Startup Genome

Advancing Greater Detroit's Startup Ecosystem

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A Note From Endeavor Detroit

Decades of research have shown that entrepreneurs who have the support and capital investment they need to scale, peers and mentors who coach them to dream bigger, and a pay it forward mentality, have an outsized impact on local economies. By scaling high-growth companies that lead to large exits and attracting outside investment into the region, they drive liquidity to their markets and deploy the wealth created by their businesses to create the infrastructure and networks necessary for aspiring entrepreneurs to follow in their footsteps. We know this model of entrepreneur-led economic development works, because for more than 25 years, our organization has researched and seen this impact in startup ecosystems in emerging markets worldwide.

In 2019, Endeavor partnered with William Davidson Foundation on research that found U.S. metropolitan areas with the greatest income and productivity share a common trait – they all generate more of a specific type of high-growth business: local, entrepreneur-led, with 50 or more employees, in high-value industries. National data pulled for the study suggests that if Southeast Michigan could create 60 of these high-growth companies, it would increase local GDP by over $5 billion annually.

There is tremendous potential for this type of "high-impact" entrepreneurship in Southeast Michigan. With top tier universities, big industry, and driven, entrepreneurially minded talent, the region has made powerful progress and recently was named by Startup Genome as the "#1 Highest Ranked Emerging Ecosystem in the World." With recent notable exits like Duo, Benzinga, and Wisely, and significant valuations from companies like StockX, Workit Health, and SkySpecs, our entrepreneurs have proven growing and scaling successful scaleups can be done here at home.

By all measures, we have momentum, but our success is not a foregone conclusion. While much focus has been placed on attracting large corporate investment and supporting community small business growth, there is still no cohesive strategy for supporting entrepreneurs leading high-growth companies or wide stakeholder acknowledgement of the greater startup ecosystem's critical role in economic development. Meanwhile, well-supported startup ecosystems are taking root outside strongholds like Silicon Valley, Boston, and New York. Our high-growth companies are increasingly competing for talent and resources in emerging ecosystems like Atlanta, Chicago, Columbus, Miami, and Pittsburgh.

A Note From Endeavor Detroit

To capitalize on our momentum and to successfully compete with emerging tech and innovation cities, we must first understand where we stand in comparison to other regions nationally and globally. In 2022, William Davidson Foundation partnered with Startup Genome and Endeavor to take a closer look at the Detroit region's high-growth startup ecosystem. In alignment with our values, we adopted an "entrepreneur first" lens for this project. We contracted Bloomscape founder, Justin Mast to lead research and analysis efforts for the project and we have convened founders to help design initiatives that will follow. This analysis is based on data that has been collected over the last year largely via surveys and conversations with high-growth startup founders, incorporating input from Entrepreneur Support Organization (ESO) leaders, investors, and policymakers.

The following analysis identifies strengths, opportunities for improvement, and insight into how our region is performing against our peers. This is not just another research report – what follows is a hard look at our collective strengths and weaknesses, with the intent to show where we must invest and level-up as a region to achieve our full growth potential. The purpose of this study is not to support any one entity or agenda but is intended to provide insights to the greater community so that we can all work to advance high-growth entrepreneurship here in Southeast Michigan.

A few key findings include:

1. Founders feel there is no clear strategy leading the region's efforts and believe support organizations (accelerators, incubators, and other ESOs) are disjointed and have provided limited services to support their growth and scale.
2. In terms of exit and scale, founders aim lower in comparison to national and global regions, limiting the outlook and potential of success; despite this, the region has produced more $100M exits than other peer markets in the U.S.
3. Founders believe local angel groups and investors have outmoded mindsets and provide limited valuable support to help founders grow and scale; there is not enough capital to deploy, too few active investors in the region, and too few that take necessary risks on emerging companies.
4. In comparison to peers, the Detroit area shows a low success rate of companies securing seed funding and an even lower success rate of those securing Series A funding. Those who do secure Series A rounds show smaller valuations on average than those in peer cities.

A Note From Endeavor Detroit

Given these findings, we believe there is great opportunity to elevate our high-growth ecosystem.

A few opportunities include:

1. Convening and aligning our region's efforts around a more unified strategy, while also ensuring efforts are founder-led and founder-focused.
2. Advancing policy/advocacy efforts to drive more federal, state, and local funding into early-stage investment and targeted support for high-performing ESOs and those requiring technical assistance.
3. Providing more transparency around accelerators, incubators, and ESOs' performance.
4. Advancing our region's storytelling to drive momentum and provide greater visibility and investment into our successes.
5. Increasing livability in Southeastern MI to attract and retain scaleup companies and high-potential talent.
6. Supporting "think bigger mindsets" by taking deliberate steps to grow presence and visibility for our high-potential founders outside of Michigan, including in other strategic national and international ecosystems.

We believe the Detroit area has the potential to become one of the world's premier locations for high-growth entrepreneurship. This study offers actionable insights to help us get there.

Diana Callaghan
Managing Director, Endeavor Detroit

endeavor

Agenda

1. Introduction
2. Ecosystem Lifecycle Phase
3. Success Factor Assessment
4. Innovation Edge
5. Way Forward

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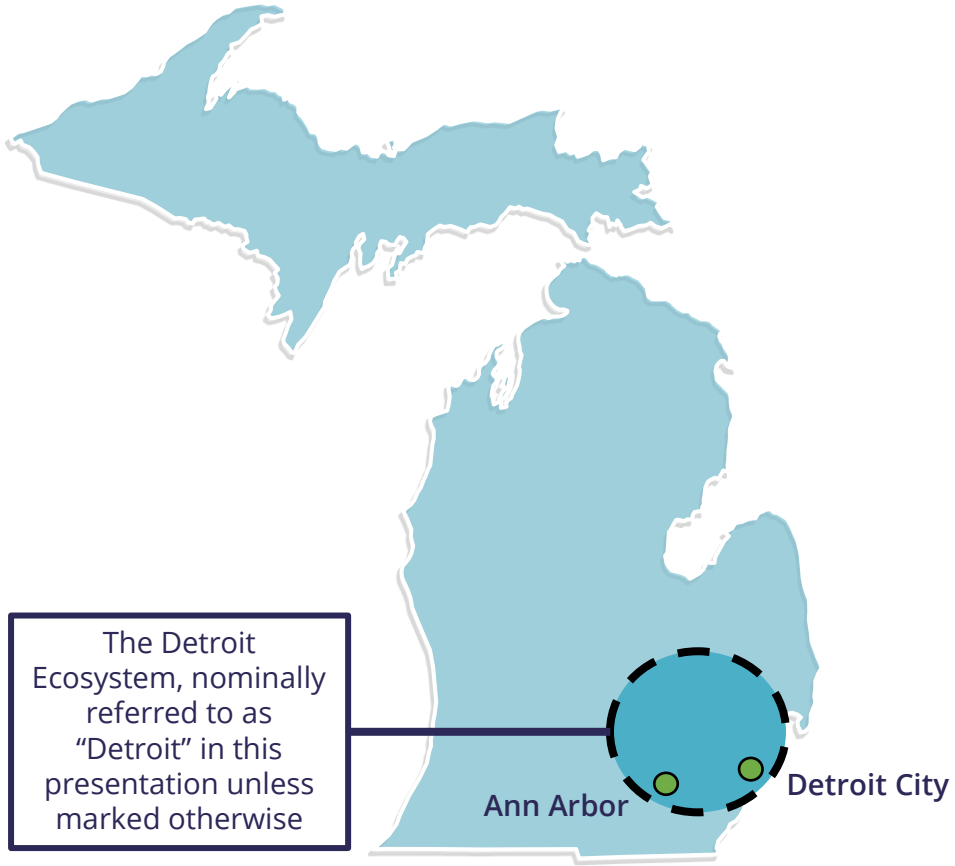
Our Role is to prioritize, shape and drive action with you

Our Role

- **Data-Driven Assessment:** Gaps and strengths of the ecosystem, peer benchmarks
- **Global Best Practices:** Bring relevant best practices to address gaps & invest in strengths
- **Community Alignment:** Consensus-building around priorities among stakeholders
- **Taking Action:** Support ecosystem leaders to shape and drive first actions

We performed an objective and in-depth assessment of Greater Detroit's startup ecosystem

Geographic Scope



About 60-mile radius

Assessment Activities

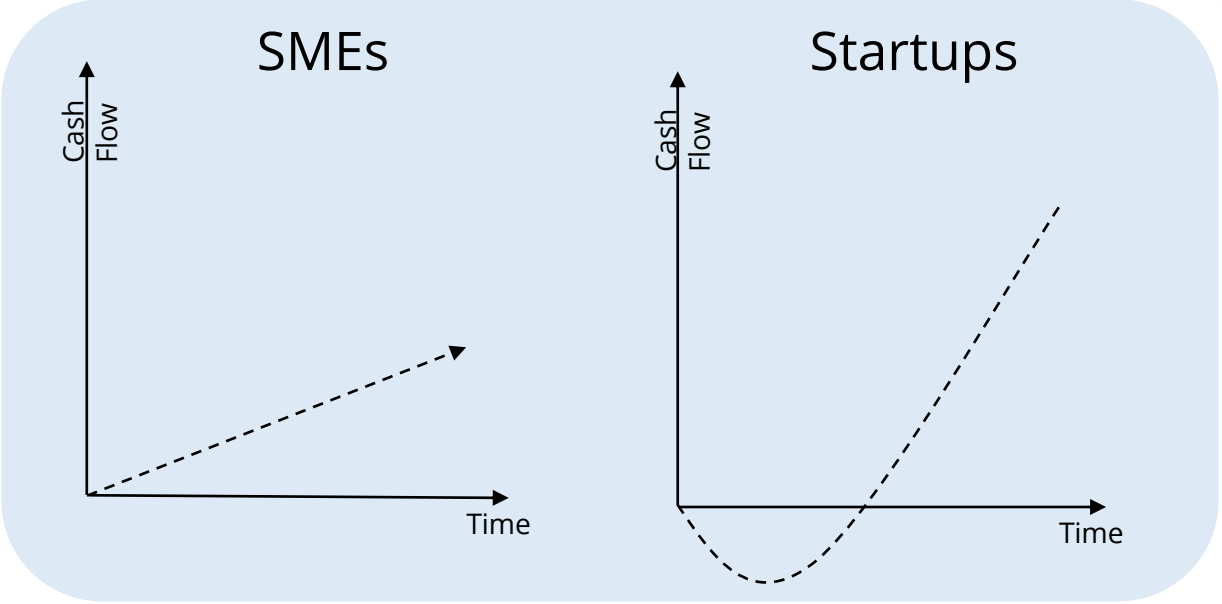
Founder Surveys and Data Analysis	Create missing Success Factor data with startup survey + combine and process data from major databases
Focused Group Discussions	Two founder roundtables to understand key issues
Interviews with 18 Key Stakeholders	Angels, VCs, corporate executives, university leaders
Ranking of Sub-Sector Strengths	Objective voice of global databases for you to combine with local knowledge

Map of Michigan is not to scale, for representative purposes only

Startups are young, technology-focused and/or high-growth organizations finding scalable business models

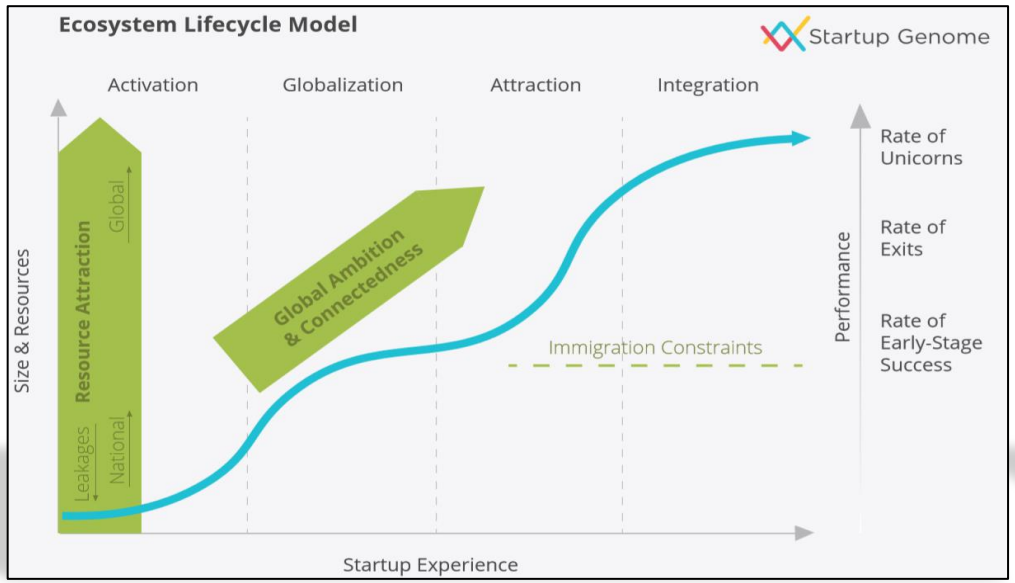
Definition of Startups

Taking inspiration from Steve Blank, we define startups as *young organizations searching for a repeatable and scalable business model*. We use this definition to look at new businesses in sectors including, but not limited to, Software, Hardware, Health, and Energy.



Our holistic assessment is driven by two facets and based on research with hundreds of startup ecosystems globally

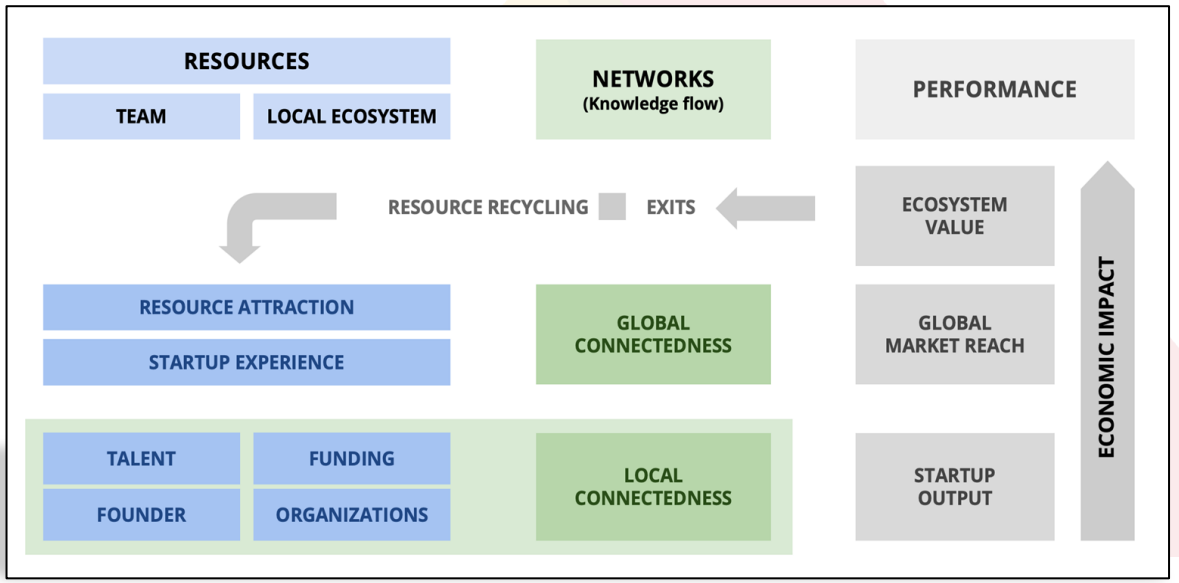
1 Startup Ecosystem Lifecycle Phase Identification



Research of 100+ startup ecosystems highlights that they evolve across predictable trajectories and exhibit specific characteristics along the way

Identify characteristics and peer set for comparison

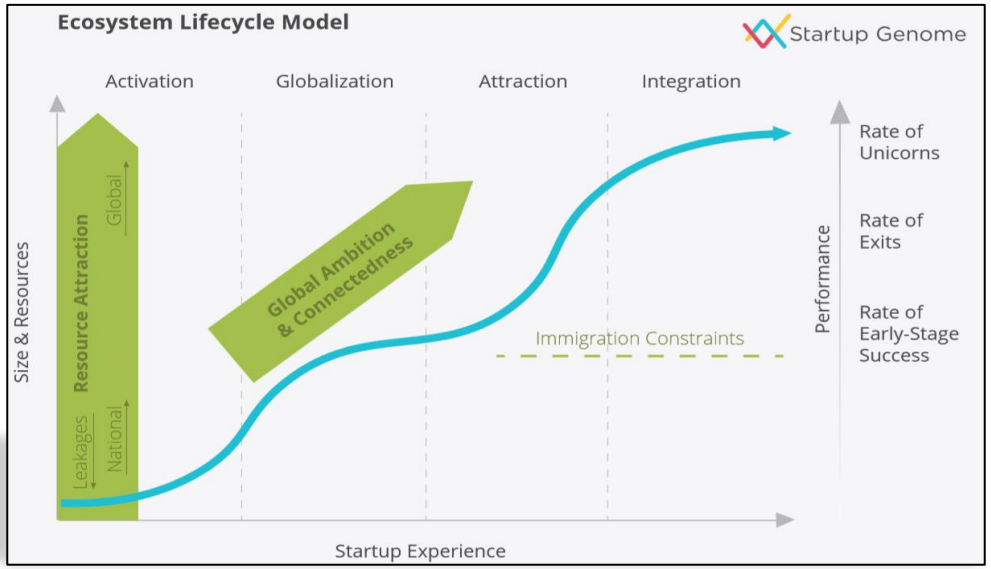
2 Startup Ecosystem Assessment anchored on Success Factors



Factors critical to the success of startup ecosystems are analyzed against ecosystems in similar phases to understand strengths and gaps

Quantify key strengths and barriers to startup success

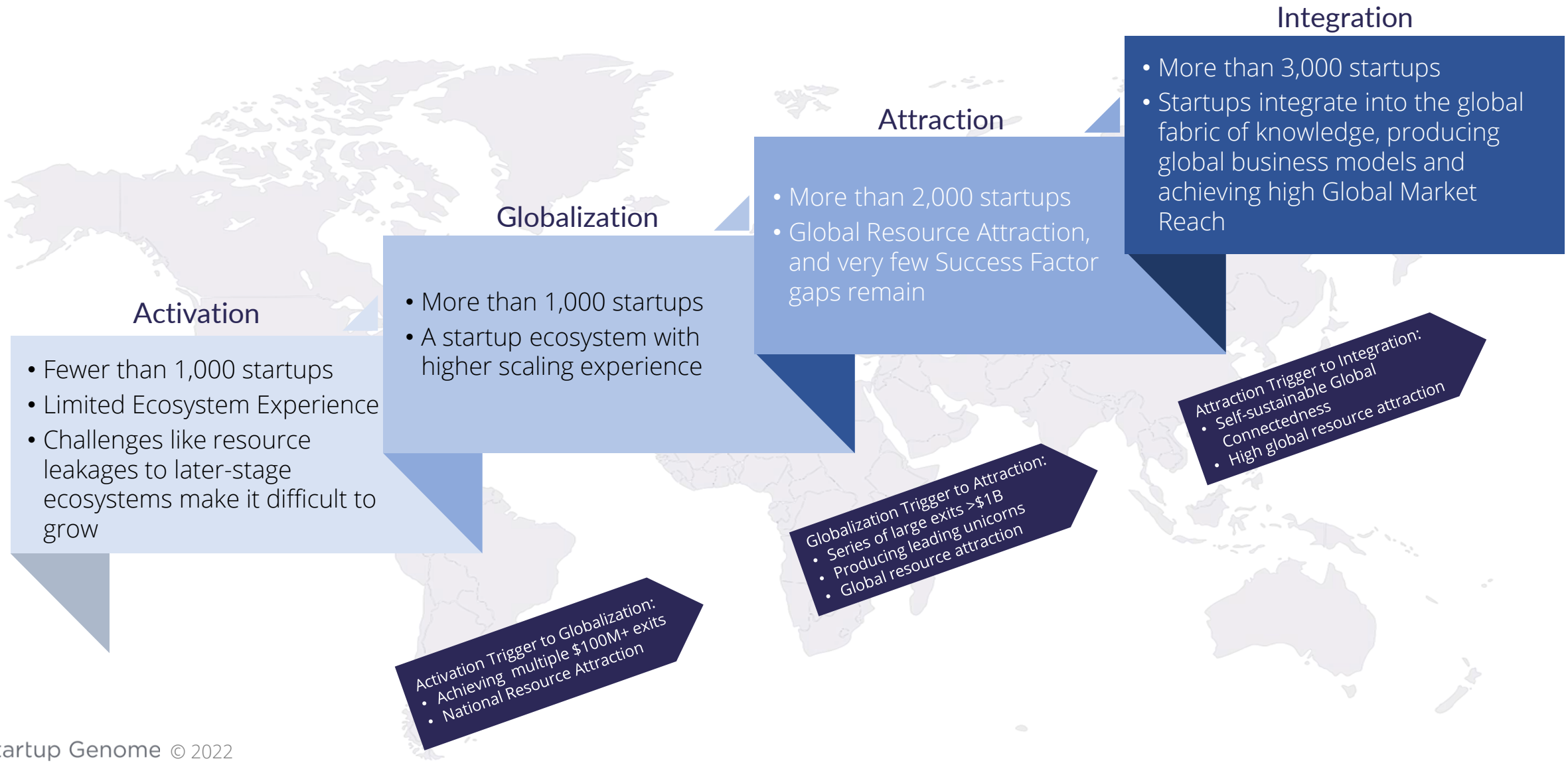
The Ecosystem Lifecycle Model explains how an ecosystem performs in comparison to others and which measures to prioritize



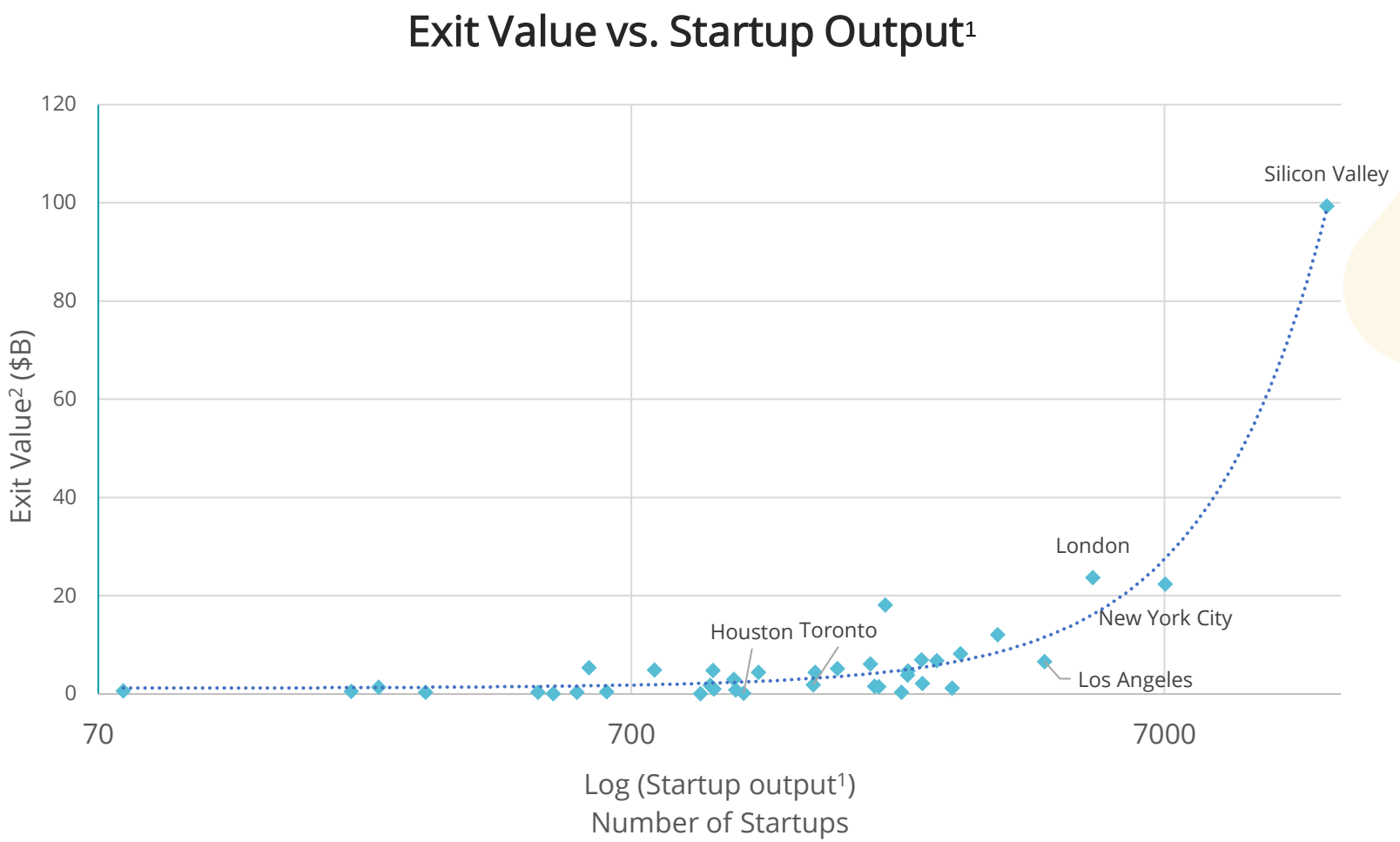
We observed a struggle among city and regional leaders to accelerate the growth of their startup ecosystems as the structure and dynamics differ radically from the traditional economy, requiring a brand-new model of economic development. Startup ecosystems are highly dynamic and, similar to new technologies, evolve rapidly through different maturity phases, with each phase having unique characteristics and needs. A global perspective on key development actions, contrary to a singular focus on Silicon Valley, can drive sustainable growth and job creation.

To categorize startup ecosystem phases and their evolution, we developed “The Ecosystem Lifecycle Model” to help leaders take appropriate action for the most direct impact relative to their current phase

The Ecosystem Lifecycle consists of four distinct phases, each with distinct characteristics and goals



SG Science: The larger the entrepreneurial community, the more value can be created via critical mass



Overview

- An increasing number of startups strengthen the local community by inducing sharing of knowledge and increasing support initiatives and funding sources
- Our data shows that a larger number of startups enhances the ecosystem's capability of producing successful startups
- Cumulatively, this positive effect results in the overall development of the ecosystem

1. Startup Output measures the estimated number of startups in an ecosystem
2. Exit Value measure the aggregate value of all the startup IPO's and Acquisitions/Mergers in the ecosystem

Founder Roundtable Attendees

Startup/Organization Name	Date Attended	Attendee
Autobooks	September 21st	Steven Robert
Matterscale (VC investor)	September 21st	Antonio Lück
Signal Advisors	September 21st	Patrick Kelly
Ash and Erie	September 21st	Steven Mazur
Floyd Home	September 22nd	Alex O'Dell
Floyd Home	September 22nd	Kyle Hoff
Culturewell	September 22nd	Sarah Beatty
Censys	September 22nd	Lorne Groe
Skyspecs	September 22nd	Danny Ellis
Bloomscape	September 22nd	Justin Mast

Founder Roundtable Interviews were conducted in-person in Detroit on September 21st and September 22nd

Interviews Conducted (1/2)

Organization Name	Organization Role	Interviewee
Growthcap	VC	Lauren Bigelow
Holofy	Angel	Doug Collier
Beringea	VC	Bill Blake
Renaissance Venture Capital	VC	Chris Rizik
Bamboo	ESO	Amanda Lewan
Pocketnest	Founder	Jessica Willis
Michigan Central District	Corporate Innovator	Josh Sirefman
Centrepolis Accelerator	ESO	Riley Lenhard
Endeavor	ESO	Diana Callaghan
University of Michigan	University	Kelly Sexton

Startup Genome reached out to 23 stakeholders in Detroit, representing experts, investors, founders, universities, SSOPs and Corporate Innovators

Interviews Conducted (2/2)

Organization Name	Organization Role	Interviewee
Ann Arbor SPARK	ESO	Skip Simms
CGS Advisors	Corporate Innovator	Greggory Garrett
Zeck	Founder	Robert Wolfe
Benzinga	Founder	Jason Raznick
Automation Alley	ESO	John Bedz
MVCA	VC	Ara Topouzian
Magna	VC	Josh Burgh
MTRAC	University	Anne Partington

Startup Genome reached out to 23 stakeholders in Detroit, representing experts, investors, founders, universities, SSOPs and Corporate Innovators

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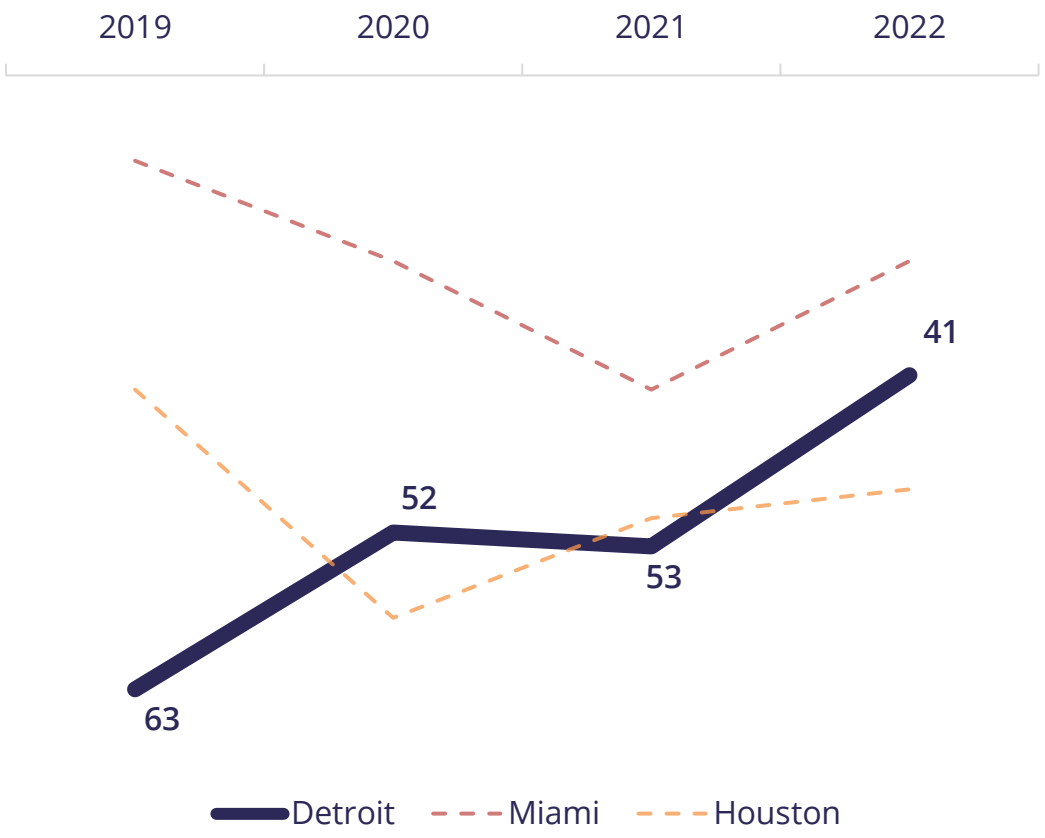
Detroit has been steadily climbing in our annual Global Ranking—and it can go further with the right action-oriented leadership

Detroit's Annual Startup Ecosystem Ranking



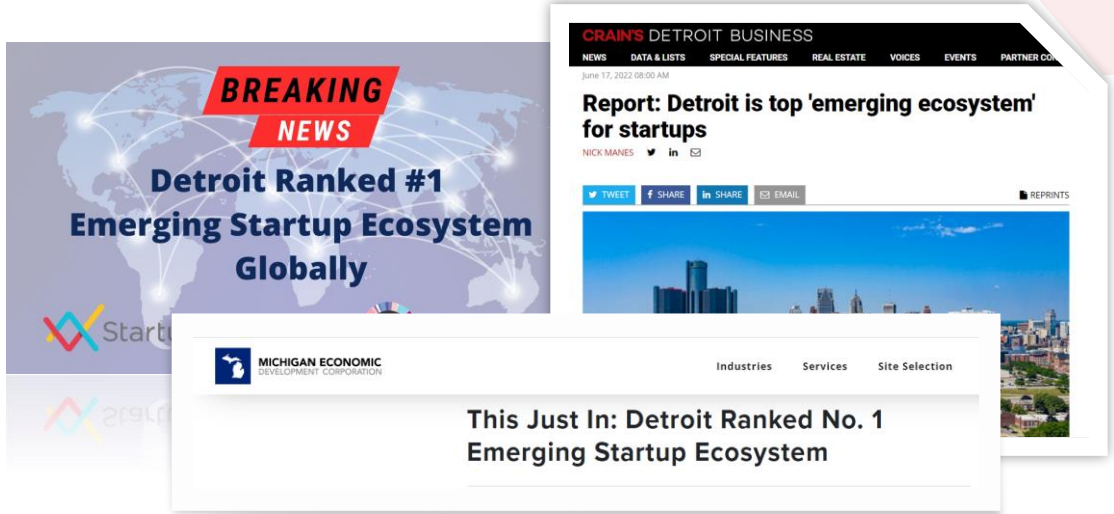
Rankings based on Startup Genome's Global Startup Ecosystem Report

Key Highlights

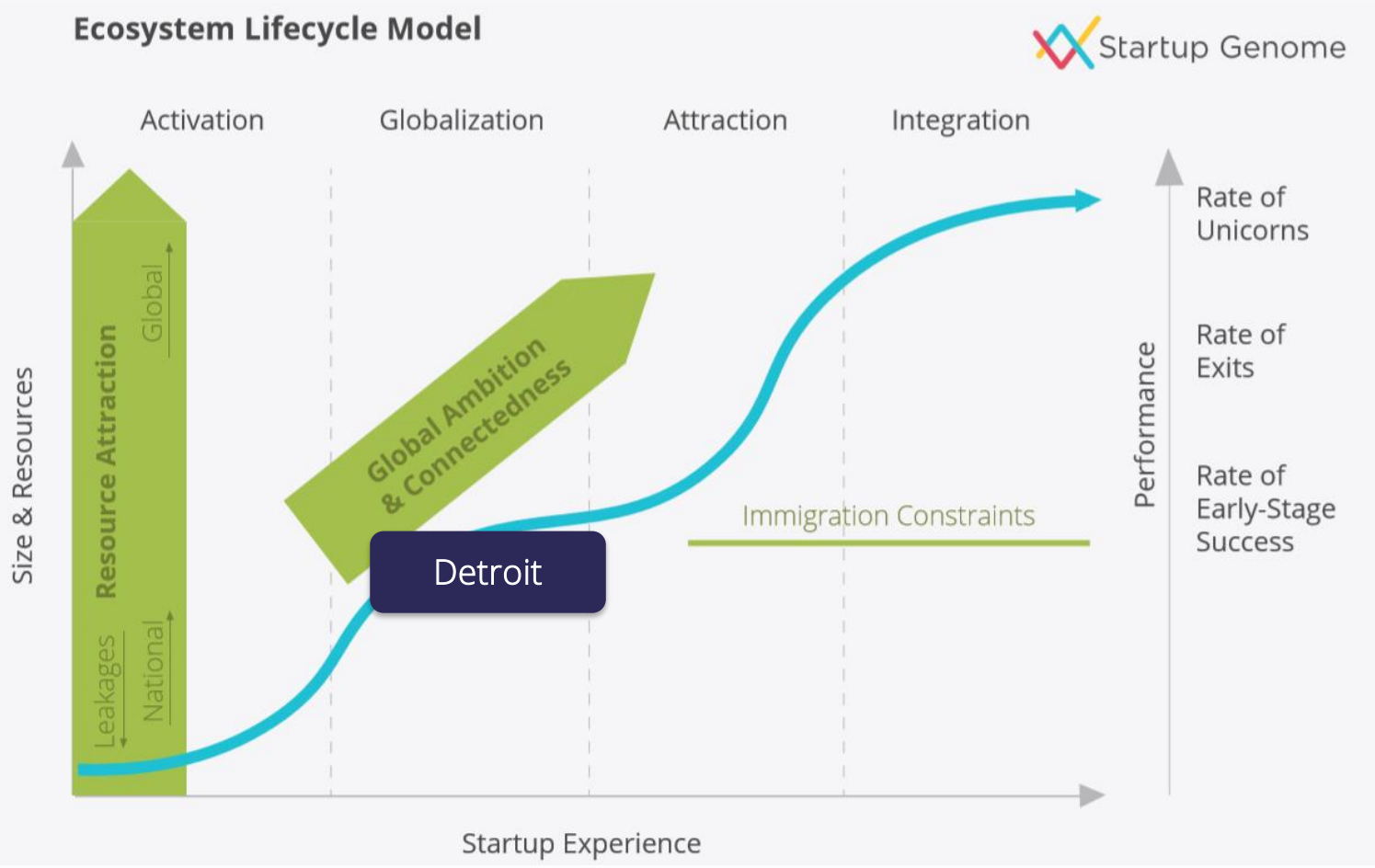
▲12 Increase in Global Ecosystem Rank

#1 Emerging Startup Ecosystem in 2022

$91B Ecosystem Value of $91B ($35B w/o Rivian)



Detroit is in the Globalization Phase, characterized by an increasing number of startups and a growing availability of resources

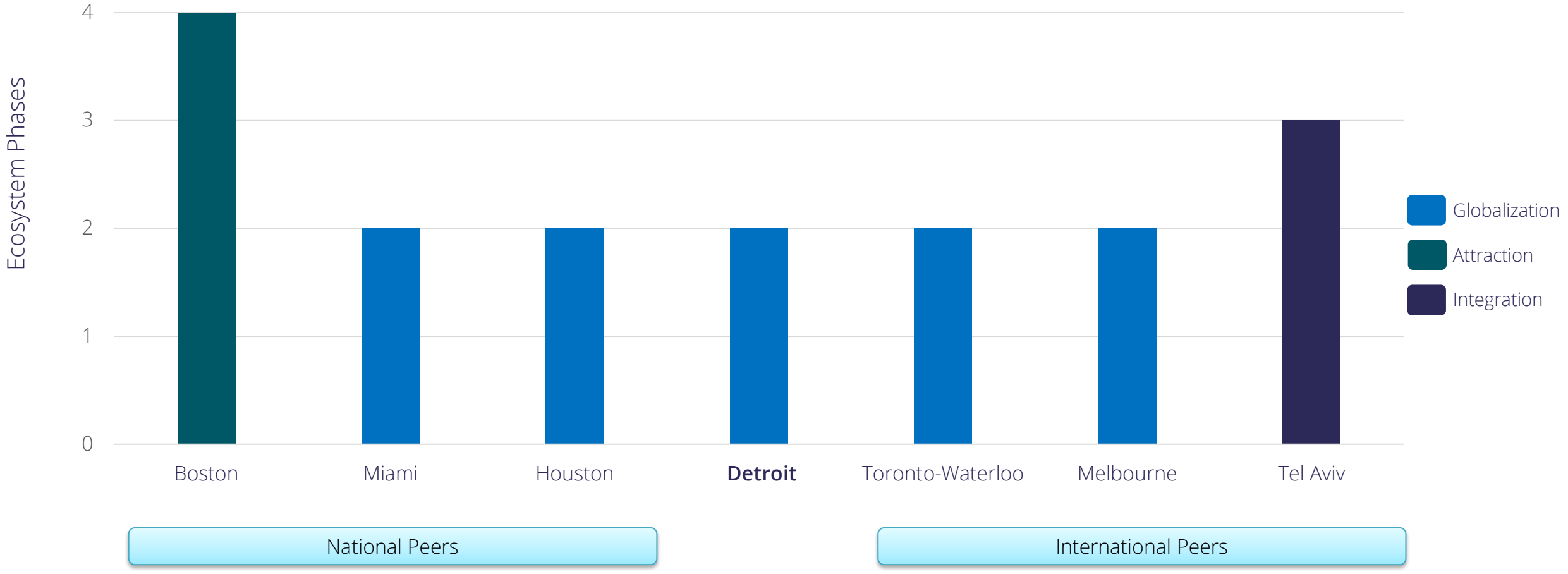


Overview

- Detroit exhibits characteristics consistent with other Early Globalization Ecosystems
- Detroit has about **1,500**+ startups
- Detroit has had more than two Billion-Dollar exits in the last 5 years (Duo Security, Rivian)

Ecosystem Phase indicators include ecosystem size, exits and scaleup creation, and Success Factor gaps

