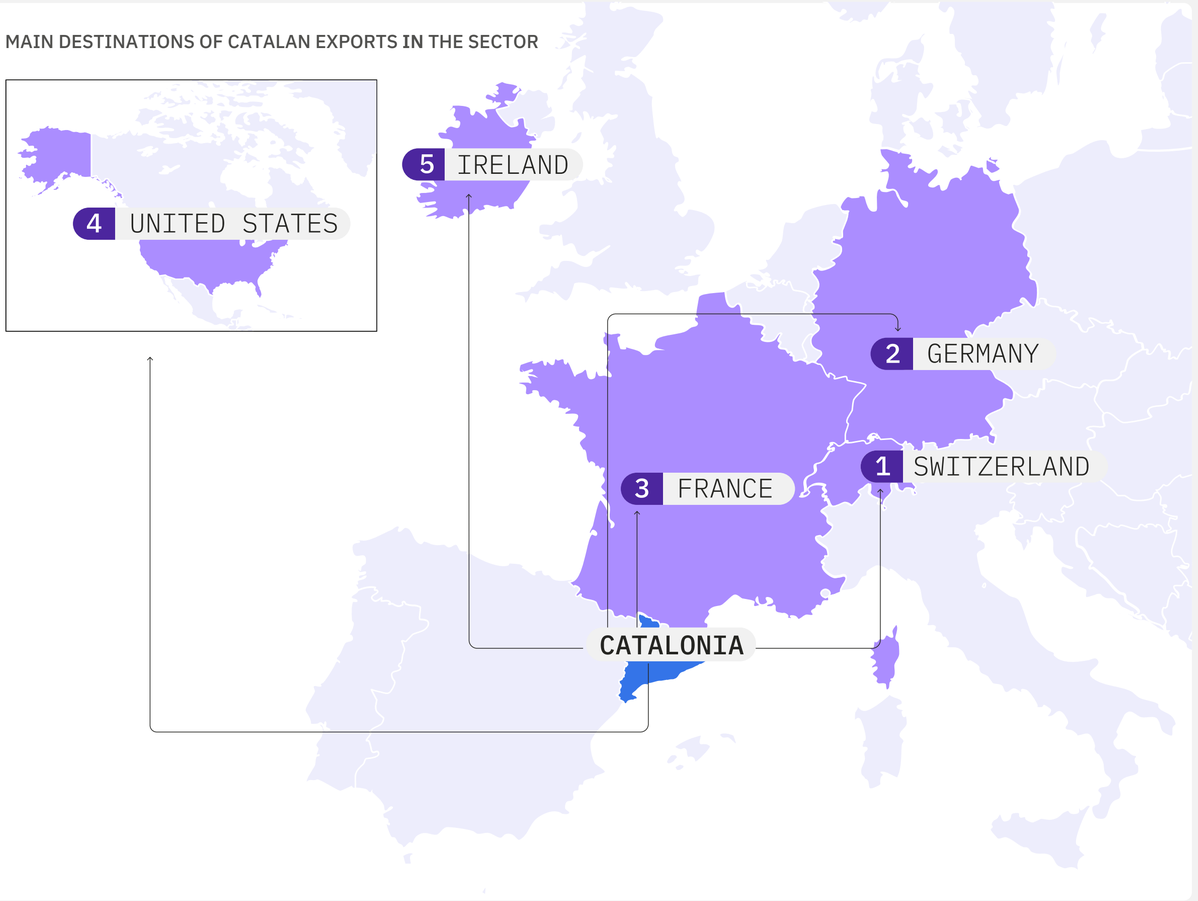
In 2024, Catalonia remains the second autonomous community for imports of healthcare products in Spain, with 31% of the total. Although Madrid leads with 56.2%, Catalonia stands out for its dynamism and strategic role in supplying healthcare, with Germany, the USA, Switzerland (3 of the main export destinations), Italy and China as its five main importing countries.

8.5%

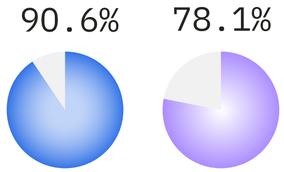
Over total imports from Catalonia.

Source: ACCIÓ from DATACOMEX, ICEX
(Provisional 2024 data, downloaded in October 2025)

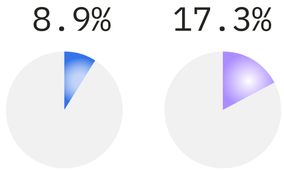
MAIN DESTINATIONS OF CATALAN EXPORTS IN THE SECTOR



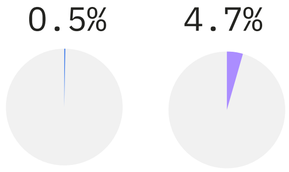
PHARMACEUTICAL PRODUCTS



MEDICAL AND DENTAL INSTRUMENTS AND SUPPLIES



RADIATION, ELECTROMEDICAL AND ELECTROTHERAPEUTIC EQUIPMENT



Exported products | Imported products

Sources: ACCIÓ and Biocat

851 SUBSIDIARIES ABROAD OF CATALAN COMPANIES IN THE LIFE SCIENCES AND HEALTHCARE SECTOR

almirall · Bioiberica · Biokit A Werfen Company · BioSystems · DENTAID Oral health. Better life. · ESTEVE Advancing health together · ferrer for good · Galenicum · GRIFOLS · HIPRA · inibsa · ISDIN · KERN PHARMA · medichem · Palex · REIG JOFRE · Uquifa · Uriach

Note: non-exhaustive sample of companies with a presence abroad by turnover volume for the purpose of illustration.

LEADING REGULAR EXPORTING COMPANIES*

almirall feel the science · B BRAUN SHARING EXPERTISE · Bioiberica · ESTEVE Advancing health together · ferrer for good · GRIFOLS · NOVARTIS · SANDOZ · werfen

* Companies that have exported during the past 4 consecutive years.

Catalonia, Spain's leading destination for foreign direct investment (FDI)

Between 2021 and 2025, the BioRegion has attracted €2,382 million in FDI, strongly driven by **AstraZeneca**'s strategic commitment between 2023 and 2024. This flagship project is the reason why 73% of the investment during the period was concentrated in those two years.

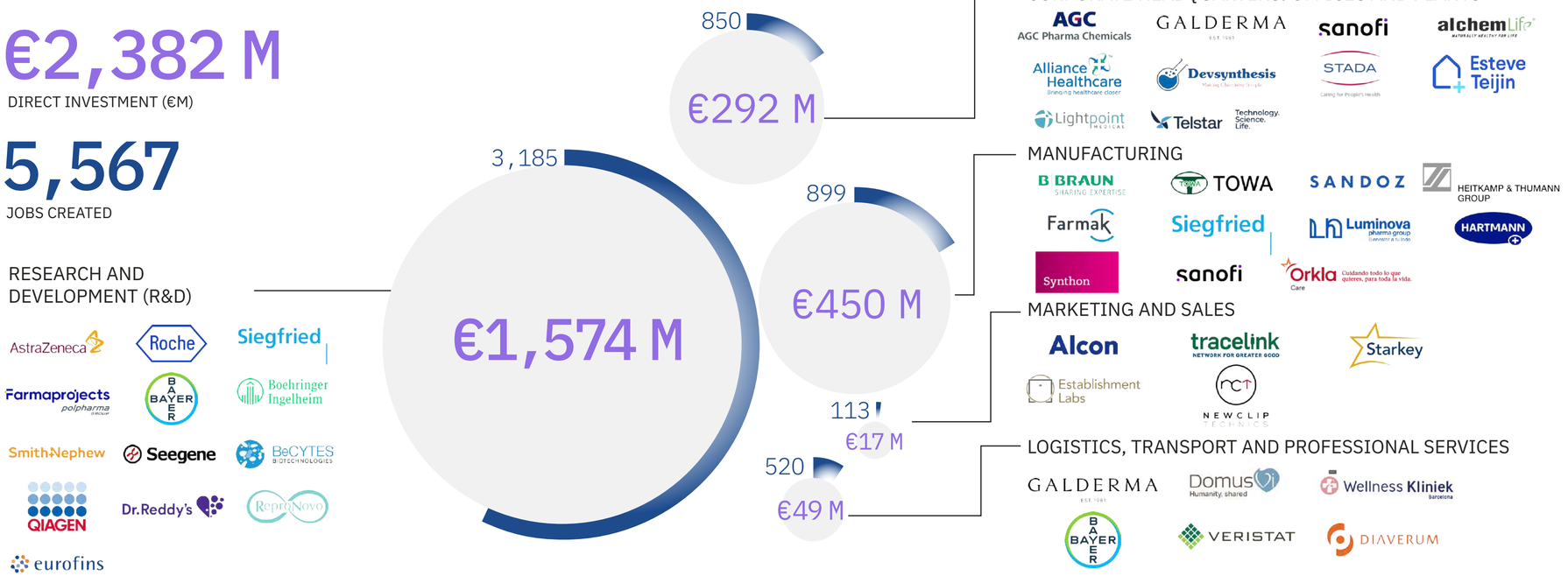
Despite the global slowdown in 2025, **Catalonia maintains its leadership in Spain in projects secured, and focuses on assets of strategic value, with 66% of investment linked to R&D (€1,574 M).**

The ecosystem is evolving toward a multi-hub model, with notable high-tech operations such as **Stada**'s global center, **Smith+Nephew**'s new center of excellence, and the expansion of **Siegfried**'s manufacturing capacity.

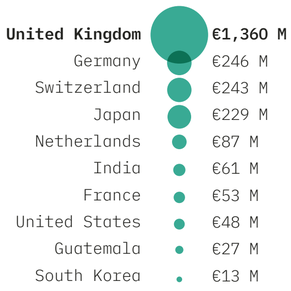
FOREIGN DIRECT INVESTMENT IN THE BIOREGION (2021–2025)

€2,382 M
DIRECT INVESTMENT (€M)

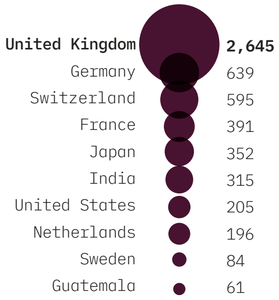
5,567
JOBS CREATED



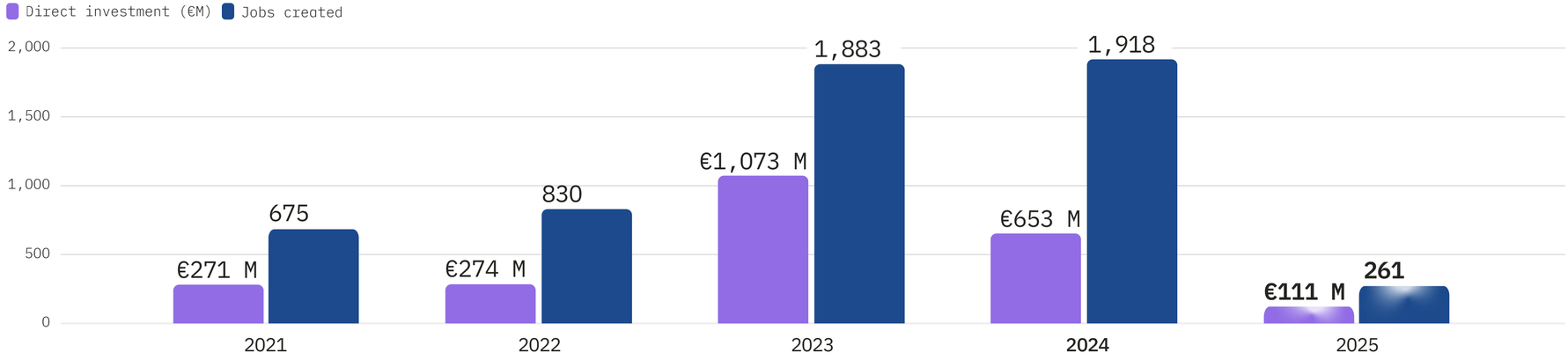
TOP 10 COUNTRIES BY DIRECT INVESTMENT (€M) (2021–2025)



TOP 10 COUNTRIES BY JOBS (2021–2025)



IMPACT ON DIRECT INVESTMENT AND EMPLOYMENT



Source: ACCIÓ based on fDi Markets. Data as of year-end 2025

Catalonia, an industrial powerhouse and a strategic hub for multinationals

Catalonia is Spain's leading pharmaceutical hub, with **79 production plants (44% of the Spanish total)**, representing nearly 50% of the sector's turnover. The BioRegion concentrates two strategic segments: **55% of plants in Spain producing active ingredients** and **35% of medicines for human use**, playing a key role on a European scale. It also stands out for being the 2nd region in Europe with the most direct jobs in the pharmaceutical industry[1]. This robustness can be explained by the combination of excellent infrastructure, a strategic location, and access to highly qualified talent.

The ecosystem acts like a magnet for worldwide players: it hosts the activity (in R&D, production, logistics and business office) of **17 of the world's 20 top-tier multinationals**, with hubs and branches of giants like **AstraZeneca, Amgen, Bayer, Fresenius, Grupo Menarini, Johnson & Johnson, Medtronic, Merck, Pfizer, Roche, and Sanofi**. This backbone coexists with **multinationals with Catalan headquatered companies** —such as **Almirall, Bioiberica, Grifols, Hipra, Esteve, Ferrer, Palex, Reig Jofre, Salvat and Werfen**—, national champions that project local innovation on a global scale.

MULTINATIONALS WITH HEADQUARTERS IN THE BIOREGION

R&D, PRODUCTION PLANT AND LOGISTICS CENTRE

andrés pintaluba · Aldo-Unión · almirall · Bioiberica · DENTAID Oral health. Better life. · ESTEVE Advancing health together · ferrer for good · Galenicum * · GRIFOLS · HIPRA · inibsa · siqv BY CERESTIA

ISDIN · KERN PHARMA · Lacer BOCAS SANAS · medichem · NOUCOR Together for Health · Palex · REIG JOFRE · rubió · Salvat · fito · Vidara · werfen

* Galenicum only has R&D in the BioRegion, its production is outside Catalonia.

MULTINATIONAL HUBS AND SUBSIDIARIES IN THE BIOREGION

R&D, PRODUCTION PLANT AND/OR LOGISTICS CENTRE

EUROMED PHARMA · HARTMANN · GRUPO MENARINI · H&T PRESSPART · SANDOZ · sanofi · Siegfried · Synthon · TOWA · zoetis

R&D

ALEXION AstraZeneca Rare Disease · AstraZeneca · BAYER · B BRAUN SHARING EXPERTISE · Boehringer Ingelheim · Chiesi · Gebro Pharma El Laboratorio de los Alpes · GEDEON RICHTER · LEO · Roche · SYNLAB · Teladoc HEALTH

PRODUCTION PLANT AND/OR LOGISTICS CENTRE

AGC AGC Pharma Chemicals · ALFASIGMA · Angelini Pharma · CRODA · FRESENIUS MEDICAL CARE · Interquim · IPSEN · Medtronic · MERCK · NEURAXPHARM · NS nutrition & santé · Pierre Fabre · Zambon

COMMERCIAL OFFICE

ABBOTT · accord We make it better · Allianz · AMGEN · BECKMAN COULTER Life Sciences · COOK MEDICAL · CSL · cytiva · GAES amplifon · GE Healthcare · GORE · Johnson&Johnson · Lundbeck · NOVARTIS · OLYMPUS · Otsuka Otsuka Pharmaceutical, S.A. · Pfizer · SmithNephew · STADA · Théa let's open our eyes · ZIMMER BIOMET · ZimVie

↘ Companies in the top 20 worldwide by turnover (2024)

[1] Source: Cataluña: polo europeo de la industria farmacéutica. Farmaindustria, Afi, 2025.

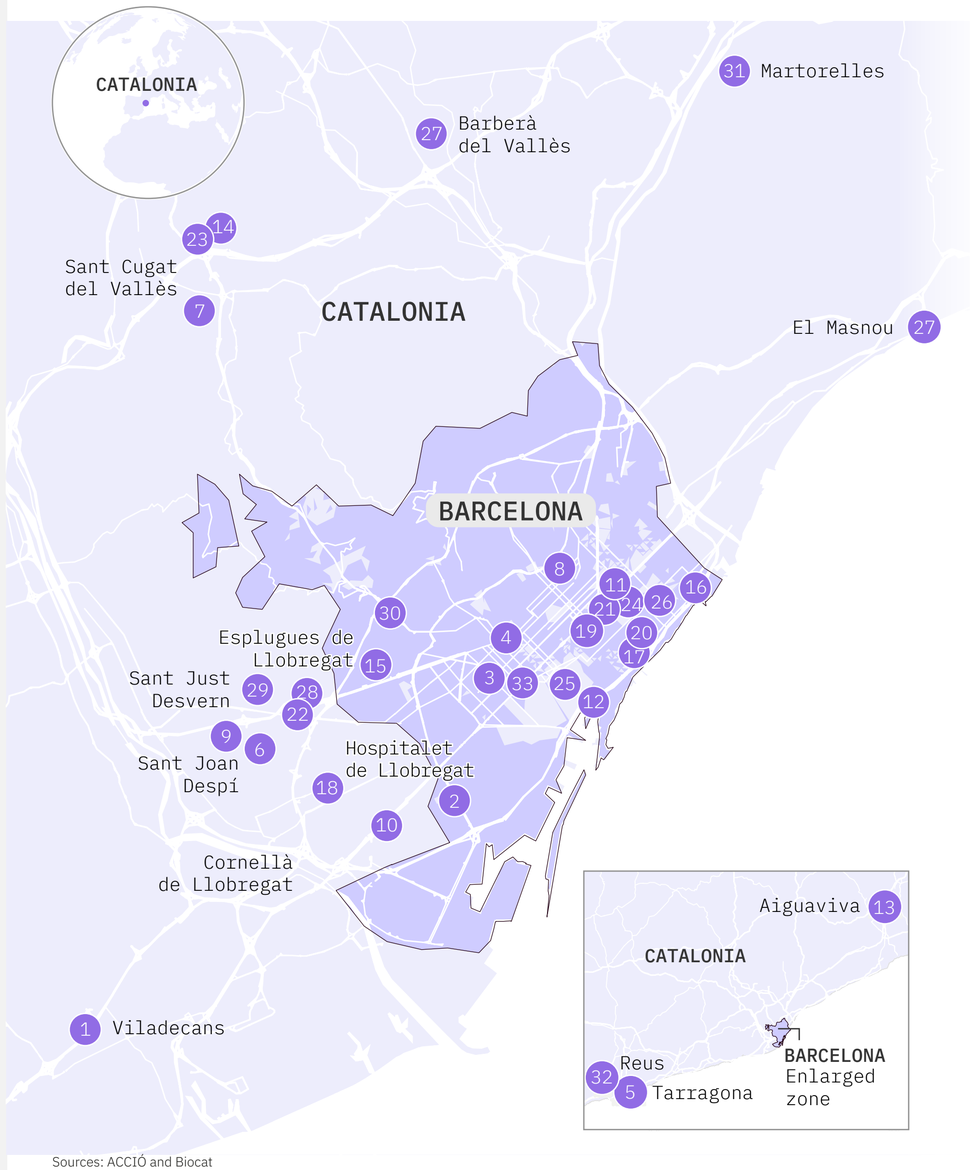
Sources: ACCIÓ and Biocat
Note: partial representative sample of multinationals established in the BioRegion of Catalonia by turnover.

High-impact health innovation hubs and talent pool

Catalonia has established itself as one of Europe's most competitive environments for developing highly skilled talent, with a steady pipeline nearly 26,000 new graduates each year across bachelor's, master's and PhD programmes and strong gender parity (50–53% women in STEM). This critical mass, together with the more than **18,000 research professionals,** has been instrumental in landing more than **30 technology hubs** linked to health between 2021–2025, and for the projection of more than 8,000 new jobs.

The attraction of these centres is due to various factors: 1) a high level of scientific qualification and specialization;
2) a diversified innovation ecosystem with a high density of startups, corporations and research centres; 3) scientific and technological infrastructures and first-class hospitals; 4) support from the Administration and competitive costs; and 5) great quality of life that effectively anchors global talent. These assets have enabled global hubs such as **AstraZeneca**'s and **Roche**'s to expand their teams rapidly. This, together with new aditions such as the global R&D hub of **Sanofi** focusing on AI, **Smith Nephew**, **Hipra** or the **Qilimanjaro quantum computing project**, reinforces the BioRegion's ability to attract and integrate top-tier talent in data- and technology-driven health environments.

ATTRACTION AND/OR EXPANSION OF DIGITAL AND TECHNOLOGICAL HUBS WITH HEALTH APPLICATIONS (2021–2025)



Sources: ACCIÓ and Biocat

TOTAL +8,000

New jobs created/announced

1. Alliance Healthcare	200	12. HCLTech	80	23. Roche	300
2. arxada	100	13. HIPRA	1,000	24. sanofi	700
3. AstraZeneca	2,000	14. hp	280	25. santé Vet	70
4. B BRAUN	15	15. intel	300	26. Schneider Electric	200
5. BASF	20	16. Microsoft	140	27. Siegfried	40
6. BAYER	182	17. MongoDB.	180	28. Smith+Nephew	100
7. Boehringer Ingelheim	340	18. monolitic	150	29. STADA	80
8. Dedalus	100	19. NOVARTIS	142	30. Teladoc HEALTH	100
9. essity	200	20. NUTANIX	136	31. TOWA	150
10. FESTO	63	21. ORACLE	300	32. T Systems	400
11. getronics	50	22. QIAGEN	400	33. YPSOMED	60

TALENT GENERATION IN THE BIOREGION

TOTAL ANNUAL GRADUATES IN SCIENTIFIC UNIVERSITY STUDIES 2024

Undergraduate Studies | 15,914 — 53%

Masters | 8,386 — 50%

Doctorates | 1,694 — 50%

Industrial doctorates | 4%

TOTAL RESEARCHERS IN RESEARCH CENTRES WORKING IN LIFE AND HEALTH SCIENCES* 2024

Research staff | 18,500 — 64%

% women

* CERCA health centres and CSIC Centres
Source: UNEIX (2023–2024)
Note: scientific branches include all science, health sciences and engineering studies.

Key initiatives and facilities promoted in the BioRegion 2025

January

The University of Barcelona (UB) incorporates a **state-of-the-art electron microscope** installed at the Barcelona Science Park (PCB).

February

Health announces the **Health System Precision Medicine Platform (OMIQ– HES)** to advance towards more preventive and personalized medicine.

March

The **Government of Catalonia** launches the Catalonia Talent Bridge program, offering 78 **positions for researchers** from the US and a budget of €30M.

April

The **CaixaResearch Institute** continues to recruit talent and is preparing to begin its scientific activity in 2026 with five active research groups.

MACROPROJECT

Barcelona City Council creates the **Barcelona Investment Fund** (with 30 million euros) to boost startups of strategic sectors, such as health, within the framework of the Barcelona Innovation Coast.

May

The Clínic–UB Health Campus has advanced its rollout with the creation of the **Porta Diagonal–Campus Clínic Consortium** and the announcement that construction is set to begin in 2030,, with an expected investment of 1,700 million euros.

MACROPROJECT

June

The IRTA activates the construction of a **level 3 biosafety infrastructure** that is unique in Catalonia and the second in Spain, for the study of emerging pathogens.

July

The Catalan Ministry of Health activates a pioneering tool in the State to measure the **carbon footprint of CAPs** (primary healthcare centres) and contribute to decarbonizing the health system by 2030.

The Government of Catalonia and Hospitalet de Llobregat give the **green light to the tunnelling of Gran Via in Bellvitge** to connect the future Innovation and Health Biocluster.

MACROPROJECT

The Catalan Ministry of Health promotes **the first public fecal microbiota bank** in Spain to treat some serious intestinal infections.

September

Vall d'Hebron launches the **the first public cyclotron in Catalonia**, which will produce radiopharmaceuticals for precision medicine and provide service to the entire public system.

The Government of Catalonia and the Spanish government agree to more than **926 million euros for ALBA II**, the new generation Alba Synchrotron.

The Catalan Ministry of Health presents the **2026–2031 guide to the digitalization of the Catalan health system** to build a more sustainable, equitable and innovative model.

October

The Catalan Government promotes the construction of **the PRBB Ciutadella building**, the new regenerative medicine hub that will be located in the Ciutadella of Knowledge in Barcelona.

MACROPROJECT

The Government of Catalonia, the Spanish government, Barcelona City Council and the Fraunhofer Institute formalize the creation of the **Fraunhofer Center for Applied Theragnositics (Fraunhofer CAT)**, in Barcelona.

November

The Barcelona Supercomputing Center (BSC) creates the **BSC AI Institute**, presents **Spain's first quantum computer** and moves the **BSC AI Factory** to Pier07 of Tech Barcelona.

The Catalan Government creates **Lidera Transferència en Salut**, a new co-investment fund to finance advanced therapy projects, channelled through the Catalan Institute of Finance (ICF).

December

The **Integrated Social and Health Care Agency (AGAISS–Cat)** is created, a new body that will allow, for the first time, integrating health and social service systems.

The **Catalan Health System Innovation Access Programme (PASS)** resolves the first INNOPASS call selecting 10 innovative Catalan solutions.

The UB promotes the **Barcelona Center for Applied Neurosciences (BCAN)**, a new international centre for applied neuroscience aspiring to become a benchmark in Europe.

© Scob architecture and landscape & Barceló Balanzó architects.

The Sant Joan de Déu Research Centre (IRSJD) promotes **the ExplorER building**, a new research centre in rare diseases.

The Government of Catalonia mobilizes more than 103 million euros with the **Singulars Institucionals grants** to strengthen research infrastructures.

Infrastructure or equipment Initiative of the Administration

Source: Biocat

Momentum and milestones of ATMP Catalonia, the advanced therapies network of Catalonia

In 2025, ATMP Catalonia —with **74 members**— stands as a benchmark European hub of reference in advanced therapies, connecting research, production and clinical capacity in a coordinated strategy.

During the year, the **ATMP Catalyst programme** has accelerated the step from discovery to application and public-private collaboration has been strengthened, generating new opportunities for co-investment, partnerships and shared projects. ATMP Catalonia has analysed **European scaling and manufacturing models** to establish a roadmap for industrialization adapted to the BioRegion. The brand, image and new website have been launched and its capabilities presented at an event held at the **European Parliament**. International positioning has been boosted with the attraction and consolidation of strategic events such as **Advanced Therapies Europe**. With growing participation in initiatives on a European and global scale, alliances and collaboration opportunities have expanded.

ATMP Catalonia measures its impact using indicators of growth and engagement of members, accelerated projects and TRL progress, promotion of collaboration agreements within and outside the BioRegion, initiation and execution of clinical trials and time to reach the patient.

