



The BioRegion of Catalonia: road to €500M in investment per year

Unleashing Catalonia's potential to scale the Life Sciences & Healthcare ecosystem

Introduction

Since 2016, life sciences startups in Catalonia have been consistently raising over €100M annually. However, last year companies in Catalonia [set a new investment record of €226M](#), boosted mainly by private investors, both local and international. Furthermore, over 300 key representatives of the biotech ecosystem (entrepreneurs, investors and scientists) surveyed at the presentation of the BioRegion's 2020 Report agreed that **the BioRegion of Catalonia would achieve €500M in yearly startup funding by 2025**.

Our aim here is to debate, through figures and data, whether or not this vision is possible.

- **International Scope and Analysis**

To see how far we can get in terms of fundraising for Catalan life sciences companies, first we need to know where we currently stand in terms of investment. If we compare the capital raised over the last four-year period (2017 to 2020) in the BioRegion of Catalonia to the figures for other European countries of a similar size, we observe substantial differences in magnitude.

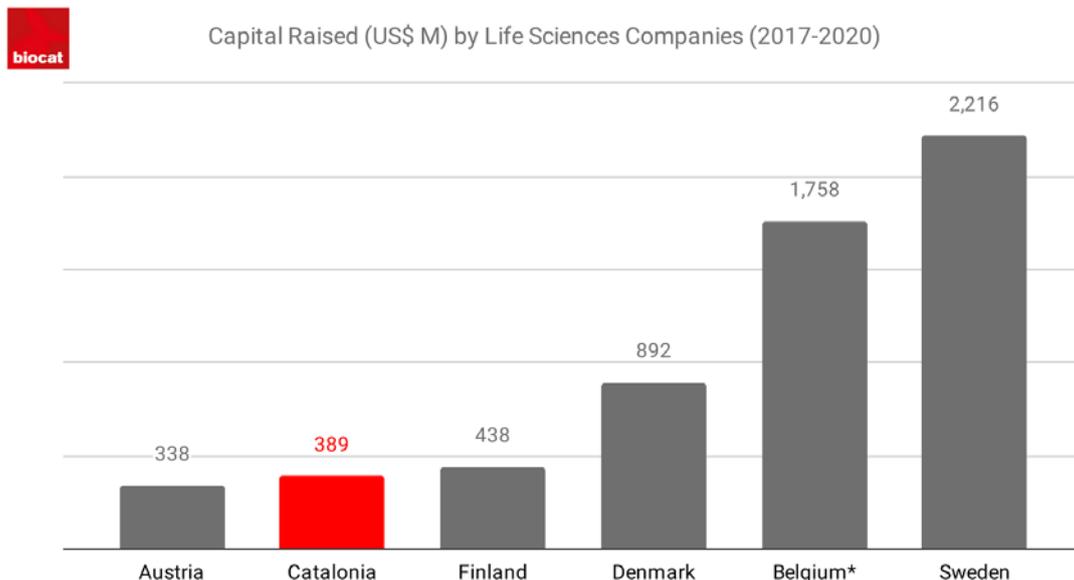


Figure 1. Source: Crunchbase. Analysis: Biocat. All operations ≥ \$1M were considered. *Belgium without Galapagos (\$5,100M).

In order to have a more in-depth look at what kind of companies and deals are behind the numbers in figure 1, we have broken down the data in figure 2.

We collected and analyzed public and private operations for companies in Europe, working in the biopharmaceutical, medical technology and digital health industries, for each country and placed the companies in four different steps based on the amount of capital they raised from 2017 to 2020.

