



A BRIDGE TO THE FUTURE

HOW THE RISE OF THE MIAMI STARTUP ECOSYSTEM
CAN BECOME A PLATFORM TO TRANSFORM THE AMERICAS

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The report in numbers

Miami is rising

2nd

fastest growing US startup ecosystem

The opportunity for a bridge

3-10x

cost differentials between US and LAC-based talent

Miami is valuable for LAC

>5

new satellite ecosystems in CAC by 2030

LAC is valuable for Miami

>100x

larger university student pool in LAC than in Miami

Welcome to LAC

1st

Miami position in the extended LAC area by number of startups

>\$3B

expected VC investment in 2021

48x

greater VC per capita availability in the US than LAC

>\$30B

annual LAC VC investment by 2030

4x

average value of Miami vs. LAC early stage startups

3rd

highest ecosystem value after Sao Paulo and Buenos Aires in 2021

>\$20B

potential VC investment in 2030

>\$2T

value creation potential in LAC ecosystem by 2030

\$100B

knowledge services export opportunity by 2030

8x

higher valuations for Miami startups with international footprint

Top 2

leading VC ecosystem in the extended LAC area by 2030

Executive Summary

This study analyzes the rise of the Greater Miami¹ startup ecosystem and the opportunities for mutual benefit generated by building a stronger connection with the innovation ecosystems of Latin America and the Caribbean (LAC).

The exponential technology revolution and the LAC startup ecosystem boom creates a massive opportunity to build a talent-driven network of startup and knowledge ecosystems that could generate trillions of dollars in value and millions of jobs, while igniting the industries of the future across the Hemisphere. The recent rise of the Miami area's innovation ecosystem opens the possibility to unleash value and growth through building a bridge that connects ecosystems across the Americas.

Miami's startup environment is one of the fastest growing ecosystems in the US, with a venture capital activity growing sixfold since 2015. The ecosystem is young, but already has a full set of players, including 481 startups that raised over \$1M and some major funds active in LAC such as Softbank and Riverwood Capital. The growth has accelerated since the COVID outbreak. Policymakers are visibly and aggressively pursuing the ecosystem's development. The city is attracting founders, tech talent, funds and startups.

There is a solid rationale for building a stronger connection between the US and LAC's ecosystems -- the US is the largest venture capital market in the world, and LAC's ecosystem value has skyrocketed from \$7B in 2010 to \$309B in 2021. Plus, the region presents low venture capital penetration and attractive valuations, leaving room for arbitrage. LAC-based talent is also 3-10 times less expensive than US-based talent

1. In this report, we use the term Miami to refer to the Greater Miami area, as defined by the U.S. Census Bureau's Miami-Port Saint Lucie-Fort Lauderdale, FL Combined Statistical Area (CSA)

(partly due to differences in the cost of living), creating an opportunity to leverage remote teams and export knowledge-based services. There is also an opportunity to connect US know-how in building startups and ecosystems with LAC's ingenuity, as well as connecting US entrepreneurs with know-how on how to operate in LAC markets. Miami is well positioned to become a bridge that connects the Americas because of its proximity, connectivity and culture links with LAC. Currently, the links are weaker than what could be expected, but the rationale for them exists.

LAC could leverage Miami as a platform to activate new growth engines. We highlight four large areas of opportunity:

1. Activating over 5 new startup ecosystems in Central America and the Caribbean (CAC) and catalyzing the potential for an additional \$20B of annual knowledge-based exports.
2. Continuing to accelerate the growth of LAC's venture capital (VC) market, which could mobilize well over \$30B per year by 2030.
3. Activating LAC's Deep Tech ecosystem (particularly in Healthtech and Biotech), which has turned out five startups worth more than \$500M with minimal capital inputs. This could create over \$100B of value by 2030, indirectly activating private sector R&D, which could bring an additional growth of 0.5% to 1.0% of GDP to the region by the same year.
4. Accelerating the growth of LAC's knowledge-based services exports, which stand at \$42B a year (2020) and could increase by an additional \$100B a year by 2030.

Miami could benefit on multiple levels from strengthening its LAC orientation. Miami venture capital activity is 34 times smaller than Silicon Valley's and the ecosystem is much weaker than its larger peers. The city needs a competitive edge to sustain its growth and realize its potential, and the booming LAC ecosystem fits perfectly with the city's needs and capabilities. The region is on track to create over \$2T of value by 2030, and its market of 650 million people provides an attractive setting for internationalization and superior value creation. Besides, Miami could also attract funds and companies seeking opportunities in the region that will also invest in local startups. LAC-based talent offers a cost advantage to Miami startups, and the city could draw on more than one million LAC researchers and 29 million LAC-based university students to compensate for its competitive weakness in higher education and R&D.

Nowadays, Miami is the largest ecosystem in the greater LAC area in number of startups and accumulated capital raised. However, it is significantly behind Sao Paulo and Buenos Aires in terms of value creation. Miami generated \$55B of ecosystem value, while Buenos Aires created \$119B and Sao Paulo \$107B, mostly due to the success of giants like MercadoLibre and Nubank, which still find no match in the Magic City. Part of this gap could be explained by the low level of internationalization of Miami startups. Looking into the future, if Miami capitalizes on its LAC connection, the city could become, in concert with Sao Paulo, one of the top two largest ecosystems in the region by 2030.

MIAMI: A RISING INNOVATION ECOSYSTEM

MIAMI IS RISING





Miami has quickly developed a significant startup scene. The extended city features a full ecosystem with 481 startups that raised more than \$1M and collectively created \$55B in value, while providing jobs to nearly 90,000 people. The city also has dozens of venture capital funds, accelerators, company builders, universities, co-working spaces and powerful NGOs with focus on innovation.

It is a very young ecosystem, with 73% of its startups founded after 2010, but one showing an accelerated growth trajectory and on track to invest \$3.2B in 2021. Since 2015, venture capital deal value has grown at a 36% CAGR (Compound Annual Growth Rate), multiplying by more than 6 times in 6 years. The city is actively attracting entrepreneurs, tech talent and large venture funds, such as Softbank and Founders Fund. The sectors with the highest startup concentrations are healthtech, fintech and biotech.

Miami's take-off is the result of the sustained work of a diverse community of actors (entrepreneurs, investors, NGOs, lawyers, policymakers, etc.), the rise of remote working due to the COVID-19 pandemic, lower taxes and cost of living, an attractive quality of life, pro-tech policymakers, the accelerated growth of the LAC startup ecosystem, and other factors. Policymakers, most prominently Mayor Francis Suarez, are putting technology high up on their agendas, spreading its awareness, eliminating obstacles and creating a friendly environment.

Miami could mobilize up to \$25B of annual VC investments by 2030. This growth would be consistent with the evolution of the ecosystems of New York and Los Angeles in the past decade and would be achievable even with a slower growth rate than in previous years. We believe that this growth is possible due to Miami's structural advantages, the acceleration of the technology revolution, and the opportunity to build a stronger connection with LAC's booming startup ecosystem.

Miami is one of the fastest growing VC hotspots in the US

In the course of the years since 2015, Miami was the second fastest growing startup ecosystem in terms of venture capital investments (deal value) among the large metropolitan areas after Philadelphia.

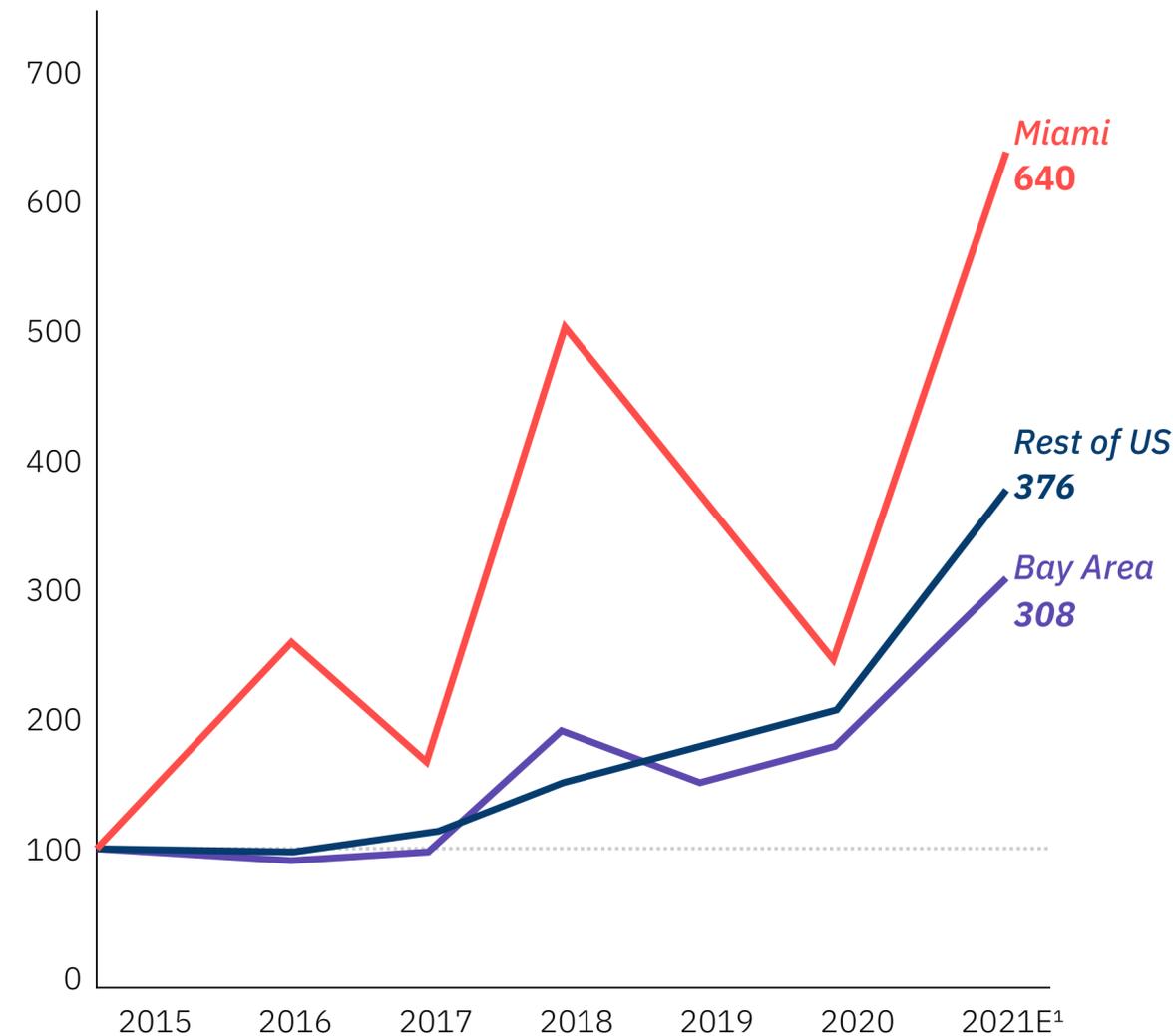
During this relatively short period, Miami's ecosystem multiplied by 6.4, growing at a CAGR (Compound Annual Growth Rate) of 36%. Miami more than doubled the growth rate of Silicon Valley (3.1x growth) and grew almost twice as fast as the rest of the US (3.8x growth).

Miami is also growing faster than most of the metropolitan areas in the same size segment including Chicago, Seattle, Washington DC, Denver and Austin, yet they remain larger.

Miami's growth rate accelerated in late 2020 and early 2021. Its quality of life, low tax rates, competitive cost of living and tech-friendly political leaders attracted a wave of entrepreneurs, coders and venture capitals. The mindset switched from *Why?* to *Why Not?* Today, visitors immediately notice the feverish atmosphere and the high expectations for the future.

VC investment evolution in Miami, Bay Area and rest of US (by CSA)

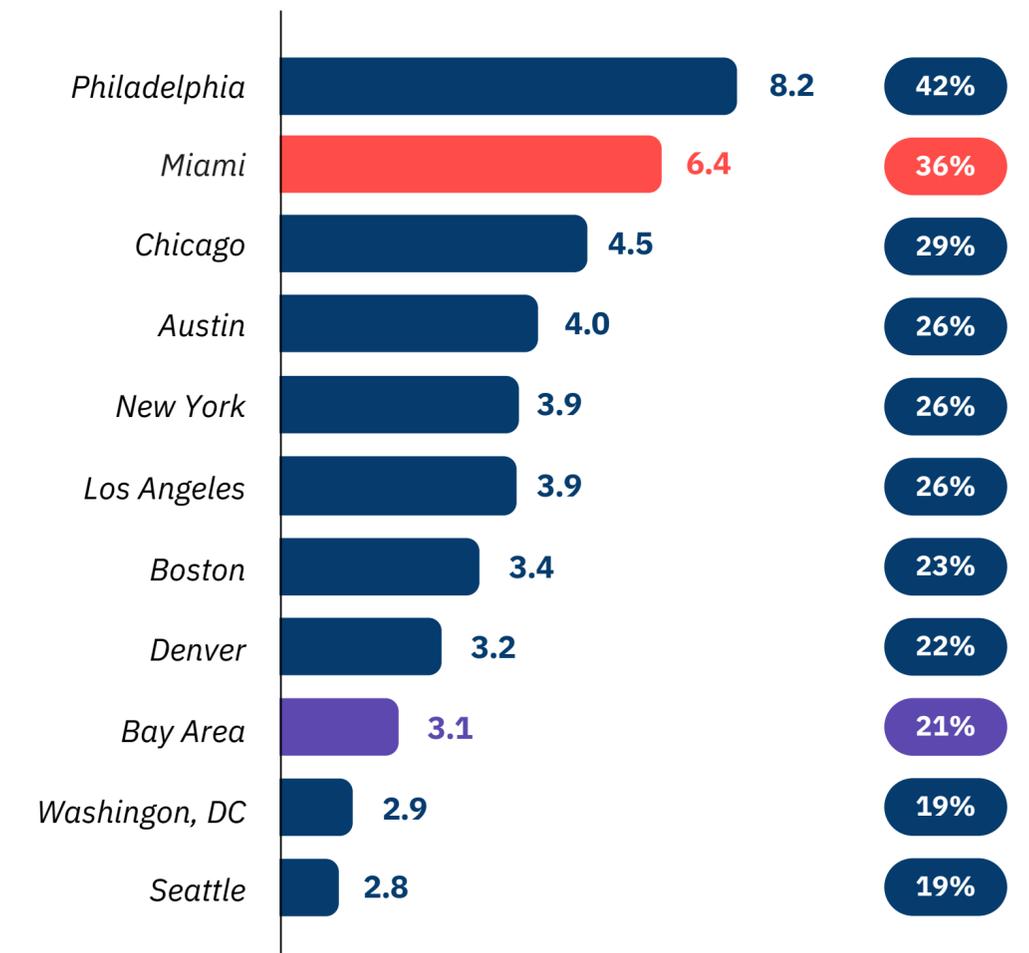
Index
(2015 base 100)



VC investment growth for top Metropolitan regions since 2015 (by CSA)

VC annual investment growth (x)

2015-21 CAGR (%)



1. Estimated value for 2021 based on data for first three quarters of the year
Source: Pitchbook, Surfing Tsunamis

Miami and Florida are attracting talent from other hubs

The COVID pandemic sparked a domestic migration wave of talent, ranging from workers to entrepreneurs to investors, when the lockdown was ordered and companies began to implement remote work. Talented people departed from the more restrictive and expensive locations such as New York and San Francisco to places that provided a better quality of life with more flexible restrictions, like Miami or Austin.

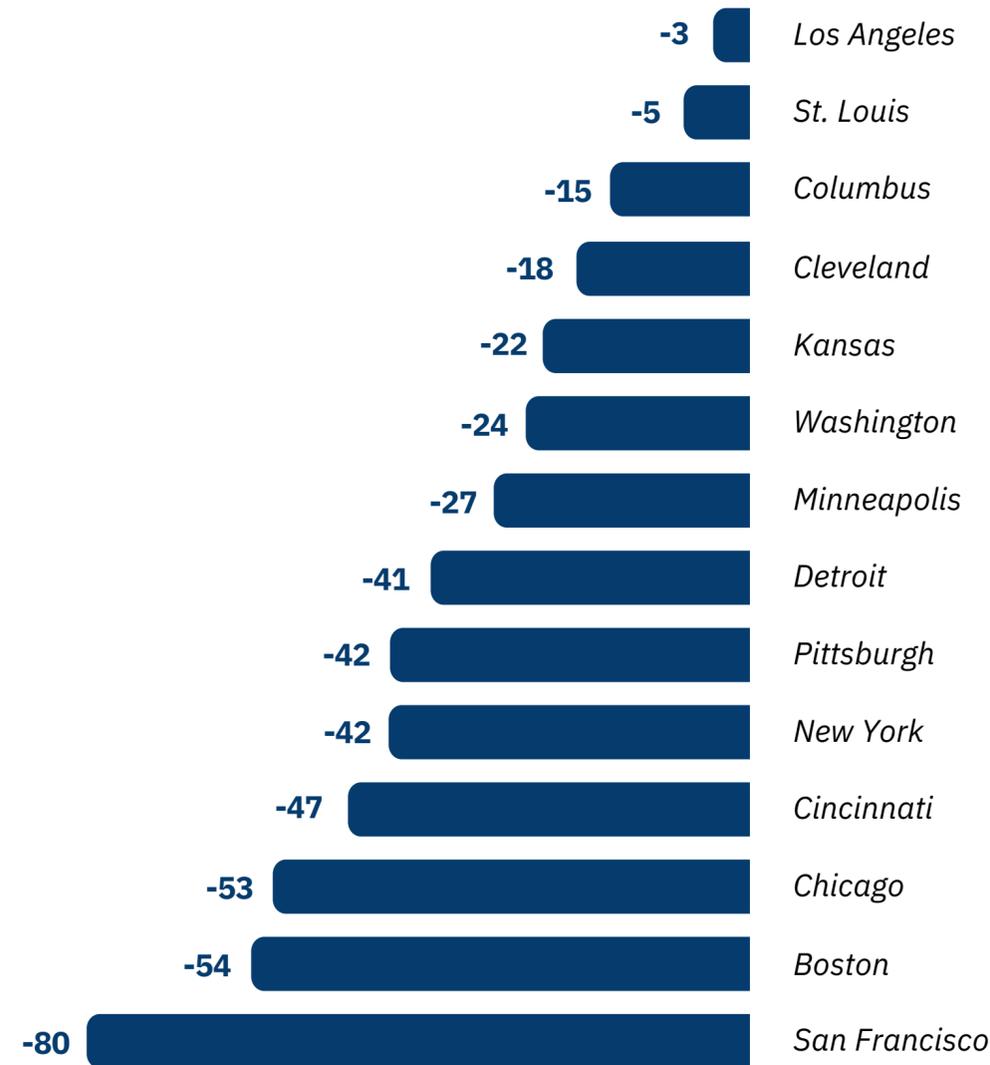
This can be seen in a recent study published by Bloomberg with LinkedIn data that shows how cities like Miami, Orlando, Tampa Bay and Austin attracted tech workers while San Francisco, Boston, Chicago and New York lost them.

Initially, the move was seen as temporary; however, once on site, the newcomers appreciated the advantages of these localities and began to consider the possibility of staying.

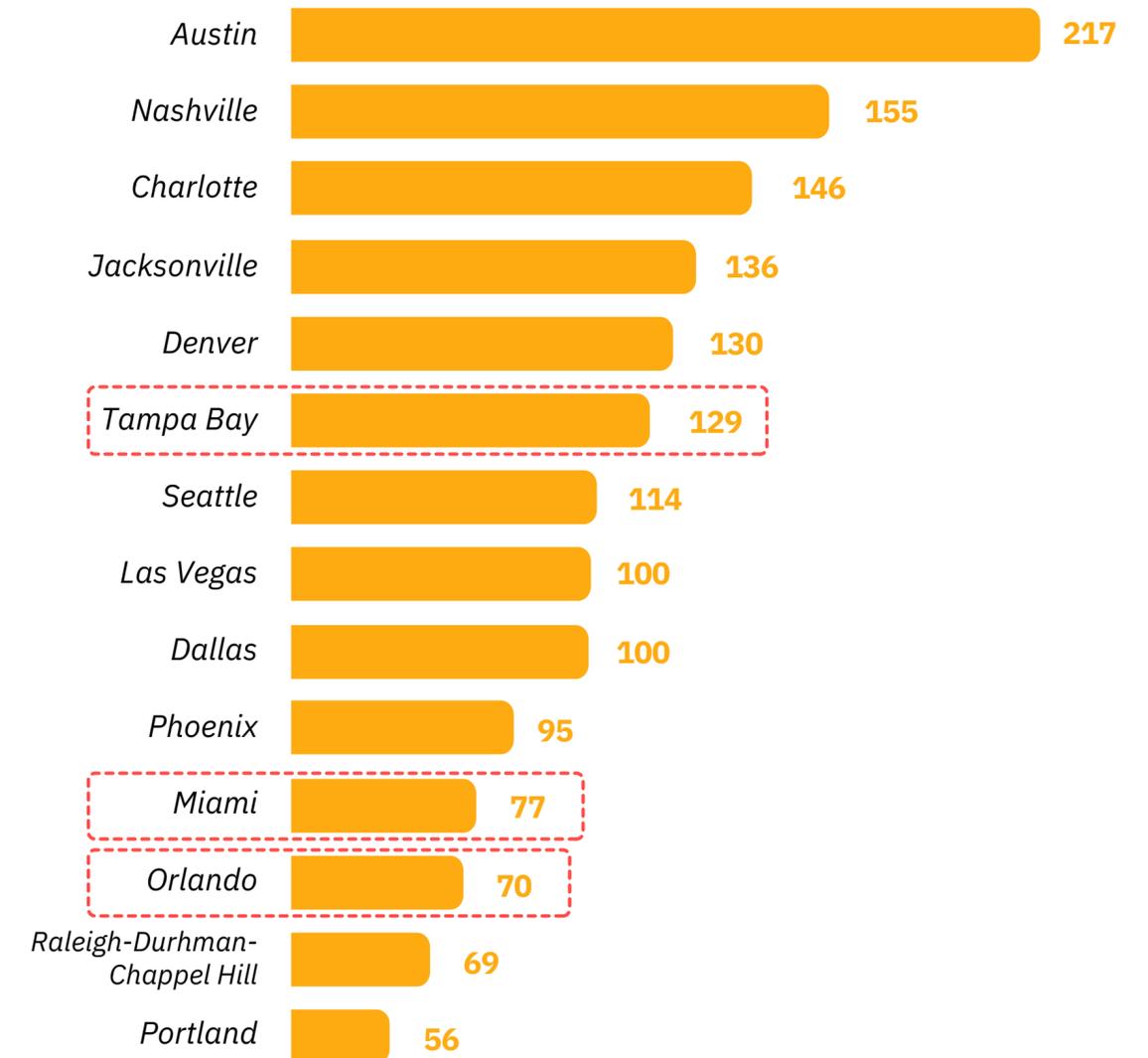
Accelerated growth is weaving a new social fabric. Much like in a gold rush, new people come to the city every week and are welcomed. Traditional players sometimes struggle to keep up with the pace of change. But there is a shared sense that something big is happening and that this is a time of opportunity.

Outflows of tech workers per 10,000 LinkedIn users

Tech workers flow per 10,000 LinkedIn users (#)



Inflows of tech workers per 10,000 LinkedIn users



Source: Bloomberg, LinkedIn, Surfing Tsunamis

Top tier funds are setting shop in Miami

Miami has always been an active financial center, with a strong presence of family offices and private banks.

Nowadays, it is becoming a fast-growing venture capital center. Dozens of venture capital funds have offices or headquarters in the city. In the past three years, Miami has attracted and generated more than 20 venture capital funds.

The most evident for LAC has been the arrival of Softbank. Its Latin American operations are managed from Miami. The Latin American first fund poured \$5B into the region, achieving a 62% net equity rate of return as of March 2021, and had a major effect on the regional venture capital market. In mid-2021, the firm launched a second \$3-5B fund for the region.

The arrival of Founders Fund in 2020 was also an important event for the ecosystem, and the recent arrival of Riverwood Capital, a premier growth capital fund behind major LAC success stories such as Globant, further consolidates Miami as a strategic venture capital source for the region.

Funds that arrived to Miami in the last 3 years



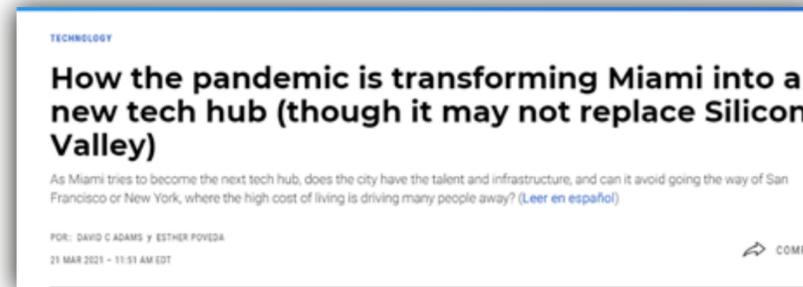
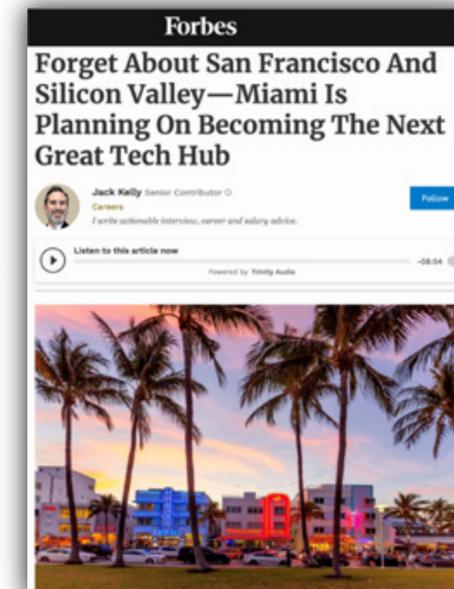
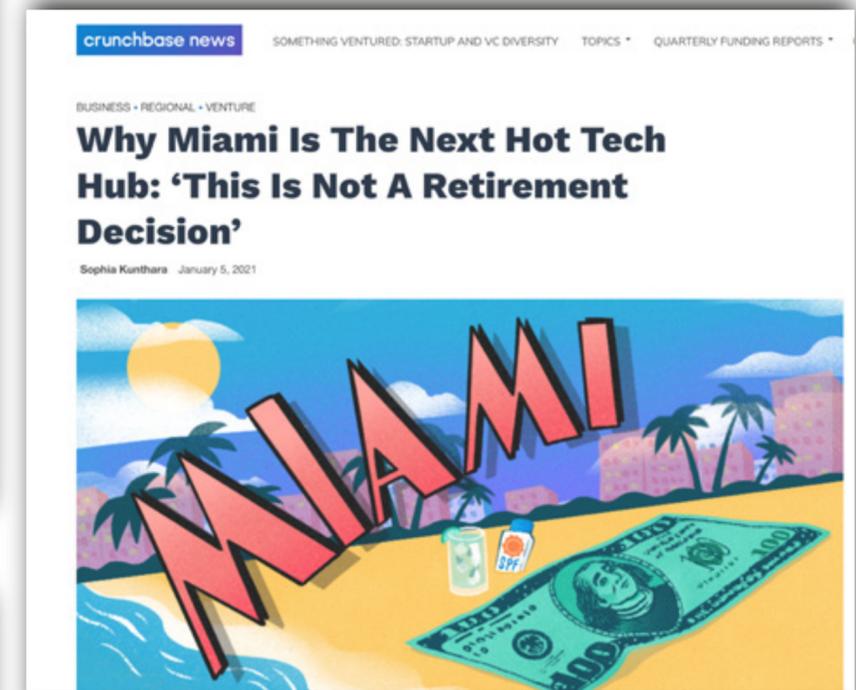
Miami is gaining press attention

Miami’s accelerated growth, coupled with major promotion moves by Mayor Suarez and others, have provided significant press coverage to the city in business media, and contributed to position the ecosystem as a rising star and a new contender in the US startup scene.

There is a certain level of hype that goes beyond facts. Yet, the strategic value of having and sharing a positive, upbeat and committed vision for the future should not be discounted. Fortunately, press coverage contributes in spreading the word that something interesting is happening in Miami, and provides free advertising, builds brand equity and allows people to consider the city as an option.

Policymakers and business leaders in LAC should take note and consider the possibility of replicating some to these actions.

Selected press reports



Today Miami has a significant startup ecosystem

The Miami area has almost 7 million inhabitants, 43% of them Latinos who came to its shores over the past decades. The city is an affluent and diverse metropolitan locality that stretches from the south of Miami to Palm Beach.

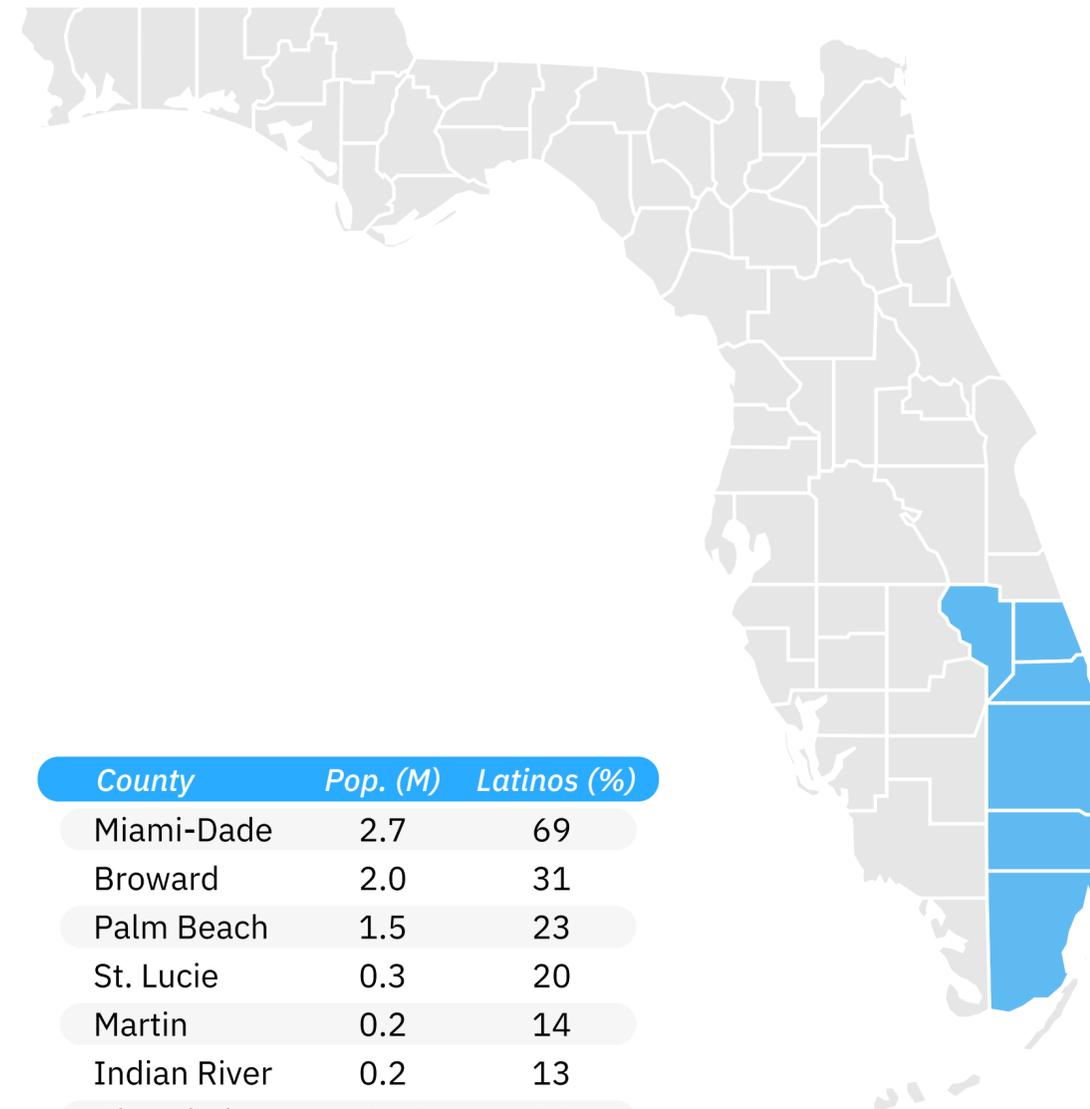
The city typically elicits visions of beaches, shopping malls and entertainment. Nevertheless, in the course of the past decade, a committed group of entrepreneurs, investors, policy makers and NGOs have systematically been working to transform the Miami area into a thriving startup ecosystem.

And their endeavors are bearing fruit -- Miami is already home to 481 startups that raised over \$1M each, and have collectively created \$55B in value, as well as 90,000 jobs.

The majority of these startups (73%) were founded since 2010.

Moreover, Miami is starting to attract native LAC startup founders. We have identified 20 TecnoLatinas² with HQs in the city.

Miami area ecosystem overview



County	Pop. (M)	Latinos (%)
Miami-Dade	2.7	69
Broward	2.0	31
Palm Beach	1.5	23
St. Lucie	0.3	20
Martin	0.2	14
Indian River	0.2	13
Okeechobee	0.04	26
Total	6.9	43

481
startups¹

73%
of startups founded since 2010

\$55B
value generated

113
startups with Latin founders

20
TecnoLatinas²

90K
employees

1. For the purposes of this study, we considered startups that raised more than \$1M of capital
 2. "TecnoLatinas" considers startups founded in LAC and with market operations in the region
 Source: Pitchbook, Crunchbase, LinkedIn, Articles, Surfing Tsunamis

Miami's ecosystem features a full set of players

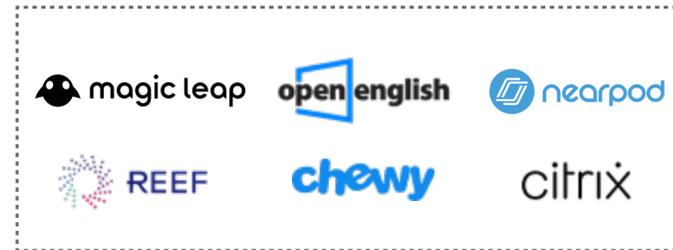
Miami already showcases all the basic building blocks of a startup ecosystem.

Dozens of VC funds such as Softbank, Founders Fund, TheVentureCity, Alpaca, Starlight Ventures and H2O are investing in Miami and LAC startups. Startup studios suchlike Rokk3r are building proprietary startup portfolios to leverage exponential technologies and local capabilities, while frequently leveraging LAC talent and markets. There are more than 25 co-working spaces such as CIC and WeWork. Committed NGOs such as The Knight Foundation, Endeavor and Base Miami actively contribute to the growth of the ecosystem. Massive events mobilize tens of thousands of visitors. Three universities have more than a hundred thousand students enrolled.

Our interactions with many LAC ecosystem players indicate a low level of awareness about the Miami ecosystem. But when it comes to entering into the US market, accessing funding or acquiring know-how and expertise on how to build a startup or an ecosystem, the city is already a valuable asset for LAC players, and it is bound to grow in relevance over the ensuing years.

