endeavor

Brazil Biotech Report

DRIVING LATAM'S GLOBAL FOOTPRINT

November 2024

A report by:
endeavor

Collaboration:
emerge

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PUBLIC PROSPECTS, THINK TANK

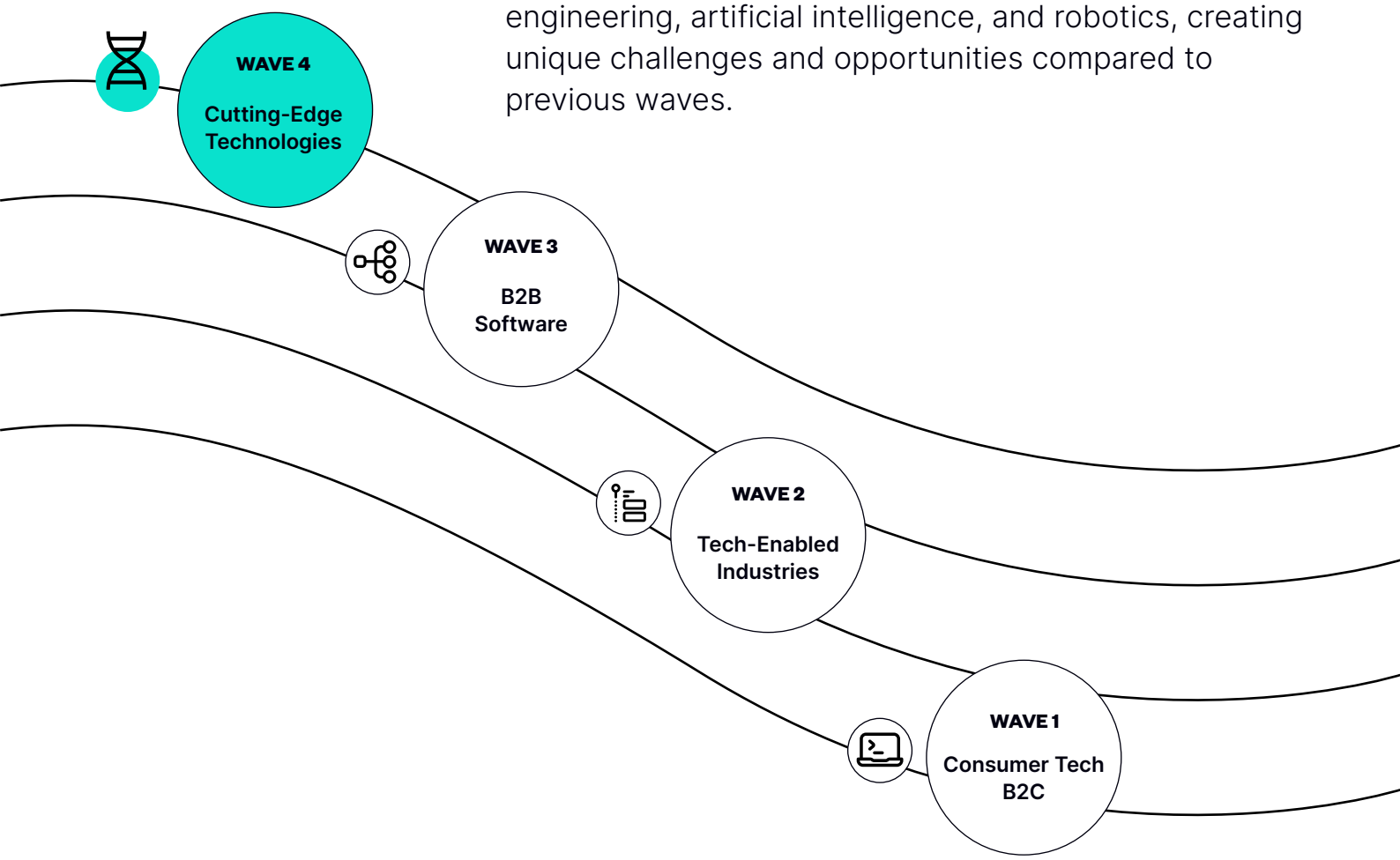
THIAGO MORAES
MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E INOVAÇÃO

PAULO SCHOR
FAPESP

We are witnessing the biotech wave

Biotech startups and scale-ups are developing **cutting-edge technologies** that address global challenges—such as the food crisis, future pandemics, and climate change—through scientific advancements using biological materials. From biotech companies come new medicines, treatments, genetically modified crops, and biofuels, for example.

Biotechs are part of a broader group of **deep tech startups and scale-ups**, which delve into complex engineering, artificial intelligence, and robotics, creating unique challenges and opportunities compared to previous waves.



WHAT EXPERTS SAY:

“Biotechs tackle the root of global challenges that are already worth tens of billions of dollars — Brazil will start seeing its first decacorns coming from biotechnology, and from here will emerge the country’s first Nobel Prizes.”

GABRIEL BOTTÓS,
VESPER BIO

“The convergence of multiple advances in infrastructure, big data, algorithms, biology, and chemistry makes the 21st century the century of biotechnology. Considering the increase in human life expectancy—a global trend in which we are living longer and with higher quality of life—it is essential to continue investing in new technologies for diagnostics, therapies, drug discovery, foodtech, and agtech. This makes biotech one of the most promising sectors for venture capital.”

GUY PERELMUTER,
GRIDS CAPITAL, EMBAIXADOR ENDEAVOR

“The value of cutting-edge science far surpasses that of other technologies. Each deep tech startup contributes to scientific advances with the potential to impact the production matrix, create new jobs and opportunities in science, and transform the planet and society, even when the business model is not yet clear and carries its risks.”

FRANCISCO SALVATELLI,
GRID EXPONENTIAL

“The issue isn’t just that the population is aging; as people move from 60 to 65, the incidence of diseases increases significantly. We see the rise of multiple conditions, like metabolic syndrome. On the agriculture side, there’s a growing demand for food, requiring us to be more efficient in production, given that the exploitable land on the globe is nearly exhausted.”

ROGÉRIO VIVALDI,
BOARD MEMBER APTAH BIO

Biotechs are transforming major market segments connected to global challenges

> The global population could reach over 10 billion people by 2050, increasing global food demand by 30%"

UN

FOOD PRODUCTION

New alternatives for food consumption, such as plant-based proteins, cultivated meat, and genetically modified seeds

> Agriculture uses 70% of the world's fresh water and accounts for 22% of global CO2 emissions"

WORLD BANK

AGRO: PRODUCTION CHAIN

Making agricultural production more efficient and sustainable, with the creation of new materials like textile fibers, biofuels, and other derived products

> Human life expectancy has increased from 66 to 73 years since 2000, but still varies significantly by region"

HDI, UN

LIFE SCIENCES (human and animal health)

Diagnostics, treatments, and disease prevention in humans and animals, including vaccines, gene therapies, and immunotherapies

> Microplastics are present in 100% of the population and the atmosphere, with unprecedented public health impacts"

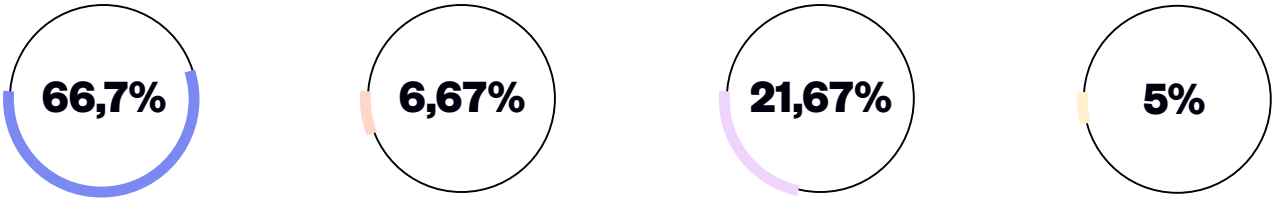
JAIME ROSS, PHD
University of Rhode Island

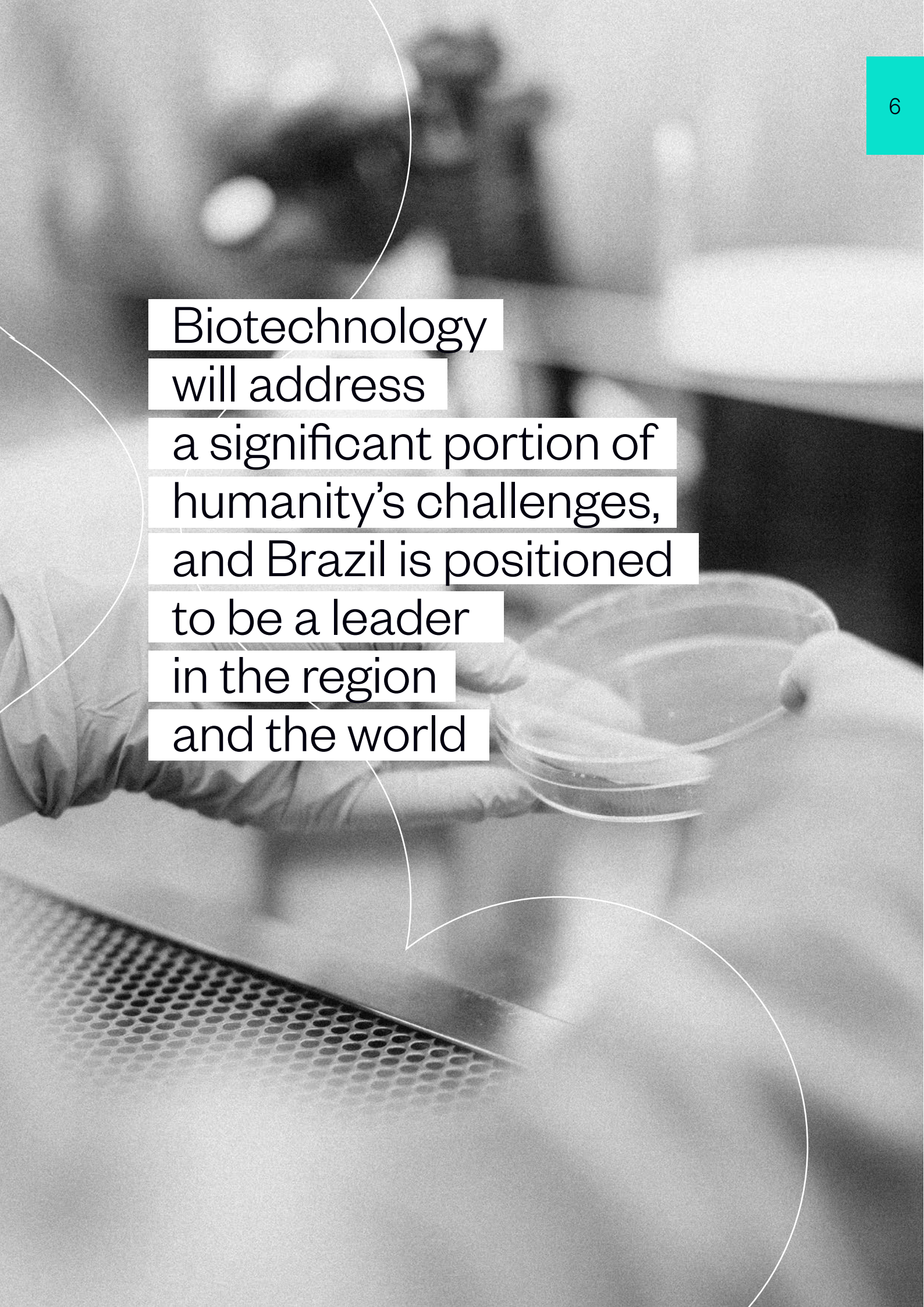
CHEMICAL AND MATERIAL INPUTS

Production of materials such as bioplastics, industrial enzymes, and bioenergy, aiming to replace traditional chemicals with sustainable alternatives