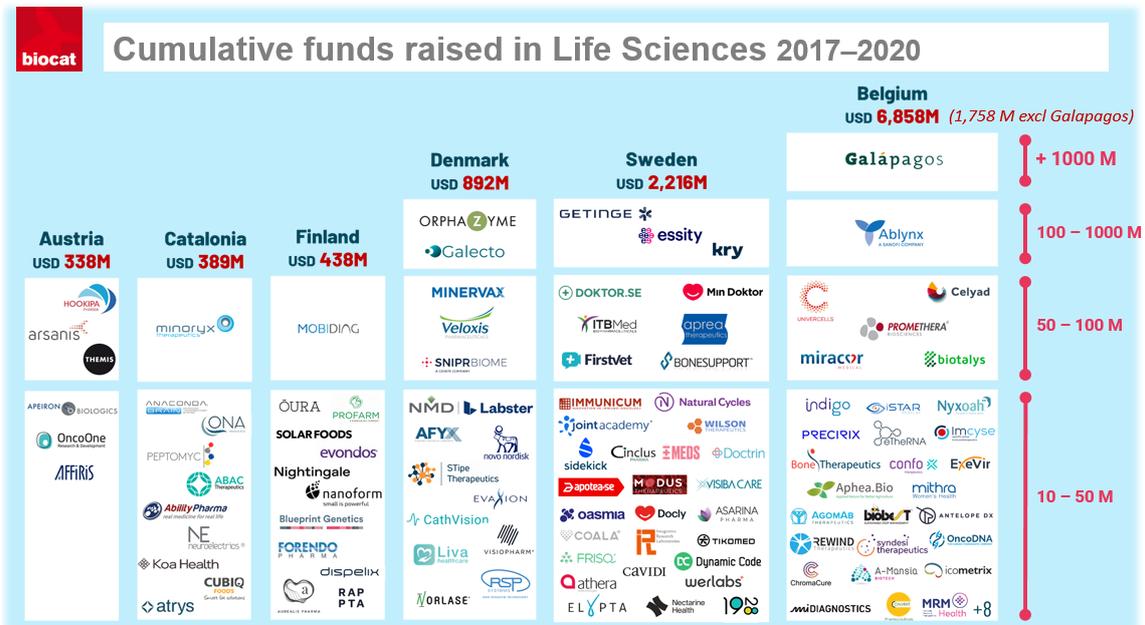


Figure 2. Source: Crunchbase, Analysis: Biocat. All types of operations ≥ \$1M were considered.

As we can see, despite having more companies in the lowest step (\$10-50M) than Austria, Catalonia lacks companies in the top tiers of the table. Notice that the more companies countries have in the upper rungs (fewer, but larger rounds), the greater their total funding. It is important to note the Galapagos deal of [\\$5.100M](#), which places Belgium as the country with the highest capital investment among the selected countries. Other large investment deals that took place outside the 2017-2020 period are: [Chr.Hanssen \(\\$700M\)](#), [Recipharma \(\\$176M\)](#), [Genmab \(\\$134M\)](#), [Symphogen \(\\$120M\)](#), [Oxurion \(\\$100M\)](#) and [UCB Pharma \(\\$100M\)](#).

Looking at operation-related data, we see that private equity is the factor that has the greatest effect on total funding and is also the figure that differs the most among countries. With the purpose of understanding the magnitude of such variations, we will analyze country performance in [three different private equity blocks](#): early-stage series (seed, crowdequity and series A), late-stage series (series B, C, D, etc.) and IPO and post-IPO operations, as defined in press release.