Select Miami startup ecosystem players

Startups



481 startups that raised >\$1M

Accelerators



>200 accelerated companies

Angels



>200 angels

VC Funds



80 VC funds

Company builders



>50 companies built and funded

Universities



>170K students

NGOs



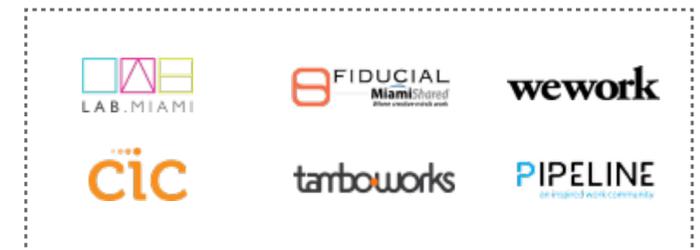
>\$50B invested in ecosystem

Events & Networking



>27K people attended

Co-working spaces



>25 co-working spaces

Source: Crunchbase, Pitchbook, UM, FIU, MDC, Knight Foundation, DropDesk, Tracxn, Miami Angels, Medium, eMerge Americas, Bitcoin 2021, The Lab Ventures, TheVentureCity, CIC, Base Miami, 500 Startups, Starter Story, Founder Institute, Surfing Tsunamis

Miami has a young startup ecosystem

Miami's ecosystem is young and thriving.

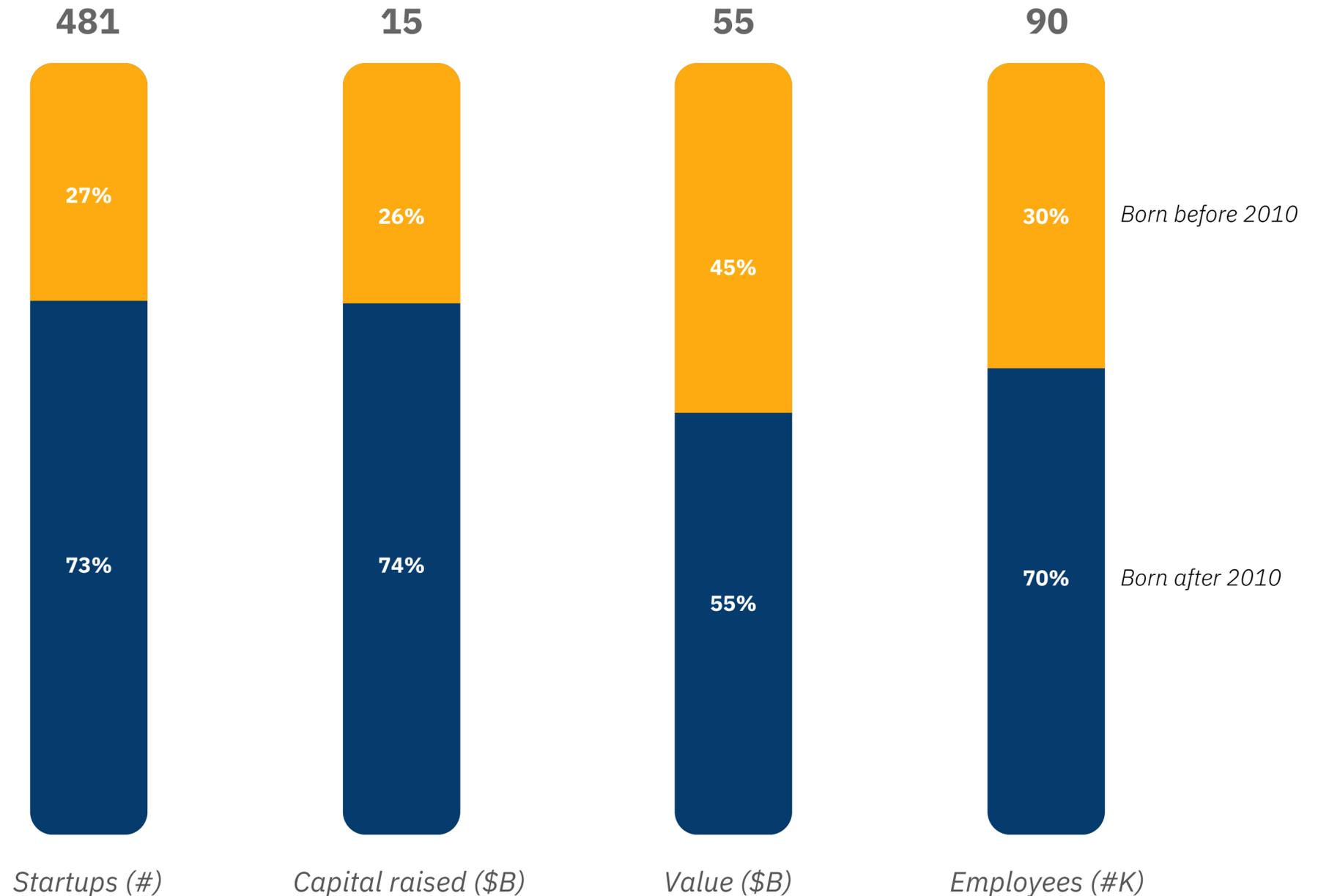
Entrepreneurs initially saw the structural advantages of being based in Miami decades ago. A batch of tech startups during the dotcom bubble moved to Miami in the late 1990s. Dozens of companies like Patagon, StarMedia and MercadoLibre opened offices to serve the LAC region. In 1997, the city attracted the headquarters of Citrix, currently its most valuable technology company, worth over \$13B. Some of the business leaders who arrived in Miami during that time stayed and became pillars of the ecosystem.

However, after the bubble burst, startup activities went down, and only bounced back with the emergence of mobile, cloud computing and SaaS, particularly since 2010.

Hence, the majority of the startups of the ecosystem are young: 73% of startups based in Miami were created over the past decade. These companies, which we could call Miami 2.0 startups, raised 74% of the capital, and represent 55% of the ecosystem value and 70% of the job creation.

Miami ecosystem by year founded

Share by year founded (%)



Source: Crunchbase, Pitchbook, Surfing Tsunamis

Over 50% of value is concentrated on the top 2% of startups

The vast majority (78%) of Miami's startups have valuations ranging from \$1M to \$50M. Only the top 8 companies (1.7%) represent 54% of the ecosystem value.

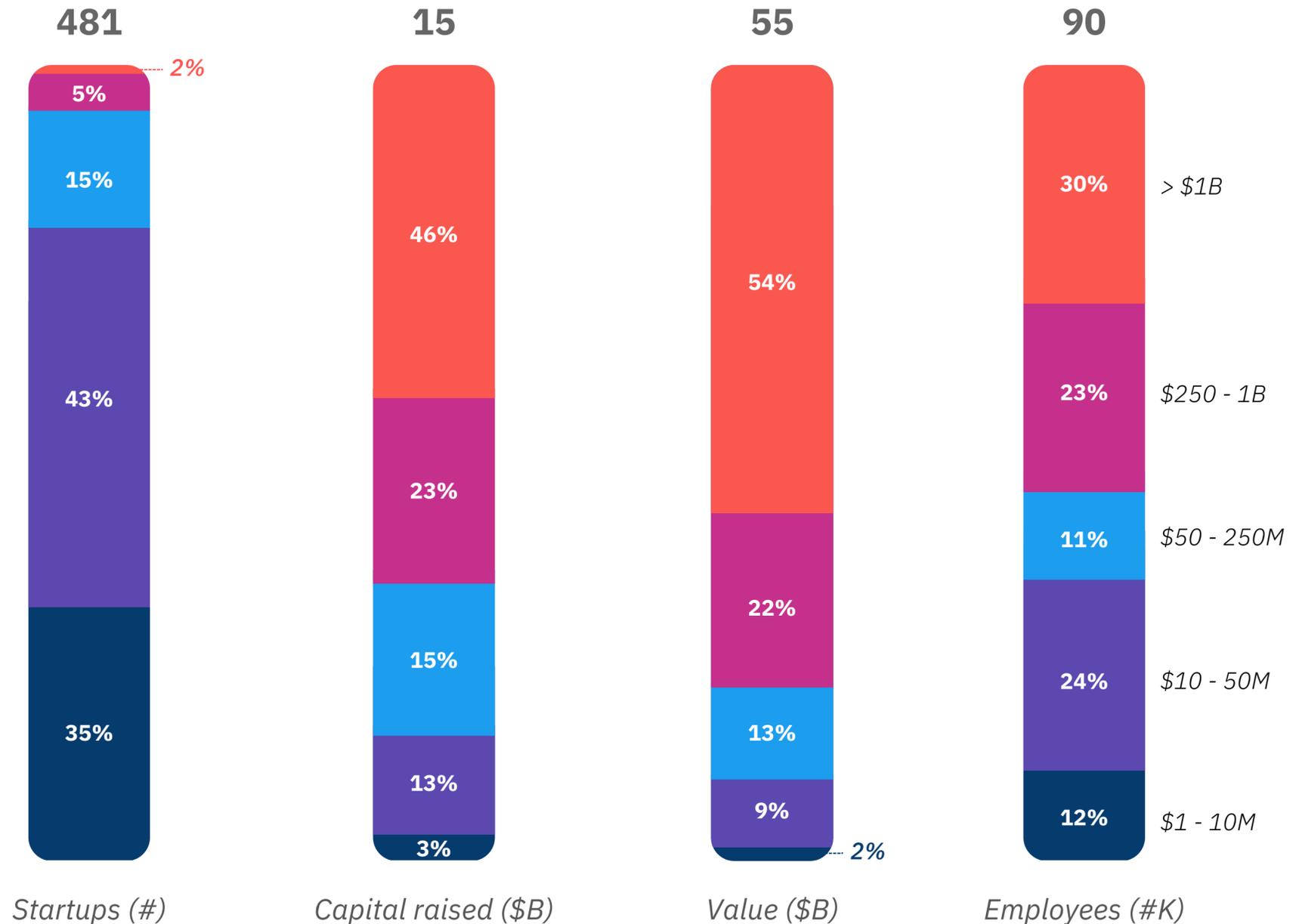
This level of concentration may seem high at first, but the pattern is consistent with the focus on digital startups and the winner-takes-most nature of their businesses.

In fact, as we will see in the last chapter of this report, the leading LAC startups often represent an even higher share of the ecosystem value. This is mostly because the most valuable Miami startups have not yet achieved the valuation levels of the leading startups in LAC.

Companies worth more than \$50M also represent the bulk (64%) of jobs creation.

Miami ecosystem by value range

Share by value range (%)



Source: Crunchbase, Pitchbook, Yahoo Finance, Surfing Tsunamis

8 Miami tech companies reached >\$1B valuations

Miami already has 17 companies worth over \$500M. Citrix reached a valuation higher than \$5B. Seven startups (Opko, Aleph, Pipe, Modernizing Medicine, Reef, Magic Leap and Cyxtera) attained valuations between \$1B and \$5B. Nine others are worth between \$500M and \$1B.

As we will see in a further chapter, this count is significant, but not as impressive as we could imagine, particularly when we consider that some companies founded in LAC cities are now worth more than \$30B (MercadoLibre and Nubank).

The limited number of highly valuable companies probably reflects the fact that Miami startups face the very challenging task of growing in the US market, while facing extremely competitive companies created in more developed ecosystems. LAC companies meet a myriad of other challenges, but have the advantage of addressing a large, fast-growing and relatively less contested market.

The existence of more valuable startups in LAC cities highlights the opportunity for Miami to leverage its access to the region.

Miami tech companies worth over \$500M



Source: Crunchbase, Pitchbook, Yahoo Finance, Surfing Tsunamis

Six sectors explain 68% of Miami's ecosystem value

The leading verticals in Miami's ecosystem are Healthtech, Fintech, Biotech, SaaS, Logistics & Distribution and Augmented/Virtual Reality.

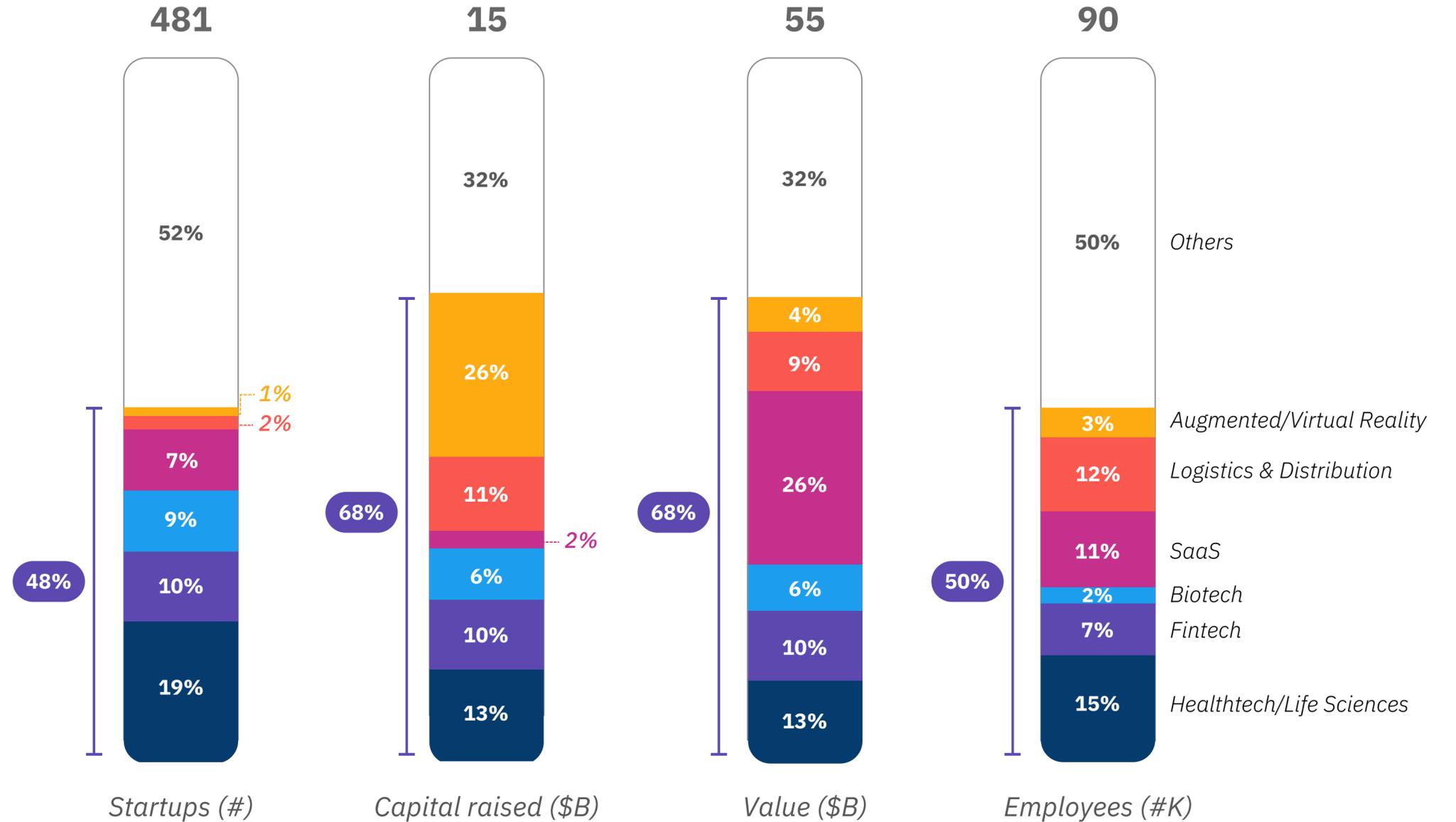
These sectors represent 48% of startups, 68% of the accumulated capital raised, 68% of the value and 50% of the employees in the ecosystem.

Out of these six verticals, the two sectors with the highest value per startup are Augmented/Virtual Reality and Logistics & Distribution. The leading companies in these sectors are Magic Leap and REEF Technology.

Miami's strength in Healthtech and Biotech has an excellent fit with LAC's research capabilities in these areas. These capabilities have not yet translated into strong startup ecosystems in LAC. Miami could play a role in supporting the activation of these verticals by providing a base for new startups in need of access to capital, laboratories and global markets.

Miami ecosystem by sector

Share by sector (%)



Source: Pitchbook, Crunchbase, Surfing Tsunamis

Miami VC investments could become 9x larger by 2030

The historical evolution of the New York and Los Angeles ecosystems suggests that in the course of the next ten years, the Miami venture capital deal value could grow ninefold.

New York and Los Angeles commenced the past decade with similar levels of VC activity, more than what is expected of Miami in 2021. In 2011, New York and Los Angeles saw \$4.2B and \$3.8B of VC deal value, respectively, while based on the first nine months of the year, Miami should be able to close 2021 with \$3.2B.

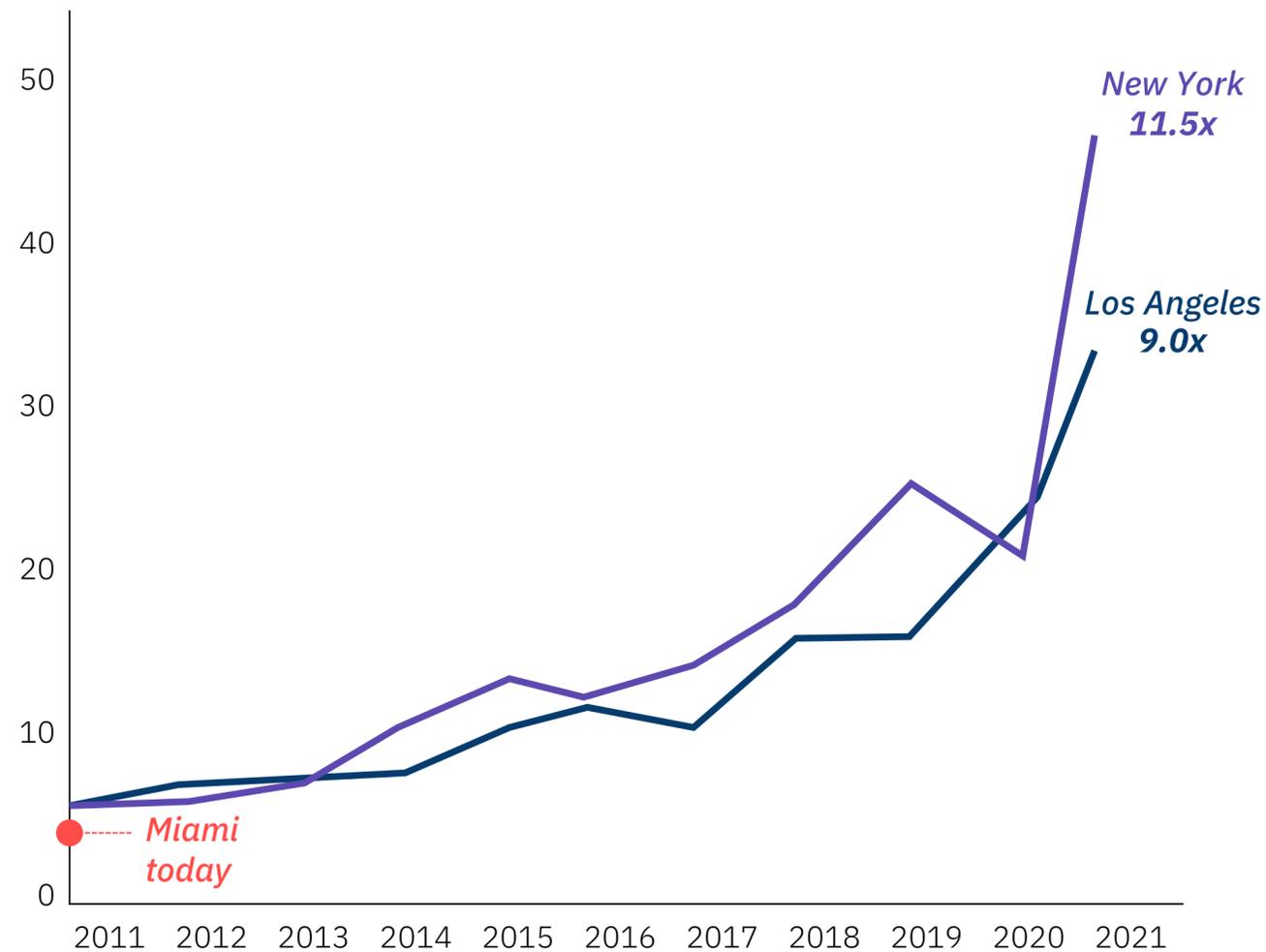
Between 2011 and 2021, New York's venture capital activity multiplied 11.5 times and Los Angeles 9.0 times.

There are three factors showing that Miami could replicate their growth trajectories in the next decade:

1. Miami can leverage LAC's talent and startup ecosystem takeoff.
2. The city has valuable advantages, like quality of life and low taxes.
3. The technology revolution will accelerate over the ensuing decade, in effect lifting all boats.

VC investment evolution of New York, Los Angeles and Miami

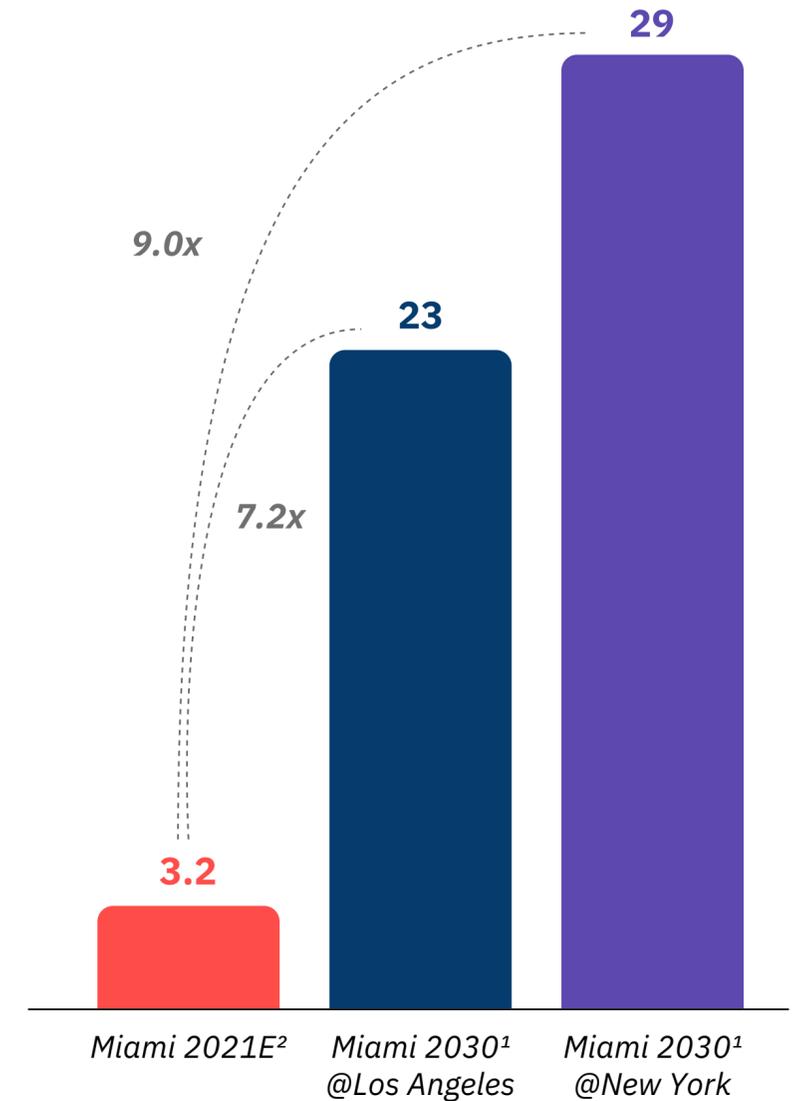
VC investment (\$B)



1. Considers Los Angeles and New York 2011-21 CAGR applied for 9 years
 2. Estimated value for 2021 based on data for first three quarters of the year
 Source: Pitchbook, NVCA, Surfing Tsunamis

Miami VC investment potential by 2030

VC investment (\$B)



Miami could draw upon multiple strengths to thrive

The city offers an outstanding quality of life, with a myriad of tourist-grade attractions, as well as a thriving cultural life. Miami has no local taxes, has a highly diverse human capital pool and an advantaged connection with LAC's prosperous ecosystem and market, through social ties as well as ports, flights and telecommunication links. Its political leaders have a strong pro-tech posture. The city of Miami also has a high concentration of private banks and family offices, plus a multitude of large sectors including tourism, real estate, logistics and health care. Miami is home to regional headquarters of several multinationals and has a strong national institutional setting.

The two main weaknesses seem addressable. Miami's universities don't enjoy the strength and standing of MIT and Stanford, but the city can draw talent from hundreds of universities across LAC (something that unfortunately some countries seem bent on encouraging). Miami also doesn't have the visibility and recognition of larger ecosystems, but this is a lagging indicator that can be compensated by structural advantages like those mentioned above.

Miami ecosystem strengths and weaknesses

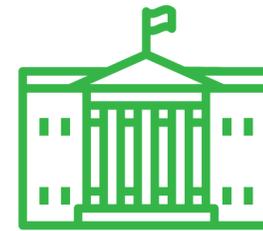
Strengths



Attractive quality of life



Low state and local taxes



Pro-tech government



Strong fintech ecosystem



Affordable cost of living



Highly diverse human capital pool



Outstanding connectivity with LAC



Multiple large sectors



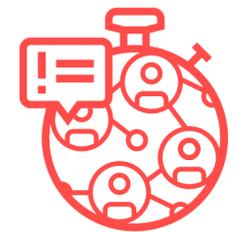
Presence of regional HQs



Strong national institutional setting



Lack of top tier universities



Limited recognition as innovation hub

Weaknesses

Miami faces opportunities and threats to growth

Miami has the opportunity to deepen its connection to the booming LAC ecosystem becoming an international hub that connects the Americas, strengthening its competitive advantage relative to other US ecosystems. The city can also boost new verticals, such as blockchain, proptech, logistics, spacetech, augmented reality, etc. The rise of remote work will enable the city to continue attracting talent in search of quality of life. Moreover, to the extent that Miami provides more market-friendly policies and initiatives compared to some governments in LAC, it will be able to attract talented entrepreneurs from the region.

We also see some threats that may adversely impact Miami in the long term -- the city is vulnerable to climate change, and the ecosystem may grow faster than infrastructure, thus increasing real estate prices and the cost of living. In addition, an economic crisis could disturb the ecosystem before it becomes more robust.

Miami ecosystem opportunities and threats



Leveraging LAC connection to become an international hub



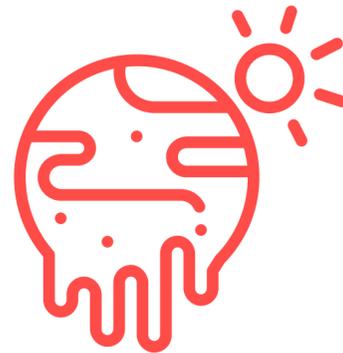
Developing new verticals



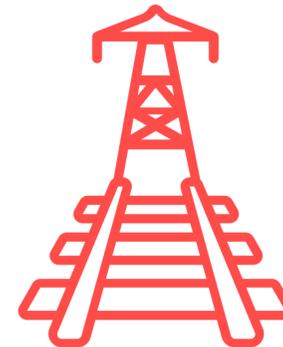
Growth of online working



Attracting talent from LAC countries



Vulnerability to climate change



Gap in infrastructure growth



Pressure on RE prices and cost of living



Risk of an economic crisis

THE RATIONAL FOR A BRIDGE THAT CONNECTS THE AMERICAS

THE OPPORTUNITY FOR A BRIDGE





The exponential technology revolution opens the door to a transformational productivity leap. LAC entrepreneurs are using these technologies to innovate and create hundreds of billions of dollars in value and the potential ahead is much larger. Building broader connections between LAC and US ecosystems through Miami, and other cities could unleash massive value by facilitating reciprocal market access and by addressing three large arbitrage opportunities:

- Connecting the abundance of US and global venture capital with the fast-growing LAC ecosystem. The US is the largest venture capital market in the world, on track to invest \$383B in the sector in 2021, and LAC presents low venture capital penetration and very attractive opportunities for investment. LAC's ecosystem value went from \$7B in 2010 to \$309B in mid-2021, and is expected to reach more than \$2T by 2030.
- Connecting LAC-based talent with the needs of the US and other global markets. LAC-based talent is significantly less expensive than US-based talent. A programmer that costs around \$7,500 per month in the US costs \$2,200 in LAC. A biology PhD that makes \$10,000 per month in the US earns \$1,000 in LAC.
- Connecting US expertise in building startups and ecosystems with insights on how to operate in the LAC market. The US has a very deep pool of knowledge about technological innovation, with several of the leading and fastest growing startup ecosystems in the world. The majority (17 out of 26) of LAC countries have not yet activated their ecosystems and require support services including bootcamps, acceleration programs, training, advisory, etc. At the same time, US companies need support accessing the fast growing LAC ecosystems.

Some actors are already leveraging these opportunities with different models. Funds such as Softbank, Riverwood and TheVentureCity are tackling the venture capital opportunity, raising funds in the US and other markets, and investing in LAC startups. Digital solution companies like Globant, Accenture and others are leveraging the talent opportunity, serving US and European clients with LAC-based talent.

Organizations like Endeavor, 500 Startups, CIC, Base Miami, and others are addressing the information arbitrage opportunity. Startup founders are leveraging all three opportunities, moving to the US in order to access capital, clients and know-how, while leveraging low-cost LAC-based talent to serve LAC and global markets. Yet, most of the value potential remains untapped.

Miami is well positioned to become a bridge connecting the Americas and enabling the growth engines of the future. Miami is the US startup ecosystem with the highest connectivity with LAC and with one of the highest shares of Latin populations, alongside Los Angeles and New York.

Still, connections between LAC and Miami ecosystems remain limited. Only 2% of TecnoLatinas have moved their headquarters to Miami. At the same time, merely 23% of local startups have a Latin founder.

Regardless, links between Miami and LAC ecosystems are growing. The percentage of founders with Latin origin among Miami startups has risen from 9% for startups created between 2000 and 2004, to 35% for those founded in the past two years (2020-2021). Miami is the top choice for TecnoLatinas founders relocating overseas, even ahead of Silicon Valley. Hundreds of entrepreneurs have gone to Miami to participate in bootcamps and in acceleration and market landing programs, often sponsored by LAC government agencies. Softbank and Riverwood, two of the leading funds active in LAC, have opened offices in Miami to serve the region.



Tecnolatinas are mostly based in LAC and create value with LAC strategies

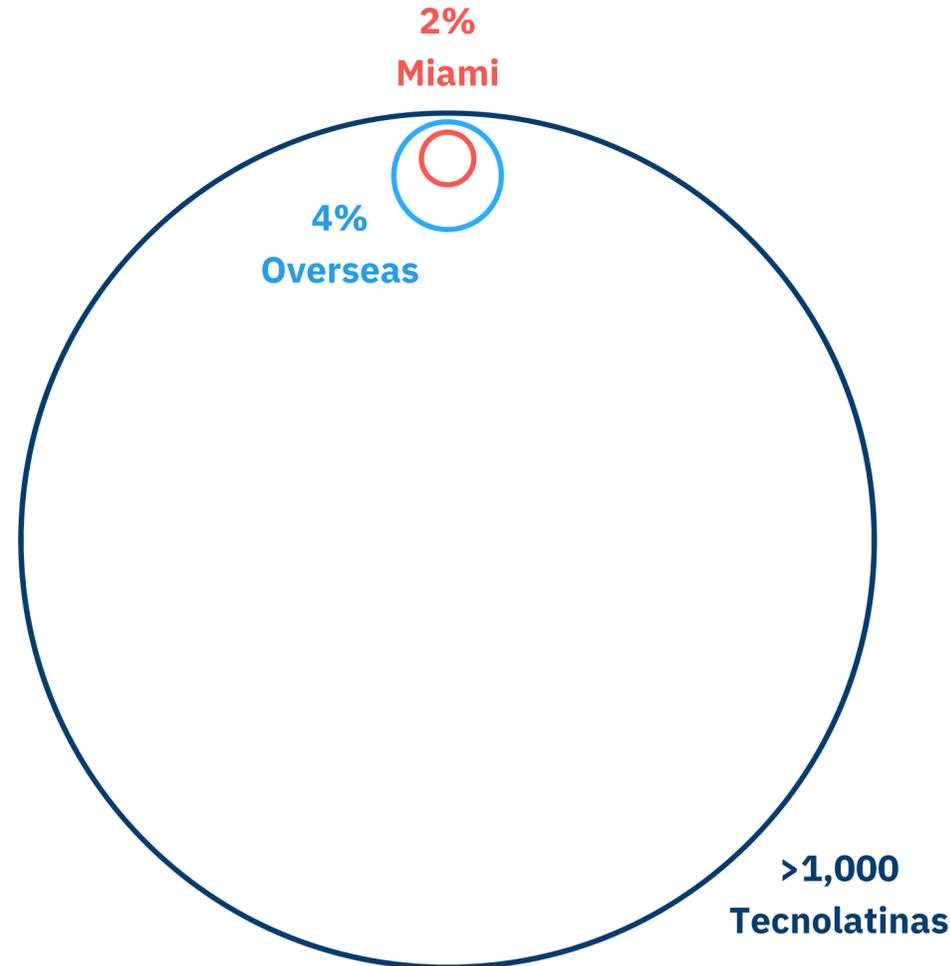
At first glance, it is possible to argue that LAC startups don't need Miami. To a certain extent this is true. The LAC ecosystem is booming: the regional ecosystem value went from \$7B in 2010 to \$221B in 2020 and \$309B by September 2021.

This boom is mostly taking place with strategies centered on the regional market: 80% of the value creation comes from LAC market operations; the bulk (51%) is from startups with regional footprints, and the rest (29%) are from startups exclusively focused on local markets. Only 20% of value creation comes from global strategies.

Also, out of the more than 1,000 tech startups based in Latin America and the Caribbean that have raised over a \$1M, only 4% have moved overseas, and 2% have taken their headquarters to Miami.

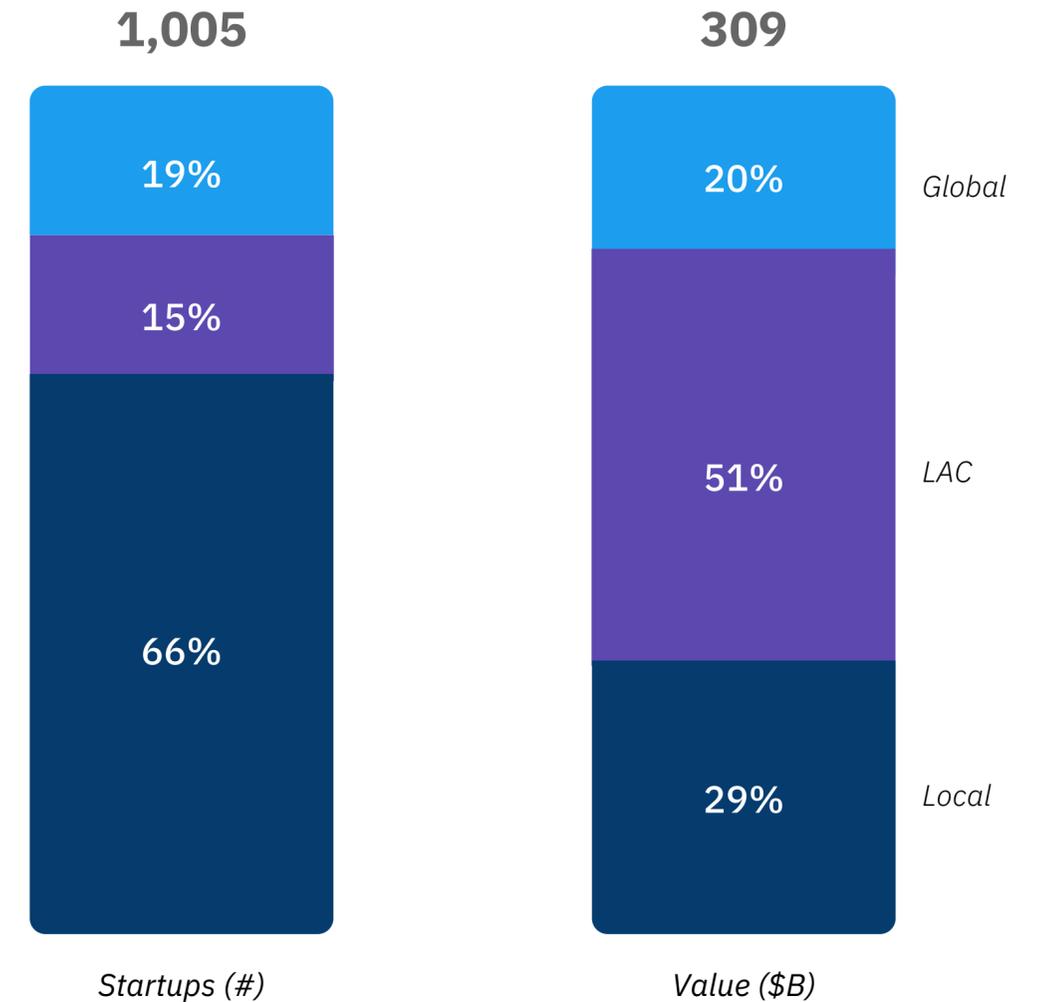
Hence, it seems fair to say that most LAC entrepreneurs do not need Miami in order to thrive.