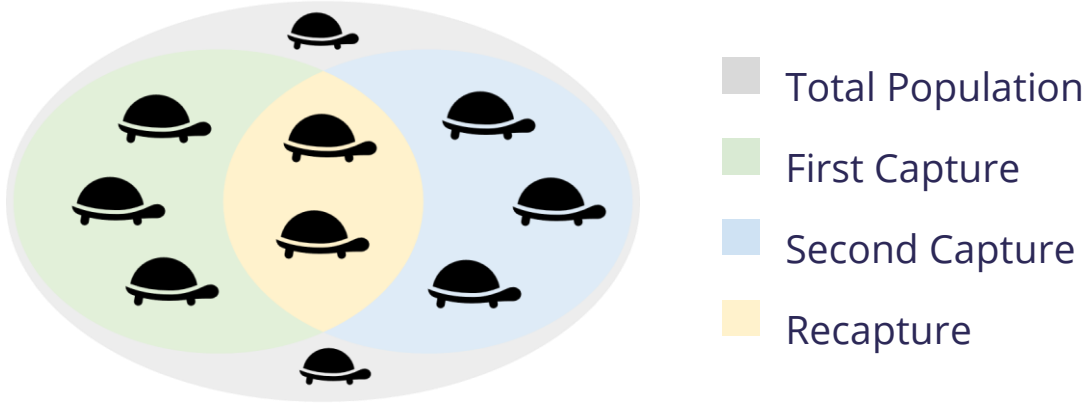
Detroit has been benchmarked against relevant National and International ecosystems with similar characteristics



We calculate and benchmark the number of startups (Startup Output) using the Multiple Systems Estimation method

- To quantify the startups in an ecosystem, we make use of the Multiple Systems Estimation methodology, a derivative of the mark and recapture method. We utilize this methodology to create powerful estimates using the overlaps between several incomplete lists

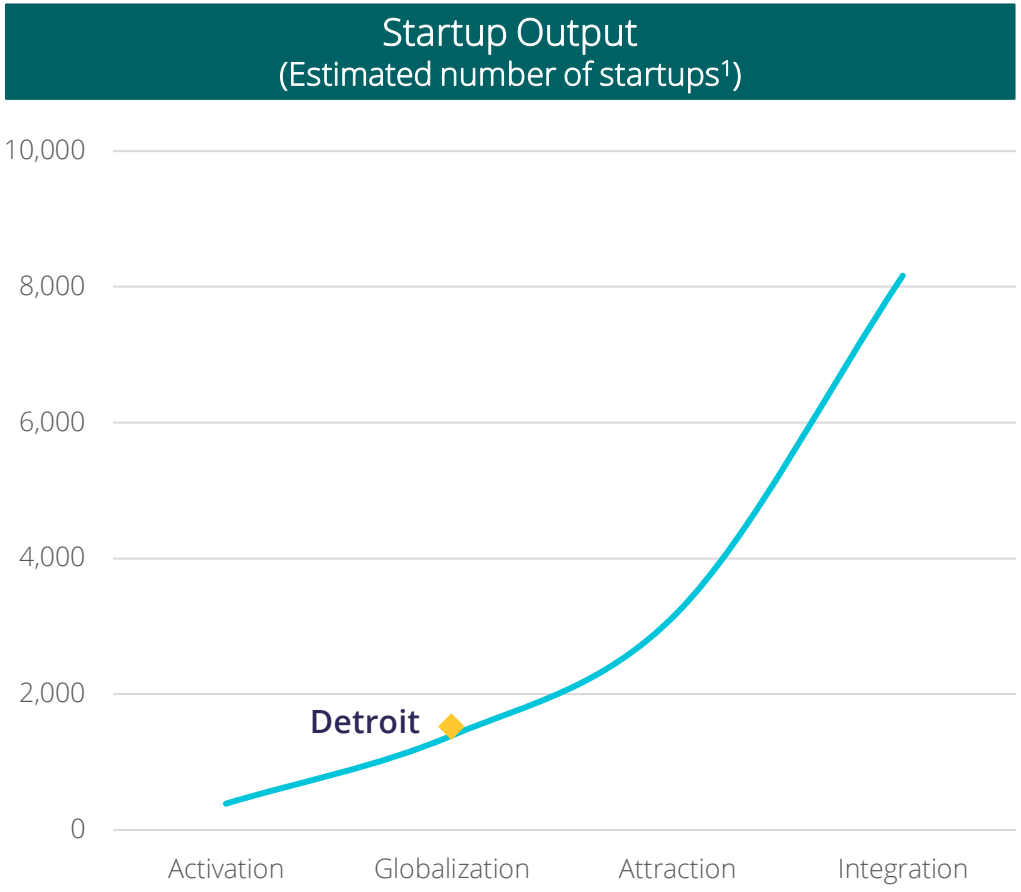
- This process involves capturing **domain names** of startups in the ecosystem using email lists of ESOs in the ecosystem and cross-referencing this data through other sources. It uses the overlaps (or lack thereof) between multiple lists to arrive at an estimate of the number of startups

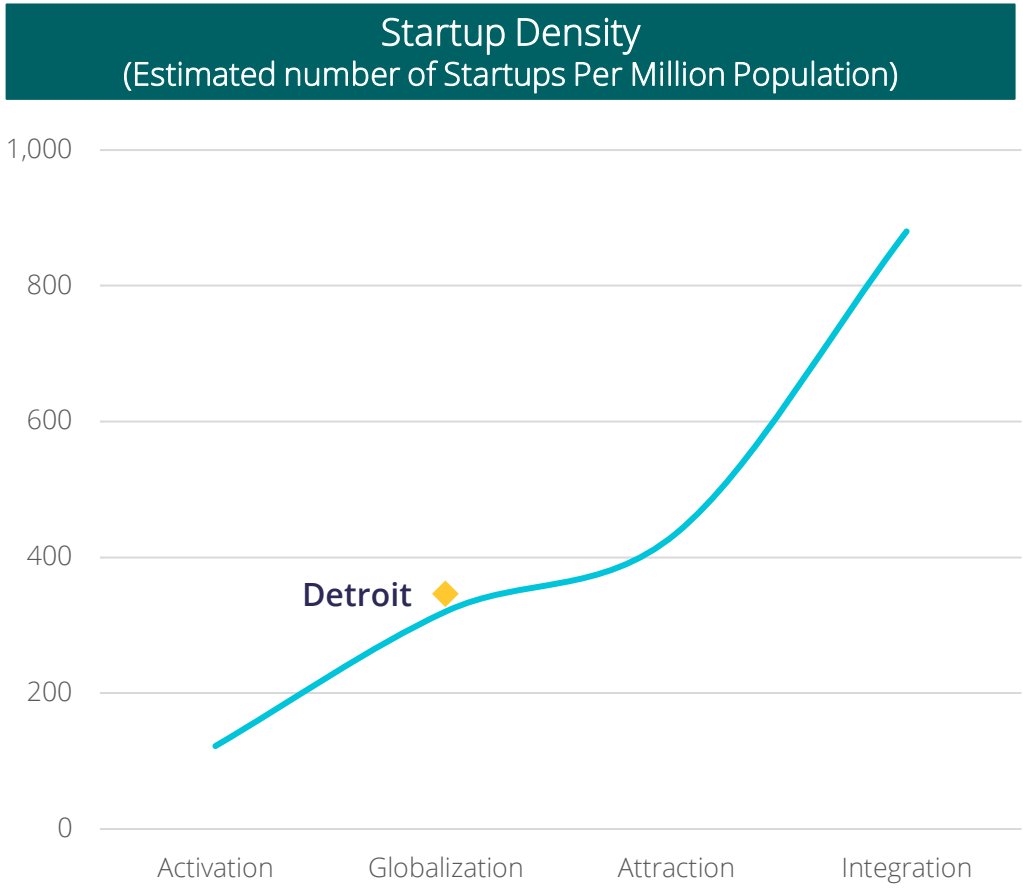


Mark and Recapture is a widely-utilized tool for measuring animal wildlife populations by biologists and ecologists

This methodology has been tried and tested with ecosystem leaders around the world and continues to produce highly accurate and, importantly, standardized results

Greater Detroit's Startup Ecosystem is growing as more startups are being founded, on par with Globalization average





1. **Startup:** Innovative, technology-enabled business in search of a repeatable and scalable business model. Applies to companies in software, hardware, energy, health, and others. This not only means that the business has the potential to scale to hundreds or thousands of employees, but that such scaling is a primary goal

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We assess and benchmark ecosystems according to our proprietary Success Factor Model

- Startup Genome began as a research project with leading entrepreneurship experts such as Steve Blank, Chuck Eesley (Stanford University), and Ron Berman (Wharton School of Business)
- We codify and understand the **Success Factors** of startups and startup ecosystems by building data-driven globally standardized perspectives
- Our mission is to enable more geographies to have a chance to capture their fair share of the value created by the global startup economy
- We have created the most comprehensive, authoritative startup ecosystem research ever done by far

Since then, we have made a mark on the Global Startup Ecosystem:

Surveys in:

45+
Countries

280+
Cities

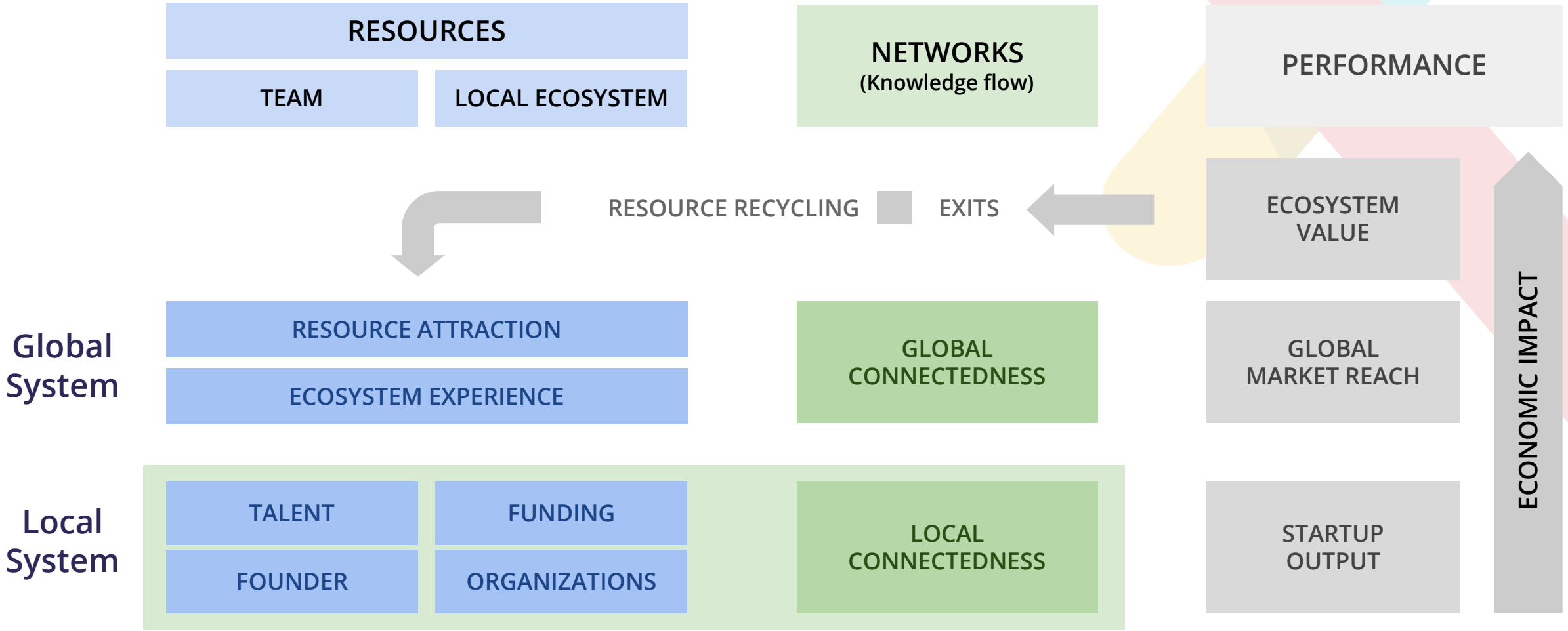
Data from:

3M+
Companies covered in our dataset

100k
Founders & executives covered through primary research

Our Success Factor Model currently incorporates 10 key Success Factors that capture the essence of what makes a startup and startup ecosystems in its entirety successful

SG Science: The Success Factor Model represents the factors most strongly correlated with success based on our global research



The Success Factor Model: Overview of Local System and Global System Overview

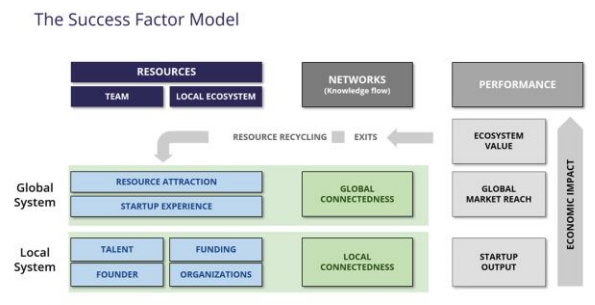
Global System

Global Success Factors become critical for ecosystems in the **later phases** of the Ecosystem Lifecycle, i.e., from the later stages of the Activation phase onwards (Phase II: Globalization and beyond). Critical mass at the local level helps drive the virtuous cycle of ecosystem growth. Success at the Global Systems level is measured by **Global Market Reach**, i.e., the percent of sales to foreign ecosystems and **Connections to top ecosystems**

Local System

Local Success Factors are **the most important at the early stages** of ecosystem growth to support the **development of a thriving community**. The success metric for a growing startup community is *Startup Output*, i.e., the **number of startups** within the ecosystem. A **larger startup community** creates enough critical mass to advance to the next stages of startup ecosystem growth

Success Factor Model: Definitions



Ecosystem Experience
Global resources and startup knowledge acquired and generated over time to help accelerate the startup ecosystem

Startup Output
The number of startups in an ecosystem

Global Market Reach
The proportion of sales to foreign ecosystems

Local Connectedness
The quality and volume of connections that exist between binding the local startup community together

Global Connectedness
Global networks that facilitate the inflow of global knowledge and best practices for local founders to build globally leading products

Funding
The level and growth of Early-Stage funding, looking at both access and quality

Success Factors

Resource Attraction
The gravitational pull of an ecosystem in drawing in entrepreneurs and startups from elsewhere

Talent
Measures Founder's access to key positions in terms of quality, expertise and cost

Founder
Success factors related to the startup founder, under his or her control, or internal to the start-up as opposed to external

Organizations
Availability, expertise and presence of specialized programs of Entrepreneurial Support Organizations

Local System Success Factors

Global System Success Factors

Success Factor Model
Founder

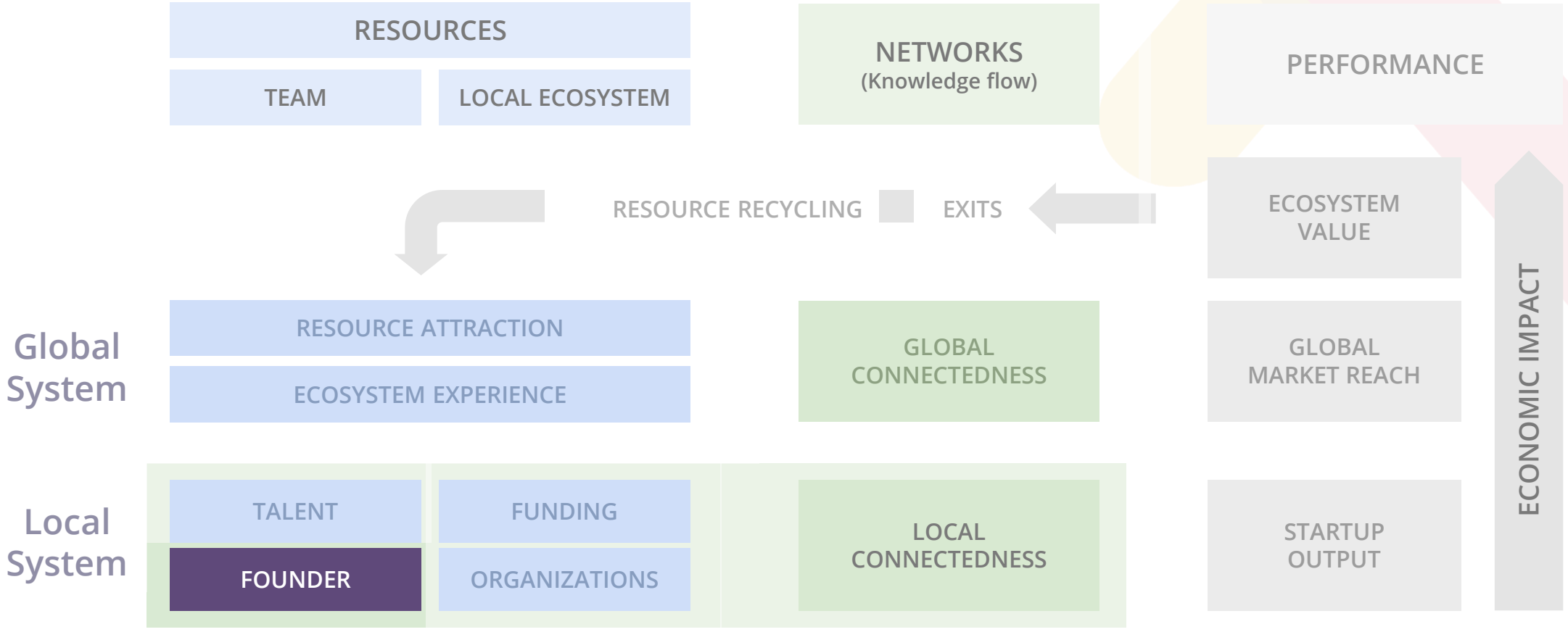
Founder: Factors concerning the profile of founders themselves, their experiences and motivations

Founder DNA:

- Founder team background, Founder Experience, Founder Demographics

Ambition:

- Founders targeting large addressable markets



SG Science: Founder DNA and Ambition factors are indicative of wider Ecosystem trends

Key Founder Factors

Founder DNA

- Team
- Background
- Financial Situation

- Founder DNA includes:
  - Team: Skills, relevant sub-sector experience, and size of the founder team
  - Founder Background: Demographic profile and if they were attracted to the ecosystem to found their startup
  - Financial Situation: Socioeconomic background and knowledge of other funding opportunities
- The composition of teams is imperative to see if the startups have a team that brings their own set of skills, experiences, and vision to the table, which leads to better innovation, growth, customer satisfaction, and profitability

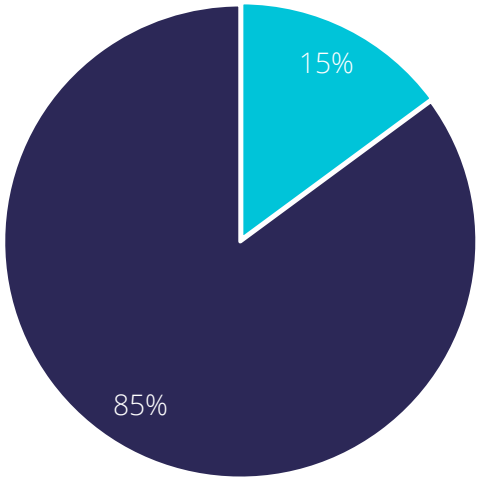
High Ambition

- Motivation
- Unique Selling Proposition
- Total Addressable Market Size

- High Ambition Includes:
  - Motivation: Change the world, build a great product
  - Unique Selling Proposition: First in the world vs. Better or Cheaper
  - Total Addressable Market: $30B as a proxy for global market potential
- We explore founders' ambition in the ecosystem through the competitiveness of their business models, their motivation or purpose, and their ability to address larger markets

Almost half of Detroit Founders had previously founded a startup, contrary to stakeholder feedback

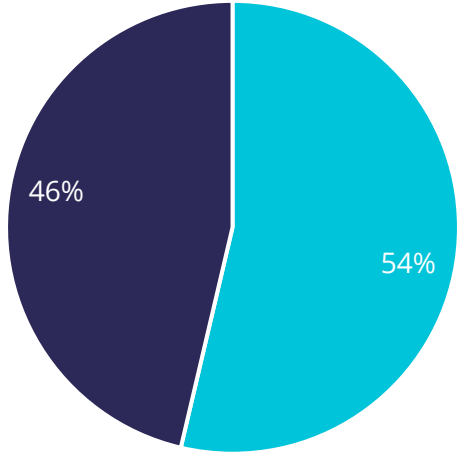
Detroit Startup Serial Founder Analysis



- Startups having no serial founder
- Startups having at least one serial founder

A high percentage of startups having at least one serial founder shows the presence of Startup Experience in the founding team, increasing success chances in the long run

Detroit Startup Founding Team Breakdown



- % of founding team having no startup founder experience before
- % of founding team who founded a startup before

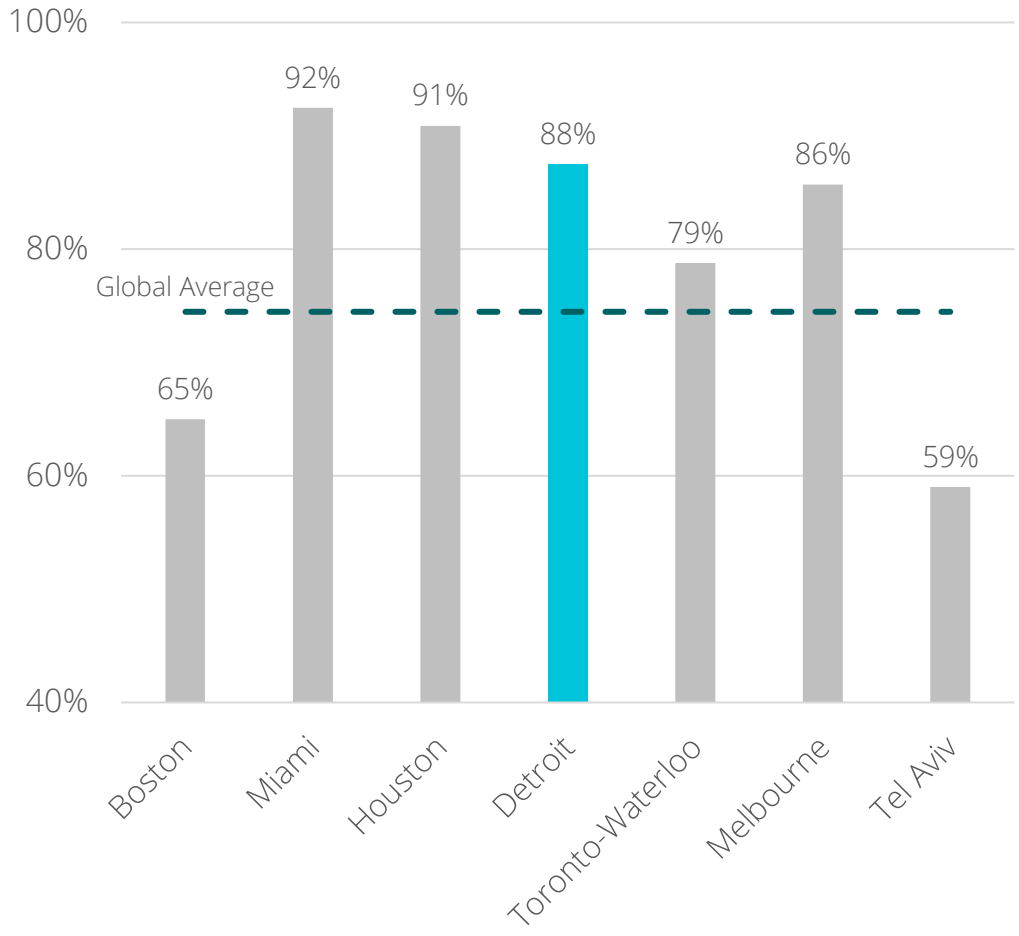
The values for Detroit are based on 47 survey responses

Positively, on average almost half of the founders and co-founders of startup founding teams in Detroit claim to have founded a startup before

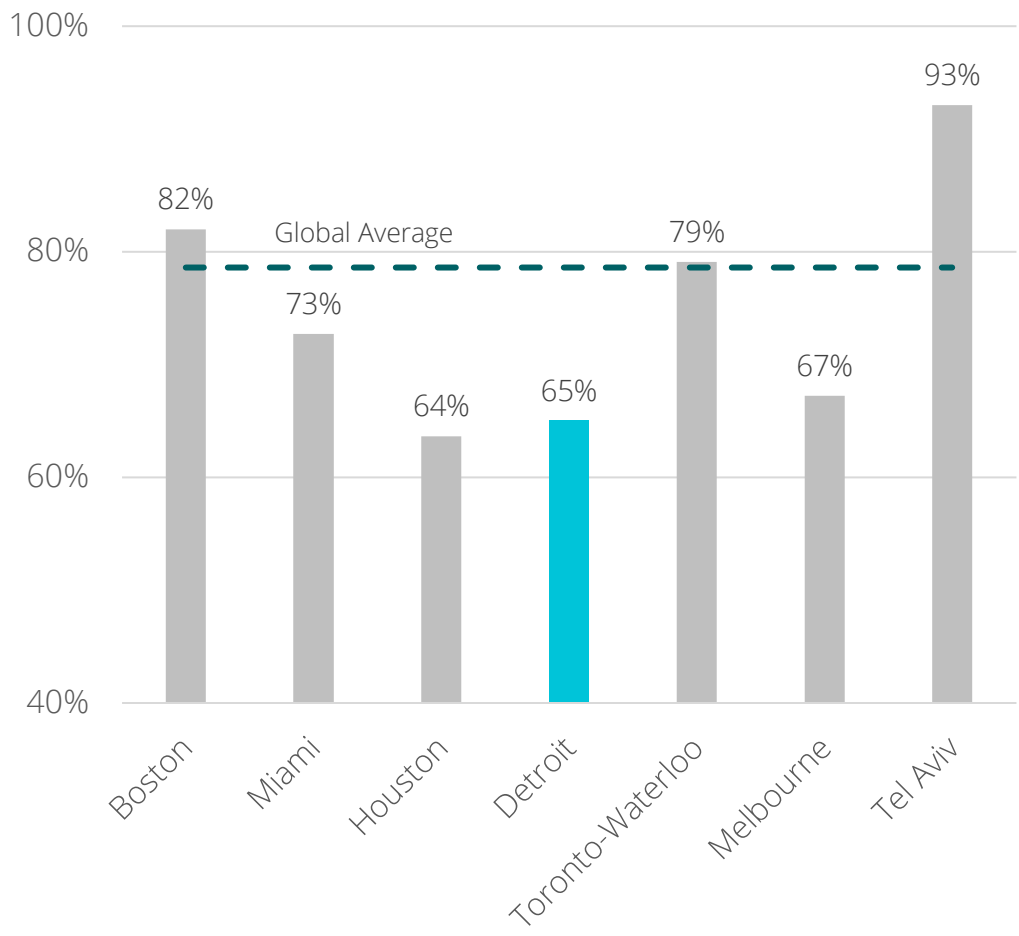
Serial Founder: A Founder or co-founder of a startup who has previously founded or co-founded another startup

Background: Detroit startups have a high proportion of founders with business degrees

Business Founder Team

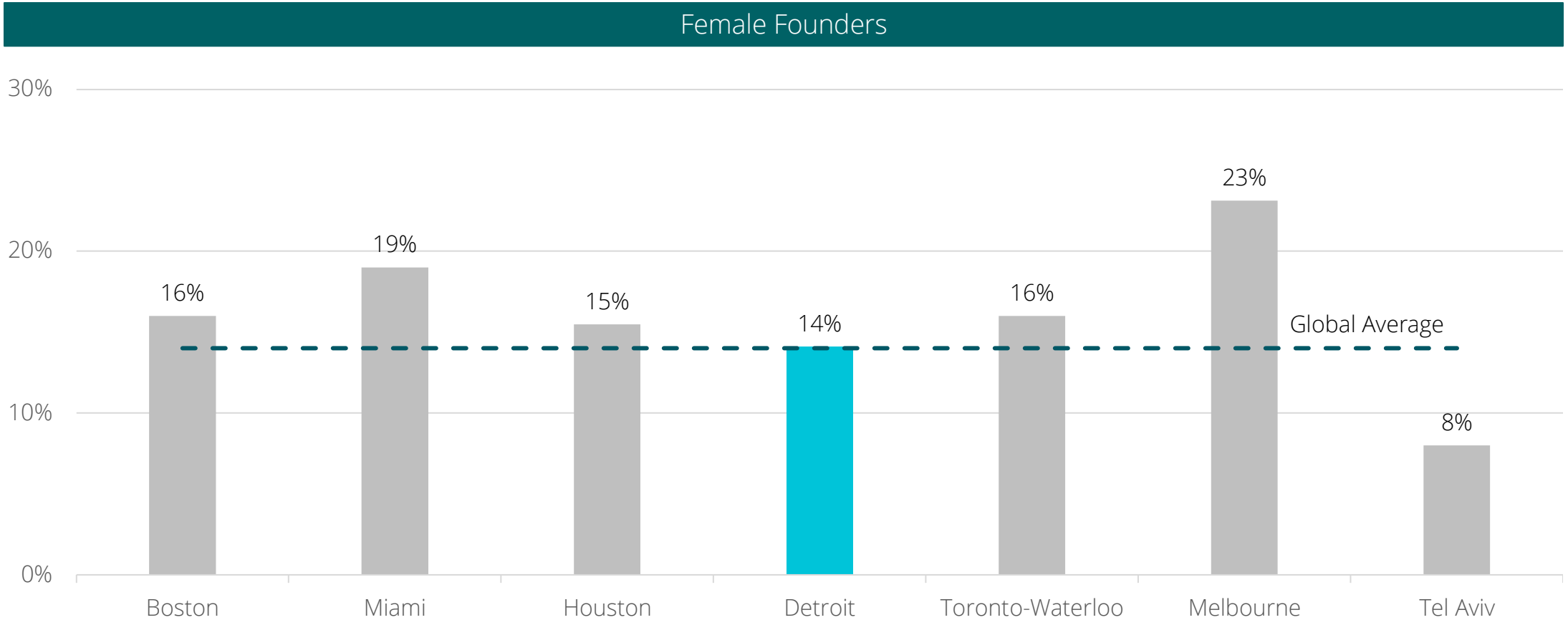


Technical Founder Team



Business Founder Team: Percentage of startups with at least one founder with a business background
Technical Founder Team: Percentage of startups with at least one founder with a technical background

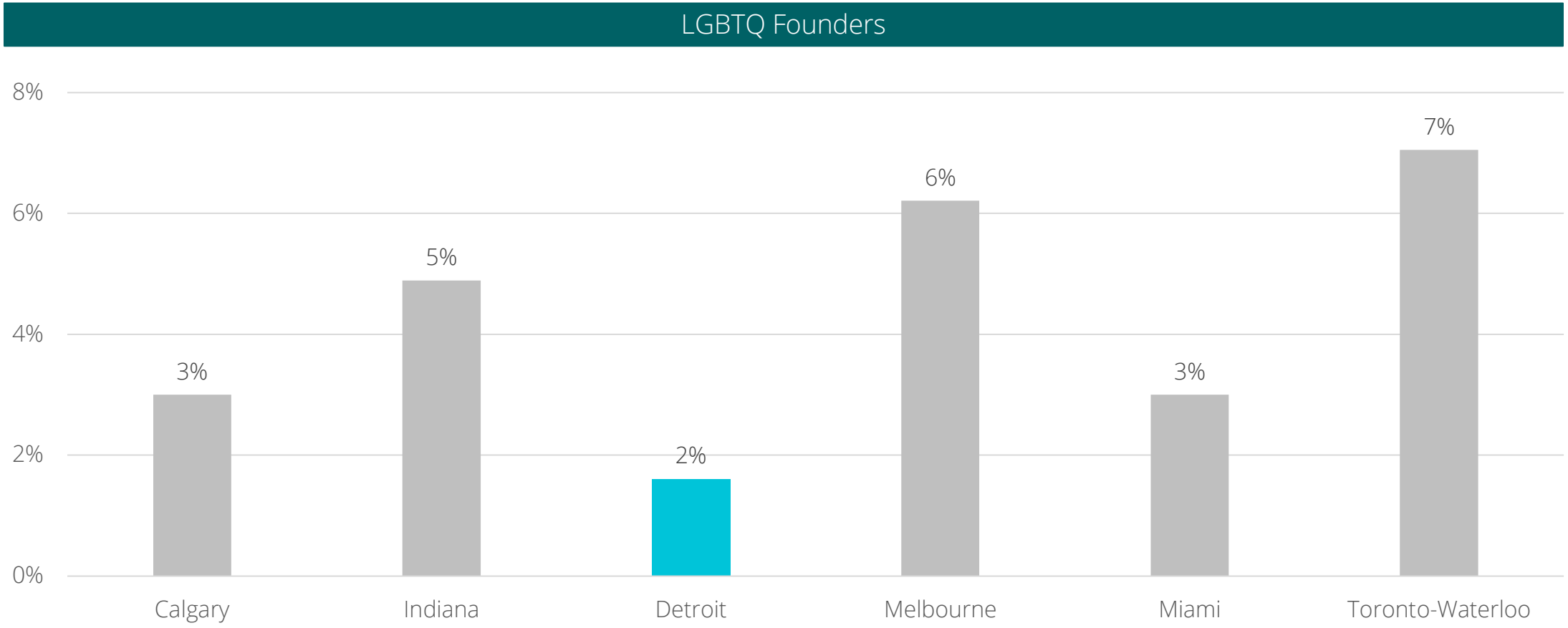
Detroit has an average proportion of Female Founders



The values for Detroit are based on 41 survey responses

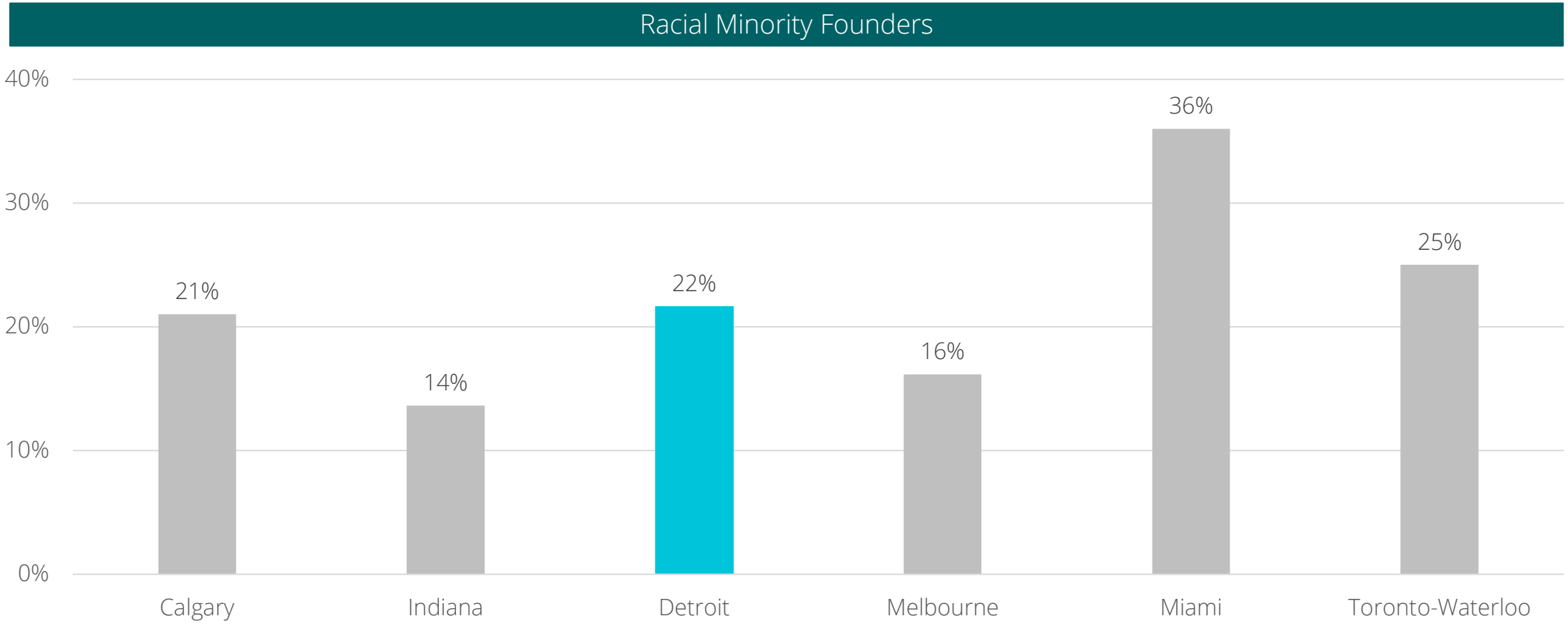
This metric is not a direct comparison between Detroit and its peer ecosystems as it represents the proportion of female founders and it varies due to the distinct demographics of each ecosystem

Participation: LGBTQ Founders



The values for Detroit are based on 31 survey responses

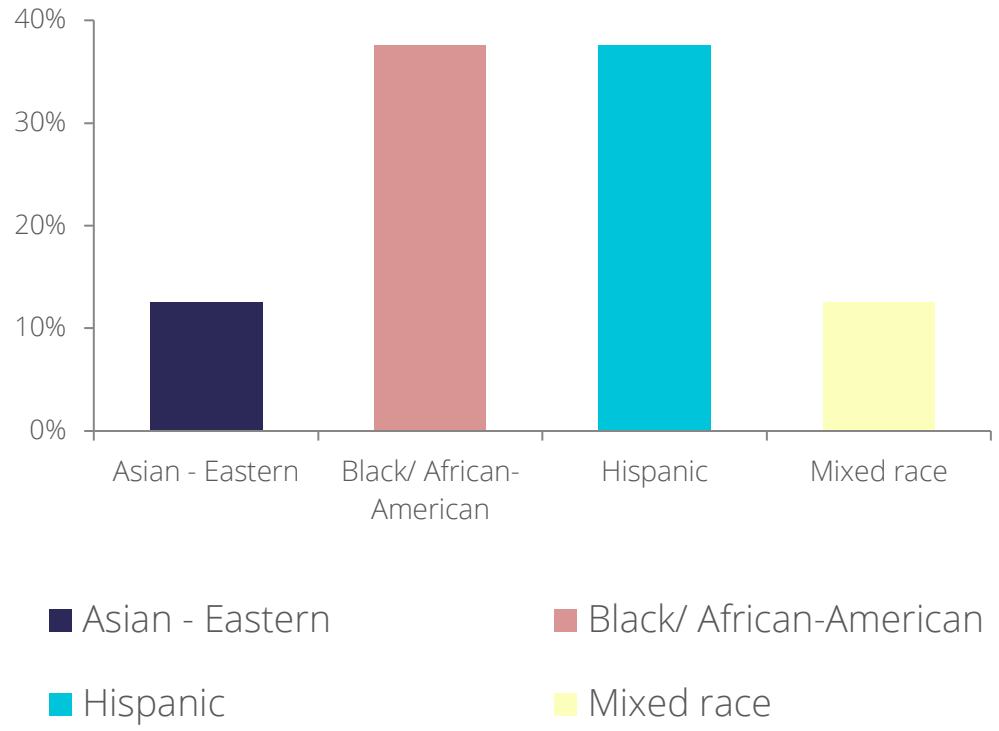
Participation: Racial Minority Founders



This metric is not a direct comparison between Detroit and its peer ecosystems as it represents the proportion of founders who come from a racial minority background and it varies due to the distinct demographics of each ecosystem. The values for Detroit are based on 40 survey responses.