% OF COMPANIES IN BRAZIL
(94 COMPANIES WITH DATA FROM CRUNCHBASE, PITCHBOOK, AND ENDEAVOR)

% OF VC DEALS DIRECTED TO EACH SEGMENT
(NUCLEATE, CRUNCHBASE)





Biotechnology will address a significant portion of humanity's challenges, and Brazil is positioned to be a leader in the region and the world

Comparative advantages of Brazil:

WE ARE THE MOST BIODIVERSE COUNTRY IN THE WORLD:

15 a 20%
of all global biodiversity

700
new species cataloged per year

6
biomes and

3
marine ecosystems

WITH HIGH POTENTIAL IN AGRICULTURE AND HEALTH

3rd largest
food producer in the world

5th largest
agricultural production area in the world

SUS
the largest public health system in the world

AND GLOBAL LEADERSHIP IN SCIENCE AND TECHNOLOGY

77%
of LATAM researchers

5th
country with the most publications in biological and agricultural sciences

58%
of patents and

47%
of research in LATAM

WHAT EXPERTS SAY:

“Brazil is the largest consumer of bio-inputs on the planet. More than 50% of soybean farmers use some form of bio-input, which has been studied by Embrapa for over 40 years. Bio-inputs are more sustainable and cheaper than chemicals—the addressable market is huge, and their usage could be much larger. Brazilian farmers are more innovative, often driven to innovate.”

RODRIGO IAFELICE,
SOLUBIO,
ENDEAVOR ENTREPRENEUR

“Biotechs that focus their theses on Brazil’s comparative advantages will attract greater attention from global investors”

GABRIEL PEREZ,
PITANGA

Scale-ups from the Brazilian ecosystem that are solving systemic problems in:

FOOD PRODUCTION

CELLVA

Producing high-quality ingredients with minimal animal impact is the mission of Cellva, with its platform for cultivated fat, fatty acids, and microencapsulation.

Founded by Sérgio Pinto and Bibiana Matte in 2022, Cellva is the first Brazilian biotech to join a European incubator focused on ingredient technologies. The startup develops fatty acids from cells cultivated in bioreactors, using 100% national technology.

Cellva's Impact and Milestones

- Reduces ingredient production time from 24 months to just 21 days
- Preserves animal welfare, with no need for slaughter
- Offers a nutritionally richer product in omega 3 and 9
- Completed its Seed funding round, with ambitious expansion plans for the European market. It has already attracted the attention of investors such as Seed4Science and ProVeg International

AGRO CHAIN

GALY & CO.

A new cotton, high-quality and free from the environmental impact of natural fibers, reducing the fashion industry's effect on deforestation and water scarcity. GALY is leading this mission with its lab-grown cotton, GALY Cotton.

Founded by Luciano Bueno in 2019, GALY uses advanced cellular agriculture techniques to cultivate cotton from plant cells in bioreactors.

GALY's Impact and Milestones

- Ensures a stable cotton supply amid climate change
- Fights child labor associated with conventional cotton farming
- Reduces land, water, and CO2 use by up to 96%
- Secured a $50M contract with a Japanese company for cotton supply
- Ranked #1 out of 4,400 startups in sustainability awards by the H&M Foundation and LVMH Awards

LIFE SCIENCES

gen-t

GEN-T

Making disease prevention, diagnosis, and treatment accessible to all is the mission of gen-t.

Founded by geneticist and full professor at USP, Lygia Pereira, gen-t is collecting genetic data from across Brazil to create the largest and most diverse genetic database in Latin America. The goal is to drive precision medicine and improve public health in the country.

gen-t's Impact and Milestones

- Sequencing the genome of 200,000 Brazilians by 2027
- Focusing on data from traditionally underrepresented populations in genetic studies
- Accelerating innovation in the pharmaceutical industry
- Reducing costs and increasing efficiency in the SUS (Brazil's public healthcare system)
- Attracting strategic investors from the pharmaceutical sector

LIFE SCIENCES

Nintx

NINTX

Nintx is at the forefront of developing therapies for multifactorial diseases.

Founded in 2021 by Miller Freitas, Cristiano Guimarães, and Stephani Saverio, the company uses natural plant-derived products to modulate biological targets directly and indirectly by modulating the human microbiome.

Nintx's Impact and Milestones

- Develops multi-target therapies using Brazilian biodiversity as a platform
- Applies proprietary technologies like xGIbiomics® and GAIApath® to simulate the digestive system, its microbiota, and map medicinal plants with therapeutic potential
- Established strategic partnerships with CNPEM and CIENP to expand its research
- Raised funds from multiple sources, including FINEP, FAPESP, Pitanga, and Maraé Investimentos
- Named one of the top 10 biotech startups in Latin America by Life Sciences Review

CIÊNCIAS DA VIDA

APTAH BIO

A new therapy focused on combating age-related diseases such as cancer and Alzheimer's. Aptah Bio leads this innovation with its proprietary technology, RNA WiCo™, the first and only capable of restoring RNA integrity and simultaneously correcting multiple proteins.

Founded in 2020 by Rafael Bottós and Caio Leal, Aptah Bio uses rationally developed synthetic molecules that reprogram the cell nucleus and enable the treatment of various disorders with a single therapy.

Aptah's Impact and Milestones

- Pioneer in simultaneous correction of multiple RNAs and toxic proteins for complex, age-related diseases.
- Raised $5 million from global investors to advance preclinical studies.
- Currently raising funds for human trials within the next 12 months, focusing on patients with brain cancer.
- Current tests demonstrate safety and efficacy in animals, with efficient brain distribution (cortex and hippocampus). Collaboration with NASA / UCSD for aging studies in astronauts.

MATERIAIS

MUSH

Transforming agricultural waste into sustainable materials is the mission of Mush, founded by Eduardo Sydney in 2019.

Mush began its operations at the Fermentations Laboratory at UTFPR and recently inaugurated its first factory in Ponta Grossa.

Mush's Impact and Milestones

- Uses agro-industrial waste, such as sawdust and sugarcane bagasse, to create durable and biodegradable materials
- Each ton of Mush material absorbs 1 ton of CO2
- Produces materials that decompose in just 28 days, in contrast to the 500 years it takes for conventional plastic to decompose
- Develops solutions for various sectors, including construction, design, and sustainable packaging
- Currently raising funds to expand its product platform for plastic and Styrofoam substitutes

Global challenges, global businesses

A new treatment, molecule, or fuel has applicability anywhere in the world. Therefore, biotechs are born global and compete globally from day one, ***driven by unsolved problems.***

The validation of complex theses means that the ***go-to-market*** stage for a biotech can take up to seven years, depending on the type of technology being developed.

WHAT BIOTECH FOUNDERS SEEK IN BIG MARKETS:

Easy access to infrastructure and laboratories

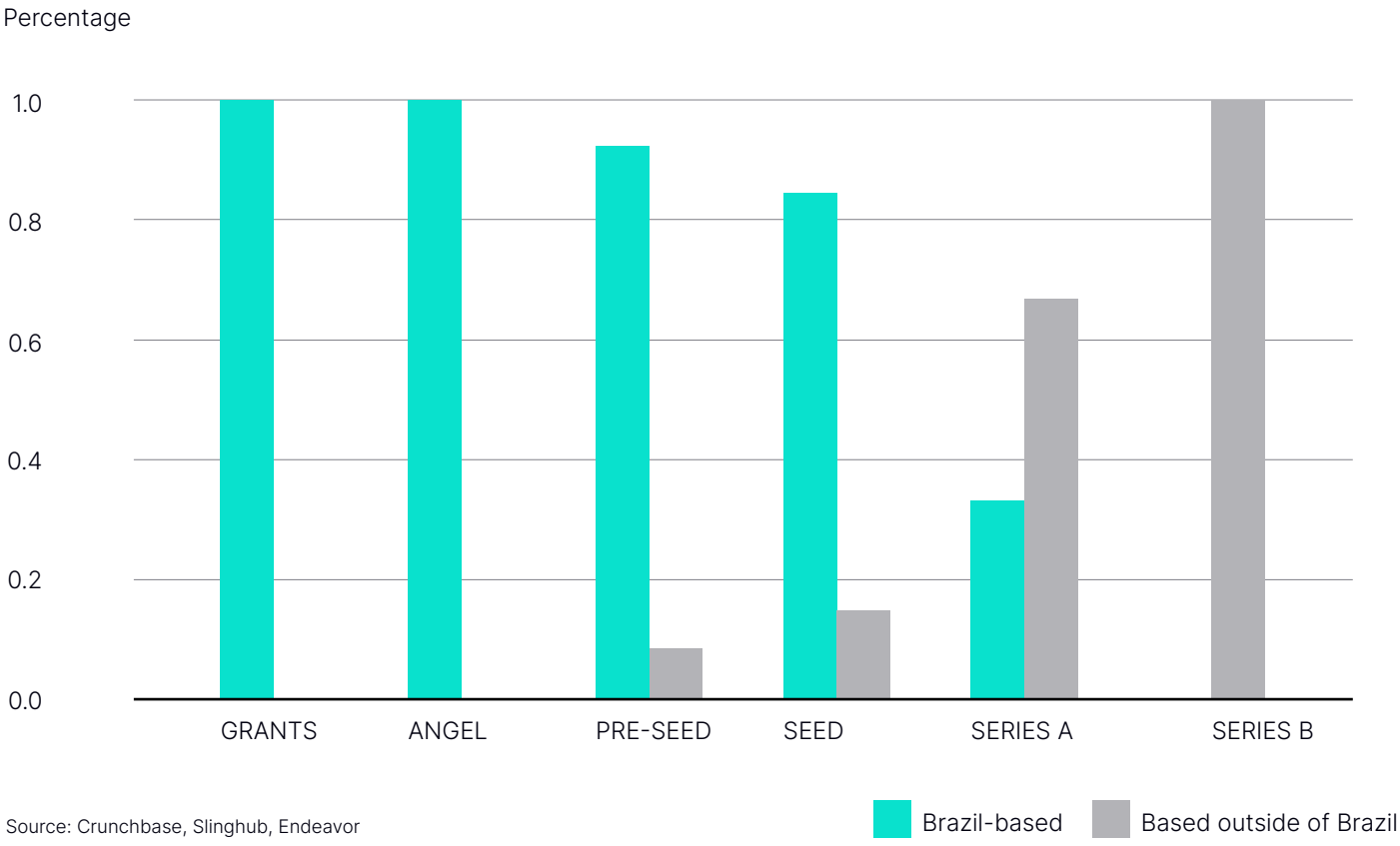
Global mindset, making it easier to convince investors

Credibility from operating in established markets

Protection of intellectual property (IP), the most valuable asset for a biotech

Internationalized biotechs raise more funds. In our sample, the majority of Series A biotechs and 100% of Series B biotechs have a base outside of Brazil.