Percentages of Tecnolatinas¹ based overseas and in Miami



Number of Tecnolatinas and value¹ distribution by geographic footprint

Share by footprint (%)



1: Based in Tecnolatinas 2021 report, updated to September 2021
Source: Tecnolatinas 2021, Surfing Tsunamis

Miami's ecosystem is less 'Latin' than it seems

Miami is known for its Latin character: 43% of its population is Latino, and comes not just from Cuba and Venezuela, but from all over the region.

Yet, observing the share of Miami startups with Latin founders, we see that this segment of the population is under-represented in the ecosystem: only 23% of the startups that raised more than \$1M have Latin founders. They raised 13% of the capital, created 19% of the value, and 15% of the jobs.

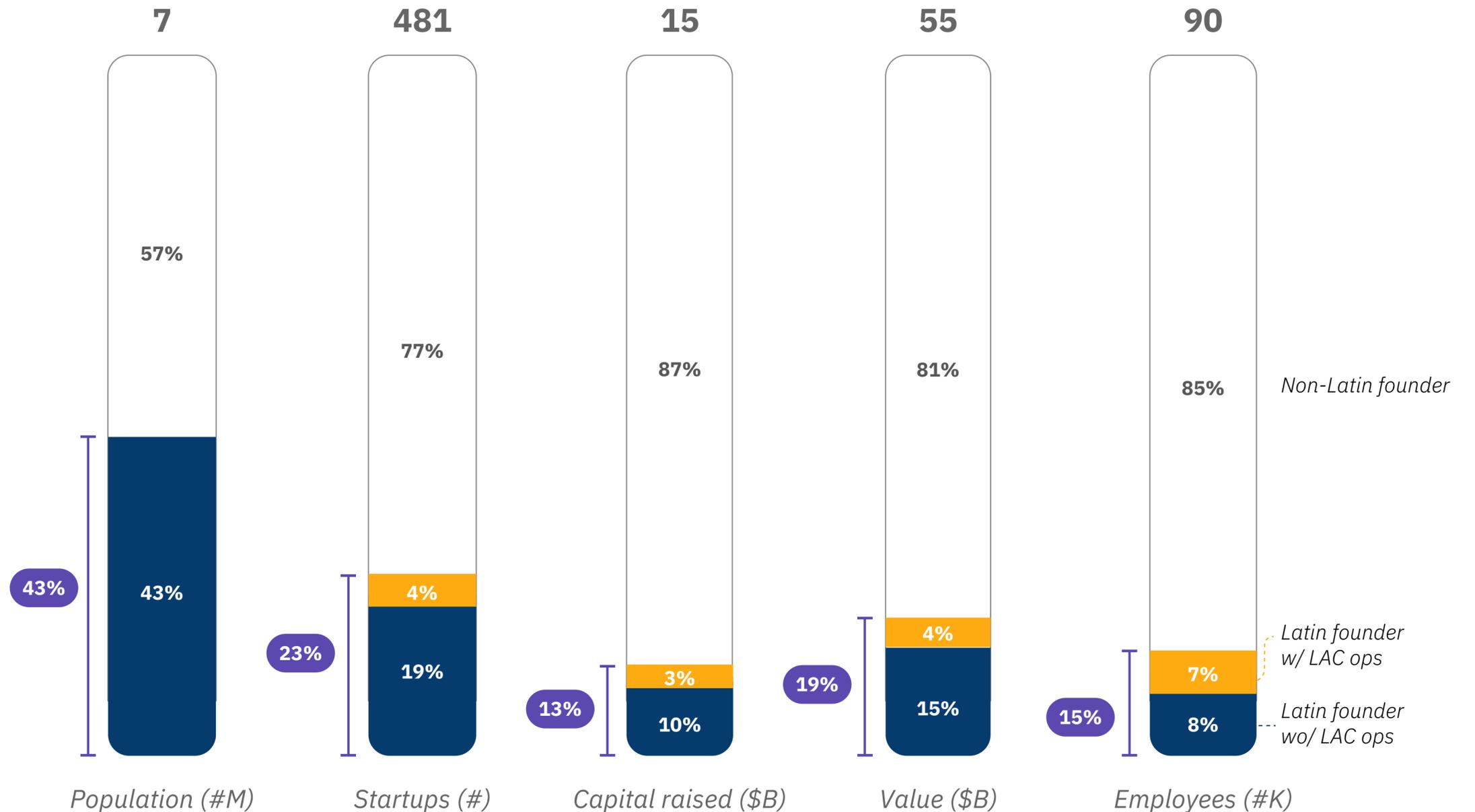
This is part of a broader under-representation. According to Crunchbase, only 1.8% of VC-backed startups in the US were Latin, while 18.5% of the population has a Latin background.

The share of Miami startups with Latin founders and operations in LAC is even lower: 4% of the startups, 3% of the capital, 4% of the value and 7% of the job creation.

On one hand, we could conclude that the Latin connection is not that relevant for Miami's ecosystem. On the other hand, we could see this as a massive untapped opportunity, that Miami is ahead of the rest of the US in seizing this opportunity, and that a stronger connection with LAC that further empowers Latino and Miami could have a much broader positive impact on the US.

Presence of Latin founders in Miami ecosystem

Share by founder nationality (%)



Source: Crunchbase, Pitchbook, Surfing Tsunamis

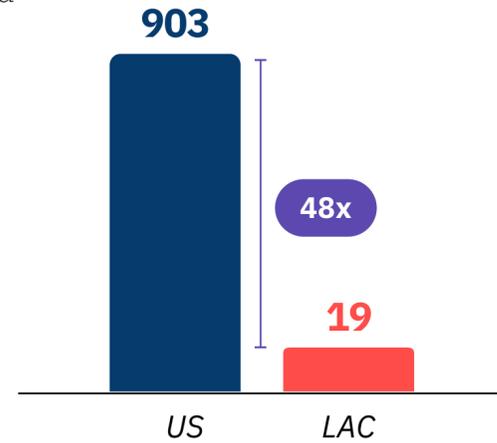
Massive opportunities for collaboration and arbitrage across the Americas

Beyond facilitating two-way market access, there are three arbitrage opportunities between the US and LAC:

1. Connecting the abundant capital of the US and the world, with LAC's booming ecosystem. The US invests \$903 per capita every year -- 48 times more than LAC's paltry \$19. This results in much higher valuations for early stage startups in the US than in LAC. In the past, the barriers to innovation were much higher in LAC; fortunately, those have since been partially lifted and the LAC venture capital market is booming (from \$0.1B in 2010, to an estimated value of \$12.4B in 2021), whereas the startup ecosystem value has also taken off, going from \$7B in 2010, to \$309B in September 2021.
2. Connecting LAC-based talent with the US and global markets. A Biology PhD residing in LAC earns approximately ten times less than a peer in the US. For developers, the difference is large as well: comparable programming is three times better paid in the US than in LAC.
3. Leveraging information. LAC could learn from the US about innovation and ecosystem building; in turn, the US startups can often benefit from expertise on methods to address LAC markets.

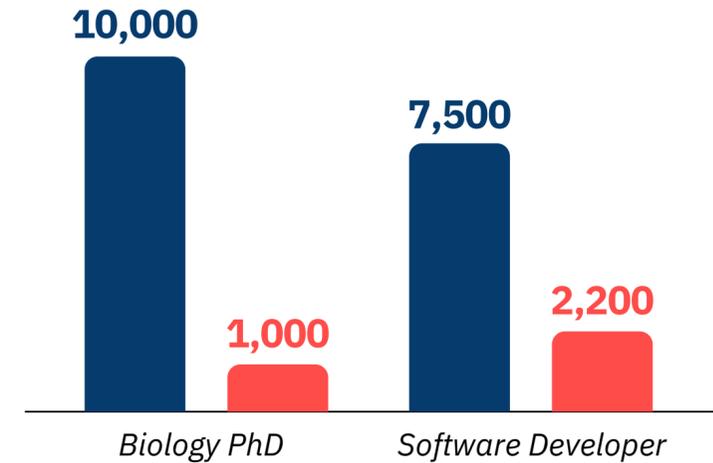
VC investment availability 2021E

Annual \$ per capita



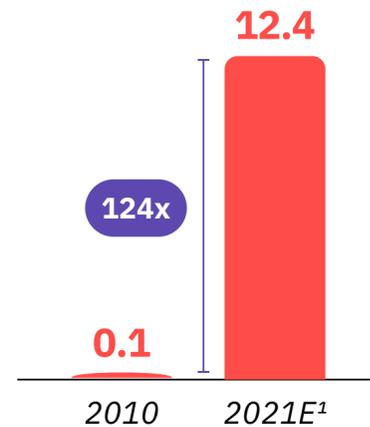
Monthly compensation

\$ per month



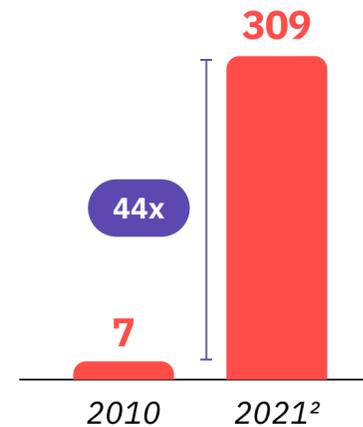
LAC VC investment

\$B



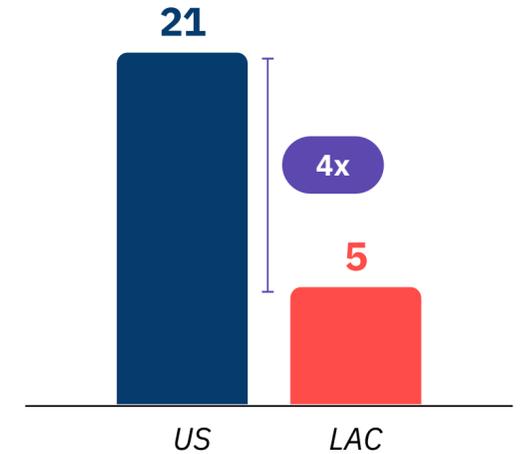
LAC ecosystem value

\$B



Market size 2020 (GDP)

\$T



1: Estimated value for 2021 based on data for first half of the year
 2: Ecosystem value from TecnoLatinas 2021 report, with unicorns value updated to September 2021
 Source: World Bank, market interviews, NVCA, LAVCA, Surfing Tsunamis

Players are leveraging those opportunities with different models

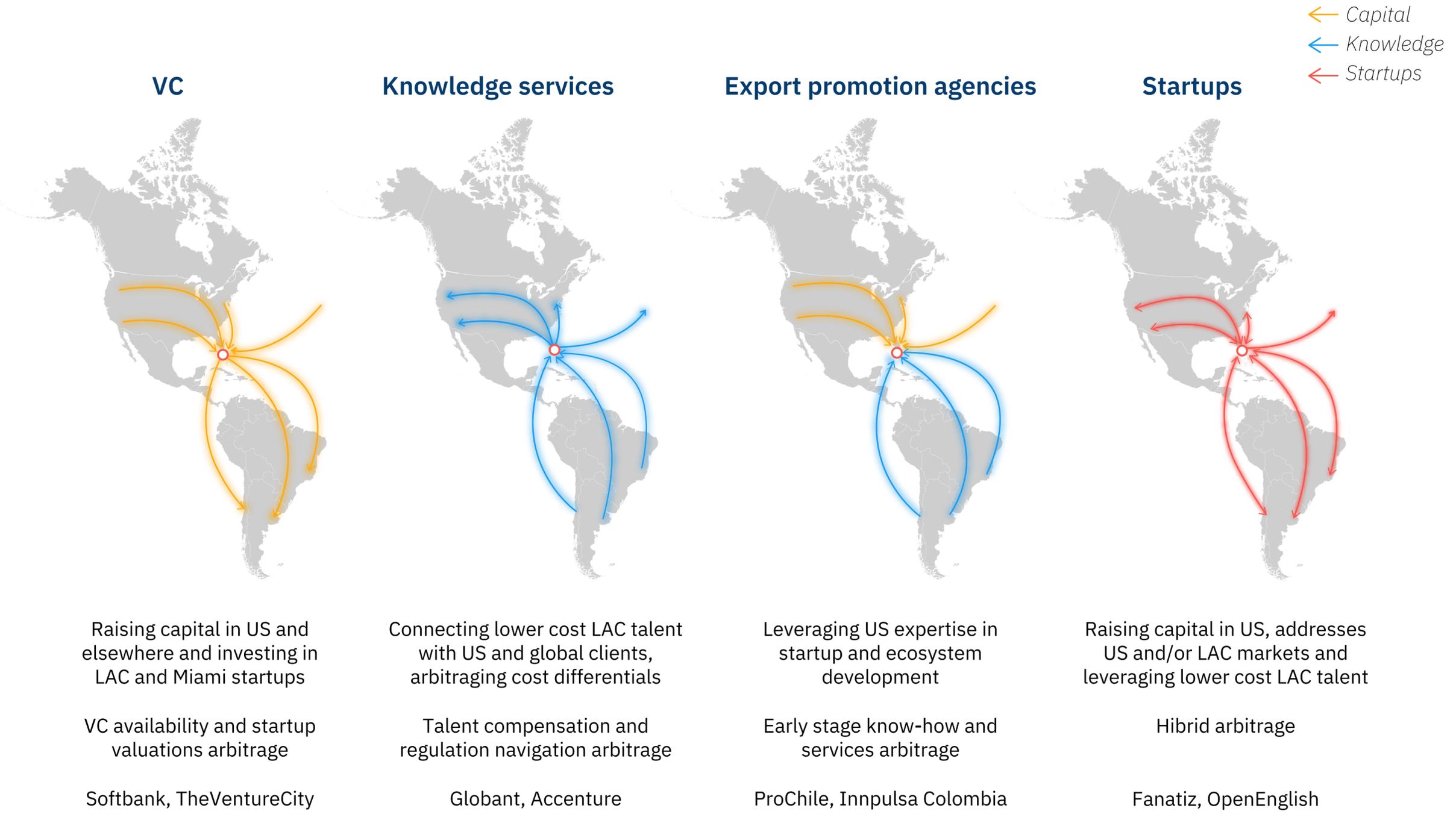
Miami-based venture capital funds like Softbank and TheVentureCity are leveraging the capital availability opportunity, raising capital in the US and other markets and investing in LAC startups. This is a win-win situation for both Miami and LAC, given that the presence of a larger number of funds in the city results in local investments, as evidenced with the \$100M SoftBank Miami initiative.

Digital service companies like Globant, and Accenture are leveraging the talent cost arbitrage opportunity. As the Miami ecosystem develops, it will become a growing market for knowledge services. More importantly, as more players on both halves of the Hemisphere become aware of the full potential of talent arbitrage opportunities, we should be able to witness LAC services exports multiply to reach their potential.

Policymakers from LAC are already leveraging Miami players to provide information to their startups on how to address the US market, while fund managers from elsewhere in the US are learning in Miami about LAC opportunities.

Finally, startups are leveraging all three arbitrage, as well as market access opportunities. Their founders raise capital in the US, build startups with inexpensive LAC talent, learn management techniques in the US, leverage their knowledge of the region, and then address both markets.

Examples of how different players are leveraging different arbitrage opportunities across the Americas



Source: Surfing Tsunamis

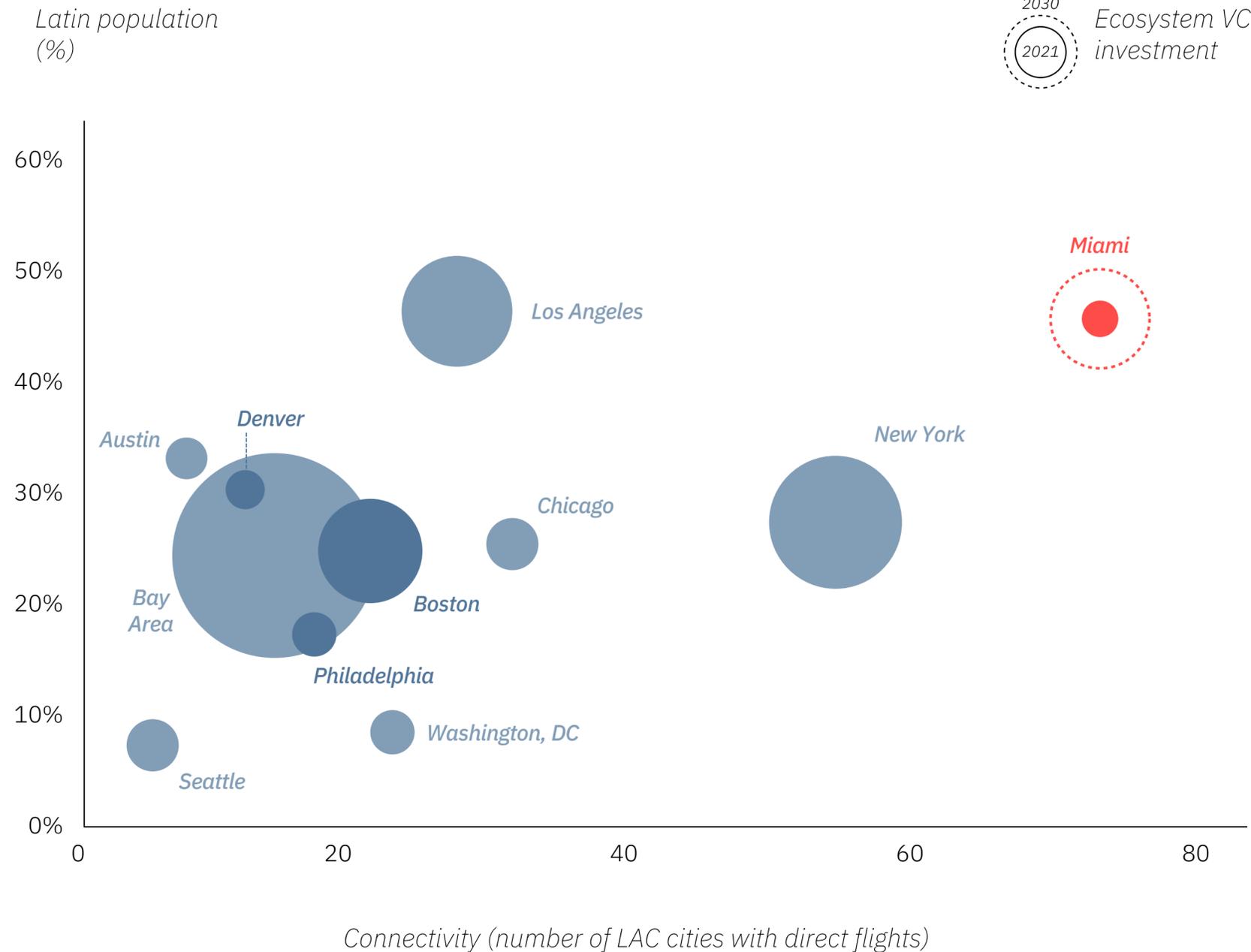
Miami is a natural gateway to connect LAC with the US

Miami has the best connectivity and the second highest Latin population share among US startup ecosystems. This places the city at a unique position to connect the US and LAC, while enabling market access and arbitrage opportunities.

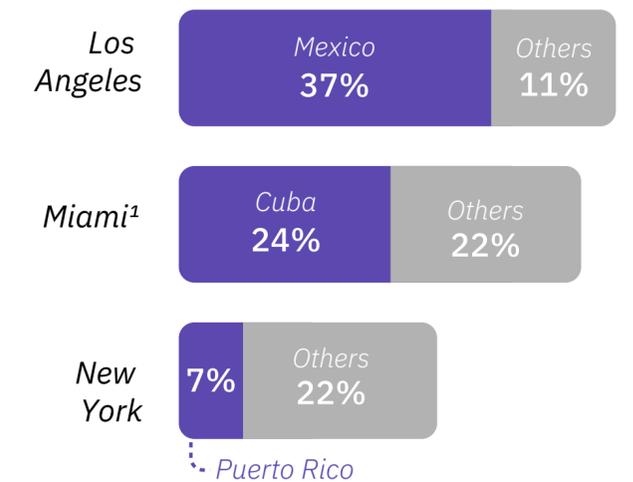
The two additional contenders are Los Angeles and New York. But Miami can tip the scales in its favor -- it has a higher Latino population share than New York, a greater diversity of origins than Los Angeles, and a bigger need for competitive advantage, since it is far behind both of them.

Miami stands to benefit enormously from this opportunity. Its ecosystem is still small, and having improved access to an ecosystem worth \$309B, and on its way to become a multi-trillion dollar, it has a valuable competitive edge that has not yet been entirely recognized by some of its players. Nonetheless, the innovation ecosystem is relentlessly transforming LAC's business landscape and the opportunity is too substantial to ignore.

Connectivity with LAC and Latin population of leading US startup ecosystems



Latin population in selected ecosystems (%)



1: Percentage in Miami, Cuba considers Miami-Dade County
Source: Pitchbook, World Bank, Surfing Tsunamis

Latin content is expanding in Miami's ecosystem

Although the percentage of Miami startups with Latin founders is 23%, we observe different shares of founders of Latin origins.

The share of Latin founders is high for startups from the pre-bubble era (before 2000s). This is probably because in the late 1990s Miami became a hub for Latin startups.

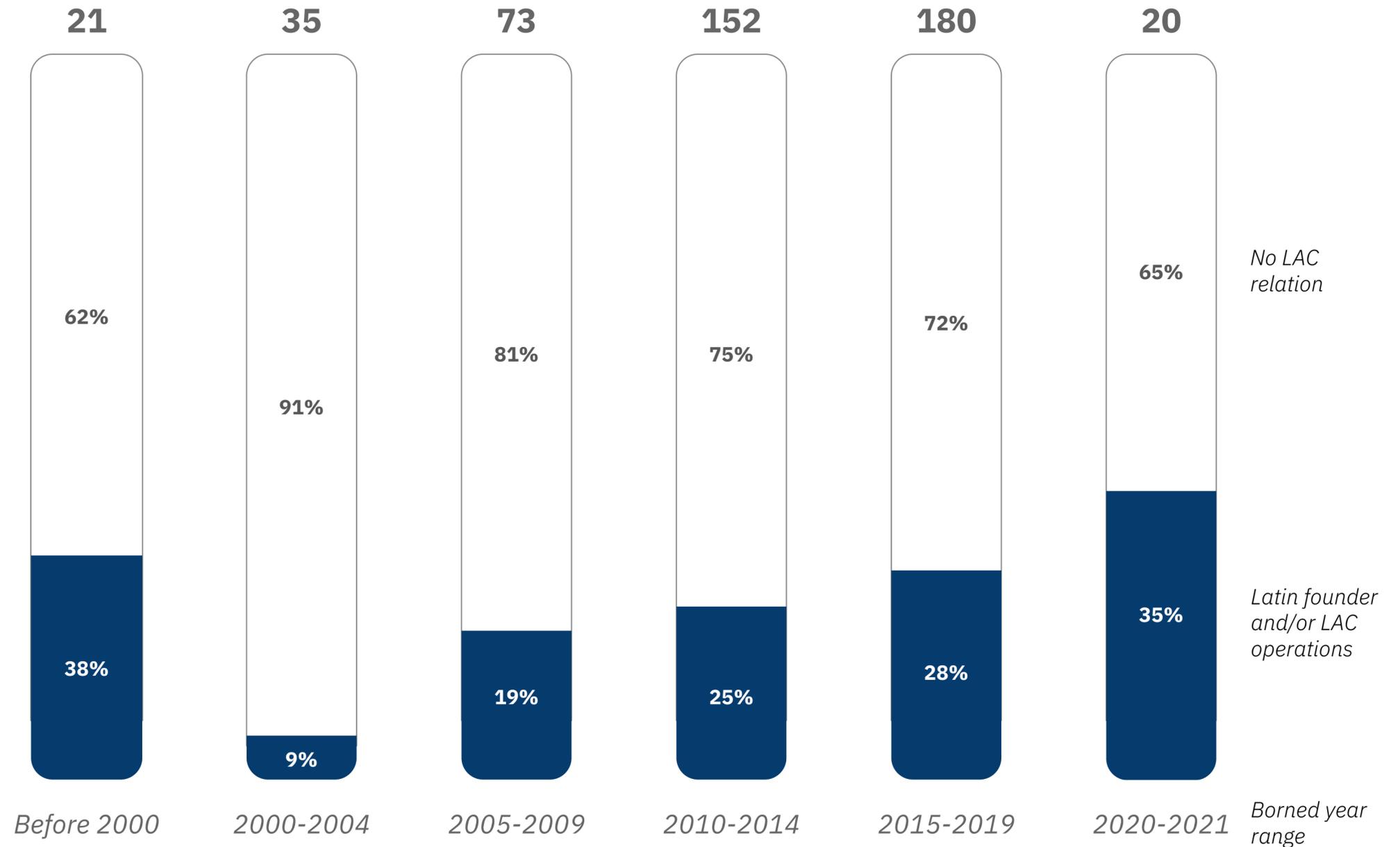
After the dotcom bubble burst, Latin entrepreneurs went back to traditional businesses - the majority (91%) of startups founded in Miami in the early 2000s had no Latin founders.

But since then, their share began to grow back steadily: 19% of the Miami startups born in the late 2000s had Latin founders. The figure climbs to 25% for startups created between 2010-2014; to 28% in the 2015-2019 period; and to 35% for the "pandemial" startups (those founded in 2020 or 2021).

The rising share of Miami startups with Latin founders indicates that Latinos are playing a significant role in the ecosystem's growth. It also highlights the opportunity Miami has to become a beacon that inspires and supports Latin entrepreneurs across the US, and suggests that the Latin connection may be a strategic edge that Miami could leverage.

Evolution of the percentage of Miami's startups with Latin founders across cohorts

Share of startups (%)



Source: Crunchbase, Pitchbook, Surfing Tsunamis

Miami, a preferred choice for TecnoLatinas outside LAC

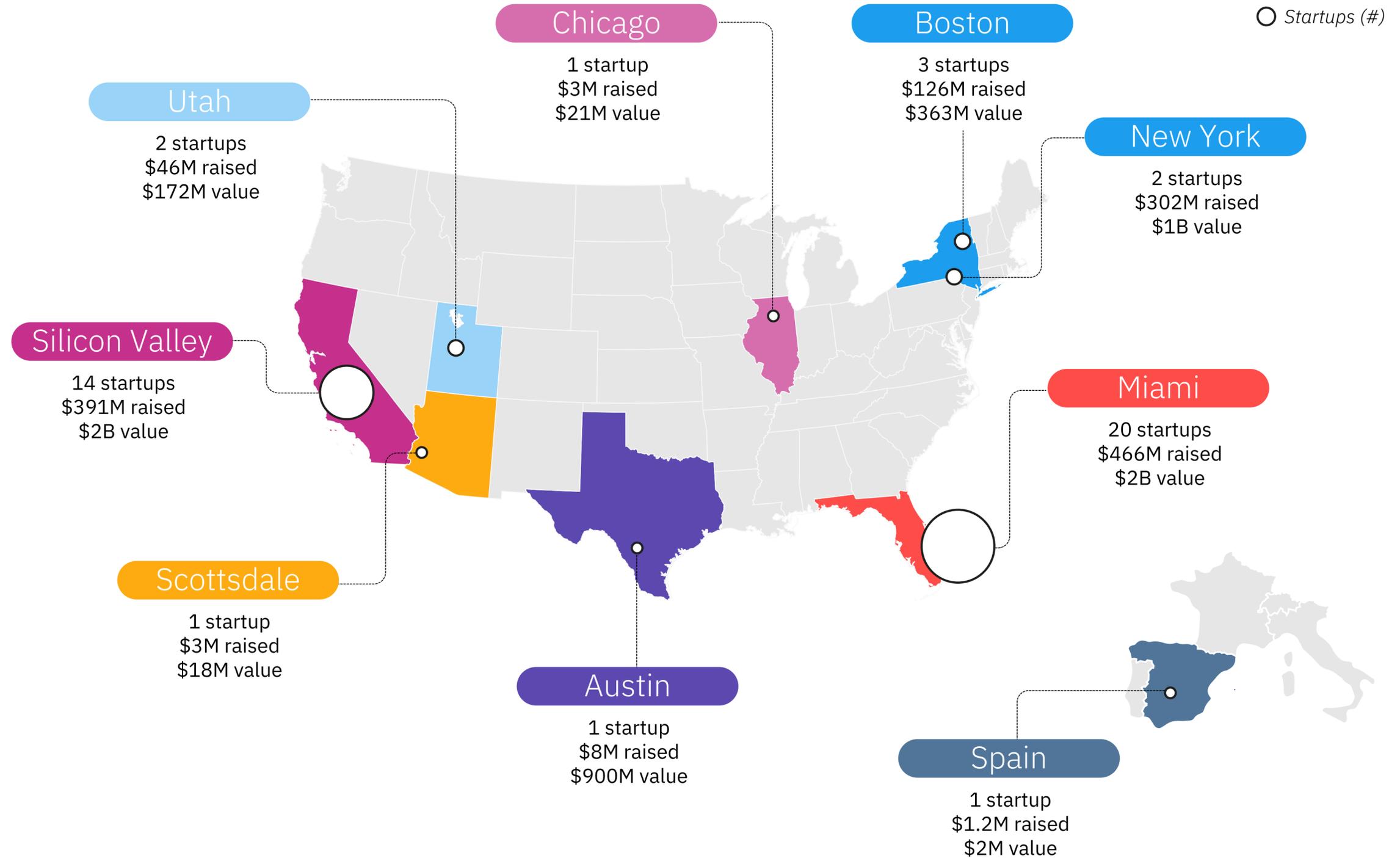
A small percentage of TecnoLatinas (broadly 4%) have moved their headquarters outside the region. The vast majority of them (98%) have relocated to the US.

LAC entrepreneurs are voting with their feet. Miami is the preferred choice for LAC startups moving out of the region, attracting 20 startups that raised \$466M and created approximately \$2B in value (about 1% of LAC's ecosystem value). This is more than Silicon Valley, which has pulled 14 startups.

To evidence this phenomenon, take Fanatiz, a company founded in Chile to allow soccer devotees from the US and other markets to watch soccer games from LAC. The company struggled to find investors in its home country before resolving to explore different US locations. The first one was Miami. The founder received a warm welcome, quickly found investors for his company and never looked back.

In numerous cases, a company leaves its headquarters elsewhere but its founders relocate to Miami either full-time or part-time, in order to leverage the capability of working across time zones, the connectivity, and the quality of life.

TecnoLatinas distribution outside LAC



Source: TecnoLatinas 2021, Surfing Tsunamis

LAC startups and governments are selecting Miami for US landing programs

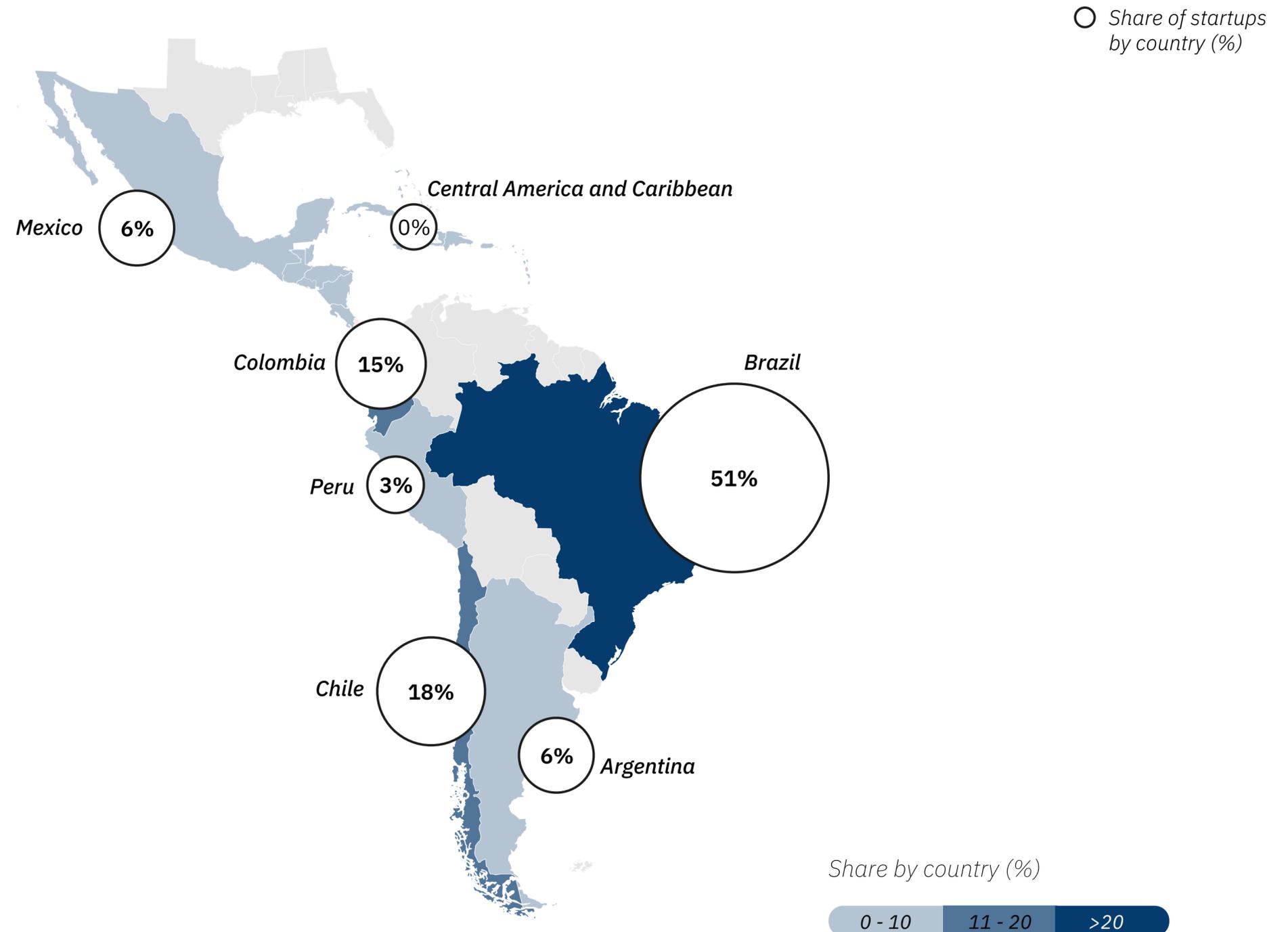
Grounded on various interviews, we estimate that more than 300 LAC startups have participated in Miami-based bootcamps, landing and acceleration programs ranging from 2 days (for bootcamps), to 10 weeks (for acceleration programs).