ATMP CATALONIA, THE COLLABORATIVE HUB OF ADVANCED THERAPIES IN CATALONIA

biocat ATMP Catalonia

74 ENTITIES

THERAPY DEVELOPERS	PHARMA COMPANIES	MANUFACTURERS AND SUPPLIERS	SERVICE PROVIDERS	INVESTMENT FIRMS
Biointaxis	almirall	BCN peptides	7TALOS	Alcura	AdBio partners
CaixaResearch Institute	AMGEN	Plataforma de Terapies Avançades Banc de Sang i Teixits	AliraHealth	ASPHALION	asabys
cbateg	AstraZeneca	cellab camo	charles river	Columbus.
Clínic Barcelona	Universitat de Barcelona	CSL	cytiva	eurecat	CRB Health Tech
IDIBAPS	ESTEVE	GP Pharm	GENEVECTOR	biorem	DTI	Inveready
FISP	GRIFOLS	HIPRA	KYMOS GROUP	klinea	LEITAT	invivopartners
Gyala therapeutics	Johnson&Johnson	Miltenyi Biotec	Palex	OMAKASE consulting	Perdigo	YSIOS CAPITAL
Hospital del Mar Research Institute Barcelona	NOVARTIS	qrem	REIG JOFRE	tolemy bio
IBEC	Roche	SARTORIUS	ThermoFisher SCIENTIFIC
Creatio	Universitat de Barcelona
IDIBELL
IDIBGI
IGTP
IQS
IRB Barcelona
ICO Institut Català d'Oncologia
Sant Pau Campus Salut Barcelona
Institut de Recerca Sant Pau
Integra therapeutics
Josep Carreras Leukaemia Research Institute
OneChain
ORYZON
Parc Taulí Institut d'Investigació i Innovació I3PT
Pulmobiotics
Remuvb
SJD Sant Joan de Déu Fundació de Recerca
SPLICEBIO
telomere therapeutics
Theriva BIOLOGICS
Vall d'Hebron Institut de Recerca
VHIO
ZIPSOLUTIONS
31	9	16	11	7

Source: Biocat

02

SCIENTIFIC ENVIRONMENT AND R&D EXCELLENCE

Photograph:
Biologics manufacturing laboratory (©Hipra)

Catalonia, 1st in Horizon projects and 4th in ERC grants in Europe

During the 2020–2024 period, Catalonia has consolidated its position as a leading scientific hub in terms of attracting competitive funding in Europe.

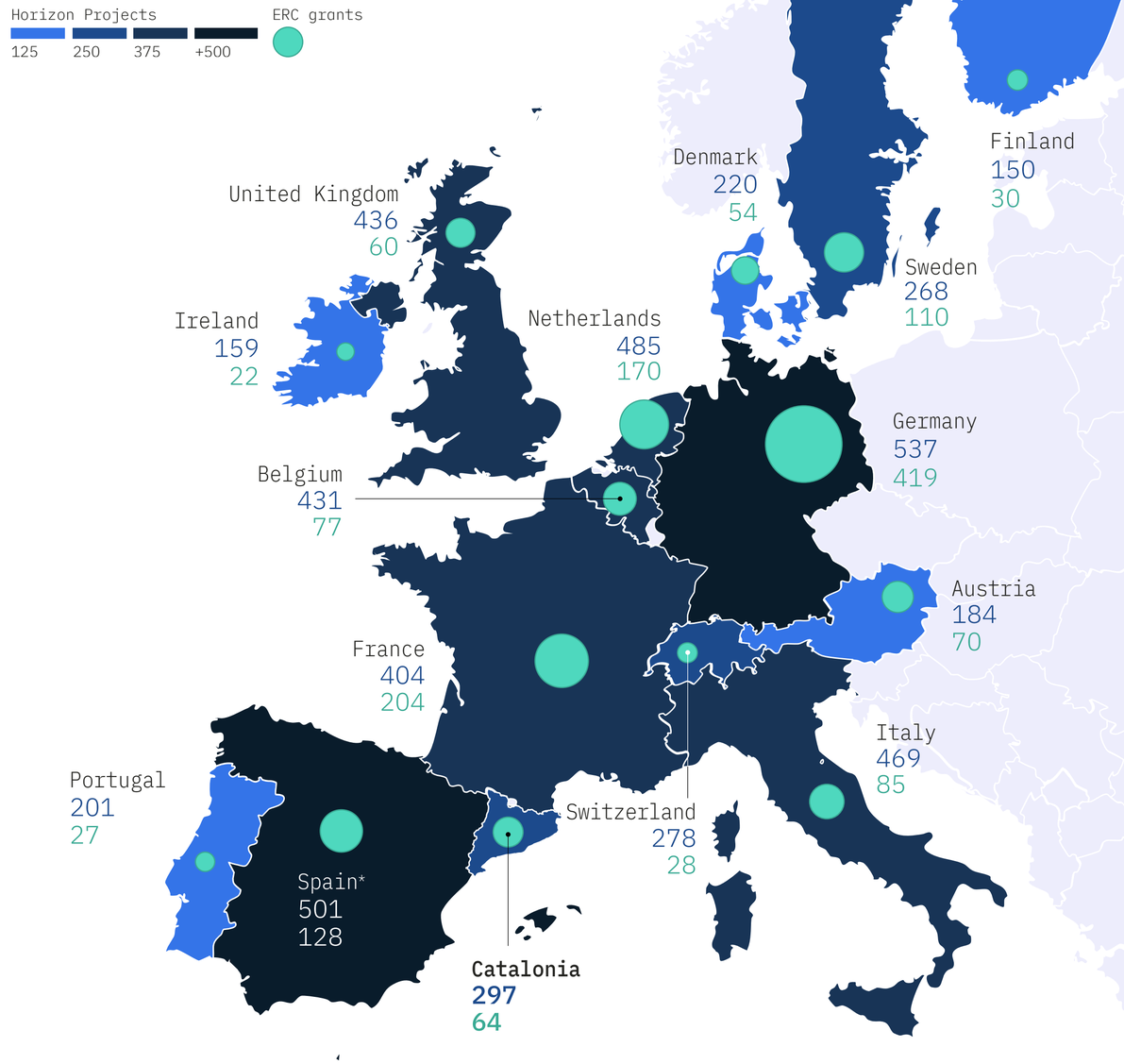
The region participated in 297 European Horizon projects (€275.7M) in the life sciences and healthcare fields. Indicators weighted by population (per 1M pop.) place Catalonia in **1st position among the fourteen countries analyzed**, achieving a ratio of 37.1 projects per 1M pop. between 2020 and 2024. This leading position in Horizon projects is further supported by the high **volume of funding secured (€34.4M per 1M pop.), ranking Catalonia 2nd** and highlighting its strong capacity for attracting competitive resources per capita.

This performance is also reflected in the **ERC[1] grants**, the most prestigious in the continent. With 64 grants coordinated in the life sciences domain over the last five years (**3.7% of the European total and 50% of Spain's total**), Catalonia maintains an excellent track record with 8 grants per 1M pop. between 2020 and 2024 (**4th position**).

These data, gathered in a context of fierce international competition —including the re-entry of the United Kingdom (2024) and the association of Switzerland (2025) in the European Union— confirm the robustness of the Catalan research system and its sustained ability to attract high-level talent over time.

[1] ERC Grants (European Research Council Grants) are considered one of the most prestigious funding sources in Europe, as they are awarded solely on the basis of scientific excellence. In this Report, only grants in a coordinating role are included.

EUROPEAN PROJECTS AND ERC GRANTS IN LIFE SCIENCES AND HEALTHCARE BY COUNTRY (2020–2024) (N)



RANKING BY COUNTRY (2020–2024)

	Horizon projects (N per 1M pop.)	ERC grants (N per 1M pop.)	Horizon projects funding (€M per 1M pop.)
#1	CA **37.1**	SE 10.4	NL €42.5 M
#2	DK 36.9	NL 9.5	CA **€34.4 M**
#3	BE 36.5	DK 9.1	BE €33.8 M
#4	CH 31	CA **8**	DK €30.1 M
#5	IE 29.7	AT 7.6	FI €26.7 M
#6	NL 27	BE 6.5	SE €23.5 M
#7	FI 26.8	FI 5.4	IE €22.7 M
#8	SE 25.4	DE 5	AT €18.3 M
#9	AT 20.1	IE 4.1	ES €12.3 M
#10	PT 18.9	CH 3.1	PT €12.1 M
#11	ES 10.3	FR 3	CH €11.4 M
#12	IT 8	ES 2.6	DE €9.3 M
#13	DE 6.4	PT 2.5	FR €8.5 M
#14	GB 6.3	IT 1.4	IT €8.2 M
#15	FR 5.9	GB 0.9	GB €3 M

CATALONIA

- **#1** HORIZON PROJECTS PER 1M POP.
- **#2** FUNDING HORIZON PROJECTS PER 1M POP.
- **#4** ERC GRANTS PER 1M POP.
- **#9** NUMBER OF ERC GRANTS

* Spain indicators include Catalonia.

Sources: European Commission (Horizon and ERC Dashboard) and Eurostat (data as of July 2025)

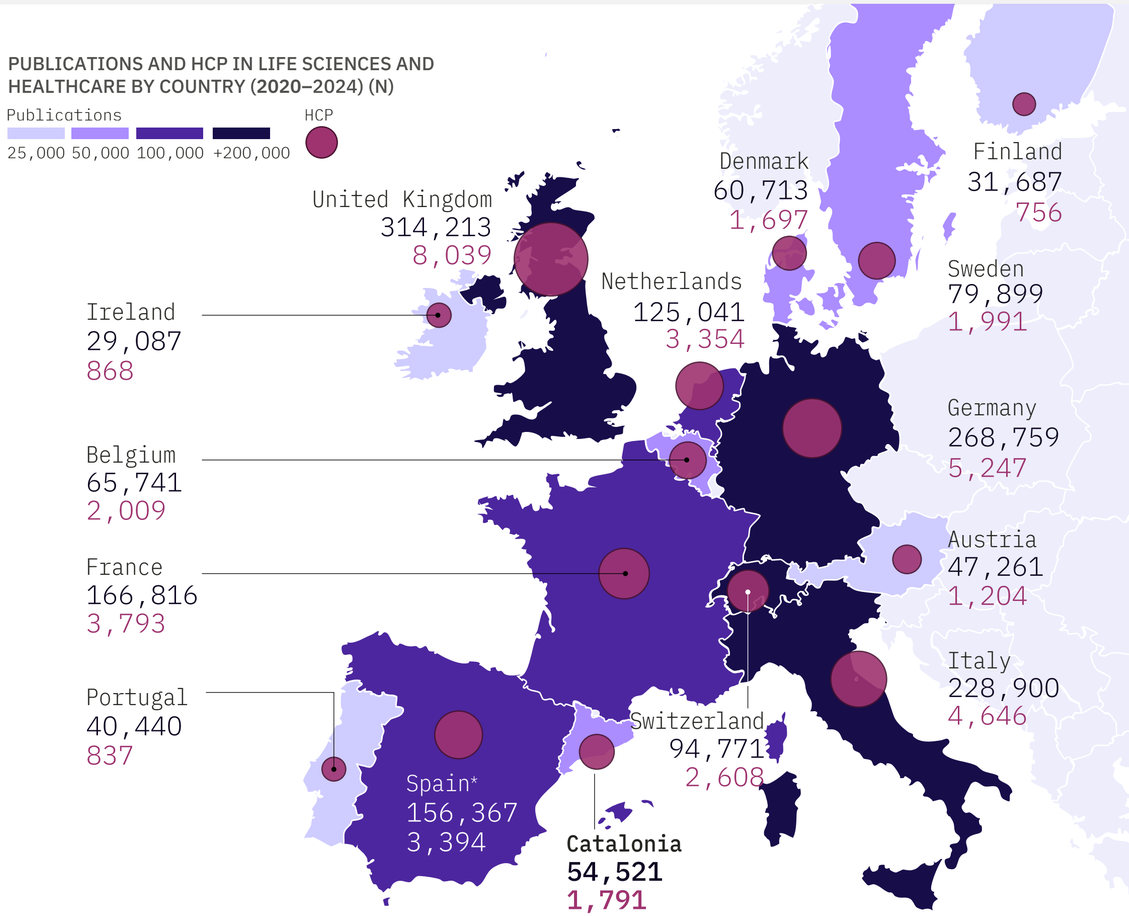
Catalonia, 5th in scientific publications and 1st in % of Highly Cited Papers in Europe

Between 2020 and 2024, Catalonia generated **54,521 publications in life sciences and healthcare, a figure that represents 34.9% of the Spanish total.** In the volume indicator weighted by population, Catalonia holds the **5th position in Europe** with a ratio of 6,805 publications per 1M pop. (2020-2024), trailing only Switzerland, Denmark, Sweden, and the Netherlands.

Beyond volume, quality stands out: Catalonia has **1,791 Highly Cited Papers (HCP), 52.8% of the national total**. HCPs account for 3.3% of Catalan production (the highest proportion among the countries analyzed), **placing Catalonia in 1st position in terms of percentage of high-impact articles** and in **3rd position by population** (224 HCP per 1M pop. between 2020-2024), behind only Switzerland and Denmark.

In contrast to the excellence in publications, the generation of intellectual property is more moderate. With 775 PCT patents in the last five-year period (30% of Spain's total), **Catalonia occupies the 12th position in Europe by population.** This data highlights the strategic challenge of continuing to transfer top-tier scientific production into protected industrial property assets.

PUBLICATIONS AND HCP IN LIFE SCIENCES AND HEALTHCARE BY COUNTRY (2020–2024) (N)



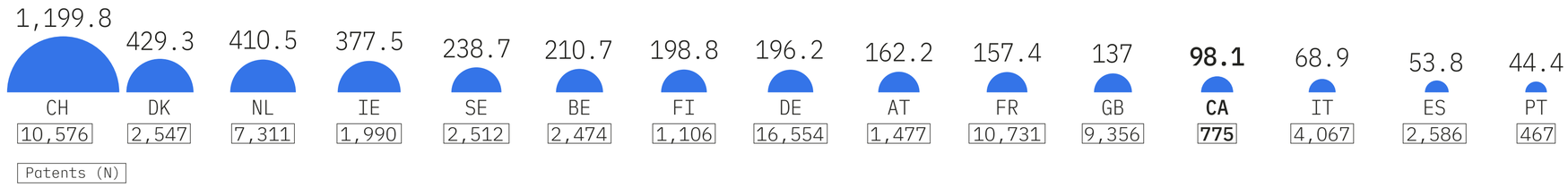
RANKING BY COUNTRY (2020–2024)

	% HCP over total publications	Publications (N PER 1M POP.)	HCP (N PER 1M POP.)
#1	**CA 3.3 %**	CH 10,575	CH 291
#2	BE 3.1 %	DK 10,185	DK 285
#3	IE 3 %	SE 7,573	**CA 224**
#4	DI 2.8 %	NL 6,969	SE 189
#5	CH 2.8 %	**CA 6,805**	NL 187
#6	NL 2.7 %	FI 5,655	BE 170
#7	GB 2.6 %	BE 5,563	IE 162
#8	AT 2.5 %	IE 5,436	FI 135
#9	SE 2.5 %	AT 5,161	AT 131
#10	FI 2.4 %	GB 4,554	GB 117
#11	FR 2.3 %	IT 3,882	IT 79
#12	ES 2.2 %	PT 3,801	PT 79
#13	PT 2.1 %	DE 3,220	ES 70
#14	IT 2 %	ES 3,216	DE 63
#15	DE 2 %	FR 2,429	FR 55

CATALUNYA

- **#1** HCP OVER N PUBLICATIONS
- **#3** HCP PER 1M POP.
- **#10** TOTAL OF HCP
- **#5** PUBLICATIONS PER 1M POP.
- **#11** NUMBER OF PUBLICATIONS
- **#12** PATENTS PER 1M POP.

PCT PATENTS IN LIFE SCIENCES AND HEALTHCARE BY COUNTRY (2020–2024) (N PER 1M POP.)



* Spain indicators include Catalonia.
Highly Cited Papers (HCP): Highly cited publications. Articles and reviews ranked in the top 1% most cited in their thematic category and year of publication.
Sources: WIPO. PatentScope; Clarivate. Science Citation Index-Expanded (SCI-E, WoS) and Eurostat (data as of July 2025)

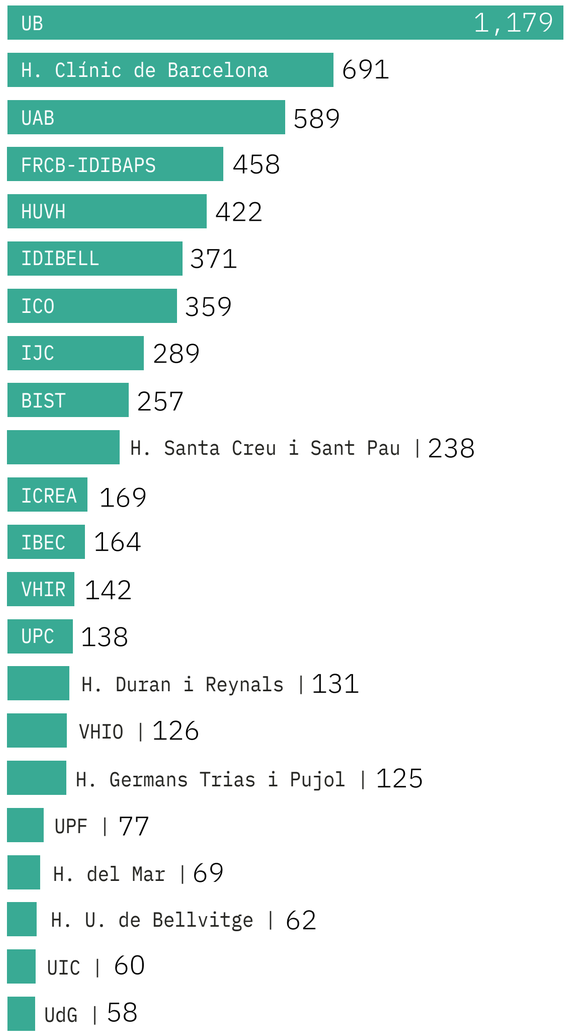
Catalonia, 3rd in publications and 3rd in Highly Cited Papers in advanced therapies in Europe

Scientific output in advanced therapies in Catalonia has risen by **118% in the last decade**, the 2nd highest growth rate in Europe. With **2,508 publications** (37.5% of the Spanish total), the region is consolidated as one of the main European hubs: on a per-capita basis, Catalonia **ranks 3rd (313 articles per million population)**, only below Switzerland and the Netherlands.

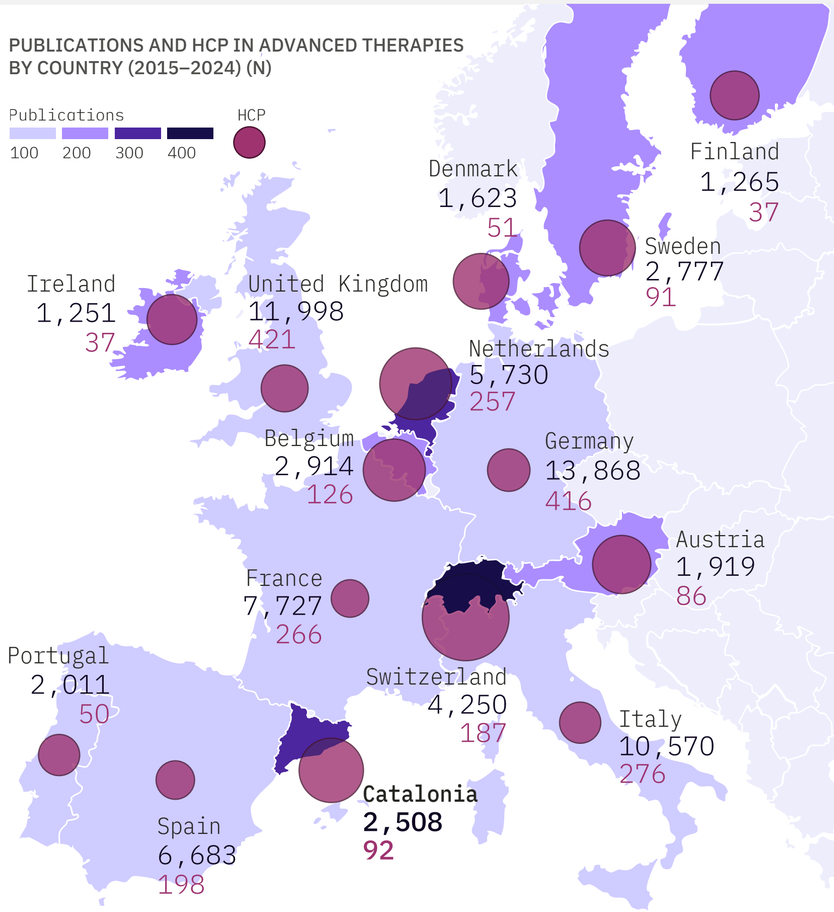
Excellence is the system's distinguishing feature: Catalonia has **92 Highly Cited Papers (HCP)** in this area, representing **46.5% of the total in Spain**. In terms of quality, Catalonia is the **5th European region** for percentage of high-impact articles over total production (3.7%). Weighted by population, the region comes in **3rd position with 11.5 HCP per million population,** surpassing the average of countries such as **Denmark or the United Kingdom.**

This scientific leadership, driven by centres like the **UB, Hospital Clínic, the UAB, the IDIBAPS and the VHIR,** also translates into attracting funds, with **€21.3 million in European projects** (46.8% of Spain). The greatest remaining challenge is transfer: despite the positive trend in PCT patents (33), the strong global growth of the sector (+300%) highlights the need to better translate this elite science into industrial assets.

HIGHLY CITED PAPERS (HCP) IN ADVANCED THERAPIES BY INSTITUTIONS (2015–2024) (N)



PUBLICATIONS AND HCP IN ADVANCED THERAPIES BY COUNTRY (2015–2024) (N)



RANKING BY COUNTRY (2015–2024) (N PER 1M POP.)

	Publications		HCP	
#1	CH	474.2	CH	20.9
#2	NL	319.3	NL	14.3
#3	CA	313	CA	11.5
#4	DK	272.3	BE	10.7
#5	SE	263.2	AT	9.4
#6	BE	246.6	SE	8.6
#7	IE	233.8	DK	8.6
#8	FI	225.7	IE	6.9
#9	AT	209.5	FI	6.6
#10	PT	189	GB	6.1
#11	IT	179.2	DE	5
#12	GB	174.2	PT	4.7
#13	DE	166.2	IT	4.7
#14	ES	137.5	ES	4.1
#15	FR	112.9	FR	3.9

CATALONIA

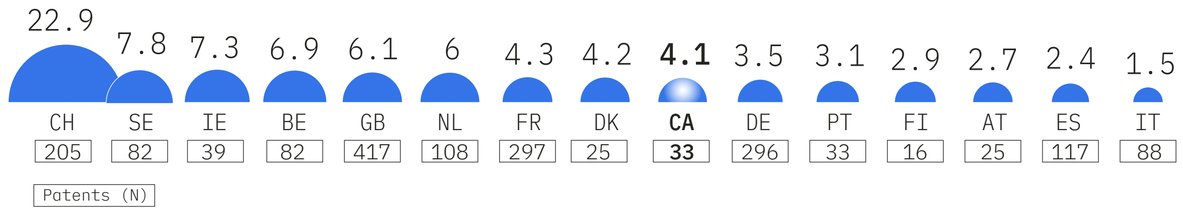
#3 PUBLICATIONS PER 1M POP.

#10 NUMBER OF PUBLICATIONS

#3 HCP PER 1M POP.

#9 NUMBER OF HCP

PCT PATENTS IN ADVANCED THERAPIES BY COUNTRY (2015–2024) (N PER 1M POP.)



* Indicators for Spain include Catalonia.

Highly Cited Papers (HCP): Highly cited publications. Articles and reviews ranked in the top 1% most cited in their thematic category and year of publication.

Sources: WIPO. PatentScope; Clarivate. Science Citation Index-Expanded (SCI-E, WoS) and Eurostat (data as of July 2025)

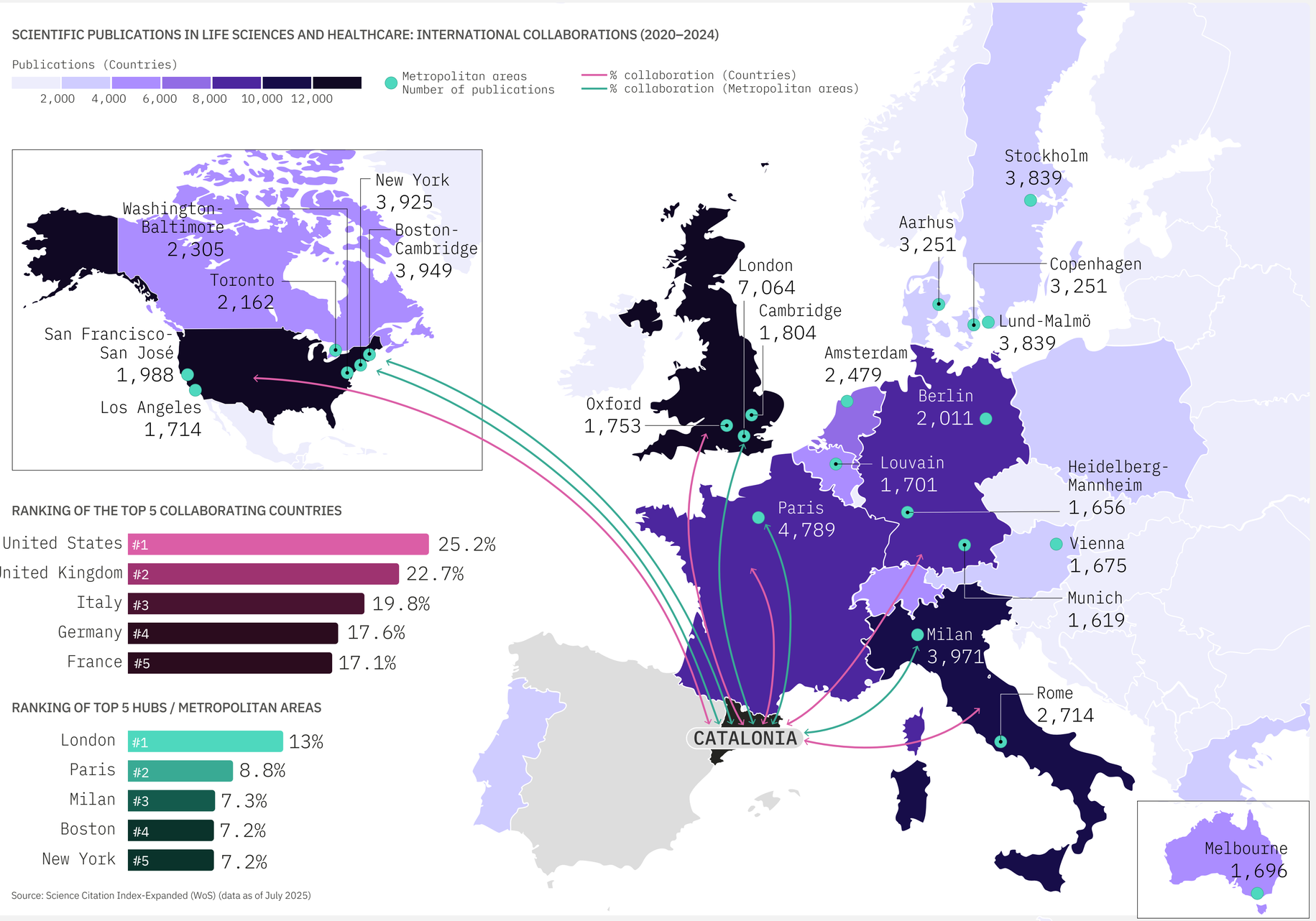
Worldwide connections: collaborations with the main scientific hubs

The analysis of scientific publications in the health field between 2020 and 2024 reveals a BioRegion that is deeply connected to the main global talent hubs.