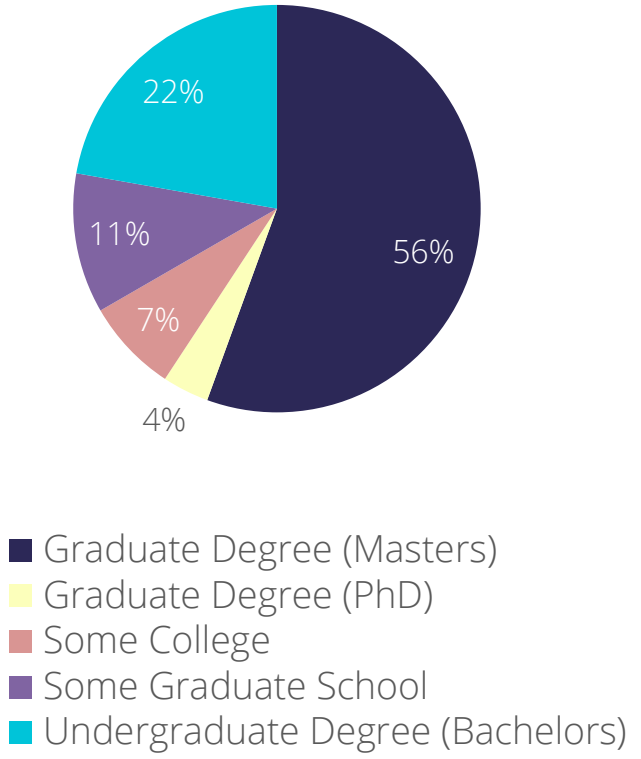
Breakdown of Ethnic Background & Education Level By Respondents

Racial/Ethnic Background Breakdown of Respondents



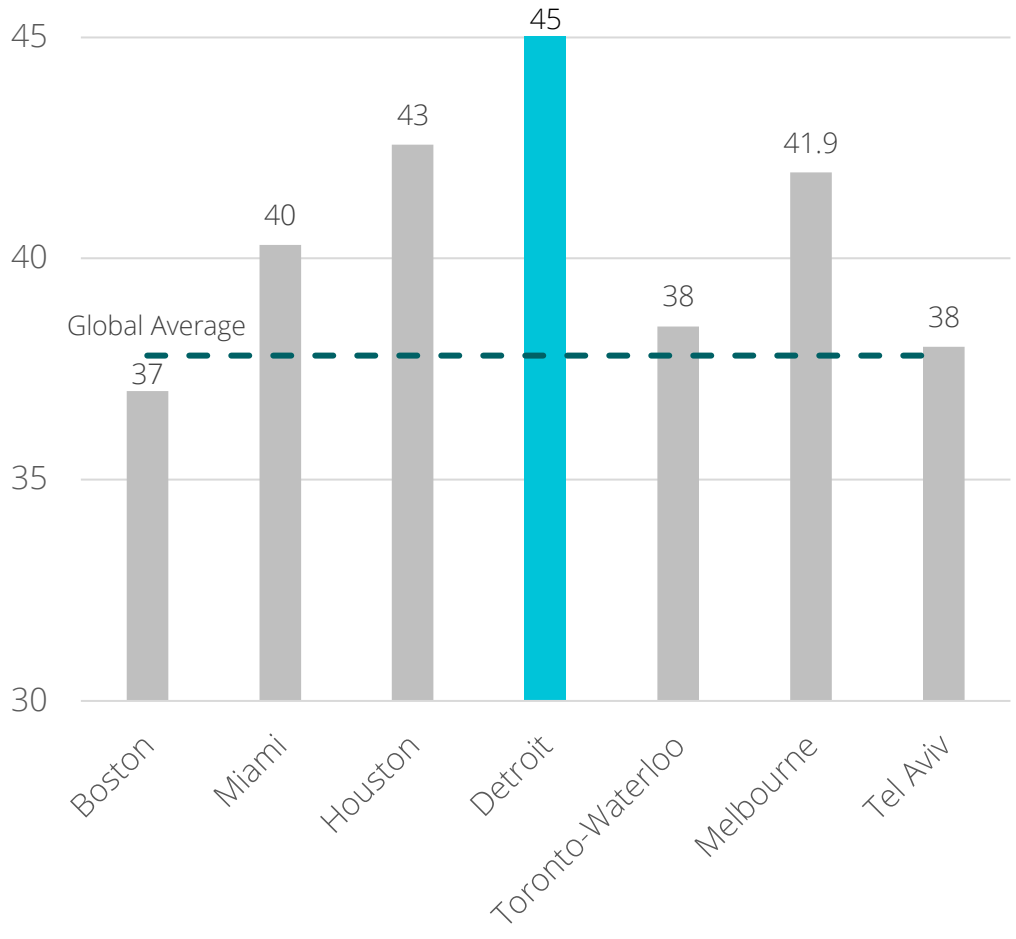
From the 22% of Respondents who identified as being a racial minority, more than half belong to Hispanic or Black/African-American backgrounds

% Education levels of Respondents

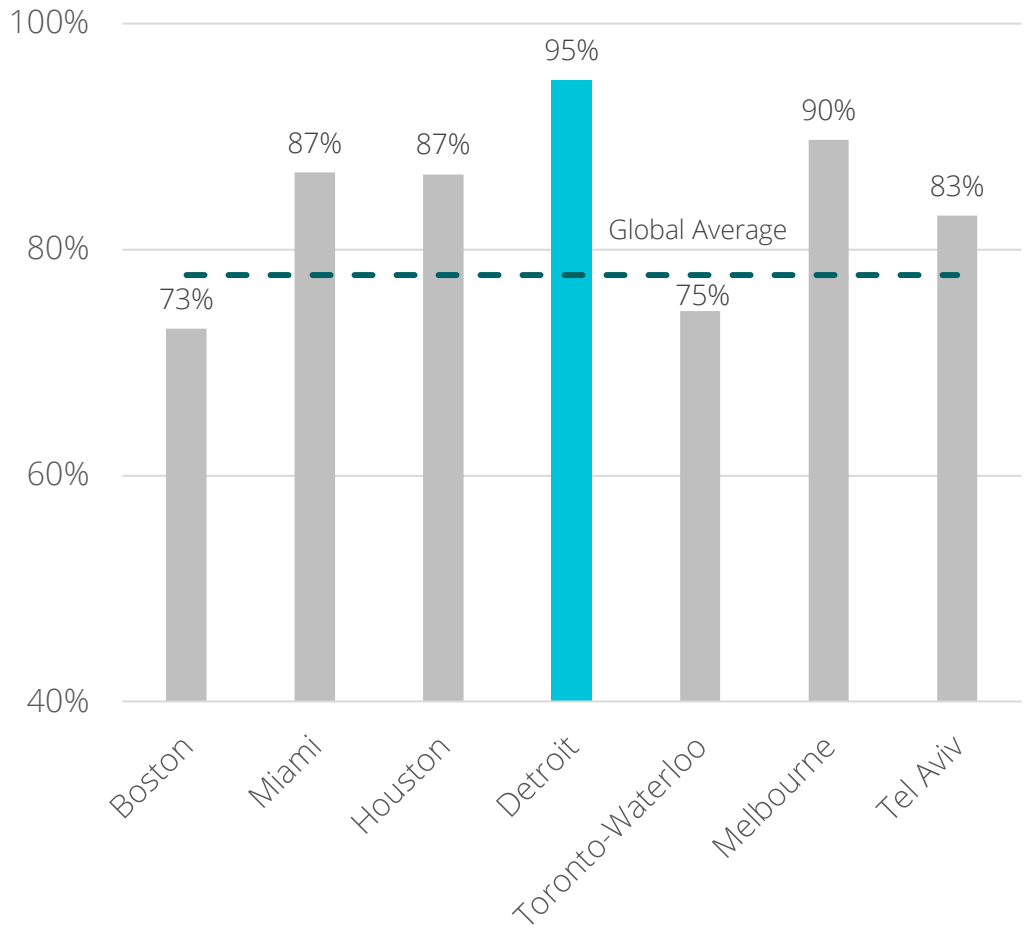


Founders in Detroit are older than those in other ecosystems

Founder Age

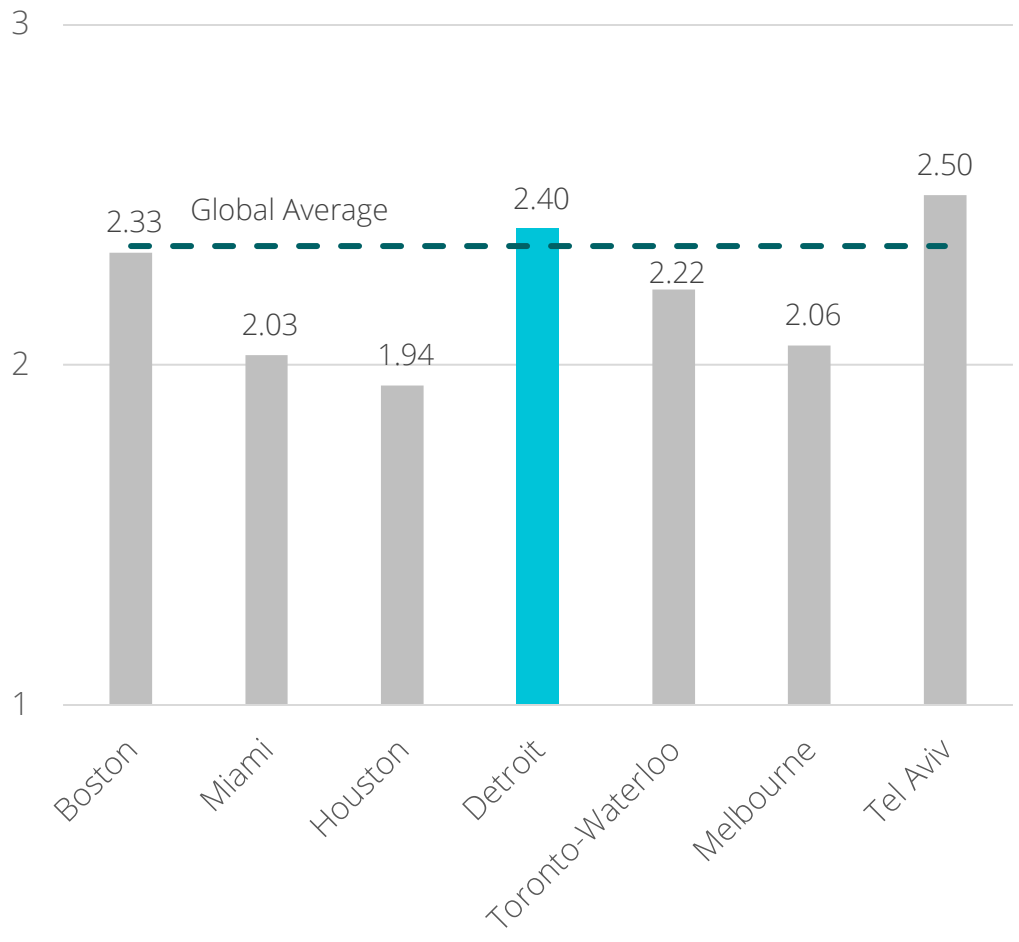


Founders Aged 30+

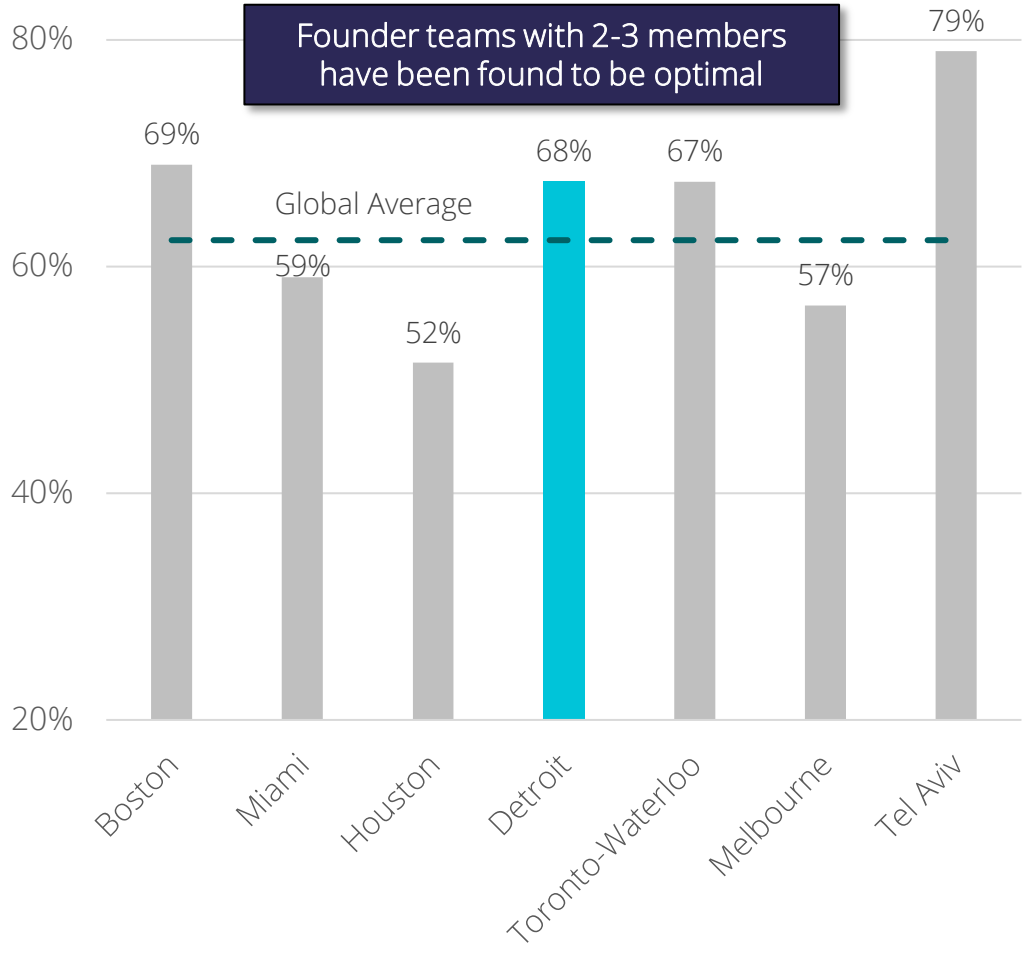


Most Detroit founding teams have a 2 or 3-member founding team, the sweet spot

Founder Team Number

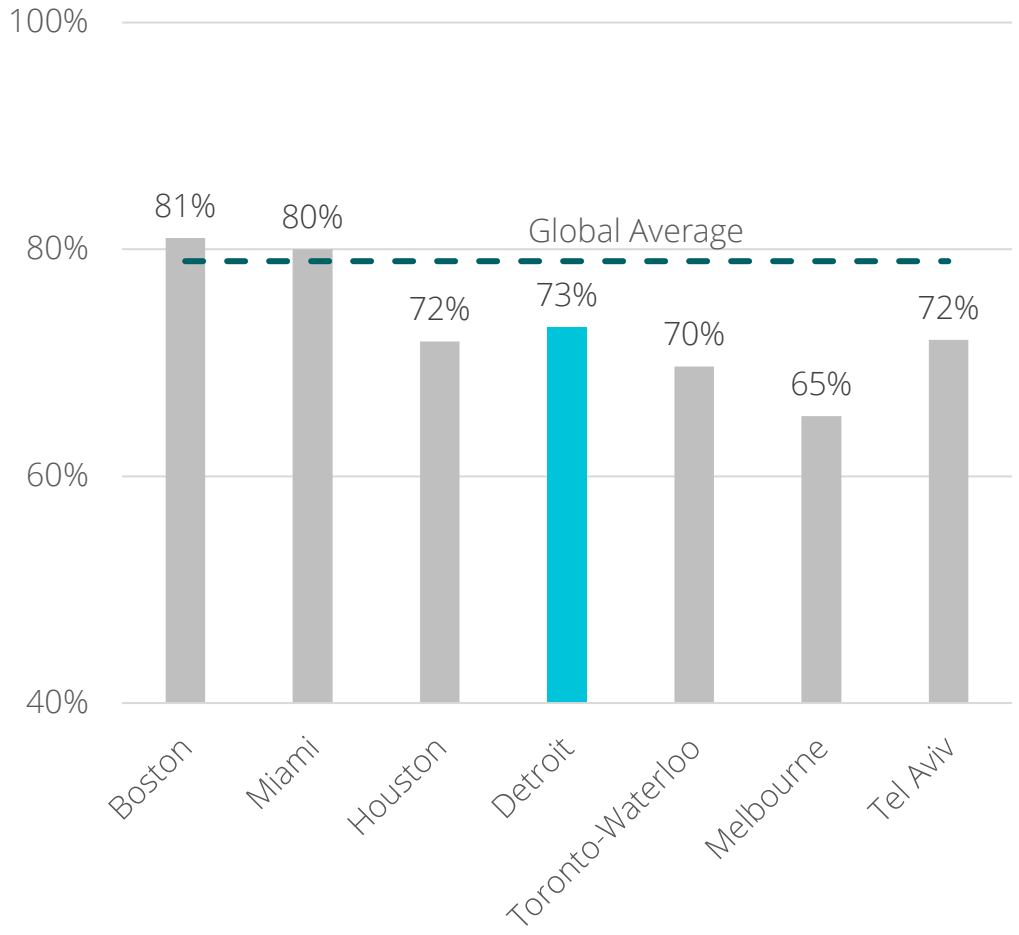


Startups with 2 or 3 Founders

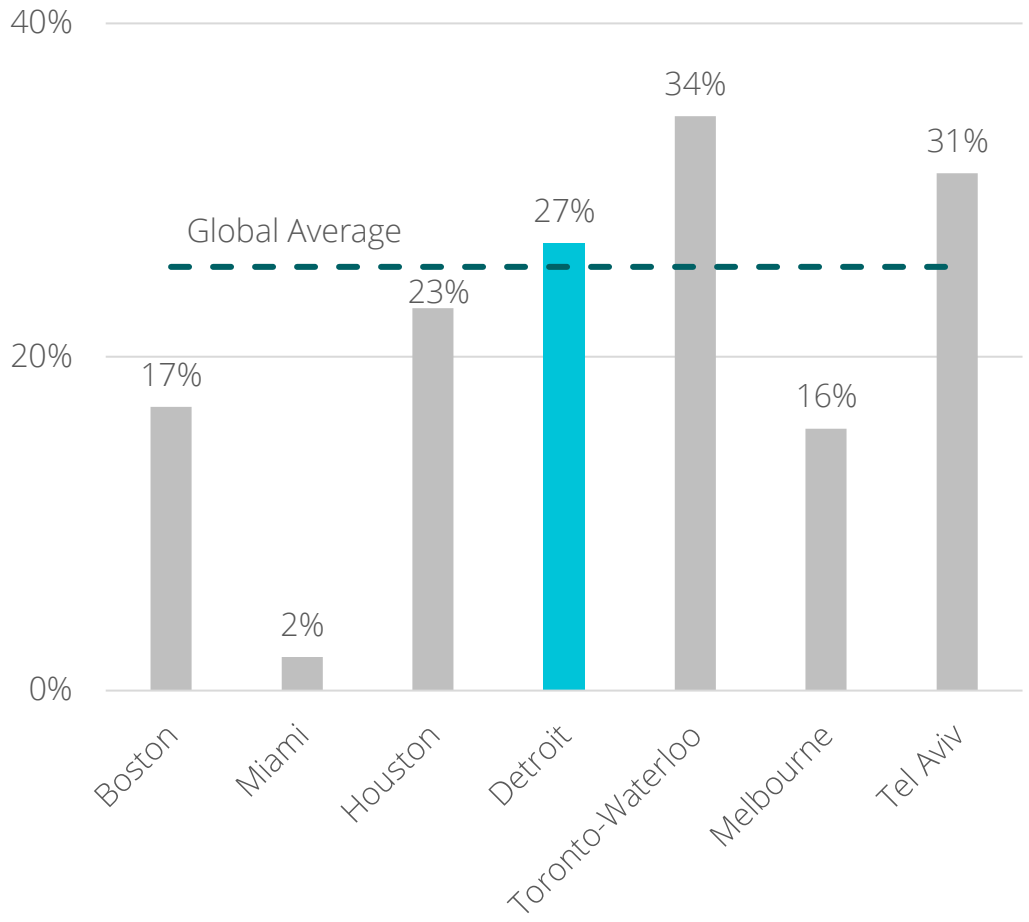


The proportion of founders in Detroit with awareness of 3rd party financial sources while establishing their startup is average

Founders with Personal Financial Support at Formation

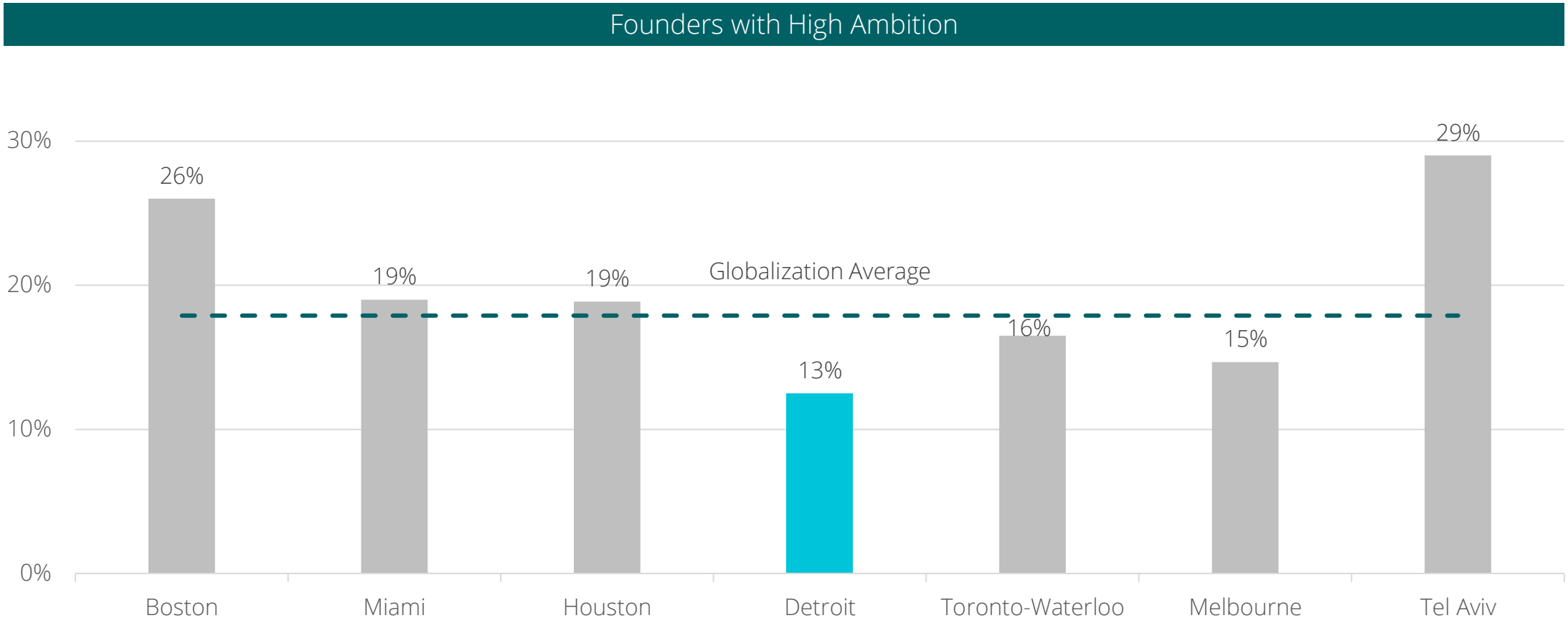


Founders Aware of 3rd Party Financial Support at Formation



Personal Financial Support: Percentage of founders who had or were sure of financial support from personal sources such as savings, family, spouse, or friends
Third-Party Financial Support: Percentage of founders who were aware of third-party support such as insurance, loans, or grants

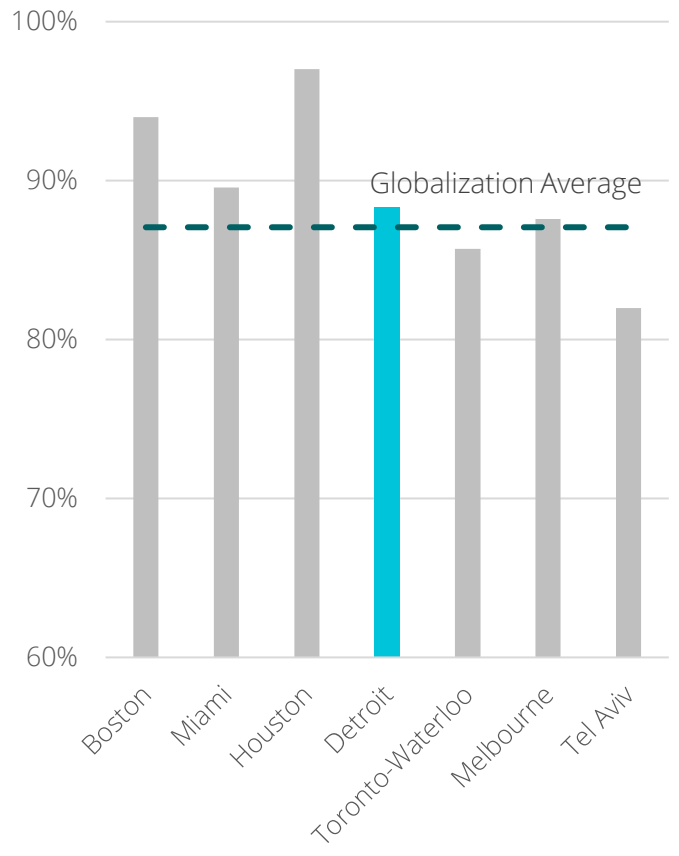
The percentage of founders in Detroit with High Ambition is below the phase average



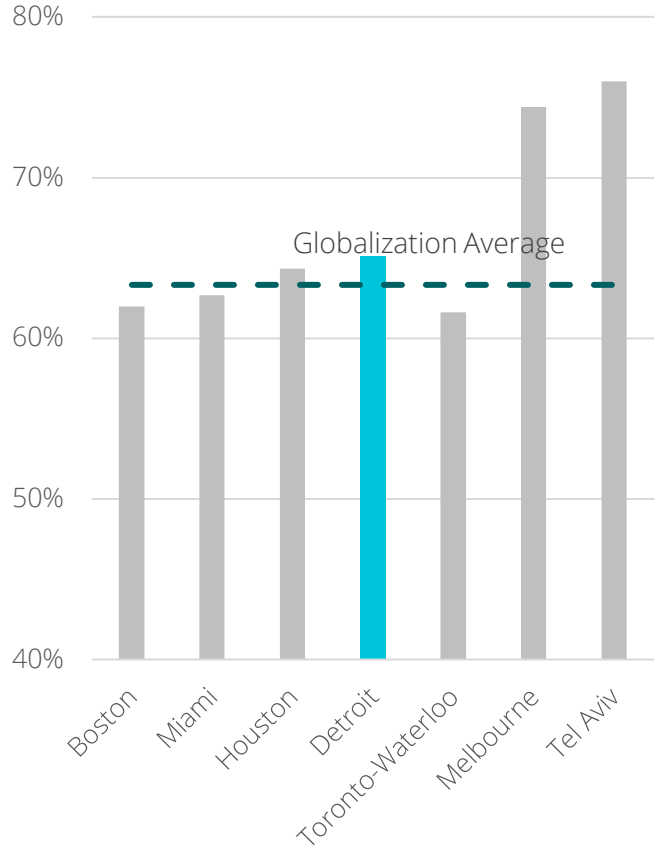
Founders with High Ambition: Percentage of founders who show high ambition, measured as those targeting an addressable market at least $30B in size, striving to change the world or make a lot of money with a new or niche idea

Gaps in Founder Ambition stem from a relatively few proportion targeting very large, $30B+ Markets

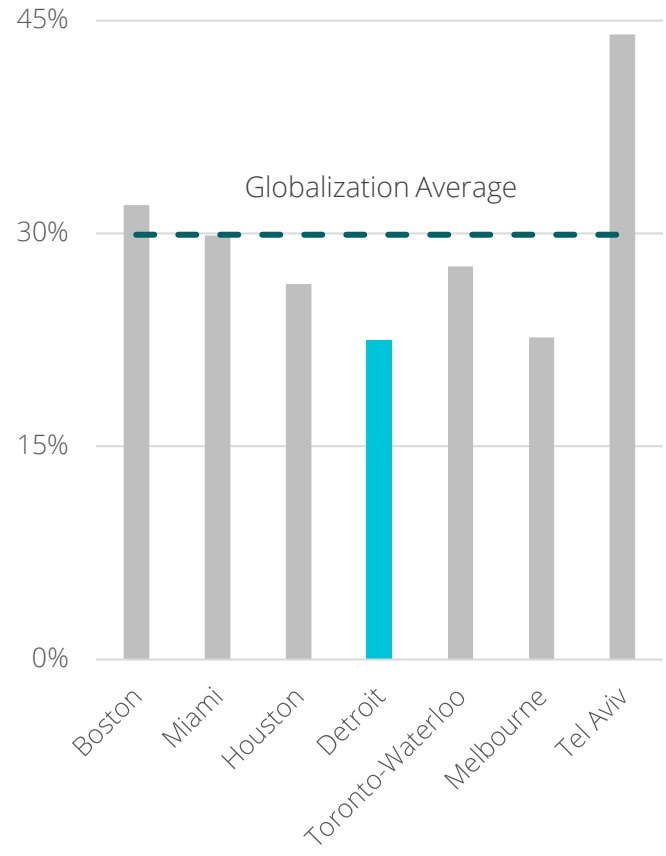
Founders with High Motivation (e.g., want to change the world)



Founders Claiming Differentiated Product

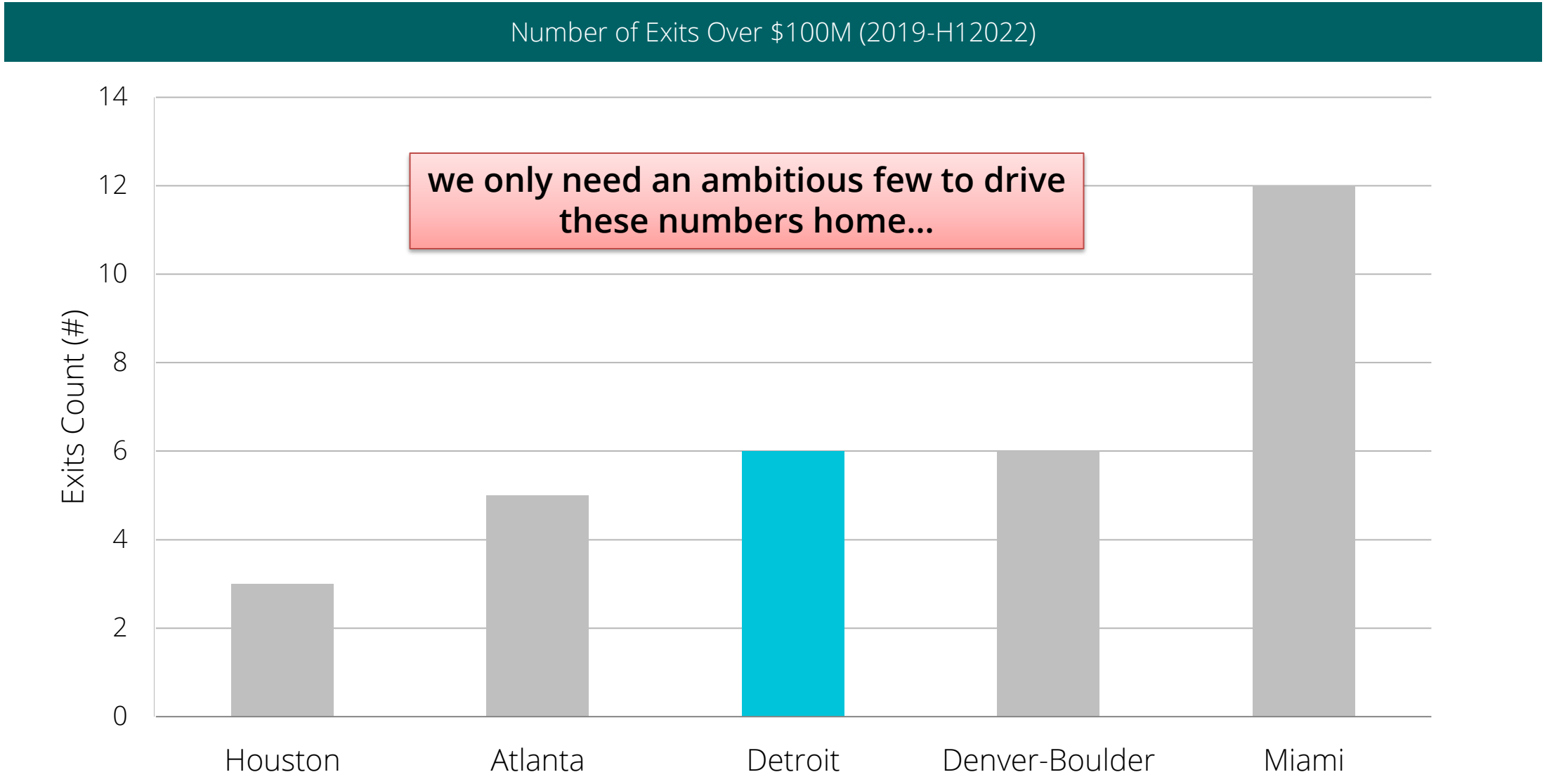


$30B+ Total Addressable Market



Founders with High Motivation: Percentage of entrepreneurs who are motivated by changing the world, getting rich, or developing a great product
Founders Claiming Differentiated Product: Percentage of entrepreneurs who claimed to have either a new global product, niche, or a product that no one else has launched successfully
$30B+ Total Addressable Market: Percentage of entrepreneurs whose addressable market size is at least $30 Billion

Detroit has produced more $100M+ exits than other Globalization Phase peers in the US, despite lower average ambitions



Detroit's Founders come from a variety of backgrounds but are lacking key early-stage support

Interview Findings*				
More Business Founders, lack of CEO Talent	**Higher Founder Age**	**Low proportion of Ambitious Founders**	**Low Awareness of 3rd Party Financial Sources**	**Ecosystem representation does not match population**
Most Founders in Detroit come from a business background, while the proportion of Founders with a technical background falls short of the global average. However, many Detroit stakeholders stated that they feel the exact opposite is true and that the ecosystem is sorely lacking executive business talent, which decreases Detroit startups' competitiveness	The average Founder age at a Detroit startup is 45 years old and 95% are above 30, one of the oldest averages Startup Genome has ever recorded. An older founder age is reflective of an ecosystem where Founders are transitioning from a full career into the startup space. This may well benefit the development of more complex technology solutions and applications	The proportion of Detroit founders with High Ambition is lower than many peers. Many experts commented that Midwestern identity and cultural factors cause Founders to shy away from the grandeur and the reputation of building a globally leading company, and that being a Midwest-based startup is still widely stigmatized as being considered "2nd class" compared to coastal ecosystems	A large proportion of Founders in Detroit are supported by personal financial sources, indicating lower founder participation from lower socio-economic backgrounds. This also suggests that a lower proportion of Founders are aware of the presence of third-party financial support, such as government grants or loans for startups when starting their entrepreneurial journey	Around 1/5th of Detroit Founders identify as being part of a "Racial Minority", and just under 10% identified as being Black/African American. Given that the city of Detroit was 77% Black/ African American at the last US census, participation in Detroit's ecosystem differs significantly from the makeup of the community overall

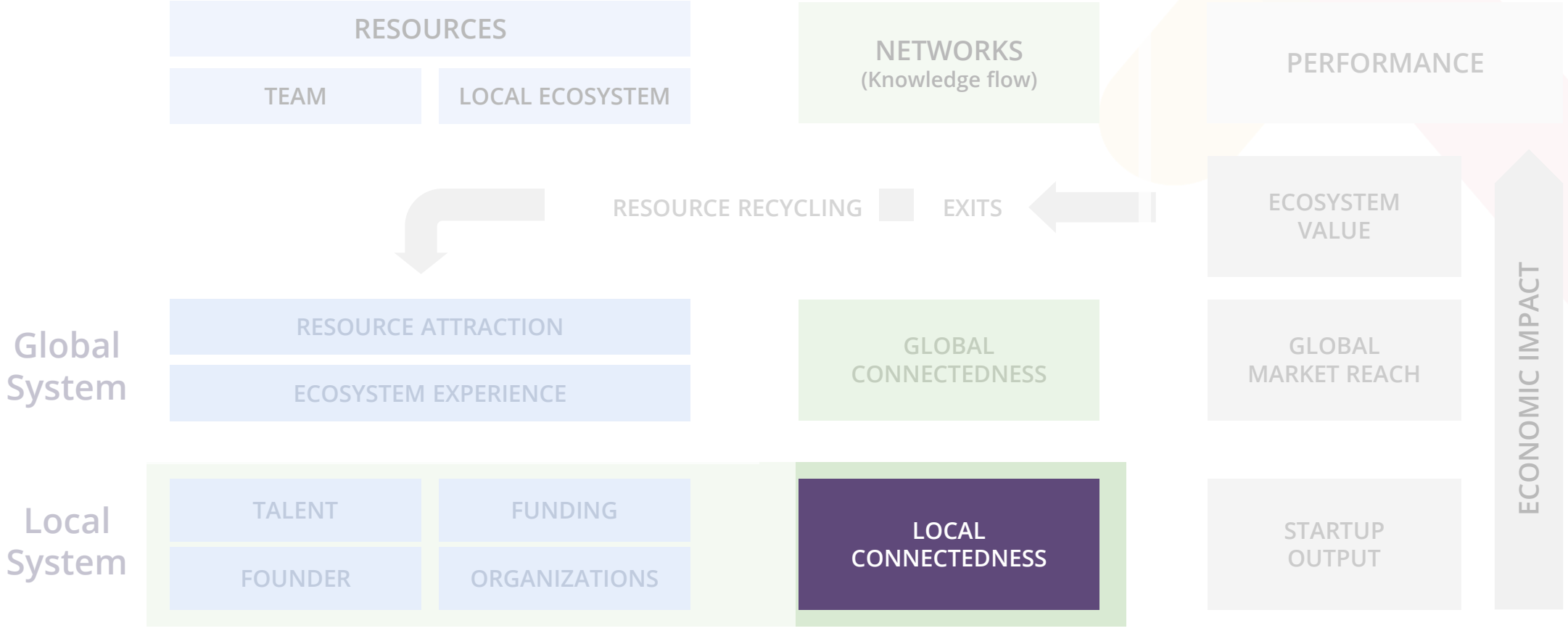
*Findings reflect the aggregate opinions of key stakeholders in Detroit and do not necessarily reflect data-based findings of Detroit's performance

Success Factor Model
Local Connectedness

Local Connectedness: Strength of the community, meaningful relationships founders hold with key stakeholders

Relationships:
- Founder relationships with other Founders, Investors and Experts

Sense of Community :
- Informal help received by founders from key stakeholders

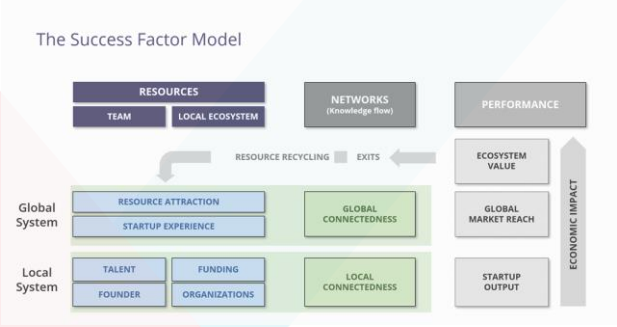


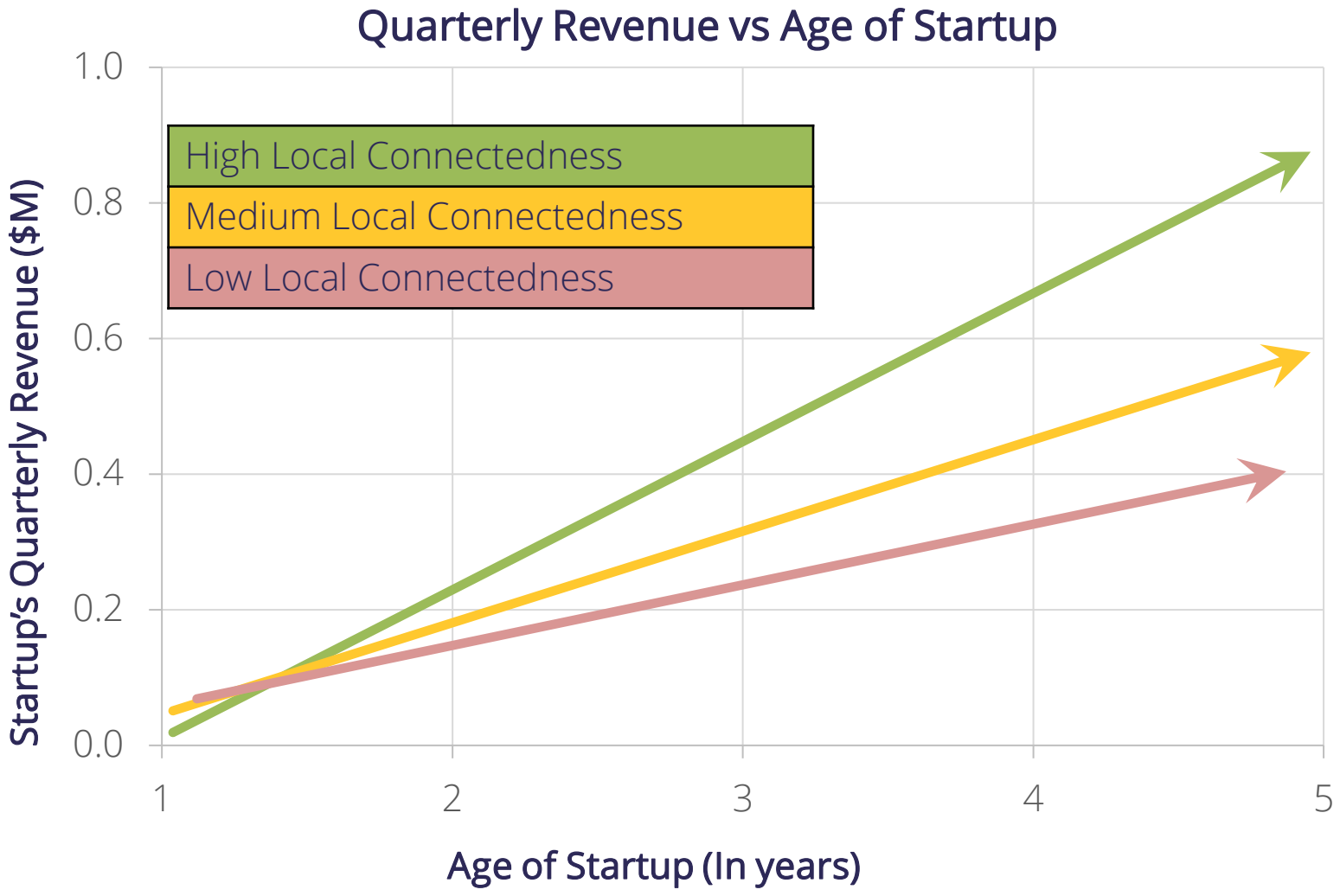
SG Science: Local Connectedness – The quality of the local community

Local Connectedness is a multi-variable assessment of the local community, including the Sense of Community and Local Relationships between founders, investors, and experts within an ecosystem.