These services are provided by organizations such as Base Miami (one to four week landing programs), CIC (five-day landing programs), 500 startups (two day bootcamps and ten week acceleration programs), and Endeavor (four month acceleration programs), among others.

Government agencies from multiple LAC administrations are sponsoring the involvement of their startups to these programs including Innpulsa Colombia, ProChile, the Ministry of Production of Peru, and more.

As we can see in the chart that presents the country of origin of 130 startups that participated in the Base Miami landing program, the geographic distribution is roughly consistent with startup activity in the region. Governments from Central America and the Caribbean are not yet tapping into these Miami assets, but they could benefit from this opportunity.

Geographic origin of LAC startups that participated in Base Miami landing programs (2015-2021)¹



¹: Based on 130 startups that participated in landing programs organized by the Base Miami team during the 2015-2021 period
Source: Base Miami, Surfing Tsunamis

Miami VCs are active in LAC, from seed to growth

Miami sits in the midst of a large venture capital arbitrage opportunity. The US has an abundance of venture capital looking for attractive targets, and LAC has a large market with huge inefficiencies that are fueling a booming tech startup ecosystem.

Venture capital funds are increasingly aware of this opening. The most prominent of these is Softbank, which selected Miami as the base for its Latin American operations. The firm has already had a large impact in the region by investing \$5B in startups, and is presently creating a second fund of a similar size.

Riverwood Capital, which has over \$4B of assets under management, is also setting up an office in Miami which will compliment with its offices in New York and Sao Paulo.

In addition, there are several early-stage funds based in Miami that are active in LAC. H2O Capital and TheVentureCity have a significant focus on digital ventures based in the region. Rokk3r is a startup studio that helped LAC corporations to launch dozens of ideas and in 2020 launched Wao! a social commerce company with focus on LAC with a strong reliance on teams from the region. Starlight Ventures invests in bold Deep Tech companies globally, but was an early investor in Satellogic and Skyloom, two cutting-edge space companies created by LAC founders.

Venture capital funds that invest in LAC from Miami

Early stage

A collection of six logos for early-stage venture capital funds, arranged in two columns. The logos are: H2O Capital (with a water drop icon), ROKK3R, STARLIGHT VENTURES, CLOUT CAPITAL, FUEL VENTURE CAPITAL, and theventure.city.

Growth

A single logo for RIVERWOOD CAPITAL, featuring a stylized 'R' icon and the text 'RIVERWOOD CAPITAL' on a dark rectangular background.

The SoftBank logo, consisting of a grey double-hyphen symbol followed by the text 'SoftBank'.

Miami-LAC links should become stronger

Why should LAC care about Miami? And why should Miami care about LAC?

The connections today are weak - yet that is not preventing either Miami or LAC's ecosystems from growing fast. Only 23% of Miami startups have a Latin founder, and 17% have international strategies. Merely 2% of Tecnolatinas are based in Miami, and 6% of Miami's startups have operations in LAC. None of the LAC unicorns are based in Miami, and no Miami unicorns are focused on LAC.

However, the rationale for a stronger connection is there. The US has 48 times more venture capital availability, while the LAC ecosystem value is growing explosively (44x since 2010). Startups achieve much higher early-stage valuations in a location like Miami, which has become the number one destination for LAC startups. US startups could leverage LAC talent at a fraction of the local cost (3-10x more affordable), and access the rapidly growing regional market to become international and achieve a larger potential advantage.

The link between LAC and Miami is limited...

23%

of Miami startups have Latin founders

17%

of Miami startups have international strategies

2%

of the Tecnolatinas are based in Miami

6%

of Miami startups have operations in LAC

0%

of LAC unicorns based in Miami

0%

of Miami unicorns are focused in LAC

... but the rationale for stronger links is there

48x

more capital availability in US market for LAC startups

44x

growth in LAC ecosystem value since 2010

4x

higher valuations in Miami than LAC for early-stage startups

#1

Miami is top global destination for startups born in LAC

3-10x

lower cost of talent in LAC vs. US

8x

more value from international Miami startups than from local

HOW THE RISE OF MIAMI CAN HELP TO UNLOCK LAC'S GROWTH

MIAMI IS VALUABLE FOR LAC





Miami can play an important role in the activation of new engines of growth and development across LAC. The rise of Miami provides a new platform accelerating a LAC development paradigm based on entrepreneurial innovation, technology, knowledge and new engines of growth. We have detected at least four opportunities to connect the rise of Miami with the development of LAC countries:

1. The activation of startup and knowledge export ecosystems in CAC, by creating a ring of light around Miami that could generate over \$20B of additional annual exports and more than 5 new startup ecosystems by 2030.
2. The continued acceleration of venture capital flows into the LAC region to ignite new tech-based growth engines and capture part of the untapped LAC VC opportunity, which could represent well over \$30B of annual investments by 2030.
3. The activation of LAC's Deep Tech ecosystem, which could generate more than \$100B in value and indirectly contribute to boosting private sector R&D by 0.5-1% of extra GDP by 2030.
4. The acceleration of knowledge-based exports from LAC, which represent a \$100B additional annual export opportunity by 2030, that could be addressed emulating the policies of countries such as Ireland, Costa Rica and Uruguay.

The rise of Miami can ignite growth in LAC

Miami’s takeoff enables the activation of Central American and Caribbean (CAC) knowledge exports and startup ecosystems, by leveraging Miami and tourism-driven human capital flows. CAC could produce additional service exports of over \$20B per annum to the world.

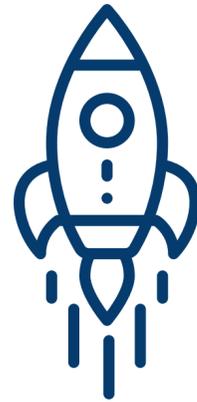
The city could emerge as an increasingly important role in accelerating the growth of the venture capital (VC) industry in the region, connecting US resources with LAC opportunities. The industry has the potential to generate more than \$30B annual VC investments by 2030.

Miami could also contribute to the takeoff of LAC’s Deep Tech startup ecosystem, starting with life sciences, healthcare, space and augmented reality, by serving as a scale-up platform for an early cohort of LAC Deep Tech startups that validate the quality and potential of talent in the region. LAC Deep Tech startups could generate well over \$100B in value by 2030, and the region could increase private sector R&D by 0.5%-1% of GDP by 2030, by activating R&D centers from startups and multinational corporations.

Another massive opportunity that Miami could help accelerate is the export of digital services. The opportunity here is to generate \$100B of additional annual exports by 2030.

Selected opportunities to catalyze LAC development leveraging the rise of Miami's ecosystem

CAC activation



Igniting startup ecosystems and knowledge exports in CAC by leveraging Miami and human capital flows

>\$20B in annual exports and >5 new local ecosystems

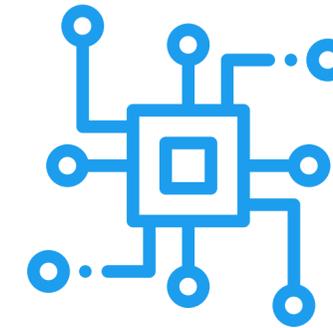
Venture Capital



Accelerating venture capital flows between US and LAC to leverage LAC’s boom ecosystem while enabling Miami growth

>\$30B annual VC investments in LAC by 2030

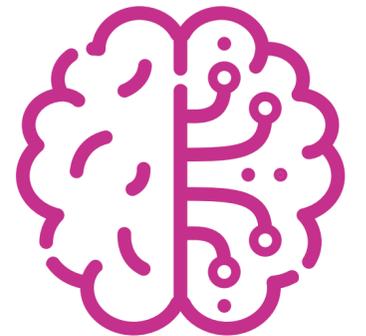
Deep Tech



Catalyzing LAC’s Deep Tech startup ecosystem and activating private sector R&D by leveraging Miami and LAC capabilities

>\$100B in value creation and 0.5%-1.0% extra GDP by 2030

Digital services



Extending nearshoring to service exports to leverage LAC’s talent and generate \$150B-plus worth of exports for the region

\$100B in additional annual exports by 2030 and >4M jobs created by 2030



CAC could generate talent-based growth

The rise of Miami and a new global context creates the opportunity to translate human capital flows into talent-based growth.

It has never been easier to work remotely from Central America and the Caribbean (CAC). Seamless free cloud-based solutions, and an increased acceptance of teleworking make this possible. The emergence of mega-constellations of internet satellites providing fast internet to every point on the planet, such as SpaceX's Starlink, solves the connection challenge and enables anyone to be perfectly connected even in the farthest island. Low-cost solar panels and energy storage solutions address the issue of unreliable grids.

At the same time, the rise of Miami could result in the region having a large ecosystem nearby its shores for the first time in history. That will provide access to early stage startup support and tech talent demand. Miami also validates a new ecosystem paradigm centered on the quality of life, and could generate an overflow of talent and companies looking for analog lower cost alternatives, as well as a role model for other cities in the region to emulate.

How CAC could translate tourism-driven human capital flows into talent-based growth



Tourism-driven human capital flows

Positive impacts of Miami

Access to early stage support

CAC players will have access to nearby accelerators, VC funds, lawyers, NGOs, universities, etc. with the know-how required to support early development

Validation of a new ecosystem paradigm

Miami is proving that it is possible to build ecosystems based on quality of life in tropical locations

Overflow and emulation

As the Miami ecosystem grows, real estate prices and talent compensation will increase, creating pressure to look for adjacent locations

The new satellite internet

The emergence of mega-constellations of internet satellites such as Starlink enables access to high-speed connections across the region

Distributed energy

The fall in costs of solar panels and home energy storage enables distributed energy solutions and reduces the exposure to inadequate electric grid infrastructure

Remote working

Greater flexibility for remote working and the interest in living in beautiful destinations enables attracting digital nomads and service exports



Talent-based growth

New global factors



CAC activation

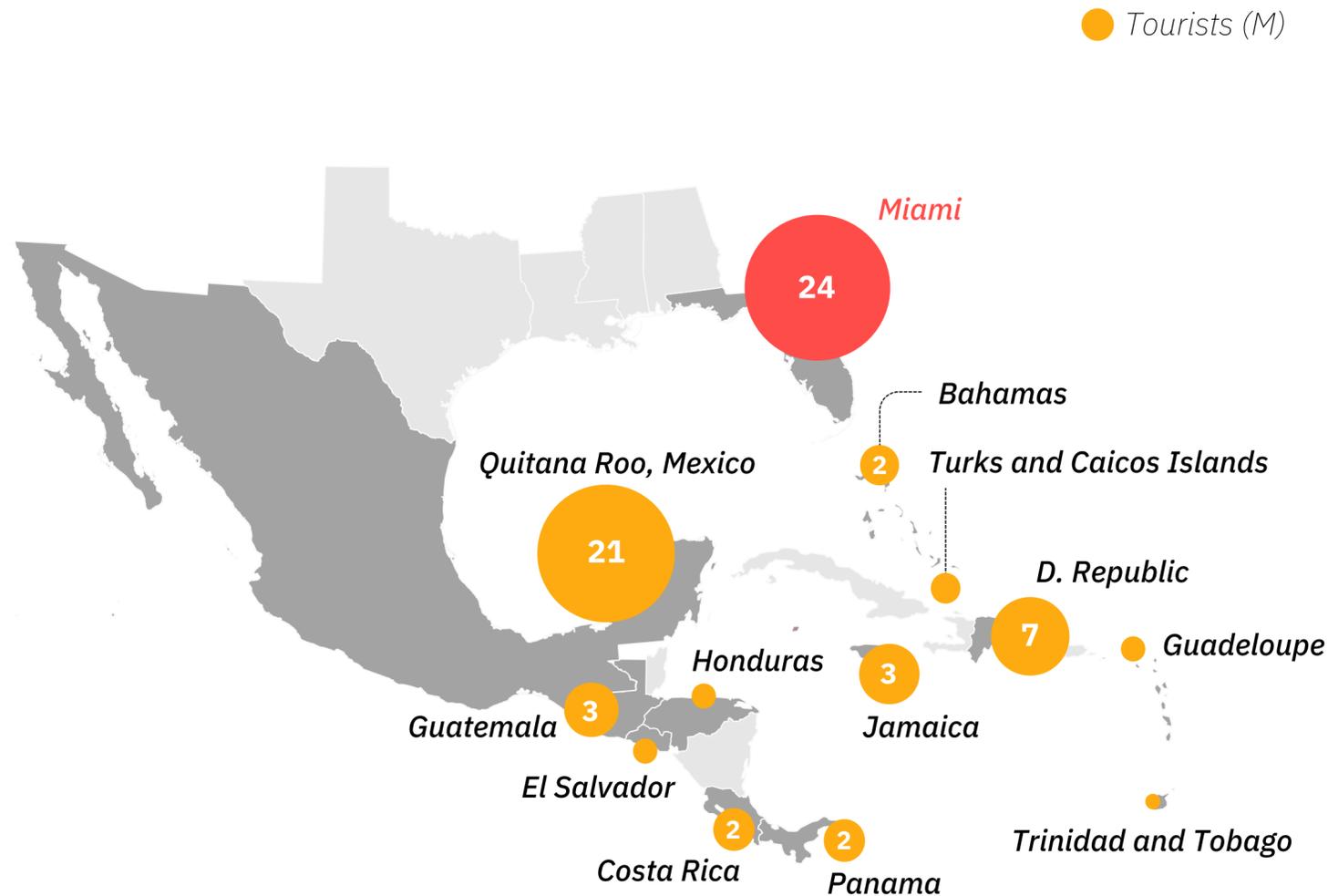
CAC could ignite a ring of light around Miami

According to the Global Innovation Index, Central American and Caribbean (CAC) countries have some of the lowest levels of human capital development in the world, and they are also behind in terms of ICT capabilities and business environment. These factors conspire against the creation of an innovation-driven economy.

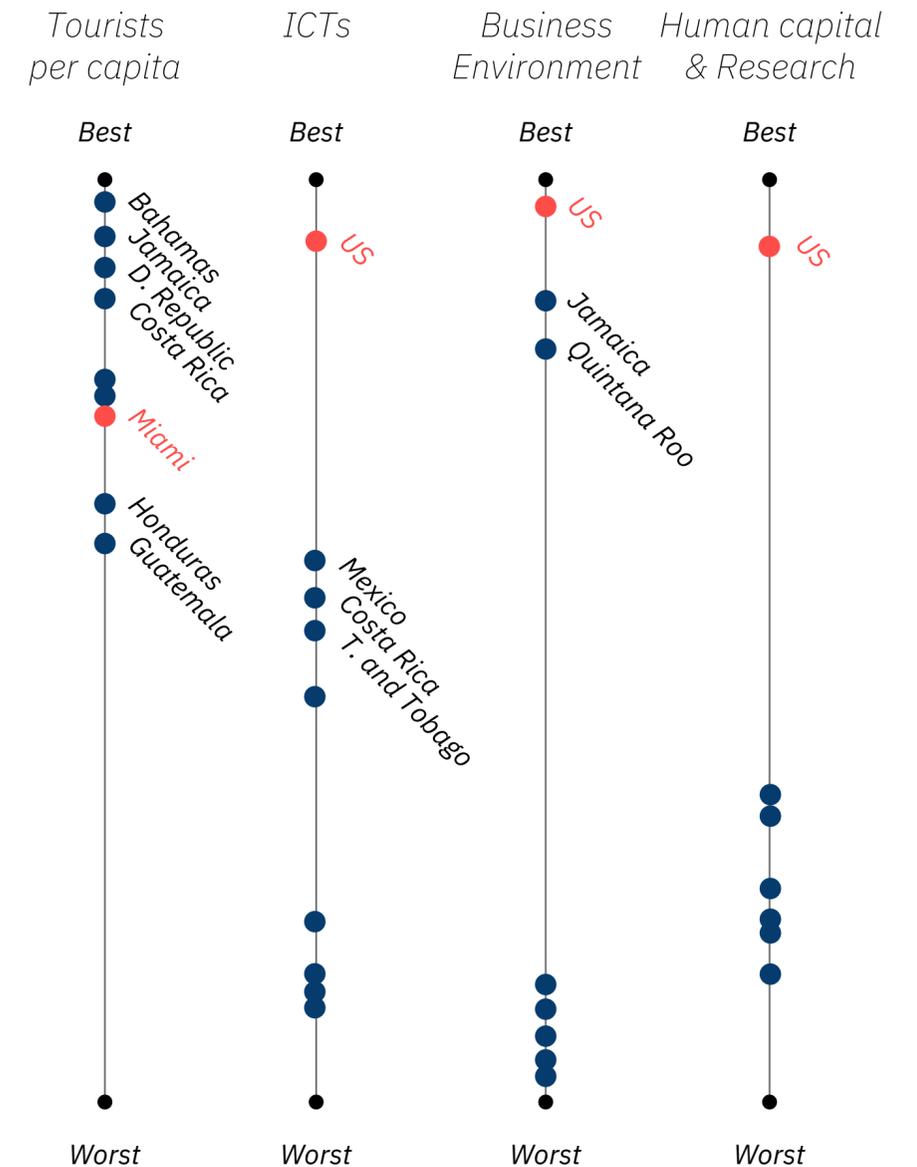
But these countries are also endowed with extraordinary natural beauty, an asset that cannot be replicated. Consequently, they have some of the highest flows of tourists per capita. Every year, the region attracts millions of young and affluent individuals to its shores and tropical forests. They include some of the most powerful tech entrepreneurs in the world, such as Richard Branson and his guests, as well as a growing number of digital nomads that are discovering the possibility of living in paradise while doing cutting-edge work.

The growth of the Miami ecosystem will bring more tech talent closer to CAC, provide critical resources for early-stage startups, and validate the possibility of creating startup ecosystems in tropical settings. CAC could capitalize this opportunity in order to build a ring of satellite ecosystems around Miami, converting tourist flows into digital nomad and entrepreneurial destinations.

Tourism flows in Central America and Caribbean



Country's ranking as percentile of global population



Note: All the information considers the country, except for Miami and Quintana Roo, Mexico's population and tourists
 Source: World Bank, GII, UNWTO, Tecnolatinas 2021, Surfing Tsunamis



Multiple levers to activate CAC ecosystems

Activating the CAC ecosystem will require a vision and a well-orchestrated set of actions. Specific plans will vary from country to country; however, they need tremendous effort on multiple fronts.

To illustrate the range of levers, we display some potential actions across three dimensions in this chart.

1. Activating the technology ecosystem by leveraging talented visitors, co-sponsoring conferences and training programs, deploying matching funds for accelerators, incubators and early-stage VCs, as well as matching funds and loans for coding schools and multimedia design programs.
2. CAC countries could also enhance human capital and infrastructure by introducing 21st century skills, (such as coding), into their curricula, promoting innovation discovery expeditions for policymakers and ecosystem builders, improving flight connections and infrastructure, accelerating the elimination of barriers to the introduction of satellite internet, and facilitating the improvement of quality-of-life enhancers.
3. Finally, there are opportunities to create incentives and regulations similar to those of global competitors, including digital nomad visas, tax deductions and best-practice regulations for service export companies and freelancers, as well as for investors and startups.

Examples of levers to activate CAC startup and knowledge ecosystems

Technology ecosystem



Leveraging **talented visitors** for ecosystem building activities



Matching funds and loans for developing **knowledge intensive services**

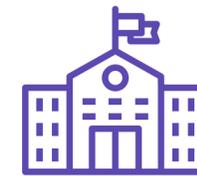


Matching funds for **accelerators, incubators** and early-stage **VCs**



Co-sponsoring **training programs and conferences** for startups, investors and corporate innovation teams

Education and infrastructure



Development of **coding schools** and incorporation of **21st century skills in schools**



Innovation discovery trips for policymakers and ecosystem leaders



Airport and flight connection improvements and **satellite internet** connectivity



Retail offering improvements (shopping malls, supermarkets, etc.)

Incentives and regulation



Digital nomad visas to incentivize remote workers to stay for lengthy periods



Tax deductions for knowledge service export companies (corporate income, FDI¹ and R&D)



Regulation incentives to facilitate technological **startups generation**



Taxes and regulation incentives for VCs and technological investors

1: FDI: Foreign-derived intangible income
Source: Surfing Tsunamis



Miami's ecosystem could help CAC boost its KBS exports

CAC countries could boost their knowledge-based service (KBS) exports. For example, Costa Rica exports \$961 per capita, compared with only \$22 in the rest of the region.

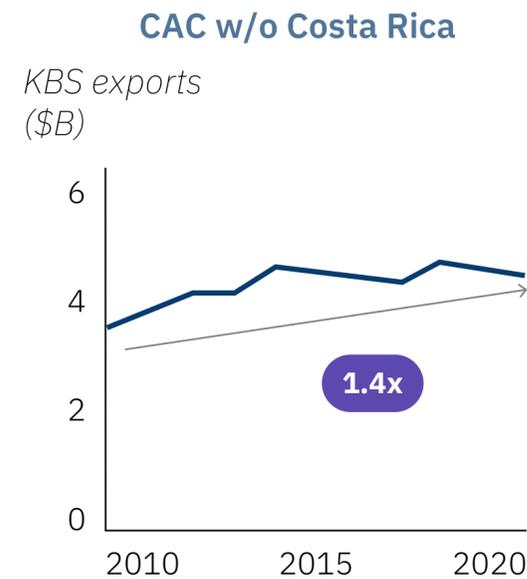
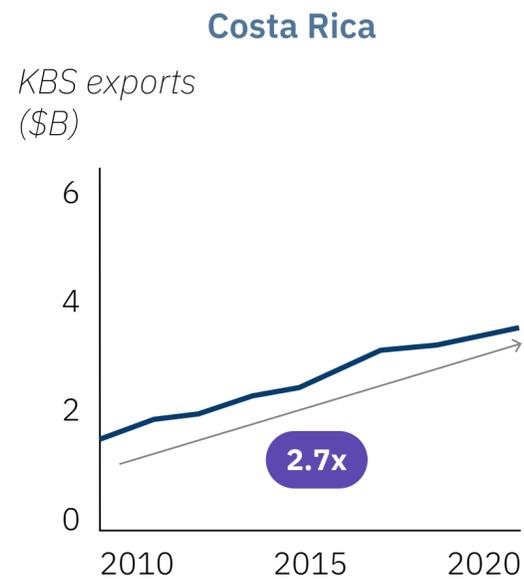
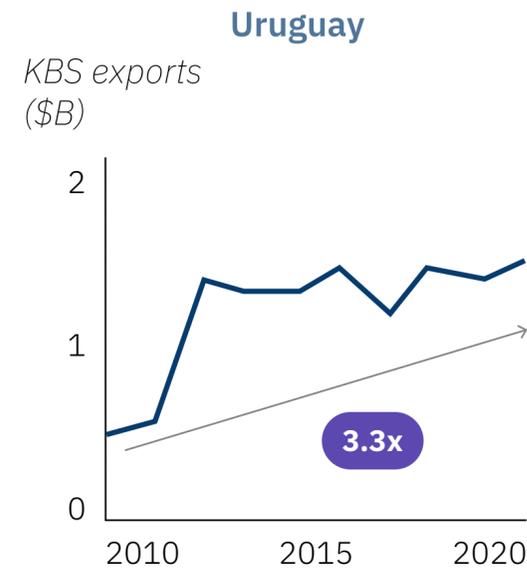
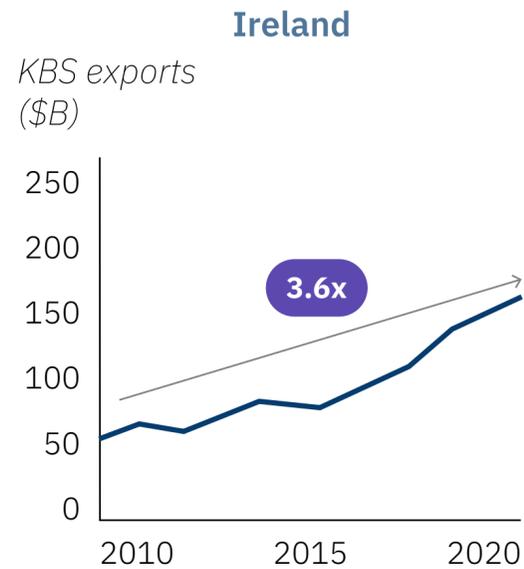
International experience shows that rapid KBS exports growth is feasible. In the past decade, countries such as Ireland, Uruguay and Costa Rica were able to increase their KBS exports by 3.6x, 3.3x and 2.7x, respectively.

Today the CAC region exports \$10B of knowledge-based services every year. If the region replicated those growth rates in coming years, it could boost its exports to \$25-\$34B, generating an additional income of between \$15-\$24B a year.

The rise of the Miami ecosystem and greater connectivity to other ecosystems can help the region achieve this goal. The success of Ireland and India as KBS exporters was aided by their diasporas based in the Boston and Silicon Valley areas. As Miami and other ecosystems with significant Latin communities grow, they are likely to increasingly leverage the talent cost arbitrage opportunities. This growth should be further enabled by the emergence of satellite startup ecosystems around Miami.

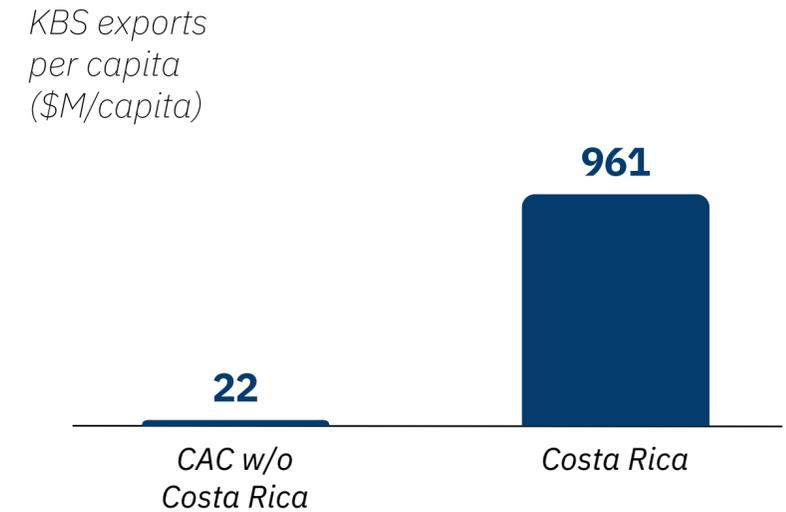
Rapid KBS export is feasible

KBS exports growth from 2010 to 2020

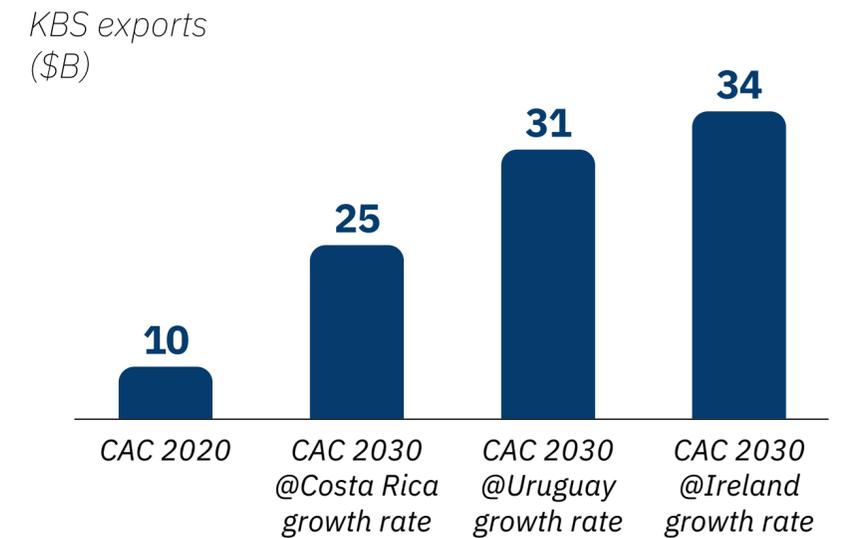


CAC could boost KBS exports

CAC KBS per capita in 2020



CAC KBS exports potential



Source: WTO, Surfing Tsunamis



LAC VC is booming and has further room for growth

The global venture capital (VC) industry is growing fast and should continue to grow as the technology revolution accelerates. This is particularly true outside the US. The global VC industry went from investing \$47B in 2010 to \$321B in 2020, while the US market share went from 67% to 51%, with most of the growth concentrated on China and other emerging countries.

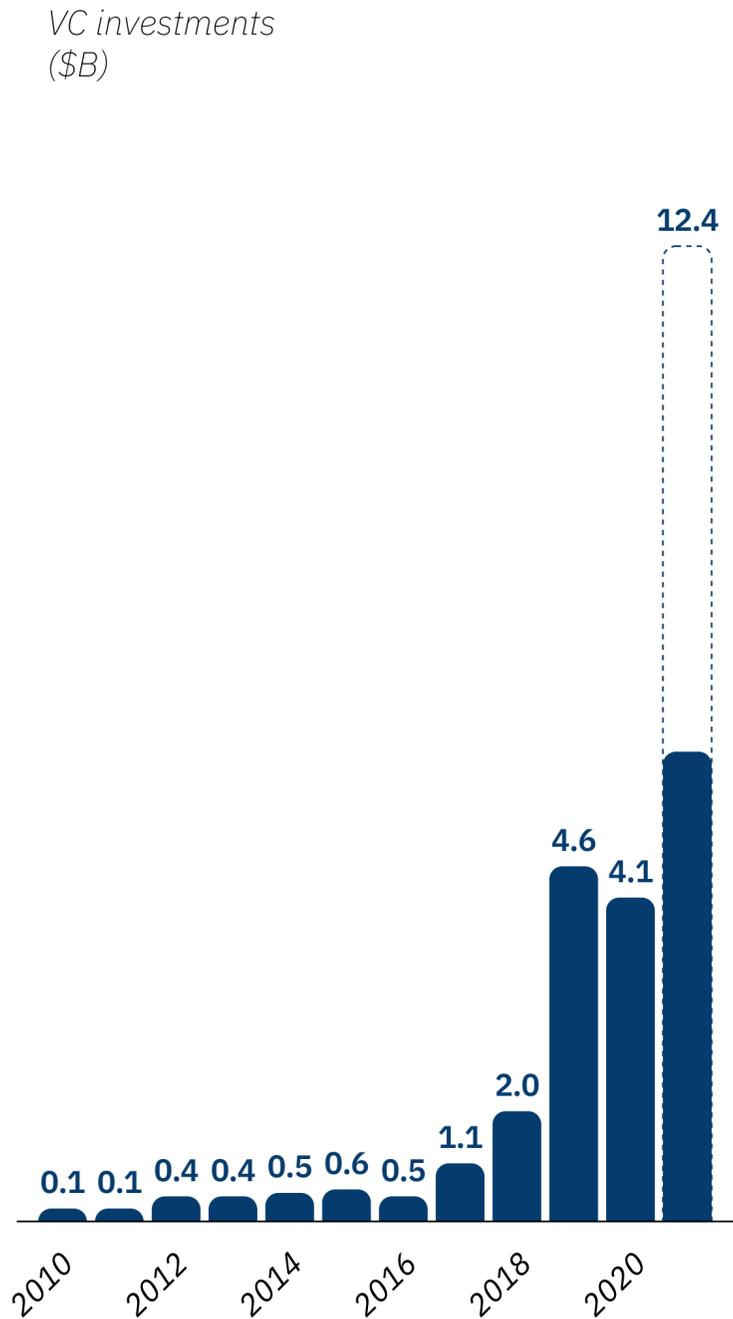
Venture capital investments took off in Latin America and the Caribbean in the course of the past years. The industry went from investing \$0.1B in 2010, to \$6.2B in the first half of 2021.

But LAC has further room for growth. In 2020, the penetration of venture capital relative to the size of the economy was still minimal. LAC investments relative to GDP were only 0.1%, while they totaled 2.7% of GDP in Israel, and 0.8% in both the US and Estonia. Even if the leap in LAC investments during the first half of 2021 is sustained, the gap with other countries remains high.

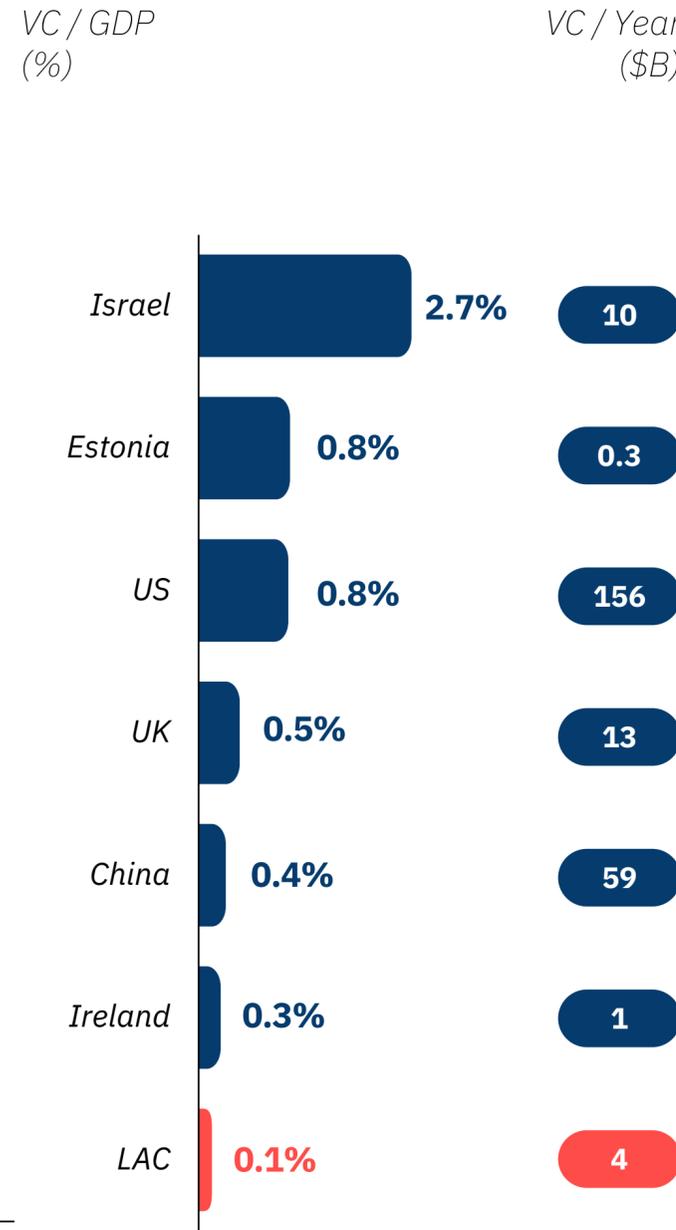
The gap is particularly large when we consider the growing productivity gap between LAC and more advanced economies, which could be addressed with advanced technologies.

As more VCs lands in Miami, the level of awareness about LAC opportunities will increase and more capital is likely to flow into the region.