Beyond national borders, the Catalan research infrastructure **collaborates intensely with the US (25.2%), the UK (22.7%) and the major European economies** such as Italy (19.8%), Germany (17.6%) and France (17.1%). The Netherlands also maintains a prominent position with 12.1% of co-authorships.

The international openness of the system is reflected in the strong connection with the world's major scientific cities. This network is led by European hubs such as **London (13%), Paris (8.8%) and Milan (7.3%)**, followed closely by the main North American poles of reference: **Boston–Cambridge** and **New York**, with 7.2% each.

This cooperation is a key indicator of the BioRegion's strength in research. The map includes the most relevant alliances that ensure the competitiveness of Catalan science and its integration into high-level global knowledge circuits.



Source: Science Citation Index-Expanded (WoS) (data as of July 2025)

Scientific and clinical breakthroughs with global impact 2025

RESEARCH CENTRES AND INSTITUTIONS ↘

GLOBAL — April

barcelonaβeta BRAIN RESEARCH CENTER

Validates a blood-based diagnostic tool to estimate the risk of developing Alzheimer's in individuals without a clinical diagnosis.

GLOBAL

Hospital del Mar Research Institute Barcelona · IibB · Fundación "la Caixa" | CaixaResearch

Identifies a new factor that determines the aggressiveness of pancreatic cancer.

GLOBAL

SANT PAU Campus Salut Barcelona · Hospital de la Santa Creu i Sant Pau · Institut de Recerca CONTRA LA LEUCÈMIA Josep Carreras · SANT PAU Campus Salut Barcelona · Institut de Recerca Sant Pau

Develops a new CAR-T therapy that achieves positive results in patients with a type of refractory lymphoma, in the first European study on a CAR-T 30, successfully completing its initial phase.

GLOBAL — May

ace alzheimer center BARCELONA

Leads a study that identifies a new gene linked to a rare neurodegenerative disease.

GLOBAL

IDIBELL

Leads an international AI project to advance understanding of the human genome.

GLOBAL

IBEC Institute for Bioengineering of Catalonia · CRG Centre for Genomic Regulation

Creates an integrated map of the first step of Alzheimer's protein aggregation at an unprecedented scale, opening new therapeutic pathways.

GLOBAL — June

cnag

Develops a pioneering technique that enables the simultaneous analysis of individual cells without the need for sequencing.

GLOBAL

IGTP Institut de Recerca Germans Trias i Pujol

Contributes to the first large-scale genetic study on long COVID, identifying the FOXP4 gene.

GLOBAL

VHIO Vall d'Hebron Institut d'Oncologia

Leads an international study that identifies a new therapeutic strategy, doubling survival in patients with a subtype of metastatic colorectal cancer.

Source: Biocat

GLOBAL

IGTP Institut de Recerca Germans Trias i Pujol

Leads the first study revealing the correlation between tuberculosis lesions and patients' clinical parameters.

GLOBAL — July

Hospital del Mar Research Institute Barcelona

Identifies a new pathway to halt breast cancer metastasis at the micrometastasis stage and prevent its development.

GLOBAL

IRTA · CReSA Centre de Recerca en Sanitat Animal

Creates the world's first organoid model to study pathogens and anticipate future pandemics.

GLOBAL — August

EMBL

Delivers an unprecedented breakthrough in malaria research, advancing understanding of the disease and supporting the development of therapies to reduce mortality.

GLOBAL

IBEC Institute for Bioengineering of Catalonia

Captures, for the first time, the embryo implantation process in real time.

EUROPEAN — September

CNM Centro Nacional de Microelectrónica IMB · Excelencia María de Maeztu · CSIC

Designs ultra-resistant dosimeters for radiation to support a new type of advanced radiotherapy, in a unique research initiative in Europe.

GLOBAL — November

ISGlobal Instituto de Salud Global Barcelona · IDIBELL · Barcelona Supercomputing Center Centro Nacional de Supercomputación

Collaborates on a new pharmacological intervention in stem cells to rejuvenate blood and generate healthier cells.

GLOBAL

ICFO

Discovers new insights into the propagation of physical tensions through neuronal membranes, helping explain biological processes from embryonic development to the sense of touch.

GLOBAL

IBEC Institute for Bioengineering of Catalonia

Leads the first kidney transplant in pigs using human kidney organoids.

Demonstrates the reversal of Alzheimer's in mice using nanoparticles.

GLOBAL

CRG Centre for Genomic Regulation · upf. Universitat Pompeu Fabra Barcelona · Integra therapeutics

Demonstrates, for the first time, that generative AI outperforms nature in designing proteins to edit the genome.

EUROPEAN

Banc de Sang i Teixits

Leads a European transplantation programme involving more than 2,000 patients with leukemias and blood cancers.

GLOBAL — October

VHIO Vall d'Hebron Institut d'Oncologia

Demonstrates that combining immunotherapy and chemotherapy before surgery improves survival in patients with localized gastric or gastroesophageal junction cancer.

HOSPITALS ↘

GLOBAL — Januarv

Clínic Barcelona · Universitat de Barcelona · IDIBAPS Institut d'Investigacions Biomèdiques August Pi i Sunyer

Leads an international study demonstrating a significant improvement in the treatment of a subtype of liver cancer patients.

SPAIN — Februarv

SANT PAU Campus Salut Barcelona · Hospital de la Santa Creu i Sant Pau

Performs, for the first time in Spain, the implantation of the most advanced left ventricular assist device.

SPAIN — March

SANT PAU Campus Salut Barcelona · Hospital de la Santa Creu i Sant Pau

Installs the first imported Da Vinci robot, the only one in the Spanish public healthcare system.

SPAIN

Germans Trias i Pujol Hospital

Installs Spain's first endoscopic pulmonary robot.

SPAIN — Mav

Bellvitge Hospital Universitari

Performs, for the first time in Spain, a surgical technique that enables the removal of previously inoperable pancreatic cancers.

GLOBAL — Julv

Bellvitge Hospital Universitari

Leads the first clinical trial assessing antibiotic benefits in post-COVID cystic fibrosis patients.

EUROPEAN — October

Germans Trias i Pujol Hospital

Performs, for the first time in Europe, an emergency robotic surgery with immersive remote supervision.

GLOBAL

Bellvitge Hospital Universitari · IDIBELL · ADmit THERAPEUTICS

Develops a blood test to predict which individuals with mild cognitive impairment will progress to Alzheimer's dementia.

GLOBAL

Clínic Barcelona · Universitat de Barcelona · IDIBAPS Institut d'Investigacions Biomèdiques August Pi i Sunyer

Discovers the cancer "black box", a new tool to predict the evolution of each tumour.

GLOBAL — September

Clínic Barcelona · Universitat de Barcelona · IDIBAPS Institut d'Investigacions Biomèdiques August Pi i Sunyer · Gyala therapeutics

Demonstrates the preclinical efficacy of CAR-T GYAO1, the first therapy targeting CD84, in hard-to-treat leukemias.

SPAIN

SANT PAU Campus Salut Barcelona · Hospital de la Santa Creu i Sant Pau

Performs the first liver resection in Spain using a single-port robotic approach.

03

BUSINESS GROWTH AND TRANSFER

Photograph:

Headquarters of AstraZeneca's global hub at the Estel building in Barcelona (©AstraZeneca)

Entrepreneurial dynamism and growth

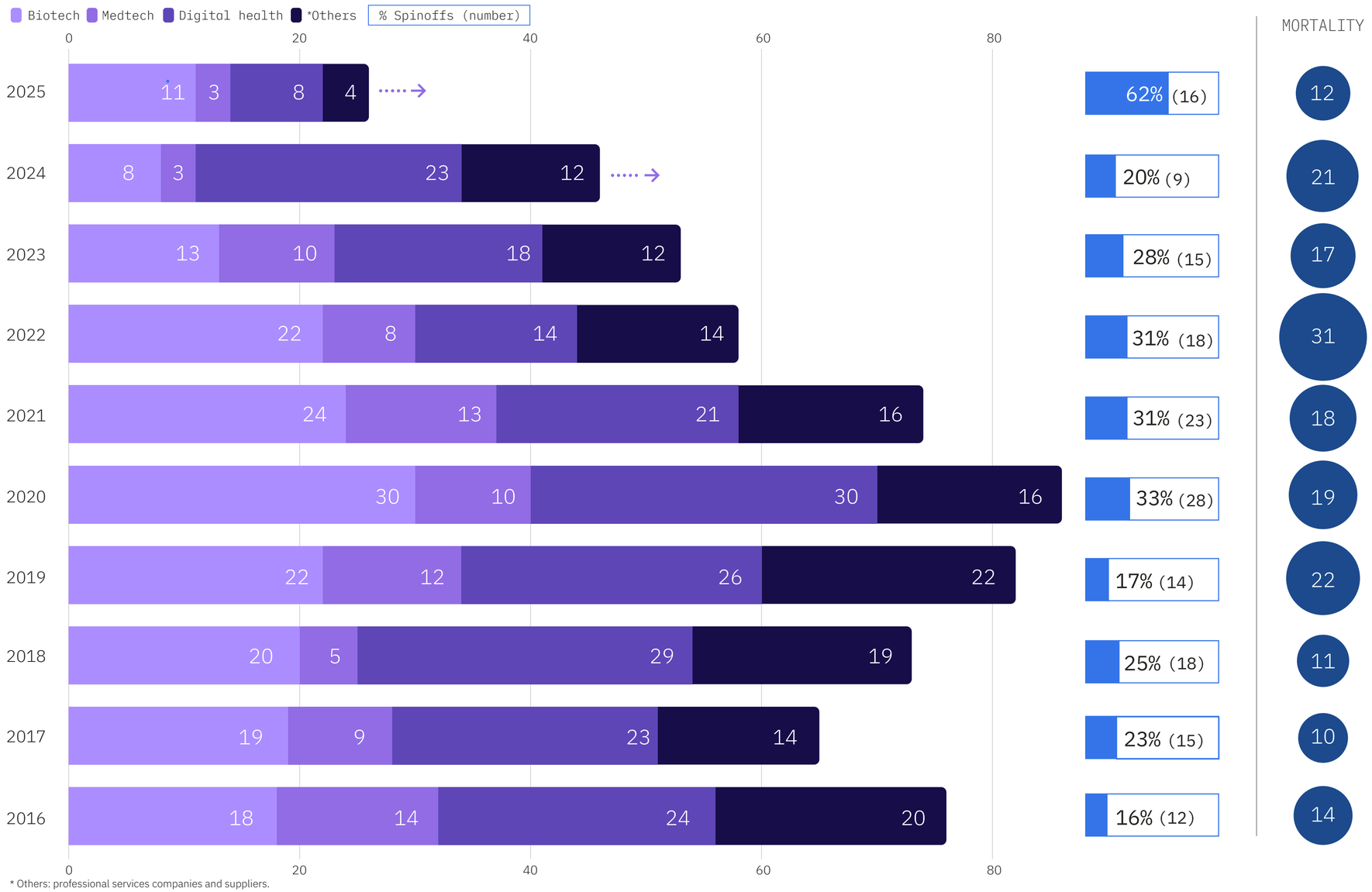
The ecosystem is growing at a steady rate with **more than one new company per week** (639 startups since 2016). Of these, **464 remain active**. Although 27% of the companies incorporated in this period have closed, the annual net balance is still positive, reflecting a process of renewal and maturation of the startup landscape with most closures concentrated in the most volatile segments.

The **biotech subsector** is confirmed as being a sound pillar over the years, accounting for 29% of the total number of new companies. Conversely, the **digital health** segment displays a contrasting scenario: it concentrates the highest percentage of openings (34%), but it is also registers the most closures (45%). This turnover is explained by the relative ease in the initial constitution of the projects, with lower costs, and the subsequent complexity in achieving stable and scalable business models in the long term.

It is worth highlighting the strategic importance of **spinoffs**[1], with **168 companies** since 2016 and already representing **26% of the all** new companies. This segment has gained increasing strategic weight, rising from accounting for 16% of the annual total in previous years to reaching an average of between 25% and 35% annually, further increasing the system's ability to transform research into market assets.

[1] See in-depth analysis on pages 19 and 23.

COMPANY CREATION (STARTUPS AND SPINOFFS) IN THE BIOREGION (2016–2025)

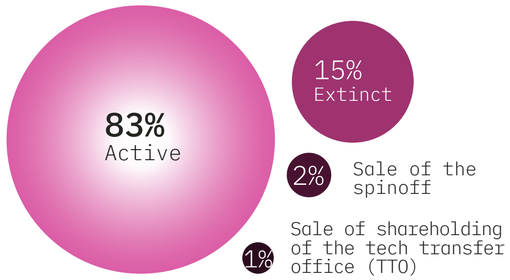


* Others: professional services companies and suppliers.
Source: Biocat
Note: the figures for the last two years are provisional and will be consolidated in future editions.

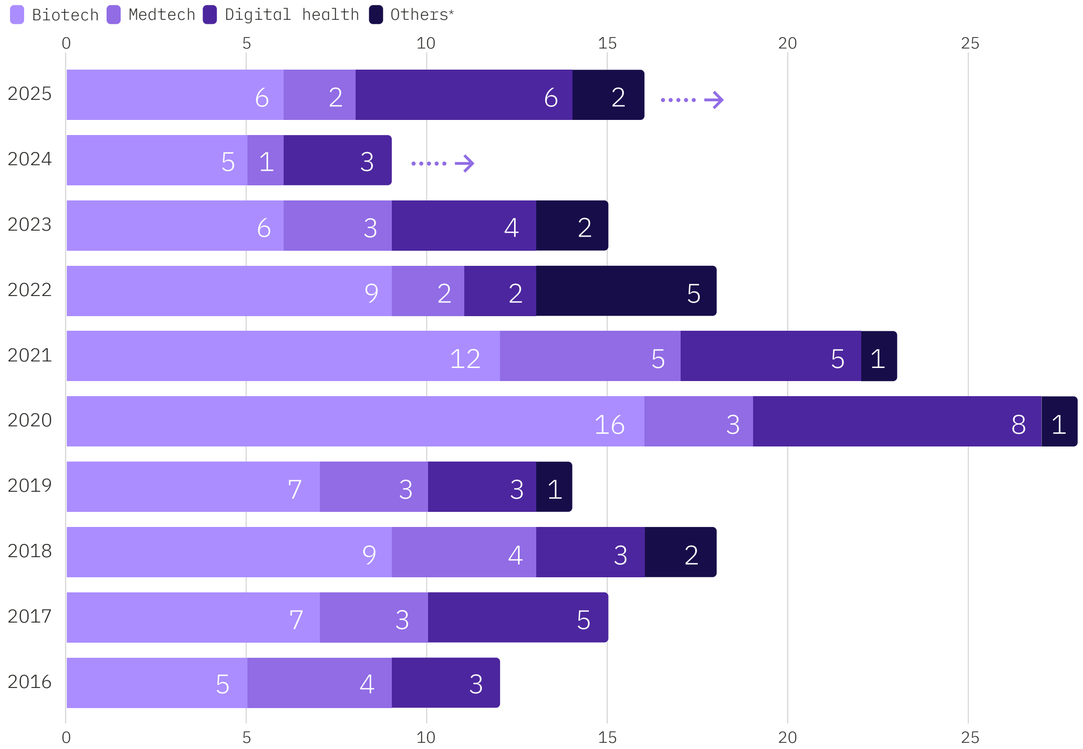
Spinoffs, a key driver of tech transfer and a strategic asset in the BioRegion

Catalonia has strengthened its transfer model with the incorporation of **168 spinoffs since 2016** (an average of 16–17 projects/year) with a survival rate of 83%. Nearly 50% are biotech companies, most of which follow an institution-led model: **78% of the companies exploit their own technology with the centre's participation in the shareholding.** In the last ten years, all spinoffs together have raised **€789.5 million,** with the period 2019–2020, which concentrates 64% of the investment raised, worthy of mention. This figure is the result of the large deals **by SpliceBio, Inbrain Neuroelectronics, Seqera Labs, Ona Therapeutics and Integra Therapeutics,** that bring closer to the market and patients the excellence in research emerging from entities such as **ICN2, the IMB–CNM–CSIC, the CRG, the IRB Barcelona and Hospital Clínic–IDIBAPS,** centres leading the generation of strategic assets and positioning the BioRegion as a benchmark hub for applied science in Europe.

STATUS OF THE SPINOFFS CREATED (2016–2025)

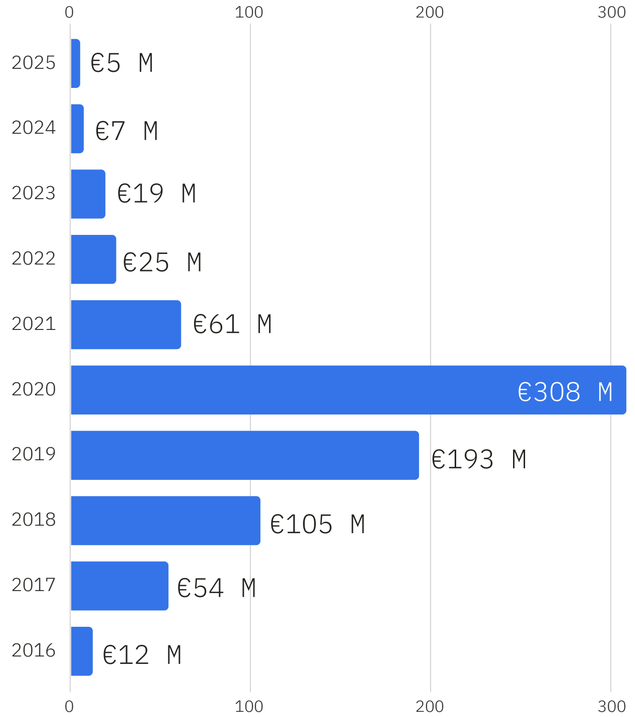


SPINOFF CREATION AND INVESTMENT RAISED BY YEAR OF FOUNDATION (2016–2025)



* Others: professional services companies and suppliers.
Note: the figures for the last two years are provisional and will be consolidated in future editions.

INVESTMENT RAISED BY YEAR OF SPINOFF FOUNDATION (2016–2025) (€M)



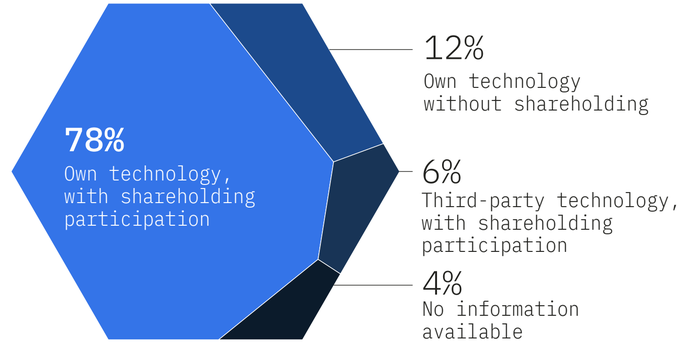
TOP 5 SPINOFFS CREATED (2016–2025) BY INVESTMENT RAISED (€M)

€175 M	€124 M	€53 M	€47 M	€31 M
SPLICEBIO	INBRAIN NEUROELECTRONICS	seqera	Ona THERAPEUTICS	Integra therapeutics

TOP 5 CENTRES BY INVESTMENT RAISED BY SPINOFFS CREATED (2016–2025) (€M)

€136 M	€124 M	€80 M	€74 M	€52 M
ICN2 Institut Català de Nanociència i Nanotecnologia	CNM	CRG Centre for Genomic Regulation	IRB BARCELONA	Clínic Barcelona / Universitat de Barcelona / IDIBAPS

SPINOFF TECHNOLOGY OWNERSHIP (2016–2025)

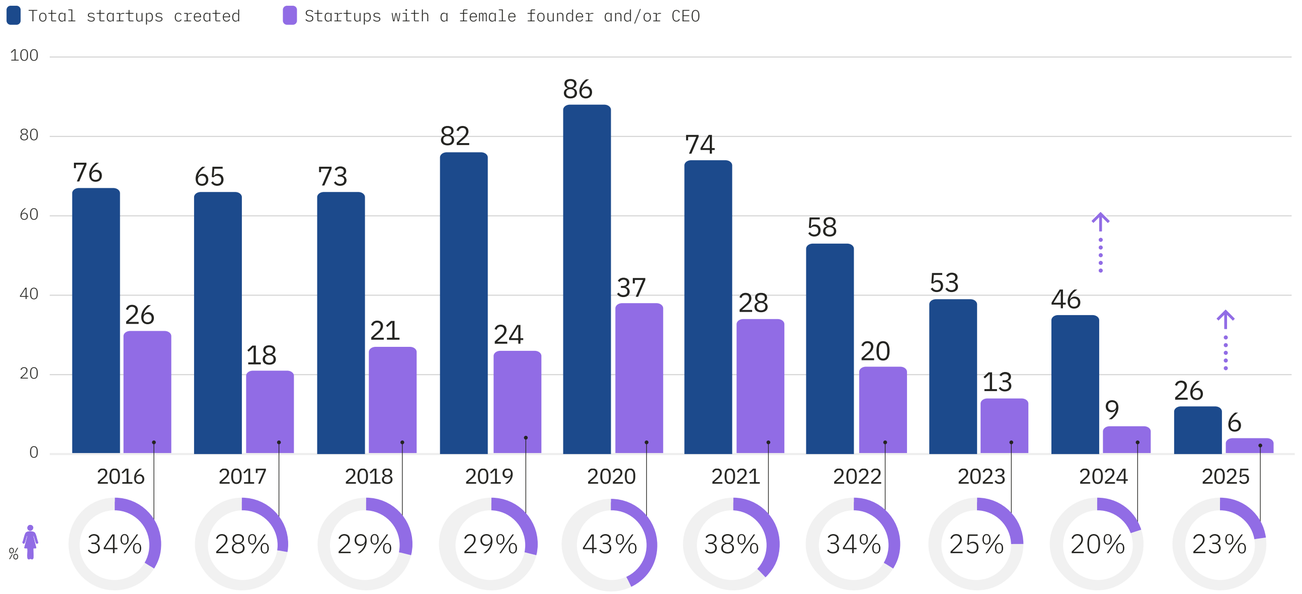


Source: Biocat

Female leadership at the forefront of major successful projects

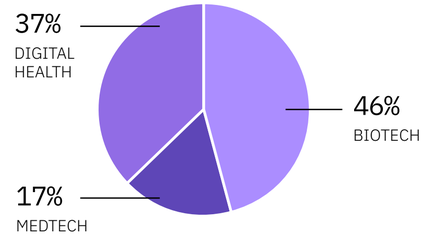
The high qualification of professionals in Catalonia is transferred to the business sector: with **53% of women graduated in STEM**, academic knowledge has driven the creation of **202 health startups with founders or CEOs** (**32% of the total** since 2016). The segment stands out for its exceptional efficiency in attracting resources: in 2024 and 2025, projects led by women attracted **more than 50% of total funding**, reaching a maximum of €268 million last year. These figures place the BioRegion as a **top-tier hub** internationally: the share of investment in companies led by women (49%) is **3.4 times higher than the European average**. With a decisive weight in **biotech (46%) and AI (18%)**, success stories like **Impress, SpliceBio and Inbrain Neuroelectronics** strengthen women's key role in the sectors highest-value deals.

EVOLUTION OF THE CREATION OF STARTUPS FOUNDED/LED BY WOMEN (2016–2025)

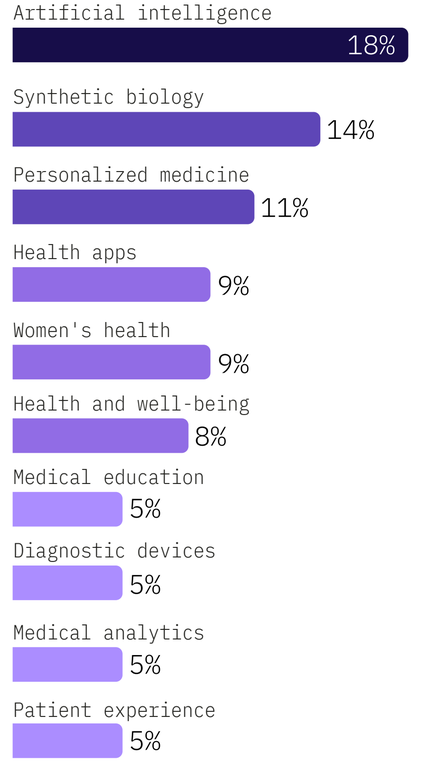


Note: the figures for the last two years are provisional and will be consolidated in future editions.