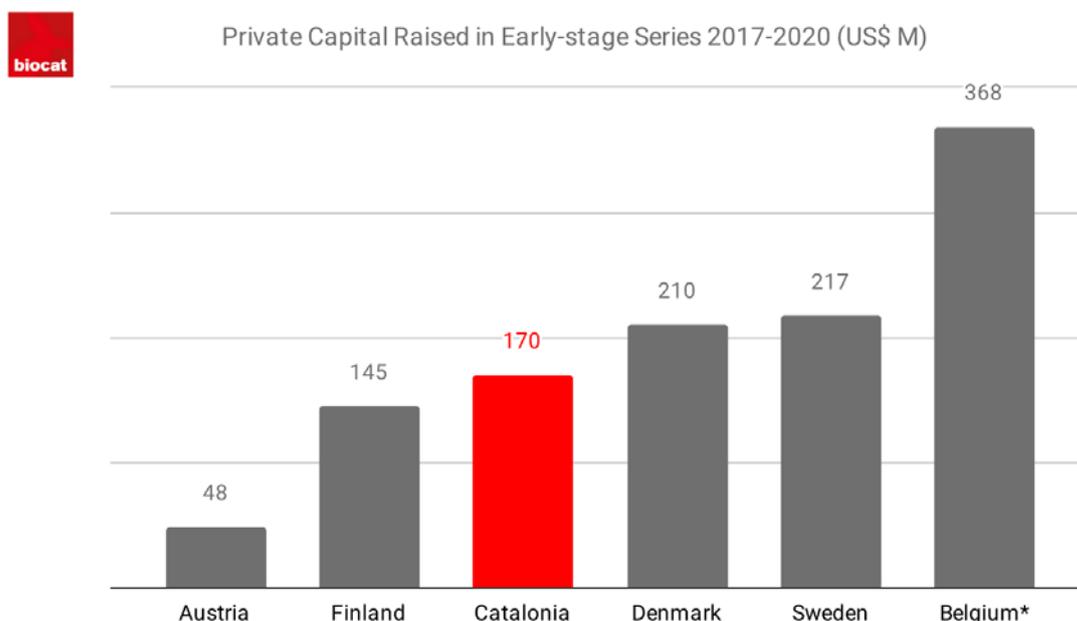


Figure 3. Source: Crunchbase, Analysis: Biocat. Only includes seed, crowdequity and series A operations from \$1M to \$50M.

When it comes to comparing capital raised in the early stages of company development (series A and below), Catalonia is in the middle of the table, ahead of Austria and Finland. The story changes when we add late-stage series like C, D and IPO operations (figure 4).

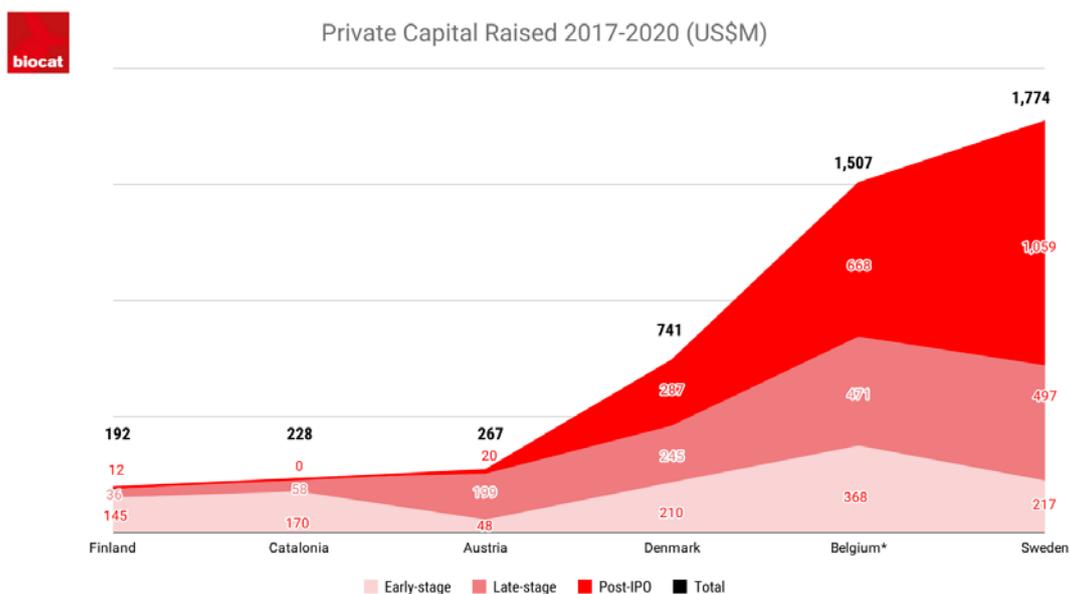


Figure 4. Source: Crunchbase. Analysis: Biocat. *Belgium without Galapagos (\$5,100 M). Only private operations \geq \$1M were considered.