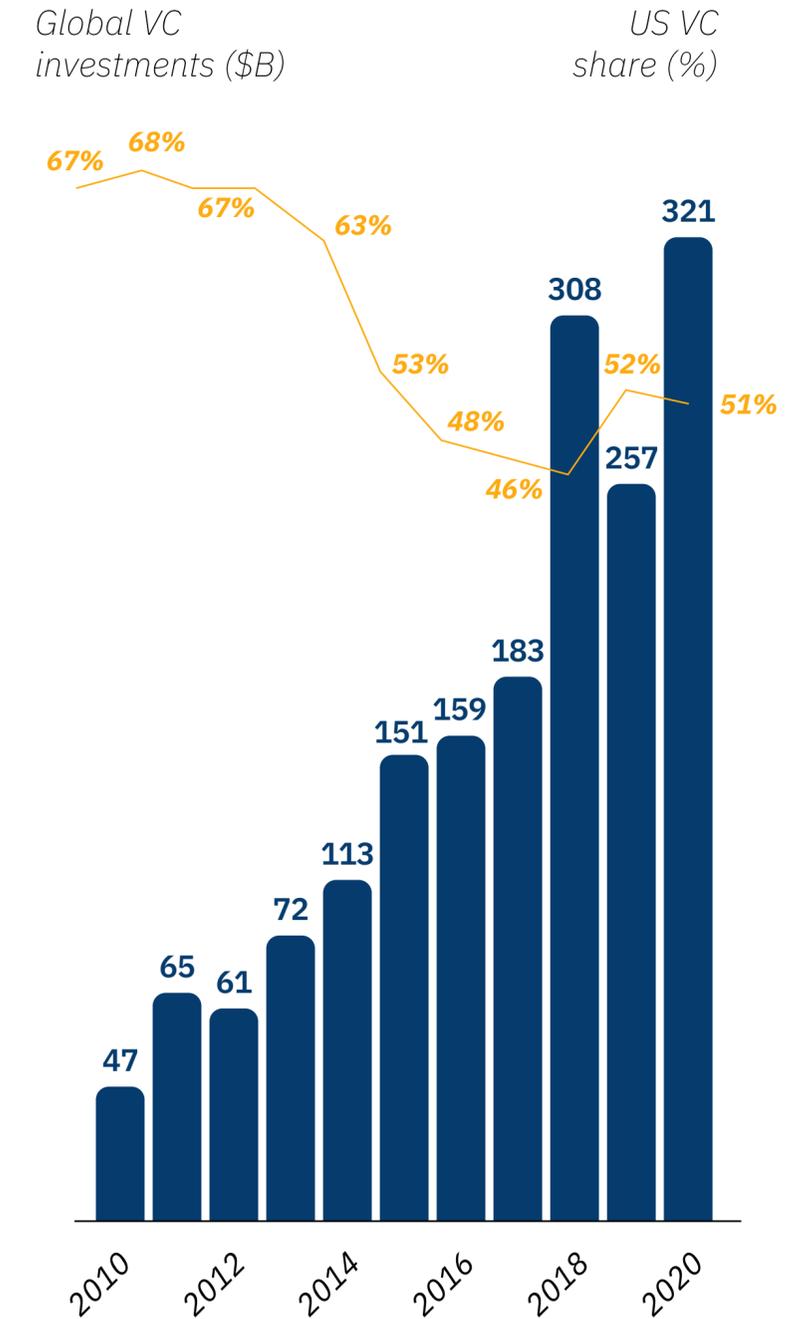
LAC VC investments evolution



VC comparison in selected countries in 2020



Global VC industry evolution and US share



Source: TecnoLatinas 2021, LAVCA, NVCA, OECD, IMF, KPMG, IVC, Surfing Tsunamis



Miami could play a role addressing LAC VC opportunities

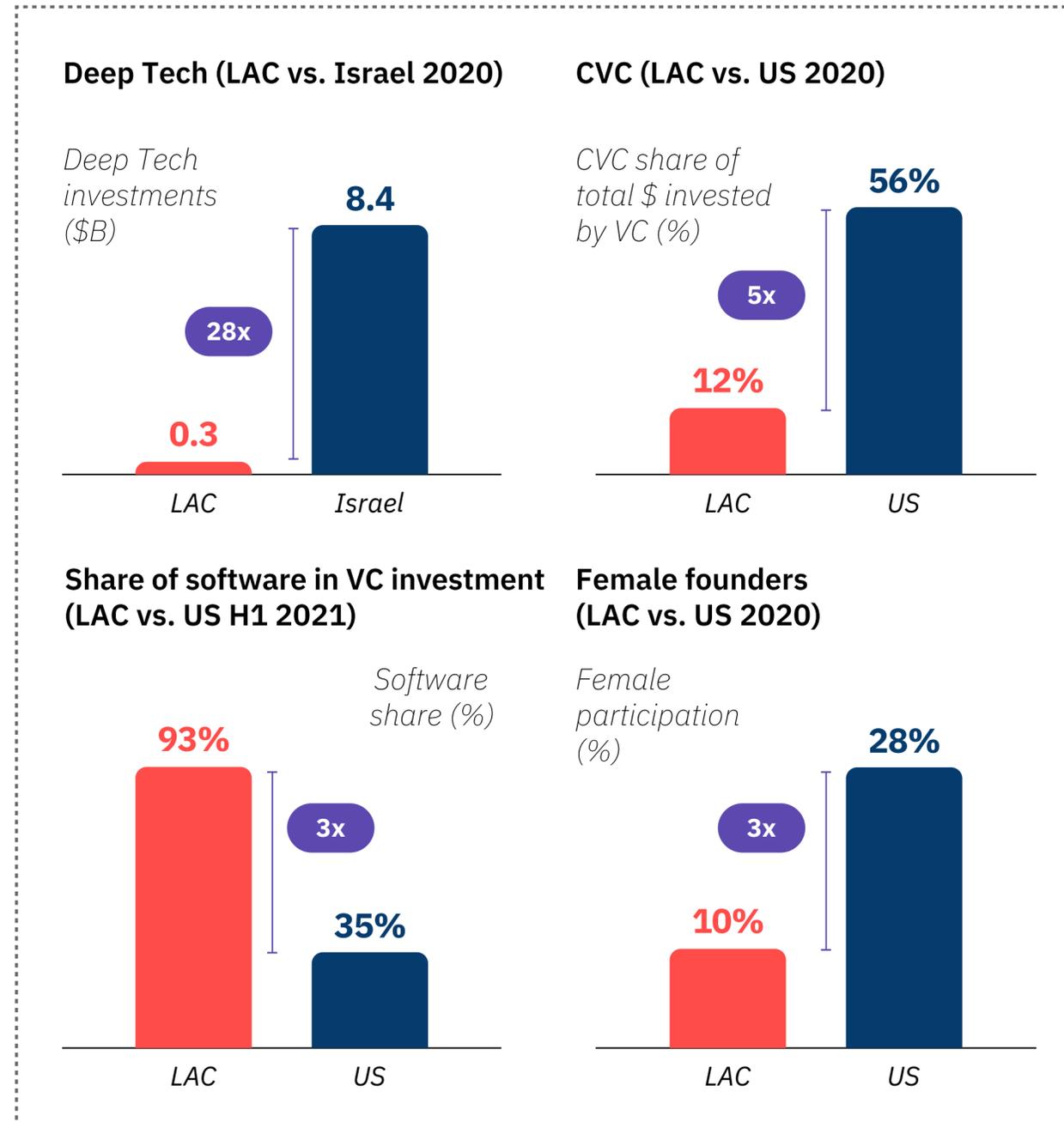
There are various opportunities for further development of LAC's venture capital ecosystem.

Deep tech activity is a fraction of what it should be. LAC (population 650 million) invested less than \$300M in Deep Tech in 2020, while Israel (9 million people) invested more than \$8B during 2020. Despite the interest in innovation coming from corporate executives, the share of corporate venture capital in LAC is only 12%, compared with 56% in the US. The women talent pool is under-utilized too, female founder participation is one third of what it is in the US. The sector diversification is weak, with software sectors representing at least 93% in LAC vs. 35% in the US.

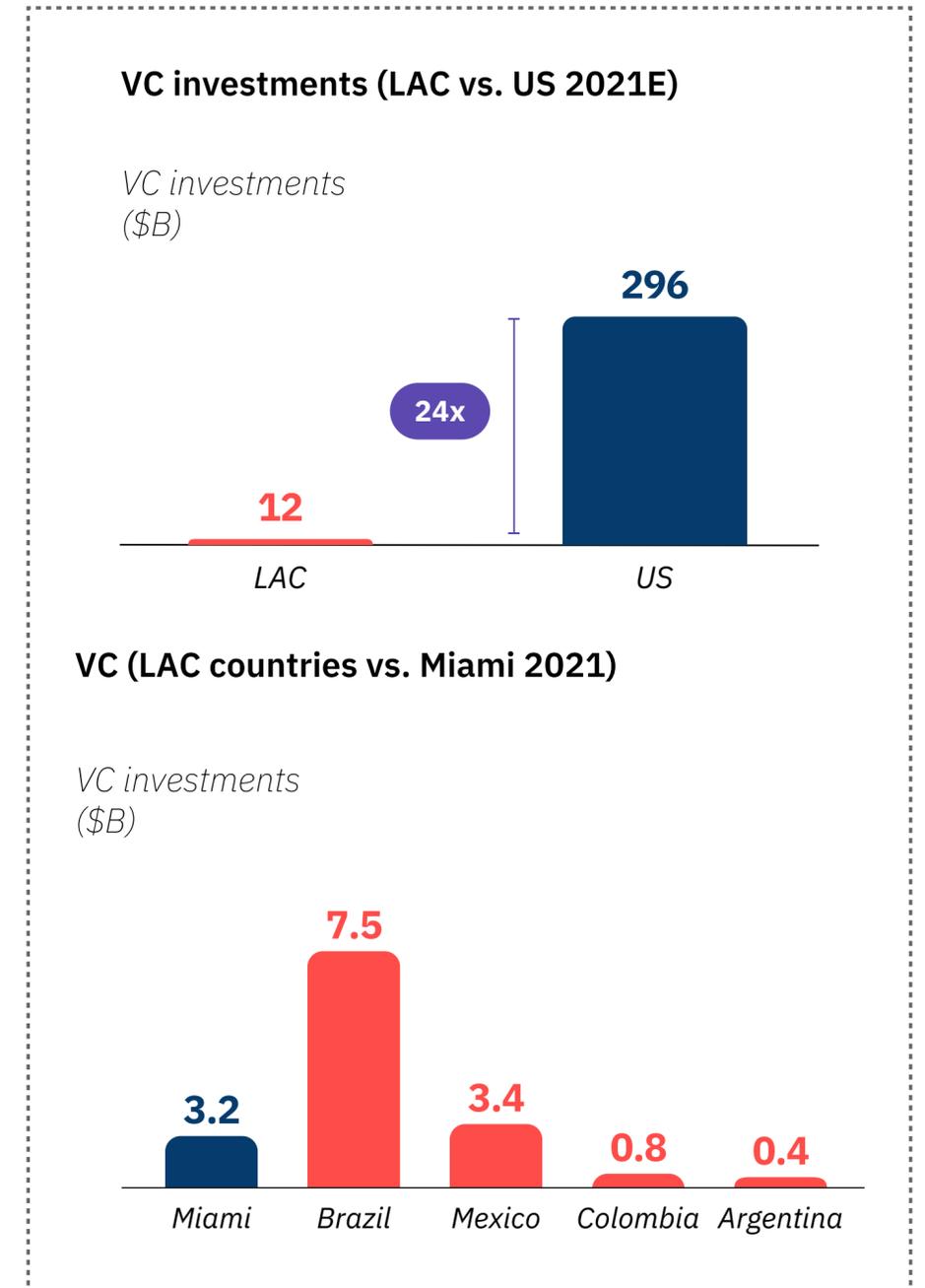
The US could play a crucial role accelerating the closure of this gap. Even during H1 2021, LAC VC investments beat the historical record several times, the US invested nearly 24 times more venture capital.

As we demonstrated, Miami is a natural bridge between more mature capital markets and LAC. Today, the city could have been the third largest market in the region. And though this is not the case yet, it already plays a significant role via Softbank and other players. As the city keeps on expanding in the years to come, it will complement Sao Paulo as a critical hub for LAC.

Untapped opportunities



Miami can play a key role





LAC has massive unexploited potential in Deep Tech

Deep Tech is booming. According to BCG, investment in Deep Tech quadrupled over the 2016-2020 five-year period, going from \$15B, to more than \$60B.

Today, LAC has more than one million researchers and R&D technicians, including more than 200,000 PhDs. Despite the limited available capital, five LAC Deep Tech companies managed to create over \$500M.

Igniting the Deep Tech startup ecosystem is likely to awaken the interest of young talent and universities to bring innovations to market, and it will showcase the quality of the best LAC talent. This could lead to a rise in private sector R&D, especially if best practice incentives are put in place.

Latin America and Caribbean countries generate less than 0.6% of their GDP from R&D, with most of the funding coming from public sources. World class markets like Israel and Korea, produce more than 4% of GDP from R&D, generally with private sector activity, particularly attracting R&D centers of global companies. International experience shows that a rise of 0.5%-1% of GDP in R&D activity is possible by 2030.

Researchers, technicians and PhDs in LAC



1M
Researchers & R&D technicians

242K
PhD researchers

248K
Masters

Source: Ricyt, Surfing Tsunamis

LAC Deep Tech startups worth over \$500M

Startups worth over \$1B



Startups worth between \$500M and \$1B





LAC Deep Tech startups could benefit from a base in Miami

Deep Tech innovation is global and more capital intensive in nature, especially in the early-stages, than e-commerce and fintech entrepreneurship, requiring investments in the development of technology, prior to testing product-market fit. These factors, coupled with a culture of scientific paper orientation, have historically prevented LAC from creating Deep Tech ecosystems.

Nevertheless, the barriers to innovation in many Deep Tech fields have dramatically collapsed, and a few early successes are creating a new interest in entrepreneurship in areas, such as biotechnology, space and cybersecurity. But LAC Deep Tech startups continue to face capital, know-how and market access constraints that result in much lower valuations than those of their peers in the US, engendering an opportunity for savvy investors.

Some founders are beginning to move to different locations across the US in order to achieve better access to capital and global markets, while leveraging the advantage of tapping into lower-cost R&D teams in LAC.

The rise of Miami could contribute in igniting LAC's Deep Tech ecosystem, as it is positioned to become a natural platform for early Deep Tech founders, starting with life sciences, an area where the city and the region share clear areas of strength.



Source: Surfing Tsunamis

- There is a massive Deep Tech opportunity
- Deep Tech is global and capital intensive in nature
- LAC Deep Tech startups face capital and market access constraints
- LAC founders based in US can have improved access to VC and better address global markets while leveraging LAC R&D advantage
- Miami will increasingly become a natural choice to combine and balance these advantages -- starting with Life Sciences



Over \$100B opportunity for LAC digital services

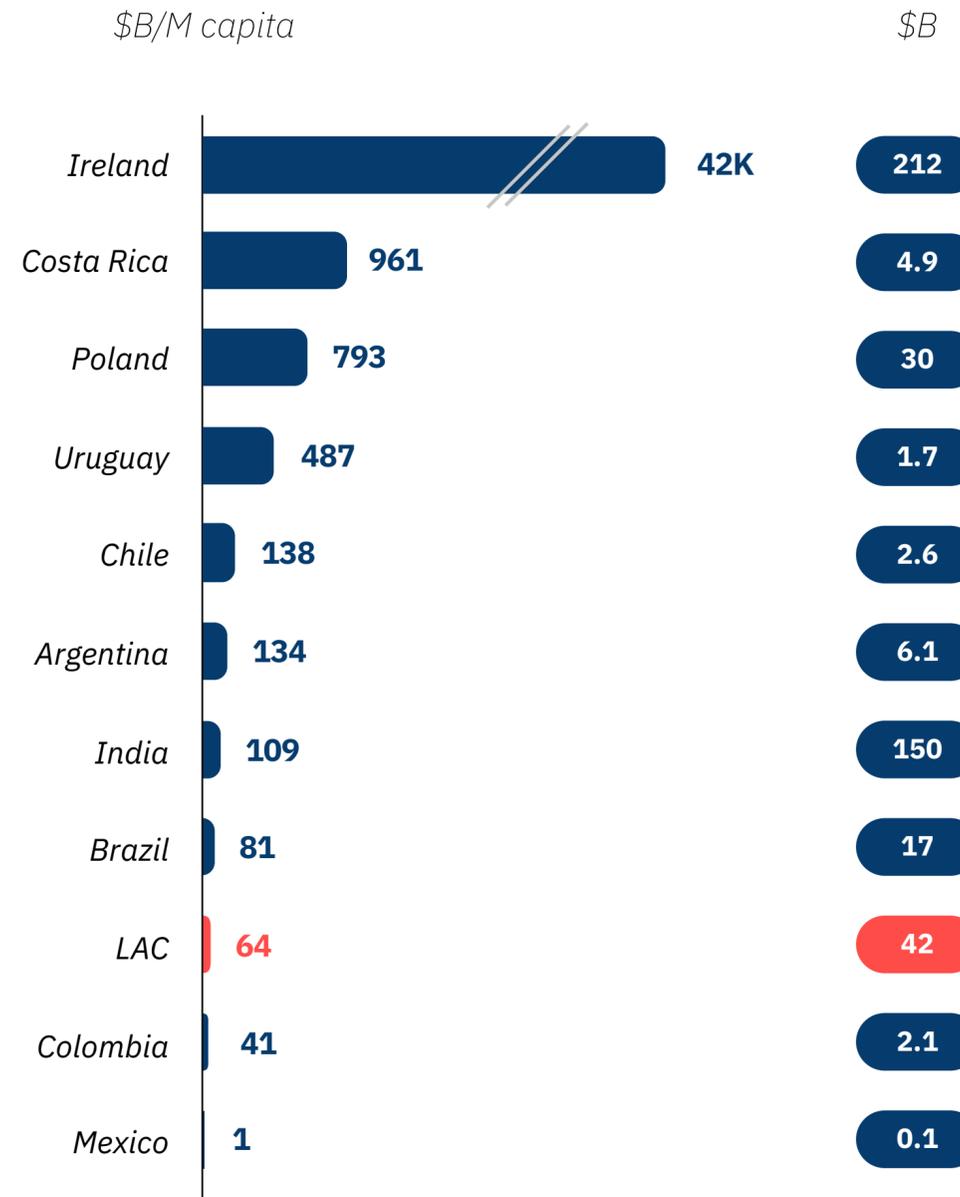
One of the biggest openings for LAC export growth and employment creation lies in digital service exports. Over the past 15 years, global exports of knowledge-based services, such as software development or management services, have grown from \$918B to \$2.5T. LAC is not appropriately leveraging this opportunity. Its share of global exports in this space has dropped from 2.1% in 2005, to 1.7% in 2020. This is far below LAC's 8.6% of the world's population.

On average, each LAC person is exporting just \$64 per year, while Uruguay is exporting \$487, Costa Rica \$961, and Ireland more than \$42,000. LAC (population 650 million) exported \$42B of knowledge-based services in 2020, whilst Ireland (less than 5 million inhabitants) exported \$212B.

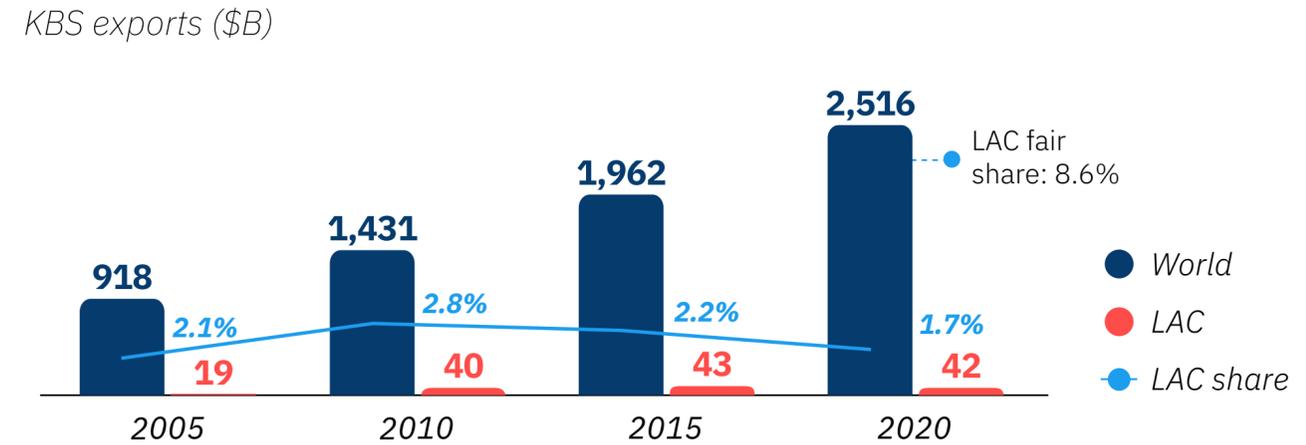
The size of the opportunity is enormous. If the region were to export as much as the world on a per capita basis, its sales would rise to more than \$200B today. By 2030, considering market and population growth, LAC's fair share would reach \$433B. Supposing that the region exported as much as Costa Rica does on a per capita basis, it would export \$629B.

LAC has a vast young population in the same time zones; it also is the largest importer of knowledge services in the world, and has an abundance of low cost talent. The rise of Miami could help catalyze exports by raising the awareness of the opportunity.

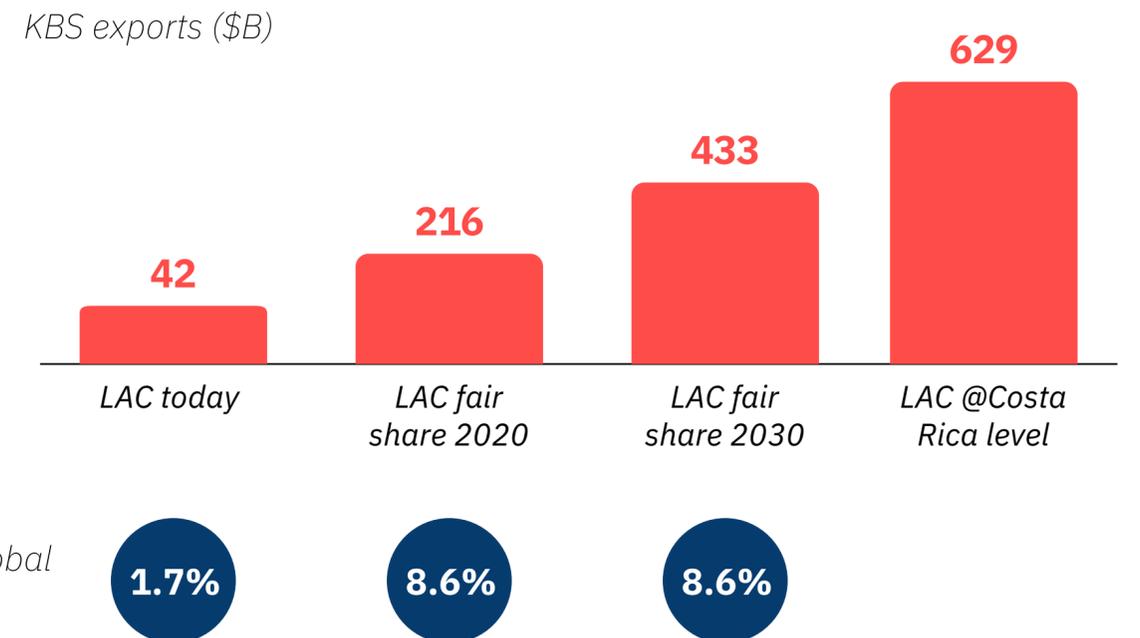
KBS exports per capita in 2020



Global and LAC KBS evolution



LAC KBS exports potential



Source: Tecnotlatinas 2021, WTO, Surfing Tsunamis



The US is the largest importer of knowledge services, and Miami could catalyze exports

The US is the leading knowledge-based services market in the world, importing \$222B of such services, mainly from Asia and Europe. This means that there is a large opportunity for nearshoring.

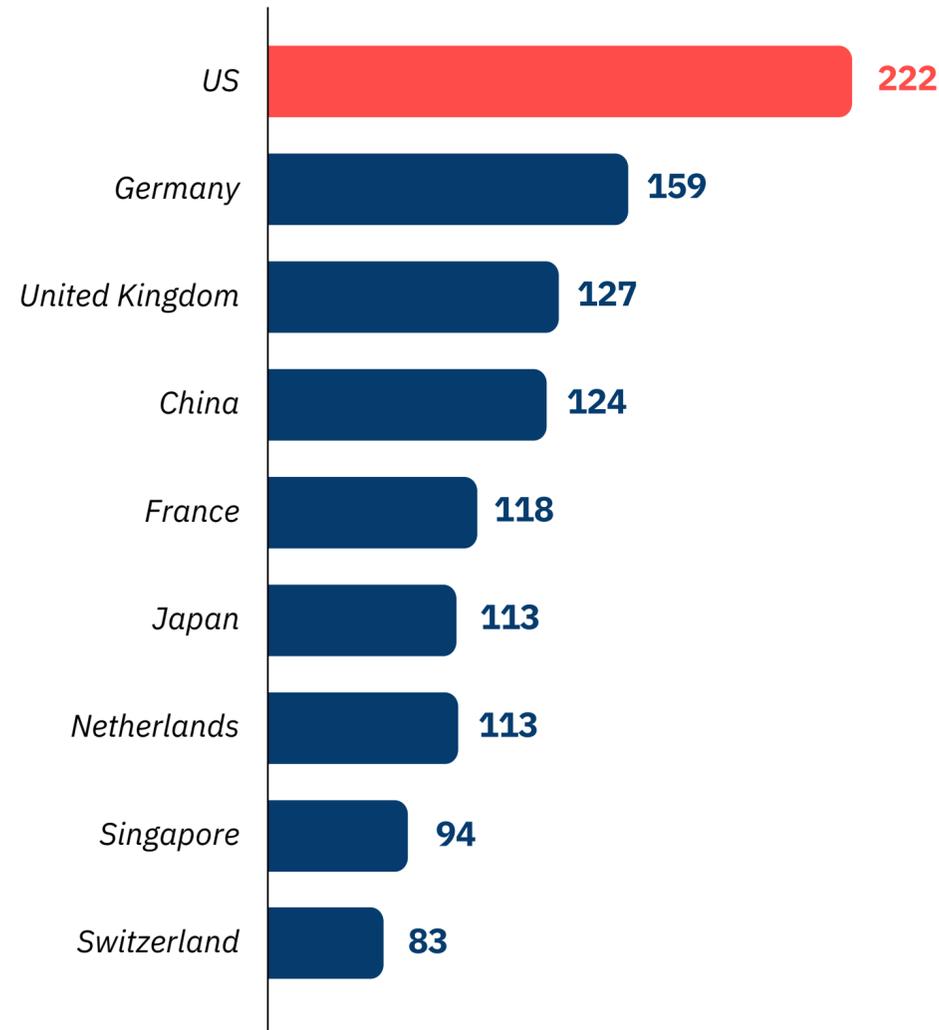
Having a natural client base in the US in the form of a diaspora has aided the success of Ireland and India.

Thus far, Latinos have not played the same role. But this could change, since Miami is taking off as the share of Latin in the ecosystem, and their connections with LAC, continue to intensify. Entrepreneurs are by now leveraging the advantages of low cost LAC talent. Shortly, others will follow suit, as the cost of living keeps on rising in the US.

This presents a massive opportunity for collaboration and complementarity across the Americas. Higher service imports and more prosperity in LAC, especially in Central America and the Caribbean, could generate prosperity and reduce the pressure for illegal immigration.

There will be a potent ecosystem in the US where Latinos play a prominent role, and it will be possible to export knowledge services even from remote areas without robust infrastructure. The impact could be transformational if policymakers open their eyes to this opportunity and emulate the policies of countries such as Ireland, Costa Rica and Uruguay.

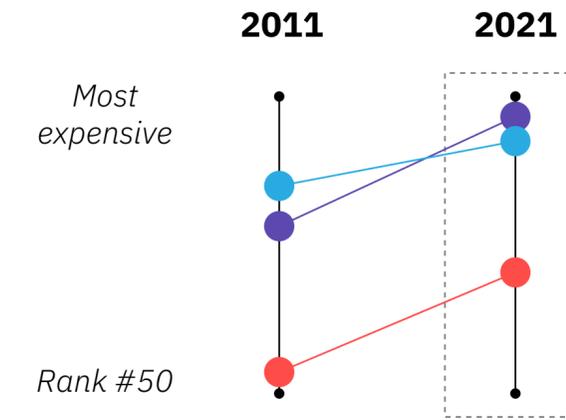
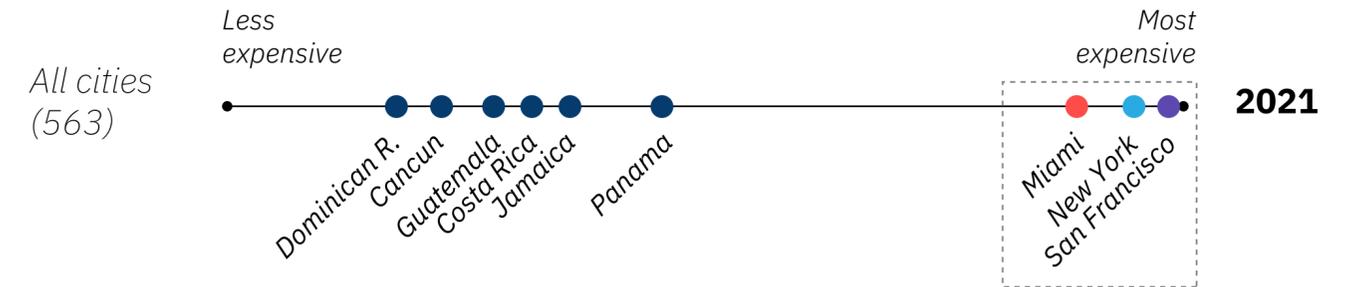
Top importers of knowledge based services in 2020



Source: WTO, Surfing Tsunamis

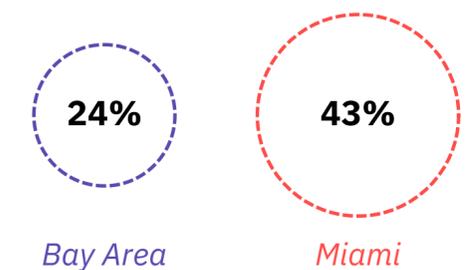
Cost of life global ranking of selected cities

Ranking (#)



Latin population in Bay Area and Miami

Latin population (%)





Self-sustaining policies could boost LAC's KBS exports

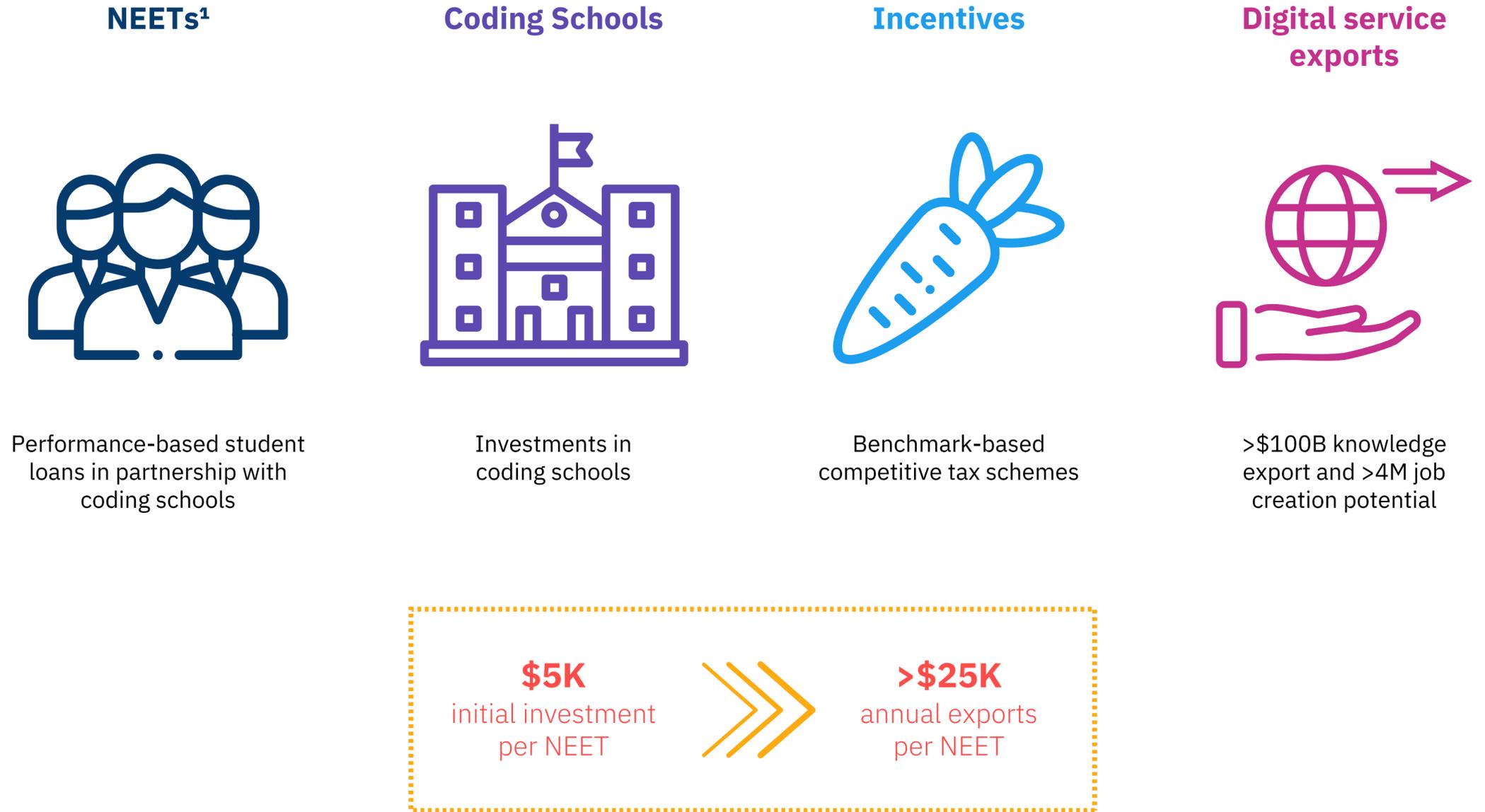
LAC could generate \$100B of additional knowledge-based service exports and 4 million jobs by 2030. Nowadays, there are more than 20 million youth that are not engaged in employment, education or training (NEETs) in Latin America and the Caribbean. This represents a major social challenge, as well as, a huge opportunity.

A motivated young person can acquire skills to become an entry-level programmer, earning around \$1,000 per month, and generating around \$25,000 of annual exports after an investment of \$5,000 over a four to six month period. Placement benchmarks after such training are above 90%.

This means that there is a strong rationale for creating student loans programs in partnership with coding schools, where schools test candidates' potential and motivation and offer low-cost, three-year public sector student loans to students who show aptitude. To align incentives, the scale of loan packages for coding schools could be tied to historical job placement and loan recovery performance.

These loans could be complemented with equity matching fund programs for coding schools, as well as benchmark-based competitive tax schemes for knowledge exports.