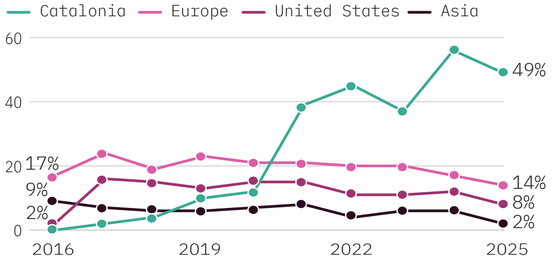
DISTRIBUTION BY SECTOR OF STARTUPS FOUNDED/LED BY WOMEN



MAIN WORKING AREAS OF STARTUPS FOUNDED/LED BY WOMEN

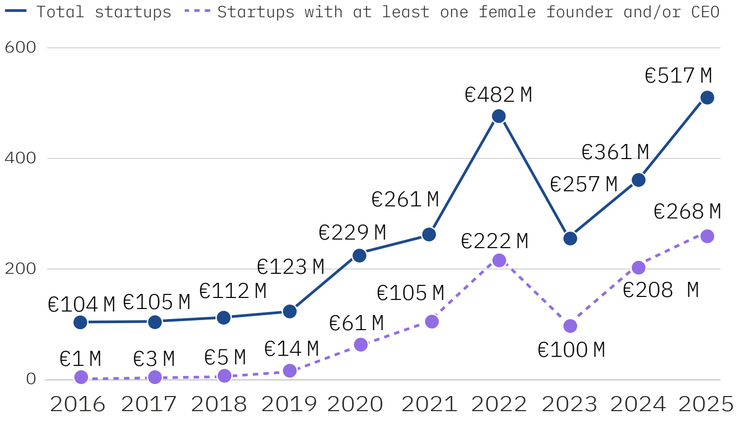


% OF INVESTMENT RAISED BY STARTUPS FOUNDED BY WOMEN (2016–2025)

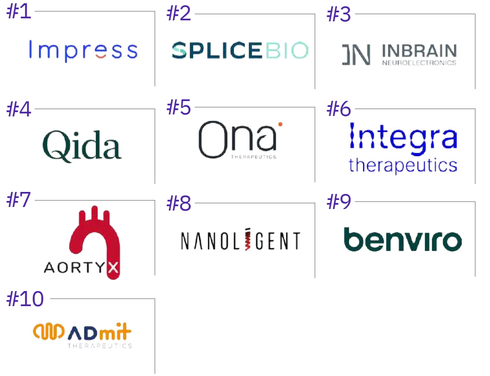


Sources: Dealroom and Biocat

INVESTMENT IN STARTUPS FOUNDED/LED BY WOMEN (2016–2025)



TOP 10 STARTUPS BY INVESTMENT IN STARTUPS FOUNDED/LED BY WOMEN



Source: Biocat

Strengthening the business lanscape: the scalability of small and medium-sized enterprises

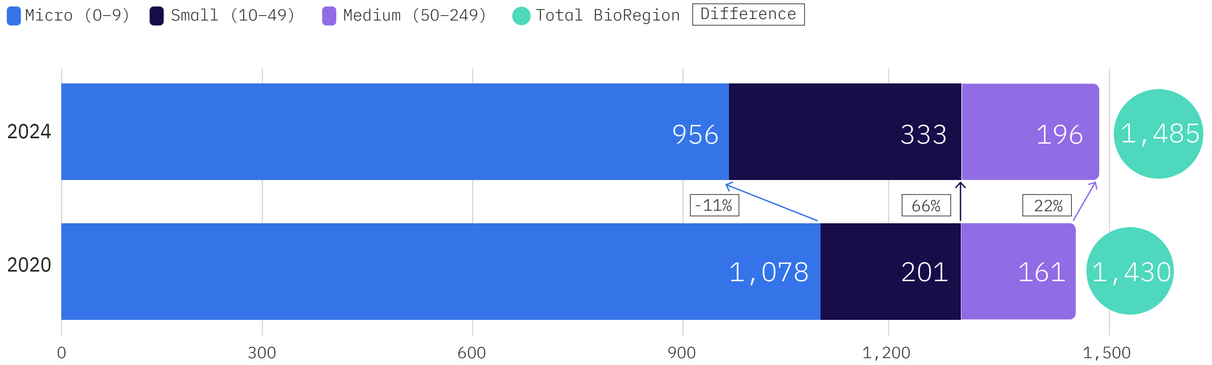
The BioRegion is founded on a highly mature business base, where **1,131 SMEs** already account for **90% of all companies** in the industry. Beyond this density, the data show a shift toward larger company structures. Between 2020 and 2024, the ecosystem scaled up: micro-enterprises decreased by 11%, while **small companies grew by 66% and medium-sized ones by 22%.** This trend suggests the business base is moving beyond the early stage, consolidating more competitive and robust business models.

The economic impact of this segment is a major driving force of stability for the ecosystem, with a turnover of **€4,321 M (+7.1% per annum) and more than 18,000 jobs (+6.6%)**. Medium-sized companies lead the financial weight of the category, accounting for 74% of the business and 57% of employment.

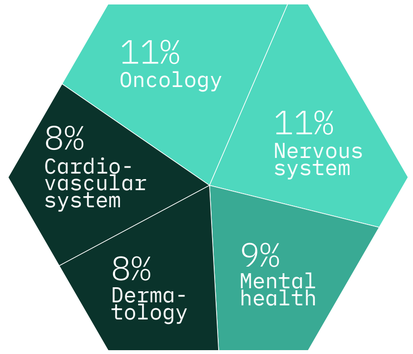
SMEs confirm their role as a pillar of resilience in the sector thanks to a diverse activity in such areas as **oncology, the nervous system, mental health, the cardiovascular system and dermatology,** and achieves a **cumulative growth of 15% in turnover and 21% in employment** over the last five-year period.

MACROECONOMIC INDICATORS OF THE SMALL AND MEDIUM-SIZED ENTERPRISE (SME) SEGMENT

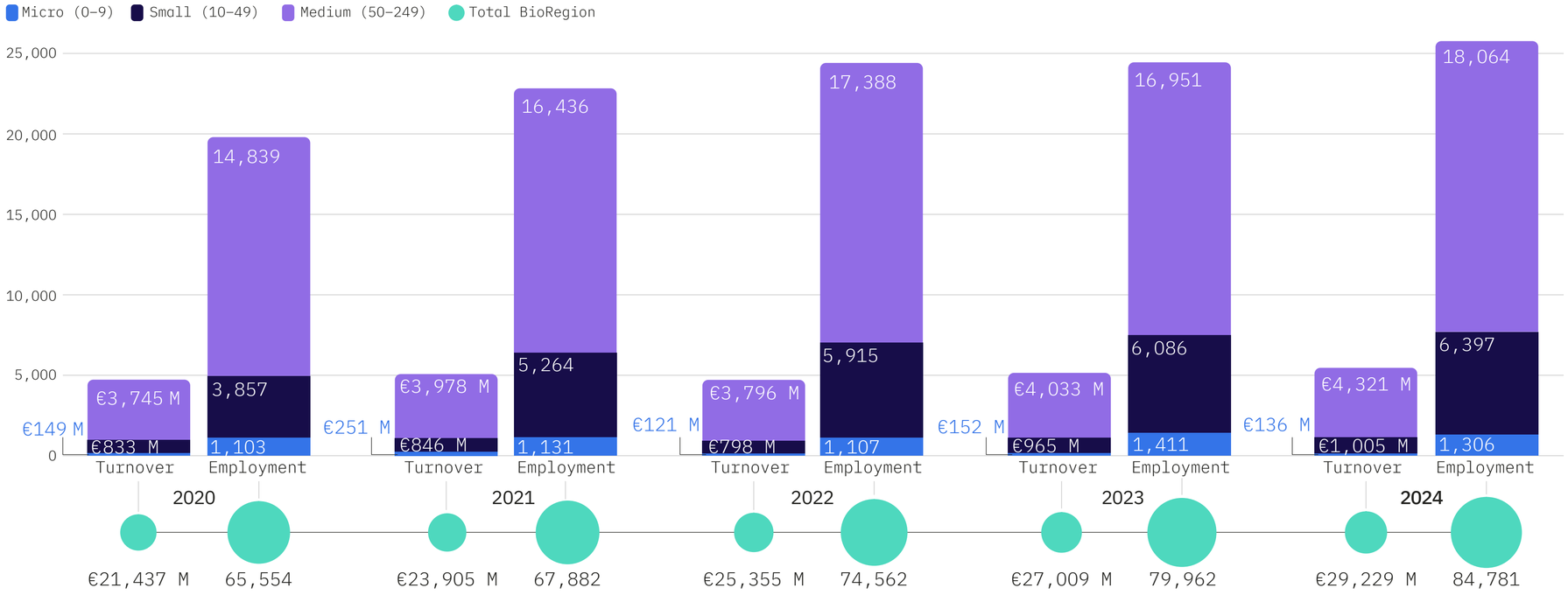
EVOLUTION OF THE NUMBER OF SMEs BY SIZE (2020–2024)



MAIN THERAPEUTIC AREAS OF SMEs



SME TURNOVER AND EMPLOYMENT (2020–2024)



Sources: SABI and Biocat
Note: data for turnover and employment correspond to 1,400 companies with balance sheets in SABI (2020–2024).

Specialization by subsector: SME capability analysis

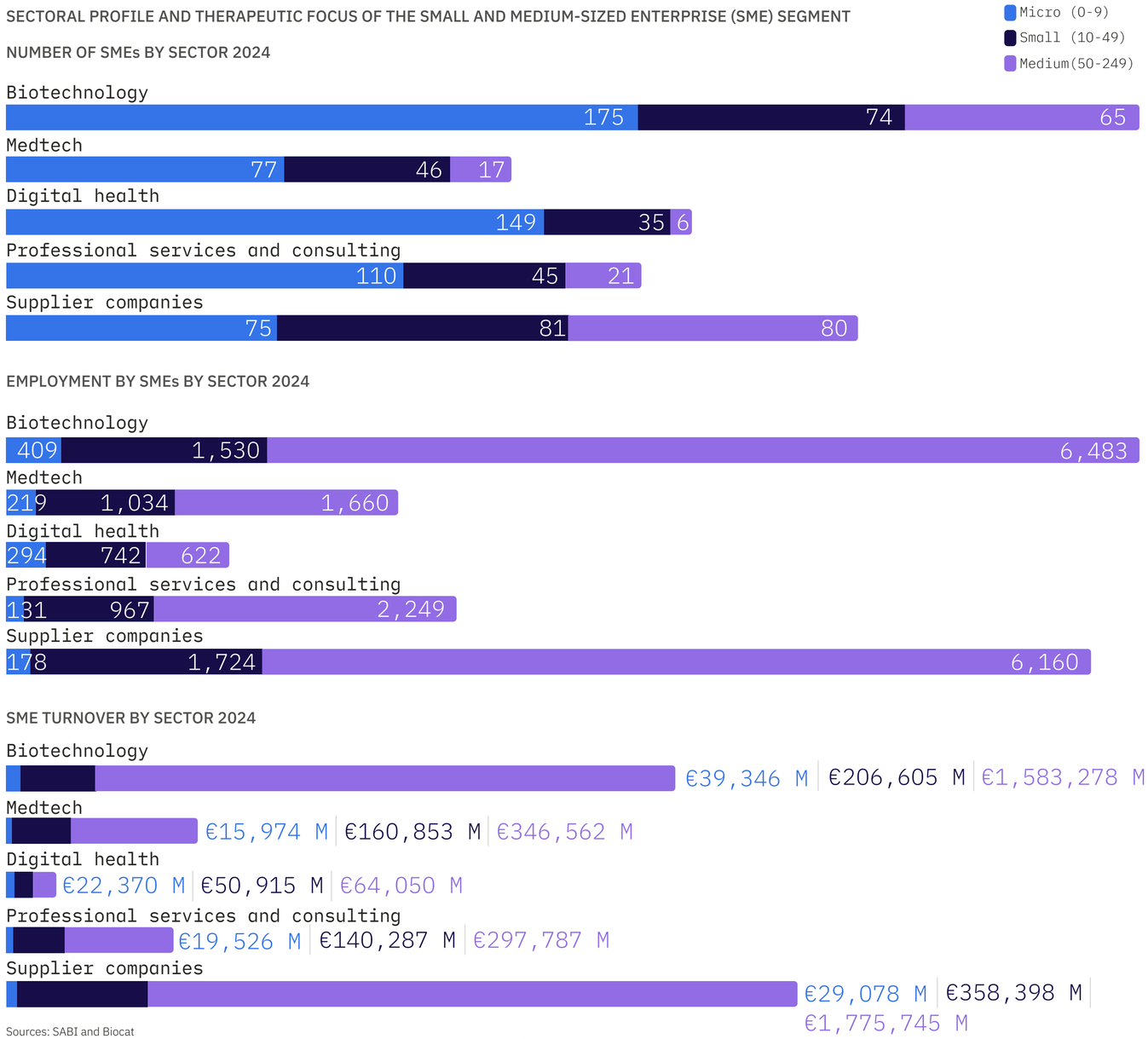
Catalan SMEs combine frontier innovation with the delivery of support services that guarantee sector competitiveness. The research and product segment is made up of biotech (28% of SMEs), digital health (17%) and medtech (12%) firms. The **biotech subsector stands out above the rest** concentrating 47% of employment (8,422 jobs) and 42% of turnover, confirming its key role in the BioRegion.

These companies coexist with an **extensive network of professional services and, especially, of supplier companies** (21%), which generate 50% of total turnover (€2,163 million), demonstrating great solvency and a capacity to provide service throughout the value chain.

This strength translates into cutting-edge solutions in critical areas:

- Oncology and nervous system: with developers of injectables, inhibitors, novel therapies and neuromodulation such as **Ability Pharma, BCN Peptides, GP Pharm, Neuroelectrics and ZeClinics.**
- Dermatology and cardiovascular system: with leaders in active ingredients and medical devices such as **MartiDerm, Provital, CardioLink, iVascular and Neosalus.**
- Mental health: with AI, virtual reality and digital therapy platforms such as **Qmenta, Broomx and Psicoactiva.**

SECTORAL PROFILE AND THERAPEUTIC FOCUS OF THE SMALL AND MEDIUM-SIZED ENTERPRISE (SME) SEGMENT



Sources: SABI and Biocat
Note: data for turnover and employment correspond to 1,400 companies with balance sheets in SABI (2020–2024).

MAIN SMEs BY THERAPEUTIC AREA

ONCOLOGY

NERVOUS SYSTEM

MENTAL HEALTH

DERMATOLOGY

CARDIOVASCULAR SYSTEM

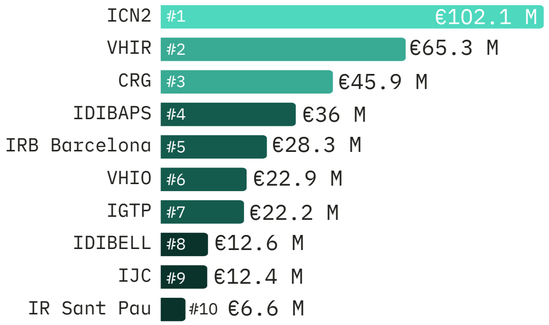
Note: sample of companies over 10 years old whose turnover has grown the most by therapeutic area.

Efficiency in technology transfer

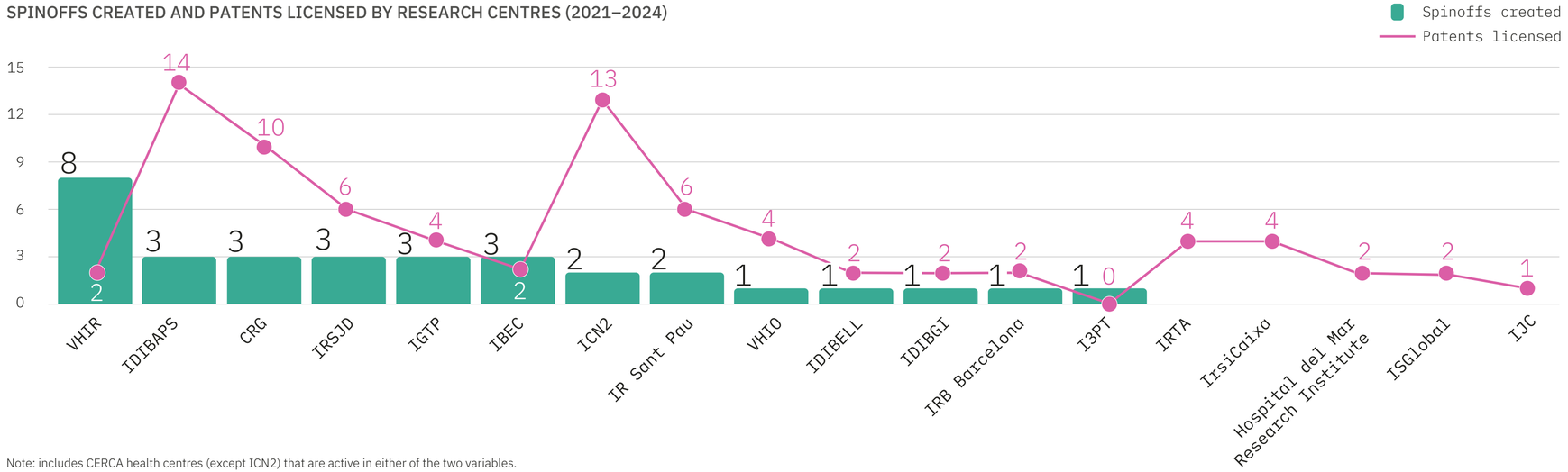
Knowledge transfer in Catalonia translates into value through new venture creation and patent licensing. Over 2021–2024, **VHIR led the creation of 8 spinoffs**, followed by IDIBAPS, IBEC, IGTP, CRG and IRSJD (3 each). For **patent licensing, IDIBAPS (14), ICN2 (13) and the CRG (10) stand out.**

The analysis of the 25 CERCA centers in health reveals a direct correlation between funding received and return generated: the most **active institutes in clinical trials lead revenues from commercialization, with VHIO (€171.1 M) and IDIBAPS (€129.1 M)** as references. This flow of innovation attracts private capital: **these centres' spin-offs have raised €374 million** in the last four-year period, especially highlighting the ICN2 (€102.1 M) with rounds such as that of Inbrain Neuroelectronics.

TOP 10 INVESTMENT OF SPINOFFS (2021–2024)

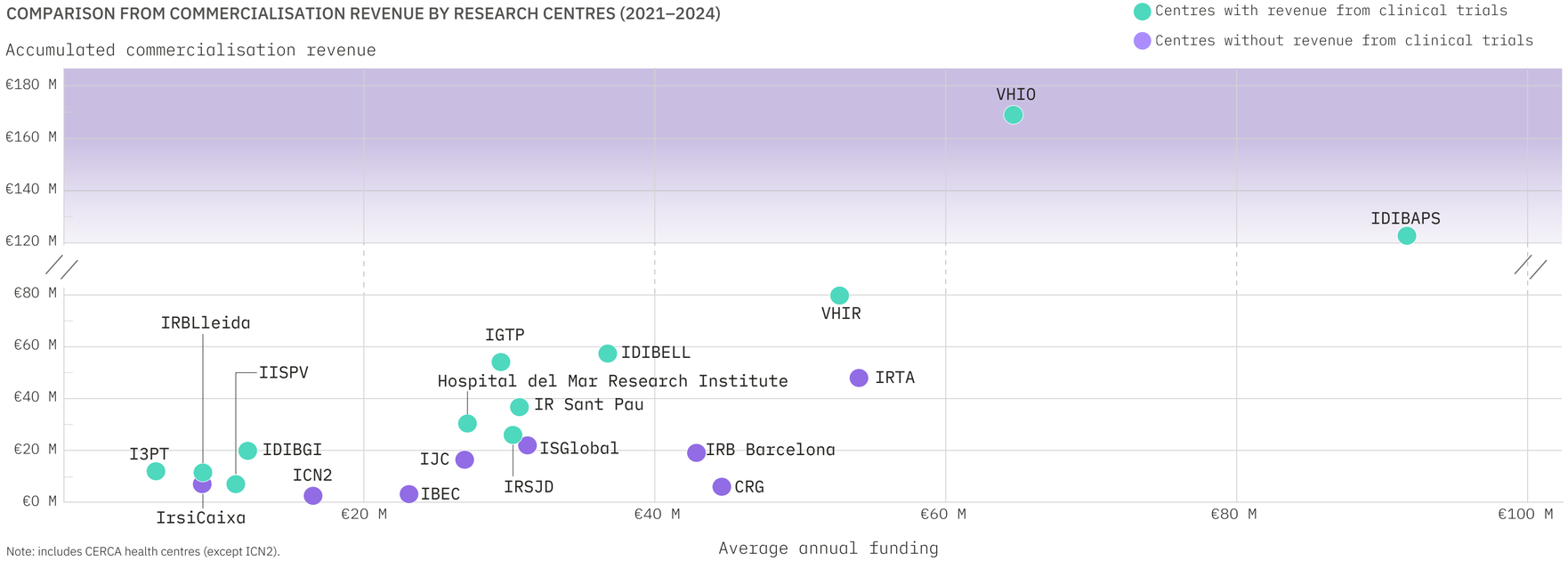


SPINOFFS CREATED AND PATENTS LICENSED BY RESEARCH CENTRES (2021–2024)



Note: includes CERCA health centres (except ICN2) that are active in either of the two variables.

COMPARISON FROM COMMERCIALISATION REVENUE BY RESEARCH CENTRES (2021–2024)



Note: includes CERCA health centres (except ICN2).

Sources: Biocat, CERCA and research centres
Note: see list of acronyms in the Methodology.

04

CLINICAL DEVELOPMENT AND TECHNOLOGY PIPELINE

Photograph :

Cryopreservation of tissue for use in advanced therapies at the Blood and Tissue Bank (©BST)

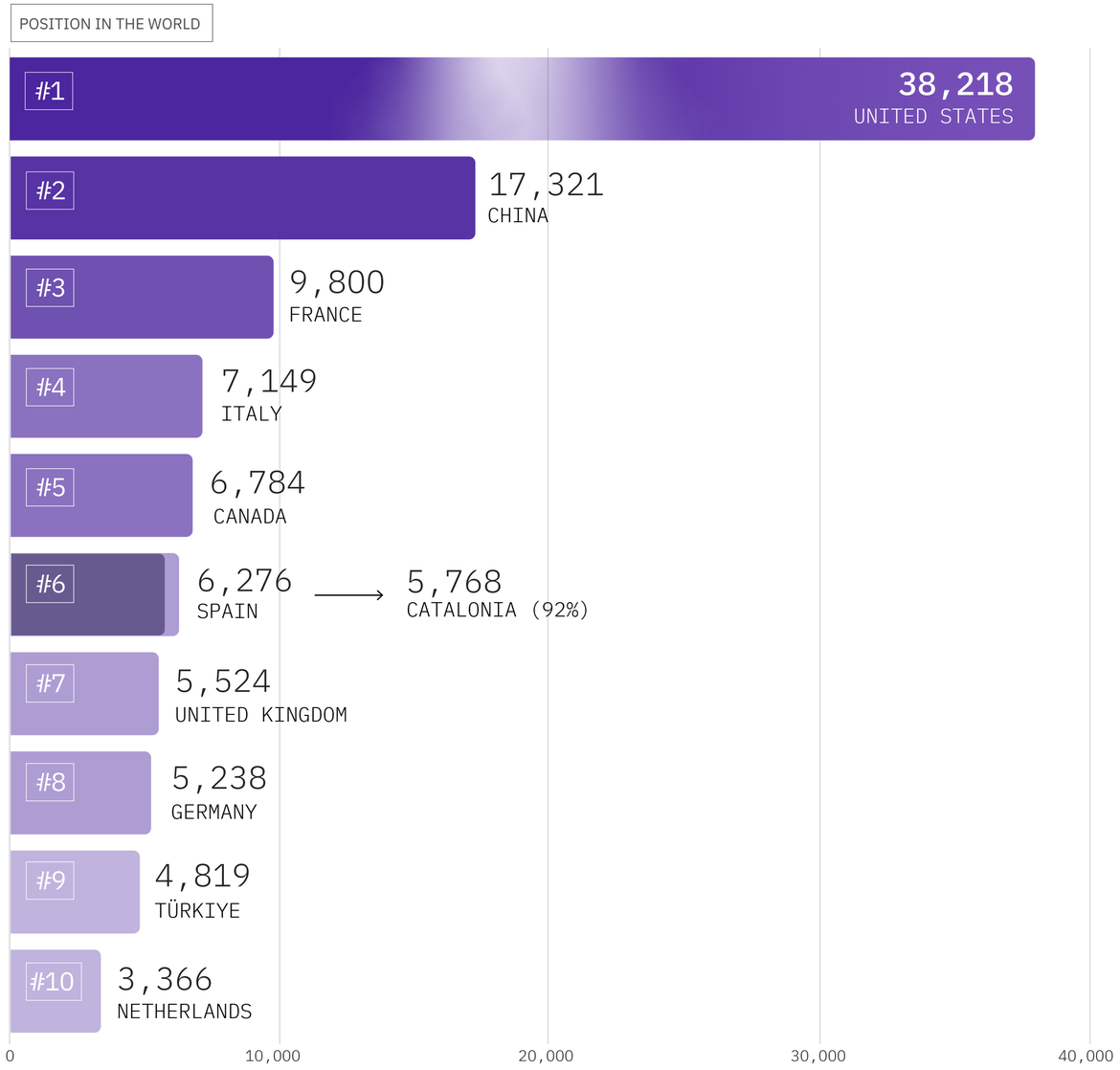
Catalonia, 4th in Europe and 7th in the world in active clinical trials

Catalonia consolidates its international leadership and moves up one position in the global ranking to become the **7th hub worldwide** for clinical trials, surpassing the United Kingdom. With **5,768 active studies in 2025**, the region participates in **92% of the activity in Spain** and maintains a growth rate of +7.5%, far higher than the national average (which is growing by +1.9%). **In Europe, Catalonia ranks 4th** (behind France, Italy and Spain) and outpaces countries such as Germany.

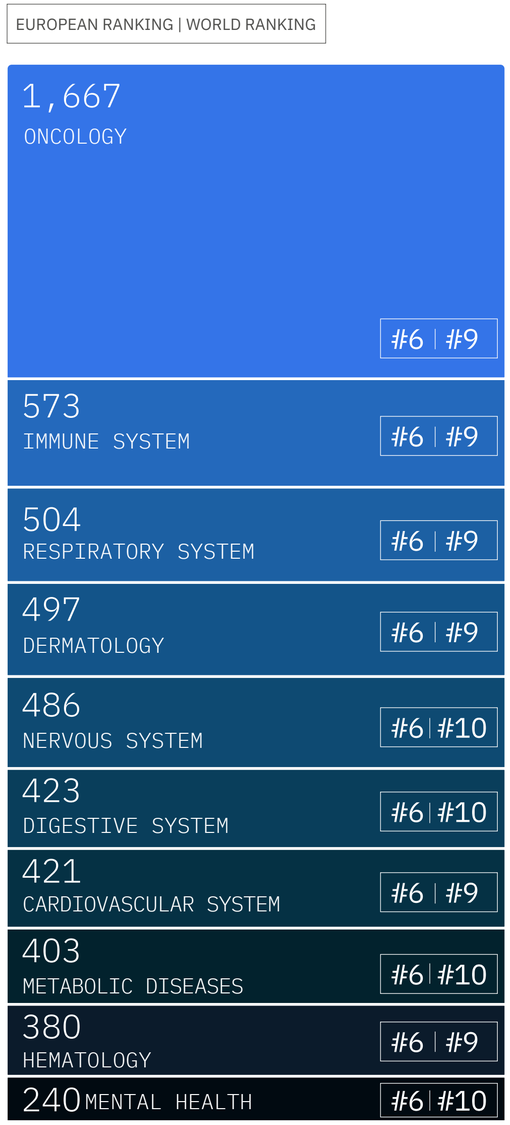
This growth comes amid a global landscape where China (+10.2% vs. 2024) continues to narrow the gap with the USA, which recorded a slight decline (-2.1%). By therapeutic areas, **oncology remains the main driver of Catalan clinical research** (6th position in Europe), despite a 3% decline that has been offset by a strong diversification towards other pathologies. Increases in dermatology (+20.3%), metabolic diseases (+8.9%) and the nervous system (+3.6%) are noteworthy.

The strength of the health system together with public-private collaboration are the cornerstones of this competitiveness, which will be reinforced as of 2026 with the launch of the **European fast-track procedure (FAST-EU)**. This initiative, promoted with a key role played by the AEMPS, will streamline the authorization of multinational trials, facilitating the attraction of investments and speeding up the arrival of innovative therapies to patients.

TOP 10 WORLDWIDE
NUMBER OF ACTIVE CLINICAL TRIALS 2025



INTERNATIONAL COMPARISON BY NUMBER OF TRIALS
PER CLINICAL AREA 2025



Source: Clinicaltrials.gov
Note: active clinical trials include those in the following recruitment states: “Not yet recruiting”, “Recruiting”, “Enrolling by invitation” and “Active, not recruiting”.