At first glance, we can see that Catalonia has not yet captured significant investments in advanced venture series, with only one relevant company in this category (Oryzon). Despite maintaining its position ahead of Finland, the other countries have largely increased the gap with Catalonia, mainly due to IPO and post-IPO follow-ons. Then, we can state that the most critical type of operation to raise large sums of funding is the IPO, followed by late-stage series, since these operations are the ones with the biggest ticket sizes, even if they are much less frequent.

It is important to mention that, although Finland is performing worse than Catalonia in private equity funding, they have a large quantity of debt financing operations not shown here that bring them to a total of \$72M.

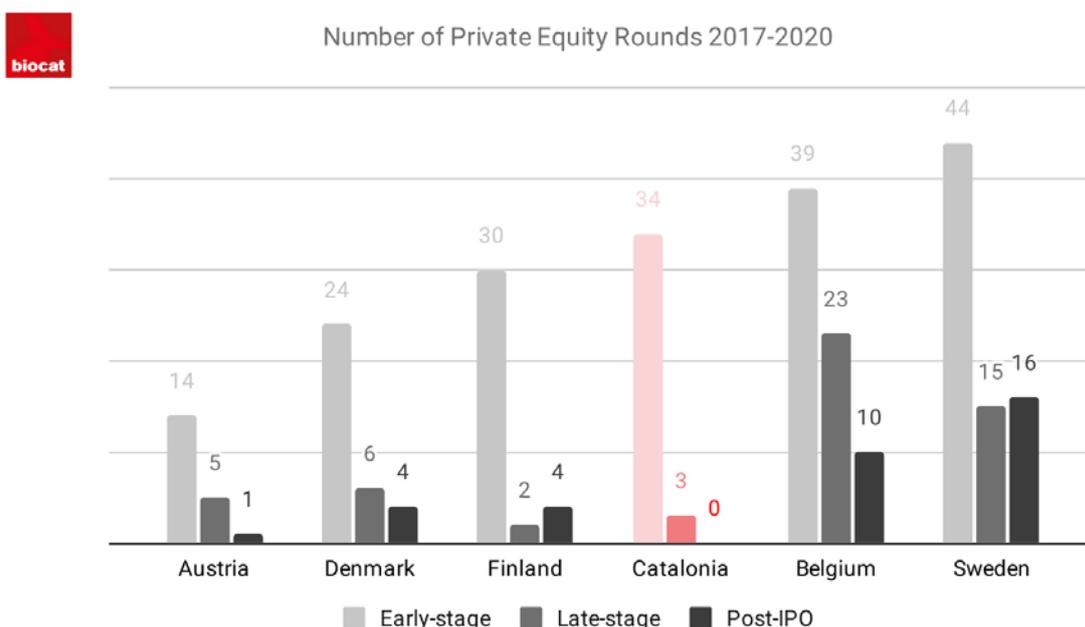


Figure 5. Source: Crunchbase. Analysis: Biocat. All operations \geq US\$ 1M were considered

If we take a look at figure 5, where countries are ranked by total number of operations, we can confirm that the BioRegion of Catalonia has very low numbers of both late-stage and post-IPO operations. In early-stage funding, however, Catalonia has a number of investments comparable to top countries like Sweden and Belgium.

Is there an investment opportunity in Catalonia?

To be able to forecast whether or not the BioRegion of Catalonia is going to be a good investment opportunity, first we want to introduce two different evolution examples.

Taking into account that there are year-to-year variations in the amount of capital raised, and to confirm the growth trend in these countries, in figure 6 we performed a comparative analysis on the figures from two different six-year periods for these countries.