VC INVESTMENT BY COMPANY LOCATION



Source: Crunchbase, Slinghub, Endeavor

...however, only 12% of biotechs founded by Brazilians are located outside of Brazil.

BIOTECH HEADQUARTERS

BRAZIL		ABROAD	
Amount of biotechs		**Amount of biotechs**	
São Paulo	**37**	US (California)	**7**
Minas Gerais	**11**	US (Delaware, Massachusetts, Florida)	**4**
Santa Catarina	**7**	Switzerland	**1**
Rio Grande do Sul	**5**		
Paraná	**4**		
Rio de Janeiro	**3**		
Centro-Oeste	**3**		
Norte	**3**		
Nordeste	**1**		

Source:

Crunchbase, Sling Hub, and Endeavor. Based on 86 biotechs with public location data.

Origin of Biotechs

STUDY ON THE PROFILE OF BIOTECH ENTREPRENEURS AND ECOSYSTEM IMPACT

Based on data from 135 founders of 94 biotech companies, we observe that:

01

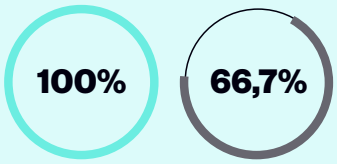
The majority of biotechs are led exclusively **by founders with an academic background (54%).**

15% are led solely by founders with a market-oriented profile, and 31% have a mix of profiles at the C-Level.
62.2% are first-time founders

LOOKING AT THE PROFILE OF THE FOUNDERS, WE CONCLUDED THAT:

- 54% of founders hold a Ph.D.; only 11% have not pursued postgraduate studies
- 83.7% have a STEM degree; only 20% have completed an MBA
- 36.3% are university professors

UNDERGRADUATE DEGREE

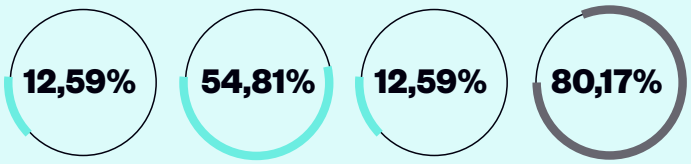


of founders have completed an undergraduate degree

graduated from public institutions

TOP UNIVERSITIES	TOP PROGRAMS
USP	Biological Sciences
UFRGS	Engineering
UNESP	Pharmacy
UFRJ	Business Administration
PUC Campinas	Biochemistry
UFSCar	Medicine

POSTGRADUATE DEGREE



Post-Ph.D. | Ph.D. | Master's | graduated from public institutions

TOP UNIVERSITIES	TOP PROGRAMS
USP	Biological Sciences
UNICAMP	Engineering
UFRGS	Pharmacy
FGV	Business Administration
UFSC	Biochemistry
UFMG	Medicine

Based on 135 founders, of which 120 have postgraduate degrees.

Women entrepreneurs have a more academic profile and a higher level of qualification than men, while the proportion of men with a market-oriented profile is three times greater.

	ACADEMIC	MARKET	MIXED
TOTAL	62,96%	22,96%	14,07%
FEMALE FOUNDER	**76,92%**	9,62%	13,46%
MALE FOUNDER	54,22%	**31,33%**	14,46%

Founder profile classified according to a combination of academic and professional experiences.

The data is still insufficient to conclude that women leading biotechs face more challenges in securing investments. However, the 3 companies in the Series A stage from the sample are led by men, with no women founders. Among the 4 companies in Series B, there is a 50/50 gender split.

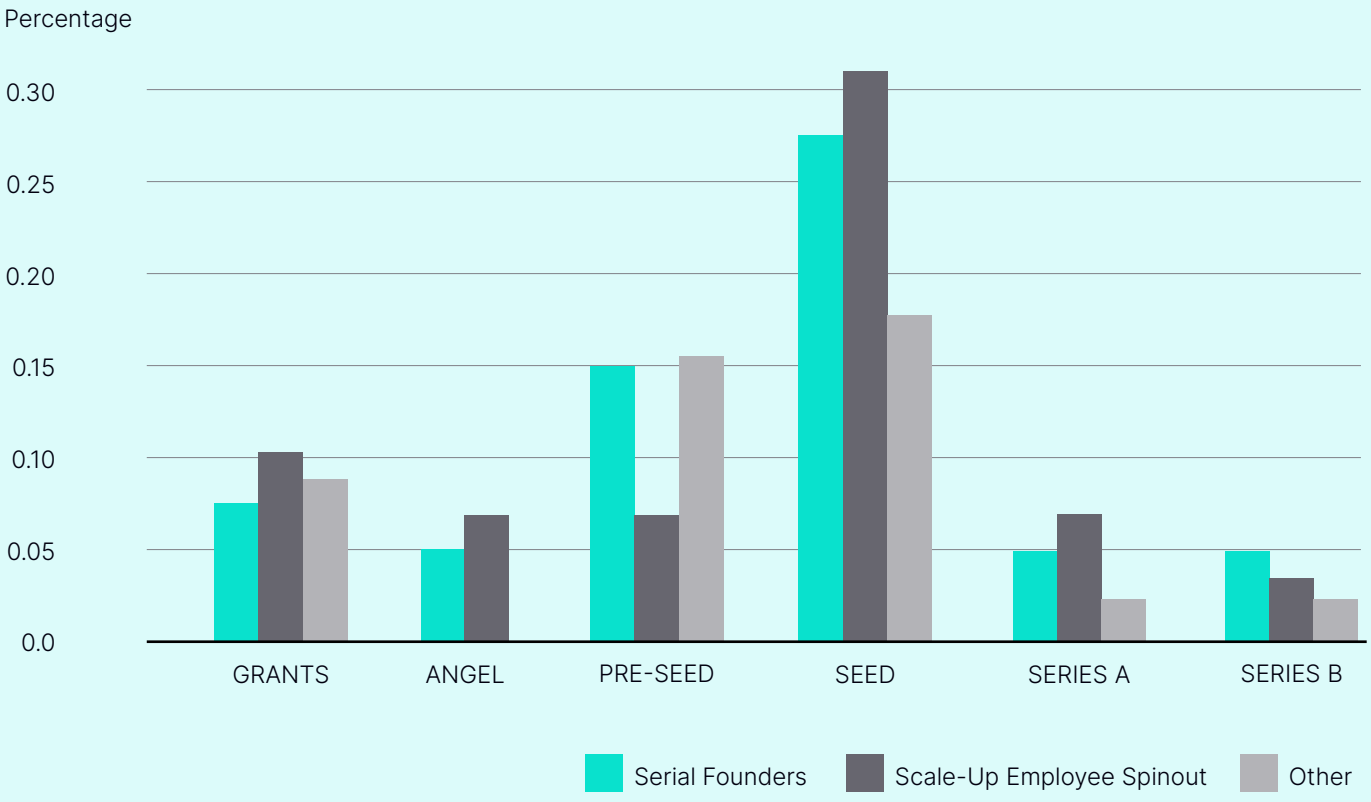
02

Biotech entrepreneurs **with more professional experience in the tech ecosystem are likely to secure more funding.**

Serial founders and founders who are former employees of scale-ups (employee spinout) have a head start in terms of funding.

The difference is most noticeable in the Seed stage. Despite the few Series A and Series B rounds in the market, more experienced entrepreneurs are the first to reach these stages.