- Our global research has identified community as one of the strongest factors correlating with ecosystem performance
- This metric comprises two principal sub-factors:
  - Sense of Community Index: a sub-factor of Local Connectedness capturing the degree to which founders informally receive help from investors, experts, and fellow founders
  - Number of Relationships Between Founders: number of quality relationships between local founders, where they know each other and can call upon each other for help "this week"
- Here, we discuss the importance of a high-quality community in general (what is the impact of community, all other factors left equal?) and its current level of development in Detroit

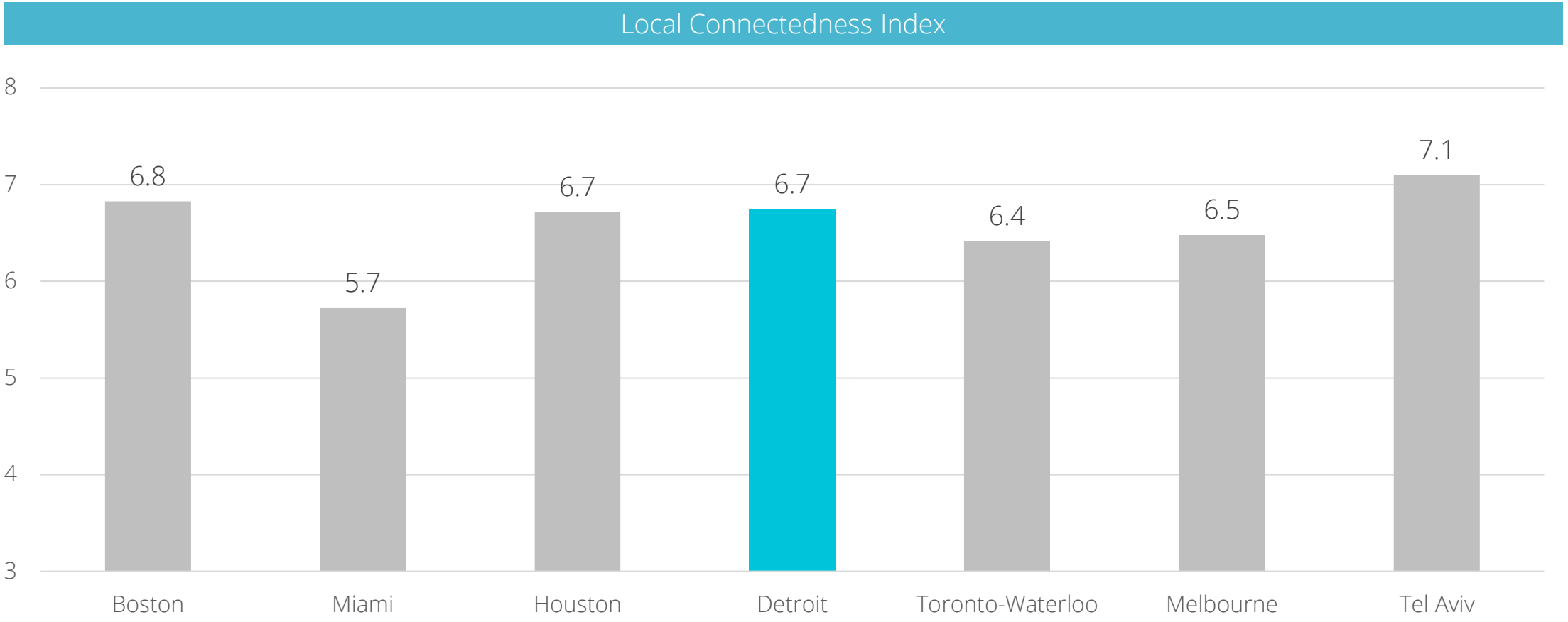
SG Science: Startups with higher Local Connectedness grow faster and have more potential for bigger exits





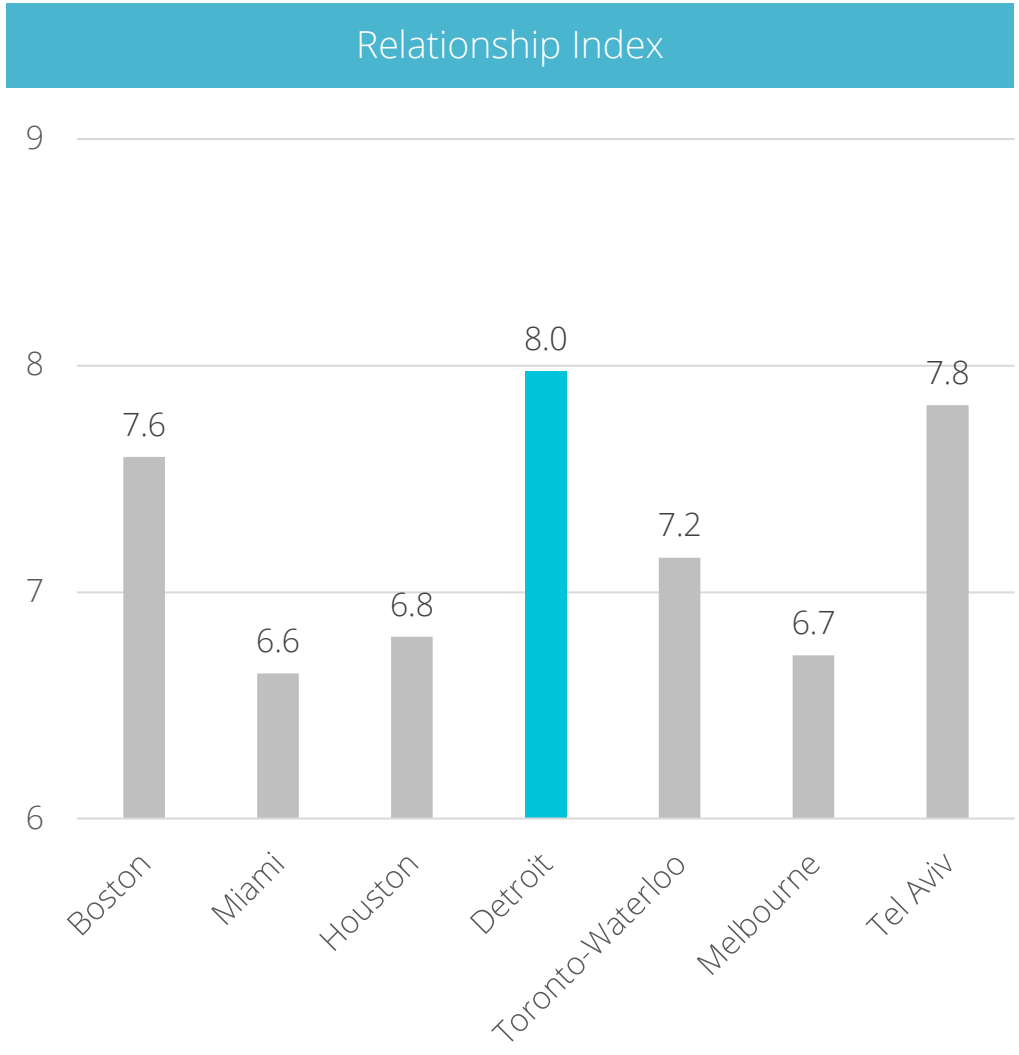
- An analysis of over 2,000 surveyed startups from across the world was conducted by Startup Genome to analyze the relationship between Local Connectedness and revenue growth
- It was observed that startups with **high Local Connectedness** grew **2.1x** faster than startups with low Local Connectedness

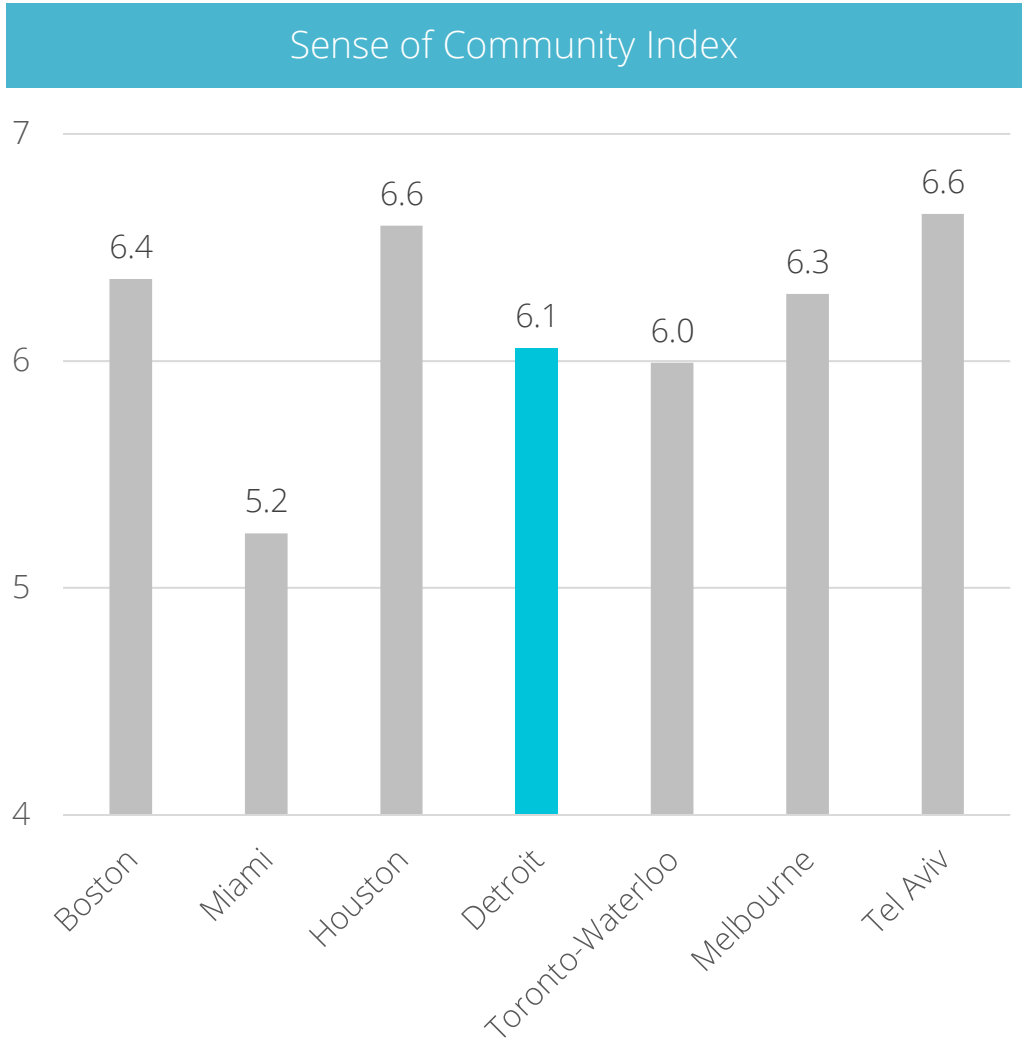
Detroit's Local Connectedness Index is in line with its peers



Local Connectedness Index: Index measuring the extent to which the founders are locally connected with other founders, and investors in a startup community

Detroit's Founders have stronger networks but are not receiving as much informal help as peers in other ecosystems



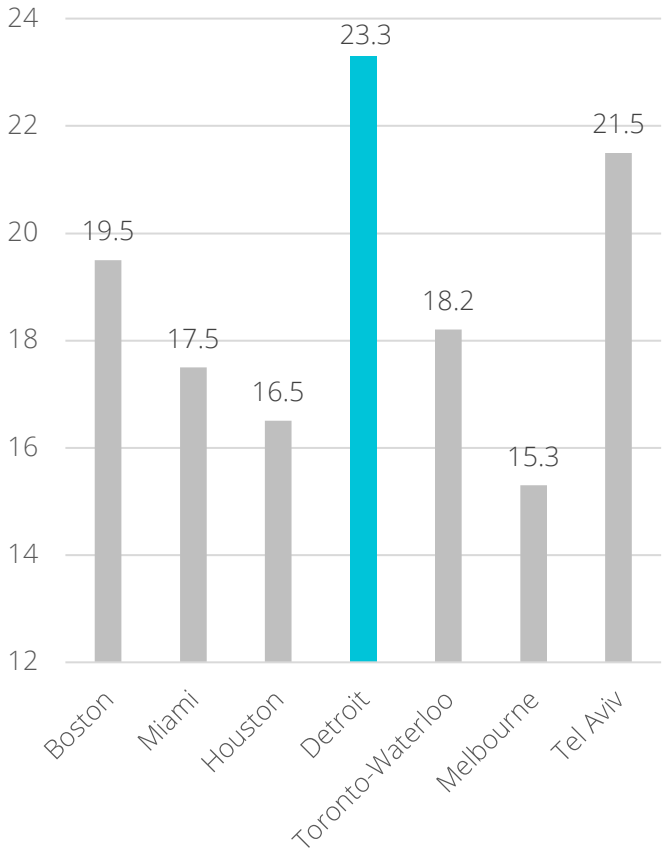


Sense of Community Index: Index measuring the extent to which the startup community is helping each other
Relationship Index: Index measuring the engagement of founders with other founders, investors and experts

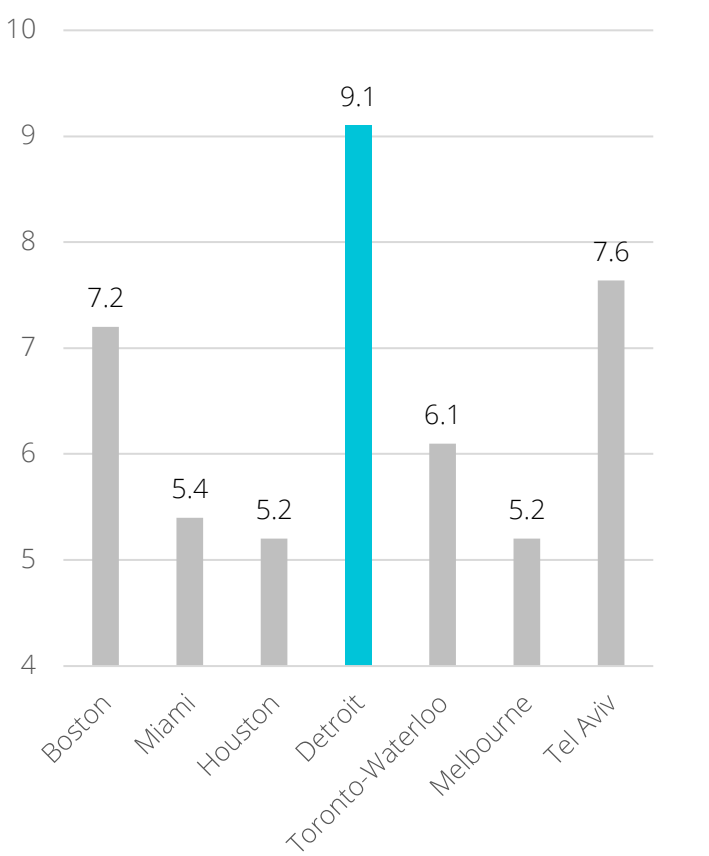
Founders in Detroit have a high number of quality connections with other founders and investors

Founder Relationship Metrics

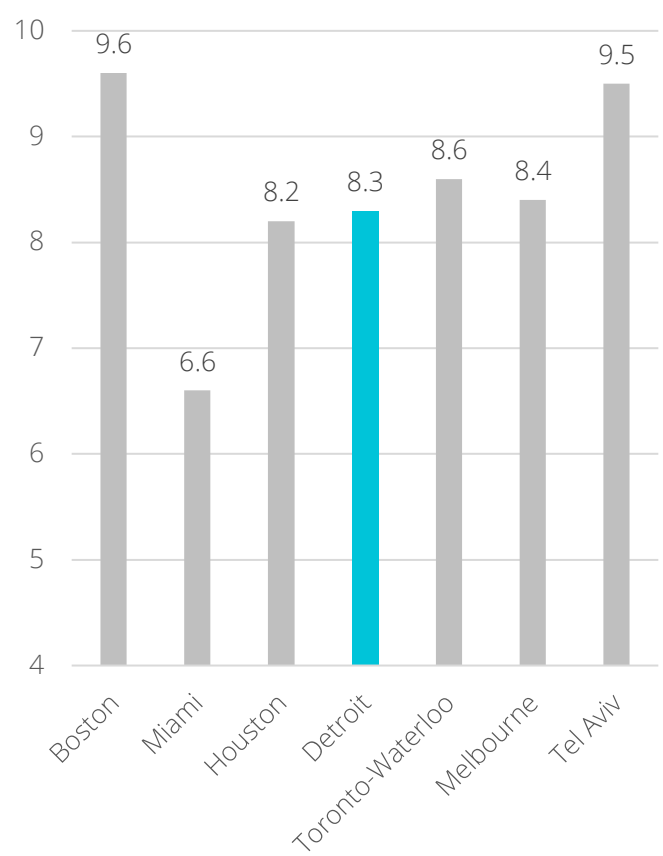
Founder Relationships



Investor Relationships

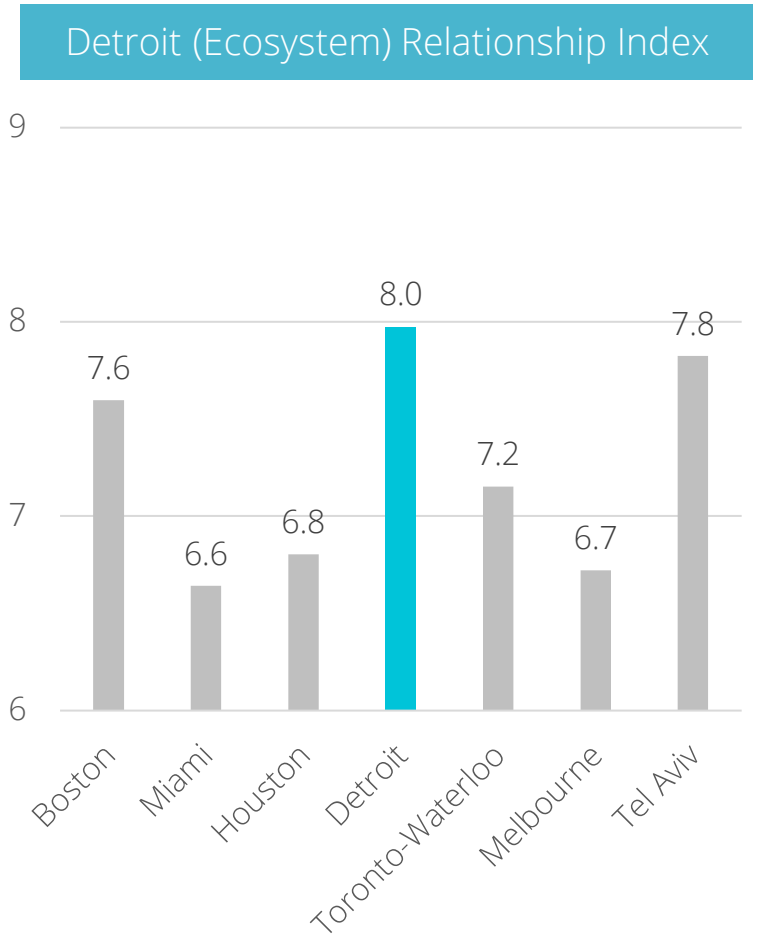


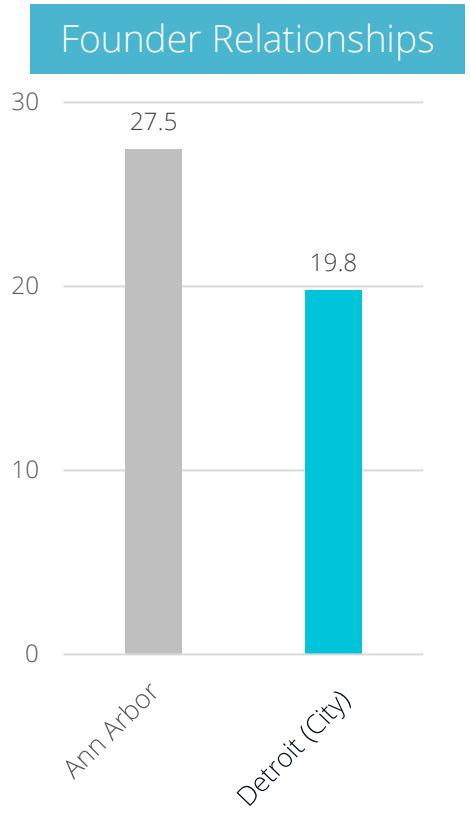
Expert Relationships

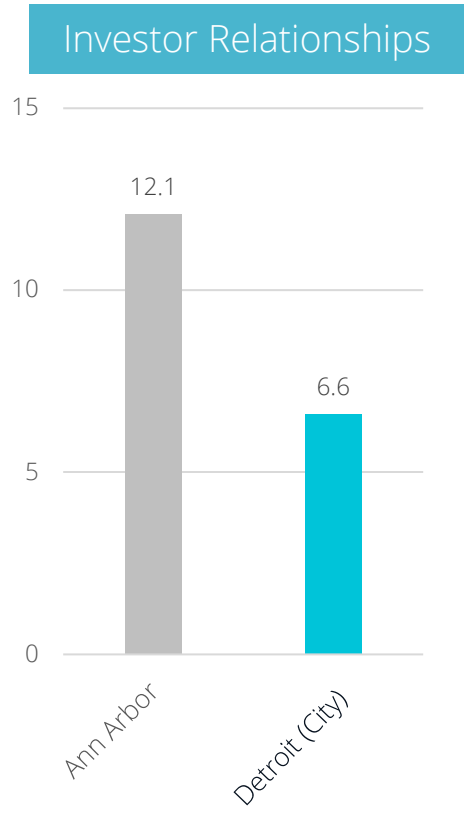


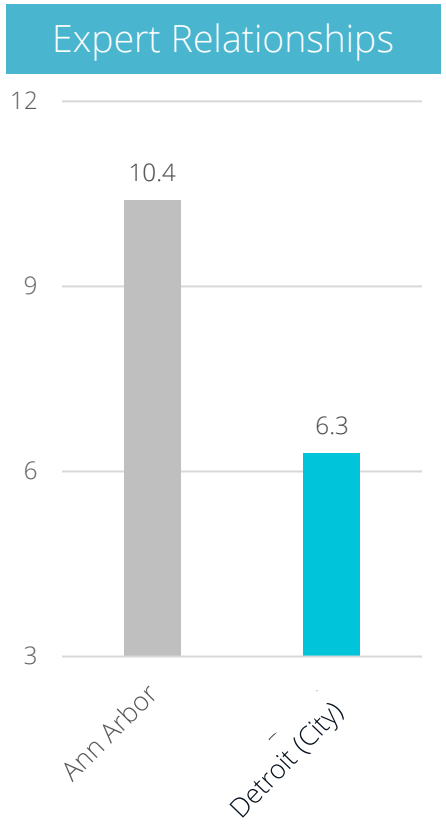
Founder Relationships: Average number of relationships to other local startup founders and executives
Investor Relationships: Average number of relationships to local investors
Expert Relationships: Average number of relationships to local experts other than investors

Within the Detroit Region, Founders in The City of Detroit are much less connected than in Ann Arbor



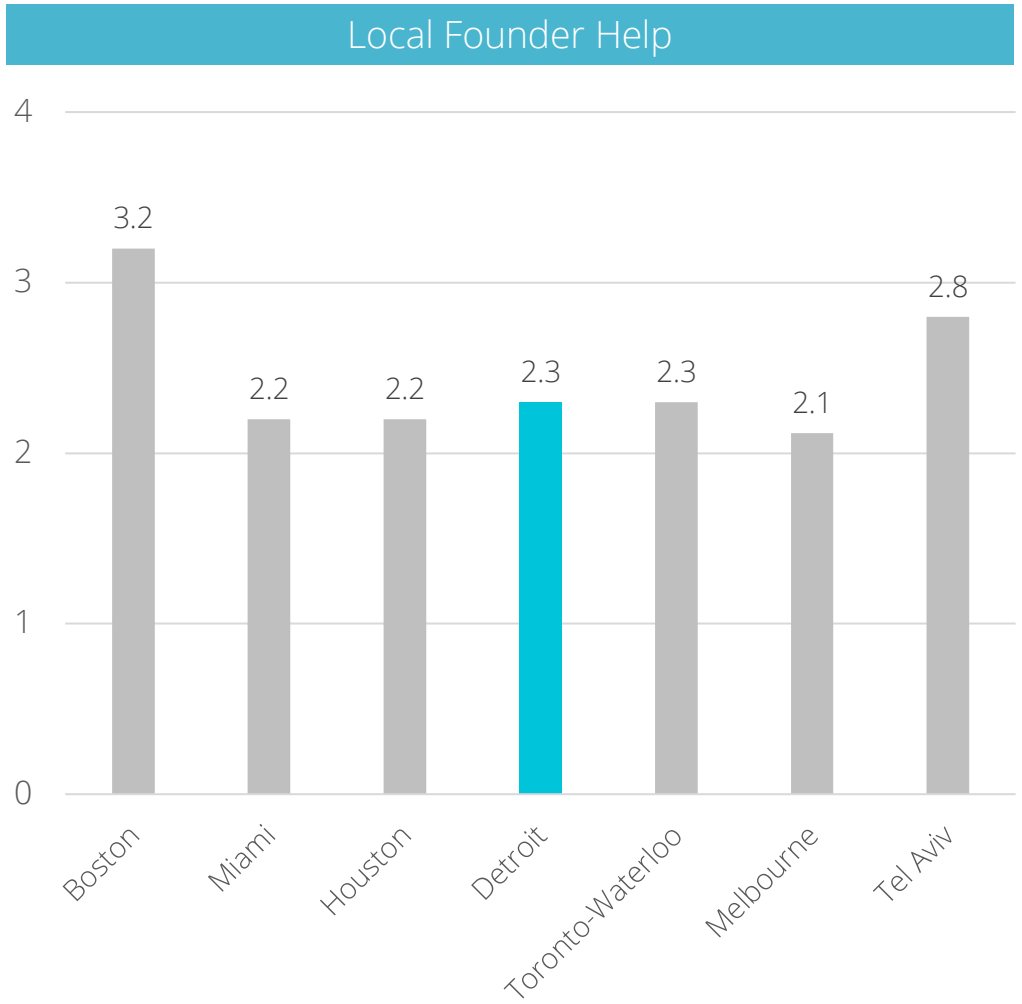


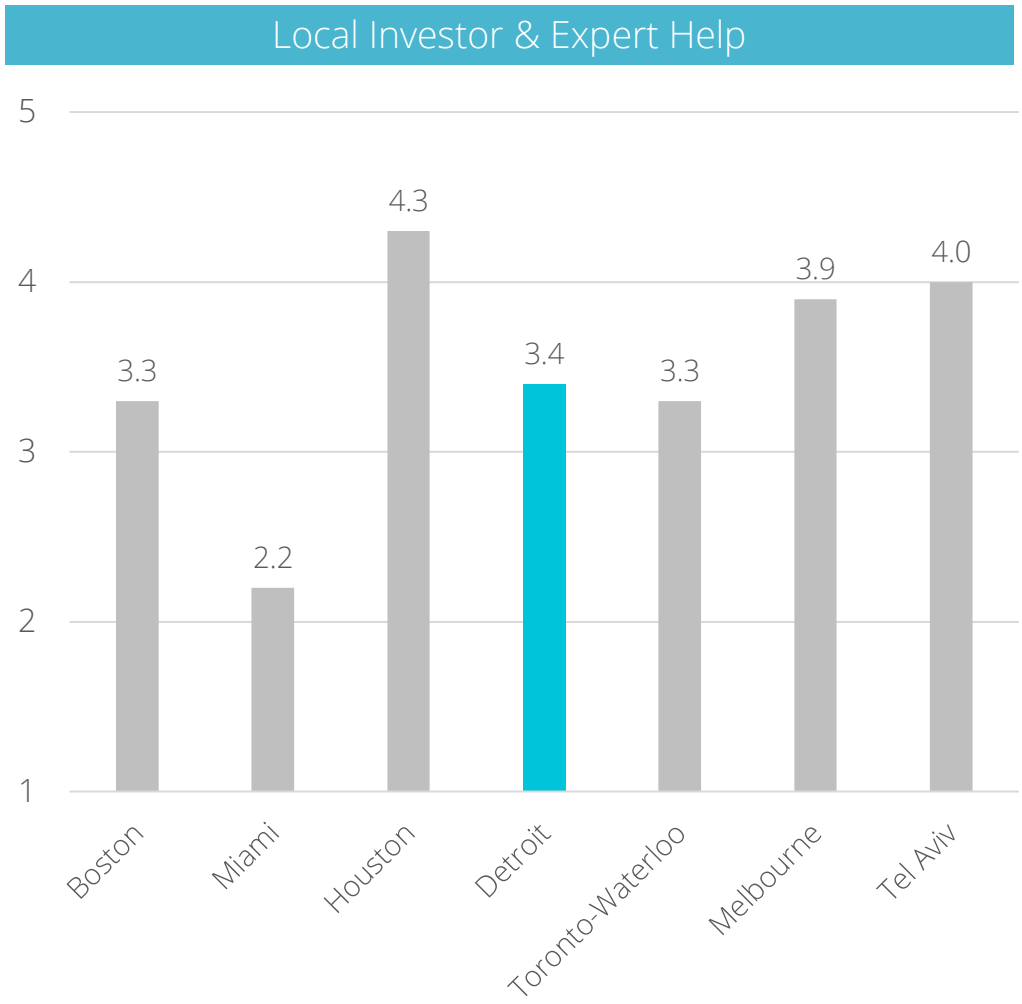




Founder Relationships: Average number of relationships to other local startup founders and executives
Investor Relationships: Average number of relationships to local investors
Expert Relationships: Average number of relationships to local experts other than investors

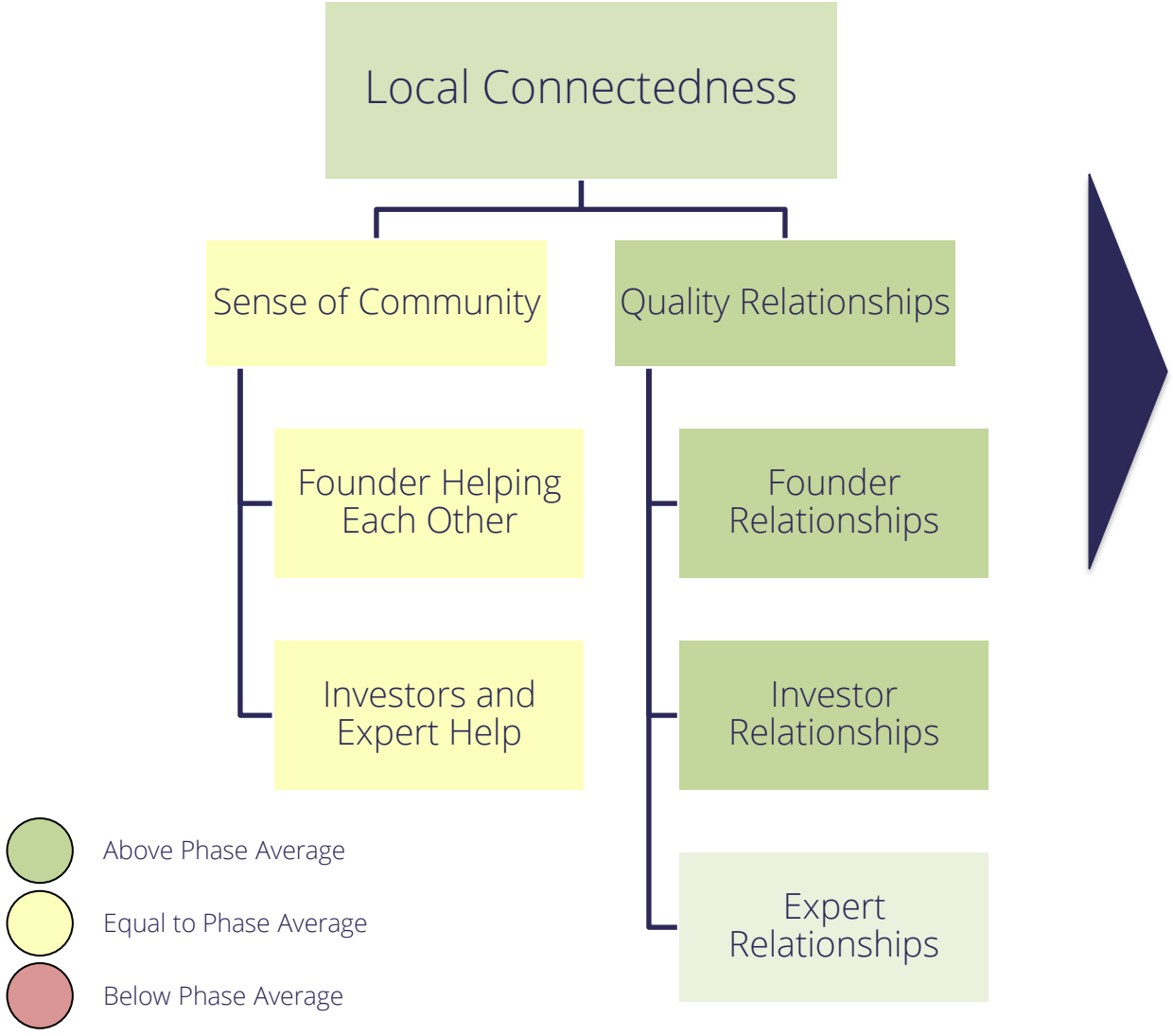
Detroit Founders support one another but are receiving less tangible help from other stakeholders than their peers





Local Founder Help: Average hours of help founders received from other founders and executives in the last two weeks
Local Investor & Expert Help: Average hours of help founders received from local investors and experts in the last two weeks

Detroit's Local Connectedness is high overall, though Founders receive less help from Investors and Experts than their peers



Interview Findings

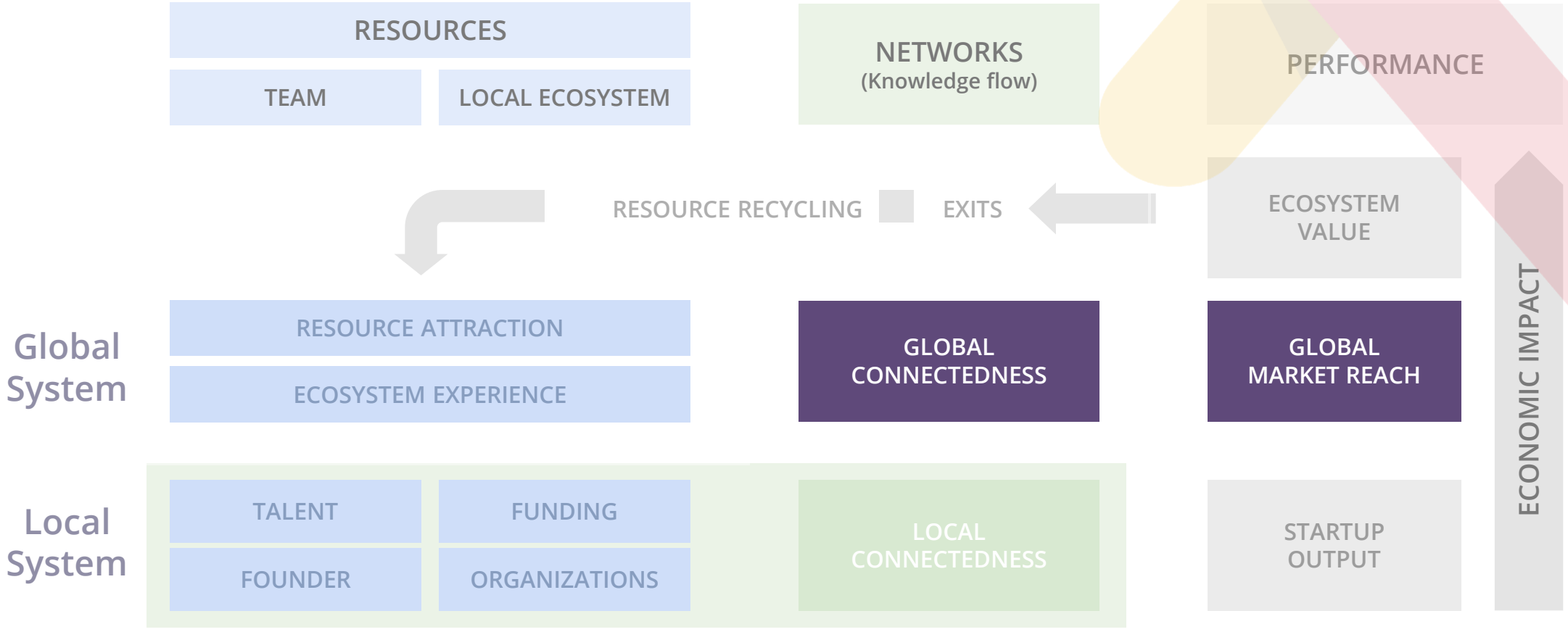
- **Founders look out for one another:** Founders feel they are "in this together" to build and scale their startups in Detroit and are eager to support and connect with one another in this effort
- **Disconnected Regional Hubs:** Communities across Southeast Michigan (i.e., Ann Arbor and Detroit) do not have strong connections between one another and there is no singular center of gravity for the ecosystem
- **Founders vs. Investors:** Founders feel that local investors are not reliable partners and hold startups back. Investors feel that founders lack the know-how to effectively engage with investors and that the ecosystem lacks sufficient deal flow
- **The Covid Factor:** While meetups and community gatherings were on an upward trajectory, this was dashed by Covid and has not yet bounced back

The Color-Coded Summary scores are based on Detroit's performance in this Success Factor from survey data as well as secondary data. Findings have been sourced from Validation Interviews

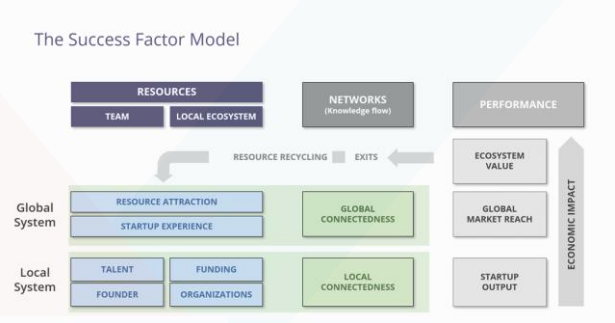
Success Factor Model
Global Connectedness and Global Market Reach