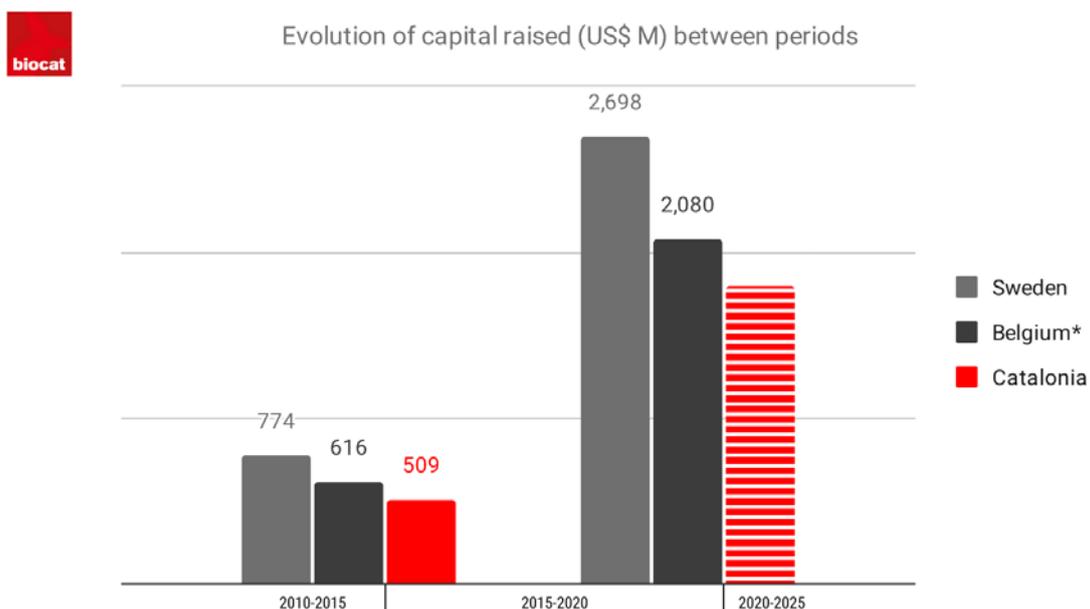


Figure 6. Source: Crunchbase. Analysis: Biocat. All operations \geq \$1M were considered. *Belgium without Galapagos (\$5,100M).

- **Where were Sweden and Belgium years ago?**

As observed, Belgium and Sweden have far increased the capital raised, multiplying their investment figures between the 2010-2015 and 2015-2020 periods, respectively, by x3.4 and x3.5. If we analyze the case of Catalonia in 2015-2020, we can see that investment is comparable to where Sweden and Belgium were in 2010-2015. In other words, we lag 5 years behind Sweden and Belgium in terms of investment.

Looking at the data in figure 6, we can say that the pronounced increase in capital raised by Belgium and Sweden is directly related to an increase in the number and size of late-stage series and IPO operations. Belgium, for example, had no IPO operations in 2015 and only two late-stage series totaling \$23M, very similar to Catalonia's current situation. In 2020, however, this number was nearly \$190M in 9 operations, through late-stage series and IPOs. In the case of Sweden, the number of IPOs held steady, but their value increased notably from \$35M in 2015 to \$401M in 2020. Moreover, in 2020 Sweden raised \$270M more than in 2015 in late-stage series.

So, all things being equal, there is no fundamental reason why Catalonia could not increase the investment by a factor of x3 or x4 over the next period (as represented in figure 6) and achieve \$500M investment per year by 2025.

- Which are the key factors that could accelerate the achievement of this ambitious goal?

This exponential growth can only be achieved if there is a fundamental base of excellent scientific production that retains and attracts talent, a rich life sciences and healthcare ecosystem with strong tech transfer capabilities, and a variety of public and private funds that provide companies with investment at all the different stages of maturity. In fact, these are among the most important features in the countries that have achieved this kind of growth.