Levers for boosting LAC knowledge-based service (KBS) exports



1: NEET stands for Not Engaged in Employment, Education or Training. There are more than 20 million NEETs in LAC
Source: Market interviews, Surfing Tsunamis

HOW LAC CAN HELP MIAMI

LAC IS VALUABLE FOR MIAMI



Miami needs to compete with ten larger and fast growing US ecosystems. Its own ecosystem is still 34 times smaller than Silicon Valley in terms of venture capital deal value. It is also weaker than the Boston area, New York, Los Angeles and even Sao Paulo. This has limited its capacity to create large unicorns and ecosystem value. Miami startups compete with peers from ecosystems that still provide stronger structural advantages.

Today, the connections between the LAC and the Miami ecosystems are limited: Miami startups are mostly focused on the US market (83% of startups) and merely 23% of local startups have a Latin founder.

Embracing the LAC connection creates the potential for a strategic competitive advantage for the city. The region has a market with more than 650 million people that are often times overlooked by other ecosystems. Its ecosystem is booming and is on track to create \$2T in value and well over \$30B of annual venture capital by the end of the decade.

Miami startups that have gone international create 8.3 times more value than those focused exclusively on the US market (\$410M vs. \$49M on average), accounting for 17% of startups and 63% of the ecosystem value. Latin America and the Caribbean (LAC) provides an excellent stage for early international expansion.

The connection with LAC could keep attracting to Miami venture capital funds, entrepreneurs and companies serving the region. LAC startups provide an excellent risk-return relation for investors. In their first two years of life, LAC startups are on average worth 25% of their Miami peers, but LAC startups achieve values between 2.5 and 3.6 times higher than those from Miami later in their lifetime. The presence of players initially focused on the region, such as Softbank, has strengthened the local ecosystem.



A stronger connection with LAC could also provide a talent advantage for Miami startups. As we already indicated, LAC-based talent has a significantly lower cost than US-based talent. Miami founders are better positioned than their peers in other locations to leverage this advantage. The cost of living in Miami is likely to rise as the innovation ecosystem grows, like it did in San Francisco and New York, resulting in higher costs for Miami-based talent and creating additional pressure for arbitrage.

By leveraging LAC-based talent, Miami could also neutralize the lack of universities at the same level as Stanford or MIT. The city is better positioned to contract from a talent pool of almost 30 million LAC university students and over one million researchers working across the region.

These benefits could also be captured by a few other ecosystems, particularly New York, Los Angeles, Austin and Silicon Valley, but Miami seems best positioned.

LAC could enable Miami to become an international hub

Over the past decade, Miami has laid the foundations of a startup ecosystem. In 2010, the city had a limited number of isolated tech companies, many of which were remnants from the dotcom boom era. By 2015, a small group of leaders already had a shared vision of turning Miami into a startup city.

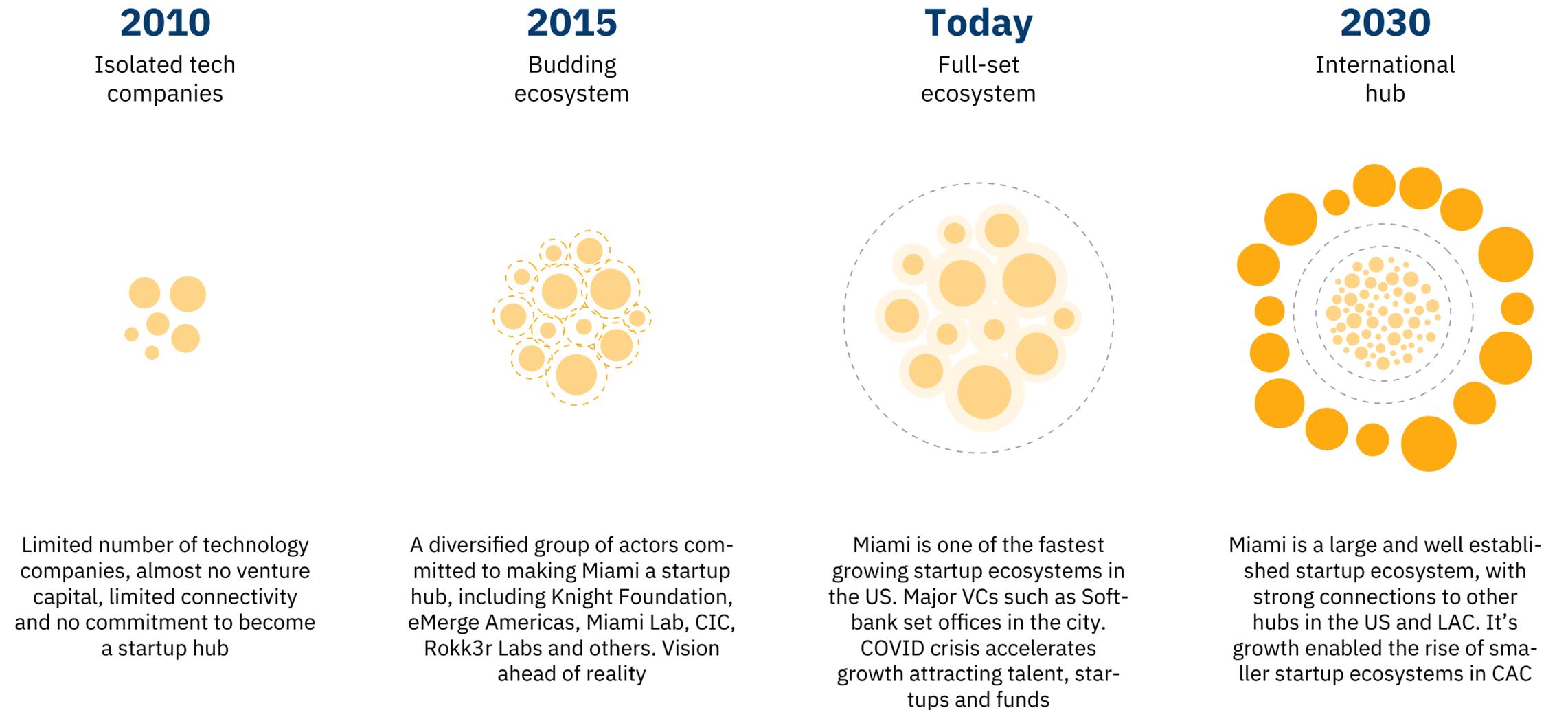
These days, the city has a full-set ecosystem with hundreds of startups, VCs, accelerators, international events, NGOs, increasingly innovation-oriented universities, committed policymakers, etc.

The Miami ecosystem seems to be destined to grow in the course of the next decade. The momentum, the activity level and the excitement about the future are contagious.

The city is likely to become a sizable and diversified startup ecosystem focused on the US market-- but it would be remiss to overlook the opportunity of becoming an international hub leveraging its connection with LAC.

As it grows, the city will also be uniquely positioned to ignite a ring of connected smaller ecosystems around the Caribbean and Central America. Larger LAC countries will also benefit from improved access to venture capital, information, and knowledge export opportunities.

Miami ecosystem evolution from 2010 to 2030



Miami ecosystem is much smaller than other US hubs

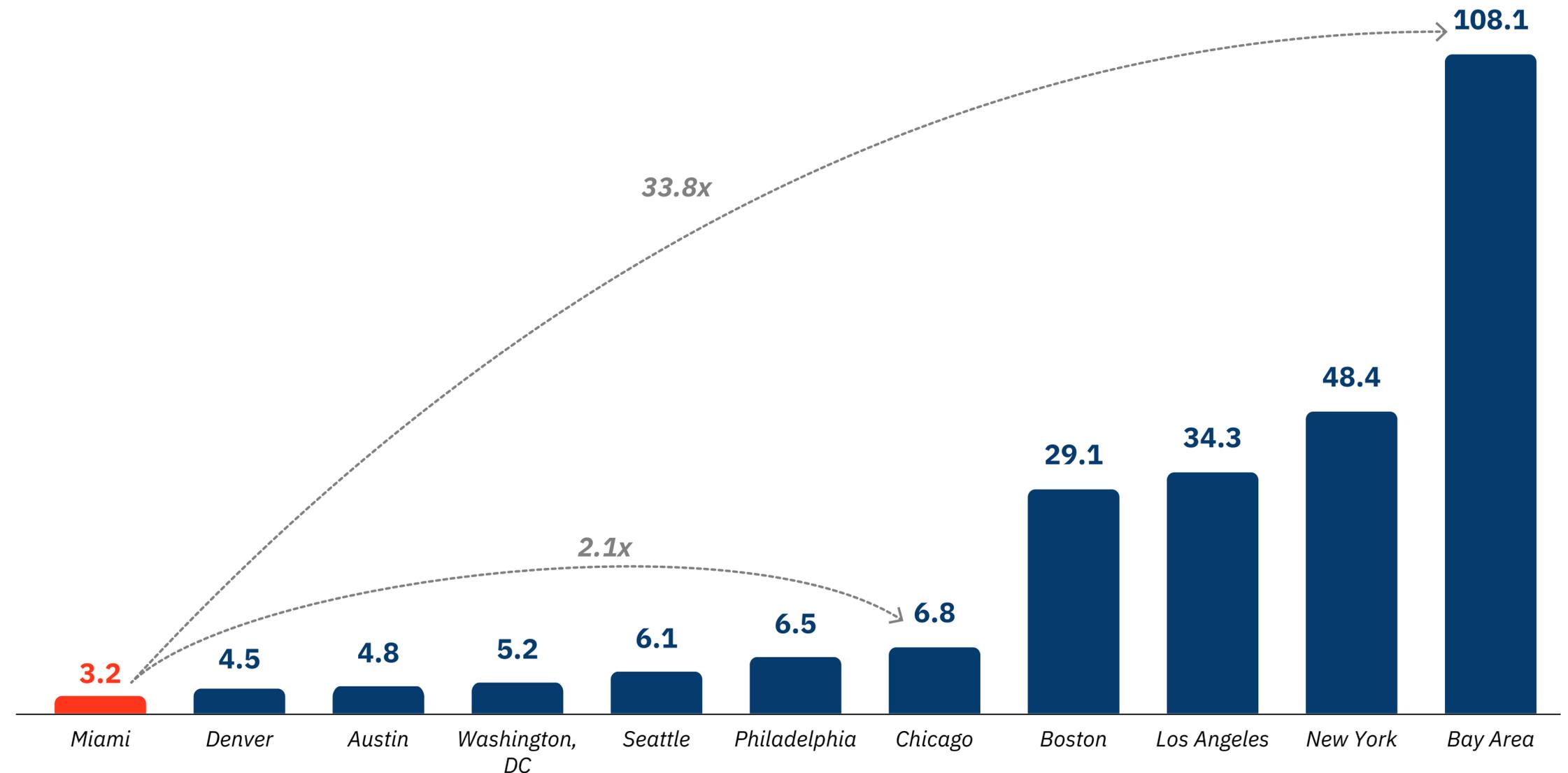
Even after several years of accelerated growth, Miami is still not among the top ten US ecosystems. It is small relative to Boston, Los Angeles and New York, and is also a tiny fraction of the Silicon Valley ecosystem in the San Francisco Bay Area, which is on track to achieve a venture capital deal value of \$108B during 2021. This will make Silicon Valley 33.8 times larger than Miami.

Miami needs all the strategic advantages it can muster to create a more competitive ecosystem and achieve its potential.

The fact that Miami is closer in size to Sao Paulo than to its US peers represents an advantage for LAC countries. LAC's innovation economy is still in the early stages of its development. The challenge for most of the countries in the region continues to be how to ignite and scale-up local ecosystems. Miami provides a great learning ground that is closer to the realities and challenges of the region.

Venture capital deal value by Metropolitan Area (CSA) in 2021E¹

VC fundraising (\$B)



¹: Estimated value for 2021 based on data for first three quarters of the year
Source: NVCA, Pitchbook, Surfing Tsunamis

The connection with LAC can provide Miami with an edge

In 2020, the Global Startup Ecosystem Report ranked Miami number 31 among global ecosystems.

We can see in the graph that the city is still far from the development levels of major ecosystems in areas such as funding, connectedness, market reach, knowledge, talent and performance. Its brightest spot is growth.

The city is growing and has a bright future ahead of it, assuming that it continues to leverage its strengths, although it is still far from being at the level of major ecosystems, and requires all the competitive advantages it can get.

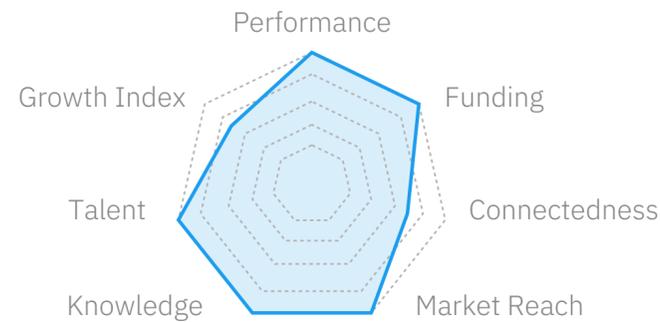
The unique access to the LAC opportunity is a card Miami cannot afford not playing. The LAC ecosystem is growing at an outstanding pace, and delivers opportunities for startups and VCs.

At the same time, Miami's growth can be highly beneficial for LAC's ecosystem and economy. Particularly if LAC policymakers wake up to the full range of opportunities for collaboration across the Americas.

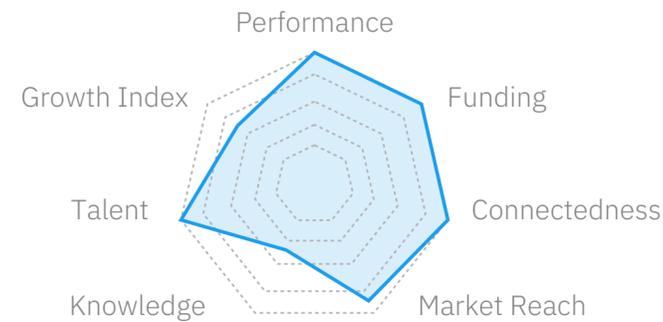
Startup ecosystem ranking for selected cities

Ecosystem ranking

Silicon Valley #1



New York City #2



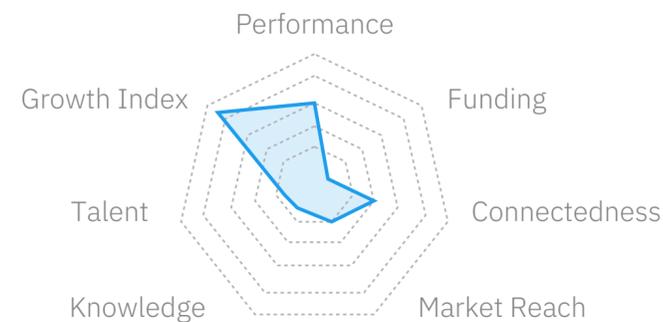
Boston #5



Tel Aviv-Jerusalem #6



Sao Paulo #30



Miami #31



Source: Startup Genome, Surfing Tsunamis

LAC is booming and holds a massive opportunity for Miami

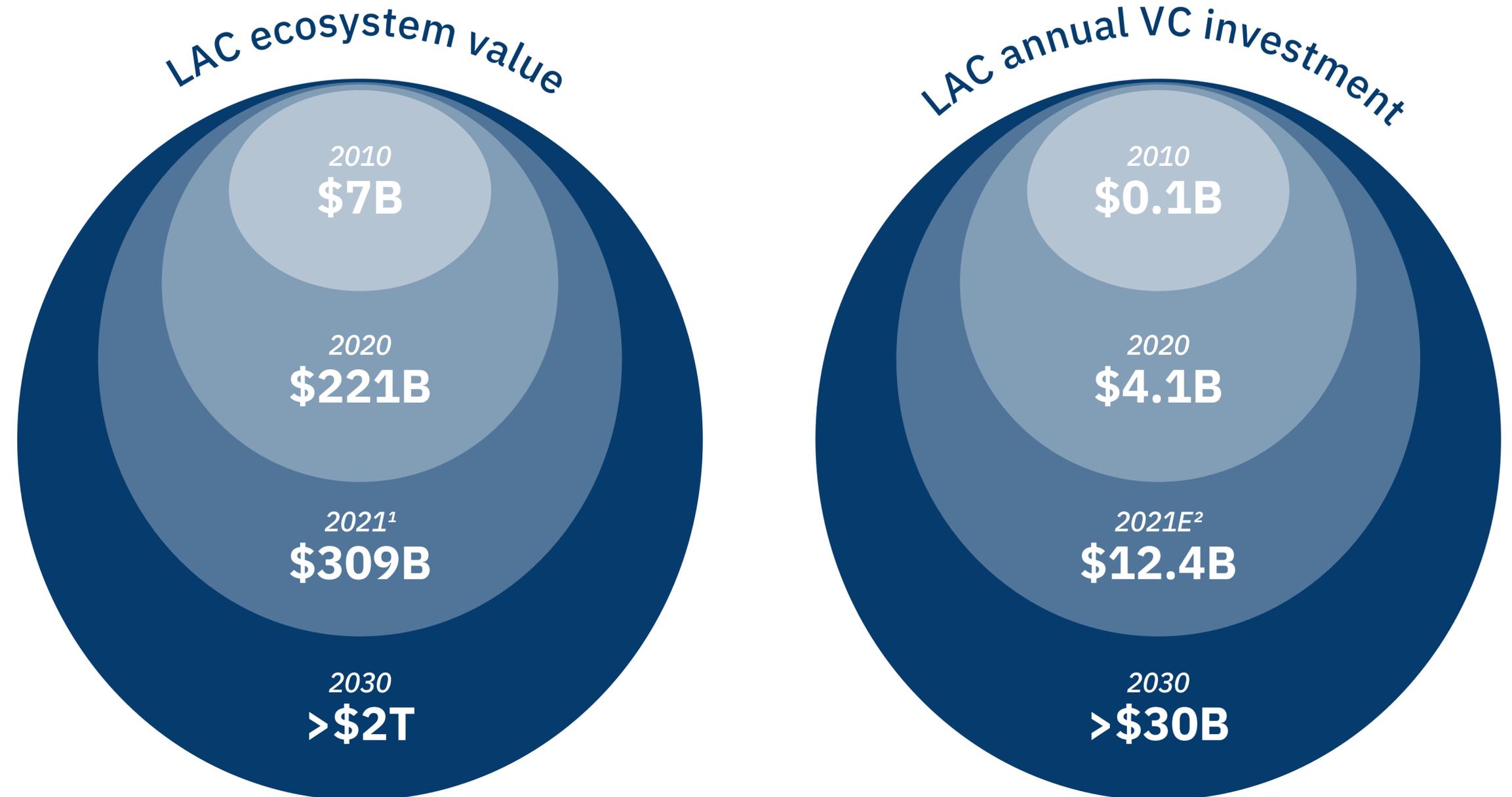
The technology revolution creates the opportunity for a radical productivity leap in LAC. Tecnolatinas are tackling this opportunity creating massive value and the revolution has just begun. Miami stands to significantly benefit from this value creation prospect.

In the past decade the LAC startup ecosystem value burgeoned from \$7B in 2010 to \$221B by end of 2020. By September 2021 it shot up again, reaching \$309B, and we expect it to exceed \$2T by 2030.

This value creation opportunity is triggering a venture capital boom. Indeed, LAC venture capital investments surged from under \$0.1B in 2010 to \$4.1B in 2020, and 2021 will be a new record-breaking year. The region saw \$6.2B in investments just during H1 2021. This shows that LAC could very well be on its way to investing more than \$30B of venture capital per year by 2030.

Miami should embrace the LAC advantage. The city is well positioned to do it, and its startups, venture capital funds and ecosystem builders stand to benefit from tackling this amazing opportunity.

LAC ecosystem value and annual VC investment estimates by 2030



1: Ecosystem value from Tecnolatinas 2021 report, with unicorns value updated to September 2021

2: Estimated value for 2021 based on data for first three quarters of the year

Source: Bloomberg, Yahoo Finance, Surfing Tsunamis

Internationalization could create value for Miami startups

Miami is rightly proud of the connectivity of its massive port, its unmatched flights connections to LAC, and its telecommunication links. Besides, it is an international tourist destination with a very diverse population.

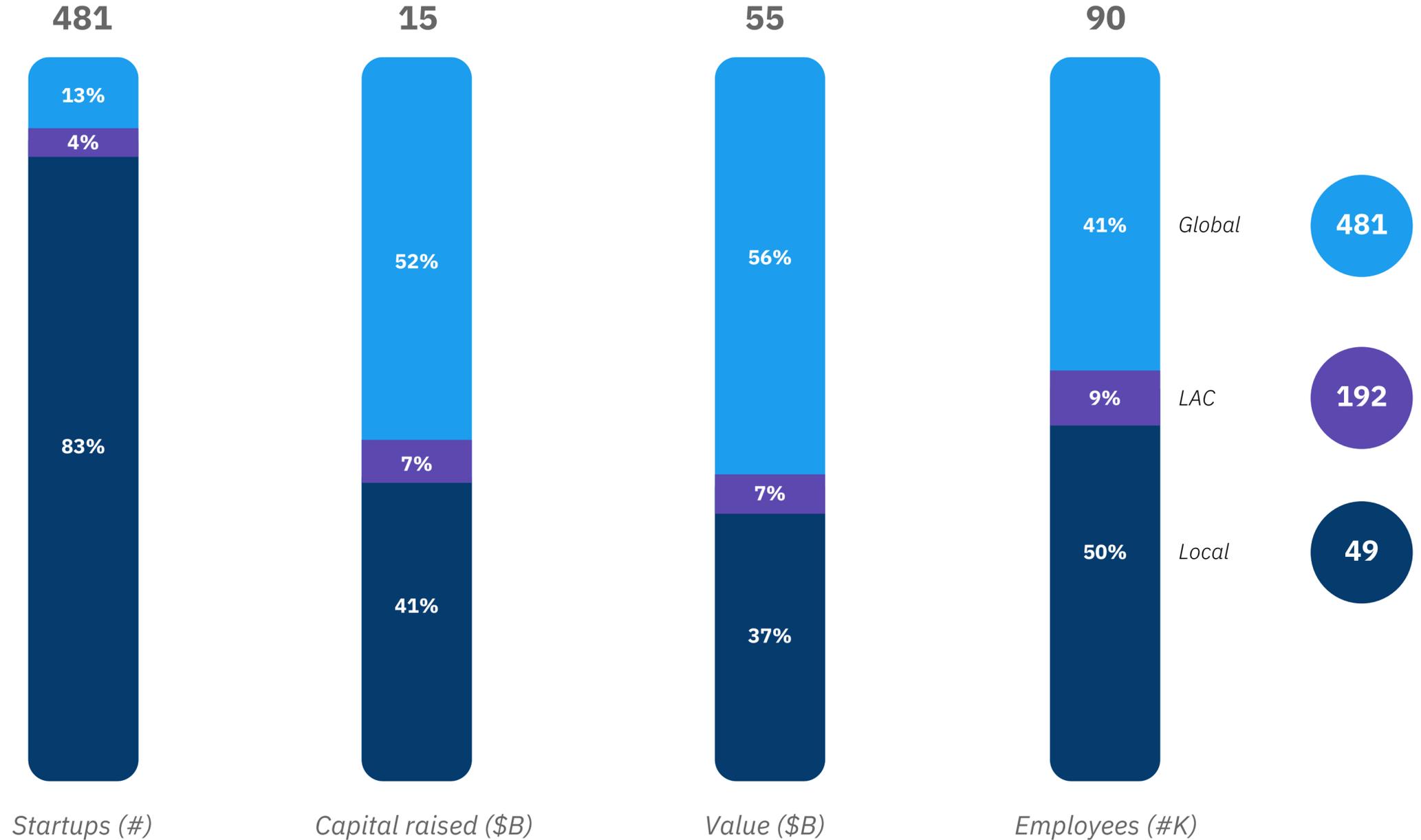
Yet somehow, only 17% of Miami startups are focused on international markets (4% LAC, 13% global). The value creation of those companies is between four and almost ten times that of the startups solely focused on the US market. The same happens with job creation: international oriented startups create three times more work than local ones.

This means that there is a massive untapped opportunity to fully leverage Miami's advantages. This pattern could be the result of its history. Most Latinos in Miami have Cuban backgrounds. Since doing business with Cuba was not an option, their focus shifted to the US market. But LAC is mostly open for digital business and represents a massive opportunity that Miami entrepreneurs would be remiss to overlook.

Miami ecosystem by footprint

Share by footprint (%)

Average value (\$M / startup)



Source: Crunchbase, Pitchbook, Surfing Tsunamis

LAC startups offer attractive valuations for Miami VC funds

We have compared the valuations of more than 1,000 technology startups based in LAC, with the 481 startups located in Miami according to the year they were founded.

Young startups (2 years or less) established in Miami are on average worth 4 times (4.1x) more than those based in LAC. This is consistent with a more extensive abundance of venture capital in the US market and higher valuation multiples for early-stage startups.

Nevertheless, older startups consistently achieve higher valuations in LAC than in Miami: 3.0x higher for the 3-10-year-old cohort, 2.5x higher for the 11-20-year-old cohort, and 3.6x higher for startups that are over 20 years old. This is consistent with a more competing early-stage natural selection in LAC, (due to lack of capital) that isolates weaker players early on, and a less disputed market opportunity for the surviving startups. Miami startups have to compete with Silicon Valley's giants for the US market. The LAC startups that make it to the global VC market face relatively less intense competition from other majors, as they scale throughout the region.

Average LAC and Miami startup value by age cohort



Source: Crunchbase, Pitchbook, Surfing Tsunamis

Miami could tap into LAC's huge talent pool

One of the most acknowledged competitive disadvantages of the Miami ecosystem is the weakness of its universities, as they are not as prestigious as those behind the success of Silicon Valley, Boston and New York.

The universities behind the leading ecosystems rank among the top 25 in the world: Harvard (1st), MIT (2nd), Stanford (3rd), Columbia (6th), and Cornell (22nd). In contrast, Miami's leading colleges are not even among the top 100: University of Miami (236th) and Florida University (419th) and are also ranked behind some LAC universities: Universidade de São Paulo USP (69th), UNA de México (162nd), UNICAMP (231st), Universidad de Buenos Aires (392nd), among others.

Leveraging LAC-based talent, Miami could neutralize part of that disadvantage. The city is well positioned to connect with a talent pool of almost 30 million LAC college students. Connecting with LAC, Miami startups could access a student population that is well over 100 times larger than the local offer.

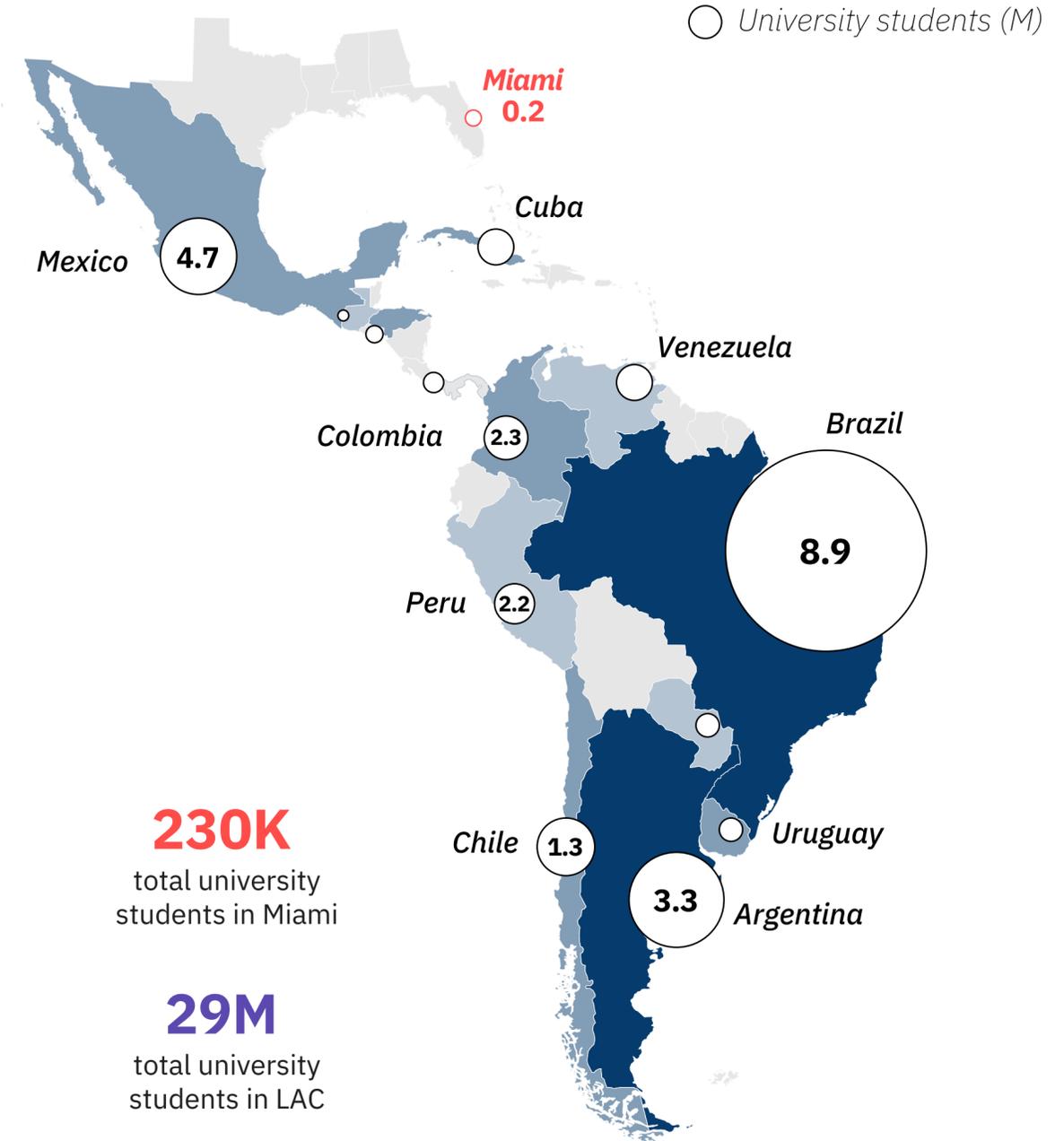
The rise of remote working eliminates the need for that talent to live in the city: startups based in Miami could leverage LAC-based teams.

Position of select universities in the 2021 USNews Global University Ranking

Ranking (#)



Number of university students for select countries in the extended LAC area



LAC teams provide a talent cost advantage to Miami startups

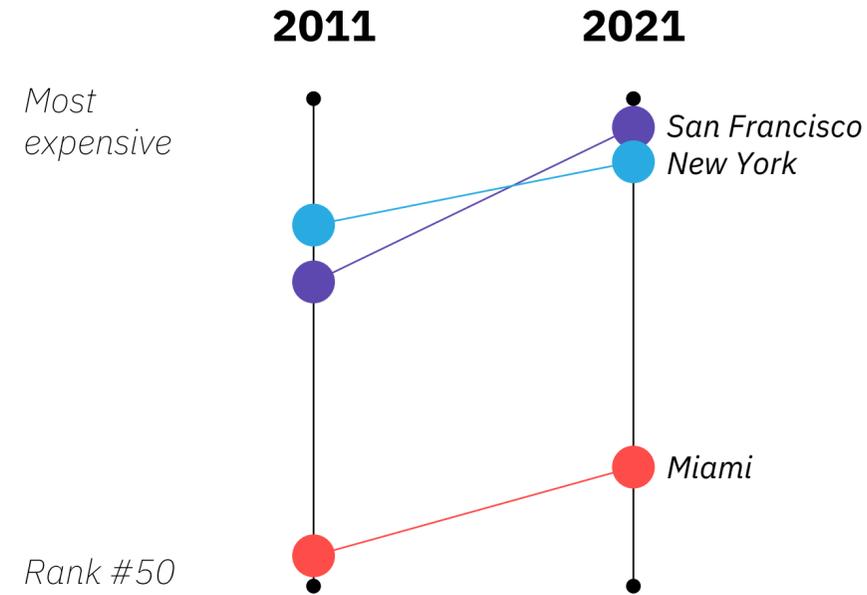
The cost of living in Miami is likely to rise, as the innovation ecosystem grows, just like it did in San Francisco and New York. Over the past decade, concurrently with the growth of startup ecosystems, the three cities witnessed their cost of living surge.

San Francisco went from being the 21st most expensive city in the world in 2011, to 2nd place in 2021, whereas New York went from the 11th to the 5th spot, and Miami from the 50th to the 40th.

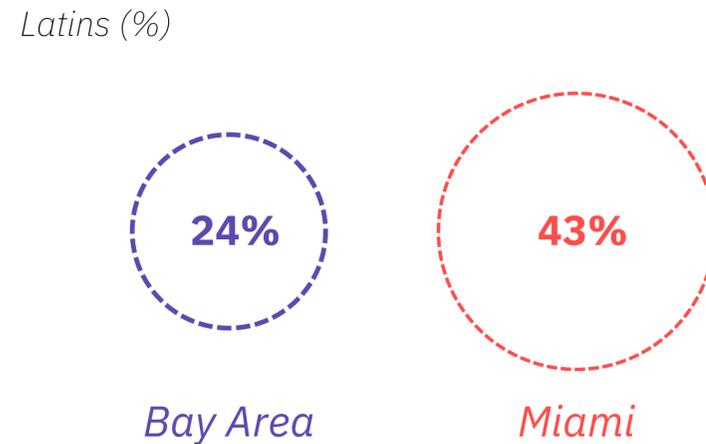
Higher costs for Miami-based talent will erode Miami's competitive advantage and could limit growth. But the connection with LAC could equally provide a talent advantage for Miami startups.

As mentioned before, LAC-based talent has a significantly lower cost than US-based talent, and remote working means that founders could leverage talent from locations with lower cost of living. Miami founders are better positioned than their peers in other locations to leverage this advantage. The percentage of Latin businesses capable of sourcing LAC talent is higher and more diversified in Miami than it is in Silicon Valley.