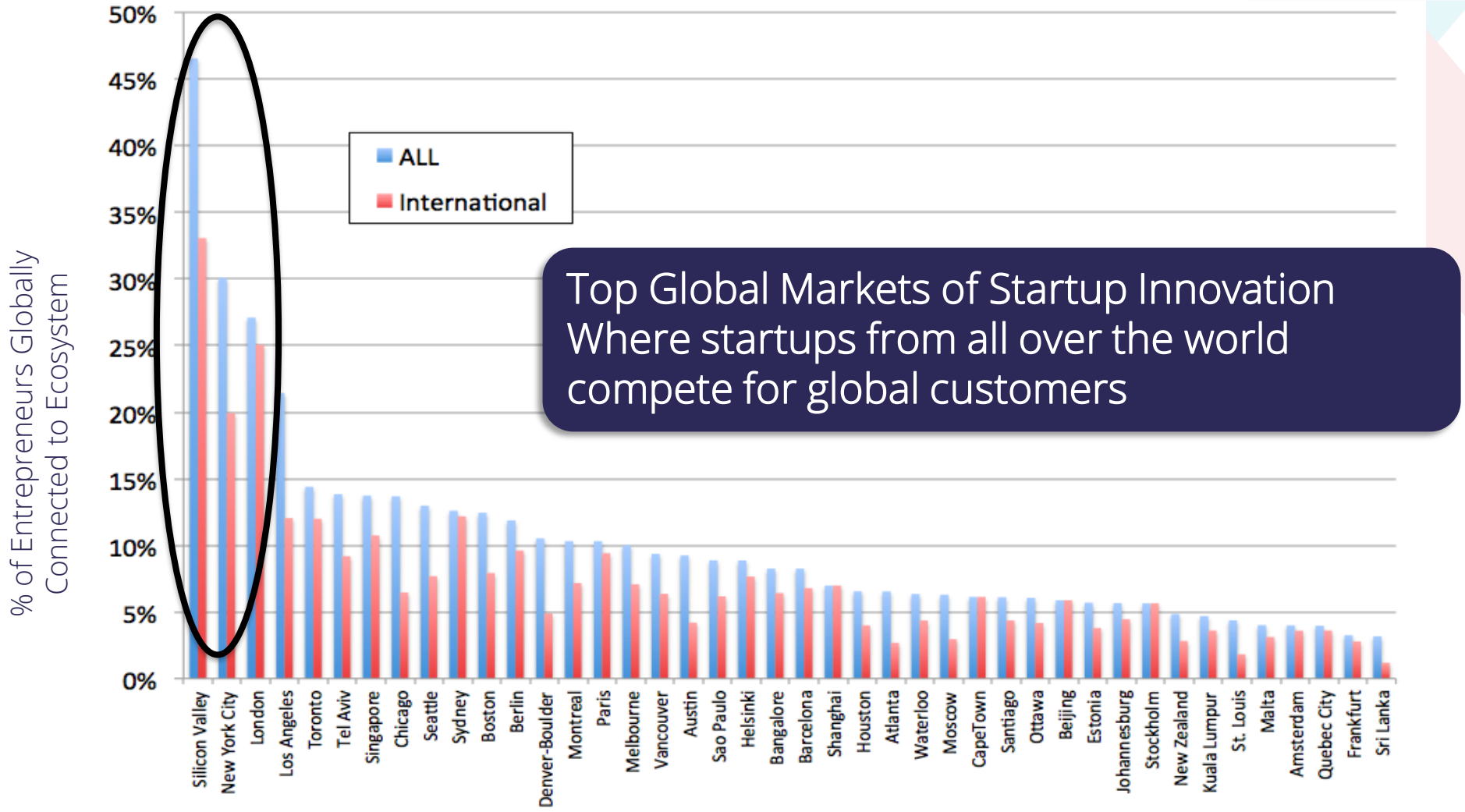
Global Connectedness: Measurement of how connected Founders are to globally-leading startup knowledge
- Relationships with peers in Top Ecosystems, Immigrant Founders

Global Market Reach: Focus, ability and customer share of local startups to sell to Top Ecosystems Nationally and Globally
- Founder Ambition, Founder Strategy



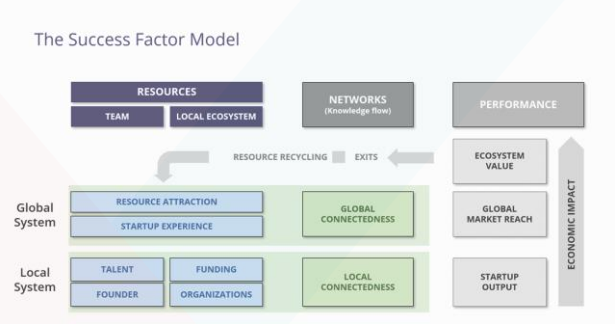
SG Science: Silicon Valley, NYC and London are the nexus of the Global Fabric of startup ecosystems

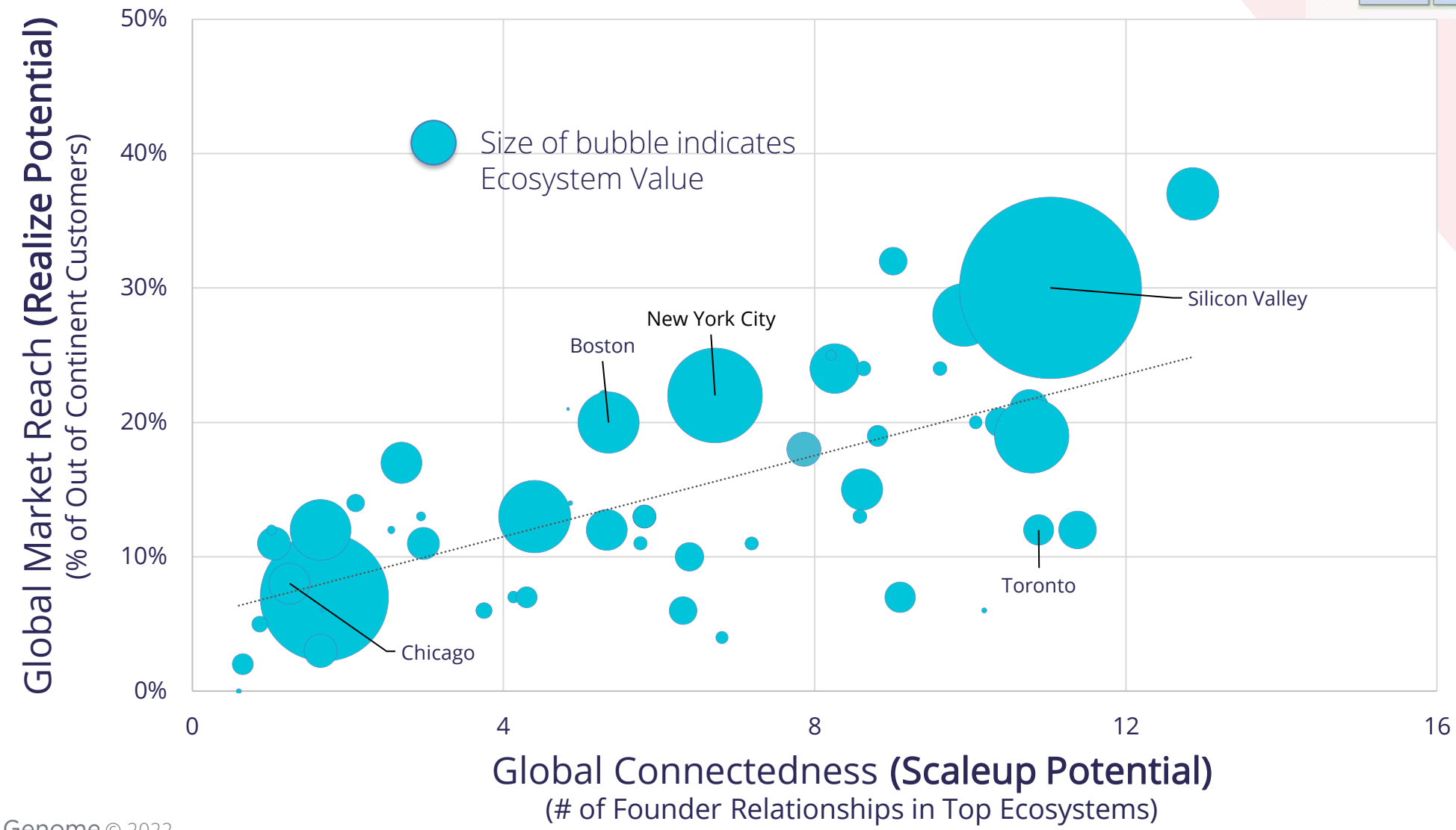




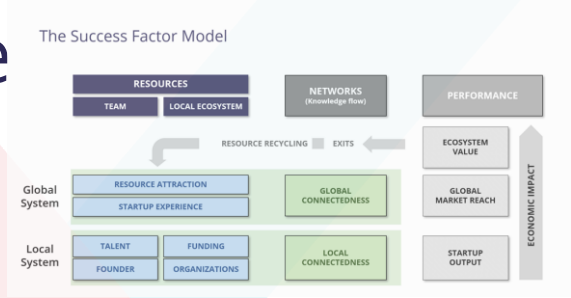
Top Global Markets of Startup Innovation
Where startups from all over the world compete for global customers

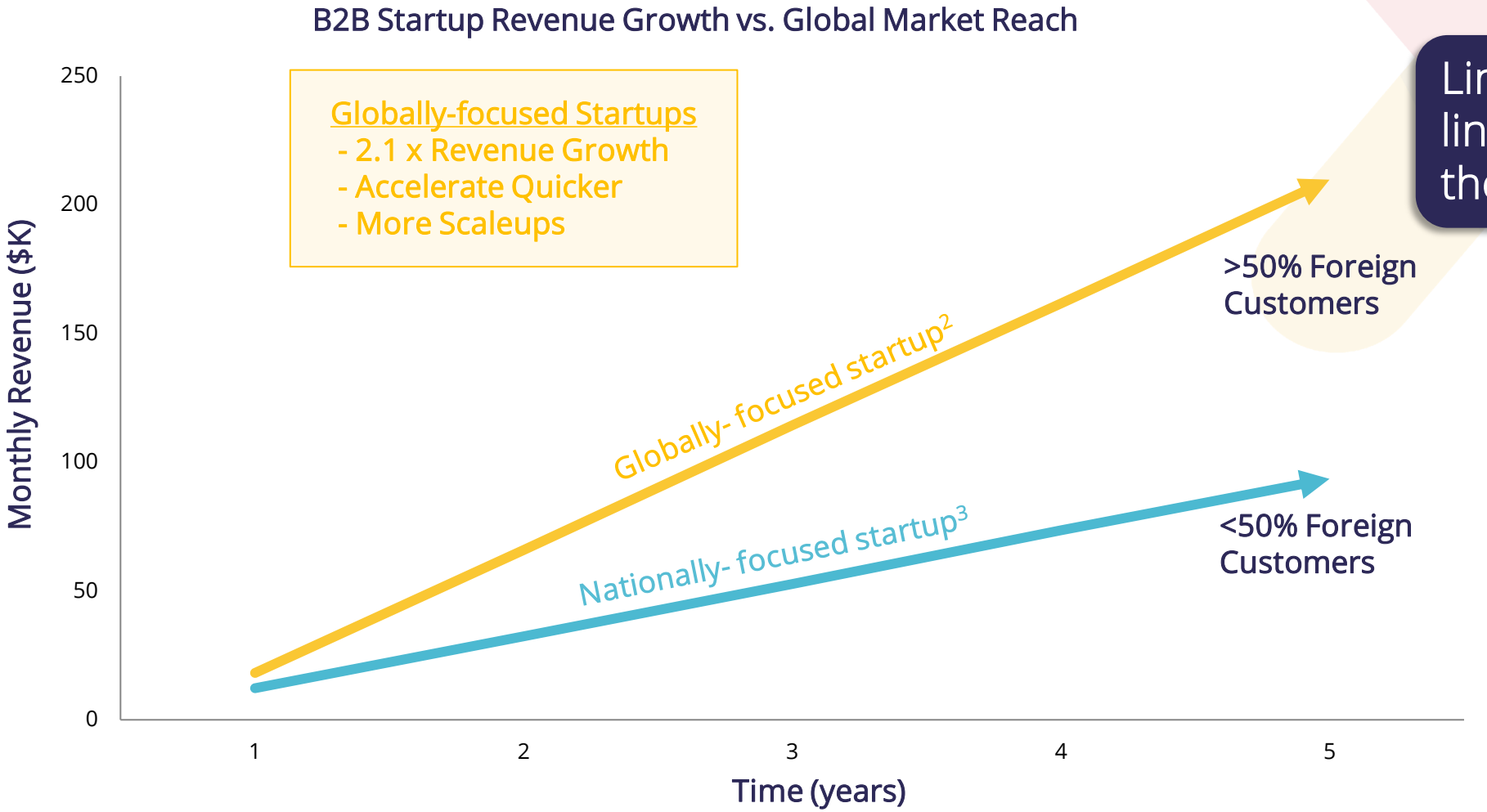
SG Science: Globally-Connected ecosystems achieve greater Global Market Reach, realizing their ecosystem's scaleup potential





SG Science: Startups that go-global early see their revenue grow faster, receive larger funding rounds and are more likely to become scaleups[1]

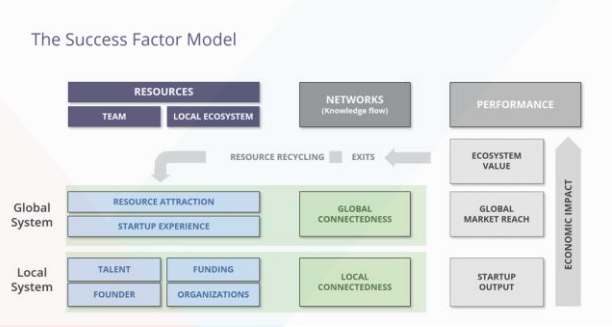


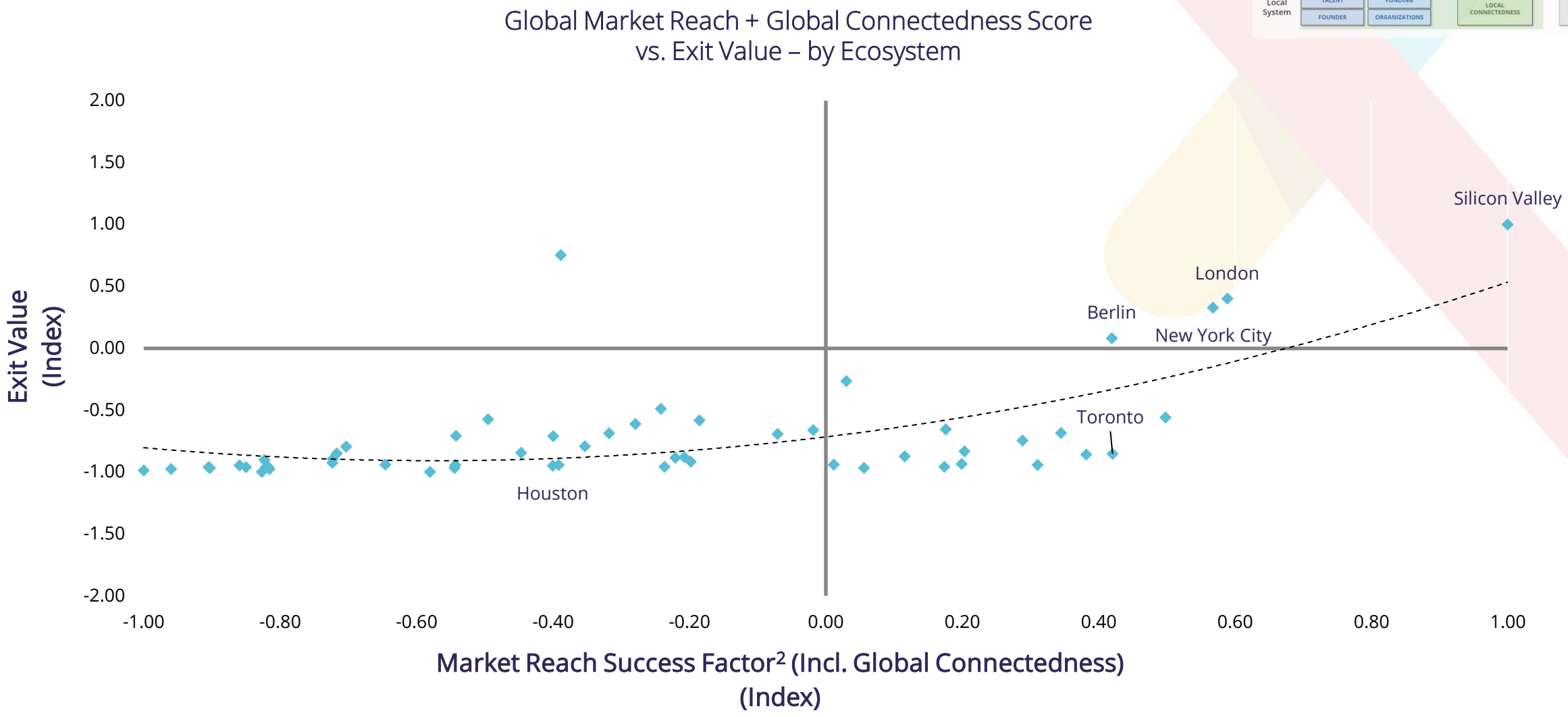


* Data is based off Startup Genome's Voice of the Entrepreneur global survey

1. A **scaleup** is a startup with a valuation of $100M or more
2. **Globally-Focused Startups**: Startups focused on targeting a customer base outside their country
3. **Nationally-Focused Startups**: Startups focused on targeting customers within their country

SG Science: Global Connectedness & Global Market are closely related to Scaleup[1] production

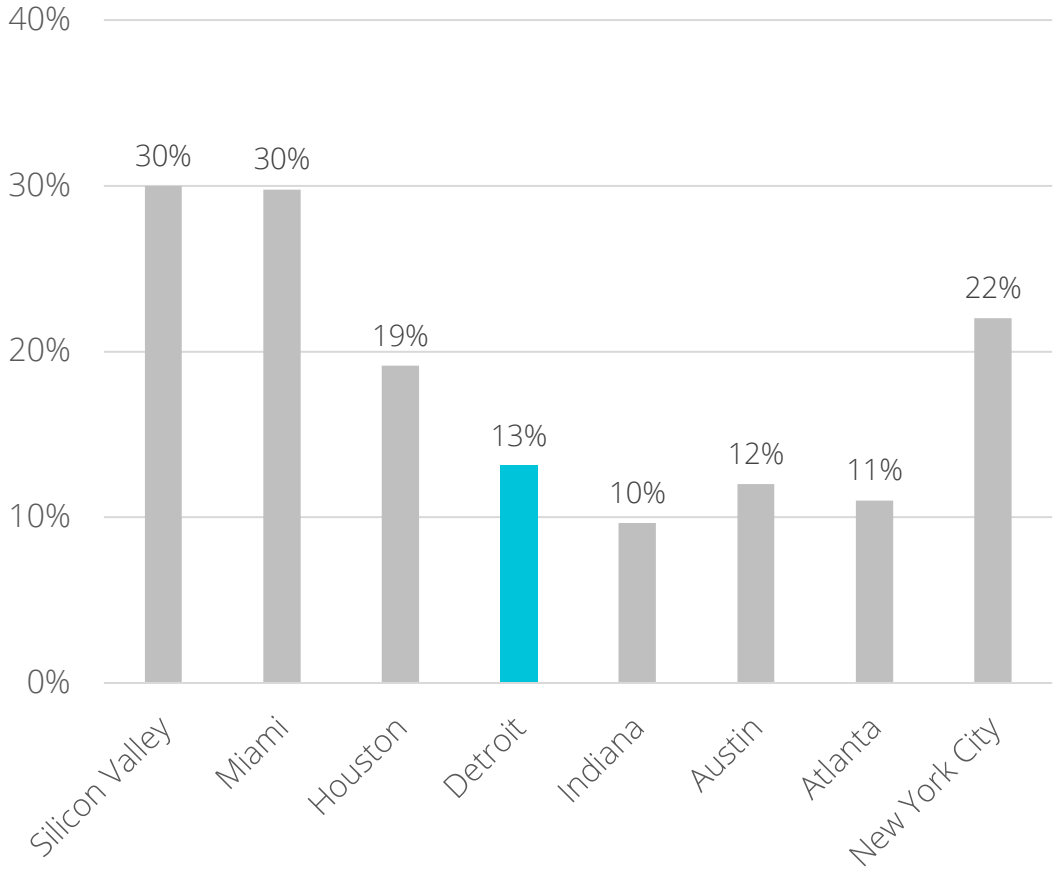




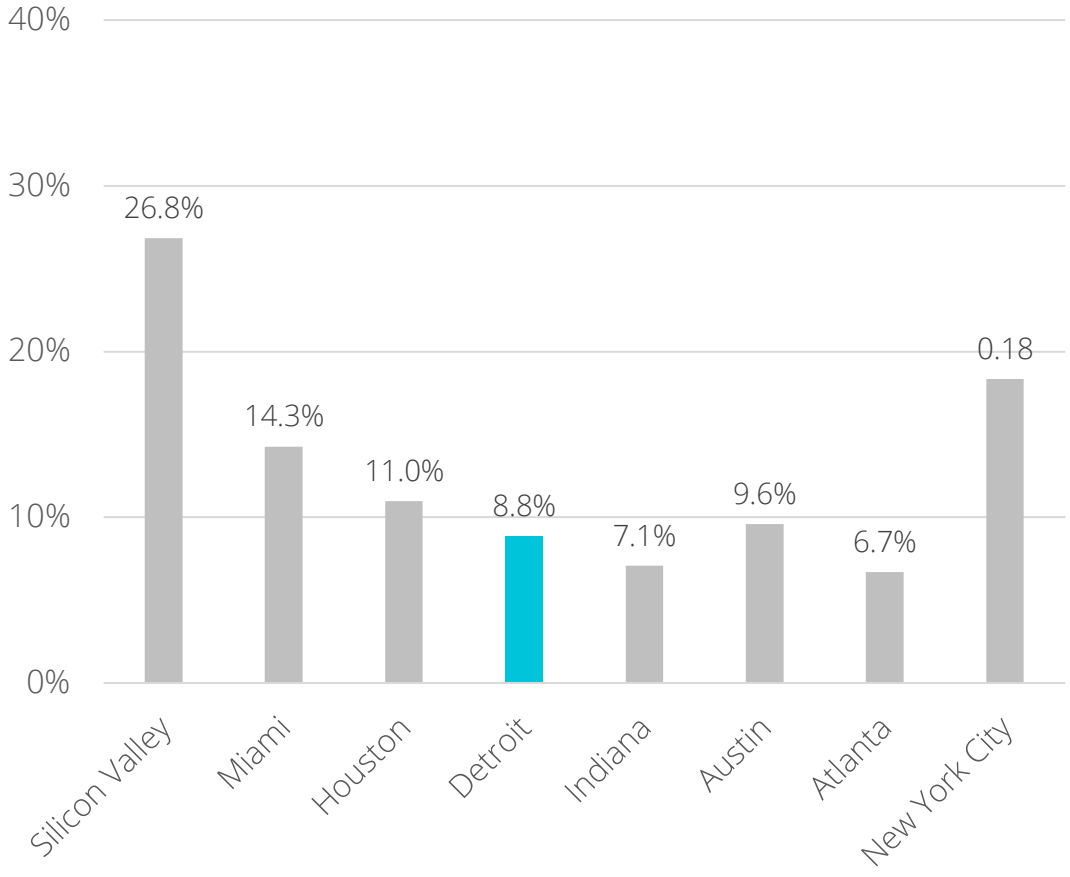
1. A scaleup is a startup with a valuation of $100M or more
2. The Market Reach Success Factor Measures early-stage startup access to customers allowing them to scale and "Go-Global" from the onset

Detroit startups are mainly selling to the National market, and International expansion is not top of mind

Customer Outside **Country**

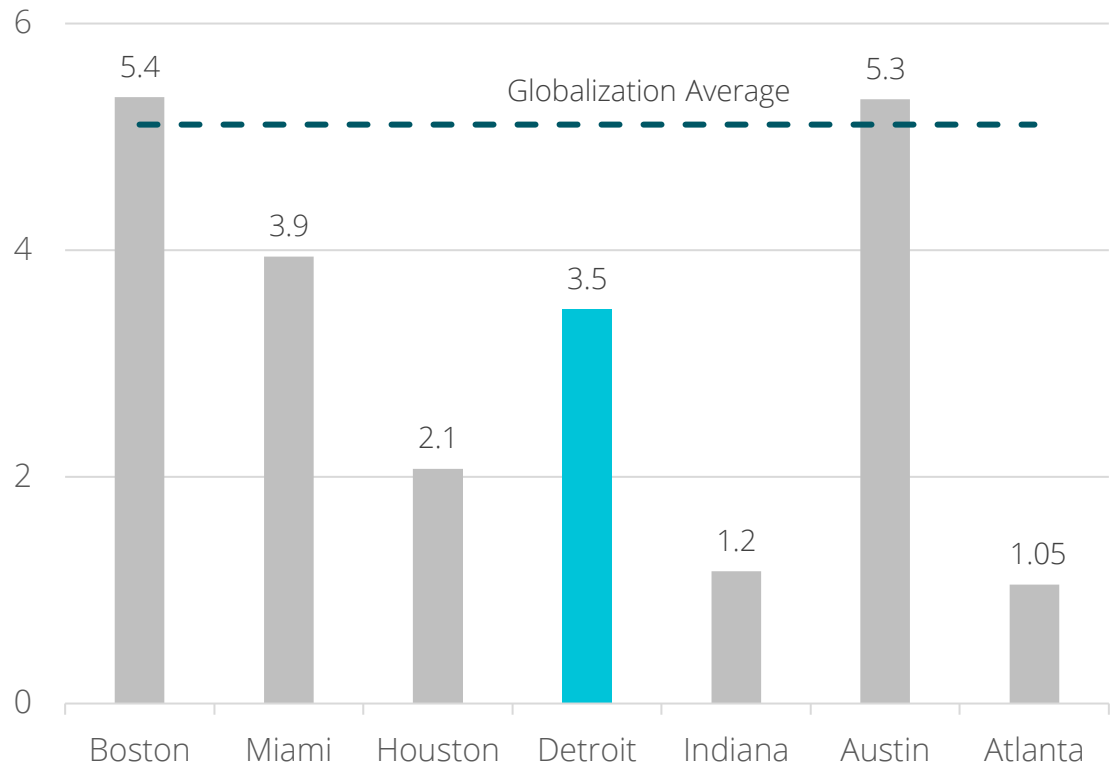


Customers Outside **Continent**

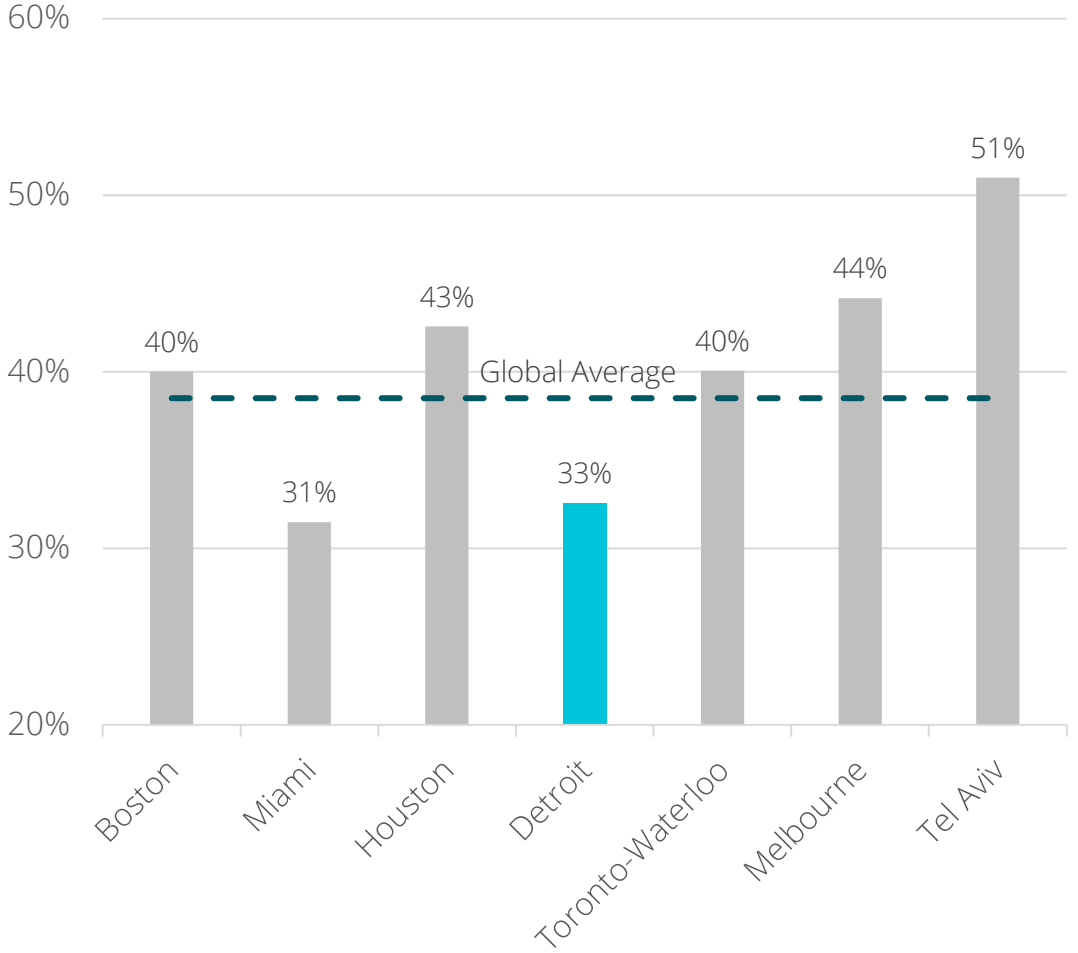


Detroit Founders have few connections in Top International Ecosystems and do not claim to have Globally-Leading products

Connections to Top International Ecosystems (non-US)

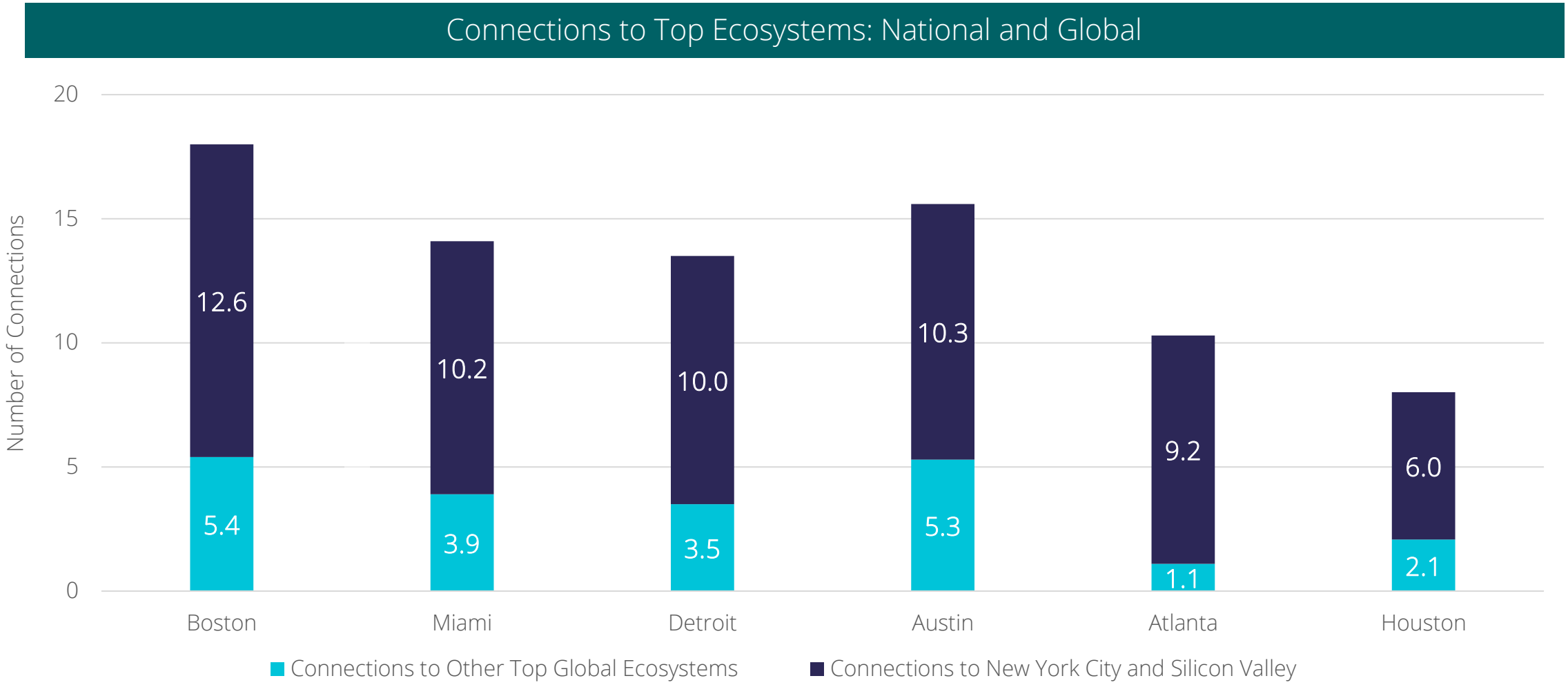


Founders Claiming Globally-Leading Product



Connections to Top International Ecosystems: Average number of significant relationships founders have with founders from Berlin, Tel Aviv, London, and Shanghai
Globally Leading Product: Percentage of startups that are developing a new product

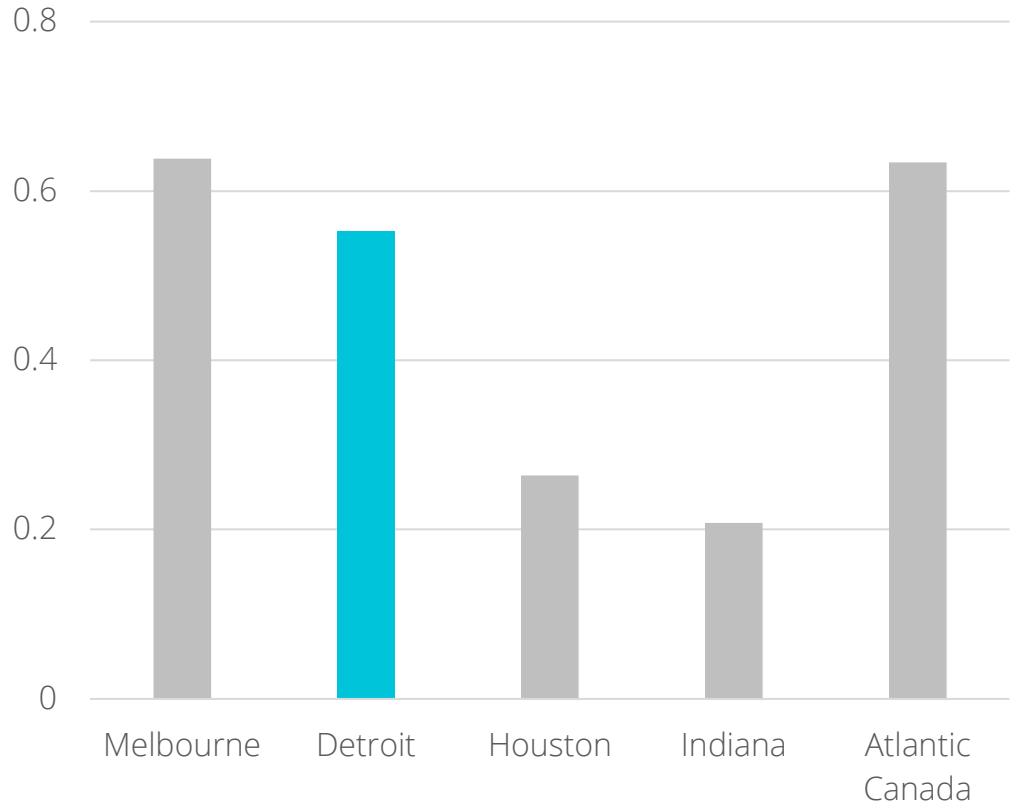
Despite a lack of global focus, Detroit Founders have a good number of connections in Top National Ecosystems, supporting scaleup potential



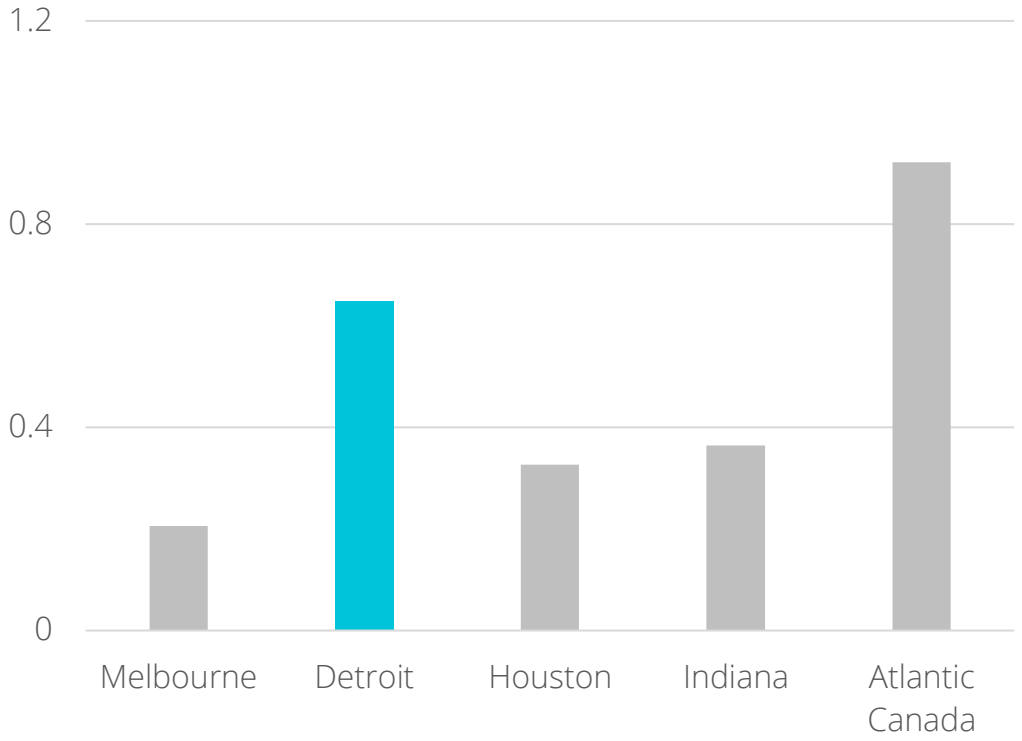
Top Global Ecosystems: Average number of significant relationships startup leaders have with founders from SV, NYC, Berlin, Tel Aviv, London, and Shanghai
High Ambition: Percentage of founders who show high ambition across multiple factors

Detroit Founders were able to meet more with their connections from top ecosystems as compared to their national peers