VC FUNDING STAGE BY FOUNDER'S BACKGROUND



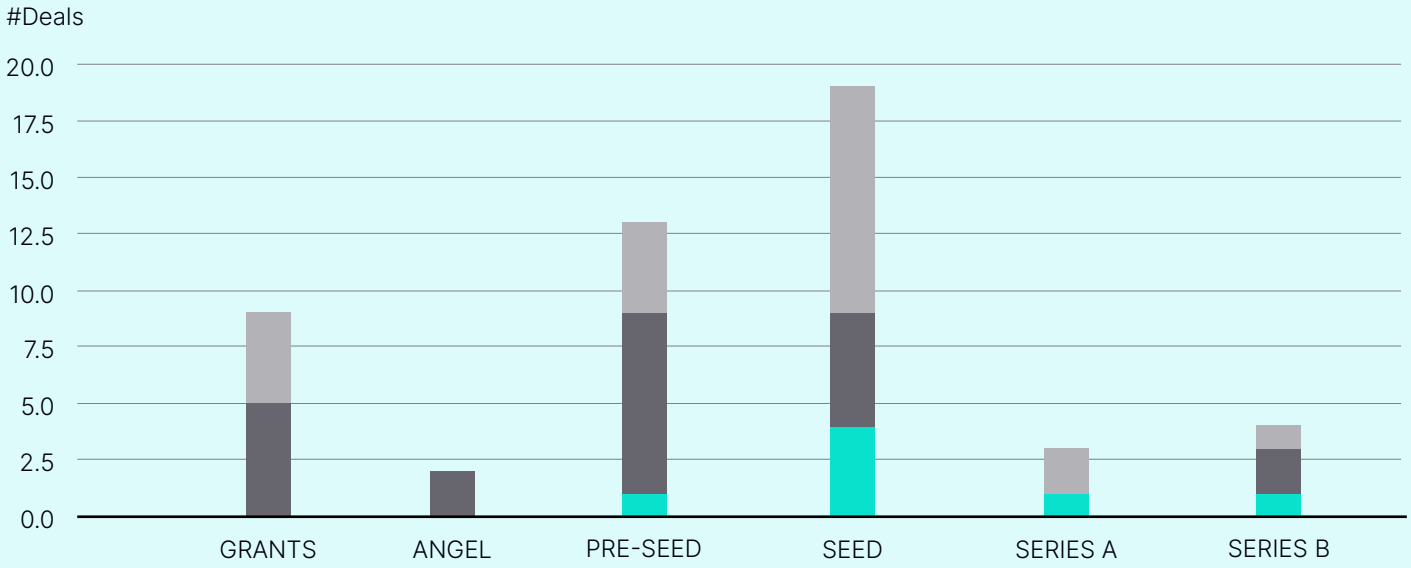
03

Biotechs led by market-oriented founders do not necessarily raise more funding

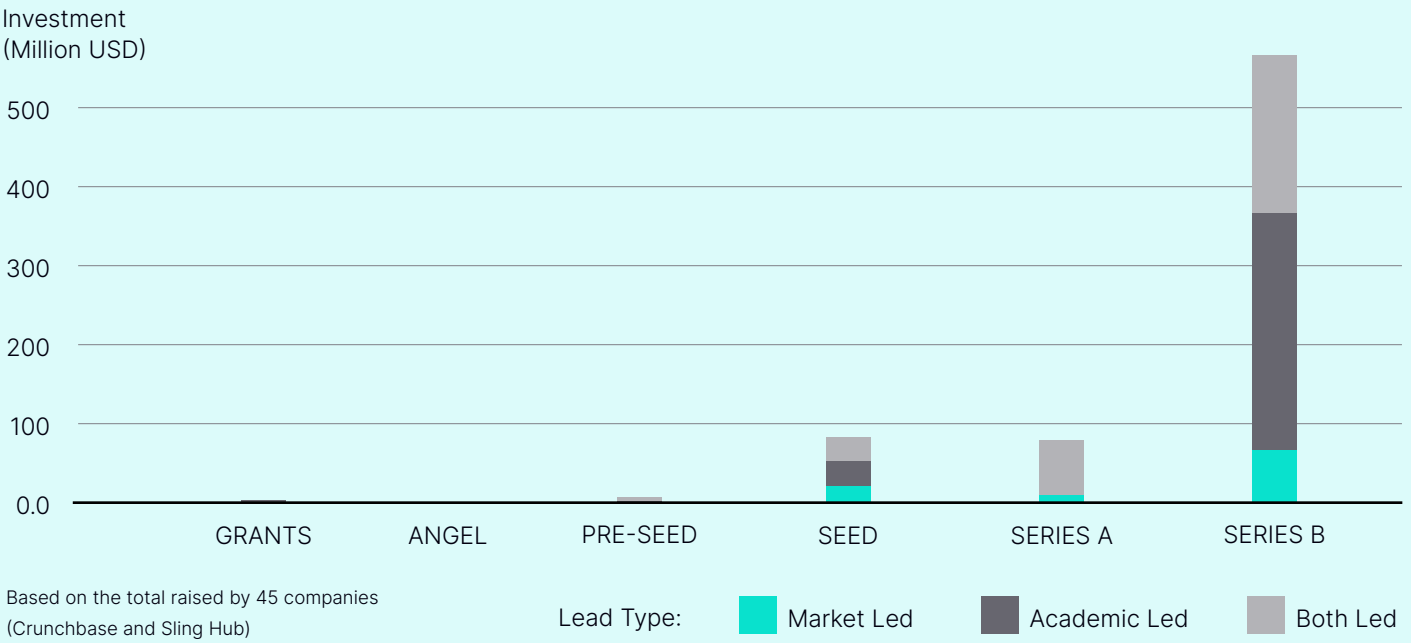
Biotechs led by academic and mixed-profile entrepreneurs are likely to raise as much or more funding than those led by business-oriented founders.

Companies with mixed-profile founders secured more seed deals and lead in Series A valuations. However, it's the companies led by academics that achieved the highest valuations in Series B. The data aligns with international trends—technical founders of deep techs tend to secure larger funding rounds.

VC DEALS BY FOUNDER PROFILE LEADING THE BIOTECH



VC (MILLIONS OF DOLLARS) BY FOUNDER PROFILE LEADING THE BIOTECH



Based on the total raised by 45 companies (Crunchbase and Sling Hub)

“In the biotech sector, the most prominent international companies are founded by former executives with extensive experience—a track record that investors closely monitor, especially when these executives have already achieved success in their previous ventures. The same potential exists in Brazil. There is significant opportunity for funds that already invest in ESG, particularly in the areas of agriculture and health, to become more involved with biotechs.”

MILLER FREITAS AND CRISTIANO GUIMARÃES
NINTX

“Two-thirds of the intellectual capital and patent production in Latin America originates from Brazil. We are a biotech hub in our own right, but the biggest challenge for researchers and traditional companies is bringing products to market. That is why we need more executives to drive the ecosystem forward—we are a repository of hope.”

SÉRGIO PINTO,
CELLVA

“An academic founder raises more funding abroad because investors value the technology more highly than in Brazil, considering the potential impact over a much longer horizon. In Brazil, the focus is on the exit; it doesn’t matter what the technology is; the investor wants to know if you’ll sell within two years. This, of course, is tied to the macroeconomic risks we face.”

EDUARDO SYDNEY,
CO-FOUNDER MUSH, MUUSH AND TYPCAL

04

Work and study abroad **have not been decisive for the internationalization of biotech**

Work and study abroad seem to modestly encourage the founding of internationally-based biotechs, but not as significantly as one might expect.

Founders with experience outside Brazil have founded more internationally-based biotechs (15.2%) than those with only Brazilian experience (3.6%). **However, 77.2% of those with international experience still choose to found companies in Brazil.**

05

The biotech multiplier effect **is yet to be seen**

Among second-time biotech founders, 68% are former employees of startups and scale-ups, primarily in biotechs and some technology companies. However, there is still no concentration or 'mafia' generating spinouts.

ORIGIN OF SPINOUTS FROM THE TECH ECOSYSTEM

Life Cycle of Biotechs

FROM LAB TO SCALING

Beyond a global mindset, the scalability of a biotech is shaped by business challenges that go beyond those faced by scale-ups in the B2B Software era.

UNIQUE CHALLENGES OF BIOTECHS

SCIENTIFIC RISK

Biotechs aim for high-risk solutions with stringent regulatory constraints that limit commercialization in the early stages. They fail up to 10% more than traditional companies, but when they succeed, they generate much larger premiums (from zero to boom).

“In a software company, you can make mistakes, release a beta version of an app. In biotech, there’s no beta version—these are health risks. One mistake could be fatal.”

SÉRGIO PINTO, CELLVA

TEAM AND FOUNDERS

Ciência e mercado

Biotechs require a founding and C-Level team with a strong scientific background but also with commercialization skills, where the “scientist entrepreneur” must develop new capabilities.

“Second and third-time entrepreneurs are crucial in all areas of venture, and biotech is no exception. Even when their ideas don’t move forward, the lessons and experiences make them even better entrepreneurs.”

GUY PERELMUTER, GRIDS CAPITAL

FUNDING

Upfront investment requires specialized funds that understand the timing and challenges of biotech—such as the lack of revenue in the early years and high R&D —and can offer connections with scientific references, future customers, and global investors.

“There are still few Brazilian investors specialized in biotech. Generalists lack the experience needed to evaluate projects and support companies after investment.”

GABRIEL PEREZ, PITANGA

GLOBAL VISION

Biotechs need to conduct in-depth research into existing global solutions for the same problem and access technologies and customers outside their home country. Venture capital funds specialized in biotech seek to validate the technology by connecting with potential global clients, partners, investors, and industry executives.

“Biotechs are born global because they tackle global challenges. On the other hand, competition is also global. To understand if the technology is unique, you need to look at the best available outside Brazil.”

GABRIEL BOTTÓS, VESPER BIO

Experts interviewed by Endeavor observe the following steps for biotechs to become globally competitive, depending on their stage:

	R&D COMPANY →		SCALE-UP	
INVESTMENT STAGE	**SEED** →	**SERIES A** →	**SERIES B** →	**SERIES C, GROWTH**
MILESTONE	Focus on R&D, with potential support from specialized funds or government funding.	Focus on the prototype and pilot, consolidating your intellectual property, moats, and business vision, including different applications for your technology and alternative plans. This could be a key moment for licensing or M&A.		Go-to-market: Focus on commercialization, growth, and scaling in the market.
TIMING	20 months	49 months		24 months
AVERAGE FAILURE RATE	95%	80%		NA

Timing and average failure rate according to BCG (deep techs).

LIFE SCIENCES

- They have longer cycles (e.g., 10-15 years for drugs) to ensure safety for consumers.
- Licensing or M&A can occur after 6-8 years for a large corporation.

OTHER MARKETS

- The commercial phase can occur soon after technology development (1-3 years).
- Regulation can be less strict, and intellectual property is often more focused on business strategy.

LIFE SCIENCES

"Discovering and developing an innovative drug is challenging—companies can spend over a billion dollars to bring it to market, and the entire cycle can take between 10 and 15 years. During this time, the company generates no revenue, only expenses. Companies that wish to reach the commercial stage need a global vision, access to key markets, and must adhere to the FDA pathway. This is why, for some biotechs, selling the business to a large pharmaceutical company while still in the development phase is already considered a success."

PAVEL HERMAN
EUROFARMA VENTURES

"If the cost during the animal testing phase is around R$ 10 million, the global registration of a drug can exceed US$ 1 billion. This cost is more feasible for large pharmaceutical companies, which are highly dependent on patents. When these expire, the opportunity for M&A arises—there are deals happening every week, with valuations in the billions."