In Sweden, there is a network of top-level universities and research centers, including the Royal Institute of Technology (KTH), the Karolinska Institute (KI) and the SciLifeLab, that are highly focused on the life sciences and collaborate closely with university hospitals. This helps attract national and international talent, as does the 25% income tax cut for key foreign employees and a 10% payroll tax cut for all individuals working in R&D. According to Björn Arvidsson, Managing Director at STUNS Life Science *“digital services and tools as well as a focus on the consumer market have been key for the development in Sweden the last 20 years. The combination of our IT competencies and successes with a strong legacy and know-how within traditional life science industry (with companies like Pharmacia and Astra Zeneca) has paid off. All Swedish unicorn companies in the last 10 years are within IT and Tech sectors”*

In the case of Belgium, excellence in universities also plays an important role: seven universities are ranked among the top 100 in the world, and KU Leuven is considered one of the most innovative centers in Europe. Moreover, the government supports R&D businesses with a 29% tax cut. Marc Deschamps, International Director at BioWin highlights that *“the success of the Belgian R&D model is characterized by a strong integration of university-industry collaboration with a strong support of the government and regulatory authorities. The sector is actively boosted by the federal and regional governments with an interesting combination of regulatory & tax measures and incentives for biopharma R&D. Also, the regulatory agency FAMHP is specialized in ATMPs and Vaccines and allow fast implementation of clinical trials with currently phase 1 clinical trials approval in 2 weeks-time. World-renowned academia, local SMES, startups in fast development, large multinational companies and innovative suppliers and service providers complete the ingredients of the ecosystem”*.

Which are the main assets of the BioRegion right now?

What is the current situation of the BioRegion and how far is this goal considering the assets of the healthcare innovation ecosystem compared to other European countries?. Let's have a look to some of the most outstanding ingredients that have contributed to position Catalonia on the top of most of the rankings in science, startups, funding.

- **Excellent Science**

In figure 7, we compare the scientific production of Catalonia to other European countries with similar demographics.