Cost of life global ranking of selected US cities

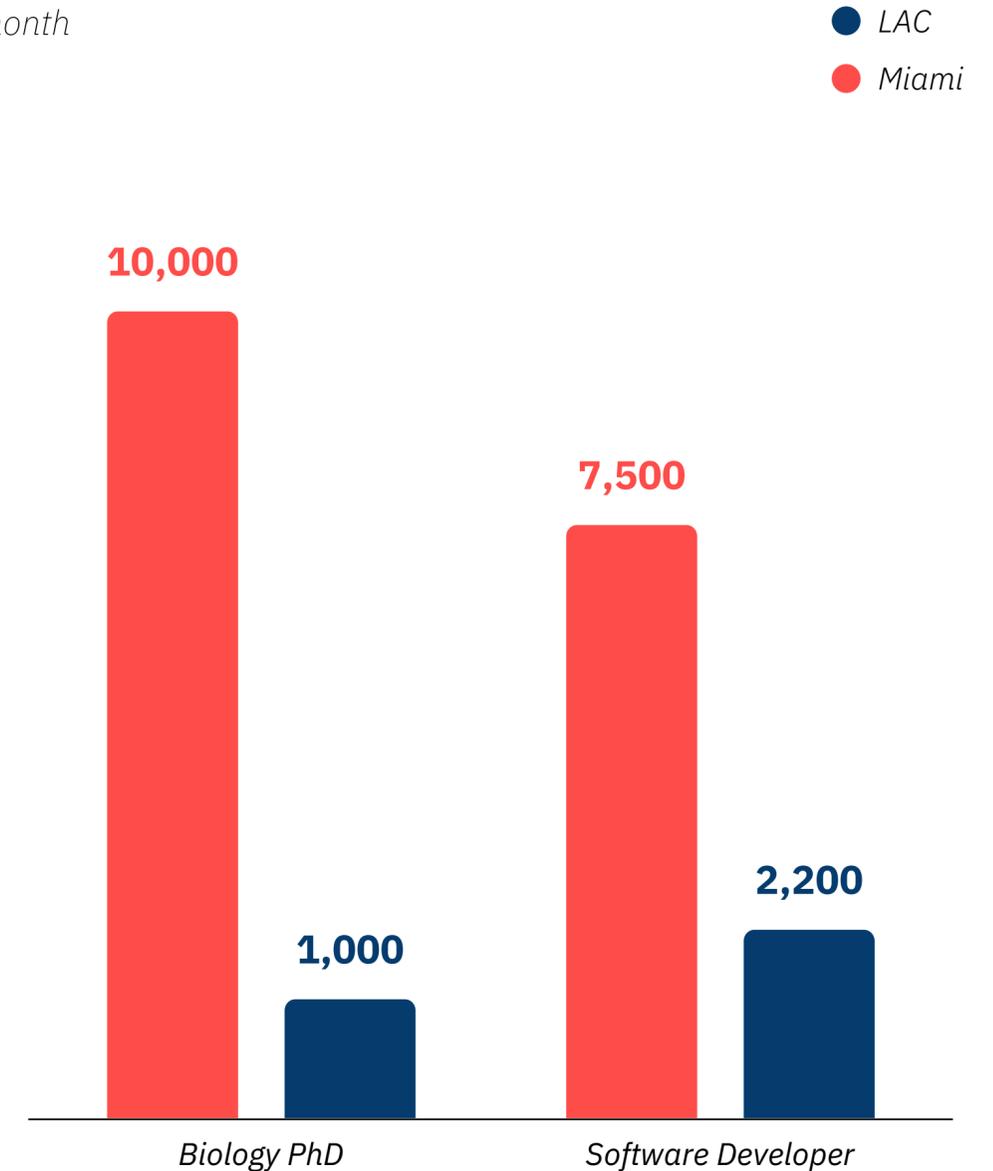


Latinos in Bay Area and Miami



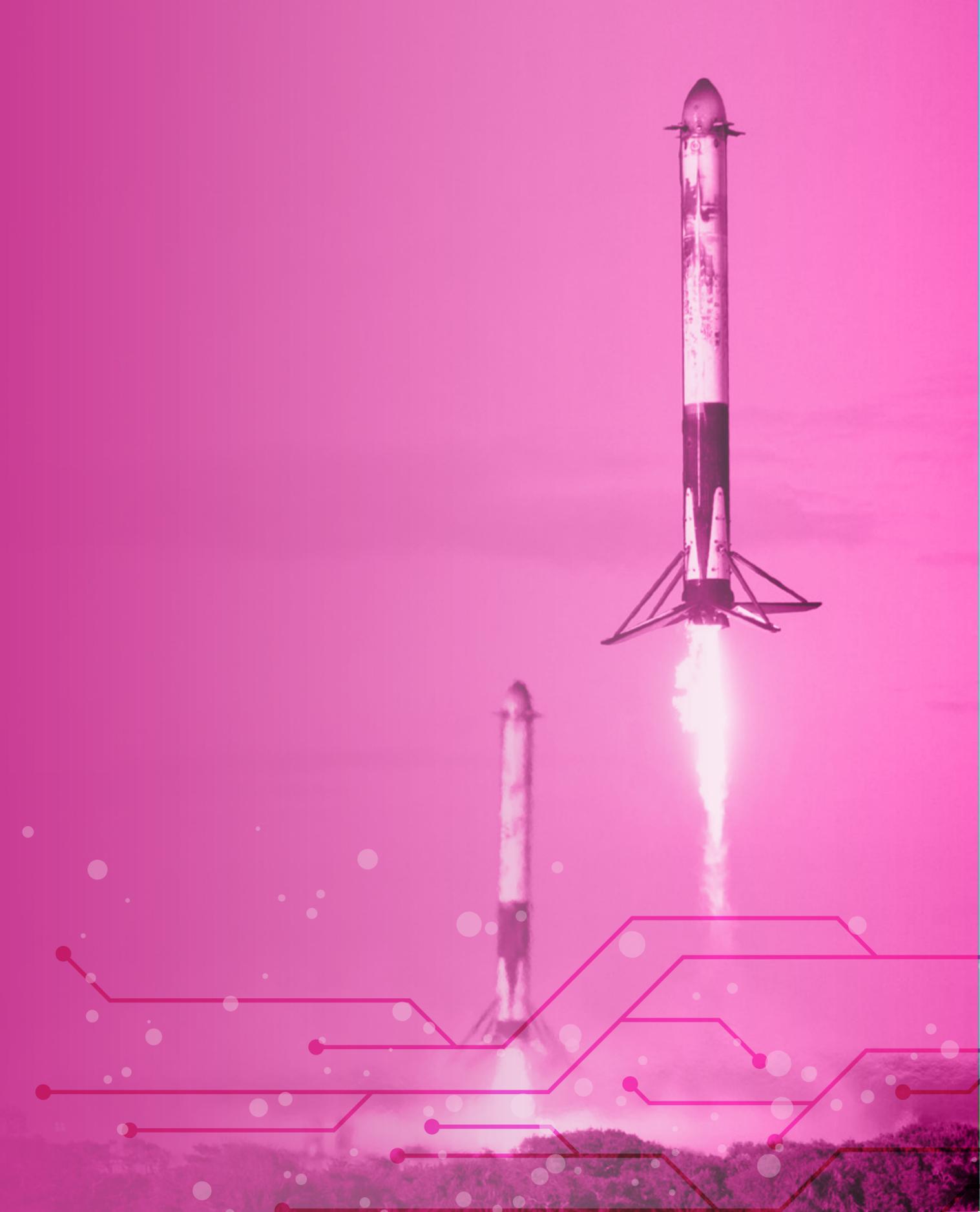
Monthly compensation

\$ per month



HOW MIAMI COMPARES TO LAC ECOSYSTEMS

WELCOME TO LAC



At present, in the LAC context, Miami has the largest number of startups and has raised the most capital, closely followed by Sao Paulo. However, the picture changes when we compare value creation -- here, Miami falls to third place with \$55B of ecosystem value, significantly behind Buenos Aires (\$119B) and Sao Paulo (\$107B). Miami has not yet produced blockbuster companies like MercadoLibre and Nubank, valued as of September 2021 at \$97B and \$30B, respectively.

Both Miami and LAC have young ecosystems, with only 27% and 23% of startups created before 2010, respectively. Companies worth over \$1B represent a similar percentage of startups in Miami and LAC cities (2% and 3% on average, respectively) but, because of the lower average value of Miami unicorns, they represent a much lower percentage of the ecosystem value (54% in Miami vs. 86% in LAC). The level of internationalization of Miami startups (17% of companies) is half that of LAC (34%), yet, in both cases, international startups represent an outsized share of ecosystem value (63% and 71%, respectively). In terms of sectors, Miami (like the rest of the US) is more diversified than LAC, with the top three sectors representing 49% of the ecosystem value vs. 79% in LAC. Miami also has a stronger Deep Tech orientation than LAC, with HealthTech and Biotech among its top three sectors. In both cases, corporate venture capital activity is very limited relative to other ecosystems.

Looking into the future, Miami has the potential to become either the largest or second-largest hub in the extended-LAC area, in concert with Sao Paulo, making it a powerful resource for the development of Latin America and the Caribbean.

Miami's size is similar to leading LAC ecosystems

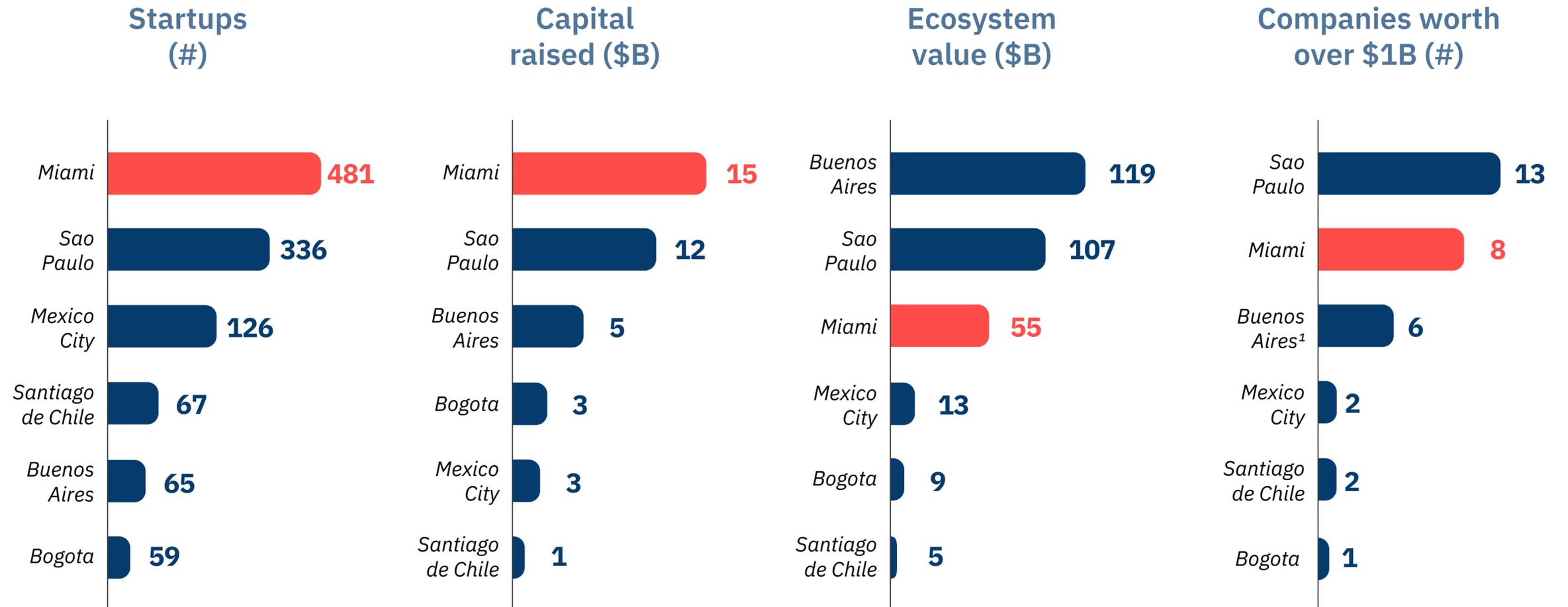
Miami is comparable to the largest ecosystems of LAC, particularly, Sao Paulo.

The numbers show a very friendly ecosystem with early-stage startups, although it comes over a lot of difficulties translating that startup activity into value creation and unicorns, unlike the LAC ecosystems. This shows that there is a clear rationale for Miami VCs to leverage LAC opportunities.

Compared to Sao Paulo, Miami has more startups that raised over \$1M (481 vs. 336), and those startups achieved more capital (\$15B vs. \$12B). However, the ecosystem value is considerably lower: Miami startups created \$55B, vs. the \$107B created by those founded in Sao Paulo. The same applies in terms of number of companies worth over \$1B - Miami created 8, and Sao Paulo 13.

This highlights the opportunity that Miami has to strengthen its competitive advantage relative to other US ecosystems: leveraging and deepening its connection to the LAC ecosystem, which often is not so well perceived or appreciated in Silicon Valley, New York or Los Angeles.

Comparison between LAC and Miami ecosystems



1. We considered Despegar in Buenos Aires because it achieved \$1B value in the past and is close to that value today
Source: TecnoLatinas 2021, Press, Crunchbase, Pitchbook, FT, Surfing Tsunamis

Miami and LAC ecosystems are young

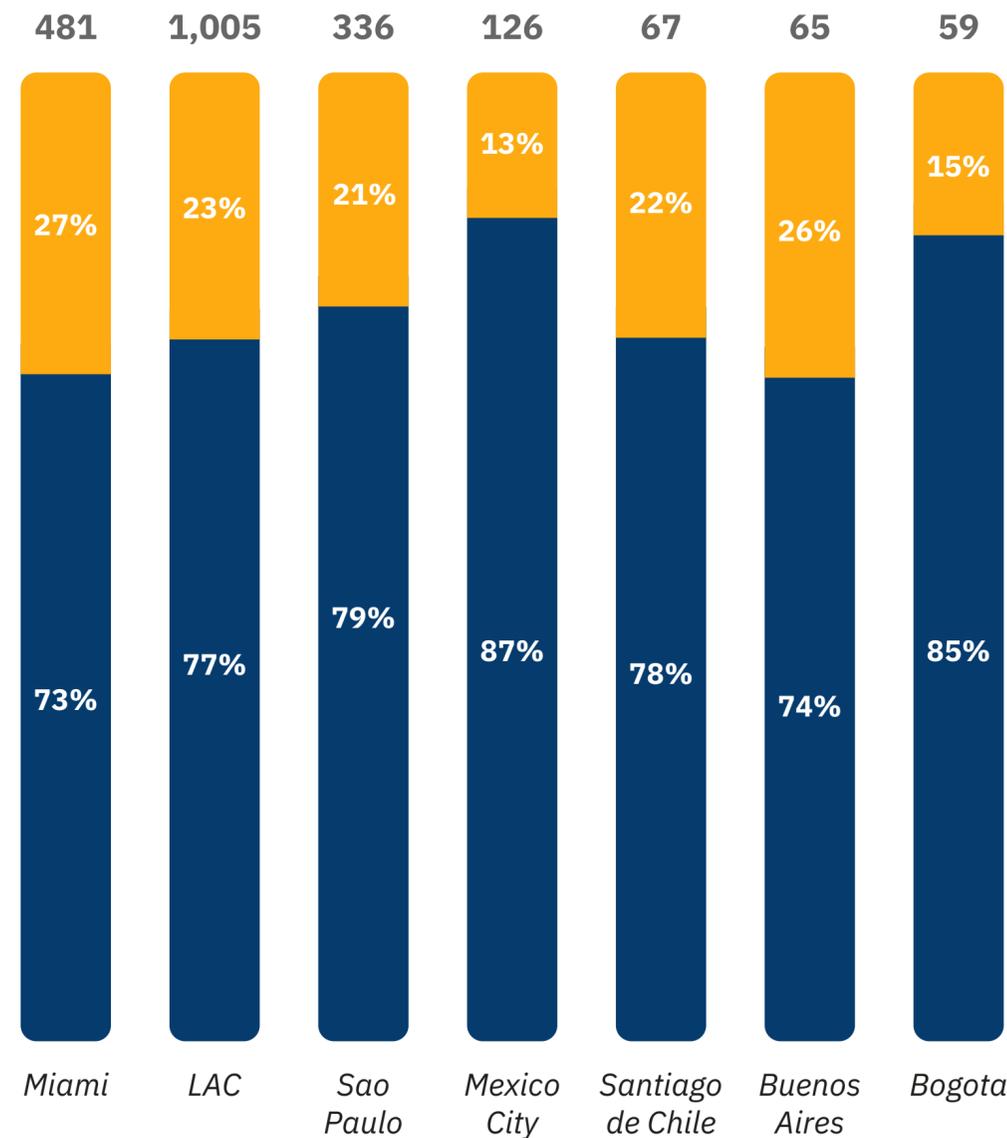
Both Miami and LAC have young startup ecosystems. Startups based in Miami are mostly young: 73% of them were created in the course of the past decade. Similar to what happened in LAC, between 74% and 87% of startups from the major technology ecosystems in the region were founded over the same period. Buenos Aires is the LAC city with the highest share of older startups (26%), as it enjoyed a very strong boom before the dotcom bubble, whereas Mexico City has the region's highest share of young startups because it is a massive market that was a relatively latecomer to the startup revolution and is working to gain on its potential.

The value of distribution when compared by cohorts shows that Miami is similar to Sao Paulo, with most of the value concentrated on young startups but with a significant share of value on the mature ones.

Buenos Aires and Mexico have contrasting stories. In Buenos Aires, MercadoLibre represents an outsized share of value because of its success and the hostile environment younger startups face in Argentina. On the other hand, in Mexico there are a few valuable older companies and a myriad of younger startups accounting for most of the ecosystem value.

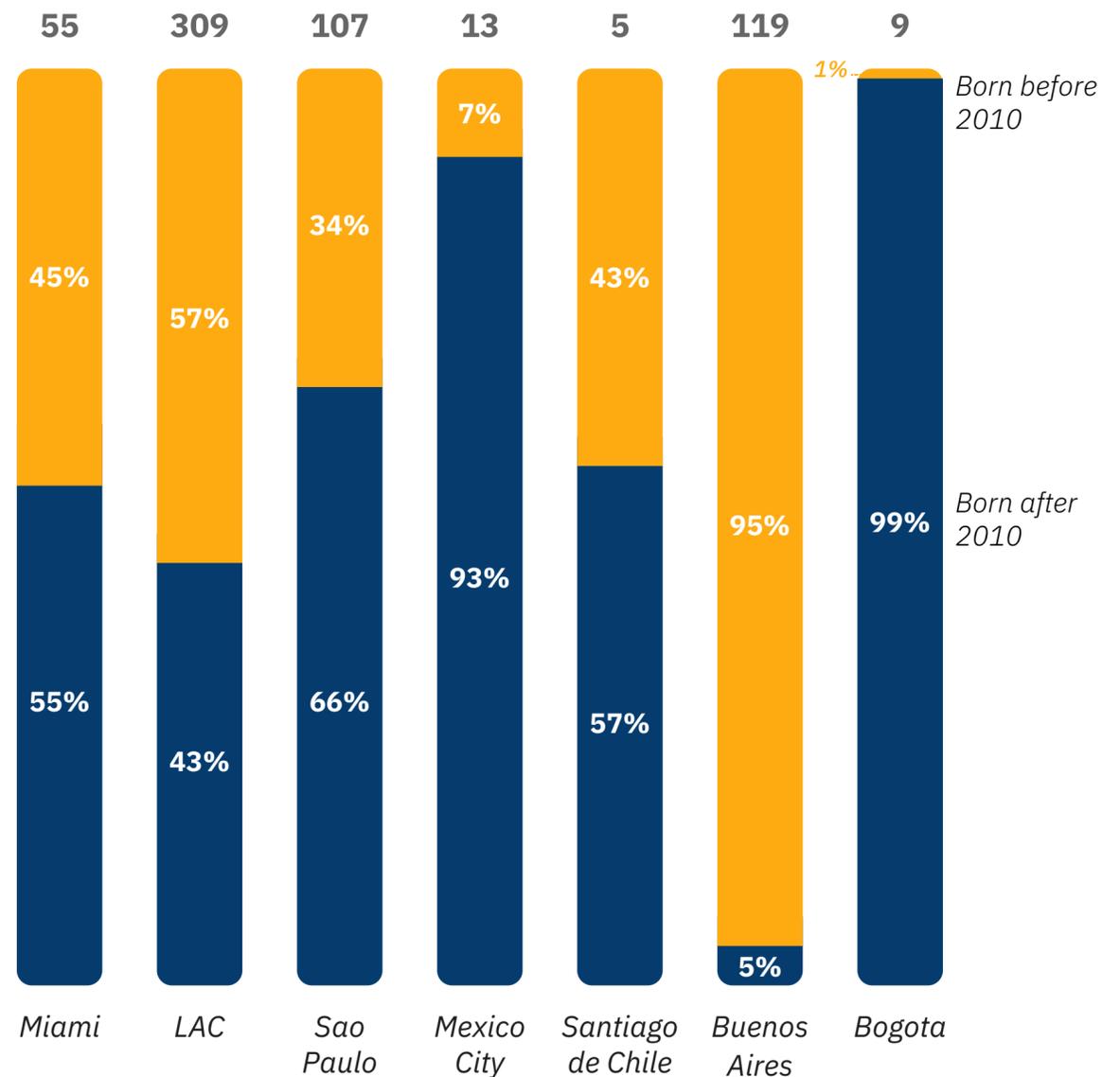
Startups by year founded per city

Startups (#)



Ecosystem value by year per city

Value (\$B)



Source: Surfing Tsunamis

LAC ecosystems are spawning more unicorns than Miami

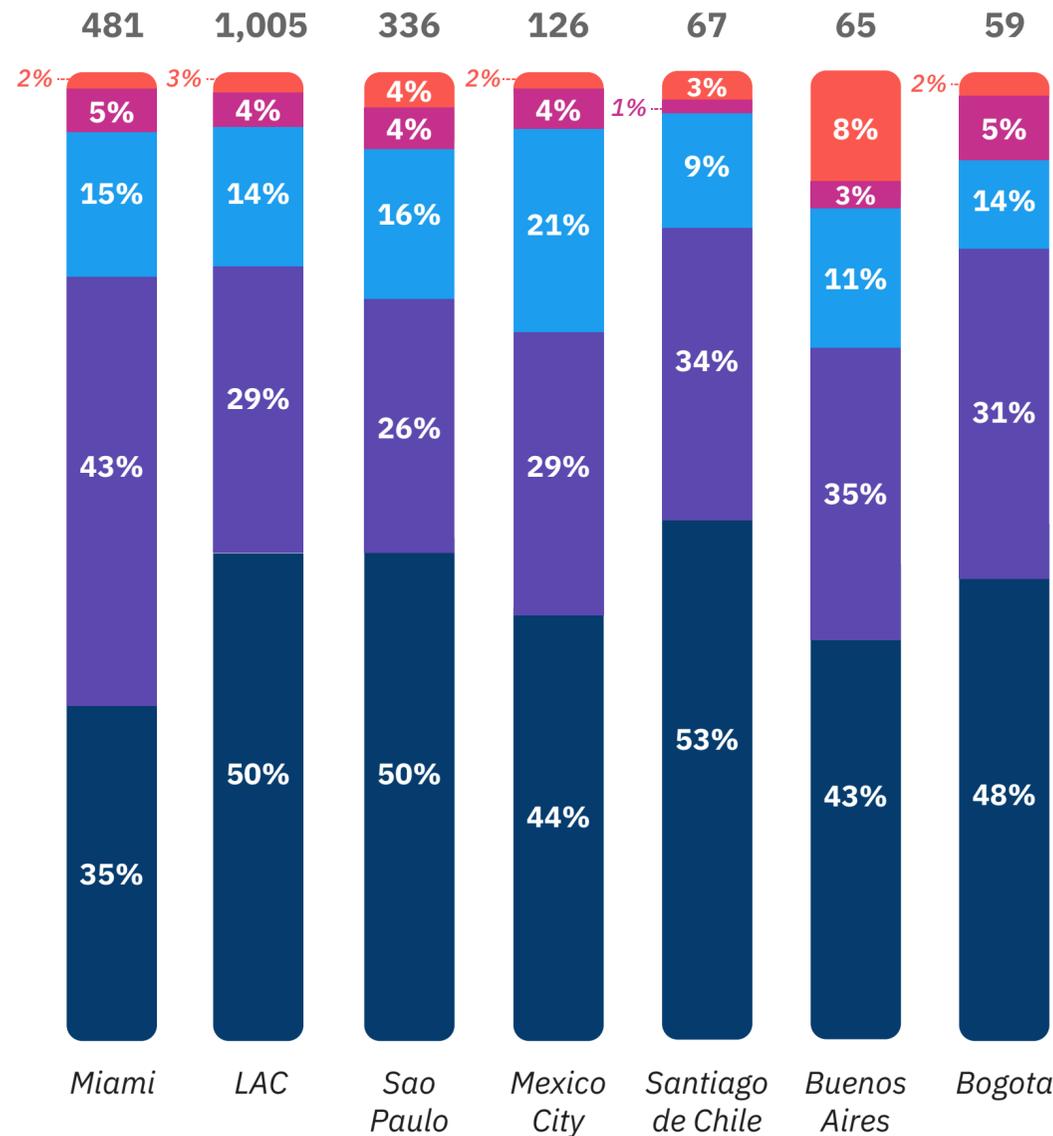
Miami is yet to produce blockbuster players such as MercadoLibre (created in Buenos Aires, with more than \$90B of value), and NuBank (founded in Sao Paulo, in search of an IPO - and with a value of \$30B). Only 2% of Miami tech startups have reached valuations over \$1B. This compares with Buenos Aires (8%), Sao Paulo (4%), Santiago (3%), Bogota (2%) and Mexico City (2%).

As a result, the ecosystem value share accounted for by companies with a \$1B+ valuation is smaller in Miami than in major LAC ecosystems.

The presence of unicorns in Miami is likely to rise in coming years. At the same time, this highlights a potential blind spot in Miami's ecosystem: are its startups failing to see the huge unfolding LAC opportunity despite their LAC connections?

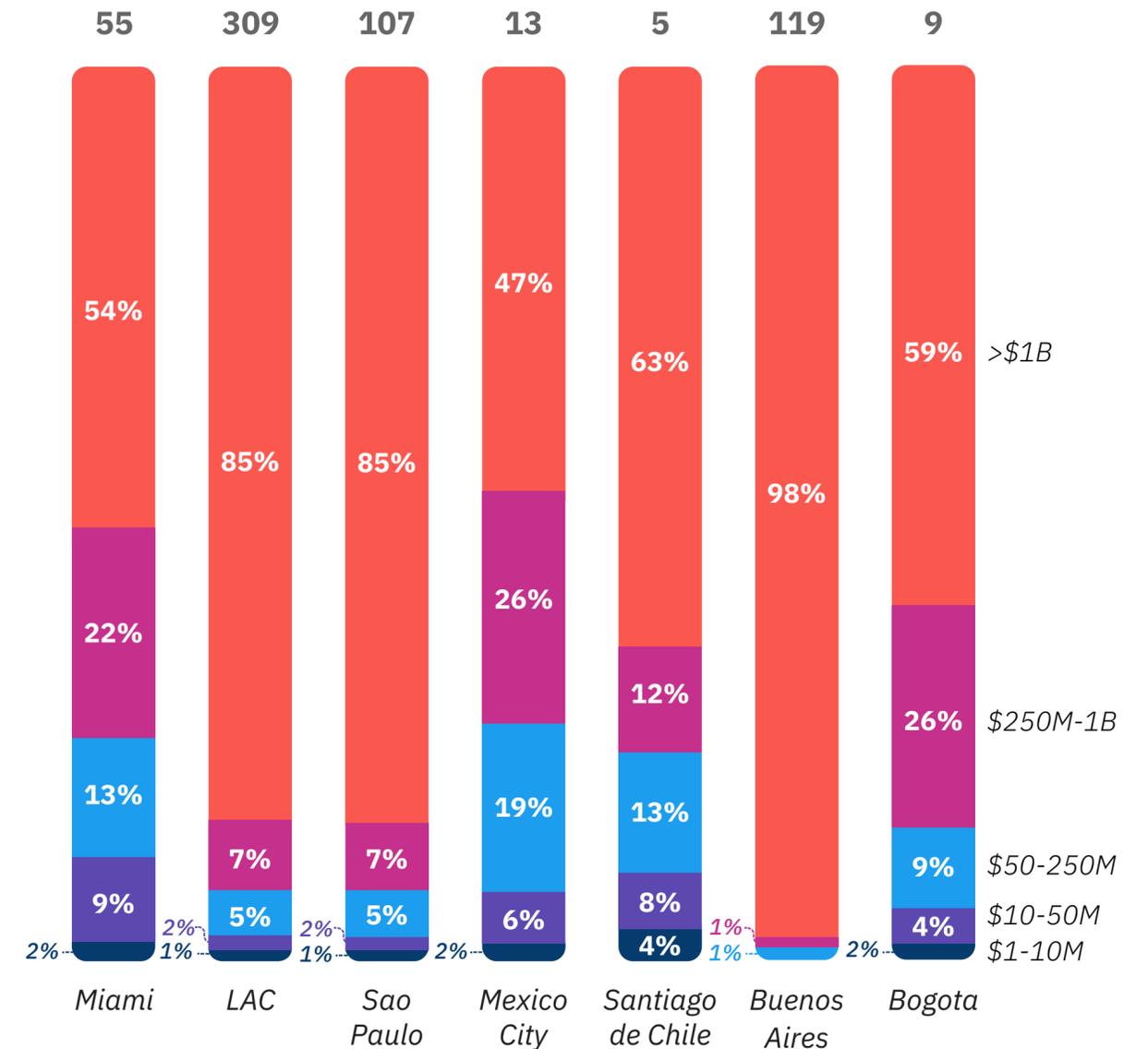
Startups by value range per city

Startups (#)



Ecosystem value by value range per city

Value (\$B)



Source: Surfing Tsunamis

Miami startups are less international in their outlook than LAC's

The majority of Miami startups (83%) are focused on the local (US) market. This is consistent with the size of the market. Startups in the largest LAC markets also share a domestic focus: 80% of Sao Paulo and 67% of Mexico City startups are local.

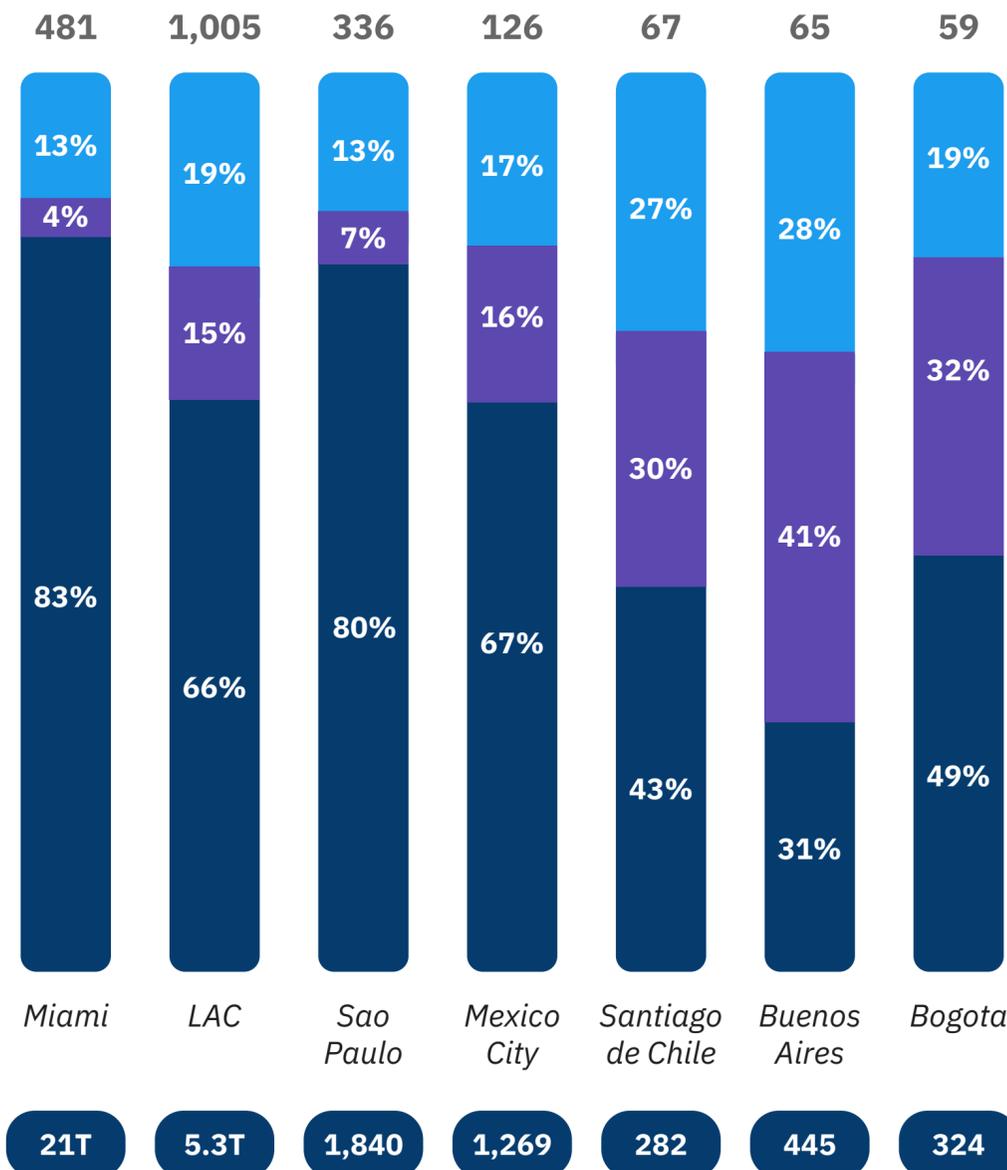
Yet, when we look at it from a value creation perspective, internationalization is critical for value creation: startups with a global or regional footprint are significantly more valuable than those limited to a local market. Most of the ecosystem value of Miami (63%), Sao Paulo (47%) and Mexico City (60%) comes from startups with regional and global footprints. In smaller markets, that share is much higher. In Buenos Aires, for example, 85% of the ecosystem value comes from regional startups.

The share of Miami startups focused on the LAC market is only a tiny 4%. This contrasts with the fact that Miami startups with LAC and global footprints achieve much higher values than those focused exclusively on the US market.

At the same time, most LAC startups need to internationalize, and Miami offers access to the US market and a platform to expand worldwide.

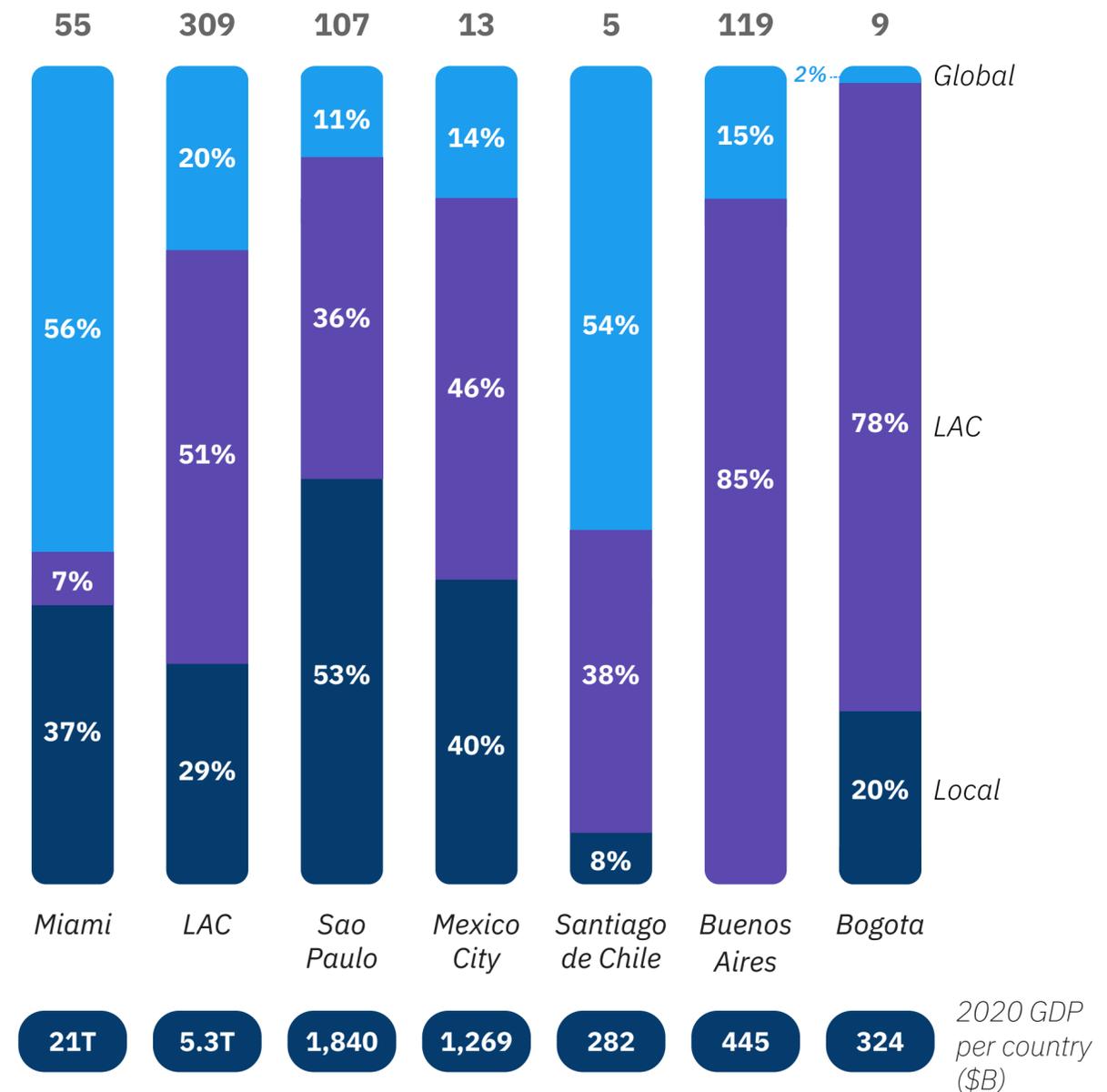
Startups by footprint per city

Startups (#)



Ecosystem value by footprint per city

Value (\$B)



Source: Surfing Tsunamis

2020 GDP per country (\$B)

Miami is more Deep Tech oriented than LAC

Comparing the top three verticals, we see that in Miami, two out of the top three sectors are related to Deep Tech (Healthtech/Life Sciences and Biotechnology).