CARLOS ZAGO,
MKM BIOTECH

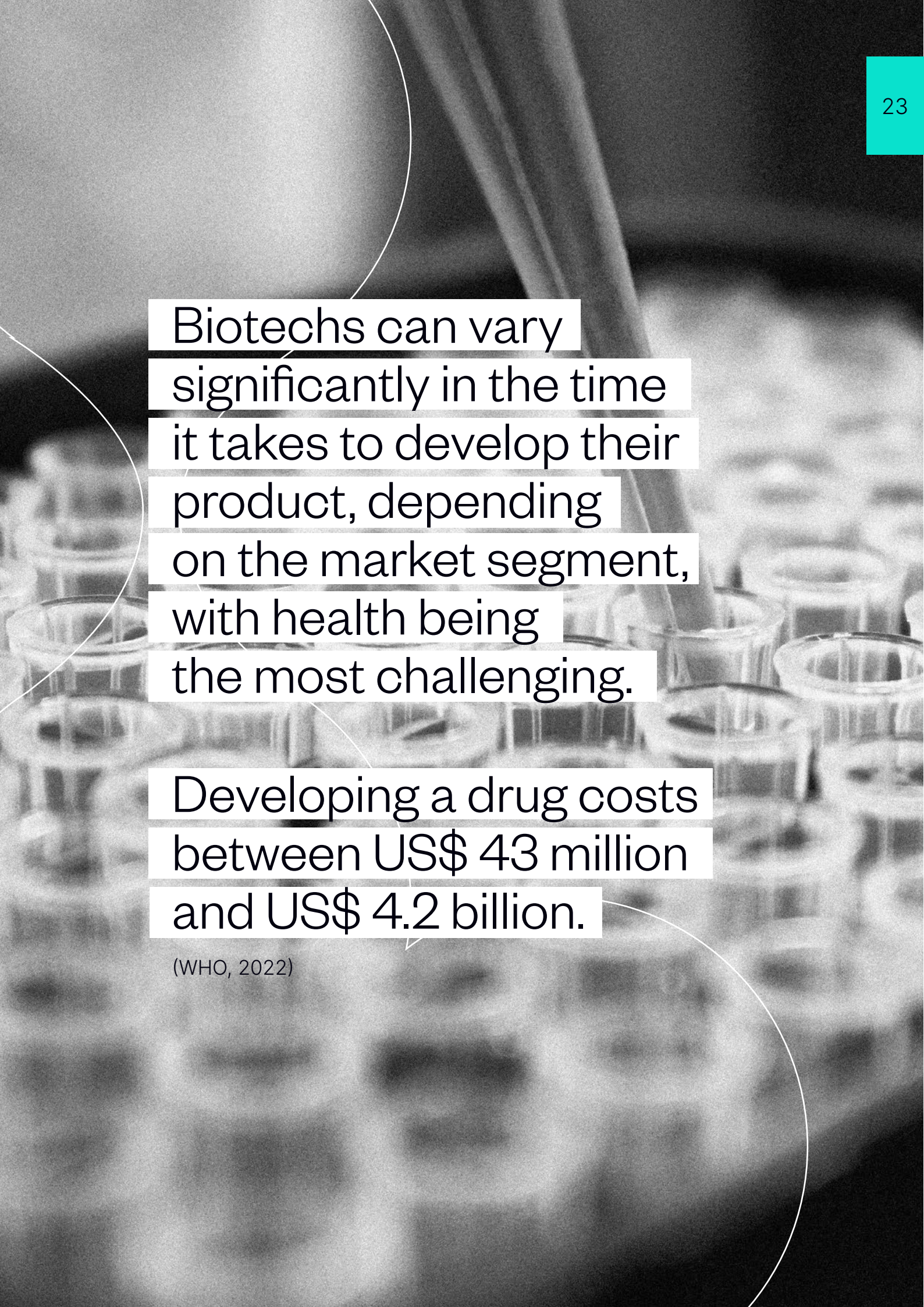
OTHER MARKETS

"Fungi and bacteria are in the public domain. While processes can be patented, with some adjustments they become replicable. It is essential to evaluate the market size. If the problem is significant, is the proposed solution substantially better than those already available?"

RODRIGO RODRIGUES,
FALCONI

"In biotechs focused on bio-pesticides, for example, the best entry barrier lies in the match between the biome and the strain, as well as whether the chosen location for the factory helps reduce logistics costs, among other strategies."

LIEVEN COOREMAN,
EMBAIXADOR ENDEAVOR



Biotechs can vary significantly in the time it takes to develop their product, depending on the market segment, with health being the most challenging.

Developing a drug costs between US$ 43 million and US$ 4.2 billion.

(WHO, 2022)

O QUE DIZEM OS ESPECIALISTAS:

“Most biotech companies won’t last more than 5 years if they don’t move beyond angel investment or rely solely on public grants. It’s essential to access infrastructure, find international investors, advance the technology, and structure for growth.”

EDUARDO EMRICH,
BIOMINAS

“You can’t program software without a computer; there’s no biotech without a lab. One of the challenges is understanding the high cost of setting up a lab: 5, 10, even 20 million.”

LUCAS DELGADO,
EMERGE

“Science is an art; it is not a linear progression. There is the discovery, the breakthrough, and a series of months and years that lead to that moment. It may generate marginal revenue at first—$500,000 or $1 million—but biotech founders should aim for $300 million or $500 million. It is a journey from zero to boom.”

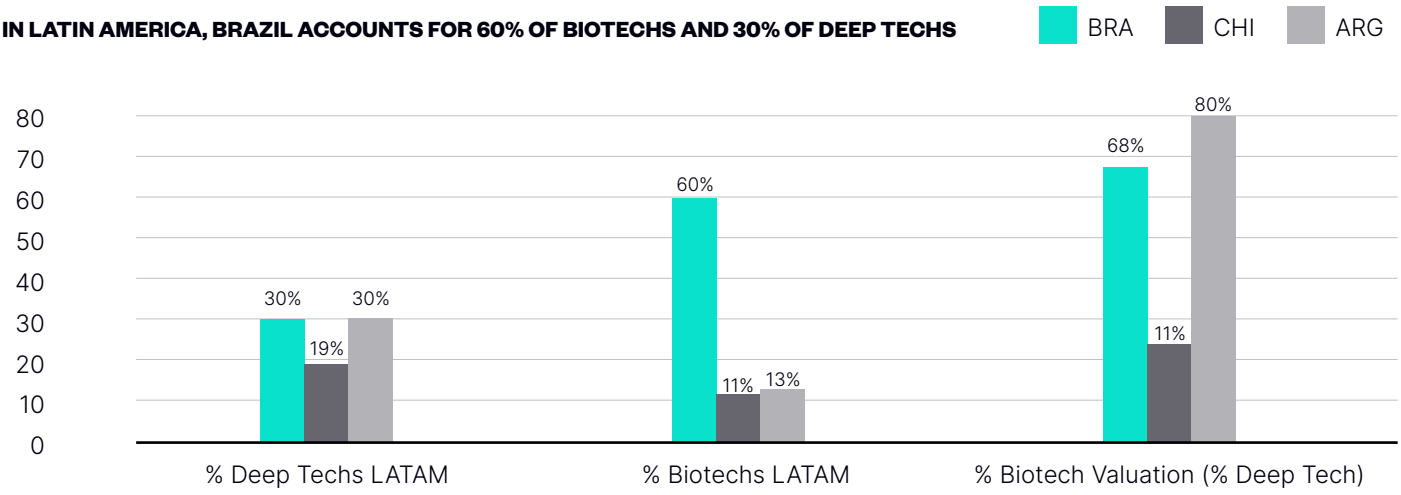
LUCIANO BUENO,
FOUNDER GALY

Biotechs in Brazil

AN EMERGING ECOSYSTEM WITH MUCH ROOM TO GROW

Brazil ranks as the ninth country in terms of the number of biotechs founded, with approximately 350 active biotechs, behind the United States, France, Spain, and others, according to an EY survey.

IN LATIN AMERICA, BRAZIL ACCOUNTS FOR 60% OF BIOTECHS AND 30% OF DEEP TECHS



BID (2023), Sling Hub.

Key National Biotech Hubs

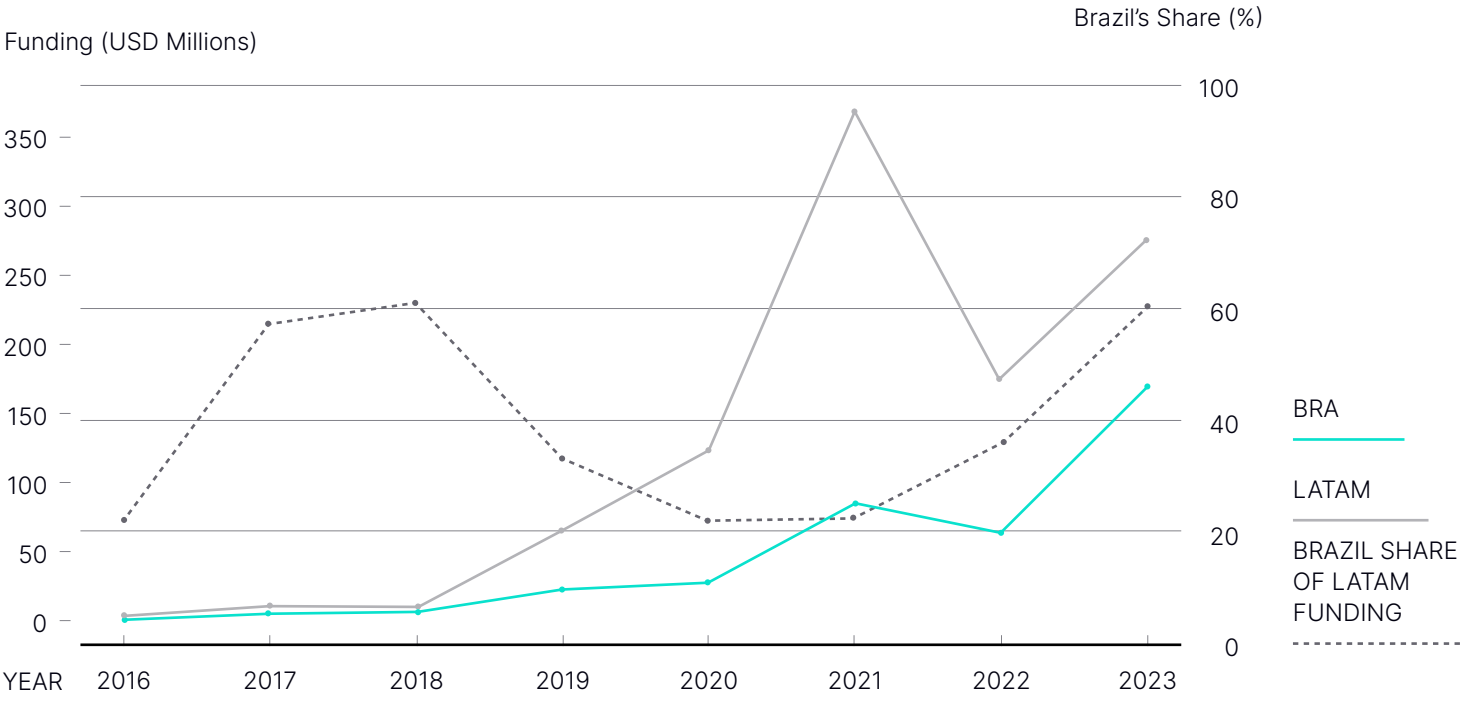
CENTERS OF ADVANCED INFRASTRUCTURE THAT OFFER ACCESS TO LABORATORIES AND STRATEGIC CONNECTIONS

HUB	LOCATION	INSTITUTION	MODEL	CASES
Biominas	Belo Horizonte, MG	Private Institute of Science and Technology (ICT): Venture builder, think tank, and accelerator	Fundraising with investors and corporations	Ophthalmics, Katal Diagnósticos e Vida Diagnósticos
CIETEC	São Paulo, SP	USP/Ipen	Government support and private partnerships	Genera
Eretz.bio (Einstein)	São Paulo, SP	Hospital Israelita Albert Einstein	Partnerships with investors and self-funding	Mirscience
Supera Parque	Ribeirão Preto, SP	USP Ribeirão Preto	Public-private partnerships and academic resources	ByMyCell
Biopark	Toledo, PR	Grupo Prati-Donaduzzi	Private partnerships and self-investments	Portunus
CNPEM	Campinas, SP	MCTI	Public resources and partnerships with companies	PACE, Vyro
IPT	São Paulo, SP	Governo do Estado de São Paulo	Public funding and partnerships with private companies	BIO BREYER, DeepLab - IPT Open
CIMATEC	Salvador, BA	SENAI (Serviço Nacional de Aprendizagem Industrial)	SENAI funding, industry partnerships, and projects funded by development agencies	Puba
CETIQT	Rio de Janeiro, RJ	SENAI (Serviço Nacional de Aprendizagem Industrial)	SENAI funding and partnerships with the private sector	
CBA	Manaus, AM	Zona Franca de Manaus	Federal public funding and partnerships with local industries	
ITAL	Campinas, SP	Governo do Estado de São Paulo	State public funding for agriculture-focused initiatives	Bio in Food