Local Meeting



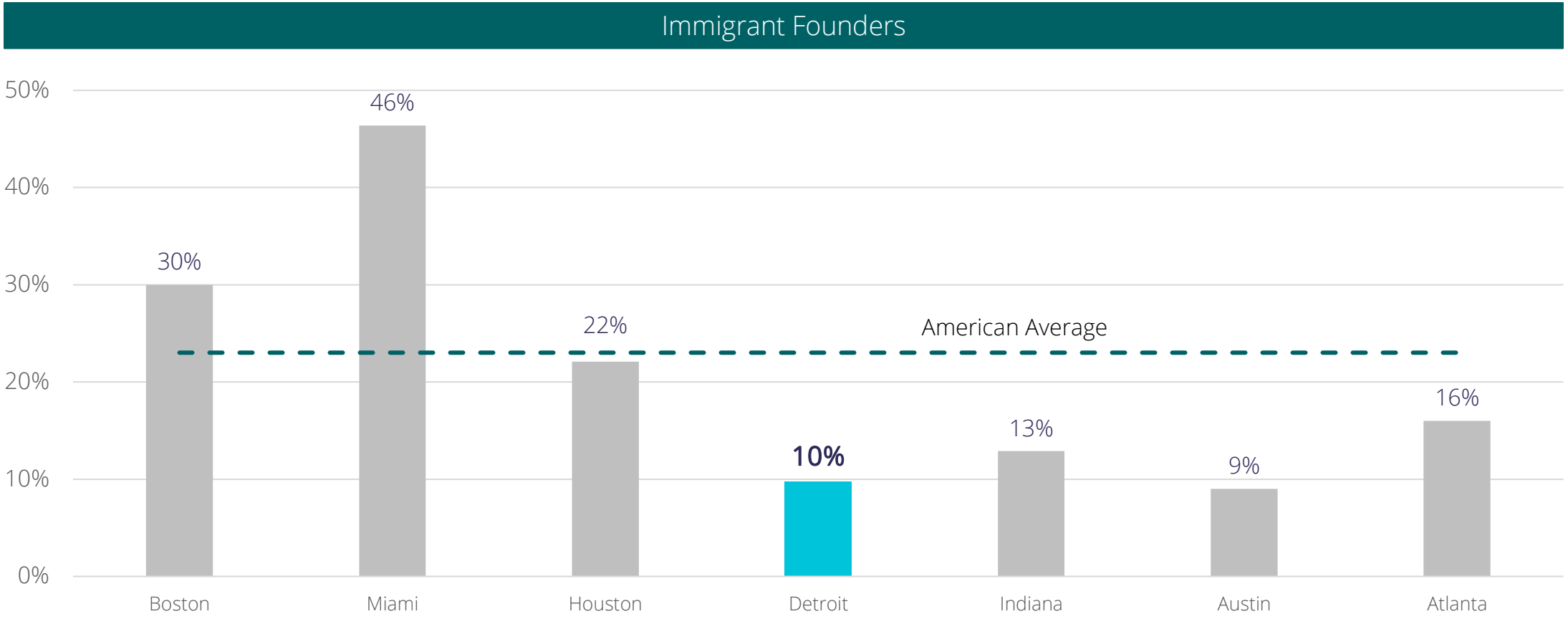
Travel to Top International Ecosystems



All peers presented were assessed after the beginning of the COVID-19 Pandemic

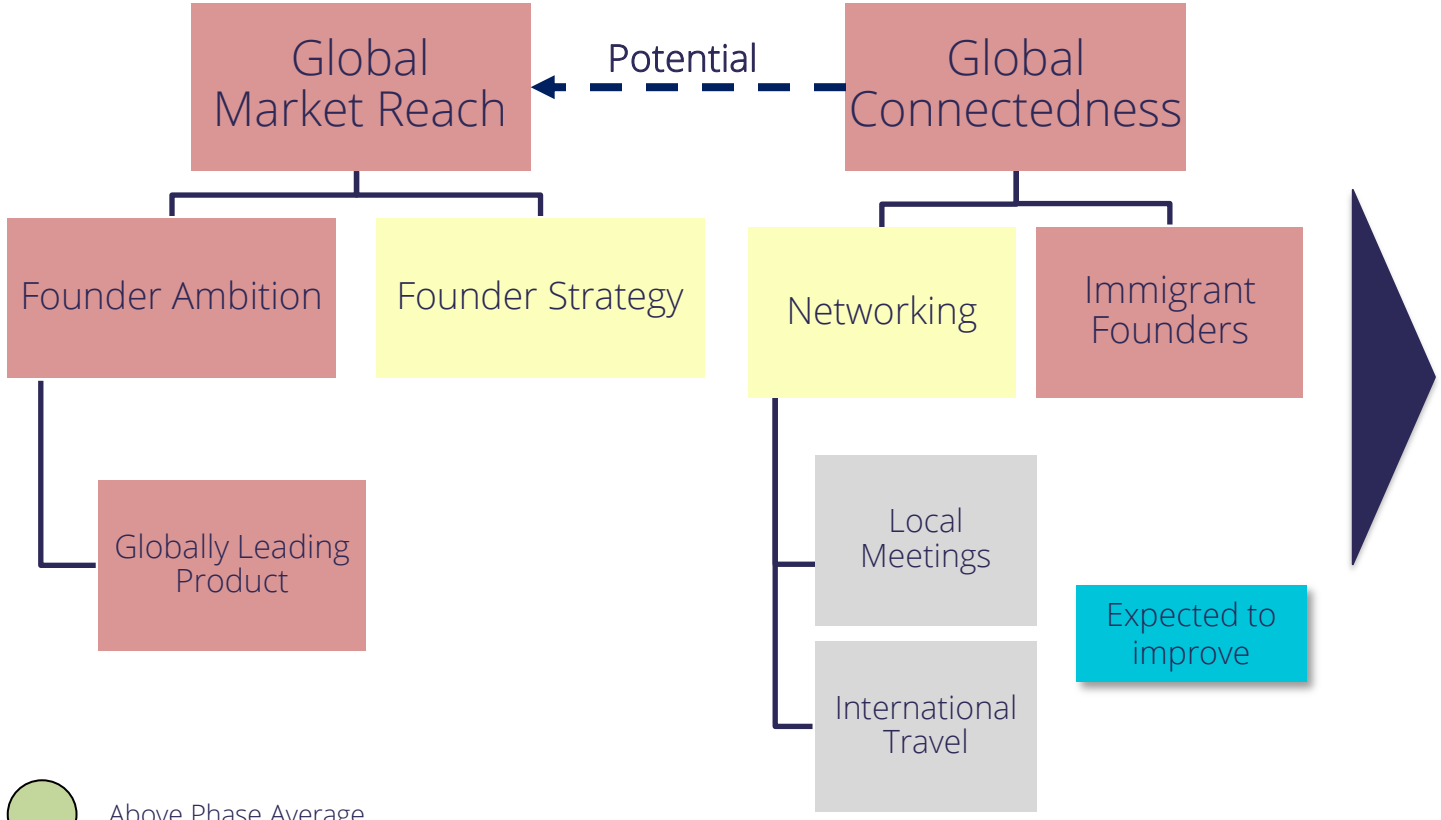
Local Meeting: Average number of startup leaders from Berlin, Tel Aviv, London and Shanghai that entrepreneurs from your ecosystem have met locally (this shows the degree to which entrepreneurs from top ecosystem travel to your ecosystem)
Travel to Top International Ecosystems: Average number of startup leaders who have traveled 2 or more times to top ecosystems (stated above) in the last 2 years

Detroit 's proportion of Immigrant Founders[1] is far below the American average



1. Immigrant Founder: An individual who immigrated into the country as an adult and founded a company according to our criteria

Detroit has room to grow in connecting with Top Ecosystems to benefit from leading centers of knowledge



Interview Findings

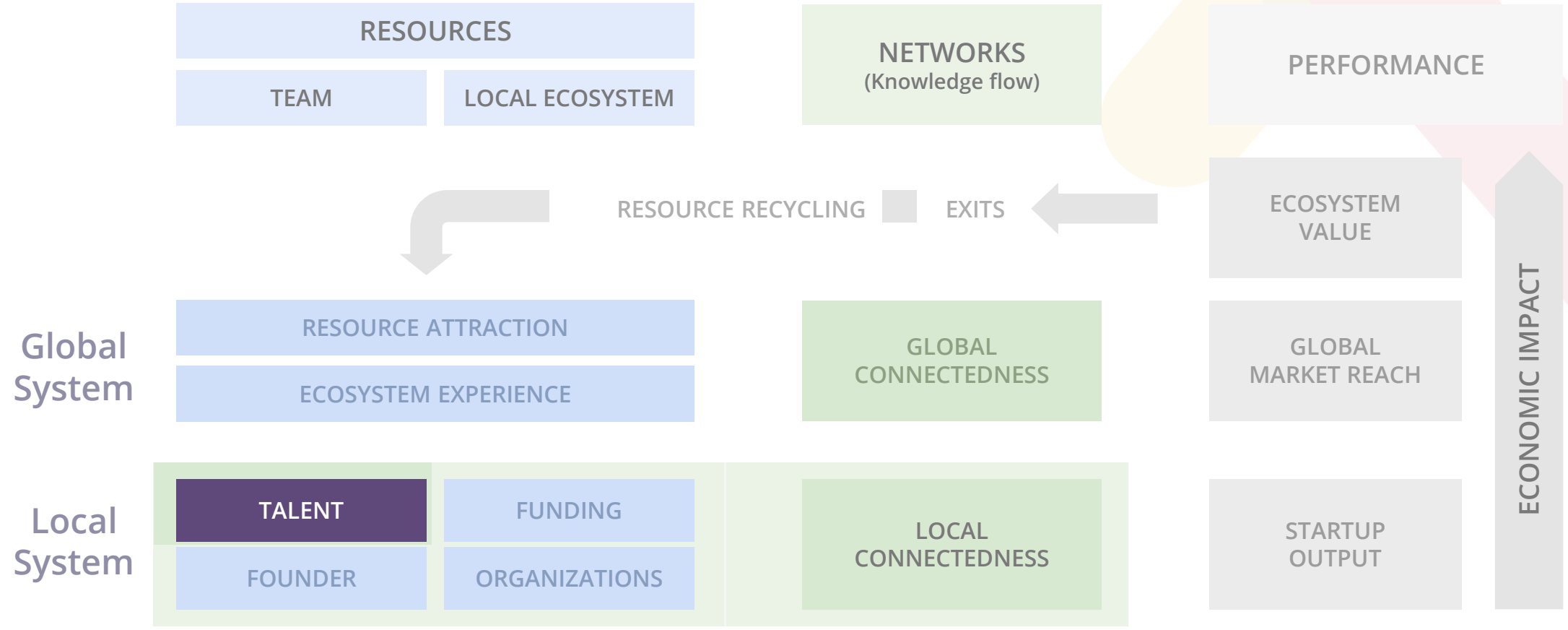
- **Limited Founder Ambition:** Detroit's Founders do not claim to have globally-leading products and are not targeting customers in top international markets
- **COVID-19's Impact:** Covid limited both Detroit Founder's ability to travel to top ecosystems and to meet with connections locally from globally leading ecosystems
- **Networks are National:** Detroit-based Founders have fewer quality relationships with peers in globally leading ecosystems than their national peers

The Color-Coded Summary scores are based on Detroit's performance in this Success Factor from survey data as well as secondary data. Findings have been sourced from Validation Interviews

Success Factor Model
Talent

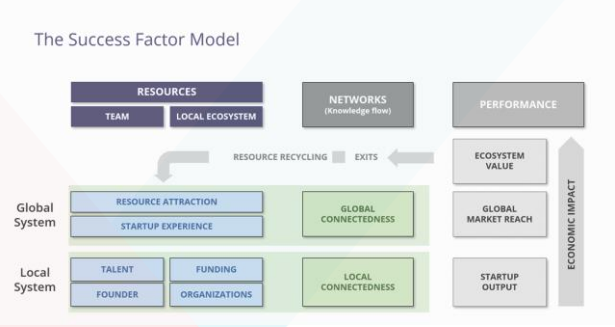
Talent: Measurement of the access startups have to critical employees, namely software developers and customer acquisition roles (i.e., marketing, hypergrowth, scaling roles)

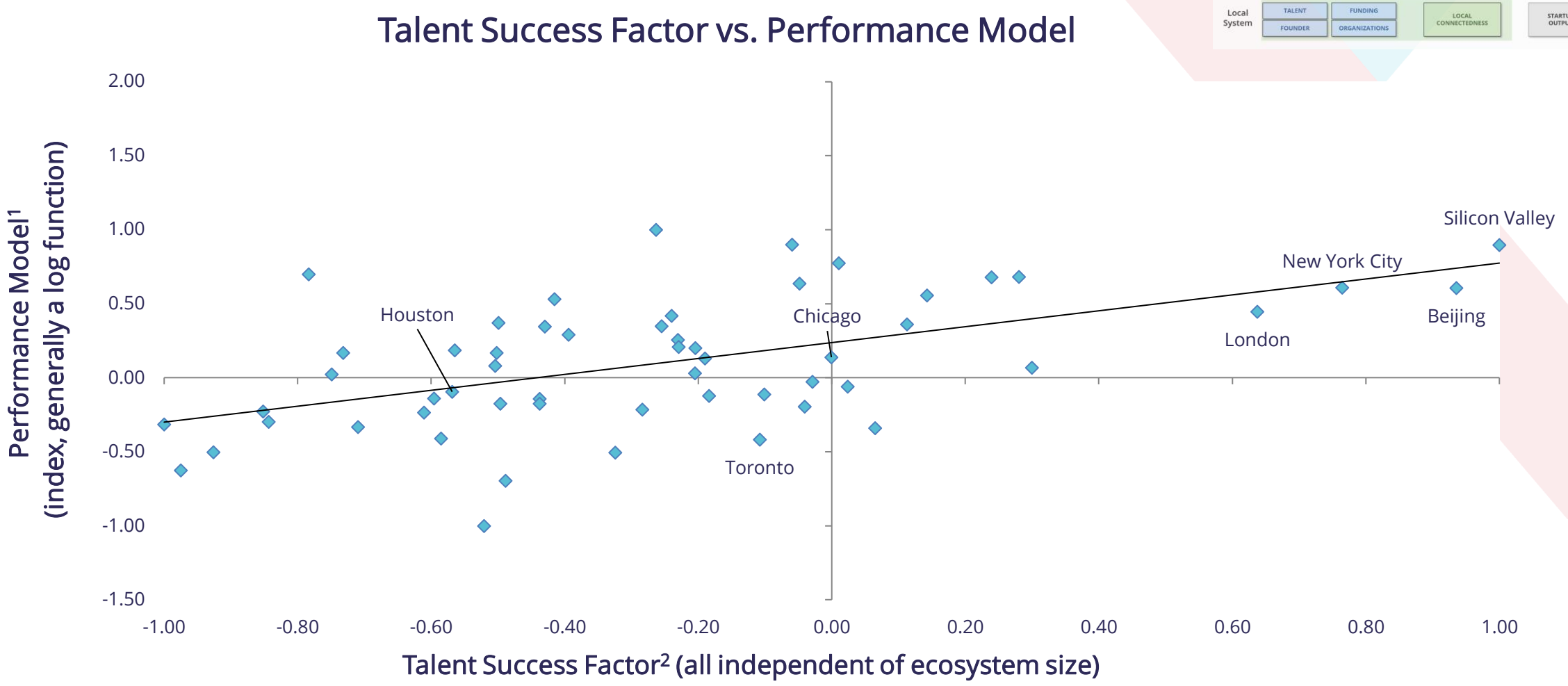
- Experienced Software Engineers, Experienced Growth Employees



Experienced Software Engineers: Percentage of software engineers with at least 2 years of Startup Experience prior to joining this startup
Experienced Growth Employees: Percentage of growth (customer acquisition) employees with at least 2 years of Startup Experience prior to joining this startup

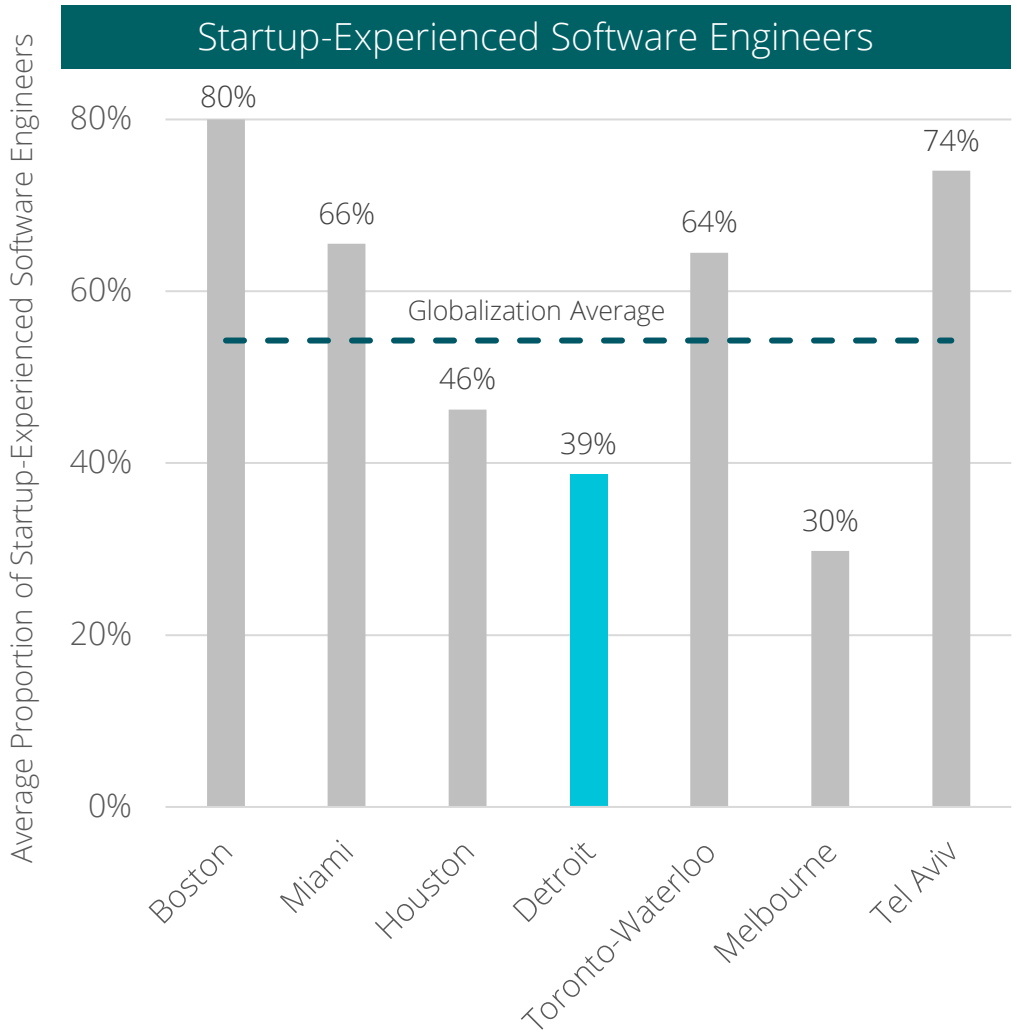
SG Science: Talent Success Factor correlates very highly with Ecosystem Performance

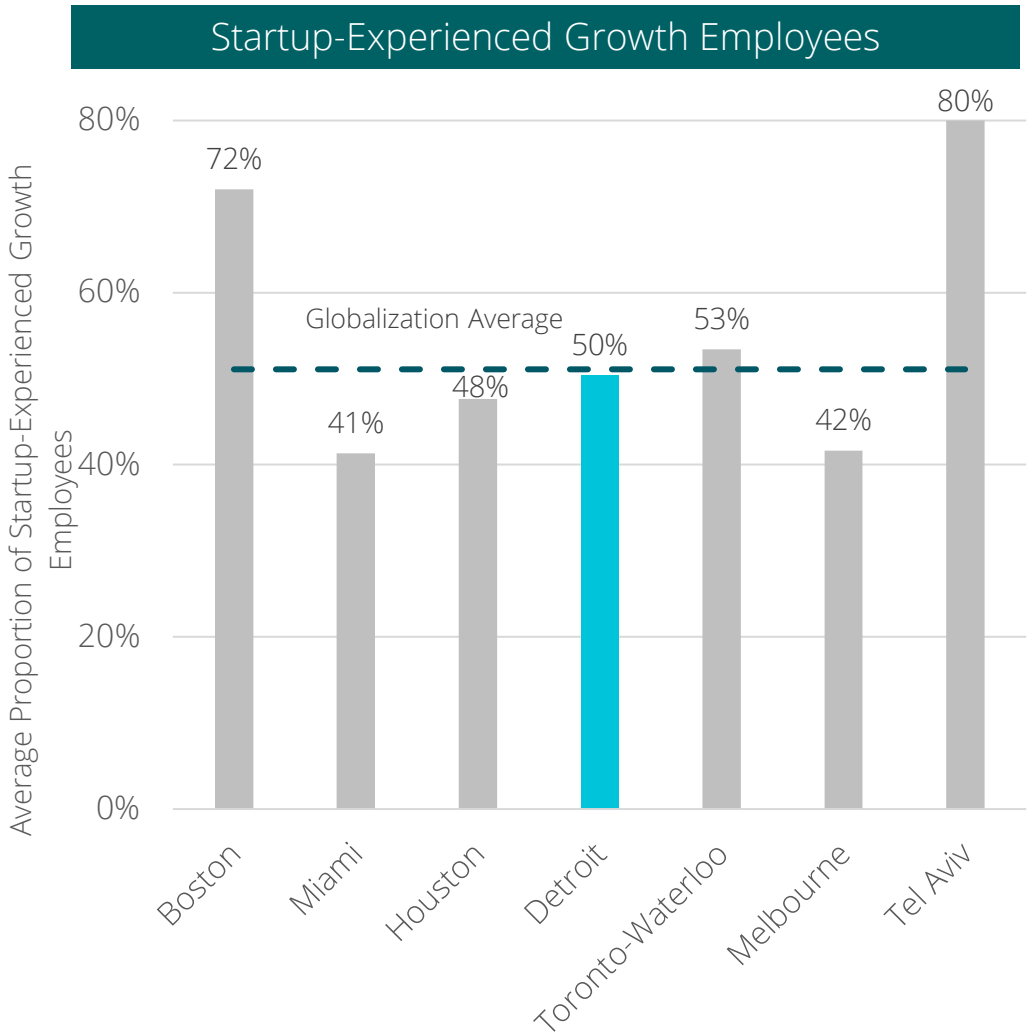




1. The performance model analyses indicators like exits, funding and startup output to capture the economic outcomes in a startup ecosystem
2. The talent success factor assesses the availability of software development and customer acquisition talent to Startups

Detroit Startups have less access to Startup-Experienced Software Engineers but can access Growth Employees





Detroit suffers from a lack of accessible technical software talent. Founders have difficulty in hiring technical software talent and are outcompeted on salary by other ecosystems

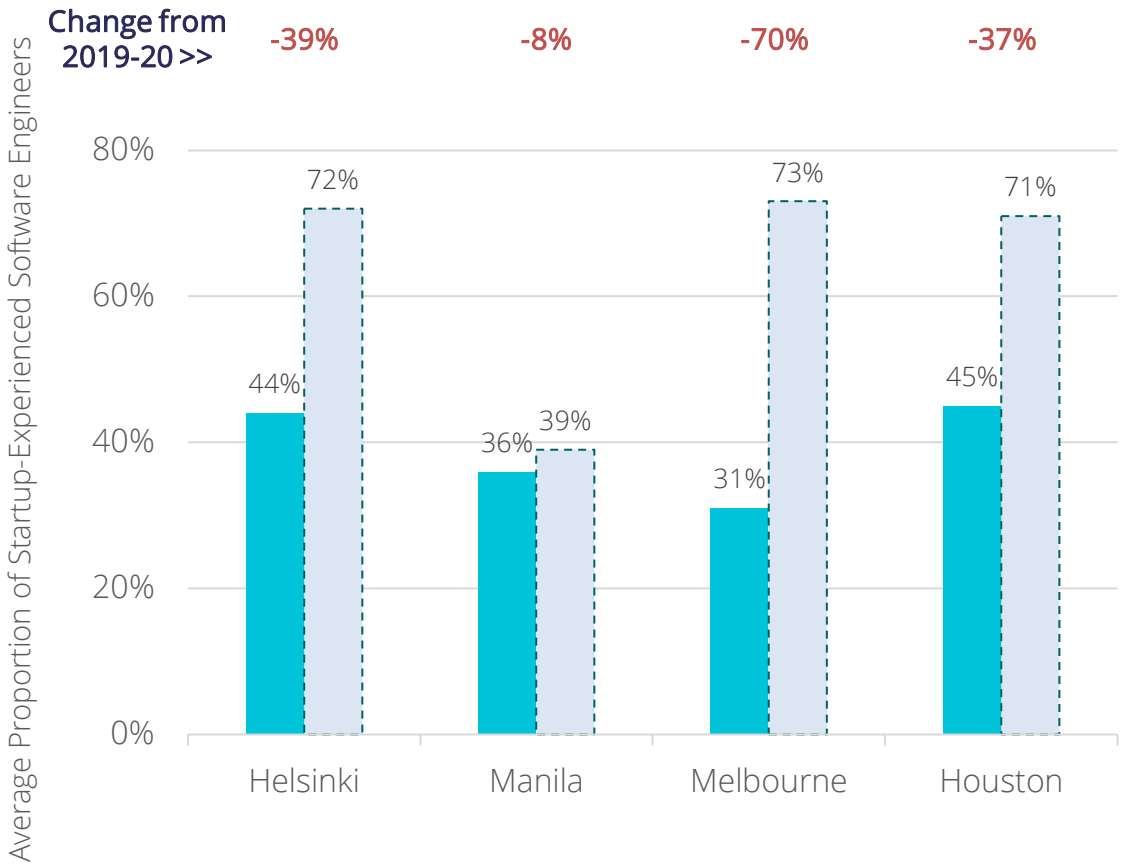
Values represented refer to the average proportion of a Detroit startup's percentage of experienced employees

Experienced Software Engineers: Average proportion of software engineers in each startup with at least 2 years of Startup Experience prior to joining this startup

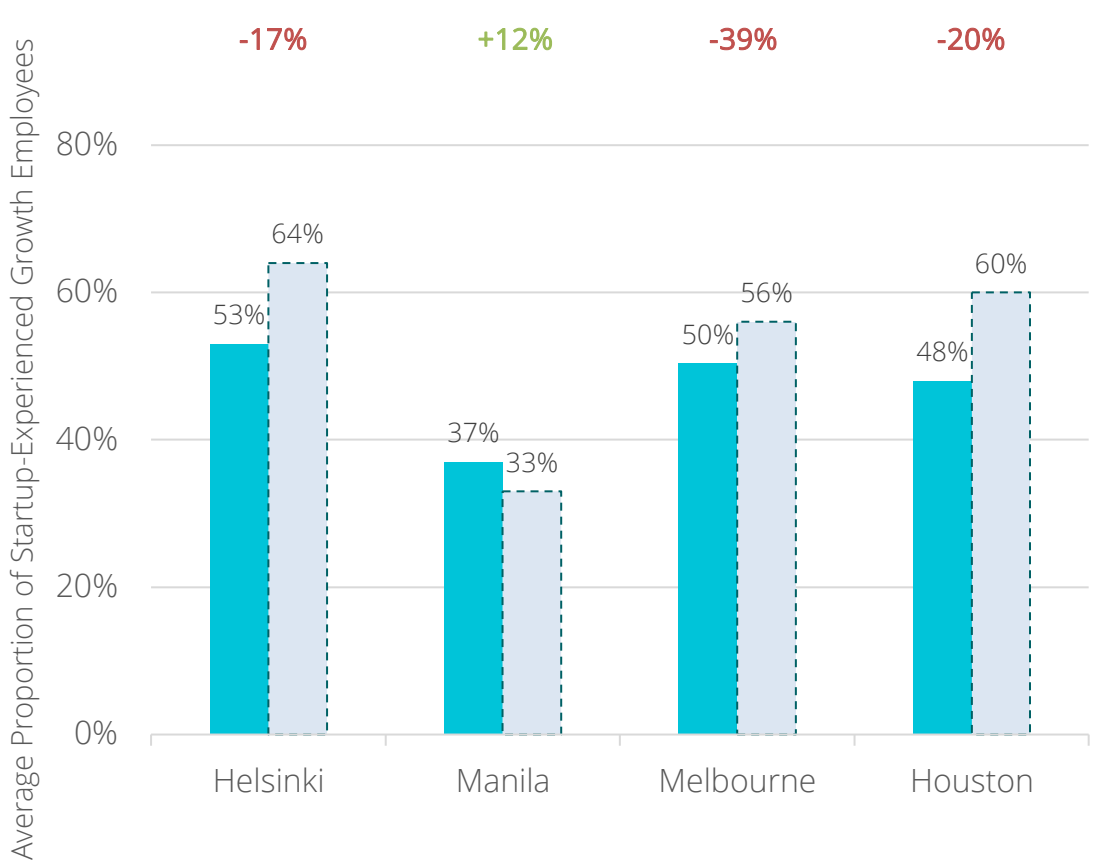
Experienced Growth Employees: Average proportion of Growth (customer acquisition) employees with at least 2 years of Startup Experience prior to joining this startup

Ecosystems across the globe have witnessed a decline in access to Experienced Software Engineers (less so for growth talent)

Experienced Software Engineers – 2019 vs 2021/2022



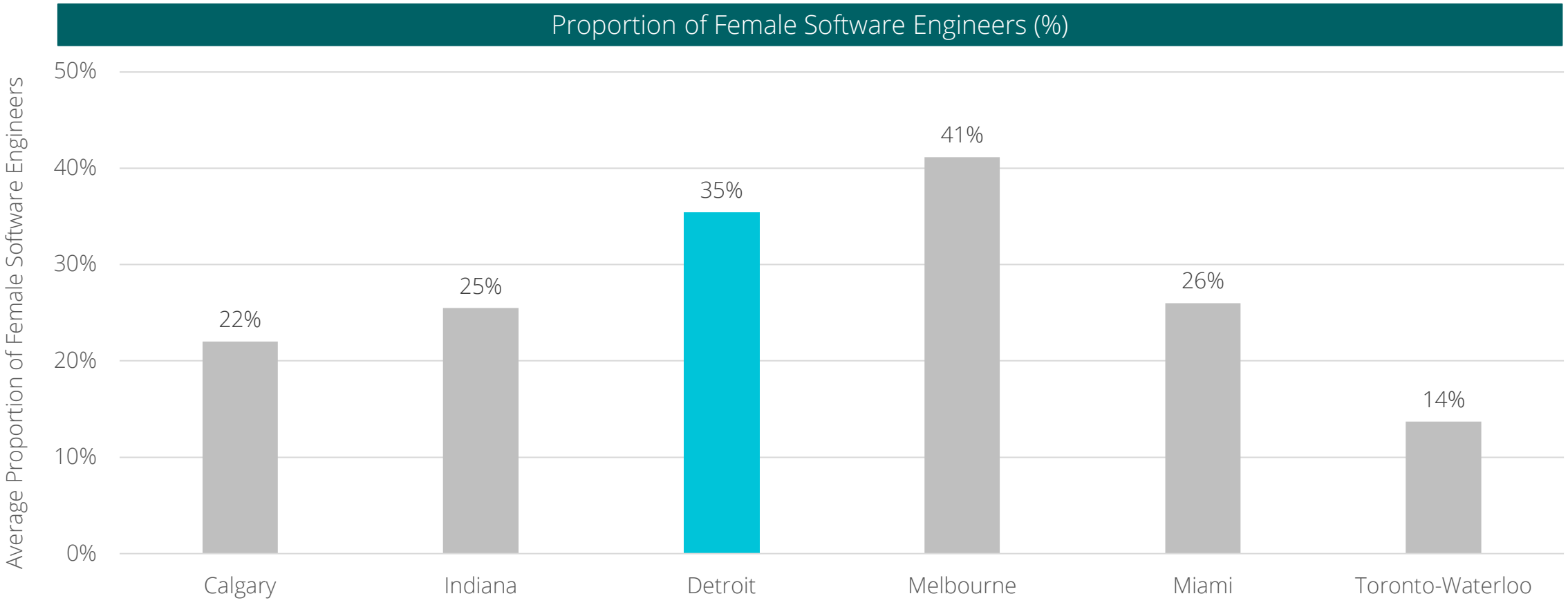
Experienced Growth Employees – 2019 vs 2021/2022



2022/21 Value 2019 Value

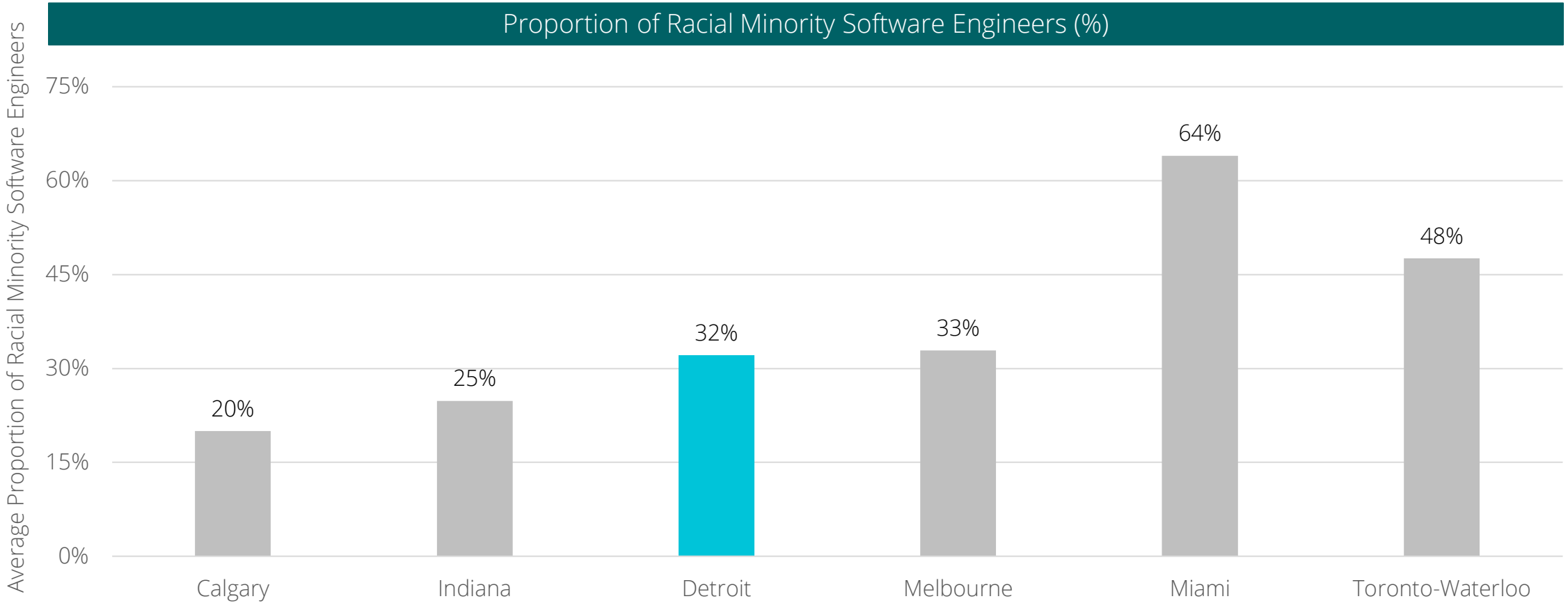
Values represented refer to the average proportion of a Detroit startup's percentage of experienced employees

Participation: Female Software Engineers



This metric is not a direct comparison between Detroit and its peer ecosystems as it represents the proportion of female software engineers who have experience working in a startup and it varies due to the distinct demographics of each ecosystem. The values for Detroit are based on 26 responses.

Participation: Software Engineers from a Racial Minority



This metric is not a direct comparison between Detroit and its peer ecosystems as it represents the proportion of engineers from a racial minority background who have experience working in a startup and it varies due to the distinct demographics of each ecosystem. The values for Detroit are based on 26 responses.