Key strategic alliances in boosting clinical research in Catalonia

Catalonia's success as a global clinical trials hub is underpinned by close collaboration between hospitals, research centres and the pharmaceutical industry. The model combines strong **commercial activity (75%)** with an increasing share of **non-commercial trials (25%).** Led by academic institutions, these studies help address clinical needs that are not always a priority for industry, and are driven by hospitals such as **Hospital Clínic, Vall d'Hebron, Sant Pau, Bellvitge, Hospital del Mar and Sant Joan de Déu.**

Distribution by phases confirms Catalonia as a **benchmark environment for advanced stages**,with **45% of studies in phase III**. At the same time, a meaningful volume is maintained in **phase I (20%)**, essential for the early validation of new therapies.

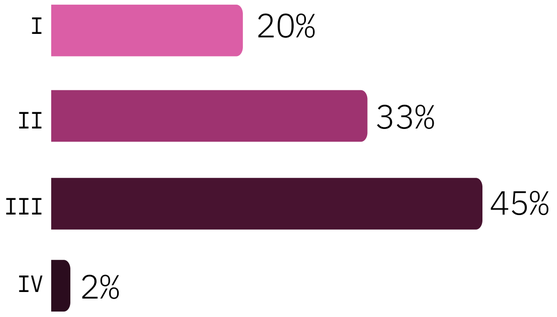
This robustness reinforces the commitment of the sector's major multinationals, with a prominent presence of companies such as **AstraZeneca, Johnson & Johnson, Roche, Sanofi, Amgen, Bayer and Pfizer**, who choose the region to develop their most strategic, high therapeutic value R&D.

PHARMACEUTICAL MULTINATIONAL COMPANIES CONDUCTING CLINICAL TRIALS IN CATALONIA

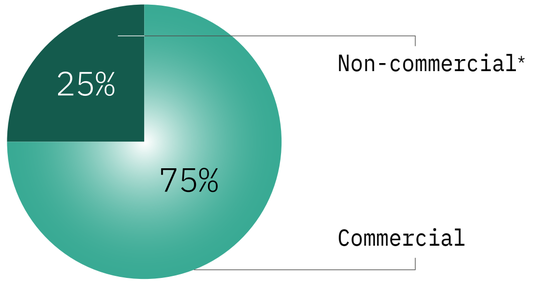
AstraZeneca, MSD, Novartis, Roche, Johnson&Johnson Innovative Medicine, Lilly, abbvie, Bristol Myers Squibb, Pfizer, sanofi, AMGEN, GSK, Boehringer Ingelheim, REGENERON, Daiichi-Sankyo, novo nordisk, GILEAD, Incyte, SOLVE ON, BAYER, Takeda

Note: companies and entities are classified by number of trials.

ACTIVE CLINICAL TRIALS BY PHASE IN CATALONIA



ACTIVE CLINICAL TRIALS BY TYPE OF SPONSOR IN CATALONIA



* Non-commercial trials are not funded by the pharmaceutical industry

HOSPITALS AND RESEARCH INSTITUTES DEVELOPING NON-COMMERCIAL CLINICAL TRIALS IN CATALONIA

Clínic Barcelona, Universitat de Barcelona, Vall d'Hebron Barcelona Hospital Campus, Vall d'Hebron Institut de Recerca, SANT PAU Campus Salut Barcelona, Hospital de la Santa Creu i Sant Pau, Bellvitge Hospital Universitari, IDIBELL, Hospital del Mar Barcelona, Hospital del Mar Research Institute Barcelona, SJD Sant Joan de Déu Barcelona - Hospital, SJD Sant Joan de Déu Institut de Recerca

Note: companies and entities are classified by number of trials.

Source: Clinicaltrials.gov
Note: active clinical trials include those in the following recruitment states: "Not yet recruiting", "Recruiting", "Enrolling by invitation" and "Active, not recruiting".

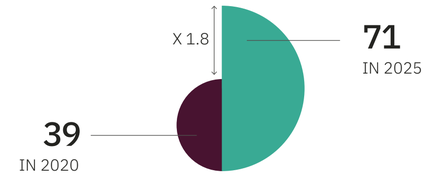
71 molecules and therapies in clinical development

The BioRegion pipeline gathers **71 assets in development** (51 molecules and 20 advanced therapies[1]), a figure that practically doubles the records for 2020.

In 2025, the portfolio shows notable clinical maturity: **47% of molecules and therapies are in phase II (24) and 31% in phase III (16)**. The activity is concentrated in key therapeutic areas such as oncology, the central nervous system (CNS) and dermatology, where the Catalan ecosystem demonstrates its clear leadership.

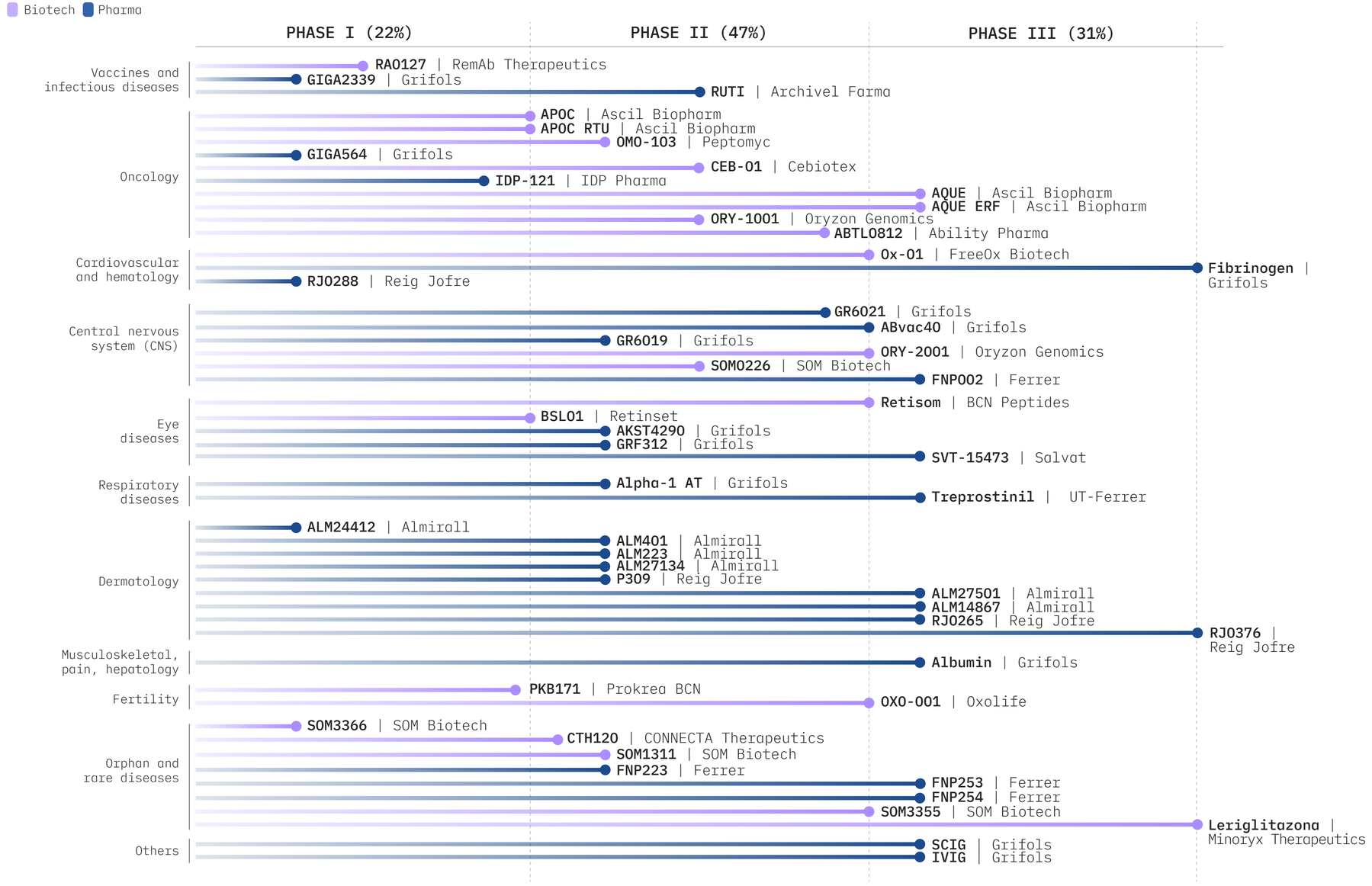
This strength is driven by the Catalan pharmaceutical industry's commitment to R&D, which exceeds **€400 M of annual investment**[2] and helps advance projects into late phases. At the same time, the startup base is generating a new wave of advanced preclinical assets preparing to move into the clinic, with firms such as **Gate2Brain, Gyala Therapeutics, Integra Therapeutics, Nuage Therapeutics, Ona Therapeutics and Oniria Therapeutics.**

SCALING OF MOLECULES AND THERAPIES IN CLINICAL DEVELOPMENT (2020–2025)



[1] The specific advanced therapies pipeline (ATMPs) is broken down on the following page.
[2] Source: Farmaindustria

CLINICAL PIPELINE IN CATALONIA 2025



Source: Biocat
Note: the same asset may be listed more than once if it is in phase III for clearly differentiated clinical indications. In phases I and II, the asset is listed only once in the more advanced indication.

Catalonia, 6th in Europe in active clinical trials in advanced therapies

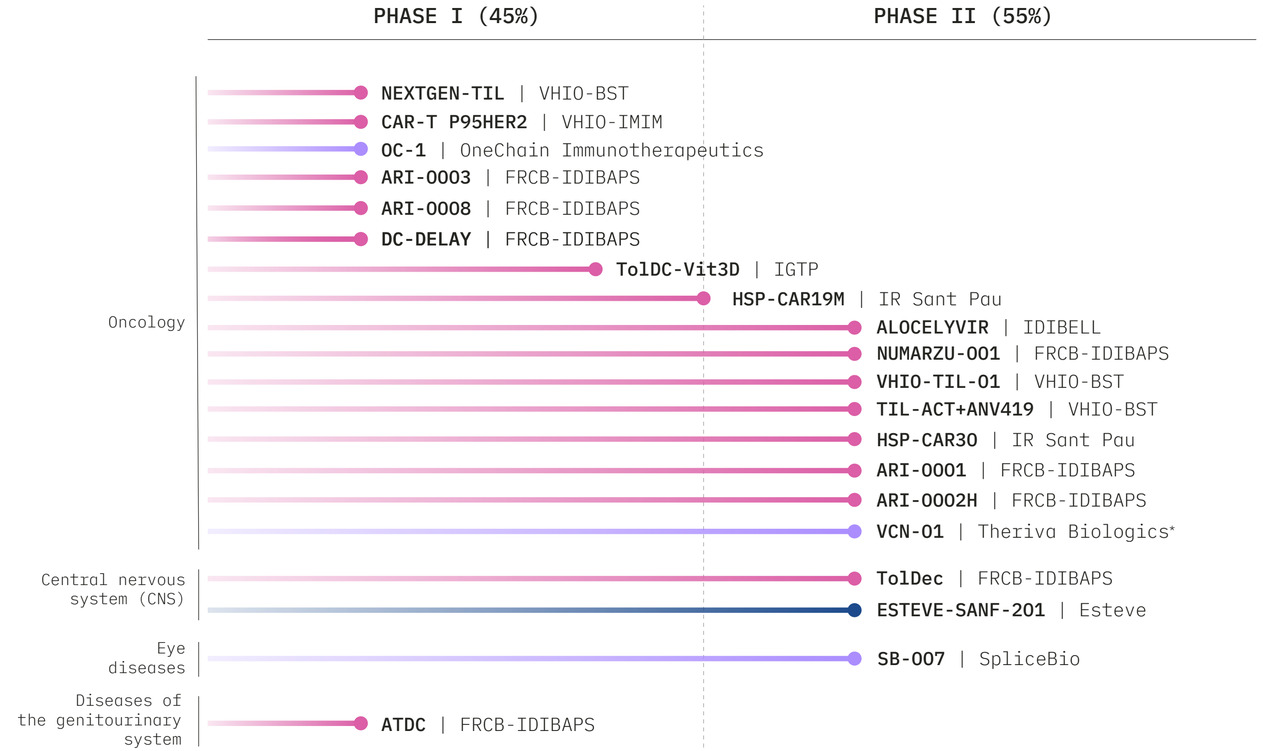
The BioRegion's advanced therapies **pipeline** maintains its activity in 2025 with **20 assets in clinical development**, distributed between phase I (45%) and phase II (55%). Despite the slight variation compared to the previous year, the sector's dynamism makes Catalonia a global benchmark: with **156 active trials (82% of the total for Spain), the region holds 6th position in Europe and 8th in the world for volume of active trials in advanced therapies.**

The Catalan model demonstrates an optimal combination of business initiative and hospital leadership, featuring programmes from companies such as **Esteve** or **Theriva Biologics** (through the acquisition of **VCN Biosciences**), and startups like **OneChain** or **SpliceBio**. Hospital centres act as key drivers: **Hospital Clínic** stands out with 8 therapies, followed by **VHIO** with 4 assets —three of which are co-owned with the **Banc de Sang i teixits (BST)** and one with the IMIM, where the BST plays a role as co-developer and producer. **Sant Pau Hospital** enters the 2025 pipeline with 2 clinical phase therapies.

Although oncology is the predominant area, the therapeutic range is progressively expanding towards new pathologies and modalities, as well as clinical capabilities. In this scenario, initiatives such as the **ATMP Catalonia hub** are strategic in order to bring together the ecosystem, accelerate clinical translation and ensure that these therapies reach the health system and patients effectively.

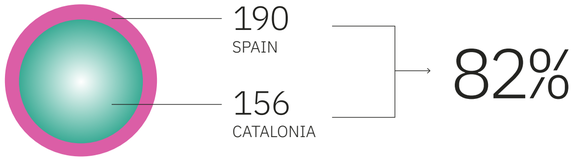
CLINICAL PIPELINE OF ADVANCED THERAPIES DEVELOPED BY CATALAN ENTITIES 2025

Biotech Pharma Hospital and research institutes



* Theriva Biologics SL is the Catalan subsidiary of Theriva Biologics Inc, which is developing VCN-01.

PARTICIPATION BY CATALONIA IN ACTIVE CLINICAL TRIALS IN ADVANCED THERAPIES



POSITION OF CATALONIA FOR ACTIVE CLINICAL TRIALS IN ADVANCED THERAPIES

CATALONIA IN THE WORLD RANKING

CN	US	FR	IT	ES	GB	DE	#8	AU	CA

+2,100 CLINICAL TRIALS

CATALONIA IN THE EUROPEAN RANKING

FR	IT	ES	GB	DE	#6	NL	BE	PL	SE

+740 CLINICAL TRIALS

DEVELOPING ENTITIES

Banc de Sang i Teixits · Esteve · IDIBAPS · IDIBELL · IGTP · Hospital del Mar Research Institute Barcelona · OneChain · Sant Pau Hospital de la Santa Creu i Sant Pau · SpliceBio · Theriva Biologics · VHIO

MAIN PROMOTERS OF COMMERCIAL TRIALS

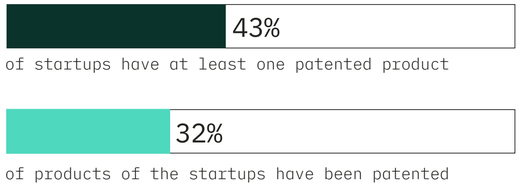
#1 Novartis
#2 Johnson & Johnson Innovative Medicine
#3 Celgene
#4 MSD
#5 Adaptimmune

Sources: REEC, Clinicaltrials.gov and Biocat

Healthtech products and services pipeline 2025

The healthtech subsector presents a portfolio[1] that is heavily geared towards **medical devices (69%)**, where solutions based on **software and hardware + software** stand out. These companies are characterized by a highly agile go-to-market: **56% of entities take just one year** to reach the market. Despite this celerity, maturity is dual: while **78% of consolidated companies** already have products on the market, **92% of startups** are still in stage prior to generating revenue (<€1 M).

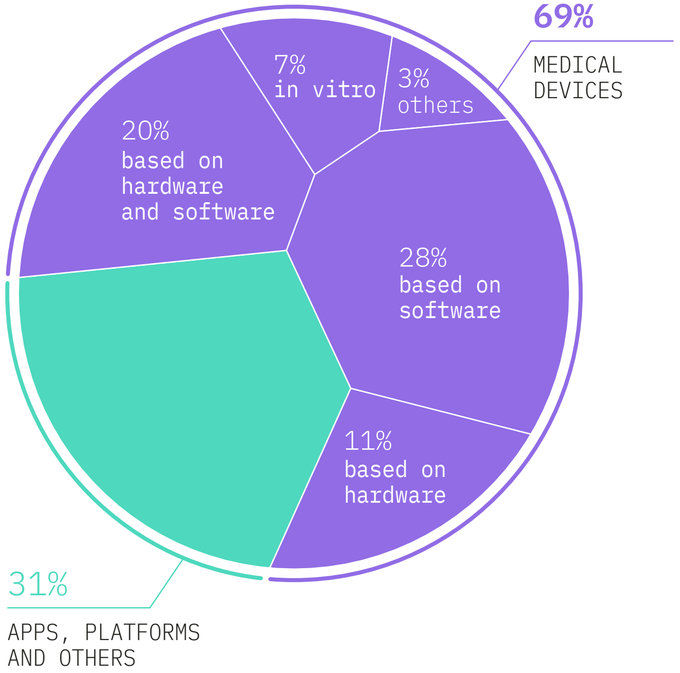
The business model is balanced and **multi-channel**, distributed between the public system (26%), private hospitals/insurers (26%), end customer (26%), and private company (22%). This diversification of clients reveals different patterns: the B2C/patients segment allows for rapid scaling in volume—52% of companies exceed 5,000 users—, although the greatest concentration of revenue comes from B2B channels. The growth strategy involves **internationalization** (24% has more than 80% of clients abroad) and overcoming **regulatory challenges**: 47% of companies are generating clinical proof and **34% are already in possession of CE certification.**



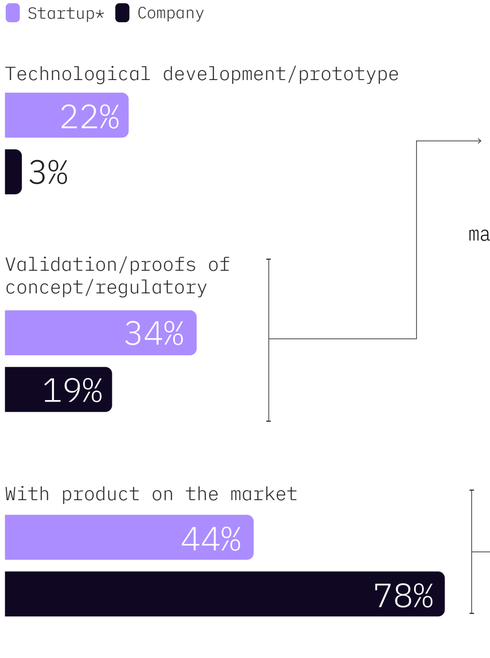
[1] Survey conducted in collaboration with Fenin Catalunya, based on a sample of 310 healthtech companies, with a 28% response rate.

TYPE AND CLASSIFICATION OF HEALTHTECH PRODUCTS AND SERVICES

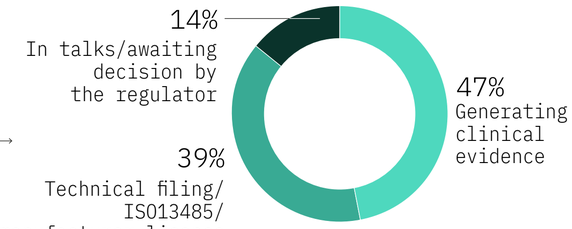
TYPE OF PRODUCTS/SERVICES



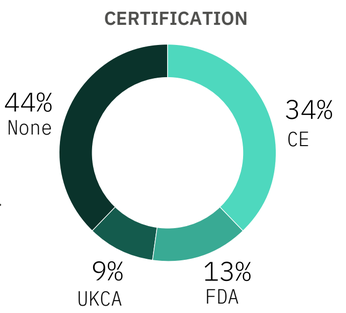
PRODUCT/SERVICE DEVELOPMENT PHASE



REGULATORY PHASE

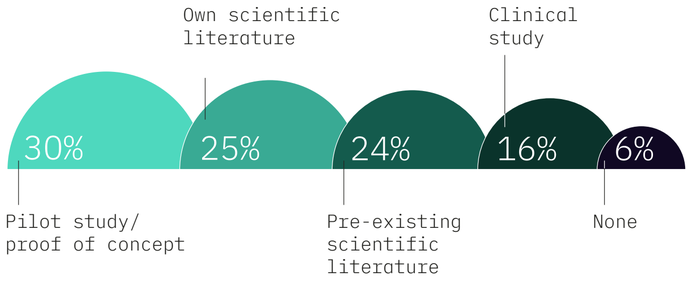


CERTIFICATION

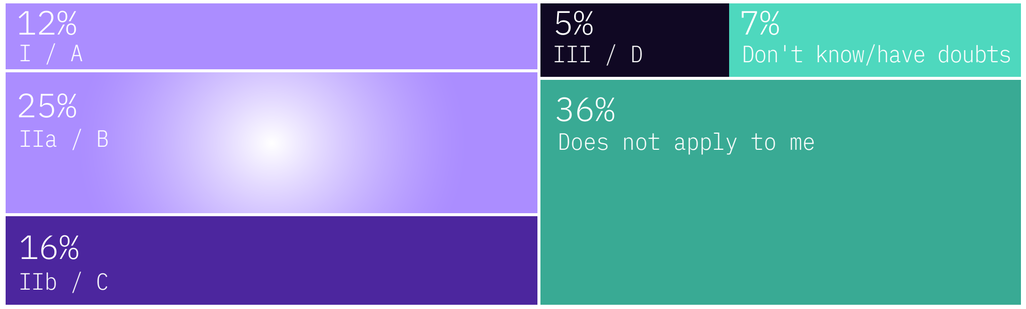


* Year of foundation ≤10 years

LEVEL OF CLINICAL EVIDENCE OF PRODUCTS/SERVICES



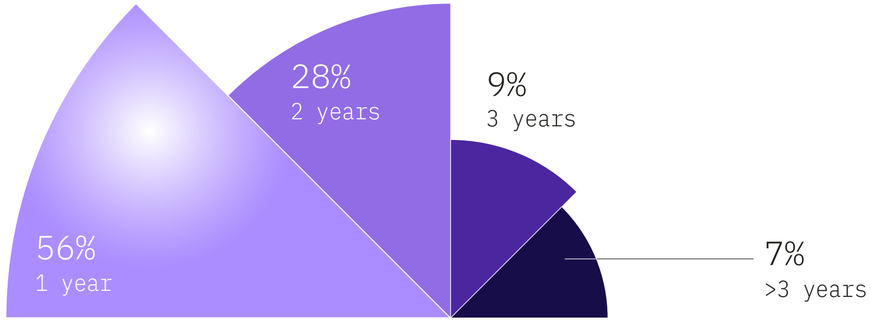
REGULATORY CLASSIFICATION



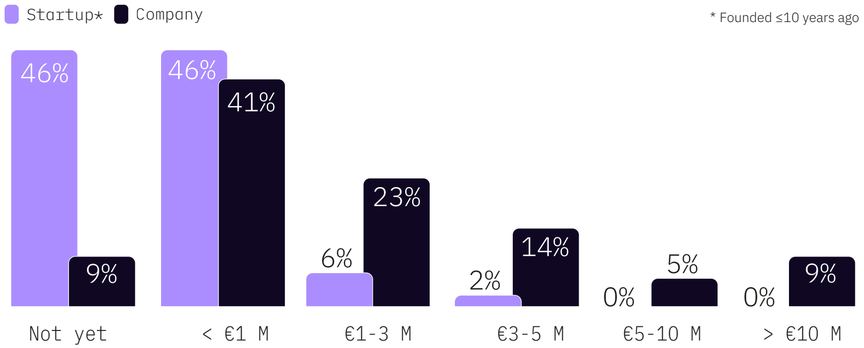
Source: Biocat

BUSINESS MODEL AND COLLABORATIONS IN HEALTHTECH PRODUCTS AND SERVICES

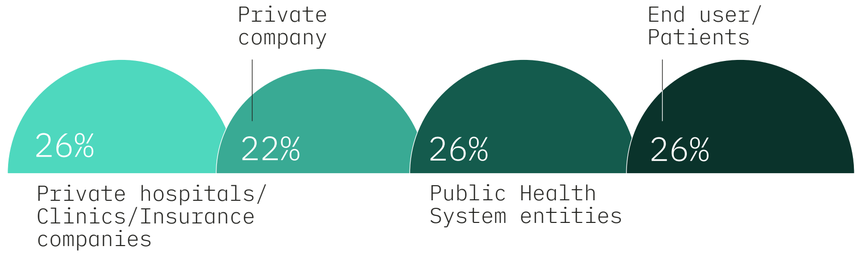
TIME-TO-MARKET



ANNUAL SALES REVENUE



MAIN BUSINESS MODEL



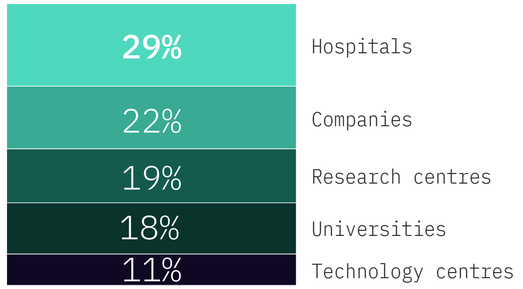
RELATIONSHIP BETWEEN PERCENTAGE OF REVENUE AND TYPE OF CUSTOMERS

	<25%	25–50%	50–75%	>75%
Private company	33%	26%	13%	28%
Private hospitals/clinics/ insurance companies	19%	44%	25%	11%
Public Health System entities	45%	37%	11%	8%
End user/patients	77%	19%	0%	4%

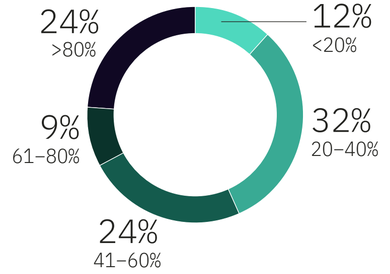
RELATIONSHIP BETWEEN VOLUME AND TYPE OF CUSTOMERS

	1–10	10–50	50–100	100–1,000	1,000–5,000	>5,000
Private company	41%	27%	19%	3%	3%	8%
Private hospitals/clinics/ insurance companies	30%	23%	25%	9%	5%	9%
Public Health System entities	53%	23%	7%	5%	5%	7%
End user/patients	9%	5%	7%	18%	9%	52%

TYPE OF COLLABORATORS



INTERNATIONAL B2B CLIENTS



MAIN COLLABORATING ENTITIES

Clínic Barcelona · Universitat de Barcelona · Vall d'Hebron · Sant Pau Campus Salut Barcelona · Hospital de la Santa Creu i Sant Pau · Hospital del Mar Barcelona · SJD Sant Joan de Déu Barcelona · Hospital · Bellvitge Hospital Universitari · Perdigo · idneo Engineering the future · GENESIS Biomed · AstraZeneca

MAIN CLIENTS

Vall d'Hebron · Clínic Barcelona · Universitat de Barcelona · Sant Pau Campus Salut Barcelona · Hospital de la Santa Creu i Sant Pau · Hospital Universitari Arnau de Vilanova Lleida · Hospital del Mar Barcelona · Bellvitge Hospital Universitari · SJD Sant Joan de Déu Barcelona · Hospital · Parc Taulí Consorci Corporació Sanitària · T Systems · DKV

Note: companies and entities are ordered according to the number of companies that have them as clients or collaborators.