The VC landscape in Brazil and Latin America has been favorable

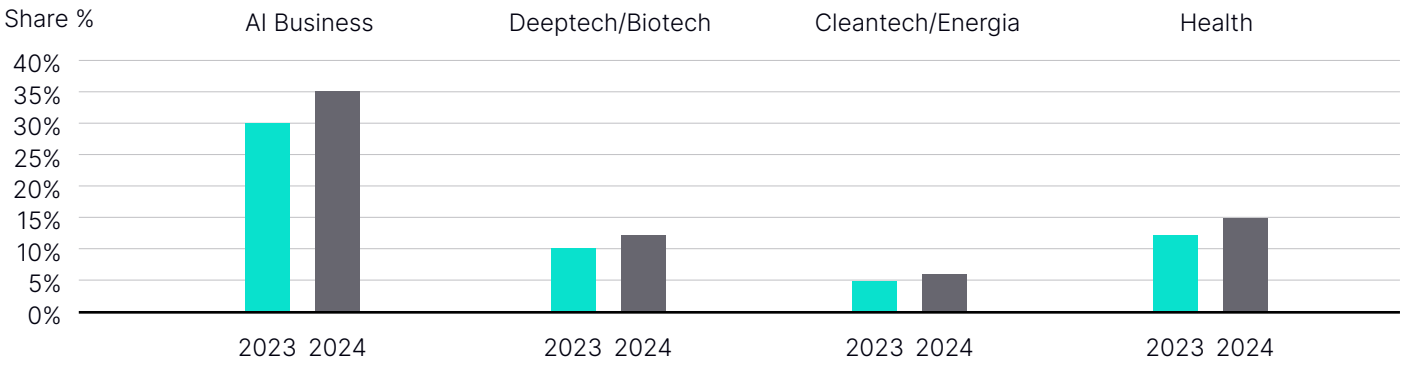
Brazil and Latin America have seen a significant increase in Venture Capital investments in biotech, with Brazil's share reaching over 60% of the region in 2023.

VC INVESTMENTS IN BIOTECH (2016-2023)



Sling Hub; Endeavor analysis.

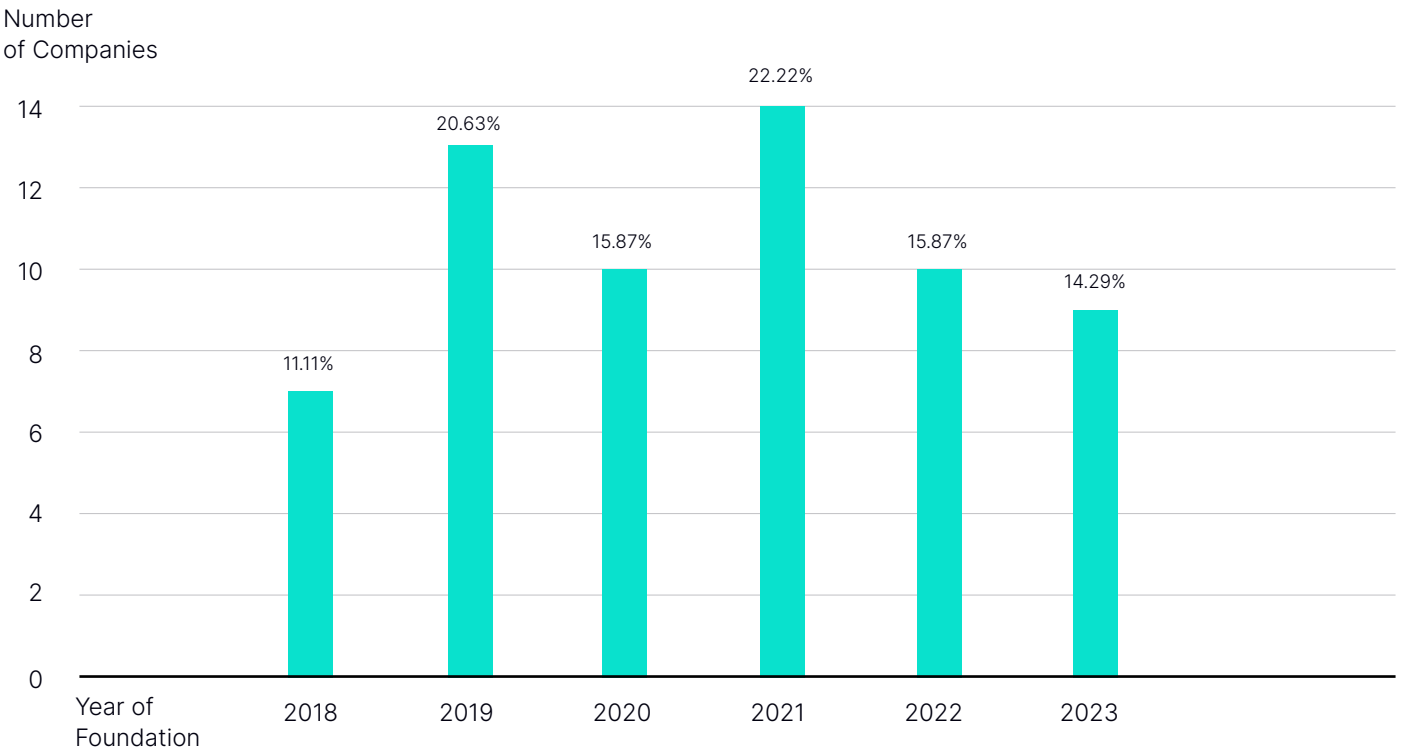
VC INVESTMENTS IN BRAZIL FROM JAN-AUG 2023 VS. 2024 FOR KEY TREND SECTORS



Source: Sling Hub

2021 was the year with the most investments and biotech foundations, followed by a slight decline over the next two years.

BIOTECHS FOUNDED BY BRAZILIANS (2018-2023)



The variation in biotech foundations reflects the trends observed in major markets (the U.S. and Europe), driven by the pandemic. The international biotech sector faced revenue declines in 2023 due to reduced demand for COVID-19 vaccines and high interest rates in the U.S. Over the past year, venture capital investments have remained stable, indicating a cautious investment climate.

The positive trend in Latin America is also attributed to its still-expanding ecosystem, which consists primarily of companies in the early-stage and seed phases, and is less affected by global shocks.

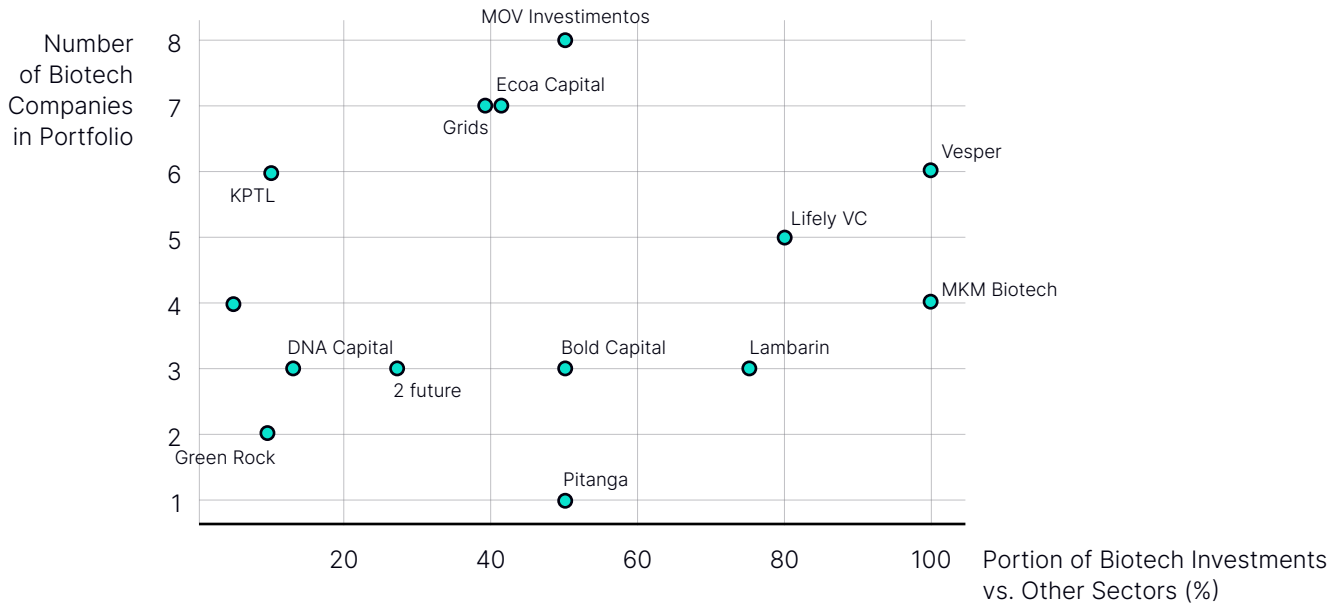
There is venture capital available for pre-seed biotechs in Brazil, but there are few investments beyond Series A.

NUMBER OF VC DEALS

GRANTS	ANGEL	PRE-SEED	SEED	SERIES A	SERIES B
9	2	13	20	3	4

Data from 51 companies mapped on Sling Hub and Crunchbase.

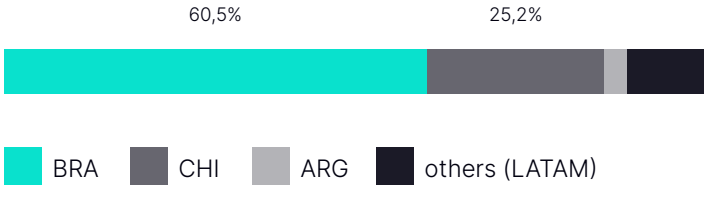
BRAZILIAN BIOTECH FUNDS



Crunchbase, Endeavor Brasil.