By contrast, across LAC ecosystems the top three verticals with the highest concentration of startups are Fintech, E-Commerce and SaaS.

Only the largest LAC ecosystems (Sao Paulo and Mexico) have large concentrations of Deep Tech startups, particularly Healthtech and Life Sciences. This is consistent with the fact that Brazil and Mexico have the biggest pools of researchers in LAC.

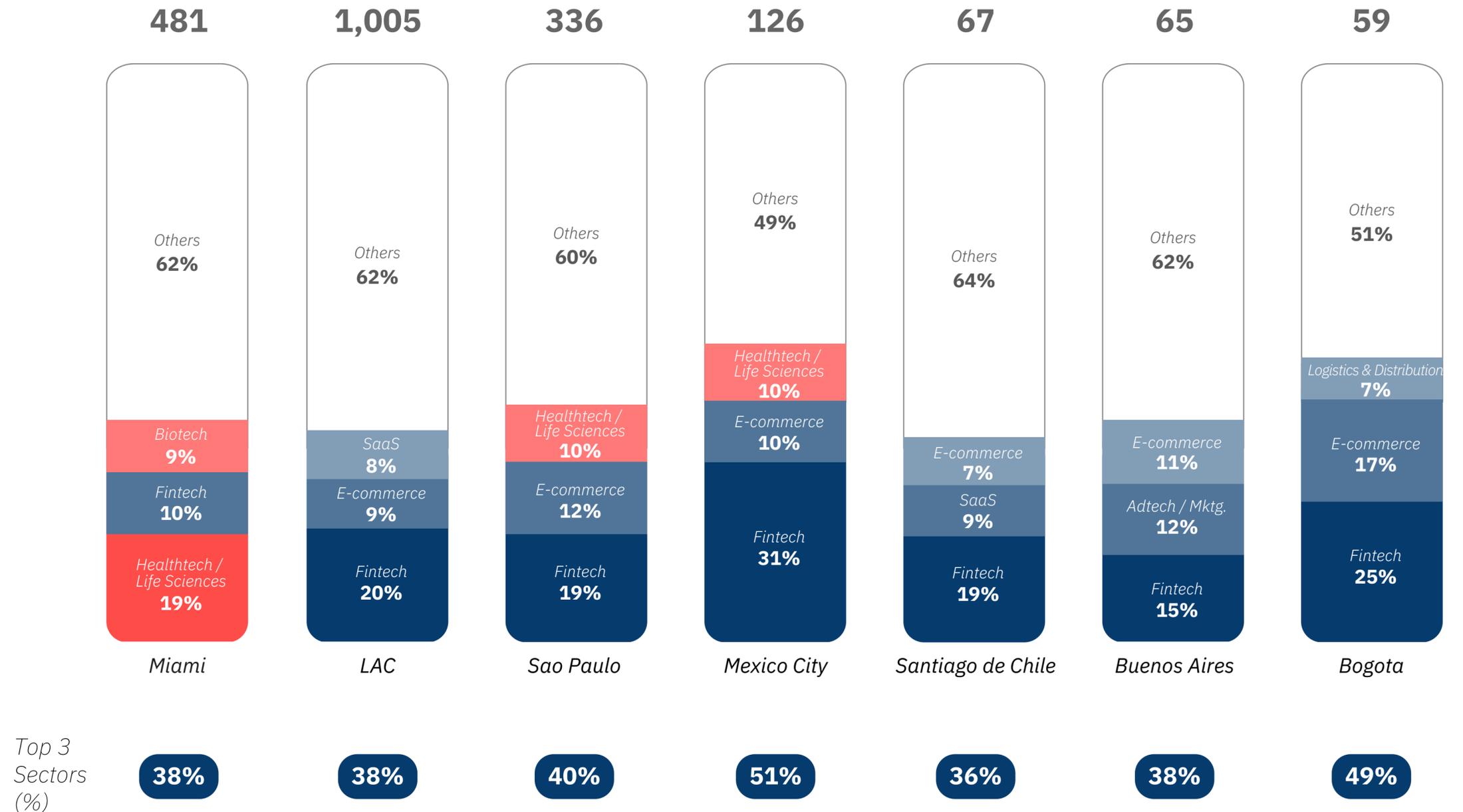
The top three sectors in the other three large ecosystems (Buenos Aires, Santiago and Bogota) have a focus on digital startups with product-oriented innovations.

Miami's capabilities in Healtech/Life Sciences and Biotech are very valuable to supporting the development of LAC's Deep Tech startup ecosystem.

Share of top three sector by number of startups per ecosystem

Share of startups by sector (%)

● Deep Tech



Source: TecnoLatinas 2021, Pitchbook, Crunchbase, Surfing Tsunamis

Miami's ecosystem value is more diversified than LAC's

The top most-valuable three verticals in Miami account for 49% of its ecosystem value, while in LAC, the top three verticals concentrate 79% of value.

Miami ecosystem value is more diversified than any of the leading LAC ecosystems. In Sao Paulo, the three most valuable sectors represent 77% of the ecosystem value; in Mexico City 74%; in Santiago 78%; and in Buenos Aires 96%.

This is largely due to the fact that Miami has not yet produced startups with outsized value like MercadoLibre or Nubank, which cause a high value concentration in their respective ecosystems.

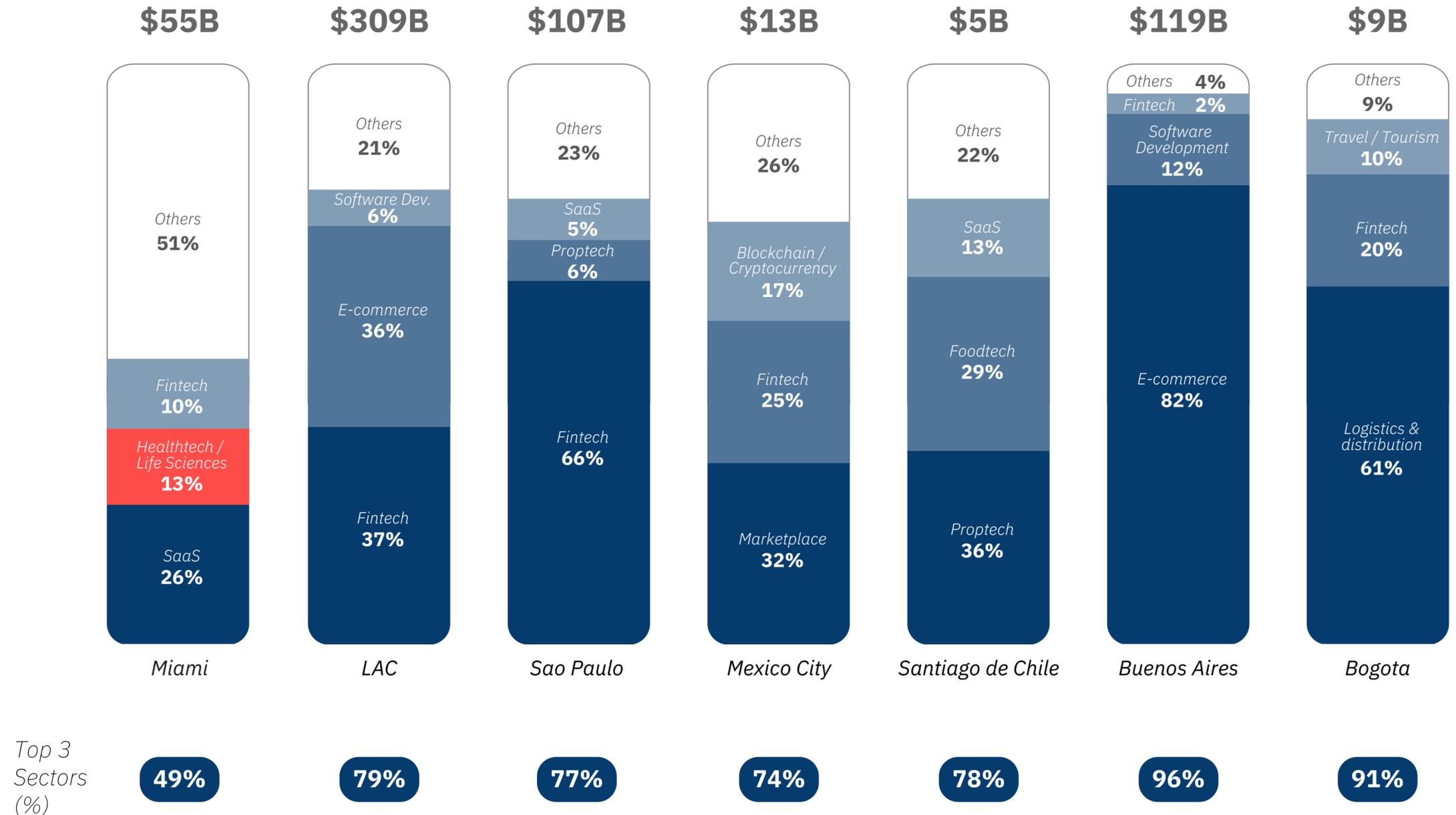
But, it is also partly due to the fact that Miami's economy features several powerful sectors that are spawning startups.

Miami has a higher concentration of mid-sized companies across multiple verticals and has not yet produced a tech company worth more than \$20B.

Share of sectors by value per ecosystem

Share of value by sector (%)

● Deep Tech



Source: TecnoLatinas 2021, Pitchbook, Crunchbase, Surfing Tsunamis

Miami has more female founders than LAC

While 14% of startups in Miami have a female founder, that figure is 10% in LAC. In Miami, 9% of startups have at least one female founder and in 5% of its startups, all founders are women. In LAC, 8% of startups have at least one female founder and in 2% of startups, all founders are female.

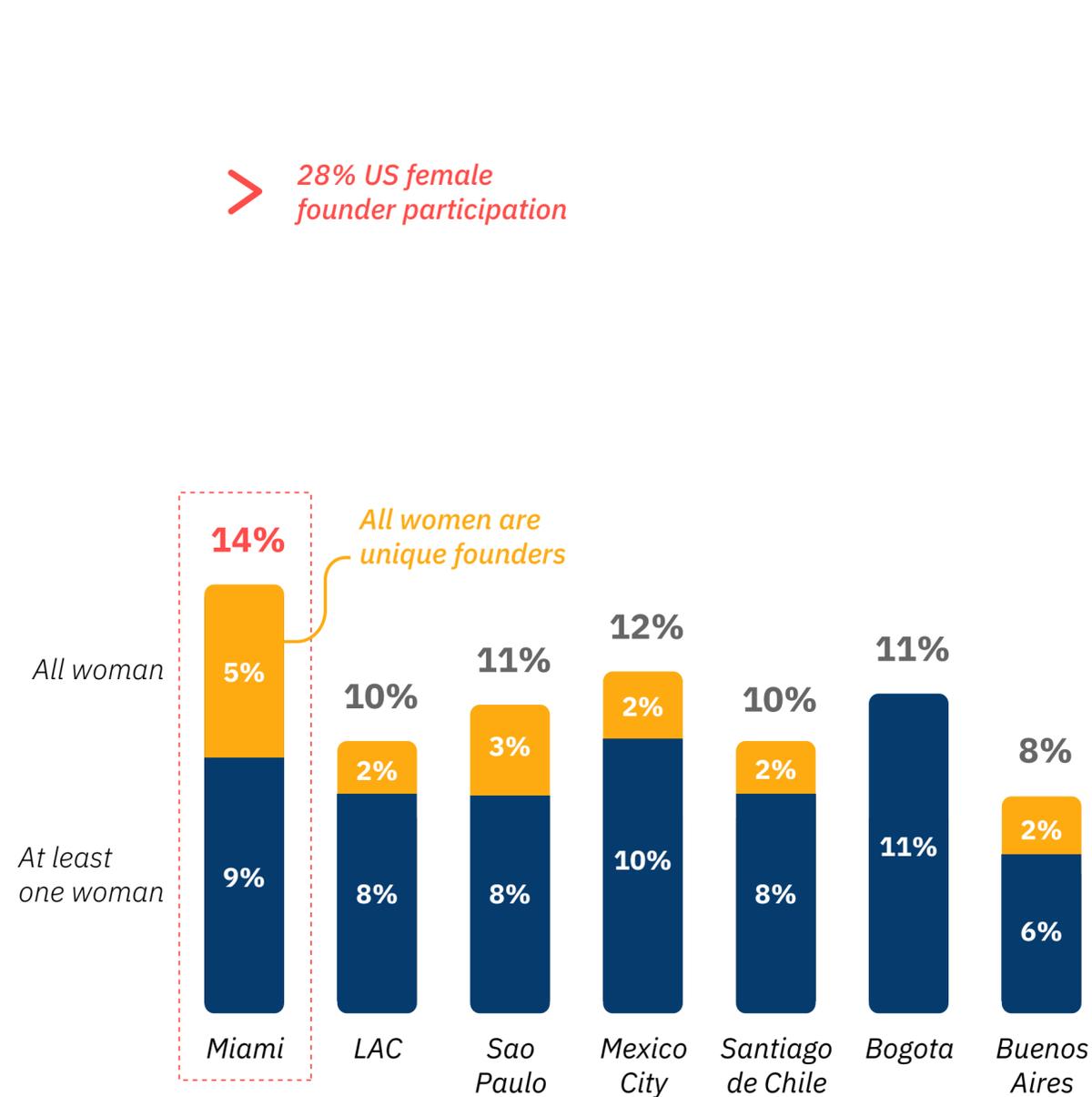
Every leading LAC ecosystem has a lower representation of female founders than Miami. Mexico City has the highest concentration of female founders: 12% of startups have a female founder; 11% in both Sao Paulo and Bogota; 10% in Santiago; and 8% in Buenos Aires.

However, female founders have been consistently more successful at the helm in LAC than in Miami. In LAC, 12% of the value was created by startups with female founders, whereas in Miami, only 4% of the value was created, significantly less than their share of startups. In Sao Paulo, the share of value claimed by startups with a female founder rises up to 32%, and in Mexico to 11%.

The two more valuable Miami startups with female founders are TissueTech (Amy Tseng) and Honorlock (Elenaa Sobolevaa).

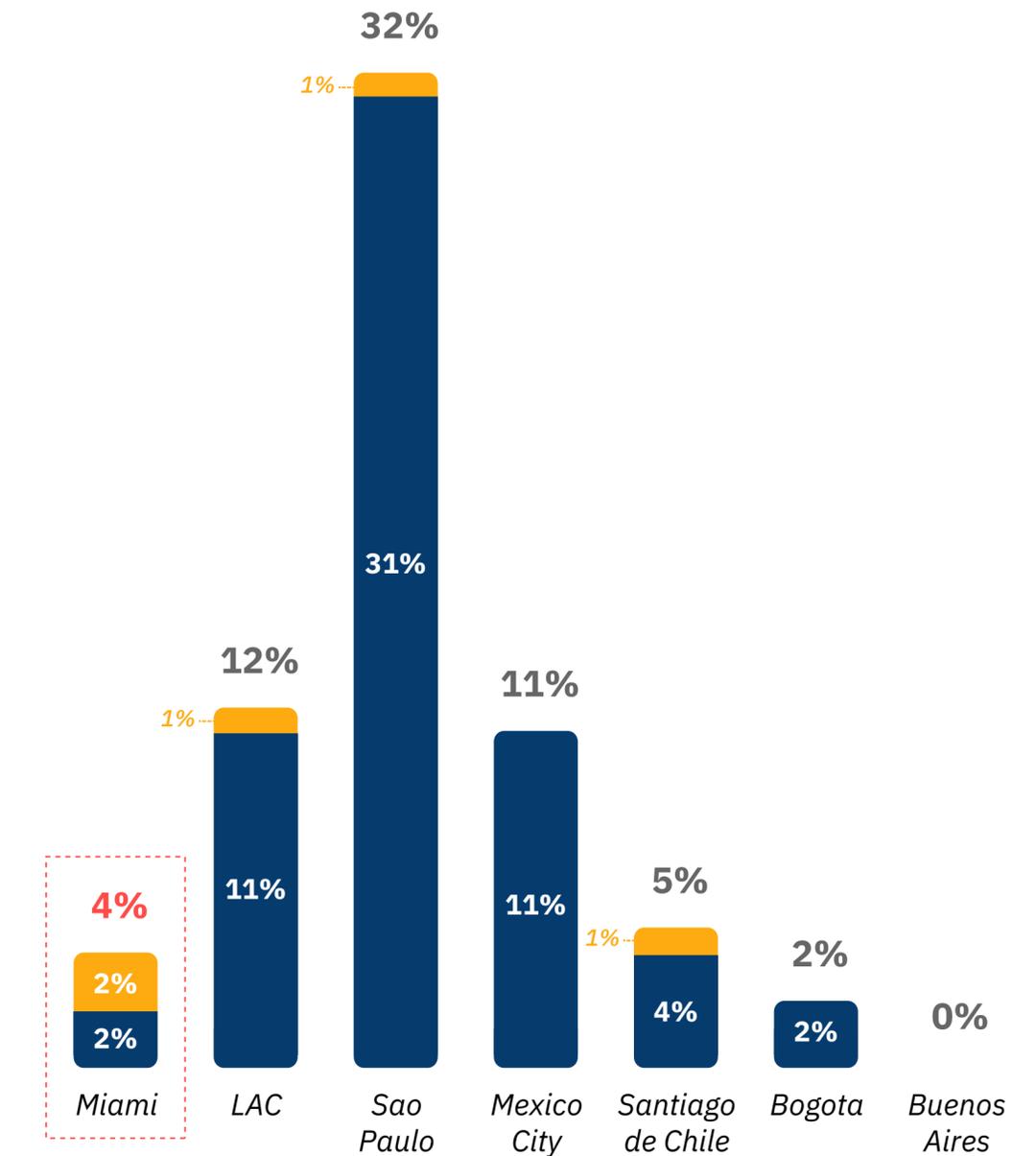
Startups with female founders per ecosystem

Startups (%)



Value created by female founders per ecosystem

Value (%)



Source: TecnoLatinas 2021, Pitchbook, Crunchbase, LinkedIn, Surfing Tsunamis

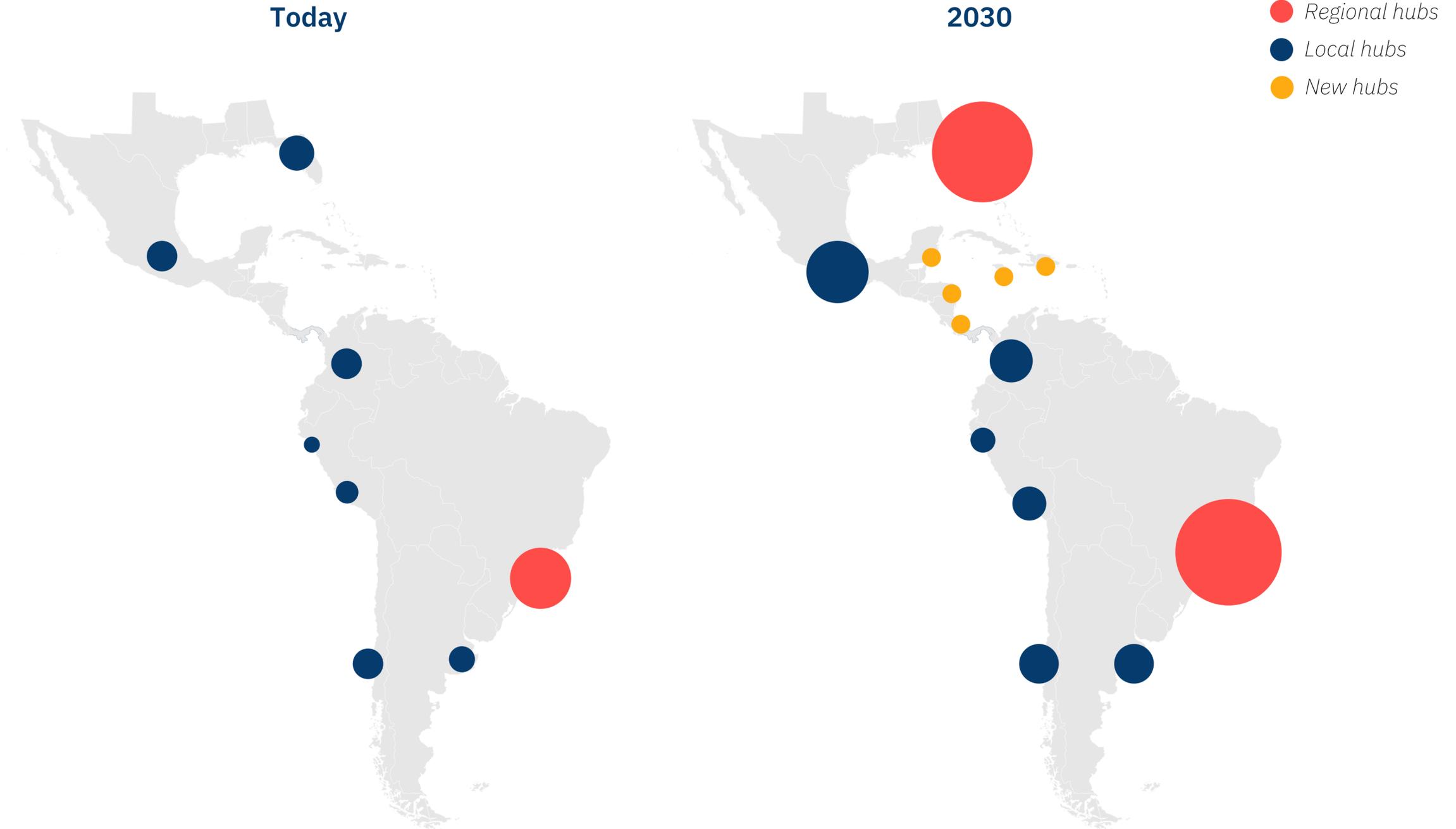
Miami could be a leading hub in the extended LAC area

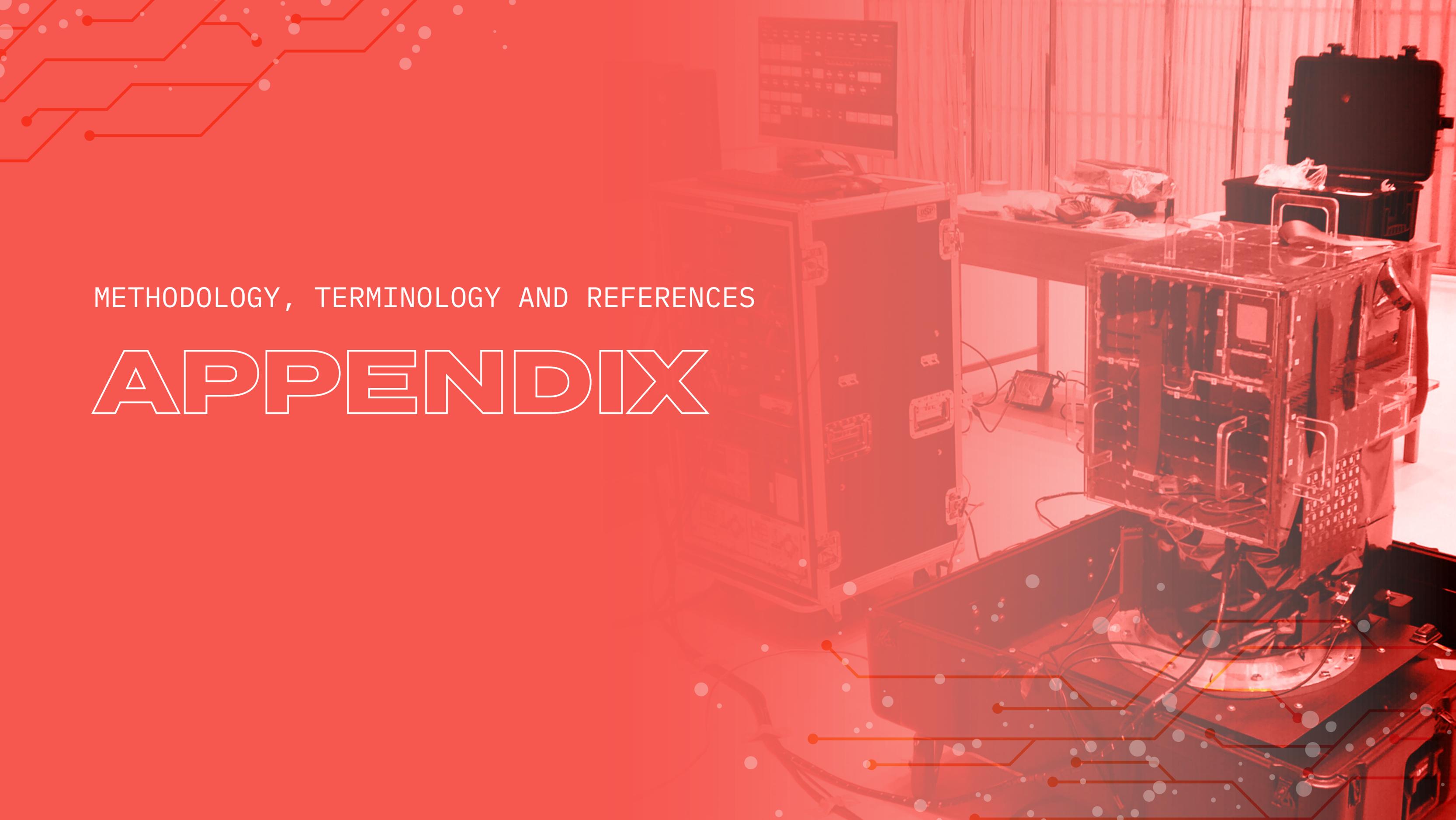
Today, the LAC ecosystem is relatively small and dominated by Sao Paulo, which concentrates most of the regional startup and venture capital activity. This is largely explained by Brazil's massive market and its well-developed capital markets and financial industry. Although most of Sao Paulo's venture capital goes to startups focused on the domestic market, the city plays a pivotal role in the regional ecosystem.

Other LAC ecosystems are mostly local, with the possible exception of Mexico, which plays an early-stage role in the small satellite ecosystems of Central America. Miami is not yet highly connected with LAC, except for some large funds (particularly, Softbank) and a small but growing number of LAC startups and founders based in the city.

By 2030, the landscape could be very different in numerous manners. First, it could be much larger and closer to its potential. Second, it could feature two leading regional ecosystems, namely Sao Paulo and Miami. Third, new satellite ecosystems could emerge around Miami and the other local ecosystems.

Hub evolution in LAC and Miami





METHODOLOGY, TERMINOLOGY AND REFERENCES

APPENDIX



MIAMI STARTUPS LIST



CrunchBase

Bloomberg

LinkedIn

startup RANKING

SURFING TSUNAMIS

481
Startups

TC
TechCrunch

PitchBook

LACA
Latin American Private Equity & Venture Capital Association

TECNOLATINAS
2021

dealroom.co

yahoo!
finance



Terminology and methodology

The present report focuses on the Miami ecosystem and its relation with the development of Latin America and the Caribbean (LAC). In the report we use the term Miami to refer to Greater Miami, which includes the following counties: Broward, Palm Beach, Miami-Dade County, St. Lucie, Martin, Indian River, and Okeechobee.

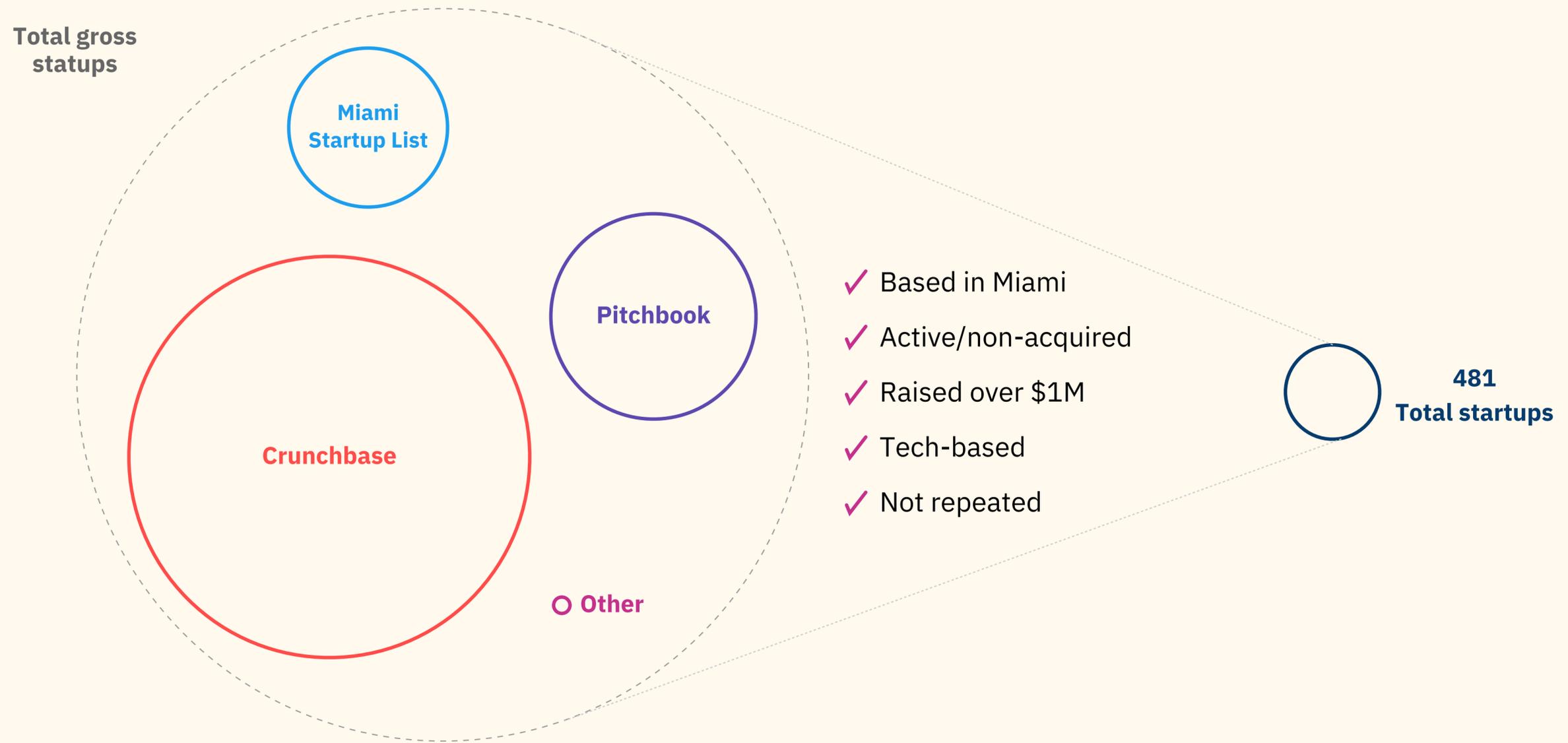
The study draws upon a broad range of both primary and secondary sources, including Startup Genome, Latin American Venture Capital Association (LAVCA), National Venture Capital Association (NVCA), LinkedIn, the World Trade Organization, the World Bank, TechCrunch, and Bloomberg, among many others. We also conducted dozens of interviews with Miami and LAC ecosystem players. Using this information, we developed a series of analyses, including thought-provoking and valuable insights on the Miami ecosystem.

Diving deeper, and in order to better analyze the ecosystem, we created an extensive database of startups from the Greater Miami region. The initial database was built using information from Crunchbase, Pitchbook, Miami Startup List and other sources.

For the purpose of the study, in the cleaning process, we included technology-based startups with headquarters in Miami that had raised at least \$1M of capital over time. Non-active companies that have either closed or been acquired were excluded from the study. Companies showing up in more than one database were counted only once.

The consolidated list of companies then went through a detailed curation, validation, and profile augmentation process. We

Database build-up



eliminated companies that were out of the scope, reviewed and corrected conflicting information with alternative sources, and complemented the existing information to build detailed profiles of each startup using hundreds of articles, reports, press releases and company websites. We used LinkedIn to understand markets of operation, year founded, founder profiles and headquarter location of each startup. We used Crunchbase, company websites and press searches to identify whether companies were acquired, non-active or closed, as well as who their founders were, and the number of employees. We used Pitchbook to recover financial data such as capital raised and value, which we complemented with Crunchbase, media articles and other sources as needed. Companies' webpages were also leveraged to gain general information, such as their industry and clients. After profound research, each profile includes variables like name, sector, year funded, founders, investors, headquarters, markets of operation, capital raised, value of last round, estimated valuation, number of employees, webpage, etc.

The estimated value of publicly-listed companies is based on market capitalization as of September 2021. For unlisted companies with a publicly disclosed value, we used the last disclosed valuation. To estimate the value of unlisted companies without a publicly disclosed value, we used a multiple of six times the last financing round. Moreover, having these criteria in mind, we designated as ecosystem value the sum of the value of startups considered in the analysis. This enabled us to make a series of comparisons across time, sectors and geographies.

Furthermore, most of the analysis comparing the Miami ecosystem to those of LAC as an entire ecosystem and for each

particular city or country were done using TecnoLatinas 2021 report and database. The TecnoLatinas 2021 report was developed in collaboration with IDB Lab. In that report, we analyzed the technology-based private companies created in LAC and owned by founders from the region that raised more than \$1M of capital, with an estimated value of \$6M or more. In this edition, as already stated, we changed the scope so as to focus on the Miami ecosystem and how it relates to LAC.

There are thousands of startups in Greater Miami that have not yet reached the defined criteria and are therefore not considered in this report. Most of them are not technology companies, were acquired or failed. Many others have not yet raised \$1M of capital. We did not include these companies because the data available about them is much more limited and unreliable, because they are in a highly volatile phase of development. Furthermore, they are extremely unlikely to impact the conclusions of the report in a meaningful way due to their limited aggregated size in terms of capital raised and value.

Based on this information, we proceeded to perform over 200 analyses, complementing the information of the database with further reports and industry data, in order to obtain the insights included in the study.

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