Source: Biocat

05

INVESTMENT AND FUNDING IN STARTUPS AND SCALEUPS

Photograph:

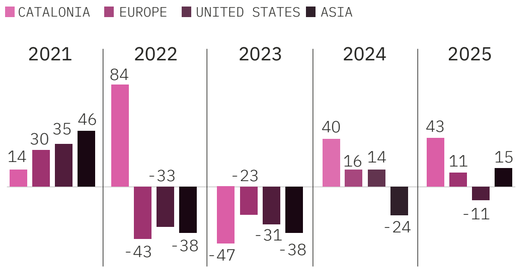
SpliceBio featured on the Nasdaq Tower in New York following a €135M funding round (©SpliceBio)

Record investment in health startups and scaleups: €517 million

2025 marks an unprecedented milestone: investment in startups and scaleups reaches **€517 M,** up 43% versus 2024 and 7% above the 2022 peak. **Venture capital (VC)** remains the main driver with €327.6 M, despite the lowest deal count in recent years (38), signalling greater concentration in larger rounds. In fact, the top five rounds account for 47% of the total raised. **Splice-Bio (€118M)** stands out as the most important round of the year, followed by DeepUll (€50 M) and Qida (€37 M).

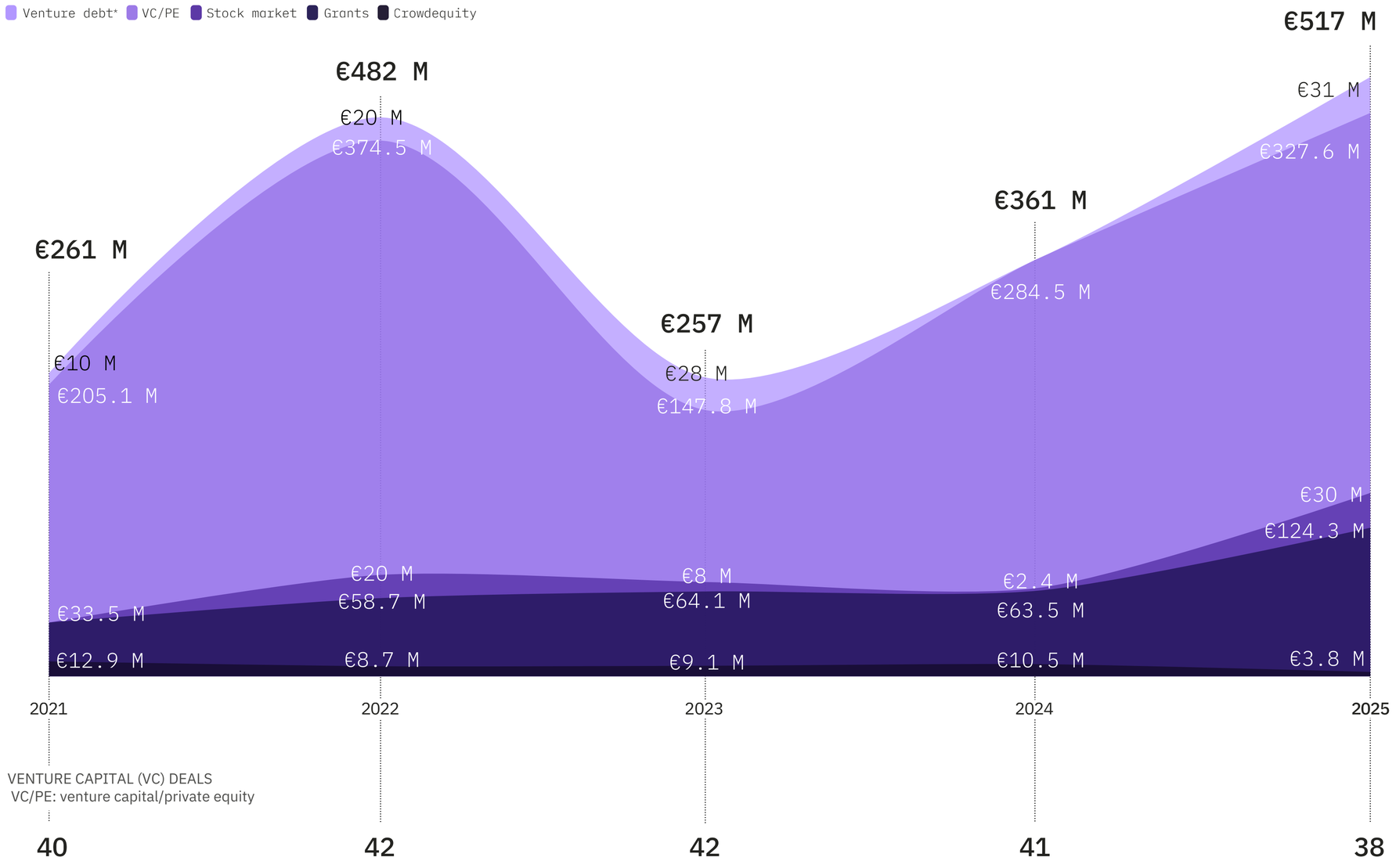
Another relevant aspect is the historical maximum in **grants (€124.3 M),** driven mainly by European funds, while **crowdequity** falls to €3.8 M, the lowest figure since 2018.

INTERNATIONAL COMPARISON:
INTER-ANNUAL INVESTMENT EVOLUTION (%)



Sources: Biocat and Dealroom

INVESTMENT IN STARTUPS AND SCALEUPS IN THE BIOREGION (€M) (2021–2025)



* Venture Debt: equity crowdfunding.
Source: Biocat
Note: includes capital raised by startups and scaleups in Catalonia in the biopharmaceutical, medtech, digital health and R&D services sectors. It also includes investment in startups working for the life sciences sector, such as suppliers and engineering and professional services companies.

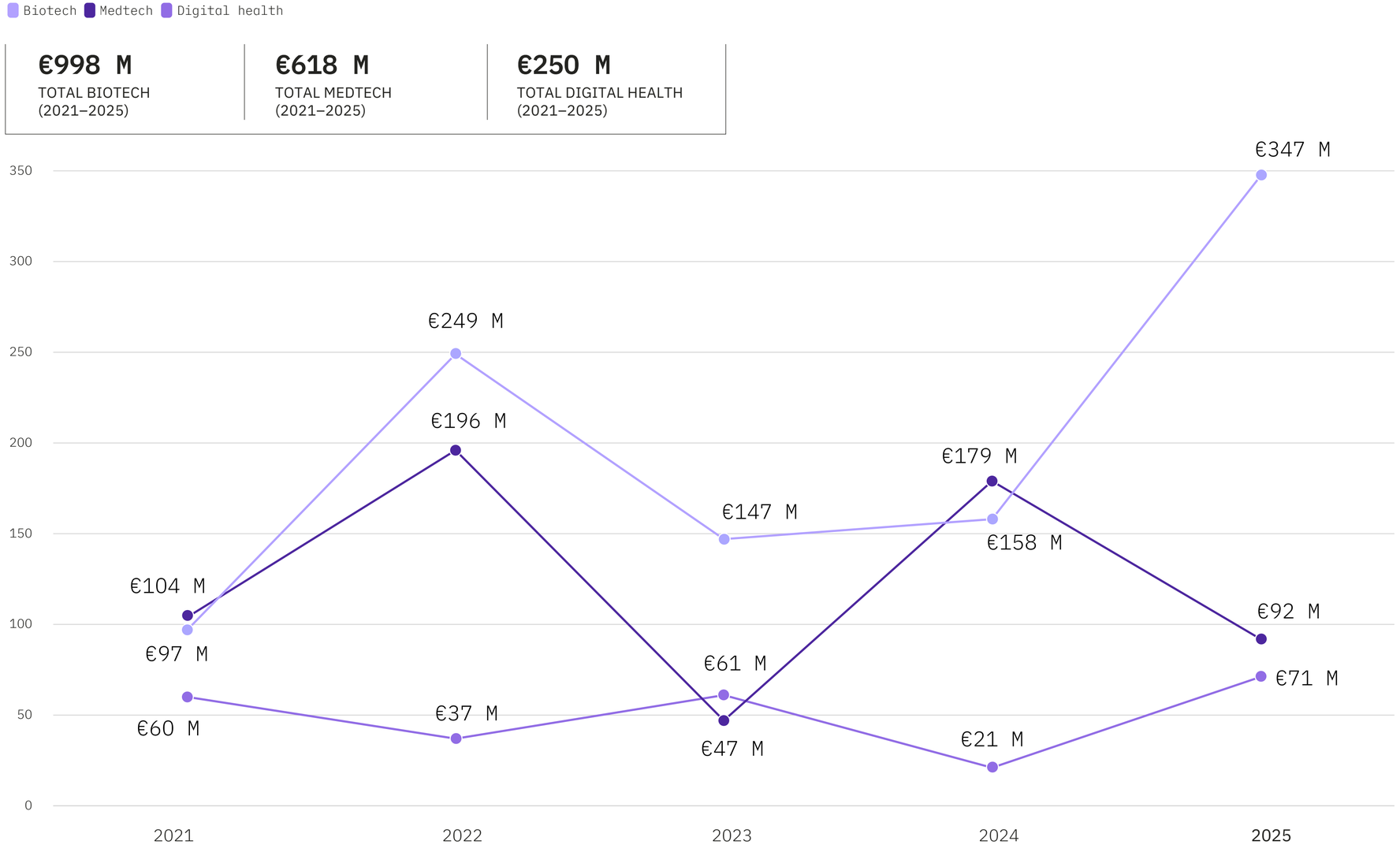
Evolution of investment by subsectors: biotech driving the surge

The **biotech subsector** clearly leads the 2021–2025 period: it accumulates **€998 M** and concentrates 54% of total investments in the three main segments. In 2025 there is a significant surge compared to the previous year and biotech once again tops the ranking with **€347 M (+119%)**, boosted by SpliceBio's mega round and other high-volume deals. In the analysis by subsectors we can see the differences between variables:

- **Biotech:** after 2024 when medtech occasionally surpassed it, in 2025 it regained hegemony, accounting for 68% of the annual total.
- **Medtech:** despite significant deals such as DeepUll, the aggregate volume drops to **€92 M (-49% vs 2024)**. 2024 was an important year (€179 M), driven by exceptional rounds such as those of Impress and Inbrain Neuroelectronics.
- **Digital health:** despite the rebound in 2025 to **€71 M (+238%)**, it remains the smallest subsector structurally speaking, with €250 M accumulated during the five-year period.

The series shows high volatility due to the **effect of the large rounds**, where a small number of deals set the trend and total volume of each financial year.

TOTAL INVESTMENT IN THE BIOREGION BY SUBSECTOR (€M) (2021–2025)



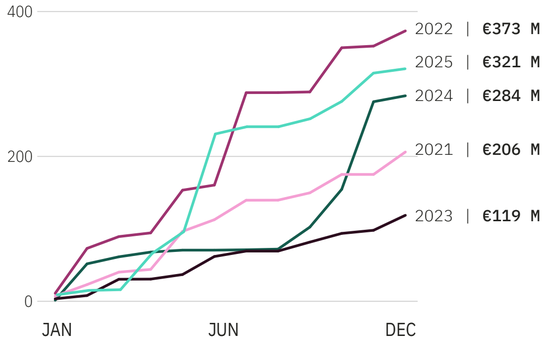
Source: Biocat
Note: investment in biotechnology includes companies involved in therapies, R&D services and others with an impact on human health.

82% of the venture capital raised involves international participation

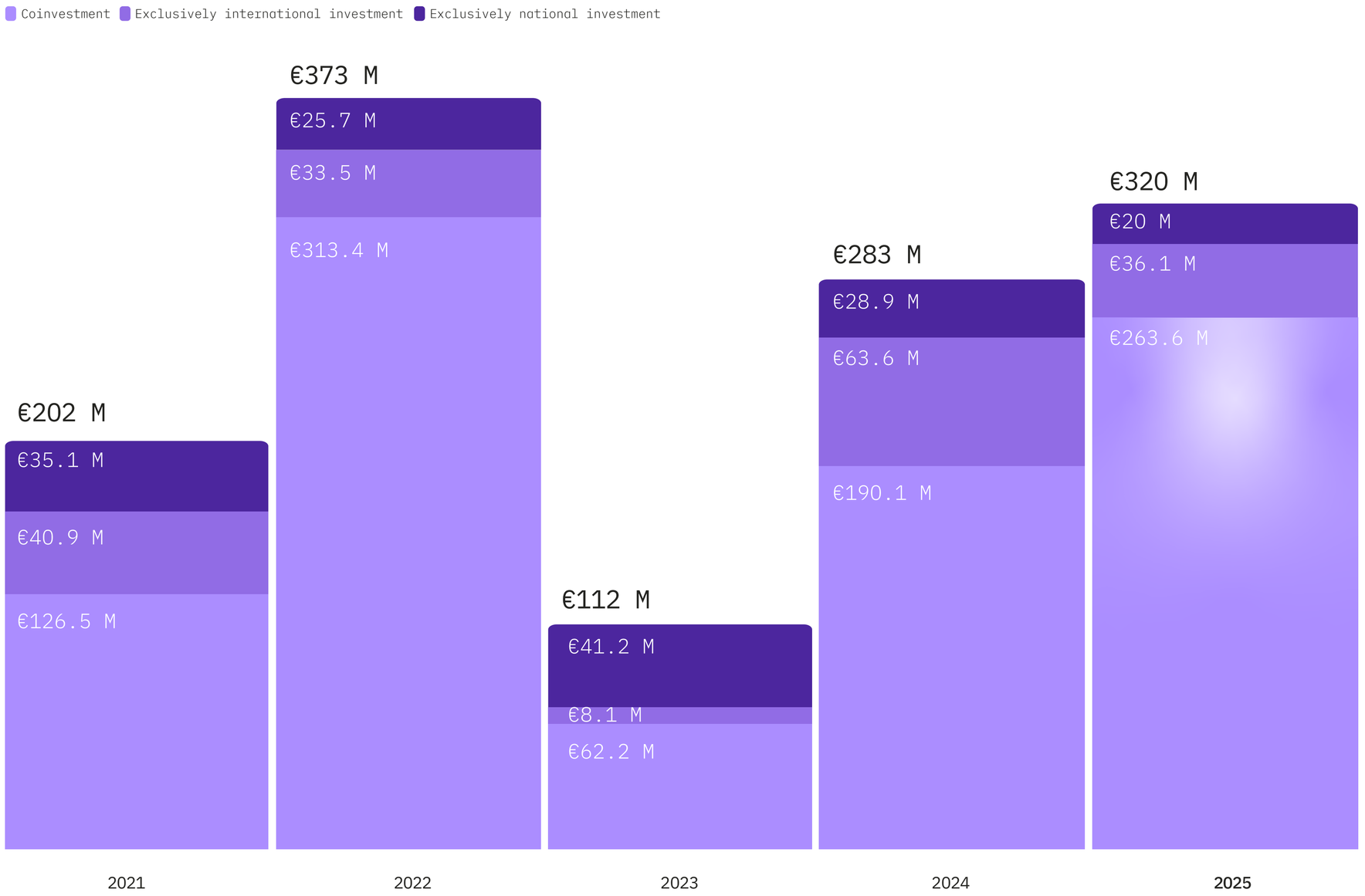
Venture capital (VC) raised by startups and scaleups rises to **€320 M** in 2025 (+13% vs 2024), tripling the minimum of two years ago. This growth can be explained by co-investment by national and international firms, which accounts for **82% of the global volume** (€263.5 M) of VC. A total of **44 international companies** have participated in 18 (47%) syndicated or independent rounds, and are present in virtually all of the large deals.

Once again, the data confirm that scaling the sector requires attracting international capital to catalyse larger rounds—critical to bringing research to patients. In this context, venture capital firms established in the Barcelona ecosystem play a pivotal role.

MONTHLY EVOLUTION OF THE ACCUMULATED INVESTMENT IN VC (€M) (2021–2025)

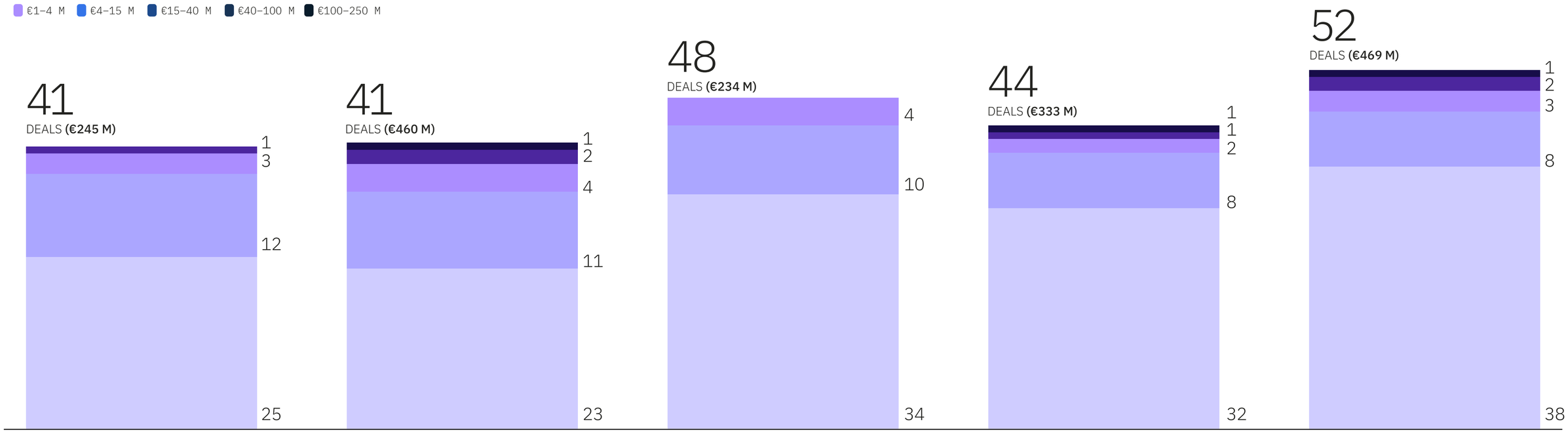


EVOLUTION OF VC INVESTMENT (€M) (2021–2025)



Source: Biocat
Note: total VC investment is the sum of the 3 represented categories and additional investment rounds where the origin of the VC is unspecified.

OVERVIEW OF DEALS AND EXITS (2021–2025)



2021

EXITS 9

bioinfogate · deltalab (member of SGCP) · DR Leading in DAO Deficiency (ABbiotek) · DDR Drug Development & Regulation · FISIOPHARMA · GOODGUT Enhancing digestive health · infinitec · NOUCOR Together for Health · Palex

2022

EXITS 15

Abamed Pharma · ALIFARM · CN labs · Fertypharm · Galenicium · Institut marqués · LABIANA 1 2 · Lacer · BOCAS SANAS · MICROPTIC · mimetis · MOLOMICS · PronoKal · VCN Biosciences · Vesismin Health · vytrus biotech 1

2023

EXITS 8

biovert · eugin · inke · MAYMO · BVI · PECTUS RESPIRATORY HEALTH · TRAMONTANE TX · XRHealth

2024

EXITS 14

ACEFESA · AELIX THERAPEUTICS · amalfi analytics · ClinicPoint by oregon · htba Capturing nature's power · Impress · IRAB Institut de Investigació Aplicada de Barcelona · Izasa Medical by Palex · Izasa Scientific by Palex · enteMA LABORATORIOS · inibsa · Laboratorios Serra Pamies · noventure · ReadyCell EASING YOUR SCREENING

2025

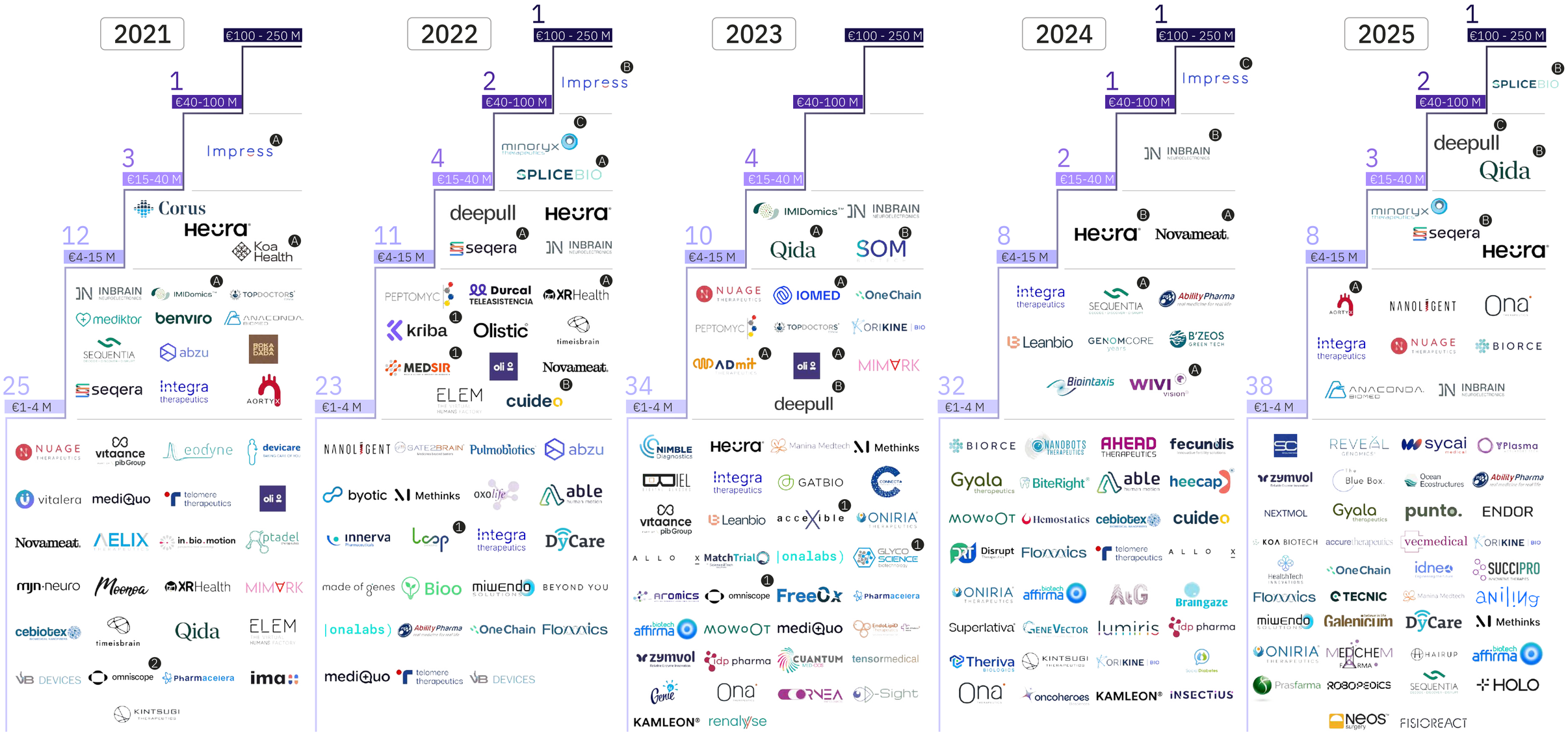
EXITS 9

ABAC Therapeutics · BeCYTES BIOTECHNOLOGIES · CARDIOLINK GROUP · enantia · ESTIM TRACK · Leanbio · qgenomics · RADIANTIS · VRPharma

* Exit: company that has been acquired or has gone public.
Source: Biocat
Note: includes venture capital deals, competitive grants, venture debt and crowdequity deals of €1M+.

1 Listed on the BME. 2 Company headquartered outside Catalonia but with main activity in Catalonia.

NUMBER OF FUNDING DEALS IN STARTUPS AND SCALEUPS IN THE BIOREGION OF CATALONIA (2021–2025)

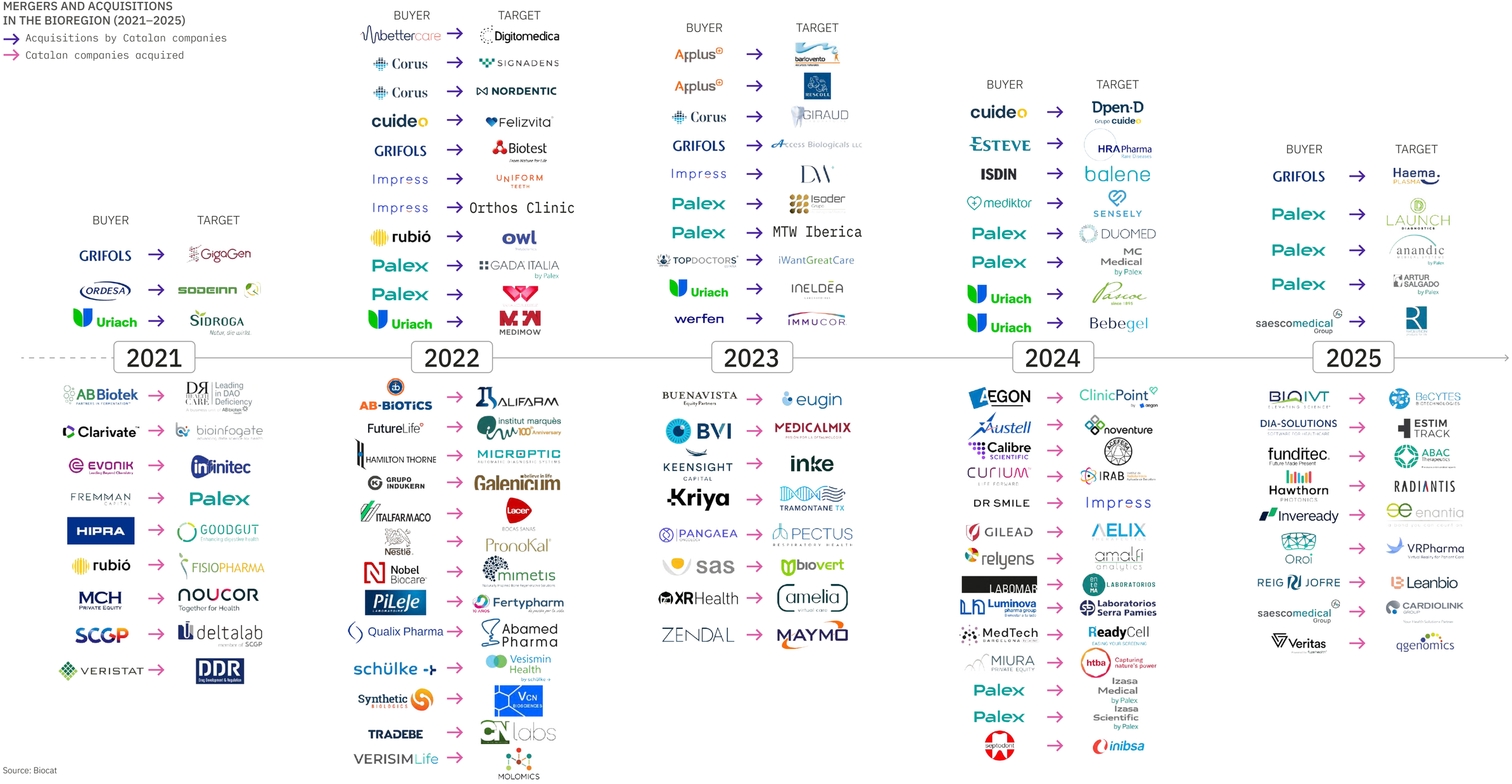


Source: Biocat
Note: including venture capital operations, competitive grants, venture debt and crowdequity.