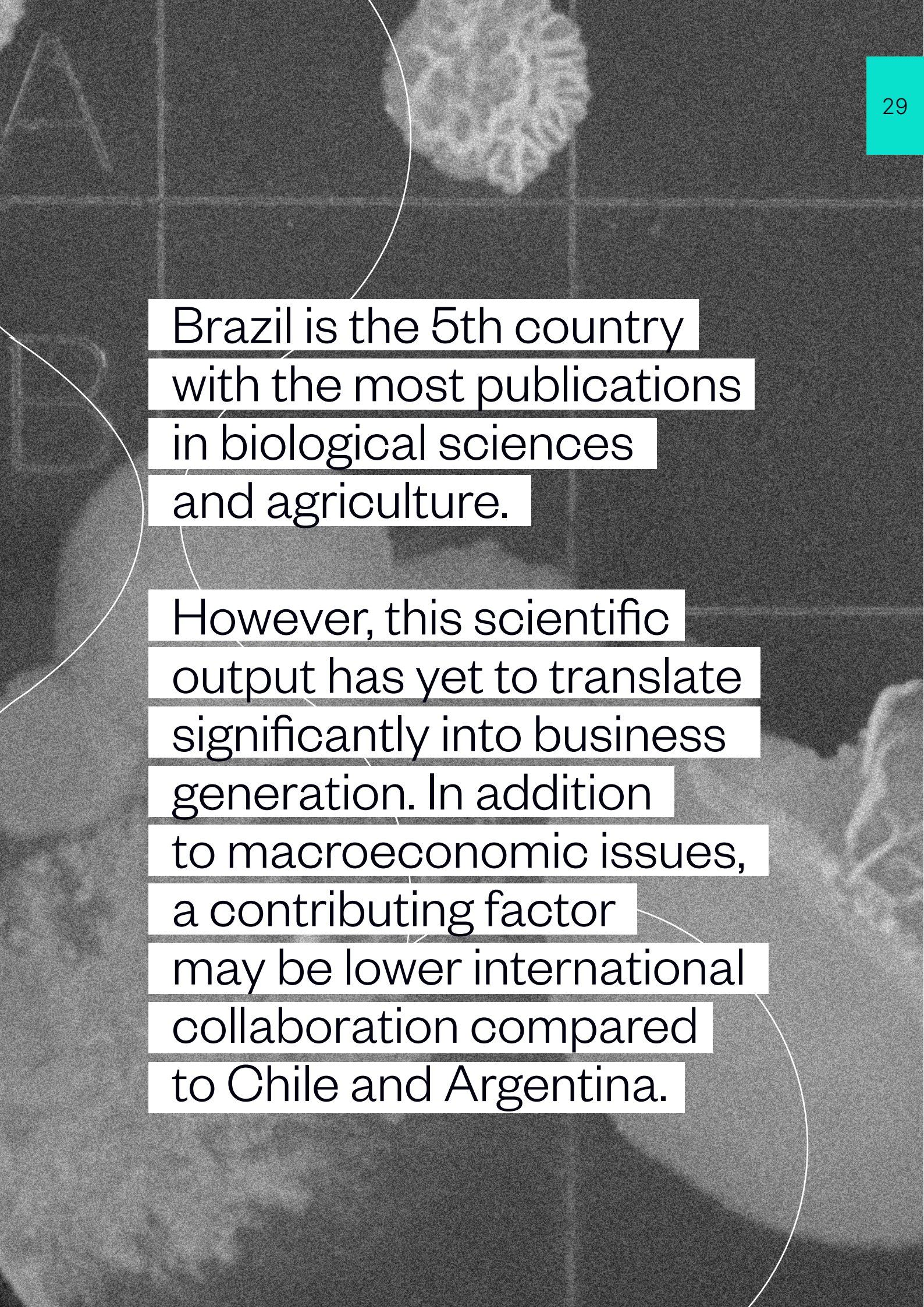
Brazil is the largest VC market in Latin America, concentrating 60% of all capital for biotechs.

CONCENTRATION OF VC IN BIOTECH, 2023



Fonte: Sling Hub

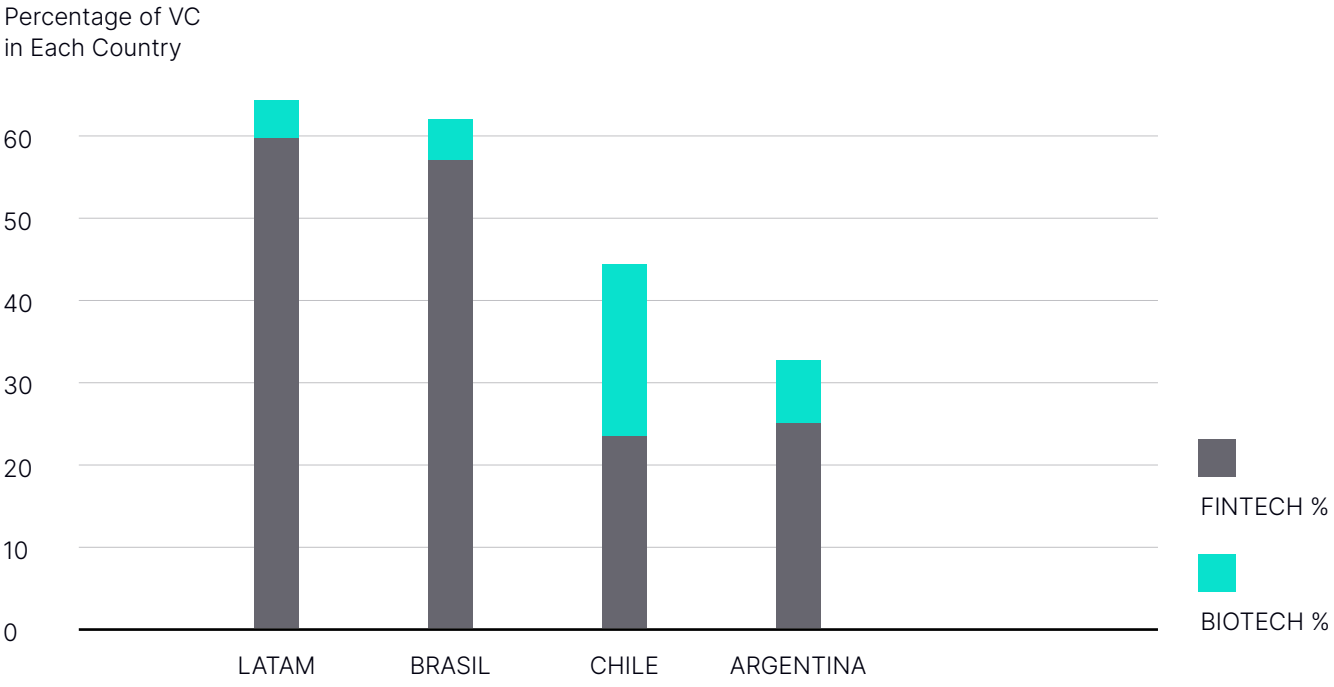
However, proportionally, biotechs still receive a small share of VC investment in Brazil compared to other sectors: they represent only 4.8% of total investment, versus 20% in Chile and 7.5% in Argentina.



Brazil is the 5th country with the most publications in biological sciences and agriculture.

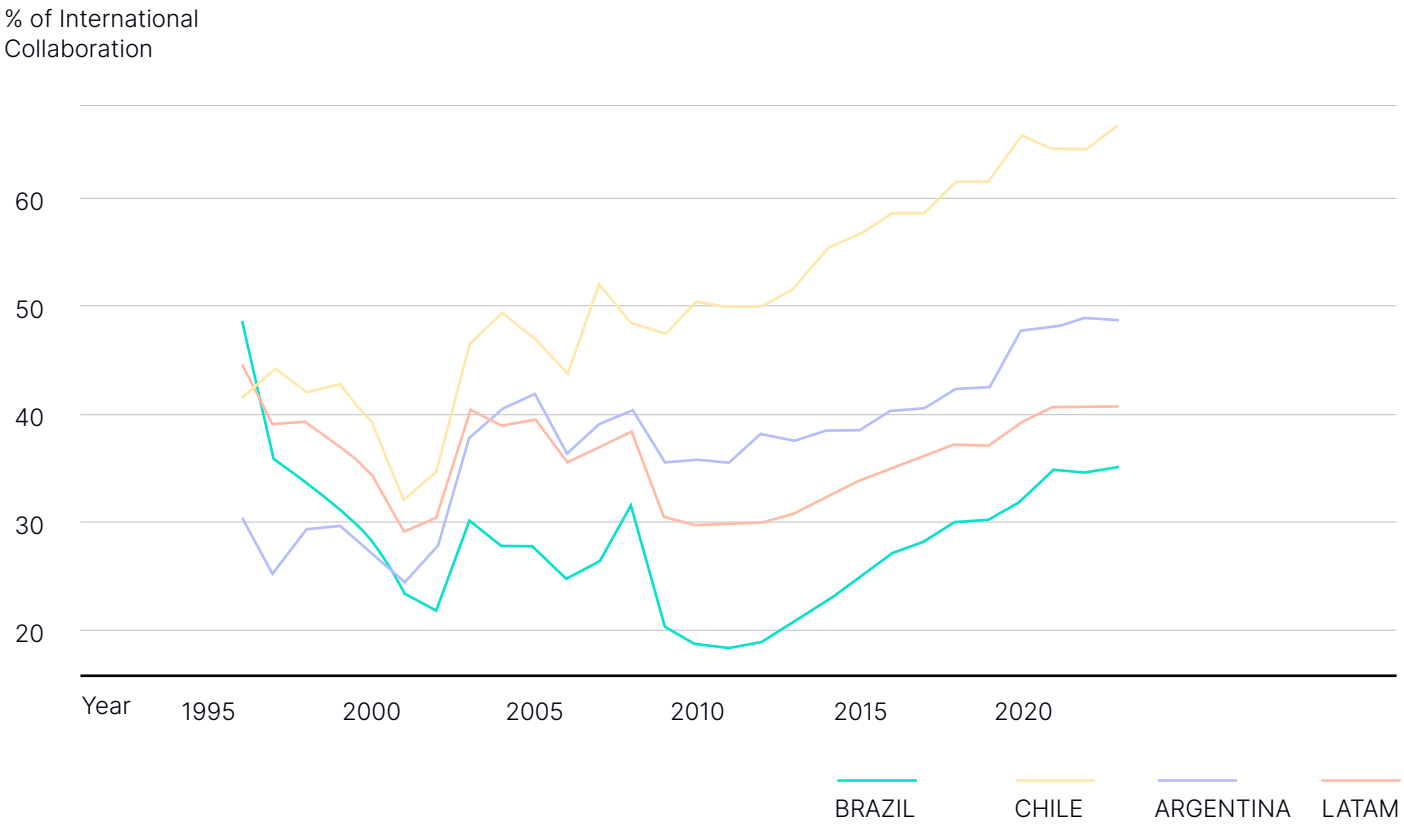
However, this scientific output has yet to translate significantly into business generation. In addition to macroeconomic issues, a contributing factor may be lower international collaboration compared to Chile and Argentina.