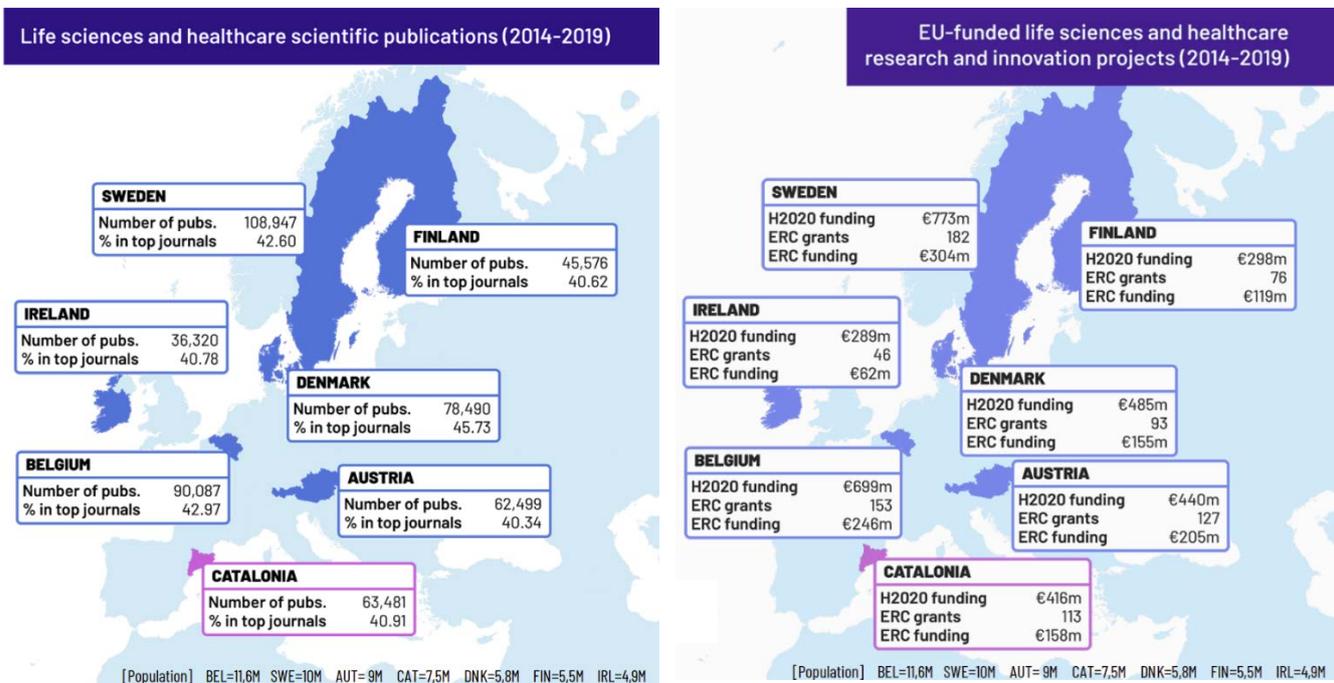


Figure 7. Left. Source: Scopus, SCIMAGO (SIRIS Academic). Right. Source: CORDIS, UNiCS (SIRIS Academic).

As we can see, the quantity and quality of the scientific production in Catalonia is comparable to other European countries. This means that the difference in investment figures for Catalonia and the other countries is not due to a difference in the quality of the research that is the basis for projects and companies.

- **A booming startup ecosystem**

As we have seen, Catalonia has great assets in science. Now in figure 8, we will compare different life sciences ecosystems according to Crunchbase database:

Active Companies	Catalonia	Belgium	Sweden
Total Life Sciences	479	479	1,025
Biotechnology	167	148	318
Therapeutics/Biopharma	22	40	55
Medical Devices	58	69	156
Health Diagnostics	29	21	53
Life Sciences Investors	27	63	72

Figure 8. Source: Crunchbase. Last update: 1/02/2021.

As shown, Catalonia has more life sciences companies than Belgium. However, we have 50% of their therapeutics and biopharma companies. This difference explains how the gap in capital has opened between Catalonia and Belgium or Sweden, if we take into account that these types of companies are the ones typically raising the biggest funding rounds due to the intrinsic nature of their business. Furthermore, companies in this subsector are usually spin off from universities, research centers and institutes. This fact shows that Catalonia has plenty of room for improvement in technology transfer, in line with the Regional Innovation Scoreboard 2019 report that places Catalonia as a moderate innovator. For that reason, Catalonia is already making actions to facilitate and enhance the growing of biopharma companies by promoting a variety of projects related to technology plants, advance therapies, incubation spaces and other promising initiatives in the framework of the Next European Generation Funds.

Moreover, we also detect differences between countries in the number of companies investing in the life sciences. It is a fact that the more life sciences investors based in a given ecosystem, the more funds are available to support startups with different stages

of development, technologies, subsectors, etc. Additionally, these investors attract other international firms leading to syndicated investments and allowing companies to raise bigger round tickets. Further in this study, we will see how the BioRegion of Catalonia is experiencing an increase in the number of international investors.

- **Funds, specialised investors & tax incentives**

Before 2015, companies based in the BioRegion lacked access to private investments in high-risk stages. Now, many different important actions targeting these unmet needs can make the difference. One great example is the initiative of the Government of Catalonia that offers investor-driven proof-of-concept grants, and a Deep Tech Discovery Fund with a target size of €30M that aims to boost knowledge transfer from academia and research to the industry, and to improve Catalonia’s innovation index ([Press](#)). Additionally, the Barcelona City Council will invest €50M together with six venture capital funds with the aim of backing emerging companies working in strategic sectors such as healthcare, biotechnology and the 4.0 Industry ([Press](#)).