Detroit scores somewhat below average on Talent in relation to Globalization stage ecosystems

Interview Findings*				
Experienced Software Engineers are needed	**High-level talent hard to come by**	**Founders are Midwest Modest**	**Universities are very strong nationally**	**Perceptions that Mobility is the sole focus**
Detroit is below the Globalization average for Experienced Software Engineers. Founders and Experts commented that fundamental changes to make Detroit an attractive location to live and work in are needed to be able to incentivize both local Talents to stay in the ecosystem and to entice needed Talent from outside the ecosystem to take jobs at Detroit-based startups	Detroit Founders struggle to find affordable high-level Talent in-state and are often forced to contract talent out of state. Detroit Founders have commented on the extreme difficulty in sourcing leading executive-level positions, with some C-suite positions staying vacant for almost two years before a suitable candidate is found	Many founders commented that the cultural norms of the Midwest are related to hard work and grit, but also to humility. This has led to a pattern where Founders are less comfortable steering their startups towards high-speed scaling and in pursuing higher valuations during investment rounds. Founders generally feel that the stigma that the Midwest is a second-class region in the country for entrepreneurship persists	The University of Michigan has the highest amount of research dollars for any public institution in the country. Students come from across the nation (and some internationally) to Detroit, however many startups founded through the University of Michigan (and through other universities) are not able to be properly supported locally due to a lack of resources and funding opportunities and end up moving to other ecosystems	Local stakeholders universally commented that they perceive Detroit's traditional identity, most profitable companies, state initiatives, and universities to be solely focusing on the Mobility sector. They feel this has resulted in other sectors in Detroit, namely Life Sciences and Cybersecurity, not receiving adequate levels of support from public funding sources and programmatic initiatives

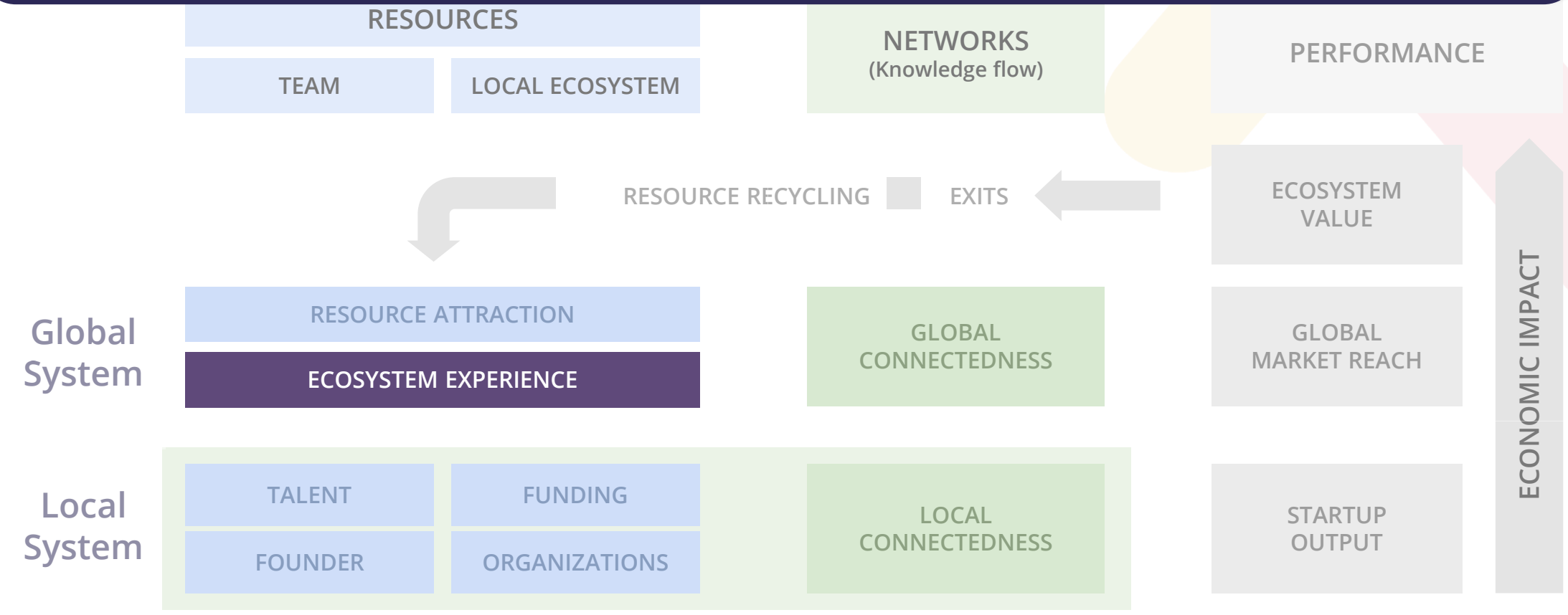
*Findings reflect the aggregate opinions of key stakeholders in Detroit and do not necessarily reflect data-based findings of Detroit's performance

Success Factor Model
Ecosystem Experience

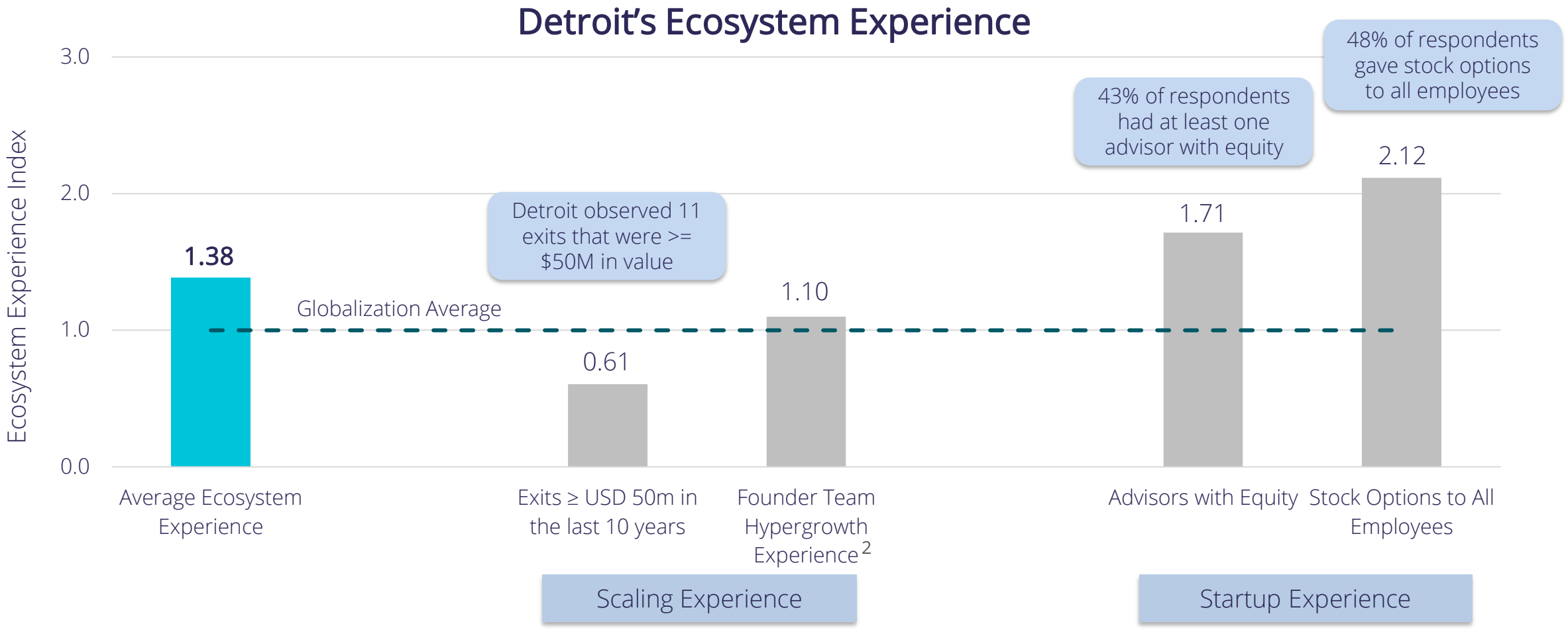
Ecosystem Experience: The depth and diversity of the pool of prior experience in the ecosystem through funding and large exits

Scaling Experience:
- Large Exits, Hypergrowth Experience

Startup Experience:
- Advisors, Employee Stock Options



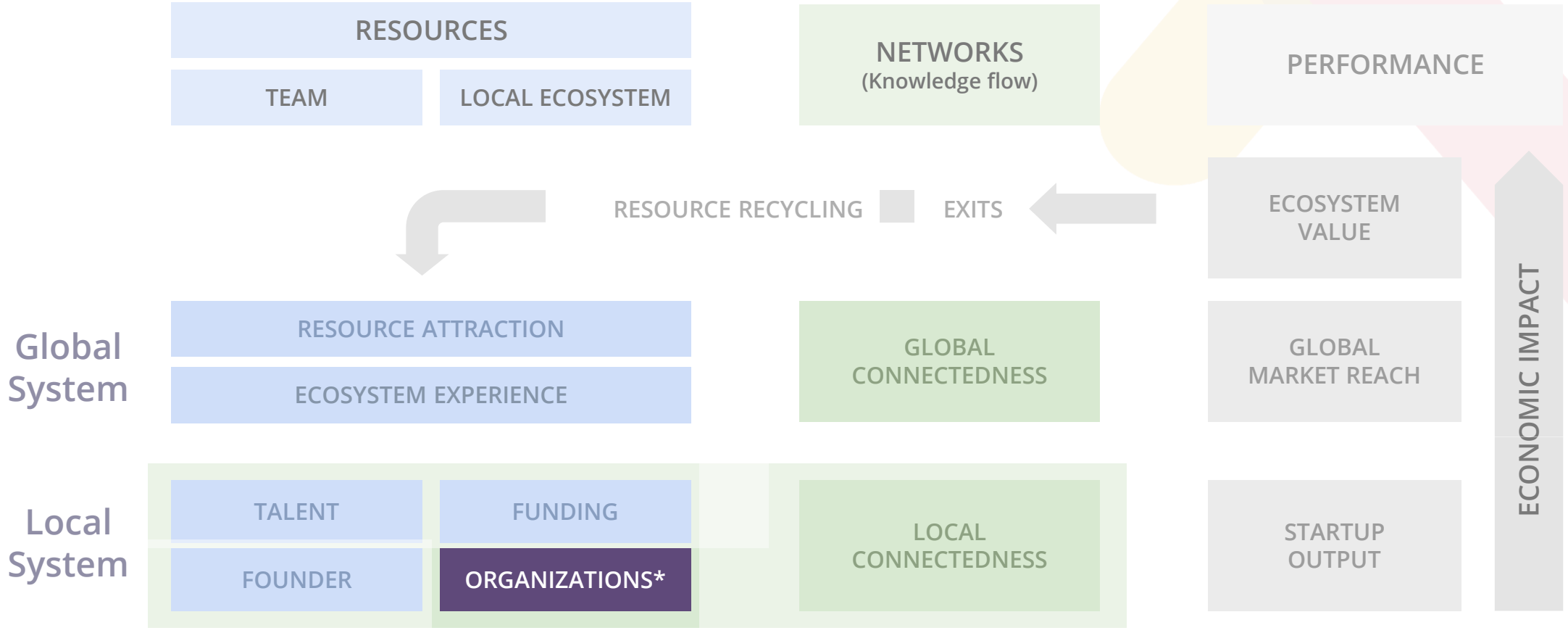
Detroit's higher Ecosystem Experience[1] has yet to result in a string of large exits in comparison to peers in the Globalization phase



1. **Ecosystem Experience:** Summary of Scaling Experience (record of creating or working at high-value startups) and Startup Experience (culture of providing and accepting equity and stock options as incentives)
2. **Hypergrowth Experience:** Percentage of founders in the team who previously worked for 2+ years at a startup with a valuation of $100M+

Success Factor Model
Organizations

Organizations: Availability and quality of Entrepreneurial Support Organizations such as Incubators, Accelerators, or co-working spaces



* Results from the Organizations sections are based on validation interviews with Founders and Stakeholders, not survey data

Stakeholders universally feel there is no standout organization that gathers the whole ecosystem or leads strategy

Unclear Ecosystem Strategy

"...Struggles with identity and collaboration, ...competitive environment where we don't work together on behalf of founders. ...not organized and unified"

– ESO Leader

Cultural Ambition Issues

"In NYC...very ambitious element to the culture that doesn't quite exist in Detroit. Successes in NYC energize and feed off each other, ...Detroit has no hunger for big thinking"

- Founder and ESO* Leader

Declining Public Funding

"Up until 2016, the state budget to support entrepreneurship was 25M USD. Nowadays budget is 12-13M"

- Investor and Researcher

Low Ambition

"Founders in Detroit are less ambitious than on the coast, Midwesterners are humble and conservative, there's a more "honest" approach from local founders"

- Fintech Founder

ESO*: Entrepreneurial Support Organization - Incubators, Accelerators, Coworking Spaces, Startup Support Programs, etc.

Many Detroit Stakeholders believe that startup support organizations have more potential to help the ecosystem

Weak ESO Landscape

"Many incubators and accelerators have failed, … Our few ESOs are untested and inexperienced, there's more support for SMEs and brick and mortar companies"

– ESO* Leader and Investor

ESOs Not Trusted

"The most important piece of advice I can give to upcoming entrepreneurs is to not take any ESO* advice but to focus on building their company"

– Leading Founder

Siloed ESOs

"ESOs all have a piece of the puzzle but don't share with one another, …we lack coordination on what services we provide"

– ESO Leader and Investor

Limited Focus on High-Growth Ventures

"ESOs in Detroit are less successful …many resources end up diluted they have a broader mandate for SMEs and Mom & Pop shops"

- Leading ESO Leader

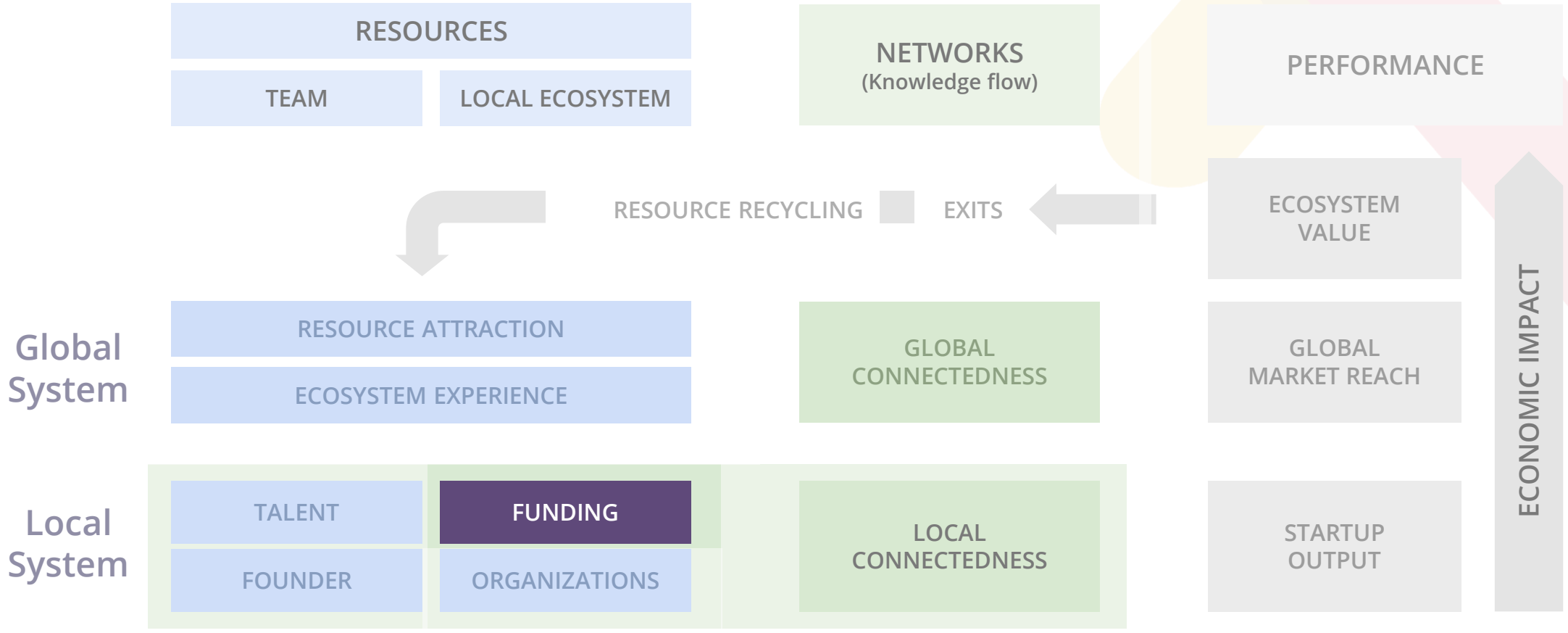
ESO*: Entrepreneurial Support Organization - Incubators, Accelerators, Coworking Spaces, Startup Support Programs, etc.

Success Factor Model
Early-Stage Funding

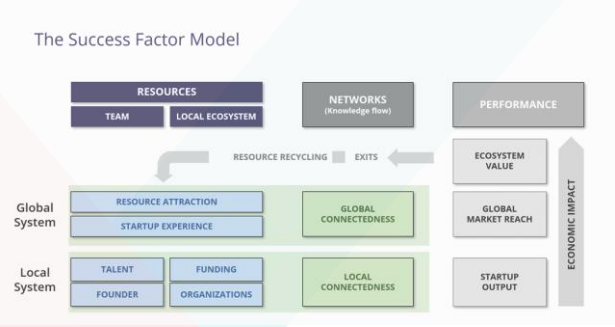
Early-Stage Funding: Volume and quantity of Seed and Series A deals raised by startups in the ecosystem

Key Measurements:

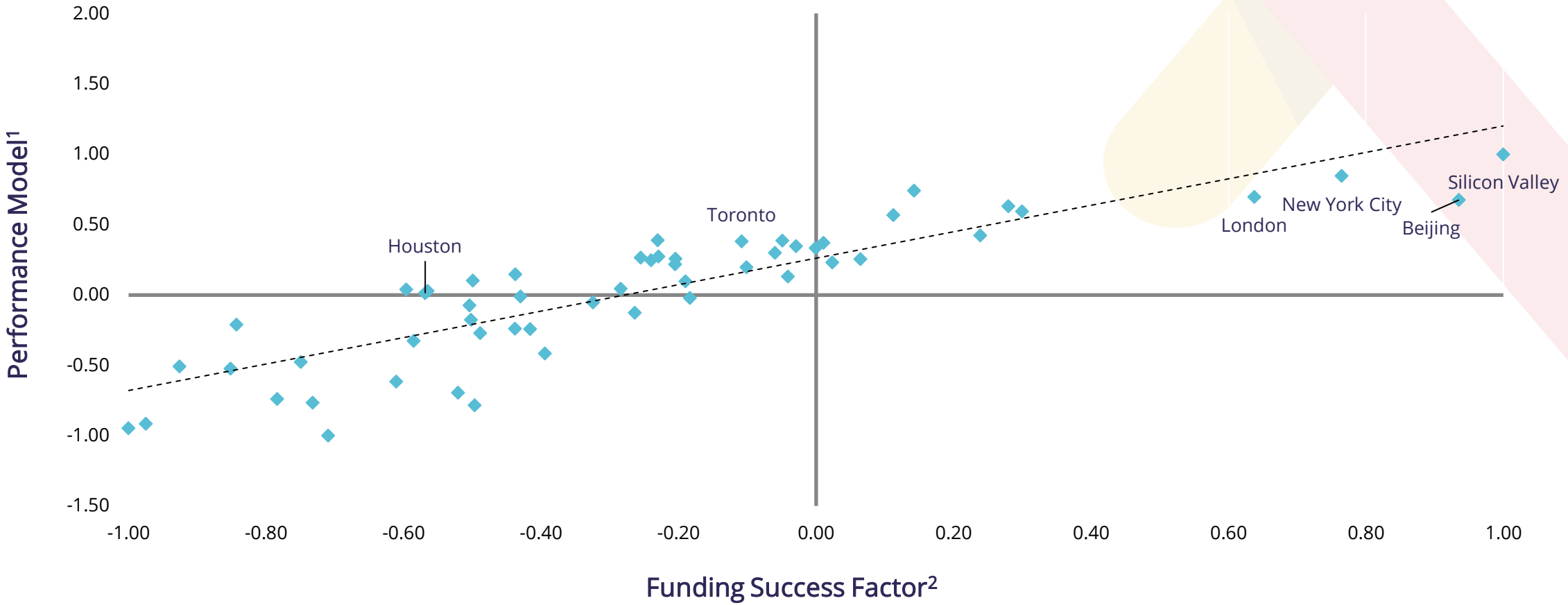
- Seed Round Median, Series A Median, Numbe



SG Science: The Funding Success Factor correlates very highly with Ecosystem Performance



Funding Success Factor vs. Performance Model



1. The performance model analyses indicators like exits, funding and startup output to capture the economic outcomes in a startup ecosystem
2. The Funding Success Factor measures the growth of early-stage funding, looking at both access and quality

Detroit's Early-Stage Funding gaps in relation to other Globalization-Stage ecosystems holds back its scaling potential

		Seed	Series A
Large Rounds	Median	Median Size & # of FTEs Funded	Median Size
	Best	% $1M+	% of $10M rounds
Many Rounds		% Seed-Funded Startups	Survival Rate

The Color-Coded Summary scores are based on Detroit's performance in this Success Factor from survey data as well as secondary data. Findings have been sourced from Validation Interviews.

Above Phase Average

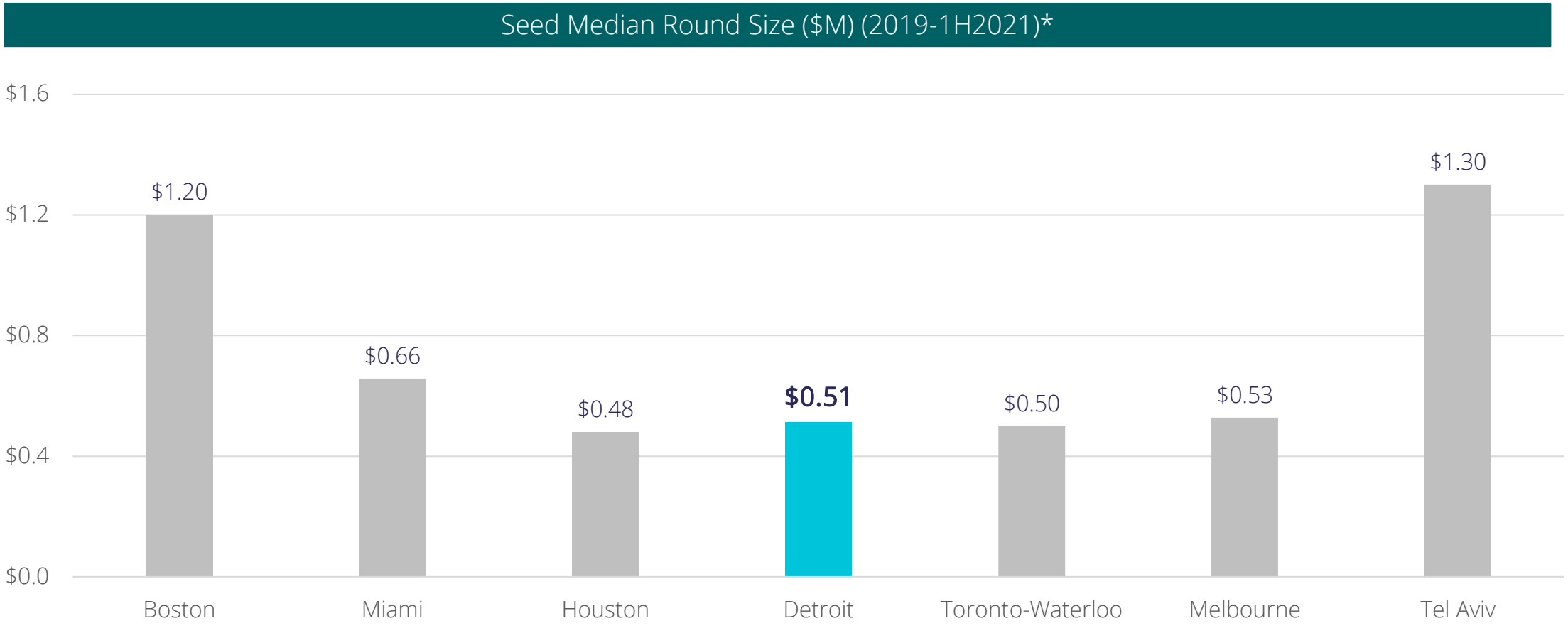
Similar to Phase Average

Below Phase Average

Interview Findings

- **Gaps in Early-Stage Funding:** While the Seed Round Median and percentage of seed-funded startups in Detroit is in line with its peers, the impact is minimized by raising costs of doing business in terms of ballooning costs for software developer talent
- **Angels Not Activated:** "Michigan Angel Groups are great places to pitch but horrible to actually raise capital". Founders express frustration at the risk averse nature of current Michigan-based angel networks, while others commented on a clear need to activate more HNIs in the region
- **Moderate Success Rate:** Despite the lower number of seed-funded startups, late-stage funding in Detroit is going strong, as depicted by the attrition funnel. The proportion of Series C-funded startups in Detroit is greater than its peers in the same phase

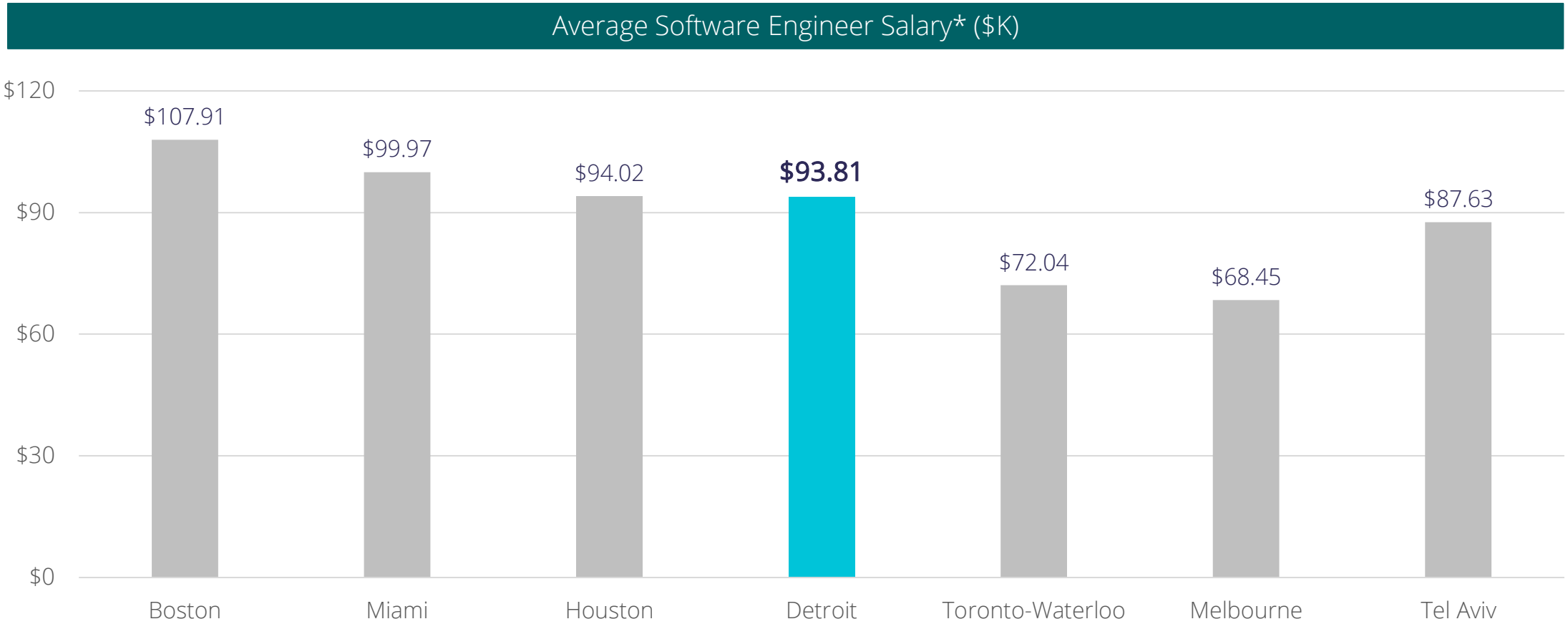
While Detroit's Seed rounds are of similar size to some of its peers in the same phase.....



Funding rounds often suffer a reporting lag between the time the deal is made and when it is properly logged in a leading online database. As such, it is possible that not all recent deals are reflected, as visibility on funding activity becomes more accurate once reporting has caught up to actual activity

* Not based on Startup Genome data -- Based on Pitchbook, Crunchbase and Dealroom and subject to normal issues with funding data

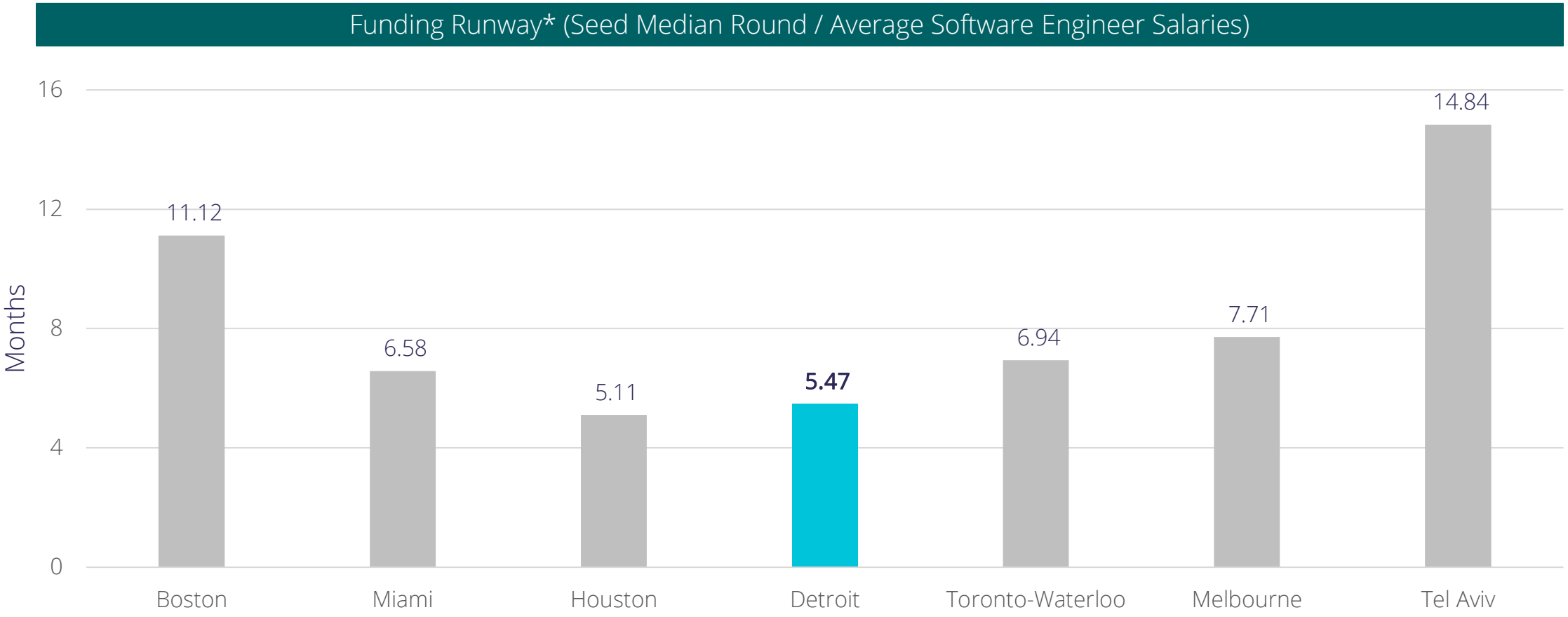
..... Average Software Engineer Salaries are rising in Detroit.....



Startups have faced unstable business landscape. Recent trends of ballooning costs of software engineers, the Covid-19 pandemic, the "great resignation" and inflationary concerns in the US have raised the cost of doing business near universally for founders

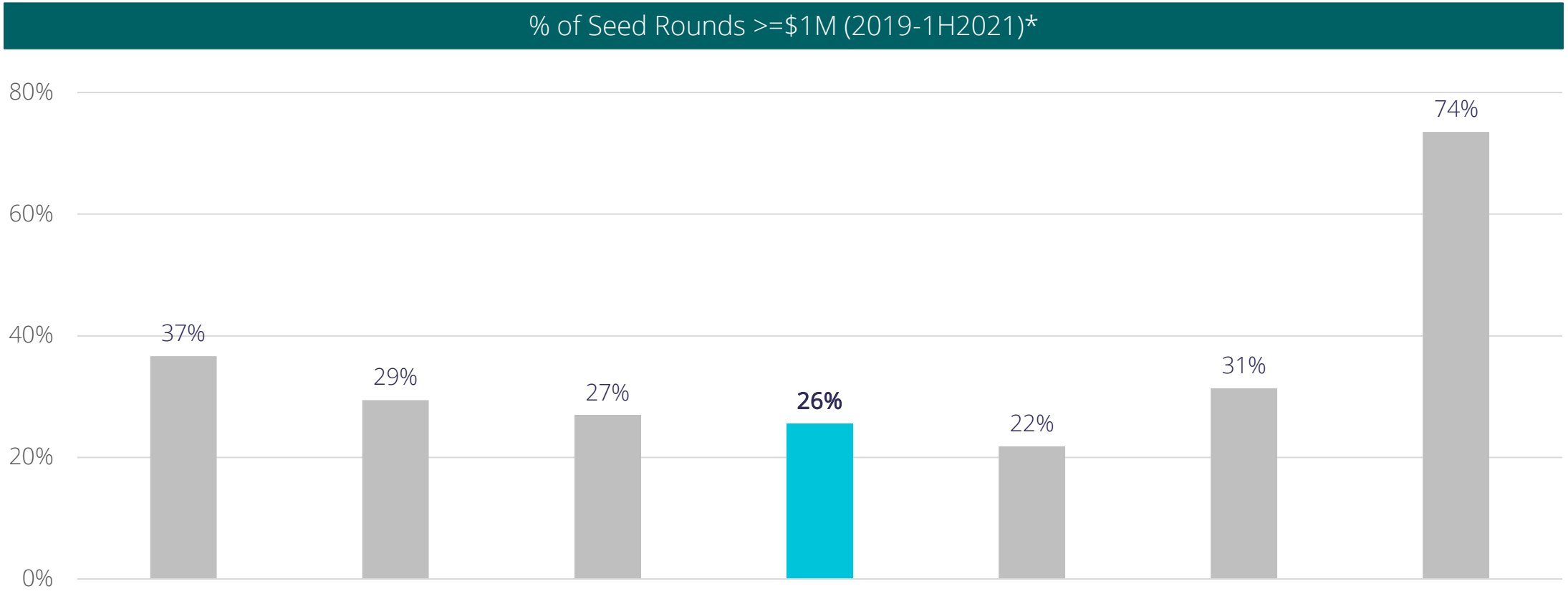
* Not based on Startup Genome data -- Based on Indeed, Builtin, Glassdoor, Payscale and ZipRecruiter data from 2022

Relative to the high cost of software engineering talent, startups in Detroit receive relatively low seed rounds



Not based on Startup Genome data -- Based on Pitchbook, Crunchbase, and Dealroom and subject to normal issues with funding data
*Funding Runway refers to the months a startup can fund their operations in terms of the seed median divided by the average software engineer salary

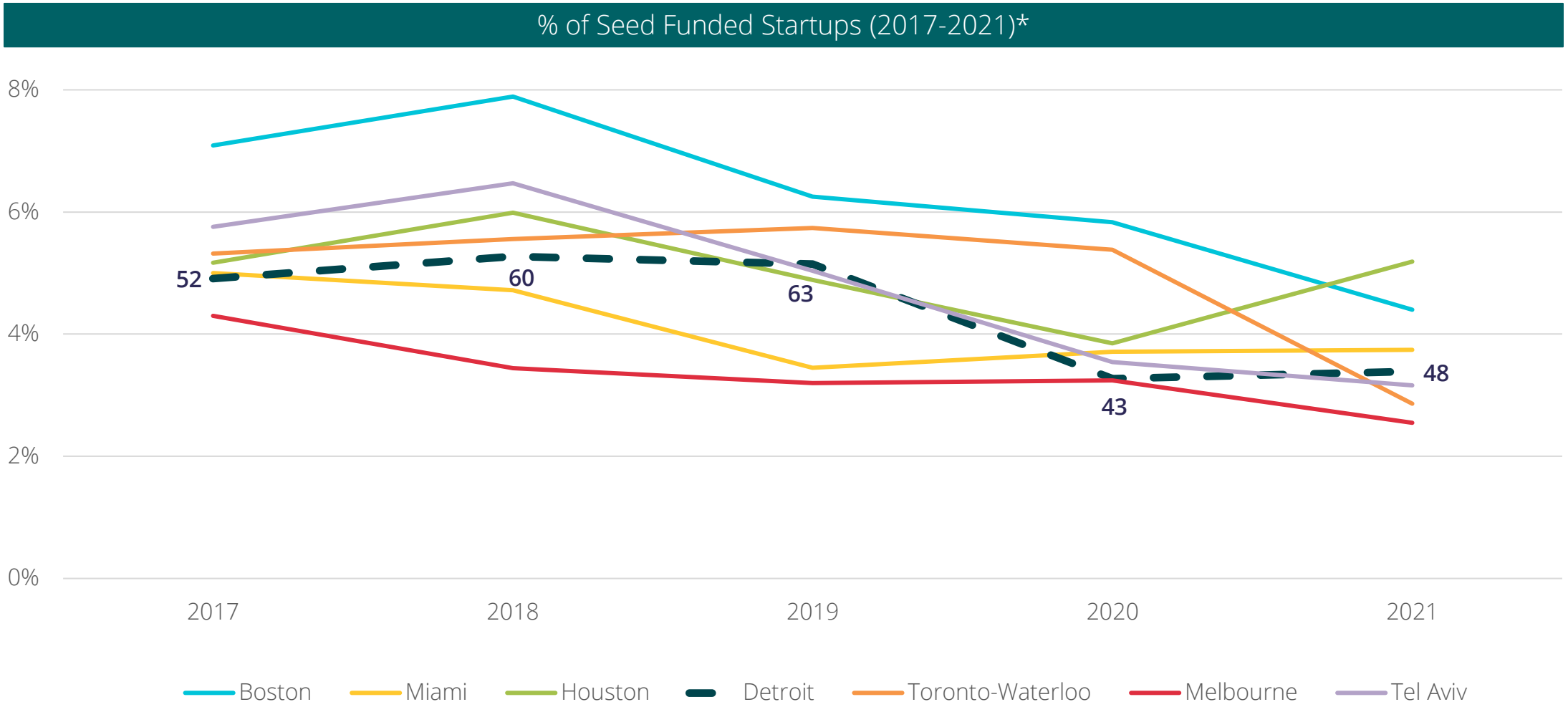
Approximately 25% of all seed rounds in Detroit are larger than one million dollars



	Boston	Miami	Houston	Detroit	Toronto-Waterloo	Melbourne	Tel Aviv
Count of $1M+ Seed Rounds	319	100	42	37	211	75	542
Count of Seed Rounds	870	340	156	145	967	239	740

* Not based on Startup Genome data -- Based on Pitchbook, Crunchbase and Dealroom and subject to normal issues with funding data

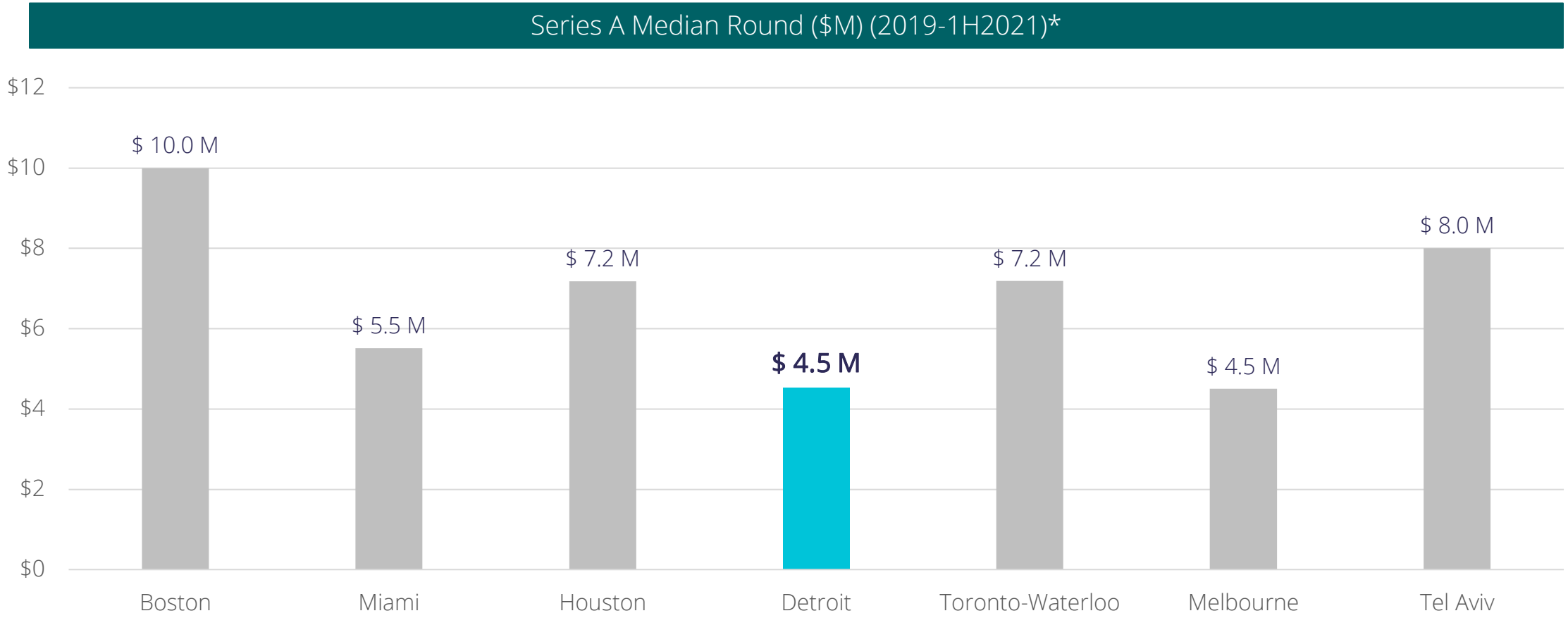
The proportion of seed-funded startups in Detroit is relatively lower than most its peers



Decline from 2020-21 can be attributed to data lags in capturing seed rounds by global databases

* Not based on Startup Genome data -- Based on Pitchbook, Crunchbase and Dealroom and subject to normal issues with funding data

Series A rounds are lower on average, limiting startup growth

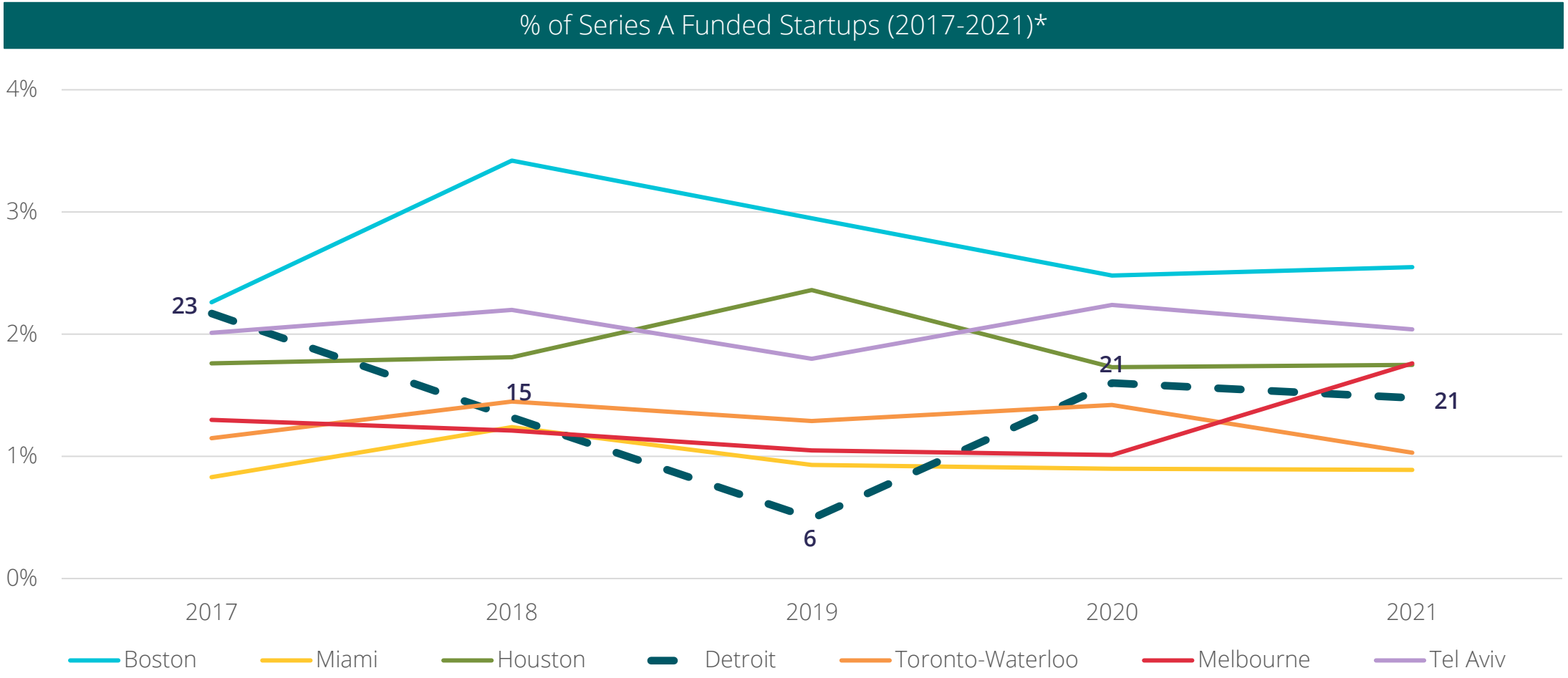


* Not based on Startup Genome data -- Based on Pitchbook, Crunchbase and Dealroom and subject to normal issues with funding data