A Series A B Series B C Series C 1 Company headquartered outside Catalonia but with main activity in Catalonia.

MERGERS AND ACQUISITIONS IN THE BIOREGION (2021–2025)

→ Acquisitions by Catalan companies
→ Catalan companies acquired



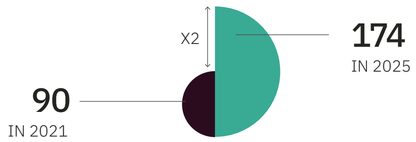
Source: Biocat

Growth of national and international investment firms

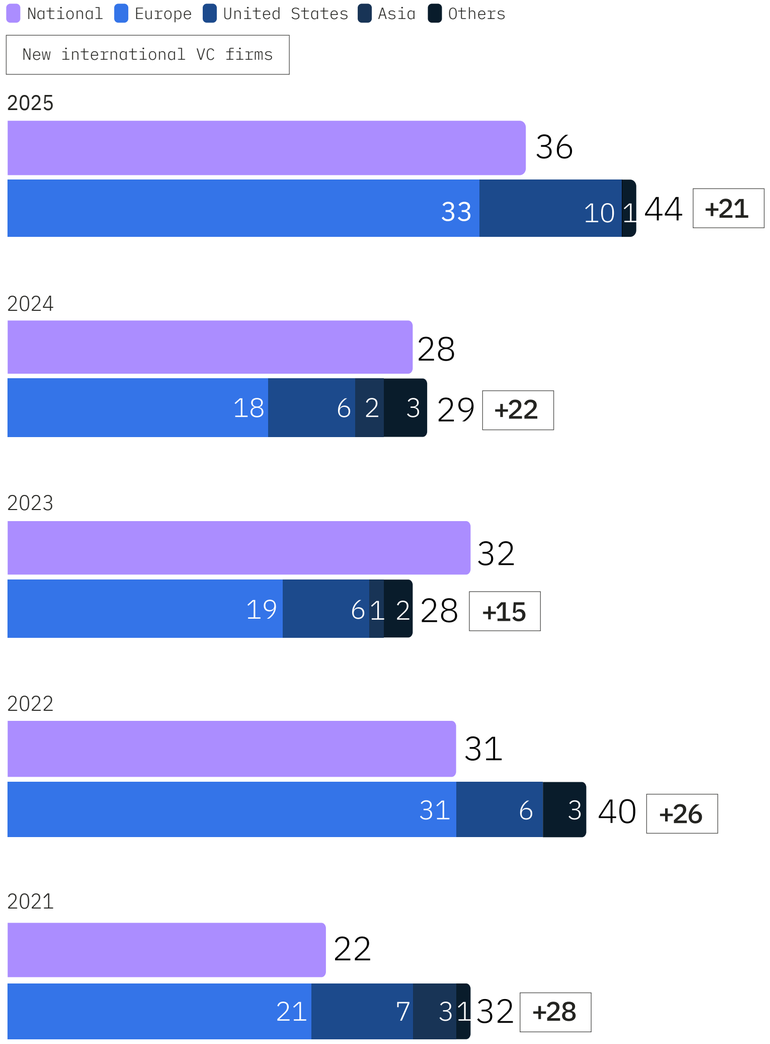
2025 registers a 40% jump in investment firms, which rise from 57 to 80. Both national (36) and international companies are growing, reaching their all-time high with **44 companies**. Theyear was particularly active for Catalonia-based funds, with landmarks such as the agreement between AltamarCAM and Asabys Partners to integrate Aliath into **Asabys** (which will manage >€400 M), or the agreement of **Ysios Capital** and **Andbank** to advise the new Telescope Biotech Fund, specializing in listed companies, which has closed as the first most profitable Hedge Funds in Spain. Another remarkable highlight was **Invivo Capital**'s exit through the sale of Belgium-based EsoBiotec to AstraZeneca for 925 million euros.

Support from CDTI and the EIB for technology transfer funds is expected to strengthen spinoff funding in the near term. At the same time, the growing role of corporate investors (CVCs) —such as **Novartis**, **Roche**, **Sanofi** and **Werfen**—brings more than capital: provides industrial validation, connection with the market, and and greater partnership potential. In parallel, **ENISA** certification improves the sector's tax appeal by enabling a 50% tax deduction on investments in health companies.

GROWTH OF INTERNATIONAL FIRMS THAT HAVE PARTICIPATED IN INVESTMENT ROUNDS IN THE BIOREGION



NUMBER OF NATIONAL AND INTERNATIONAL INVESTMENT FIRMS INVESTING IN THE BIOREGION OF CATALONIA (2021–2025)



Source: Biocat

Note: including the different investment entities (VC and CVC) that invest each year. The same investment firm is only counted once per year.

MOST ACTIVE INTERNATIONAL INVESTORS (2014–2024)

ADDITION · AurorA-TT Translating research into care · Boehringer Ingelheim · BoxOne · bpifrance SERVING THE FUTURE · Bristol Myers Squibb · Chan Zuckerberg Initiative · Chiesi Ventures · European Innovation Council · European Investment Bank · Forbion · Fund+ Impacting Life Sciences · GILDE HEALTHCARE · imec · INNOGEST · Kurma Partners · MANGROVE CAPITAL PARTNERS · MTIP · NEA · NORGINE · NF · OMEGA FUNDS · PHILIPS · PONTIFAX · Roche · SIEMENS · Sofinnova partners · Si Speedinvest · TAV · Takeda · TRINITY CAPITAL · UCB Ventures · UNIQA · USCAPITAL · wellingtonpartners

MOST ACTIVE INVESTORS 2025

INTERNATIONAL

endeavor · EQT · MERIEUX EQUITY PARTNERS · NEA · NF · PANAKÈS PARTNERS · QUADRILLE · Roche · sanofi ventures · UCB Ventures

ESTABLISHED IN CATALONIA*

asabys · CG HEALTH VENTURES · GROW Venture Partners · 40 anys ICF La banca pública de promoció · Inveready · invivopartners · NARA · Ship2B · we venture capital · YSIOS CAPITAL

↘ Leading investors

CVC: Corporate Venture Capital

* Shows investment firms that have invested in startups established in Catalonia (in €4M+ deals).

Startup funding progression

Based on Dealroom data, this analysis tracks startups by founding year to understand how **they move through successive funding stages over time**. It is important to monitor by cohorts since the performance of an ecosystem must be evaluated not only by business demographics (creation), but by projects' ability to progress to maturity.

Key observations from the comparison with Europe:

- **Progression rate to Series A**: Catalonia shows a conversion rate to the growth stage of **55%**, higher than the European average of 35% for the same period.
- **Continuity in advanced stages:** the funnel maintains competitive percentages: 22% of the cohorts reaches Series B (vs 14% in Europe) and 8% Series C (vs 5%).
- **Structural scaling challenge:** although the proportion of mega rounds (5%) is higher than the European average (1%), the absolute volume of cases reaching the final stage of the cycle remains limited, highlighting the ecosystem's challenge of multiplying large-scale deals.
- **Seed-first dynamic:** a volume of companies is identified that come under the radar directly in the Seed stage, indicating projects that are born with a sufficient degree of maturity to attract seed capital from the outset.

EVOLUTION OF INVESTMENT ROUNDS BY STARTUP STAGE (2014–2023)

Progression rate (%) | % of startups that have reached growth stage (Series A)

STARTUPS IN EUROPE

Year of foundation	Pre-Seed (€0–1 M)	Seed (€1–4 M)	Series A (€4–15 M)	Series B (€15–40 M)	Series C (€40–100 M)	Mega rounds (€100–250 M)	>€250 M	
2014	69	53	37	16	6	2	1	54%
2015	126	94	50	16	5	1	1	40%
2016	157	112	69	32	16	4	1	44%
2017	166	117	65	21	8	2	1	39%
2018	144	96	45	15	4	0	0	31%
2019	158	103	45	24	9	1	0	28%
2020	103	58	22	7	1	0	0	21%
2021	70	51	26	9	1	0	0	37%
2022	38	22	6	3	2	0	0	16%
2023	9	8	3	2	0	0	0	33%
Total	1,040	714	368	145	52	10	4	35%
Progression	100%	69%	35%	14%	5%	1%		

STARTUPS IN CATALONIA

Year of foundation	Pre-Seed (€0–1 M)	Seed (€1–4 M)	Series A (€4–15 M)	Series B (€15–40 M)	Series C (€40–100 M)	Mega rounds (€100–250 M)	>€250 M	
2014	10	6	5	2	0	0	0	50%
2015	8	13	2	3	0	0	0	25%
2016	3	6	2	0	0	0	0	67%
2017	11	21	6	3	1	0	0	55%
2018	5	10	5	3	0	0	0	100%
2019	6	10	5	2	3	2	0	83%
2020	7	16	9	1	1	1	0	129%
2021	8	12	1	0	0	0	0	13%
2022	2	5	1	0	0	0	0	50%
2023	5	4	0	0	0	0	0	0%
Total	65	103	36	14	5	3	0	55%
Progression	100%	158%	55%	22%	8%	5%		

Sources: Dealroom and Biocat

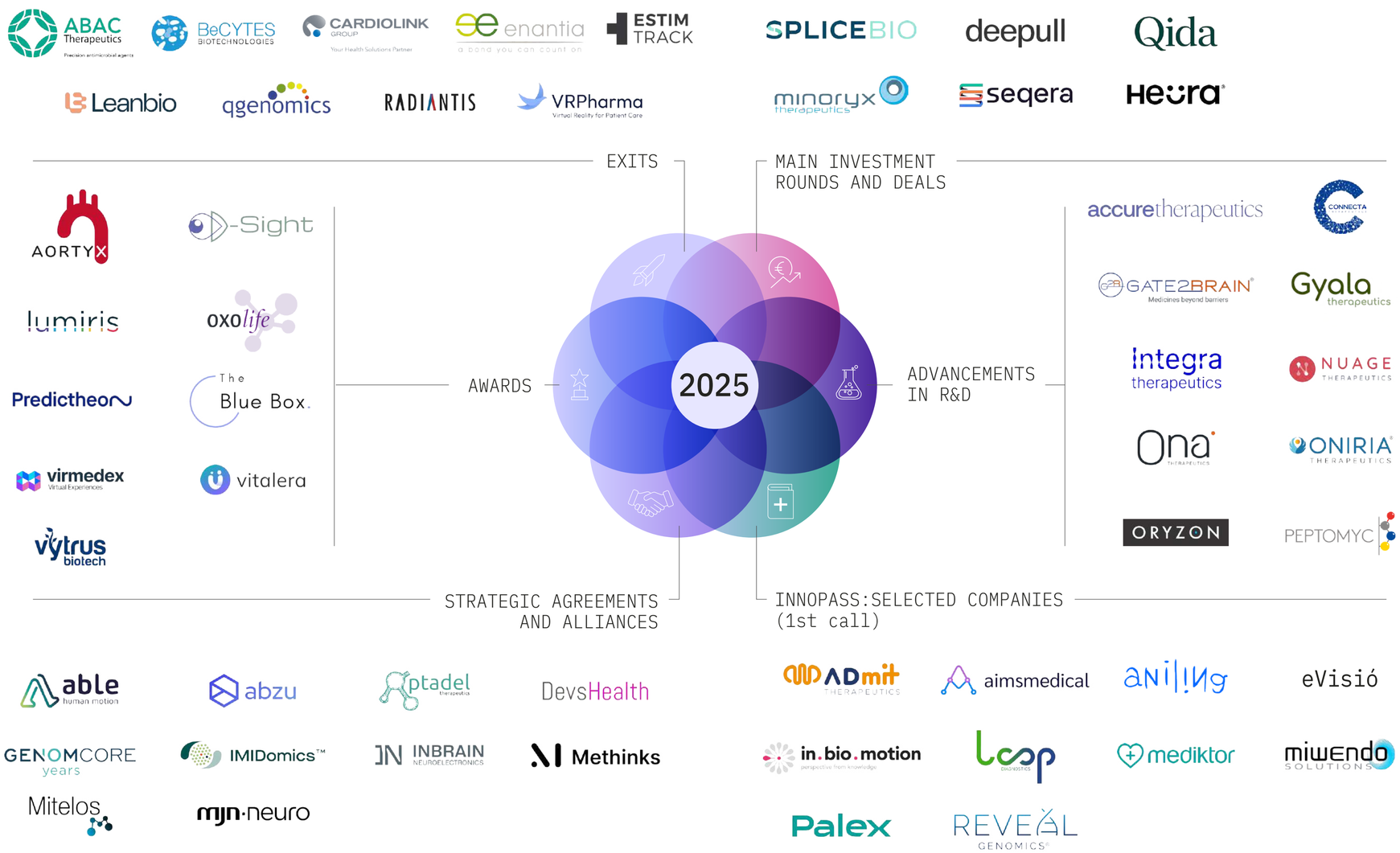
Beyond the numbers: standout startups and scaleups in 2025

In the 2025 edition, we introduce a new section highlighting **startups and scaleups that made headlines**—beyond the Report's quantitative indicators—for reaching significant milestones. These are projects whose progress and international projection contribute to their teams' core mission: improving people's health and quality of life.

This representation captures different routes to growth and maturity: corporate moves that strengthen projects and accelerate scaling; strategic partnerships and alliances that validate technologies and unlock new markets; companies selected through the INNOPASS call to ease access to the Catalan health system; and, finally, successful exits.

Altogether, these are "startups to watch" that reflect the ecosystem's momentum and vitality in 2025.

STARTUP AND SCALEUP SUCCESS STORIES



Source: Biocat

06

ADVANCING DIGITALIZATION AND SUSTAINABILITY

Photograph:

Detail of a system of connections from the Barcelona Supercomputing Center (©BSC-CNS)

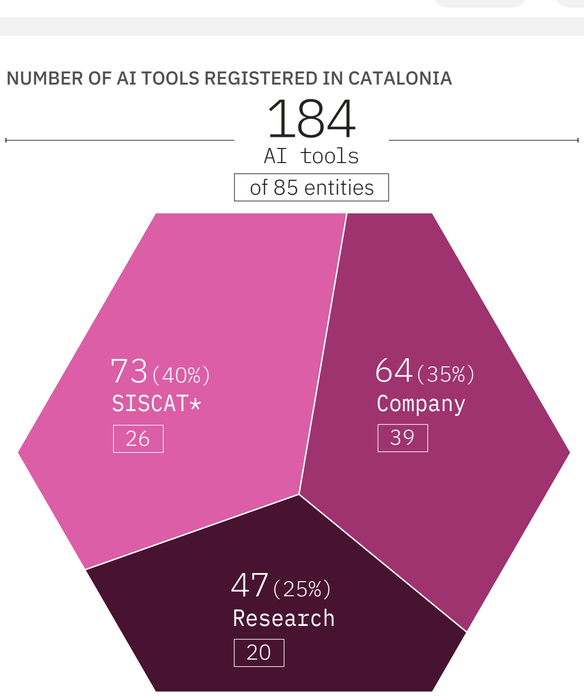
Implementation and deployment of AI in healthcare in Catalonia

The adoption of AI in the healthcare system is constantly evolving, with **184 tools by 85 entities** registered by the Catalonia's AI Observatory in Health. This year, the developer profile is more balanced: hospitals account for 40% and companies for 35%, gaining weight compared to research institutions (25%). This dynamism is driven by the **Catalonia Strategy AI 2030**, which foresees an investment of 1,000 million euros, placing health as one of the priority sectors for the scaling of these technologies.

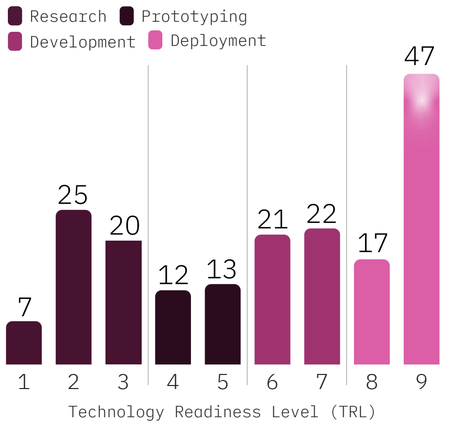
Currently, **58% of solutions are in high maturity phases (TRL 6–9),** with 47 proposals already being deployed, mainly in hospital (83%) and primary (43%) care. **Oncology and radiology** lead the traction of a map in which **generative AI breaks through with 7 healthcare tools**. It is worth noting that 46.7% of projects enjoy published scientific evidence and 41.3% already incorporate interoperability standards.

7 GENERATIVE AI TOOLS BY COMPANIES REGISTERED
- Generation and clinical healthcare
- Digital twins and biomedical simulation

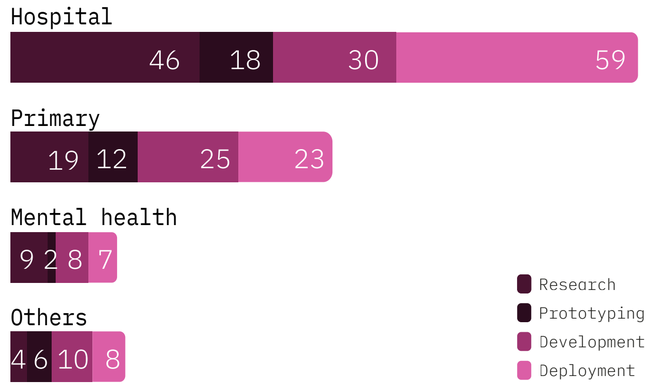
NUMBER OF AI TOOLS REGISTERED IN CATALONIA



TECHNOLOGICAL MATURITY OF THE TOOLS

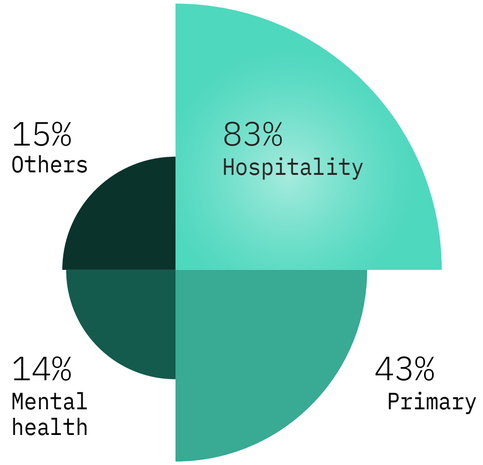


MATURITY PHASE BY FIELD

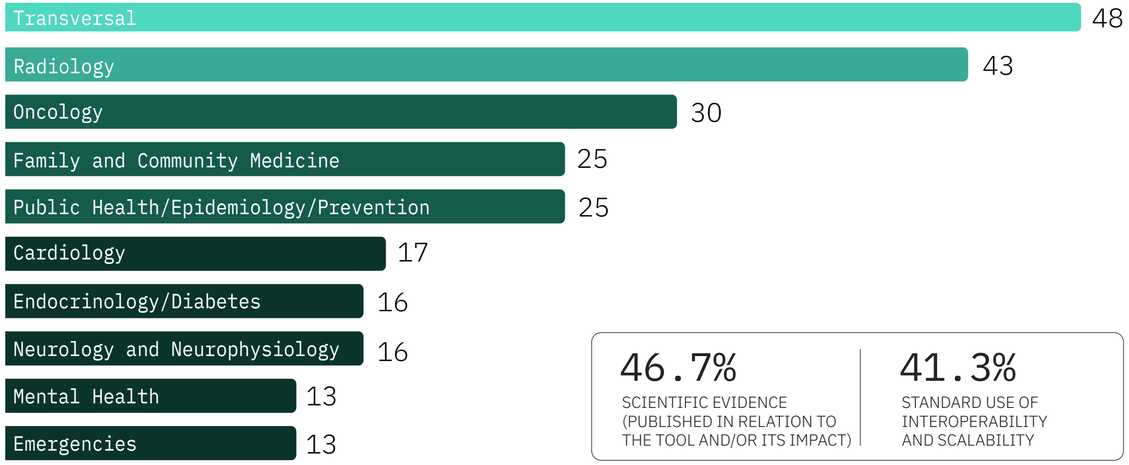


PUBLIC-PRIVATE COLLABORATION BY LEVEL OF MATURITY

HEALTHCARE AREA



TOP 10 MEDICAL SPECIALITIES



46.7% SCIENTIFIC EVIDENCE (PUBLISHED IN RELATION TO THE TOOL AND/OR ITS IMPACT)

41.3% STANDARD USE OF INTEROPERABILITY AND SCALABILITY

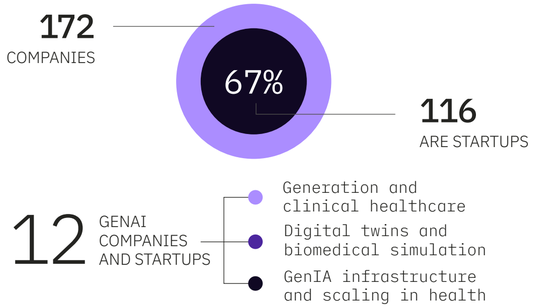
* SISCAT (Integrated Public Healthcare System of Catalonia).
Source: Health/AI Observatory. Artificial Intelligence in Health Program (Salut/IA Program). TIC Salut Social, Government of Catalonia, December 2025
Note: percentages may exceed 100% if the selection allows multiple answers.

Expansion, investment and specialization of AI companies in healthcare

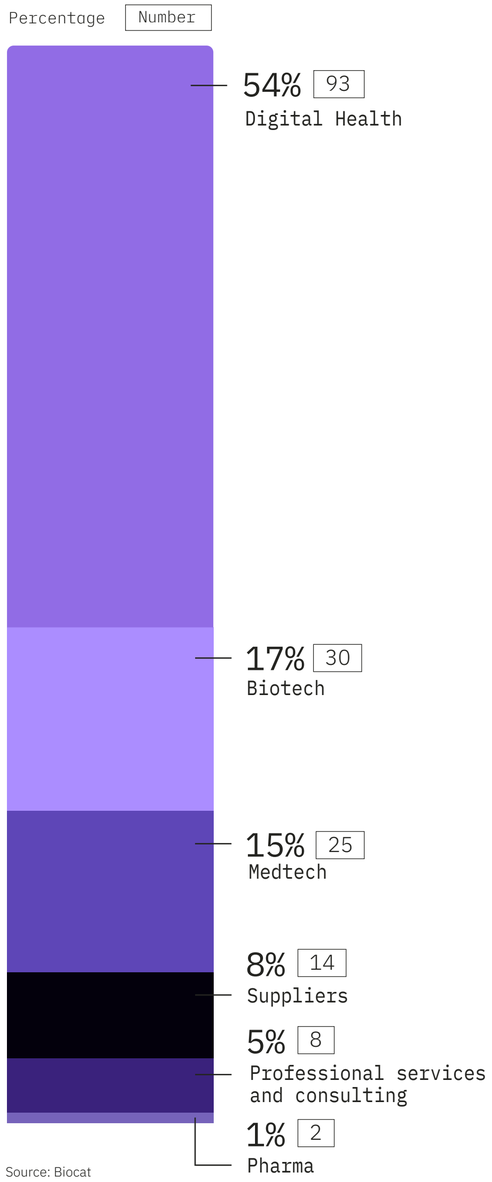
The AI ecosystem applied to health in Catalonia keeps growing and reaches **172 companies in 2025**, that is an **increase of 11% over 2024.** Of these, **116 are startups** (67%) and an emerging sub-segment of **12 generative AI companies** can be identified. The sector breakdown is **headed by digital health (54%)**, followed by biotech (17%) and medtech (15%).