In the previous section, we discussed the importance of investors. The BioRegion of Catalonia is attracting more international investors every year. Only 5 years ago, in 2015, there were 14 international firms that had invested in the BioRegion, now this number has increased by a factor of five, for a total of 73 international investors. See figure 9 below. As a result, VC investment is increasing on a yearly basis (from €56M in 2015 to €140M in 2020) and international investors are playing a key role participating in 1 out of 4 rounds, representing more than half of all VC investment (+62% in 2020) every year in the BioRegion.

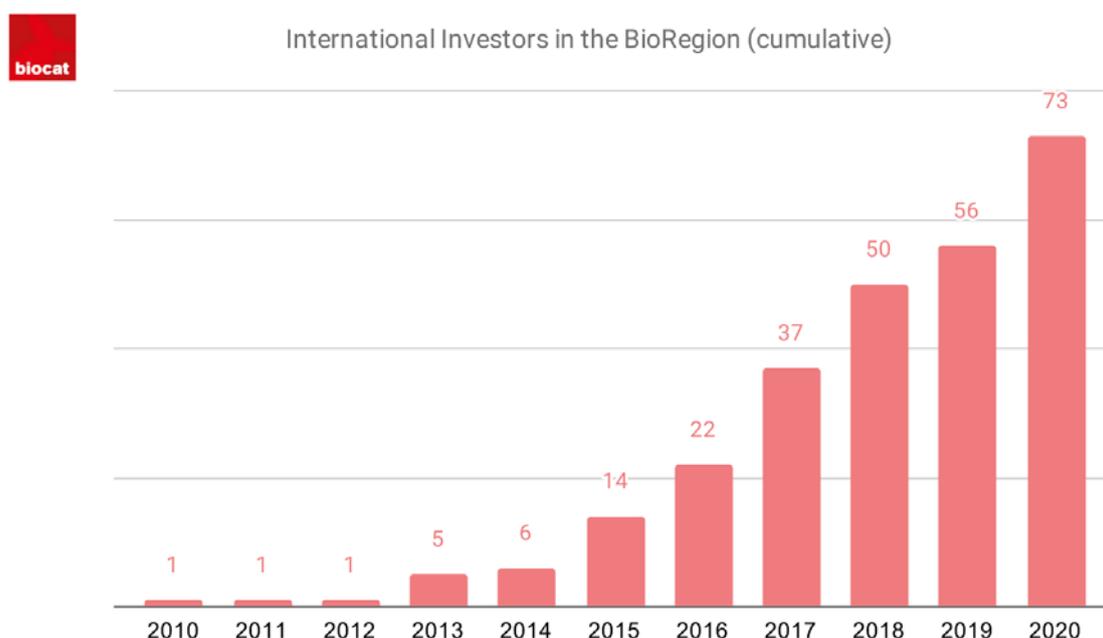


Figure 9. Source: Biocat. Cumulative number of unique international investors operating in the BioRegion.

In 2020, companies in the BioRegion attracted 17 new international investors, which proves the increasing interest in investing in Catalonia’s life sciences companies.

As far as tax incentives – and similarly to Sweden and Belgium – Catalonia has tax reductions for local and foreign R&D activities such as: up to 59% reduction in R&D expenses, 40% bonuses at employer’s social security for R&D staff, up to 60% tax exemption of net incomes arising from the letting of the right to use qualifying IP, and a 24% flat rate in income tax for non-residents ([Source](#)).

Then.... will we get there?

We have analyzed and looked at the strengths and weaknesses of the BioRegion of Catalonia and compared it to other EU countries. We have also seen lines of action that have been done to shore up the strong points and address the shortcomings in our ecosystem. Finally, we have seen the evolution that benchmark countries like Belgium and Sweden achieved by giving their ecosystems the resources they need to grow and mature.

Everything indicates that applying this same formula to our ecosystem will lead the BioRegion of Catalonia towards similar growth in investment. So, if we raised more than €226M in 2020 and Belgium and Sweden have seen their investment multiply by 4 over 5 years, why can't we get to €500M by 2025? There are no reasons not to be ambitious.

See you in 5 years.