REPRESENTATION OF FINTECH AND BIOTECH IN VC INVESTMENT BY COUNTRY (2023)



Sling Hub data, Endeavor analysis

INTERNATIONAL COLLABORATION IN AGRICULTURAL AND BIOLOGICAL SCIENCES PUBLICATIONS (1996-2023)



Source: SCIMago

"The Brazilian ecosystem has successfully leveraged the digital startup model with a local market focus; however, there is still significant untapped potential in areas such as biotechnology and deep tech, which require greater technological innovation and global strategies. Proportionally, Chile and Argentina have taken the lead because they have accelerators focused on these sectors, and entrepreneurs are compelled to build global businesses from the start due to the smaller size of their local markets."

IGNACIO PEÑA,
AIR CAPITAL

"Brazil has great potential in any market due to its larger population and more dynamic economy. However, when considering the three essential pillars for a biotech ecosystem, there is still room for a stronger market mindset within the scientific community and a more robust venture capital ecosystem. Argentina and Chile have established incubators in Buenos Aires, Rosario, and Santiago that have fostered ecosystem development—Brazil has the opportunity to do the same by investing in more scientific-business hubs."

PABLO SOLA,
EY

"When I hosted a former academic advisor in the lab, he remarked, 'You have produced more physical products (not publications) here in four to five years of work than I have in thirty years at the university.' Academics still focus heavily on publications, with little attention to practical applications. I do not simply want to produce fungi; I want to create a real product that people use—one that impacts their daily lives."

EDUARDO SYDNEY,
CO-FOUNDER MUSH, MUUSH E TYPCAL

Opportunities for the Evolution of the Biotech Ecosystem in Brazil

Experts interviewed by Endeavor highlight 5 key levers:

1. Direct the ecosystem's vision toward frontier technologies

CHALLENGES	VS	OPPORTUNITIES
• The prevalent startup model in Brazil is still focused on "softech" verticals that serve the local market. Investments in deep tech require a different analysis of fundamentals and expectations from investors. • Founders are still focused on Brazil-based issues rather than global challenges—e.g., the majority of unicorns are still targeting the local market. • Despite fiscal incentives since 2005, private initiatives represent only half of the investments in R&D and the training of qualified professionals—there is still hesitancy around the risks inherent in research investments.		• Raise awareness of Brazilian founders and success stories, encouraging more serial entrepreneurs to engage in this ecosystem. • Greater government involvement by proposing connections with matching funds, accelerators, and early-stage VCs. • Increase private R&D investment, such as through Corporate Venture Capital or corporate laboratories, to foster engagement between corporations and Brazil's emerging biotech ecosystem.

"We Brazilians still lack patience. There is an intolerance for risk, stemming from a fundamental lack of understanding due to the scarcity of theses in the sector. If someone wishes to start a biotech company and remain in the field for two to three years, I do not recommend venturing into this area. From the investor's perspective, one should expect to wait five to seven years to see the benefits of what has been initiated."

SÉRGIO PINTO,
CELLVA

2. Bring academic researchers closer to the entrepreneurial ecosystem

CHALLENGES	OPPORTUNITIES
• Researchers still struggle to apply their research and access the market	• Strengthen connections between early-stage investors and venture builders
• Despite the large volume of academic output, universities still face a culture centered around careers within the same departments, lacking practical application and market impact. There are few significant examples of entrepreneurs who transitioned from academia.	• Revise career plans in universities and create metrics that stimulate innovation and entrepreneurship
	• Enhance university entrepreneurship curricula, focusing on empowering scientists
	• Foster global connections between universities, amplifying innovation outcomes from these collaborations
	• Better implementation of Brazil's legal framework with qualified personnel and research centers, professionalizing technology transfer.

VS

"he culture of innovation and entrepreneurship is evolving at major universities. Every researcher is, in some way, an entrepreneur. We need to secure funding—it is not simply pitching to a VC, but rather to FAPESP, and we must build a team. However, there is still some resistance. When I founded gen-t, a university colleague said to me, 'So now you have decided to become a businesswoman; what a shame."

LYGIA PEREIRA,
GEN-T

"Changes in the academic environment are very recent—occurring within the last five years. We need more researchers to challenge themselves to create businesses beyond publishing papers. This will generate demand for more venture capitalists and venture builders. Chile, for example, has incubator programs in Israel; Harvard and MIT were already discussing university startups in the 1990s. Brazil does not have that yet."

PAULO SCHOR,
FAPESP

3. Strengthen public funding, crucial for pre-seed stage projects

CHALLENGES

- In Brazil, the public programs still focus on low-ticket funding that does not meet the R&D and laboratory setup needs.
- Given the maturity of the Brazilian ecosystem, still, 30% of biotechs depend on some form of public funding, and 18.26% rely on corporate investment.
- Brazil's R&D investment is only 1.21% of GDP, compared to 2.23% in China and 3.07% in the U.S.

VS

OPPORTUNITIES

- Strengthening and continuing public programs such as MCTI, Centelha (FINEP), Catalisa (SEBRAE), PIPE (Fapesp), and EMBRAPII.
- Revising guarantees for SMEs in FINEP's investment model

"Biotechs are often underfunded because they develop technologies that require substantial investments and cannot provide the necessary guarantees, as many of them do not meet the institutional maturity standards, like traditional SMEs, required by development agencies. On the other hand, we still observe low engagement from traditional companies in government grants for radical innovation. As a result, the government will increasingly need to explore new ways to support biotechs."

THIAGO MORAES
MINISTRY OF SCIENCE AND TECHNOLOGY

4. Speed up patent approvals and promote legal security

CHALLENGES	OPPORTUNITIES
• 70% of deep tech initiatives generate patents. However, the National Institute of Industrial Property (INPI) currently has 115,000 pending patent requests. By law, INPI can only process these requests after a user submission, which can take up to 36 months. • The national agency (ANVISA) is still unable to prioritize the evaluation of innovative products.	• Review the voluntary submission process at INPI and strengthen the institute's staff to meet the current demand. • Implement the 2023-2025 Action Plan of the National Intellectual Property Strategy (ENPI). • Modernize and streamline ANVISA's operations by increasing its workforce.

VS

5. Expand access to infrastructure, laboratories, and supplies

CHALLENGES	OPPORTUNITIES
• Brazil still lacks a multi-user Open Lab structure. Despite their high impact, these labs struggle to become profitable, as seen with Biotechtown in Nova Lima (MG), which shut down. • University facilities in Brazil are often not adequately maintained. Additionally, there is resistance to the idea of sharing resources with third parties. • High bureaucracy in Brazilian science, with complex administrative tasks.	• Facilitate the importation of supplies. • Promote initiatives like Biotimize, Supera, and the pilot production lot opened by Unesp, which offer Multi-User Equipment (EMU). • Create a step-by-step guide from authorities (AGU) to help research centers share their laboratories. • Foster collaboration between the government and the ecosystem to establish Brazil's first Open Lab, using Lab Central in Cambridge and Loci Labs in Buenos Aires as benchmarks.

VS

Methodology

DATA COLLECTION FROM THE SAMPLE

BIOTECHS

We mapped 94 "biotech" companies using the following sources:

- **Sling Hub:** companies based in Latin America;
- **Crunchbase**: companies based anywhere in the world;
- **Healthcare Biotech Guide:** mapping conducted by Sindusfarma and Biominas;
- **Endeavor Portfolio**: companies supported by Endeavor in the Scale-up and Endeavor Entrepreneurs programs
- **Portfolios:** companies invested in or supported by Brazilian venture capital funds and venture builders.

Inclusion criteria for mapping:

- Technology-based company with a business model strongly focused on research and development (R&D) in a biotech area;
- Entrepreneurial company, i.e., founded by individuals, excluding companies exclusively started by public initiatives or established corporations;
- Company founded, co-founded, or led by a Brazilian (CEO);
- Active company, with evidence of ongoing operations.

Mapped data:

- **Year of foundation;**
- **Market segment:** life sciences, agriculture, or materials;
- **Headquarters** (country and state);
- **Funding:** Total capital raised to date and stage of the last public round — grants, angel, pre-seed, seed, Series A, or Series B (Sling Hub and Crunchbase). Of the 94 companies mapped, 52 have publicly available data on the stage of their last round, with 45 providing the total amount raised, in dollars.

FOUNDERS

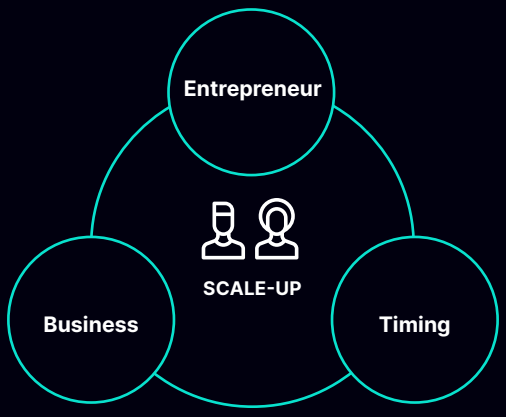
We mapped the profiles and trajectories of 135 founders, co-founders, and Brazilian CEOs of the 94 biotechs. Through publicly available information on LinkedIn and Currículo Lattes, we collected the following data:

- **Professional experience:** whether the founder studied or worked abroad, in which country, at which institutions they previously worked, whether they have worked in a scale-up or startup, and whether they have previously founded a business.
- **Academic experience:** level of education, institutions attended, and field of study.
- **International experience:** For the purposes of the analysis, we only considered founders with a sufficient set of available professional and academic information.

ANALYSIS

To further analyze the founders' trajectories and business performance, we categorized founders into three profiles:

i) Academic: founder com experiência exclusiva na academia, ou tendo assumido apenas posições executivas estritamente técnicas.
ii) Market: founder with exclusive experience in the private sector, without a technical or scientific background.
iii) Mixed: founder with experiences in both academia and the market.



We analyzed the Brazilian biotech ecosystem using the framework adopted by Endeavor in the 42 markets where it operates, focusing on three pillars:

the entrepreneur, the business, and timing.

QUALITATIVE INSIGHTS

We conducted semi-structured interviews with more than 30 founders, investors, and biotech experts from Brazil and around the world. In these interviews, we addressed questions regarding the ecosystem vision, characteristics, and growth challenges of biotech companies.

LIMITATIONS

As we analyzed primary data from LinkedIn, Crunchbase, and Sling Hub, voluntarily provided by founders and investors, we are subject to potential data omissions on these platforms.

CONFIDENTIALITY

The data collected is accessible only to Endeavor and its research partners.

We conduct independent and fact-based research and analysis, with results shared publicly and free of charge. While Endeavor Insights engages various organizations and external experts to contribute to our work, the analyses presented in our publications are solely our responsibility.

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About Endeavor

Endeavor is the leading global community of, by, and for High-Impact Entrepreneurs — those who dream bigger, scale faster, and pay it forward. Driven by our belief that High-Impact Entrepreneurs transform economies, Endeavor is on a mission to build thriving entrepreneurial ecosystems in emerging and underserved markets around the world.

Endeavor creates a **Multiplier Effect** by inspiring high-growth founders to dream bigger, supporting and investing in them to scale faster, and providing a platform to pay it forward — thereby compounding their individual impact.

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