After the peak recorded in 2024, investment has levelled off at **€81 M**, with a strong concentration in the **Top 3 rounds** —Deepull (€50 M), Biorce and Inbrain Neuroelectronics— which account for **73% of the total**. By subsector, activity is concentrated in **personalised medicine** (21%) and **remote monitoring** (17%), followed by medical imaging (16%) and big data and genomics (15% each). The strongest focus areas are **oncology and disorders of the nervous system.**

COMPANIES WORKING IN AI APPLIED TO THE HEALTH SECTOR IN CATALONIA

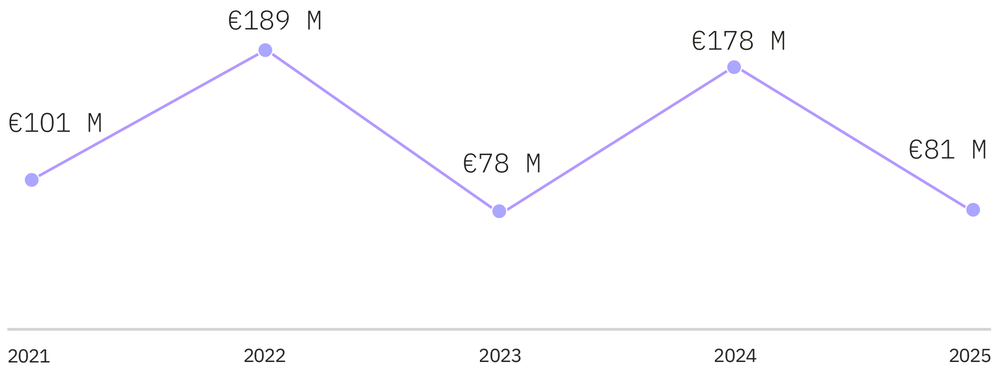


TYPE OF COMPANIES AND STARTUPS WORKING IN AI APPLIED TO THE HEALTH SECTOR

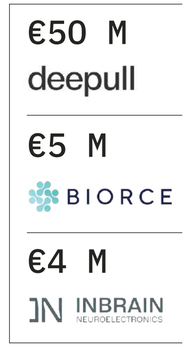


Source: Biocat

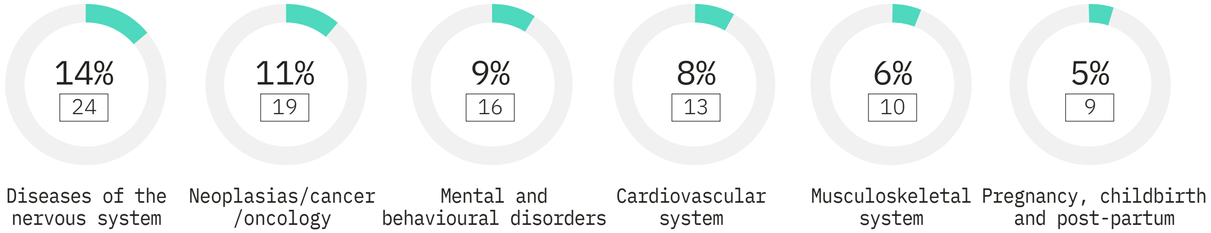
EVOLUTION OF INVESTMENT IN HEALTHCARE STARTUPS (2021–2025)



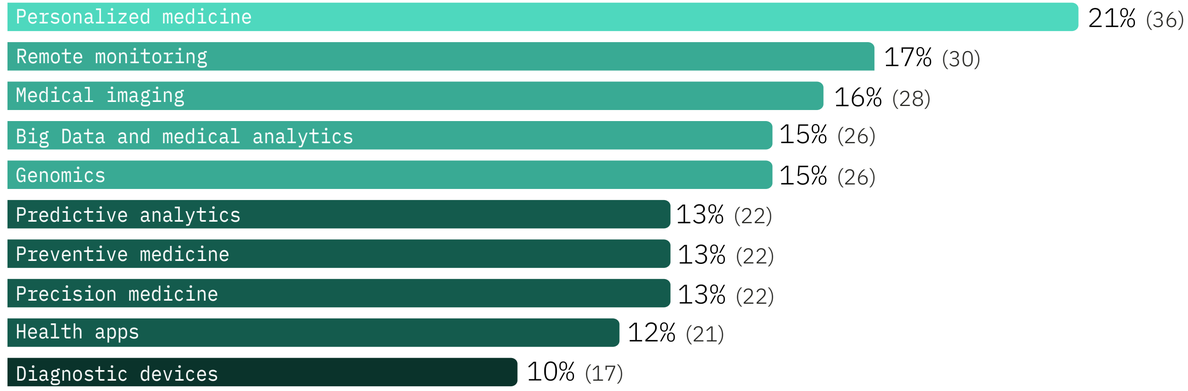
TOP 3 ROUNDS 2025



MAIN THERAPEUTIC AREAS OF AI HEALTH STARTUPS



MAIN SUBSECTORS OF AI STARTUPS IN HEALTH



Aligning the BioRegion with ESG and the SDGs

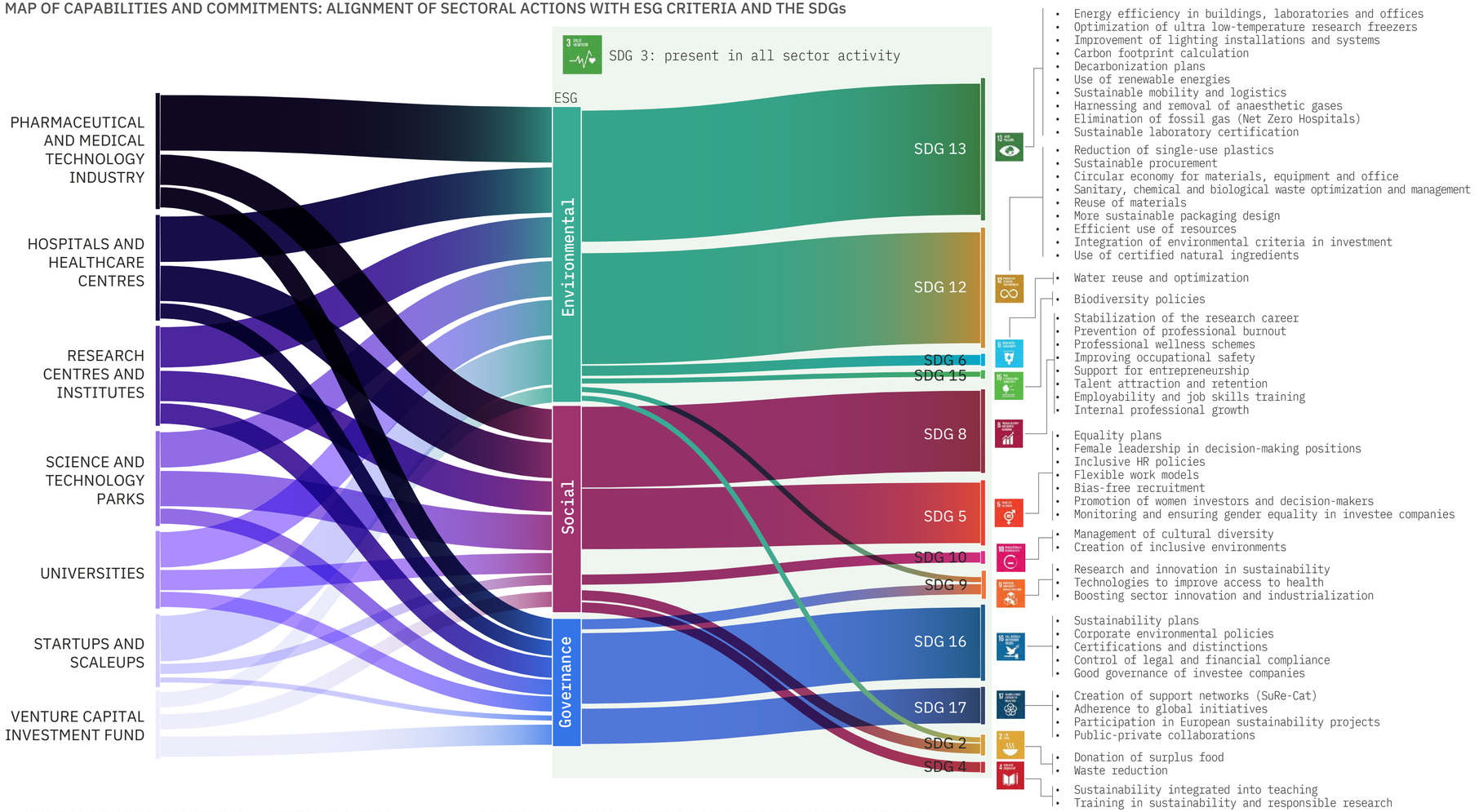
The BioRegion ecosystem is increasingly adopting sustainability measures driven by of the **Catalan Ministry of Health** reinforced by leadership from industry, hospitals and research centres. Organisations such as **Farmaindustria**, **Fenin**, **La Unió and the CSC** act as key enablers in integrating ESG criteria, aligned with the **Catalan Strategy for Adaptation to Climate Change 2021–2030**.

Key actions by sustainability axes:

- **Environmental Axis (46%):** priority in climate action and responsible production. Noteworthy are energy efficiency, the decarbonization of hospitals (Net Zero), the reduction of single-use plastics, the optimization of ultra low-temperature research freezers and the circular management of health and chemical waste.
- **Social Axis (31%) and Governance (23%):** promoting talent, equity and transparency. Equality and female leadership plans, professional well-being schemes, the integration of environmental criteria in procurement and tenders, and the creation of sustainability support networks stand out.

The BioRegion's strategic ambition is to make sustainability a core pillar of the ecosystem and deliver **decarbonisation by 2030**. Achieving this milestone will require scaling proven practices across the sector and embedding an ESG culture through coordinated action by institutions, companies and professional

MAP OF CAPABILITIES AND COMMITMENTS: ALIGNMENT OF SECTORAL ACTIONS WITH ESG CRITERIA AND THE SDGs



PLAYERS DRIVING THE SECTOR'S SUSTAINABILITY

Generalitat de Catalunya Departament de Salut · Institut Català de la Salut · farmaindustria · Fenin Tecnología Sanitaria · LA UNIÓ · Consorci de Salut i Social de Catalunya

FEATURED ORGANIZATIONS COMMITTED TO SUSTAINABILITY

Barcelona Supercomputing Center · IBEC · ISGlobal Instituto de Salud Global Barcelona · Clínic Barcelona · Hospital Universitari Mollet · Hospital Universitari de Vic · Fundació "la Caixa" · Integra therapeutics · vytrus biotech · Parc Científic de Barcelona · PRBB Parc Recerca Biomèdica Barcelona · asabys · Ship2B · YSIOS CAPITAL

Source: Biocat

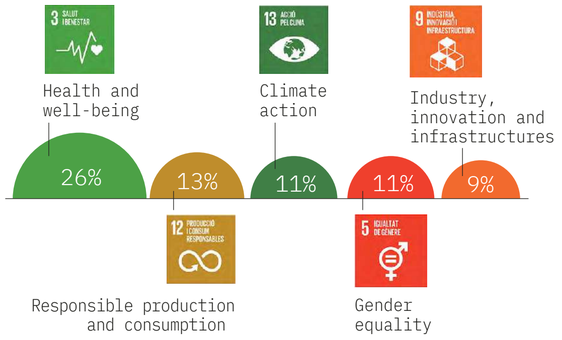
Note: ESG (Environmental, Social and Governance) criteria are used to evaluate an organization's performance beyond its financial results, focusing on its environmental impact, its social responsibility and the quality of its management and governance. The SDGs (Sustainable Development Goals) are the 17 global goals of the United Nations to address the planet's social, economic and environmental challenges.

Startups and ESG: environmental impact and governance challenges

Environmental engagement is today a key differentiating factor for attracting international investment, establishing alliances and consolidating the BioRegion's competitiveness in terms of ESG criteria. For the first time, this Report **examines the topic across 70 startups** on this subject: data show that companies are already implementing practical measures, but have yet to formalize their governance (G), since only 17% have a defined strategy.

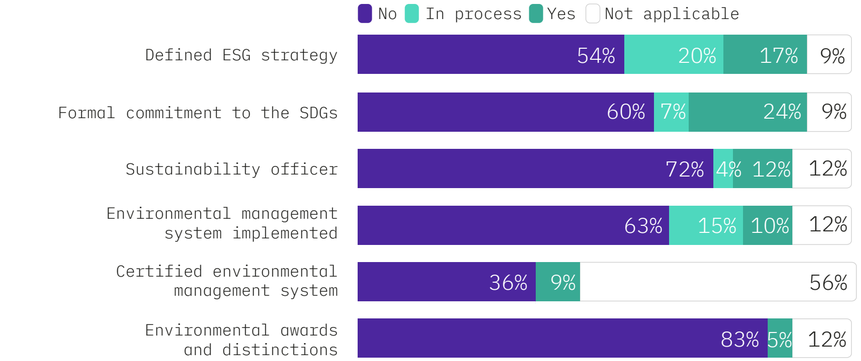
In the environmental axis (E), circularity actions such as waste segregation (68%) and paper reduction (48%) are imposed, while the energy transition is the major challenge (79% do not adopt renewables). All these initiatives, added to the sector's own activity, have a direct impact on the SDGs, especially in Health and wellbeing (26%), Climate action (13%) and Responsible production and consumption (11%).

MAIN SDGS ADDRESSED BY THE STARTUPS OF THE BIOREGION

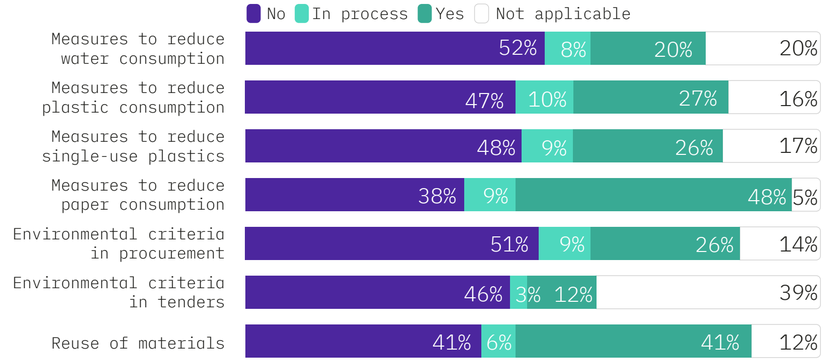


COMMITMENT TO ESG CRITERIA AND THE SDGs: 2025 STARTUPS SURVEY

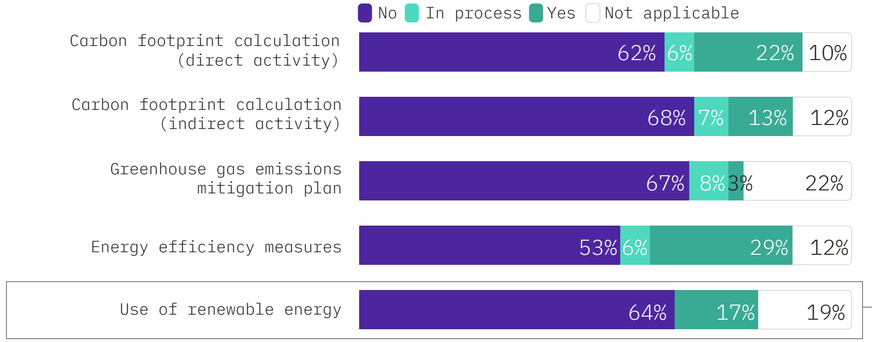
GOVERNANCE AND ENVIRONMENTAL STRATEGY IN STARTUPS IN THE BIOREGION



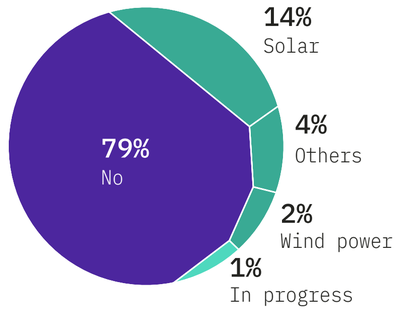
RESOURCES AND CIRCULARITY IN STARTUPS IN THE BIOREGION



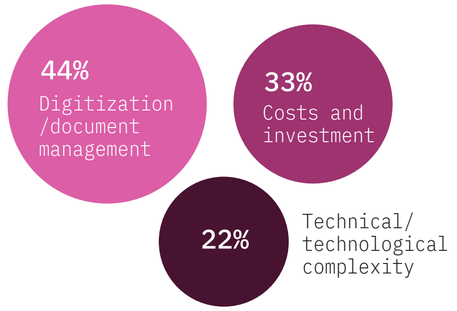
CARBON AND ENERGY IN THE STARTUPS OF THE BIOREGION



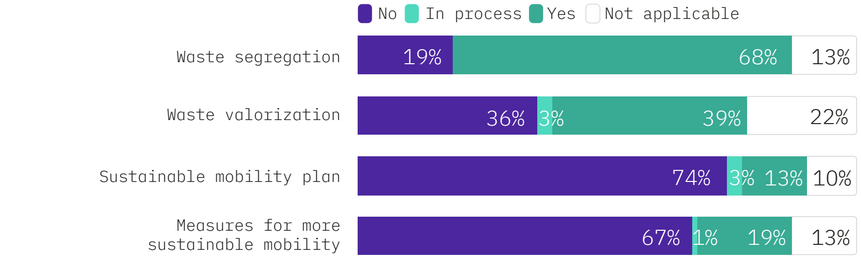
ADOPTION OF RENEWABLE ENERGY BY THE STARTUPS OF THE BIOREGION



MAIN BARRIERS TO ADOPTING ENVIRONMENTAL SUSTAINABILITY ACTIONS

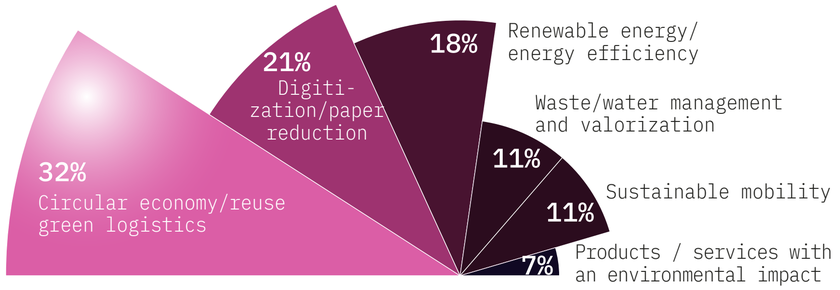


WASTE AND MOBILITY OF STARTUPS IN THE BIOREGION



Source: Biocat

MAIN GOOD ENVIRONMENTAL SUSTAINABILITY PRACTICES



07

STRENGTHENING THE BIOREGION: KEY PROPOSALS

Render:
Future CaixaResearch Institute (©Fundació "la Caixa")

Sector proposals to strengthen the BioRegion

This chapter includes the contributions of the main associations of the life sciences and health sector in Catalonia —**Catalonia Health, Farmaindustria and Fenin Catalunya**— to respond to the main challenges facing the BioRegion. The content is organized by thematic areas with the aim of providing an integrated, clear and actionable vision with special emphasis on strengthening fiscal and regulatory competitiveness, promoting national policies with a long-term vision, incorporating benchmark international initiatives, and anticipating the trends that will mark the evolution of the sector as of 2026.

PROPOSALS IN THE FISCAL, LEGAL AND/OR TAXATION FRAMEWORK ↘

- Elimination of the **time limit for the application of deductions for R&D&I** provided for in the Corporate Tax Law, to avoid the loss of tax credits, in the entire business fabric, but especially in research-intensive SMEs and startups, as they operate under tighter cash flow.
- Implementation of an **incentivizing and foreseeable tax regime** for the health-tech sector, with specific measures to strengthen investment in R&D&I in health-tech and medical devices.
- **Additional deductions** for hospital digitalization projects, interoperability and the implementation of reliable clinical artificial intelligence.
- Acceleration of product evaluation and registration processes (CE and MDR marking) through **agile regulatory windows** for high added-value products.
- Definition **of a clear regulatory framework for the secondary use of health data** in innovation, aligned with the European Health Data Space (EHDS).
- **Exemption from Wealth Tax** on increments resulting from business profits obtained through the development and commercialization of innovative products and services **in the entrepreneurial community**, as a measure aimed at attracting and retaining talent at the head of high-risk business projects on a global scale.

Expected impact

- Better fiscal competitiveness of the BioRegion compared to other European ecosystems.
- Greater attraction of private investment in R&D&I and reduction of the risk of the relocation of research-intensive activities.
- Improved cash flow of SMEs and startups and lower loss of tax credits.
- Acceleration of time-to-market of innovative products and faster patient access to new therapies and technologies.

NATIONAL POLICY ↘

- Creation of a **notified body in Catalonia** that acts as an innovation accelerator in medical devices and technologies. Catalonia has the knowledge and capacity to promote this unique infrastructure that could serve the entire Catalan, Spanish and European industry.
- Deployment of a **Catalan Strategy for Innovation in Health 2030** with shared intersectoral governance between the ministries of Health, Business, Economy, and Research and Universities.
- Boosting the adoption of health innovation in the healthcare system, and specifically, **promoting the structural and recurrent innovative public purchasing mechanism**, not limited to one-off calls, and based on health outcomes and clinical impact.
- Creating a **hub of clinical validation and industrialization** for medical devices and digital health covering TRL sections 6–9.
- Creation of a **specific public fund to finance in vitro/in vivo proofs of concept and regulatory preclincs**, with the aim of strengthening preclinical and clinical research, thus favouring public-private collaboration and the decentralization of clinical trials.
- Promoting the local production of medicines and health technologies, through **fiscal, regulatory, infrastructure and training measures** that encourage both the implementation of new and the expansion of existing plants.
- Improving patient access to the most advanced medicines and treatments, **eliminating barriers hindering the use of innovative medicines.**
- Development of a **healthcare and technology talent strategy**, with a boost of hybrid profiles (biomedical engineering, medical AI, data management) and attraction and accreditation mechanisms.
- Promotion of a **strategy for Catalonia's international positioning in advanced therapies**, strengthening the capabilities and assets of the ATMP Catalonia hub, as well as promoting collaborations with other leading ecosystems and participation in European and global networks and initiatives.
- Making Catalonia an **early adopter and benchmark in RWD/RWE** for use in research and evaluation.

Expected impact

- Consolidation of Catalonia as a European hub of health innovation with scientific, clinical and industrial capacity.
- Greater public-private coordination and strategic alignment between health policies, research and economic development.
- Increase in preclinical, clinical (primary and hospital healthcare) and productive activity in the territory.
- Improving health outcomes and equity in access to innovation.

INTERNATIONAL INITIATIVE TO BE IMPLEMENTED ↘

- Adaptation to the BioRegion of international **fast track programmes to streamline the adoption of technology into the public system** (UK's NHS Accelerated Access Collaborative model) and of public venture capital funds to finance strategic technologies in health and preparation for emergencies (USA's BARDA Ventures model).
- Boosting the digitalization of healthcare systems and research with real-life data, prioritizing and accelerating the deployment of the European Health Data Space (EHDS) in Catalonia, and ensuring coordination between healthcare and research processes. This integration should be aligned with the SNS Digital Health Strategy and the European framework, promoting the adoption of common and interoperable data models such as OMOP (Common Data Model of Observational Medical Outcomes Partnership), in line with DARWIN EU.
- Development of **public-private co-financing programmes** aimed at accelerating disruptive technologies in advanced therapies, medical devices, digital health and AI.
- Strengthening participation by SMEs and manufacturers in Catalonia in European partnerships like Horizon Europe and the IHI (Innovative Health Initiative), with **stable support structures for Catalan consortia through technical support and guidance for presenting projects**; stable structures of coordination and visibility of the region's industrial and technological assets.
- Integration in **European networks of clinical validation in artificial intelligence** and trials of cybersecurity in health.

Expected impact

- Better international alignment of the BioRegion with leading European and global initiatives.
- Increase in the attraction of European and international competitive funds.
- Positioning Catalan industry as a strategic partner in high added-value projects.
- Acceleration of clinical validation and scalability of innovations developed in Catalonia.

TRENDS SHAPING THE SECTOR ↘

- Consolidation of **precision medicine and the 5P medicine model**, through the integration of biomarkers, multiomics data, advanced analysis and new therapies.
- **Growing convergence** between biotechnology, medical technologies and digitalization.
- **The patient takes a more active role in the health system**, participating directly in the management and use of their health information.
- **Massive adoption of reliable, regulated artificial intelligence**, with new transparency and auditing standards.
- Growth of **software as a medical device and hybrid solutions** that integrate device and software.
- Expansion of models of **distributed and home healthcare**, based on sensors continuous remote monitoring.
- Incorporation of **sustainability and green industrialization criteria** in the development of health products.
- Evolution towards models of **healthcare procurement based on**, value, outcomes and clinical impact.
- **Opportunities arising from the entry into force of the new European legislative package**, which involves the revision of the Pharma Act to balance incentives for R&D with universal access to medicines, and the future Biotech Act, aimed at reducing regulatory fragmentation and boosting biomanufacturing in the Union.
- Boost to **new clinical trial models** based on data and technology.

Expected impact

- Configuration of a more digitalized market, based on data and with greater regulatory requirements.
- Competitive advantage for companies capable of integrating data, artificial intelligence and product development.
- Transformation of the healthcare system towards more predictive, personalized and sustainable models.
- Strengthen the competitive positioning of attracting investment, knowledge and talent by extending research throughout the territory.

Methodology and Acknowledgements

The 2025 BioRegion of Catalonia Report reaches its **11th edition** established as the official reference document for analysing the evolution of the life sciences and health sector in Catalonia. This publication aims to facilitate strategic decision-making by monitoring key research, innovation and funding indicators.

The analysis is based on **the Catalonia Health & Life Sciences Data Platform,** the open access digital platform managed by Biocat that centralizes information on the ecosystem. Currently, the system contains detailed data from more than **2,000 active companies and entities.** The total monitored universe includes **12,600 entities** and a census of more than **38,000 contacts.** These figures ensure a robust analysis and a comprehensive view of the sector's value chain.

Business creation data mainly reflect the dynamism of startups, but also include a selection of business units and international subsidiaries that have begun operating in the BioRegion. Given that the detection of new business activity is consolidated over time, the figures for the last two years are deemed provisional and will be updated in future editions of the Report.

The economic indicators relating to turnover, employment and weight over GDP have been obtained by analysing balance sheets from the **SABI database**, using the data available for **2024**. Regarding investment in startups and scaleups, the Biocat Competitive Intelligence Unit directly monitors private equity operations, public instruments and formal investment vehicles. A **startup** is understood as being the emerging company in the early stages of development, while the concept of **scaleup** refers to mature startups that have grown significantly, either through investment, product extension or market expansion.

Scientific excellence is evaluated using bibliometric and intellectual property indicators. The analysis of scientific production uses the **Science Citation Index-Expanded (Clarivate) database**, with special emphasis on highly cited papers (HCP). For international patents, data from **PatentScope (WIPO) are used** according to the International Patent Classification (IPC). Competitive funding in European projects has been taken from the European Commission's **Horizon Dashboard**.

This report has been conceptualized and drafted by the **Biocat Competitive Intelligence** team, responsible for analysing and managing sectoral data.

We would like to thank the community of professionals from public and private entities for providing data and reviewing the information. Their commitment to transparency is essential in order to maintain the quality and rigour of this official publication.

ACRONYMS OF THE INSTITUTIONS MENTIONED IN THIS REPORT

CRG	Centre for Genomic Regulation
HMRIB	Hospital del Mar Research Institute Barcelona
HUVH	Vall d'Hebron University Hospital
I3PT	Parc Taulí Research and Innovation Institute
IBEC	Institute for Bioengineering of Catalonia
ICN2	Catalan Institute of Nanoscience and Nanotechnology
ICO	Catalan Institute of Oncology
IDIBAPS	August Pi i Sunyer Biomedical Research Institute
IDIBELL	Bellvitge Biomedical Research Institute
IDIBGI	Girona Biomedical Research Institute Dr. Josep Trueta
IGTP	Germans Trias i Pujol Research Institute
IISPV	Pere Virgili Health Research Institute
IJC	Josep Carreras Leukaemia Research Institute
IMB-CNM-CSIC	Institute of Microelectronics of Barcelona
IR Sant Pau	Sant Pau Research Institute
IRB Barcelona	Institute of Biomedical Research of Barcelona
IRBLleida	Institute of Biomedical Research of Lleida
IrsiCaixa	AIDS Research Institute
IRSJD	Sant Joan de Déu Research Institute
IRTA	Institute of Research and Technology in Agro-Food
ISGlobal	Barcelona Institute for Global Health
VHIO	Vall d'Hebron Institute of Oncology
VHIR	Vall d'Hebron Research Institute

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Catalonia.health Science, innovation, business farmaindustria Fenin Tecnología Sanitaria ACCIÓ Generalitat de Catalunya

2025 BIOREGION OF CATALONIA REPORT

BARCELONA, DECEMBER 2025

Biocat is a strategic and neutral stakeholder and catalyst for promoting, transforming and projecting the Catalan life sciences and healthcare innovation ecosystem, known as the BioRegion of Catalonia.

It was established in 2006 as a public-private foundation at the initiative of the Government of Catalonia and Barcelona City Council to identify the needs of the BioRegion and implement a strategy and action plan to maximise the economic and social impact of the sector.

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