Detroit Series A Deals are most often $1M-$5M, but half the total amount of Series A funding comes from the largest rounds

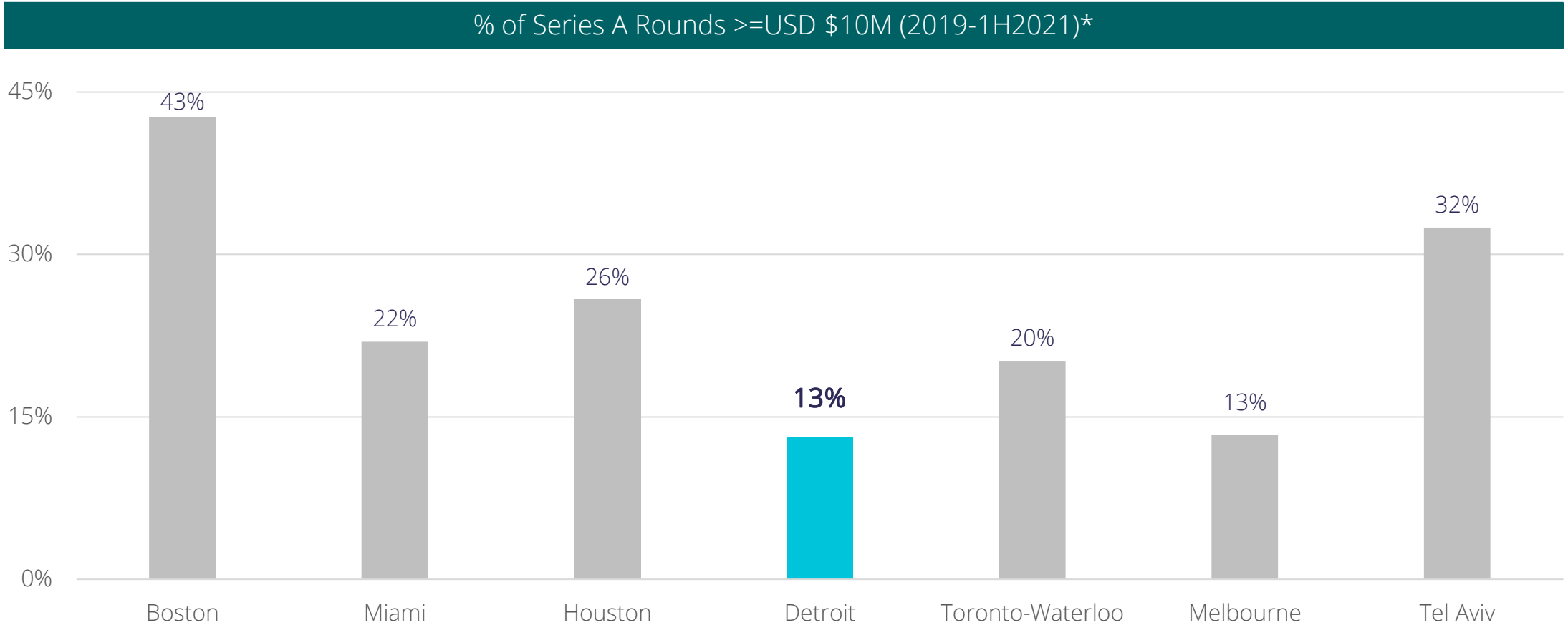
Deal Amount	Deal Count	Total Deal Amount
<= $1M	3	$1.3M
$1M - $2M	7	$11M
$2M - $3M	10	$23M
$3M - $4M	5	$17M
$4M - $5M	8	$35M
$5M - $6M	8	$42M
$6M - $7M	4	$25M
$7M - $8M	2	$15M
>=$8M	13	$178M
Total	**60**	**$347.3M**

The proportion of Series A-funded startups in Detroit has increased since 2019



* Not based on Startup Genome data -- Based on Pitchbook, Crunchbase and Dealroom and subject to normal issues with funding data

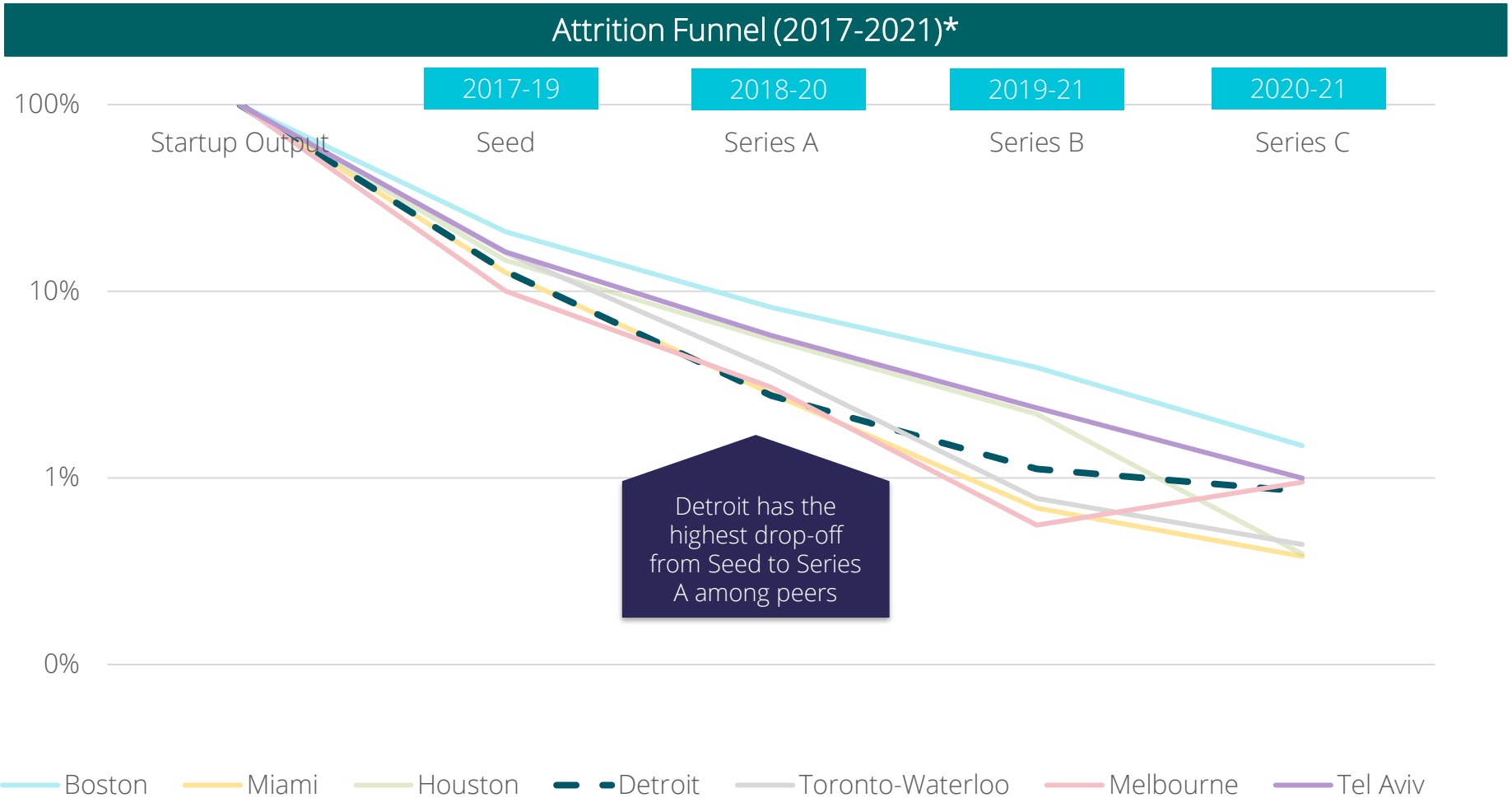
Detroit's startups raise a lower proportion of large-ticket Series A rounds compared to their peers



	Boston	Miami	Houston	Detroit	Toronto-Waterloo	Melbourne	Tel Aviv
Count of $10M+ Series A Rounds	154	16	16	5	45	12	112
Count of Series A Rounds	361	73	62	38	223	90	345

 * Not based on Startup Genome data -- Based on Pitchbook, Crunchbase and Dealroom and subject to normal issues with funding data

Detroit's gaps in the attrition funnel stem from a lower proportion of Series A-funded startups



- The Attrition Funnel is a graphical representation of the graduation rate of startups across funding stages
- It is essential in identifying the funding gaps in the ecosystem

* Not based on Startup Genome data -- Based on Pitchbook, Crunchbase and Dealroom and subject to normal issues with funding data

Angel groups and the Investor Community are not the strongest partners of local startups

Bias Against Mid-West Startups

"There is still an antiquated mindset around "companies raising capital in the Midwest, …local investors end up being condescending towards Detroit startups"

- Fintech Founder

Risk-Averse Behavior

"Angels and VCs are risk-averse, … Michigan angel groups are a great place to practice your pitch but a horrible place to raise capital"

- Series A-Funded Founder

Lack of Understanding

"HNIs[1] and wealth in Michigan is "old money", not tech-focused, … most angels have an SME[2] profile and don't know how to invest in innovative companies"

- Leading Investor and Angel

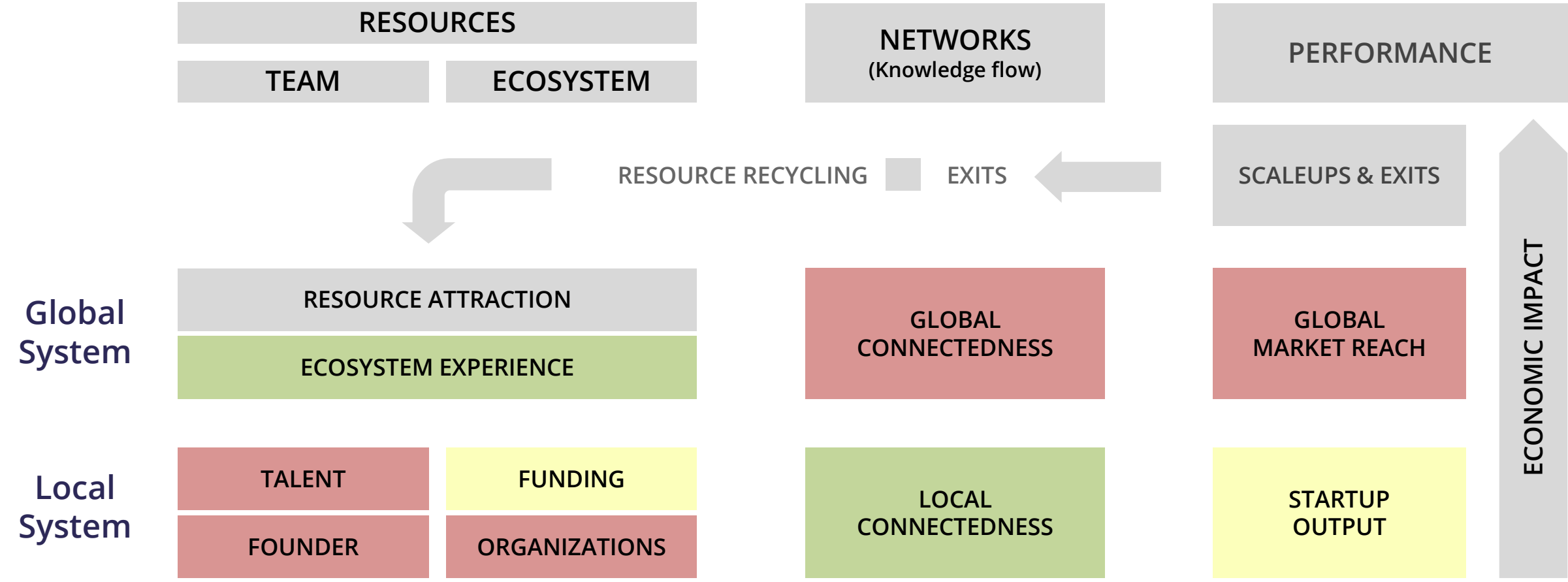
Few Local Investors

"There are maybe five solid angels in all of Michigan, …I can't think of a single startup that has raised capital exclusively in Michigan from Michigan investors"

- Leading Investor and Angel

1. HNI: High Net-worth Individuals
2. SME: Small and Medium-sized enterprises (non-startups)

Success Factor Summary: Detroit Founders are well-connected but key local system gaps remain



Above Phase Average

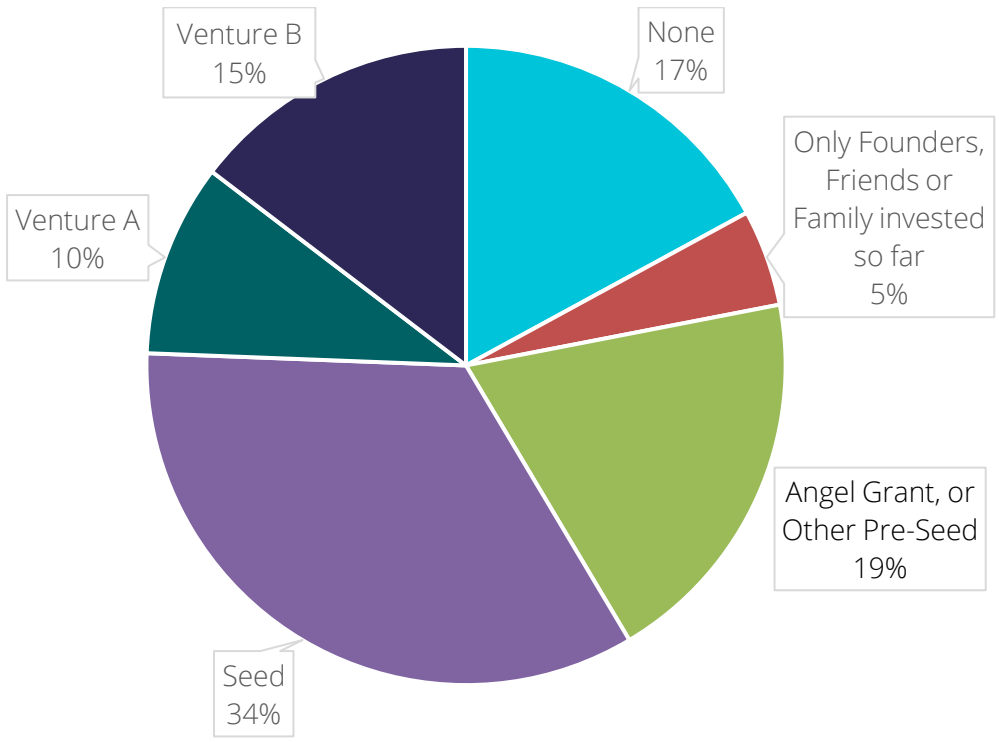
Similar to Phase Average

Below Phase Average

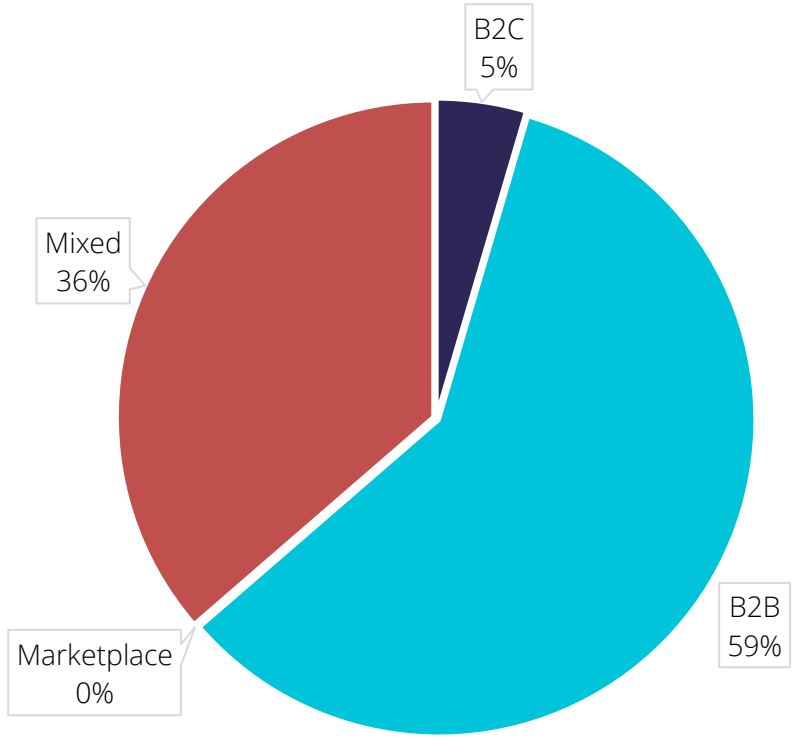
The Color-Coded Summary scores are based on the data collected from the survey and broken down to reflect the performance of Detroit across each Success Factor. As performance is comparative to peer ecosystems in the Globalization Phase, red is behind the phase average, yellow is in line with the phase average while green is ahead of the phase average

Breakdown of Funding Stages & Market Segments By Respondents

Funding breakdown of Detroit Startups



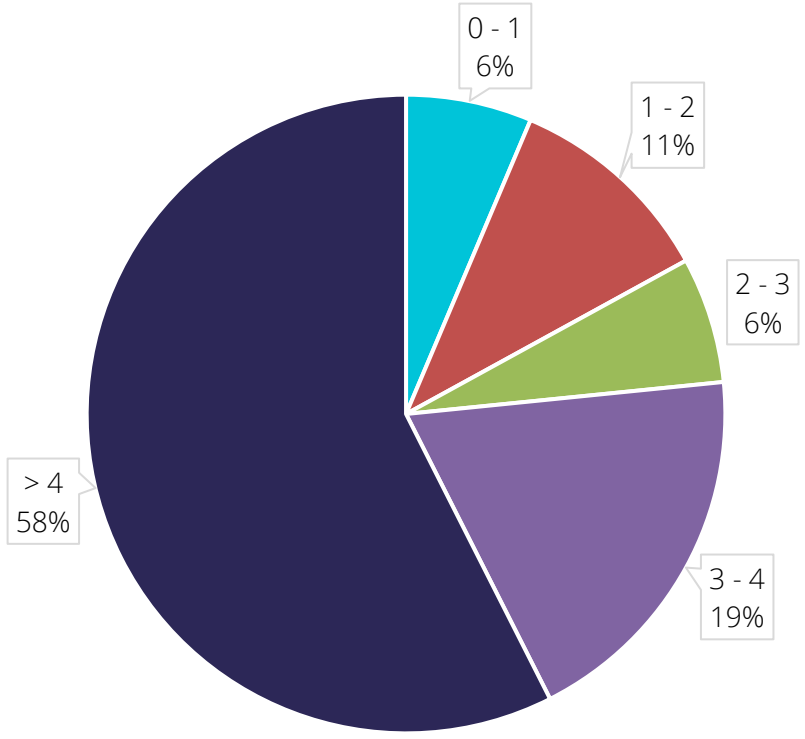
Segment breakdown of Detroit Startups



*B2C: "Business to Consumer", these startups' business model targets end consumers as customers
*B2B: "Business to Business", these startups' business model targets other businesses as customers

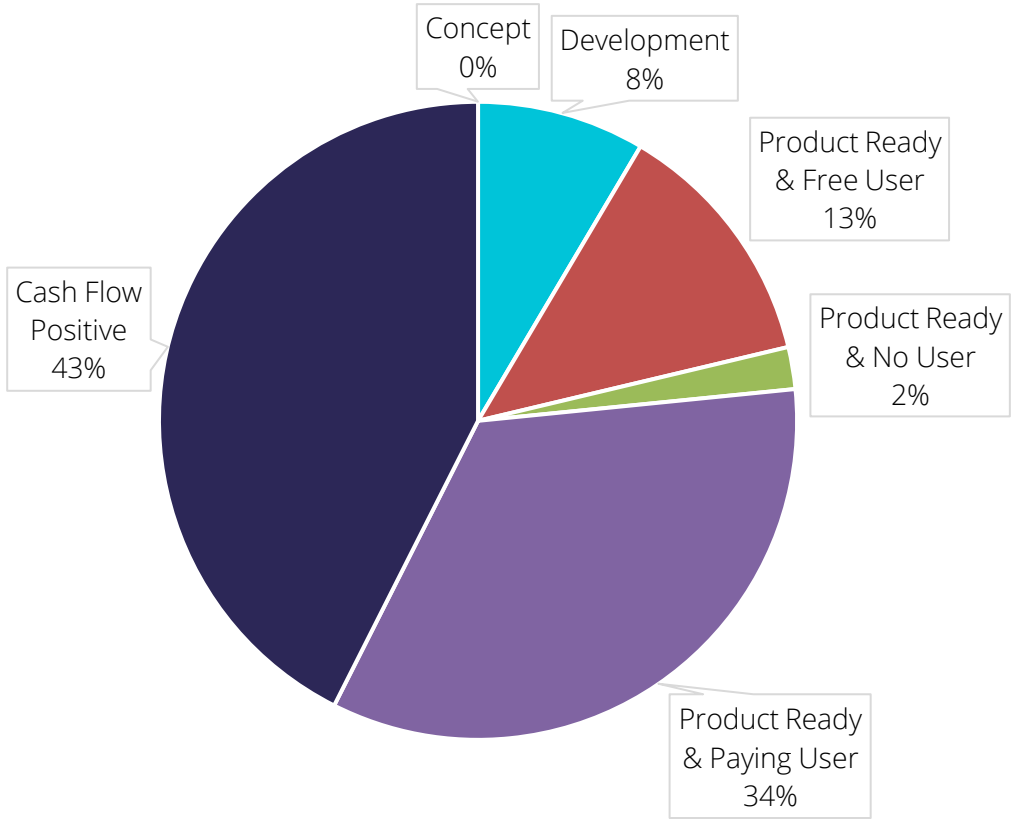
Breakdown of Startup Age & Stage By Respondents

Startup Age Breakdown of Detroit (in years)



The older average startup age shows that many startups in Detroit are either reaching a plateau in their growth or are experiencing a slower scaling journey than startups in other ecosystems

Startup Stage Breakdown of Detroit



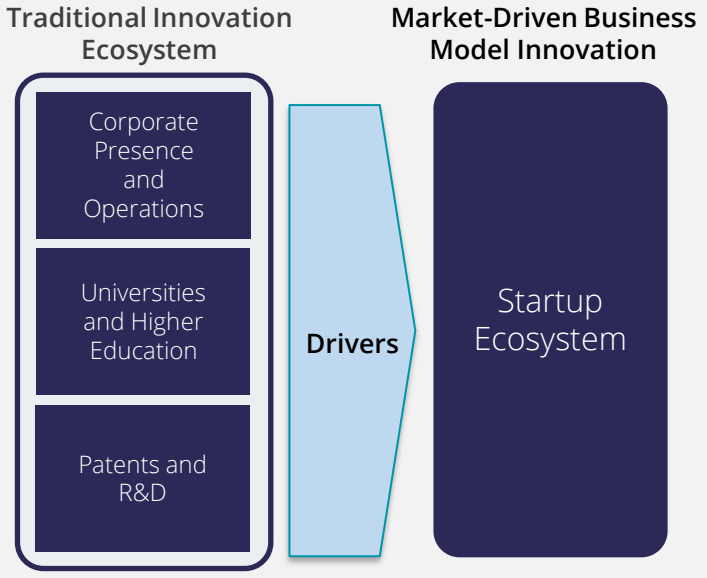
Positively, over 75% of existing founders claim to have an operational product currently in the market

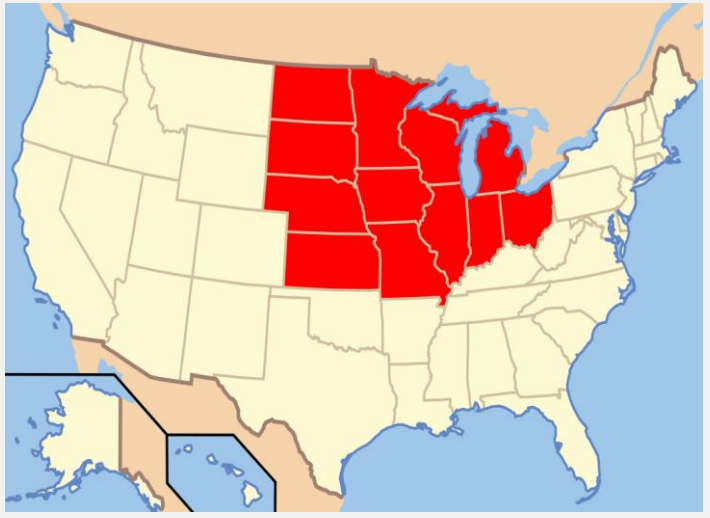
Agenda

1. Introduction
2. Ecosystem Lifecycle Phase
3. Success Factor Assessment
4. Innovation Edge
5. Way Forward

The **Innovation Edge** aims to identify key opportunities for sub-sector specialization based on local, regional and global potential

Local Ecosystem Strengths → **Positioning within Peer Group** → **Global Potential**



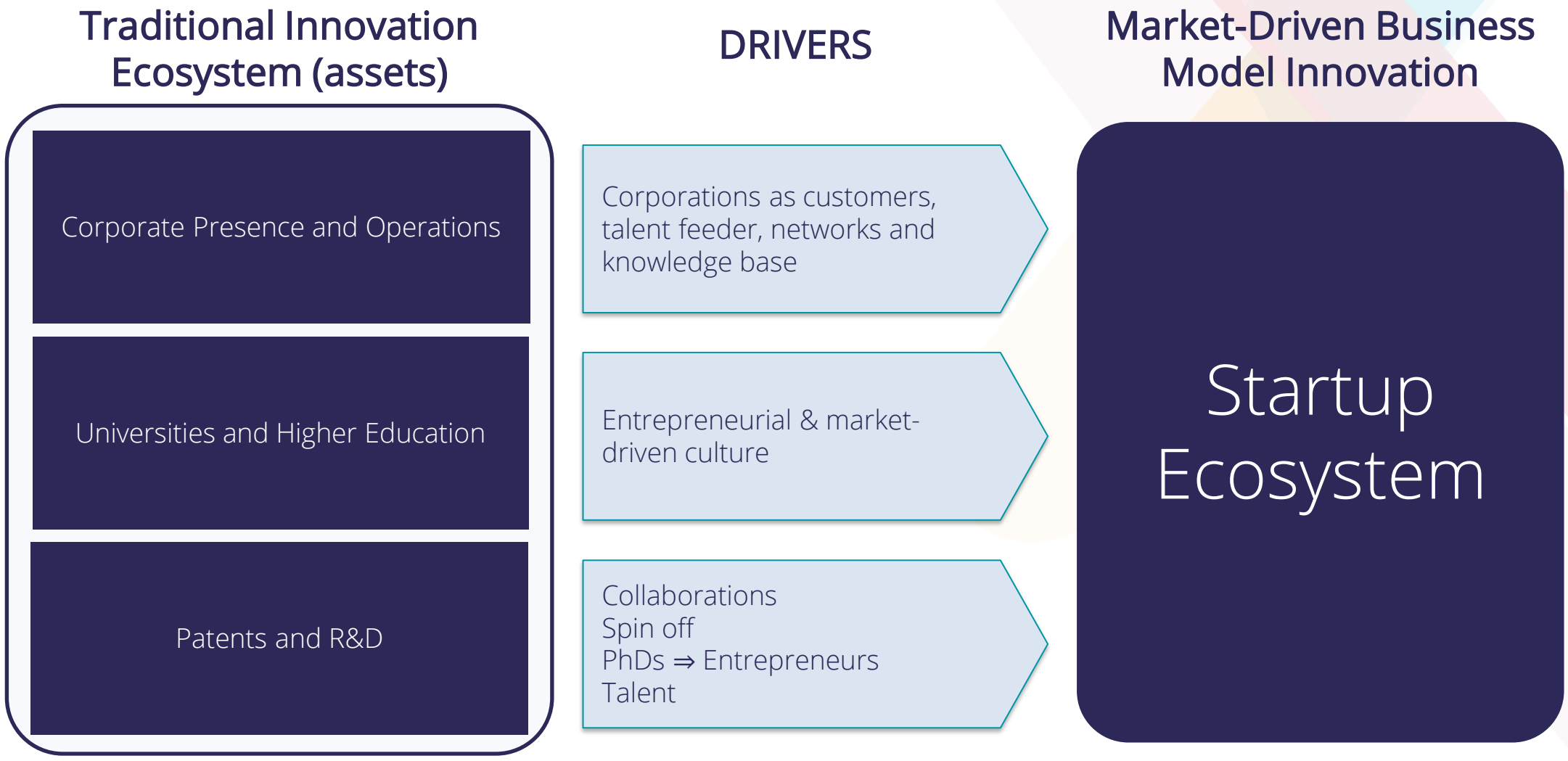


Assessment of the factors that assess the local startup ecosystem's strengths and potential

Comparison of local performance and assets to relevant peer ecosystems

Prioritization of top sub-sectors based on sub-sectors with highest local/regional strength and global potential

Methodology: Sub-sector specialization potential is assessed by evaluating and quantifying startup sector performance and assets



Startup Genome has deep capabilities in the assessment of 12 broad technology sub-sectors

- Adtech
- Agtech & New Food
- AI, Big Data & Analytics
- Blockchain
- Blue Economy*
- Cleantech
- Cybersecurity
- Edtech
- Fintech
- Gaming
- Industry 4.0
- Life Sciences

*Assessed for some parts of the analysis

Sub-Sector Tagging Process

Data Collection

Our Machine Learning Algorithm, which has been fine-tuned over the years, creates and analyzes a dataset of startups, deals, and exits based on the tags provided by our main data partners. (Crunchbase, Dealroom, and Pitchbook)

Keyword Tagging

We process all startups using domain names as their unique identifier and assign a sub-sector to each startup based on keywords tagged to each sub-sector. For example, “clean energy” or “water treatment” are tagged to Cleantech

Sub-Sector Scoring

We determine the most likely sub-sector(s*) a startup is classified within based on industry tags provided by databases and their business description

*Startups may be tagged to multiple sub-sectors depending on their activities and business models

Methodology: Tech Sub-Sectors: Definitions (1/2)

Sub-Sector	Definition	Example
Adtech	Adtech Includes different types of analytics and digital tools used in advertising and marketing.	Parrable
Agtech & New Food	Agtech captures the use of technology in agriculture and New food includes technologies that can be leveraged to food consumption related processes.	Banza
AI & BD	AI, Big Data & Analytics refers to an area of technology devoted to extracting meaning from large sets of raw data	Shoptelligence
Blockchain	Blockchain is a decentralized data storage method secured by cryptography, companies building this product on the top of this encrypted technology are defined as Blockchain companies	EmaginePOS
Blue Economy	The Blue Economy is the sustainable use of ocean resources for economic growth, improved livelihoods, and job creation while preserving the health of the ocean ecosystem.	Umitron
Cleantech	Cleantech consists of sustainable solutions in the fields of energy, Water, Transportation, Agriculture and Manufacturing that include other related energy and water treatment systems.	Intecells

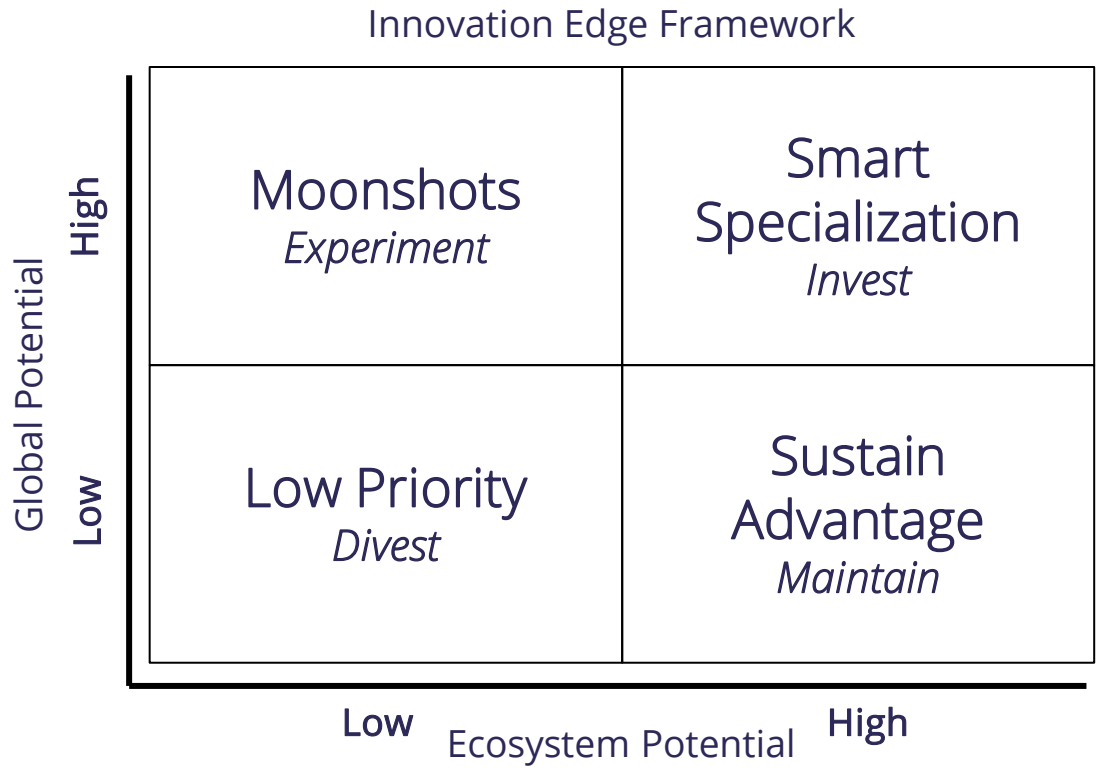
Methodology: Tech Sub-Sectors: Definitions (2/2)

Sub-Sector	Definition	Example
Cybersecurity	Cybersecurity is the body of technologies, processes and practices designed to protect networks, computers, programs, and data from attack, damage or unauthorized access.	Censys
Edtech	Edtech refers is devoted to the development and application of tools (including software, hardware, and intended to redesign traditional products and services in education.	Alchemie
Fintech	Fintech Includes startups which aim to improve existing processes, products, and services in the Financial Services industry (including insurance) via software and modern technology	Bankjoy
Gaming	Gaming involves the development, marketing, and monetization of video games, gambling machines, and associated services	Elm Park Labs
Industry 4.0	Industry involves startups working on smart technology to improve traditional manufacturing of products/services and robotics	May Mobility
Life Sciences	Life Sciences is the sector concerned with diagnosing, treating, and managing diseases and conditions. It includes startups in Biotech, Pharma, and Medtech (also referred to as medical devices).	Forever Labs

Tech Sub-Sectors: Rankings Methodology

Factors	Overview	Main Components
Performance	Measure of actual, leading, current, and lagging indicators of sub-sector performance	Exits, Startup Output (volume) and startup success within a sub-sector over 5 years
Funding	Analysis of the funding landscape for sub-sectors at the early and late stages	Volume of early and late-stage funding deals in a sub-sector
Talent	Assessment of the availability and quality of talent available to startups across sub-sectors	Quality and quantity of top subjects from Shanghai Rankings mapped to sub-sectors
Knowledge	Analysis of the patent activity in an ecosystem mapped to startup sub-sectors	Volume and complexity of over 100 patent classes mapped to sub-sectors
Experience	Long-term view of big-ticket exits and venture A deals in an ecosystem, as a proxy for team experience across sub-sectors	Large-ticket exits and Series A rounds in a sub-sector (10-year horizon)
Focus	Measure of concentration of the volume of startups in an ecosystem	Proportion of startups related to a sub-sector in an ecosystem
Legacy	Strength of traditional industries that relate to sub-sectors within an ecosystem	Market Cap and Employees in large companies within traditional sectors

Methodology: Design a focused sub-sector strategy based on local strengths and global competitive positioning

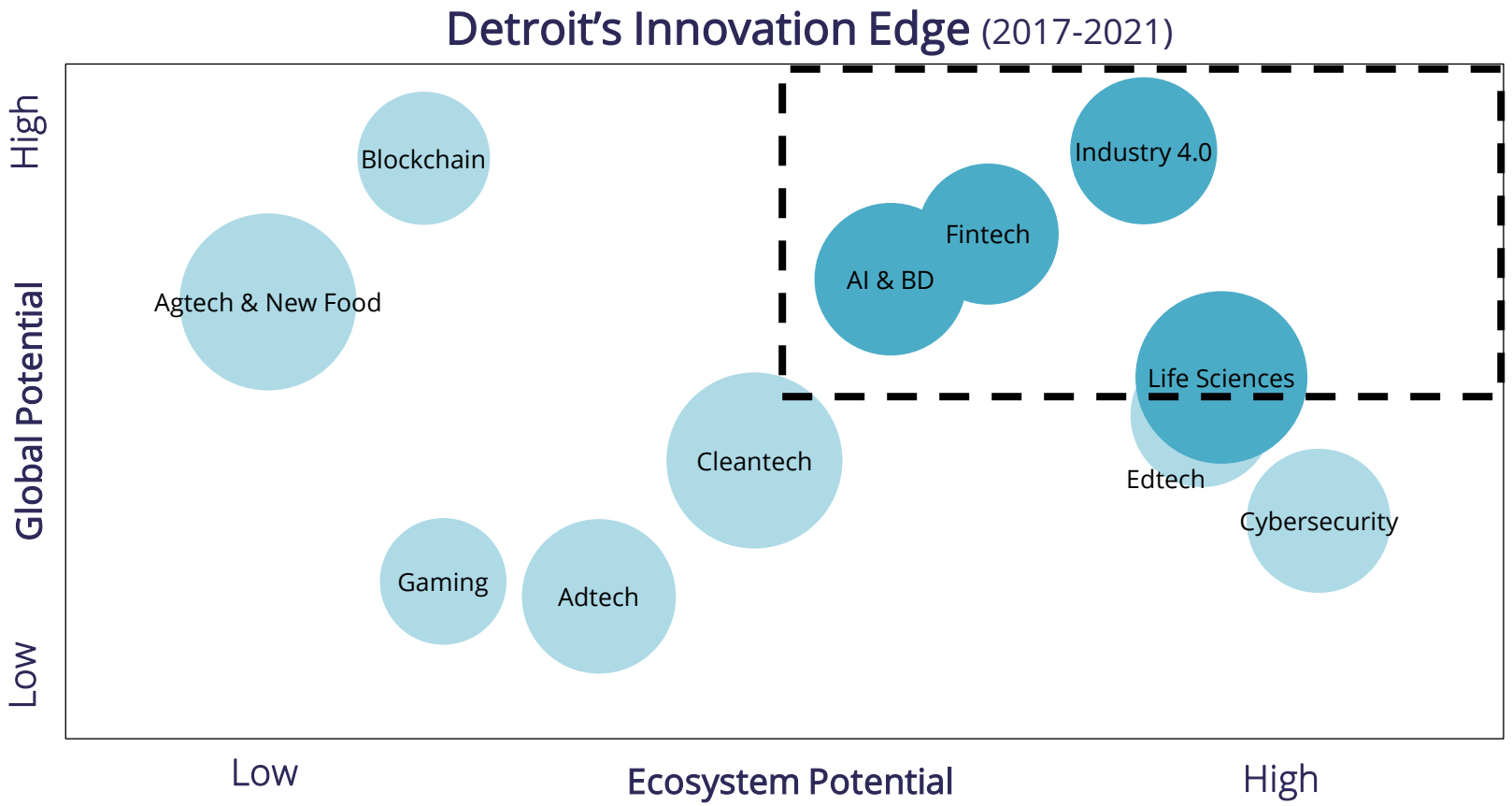


Overview

- The Innovation Edge Framework assesses sub-sector areas which perform well both locally and globally
- Utilize the Innovation Edge as guidance to assess high-potential areas

Ecosystem Potential: A numeration of Detroit's sub-sector performance across multiple factors (funding, exits, startup concentration, and traditional ecosystem factors such as R&D, corporations, and industries) relative to ~300 ecosystems
Global Potential: Scores relative to the performance of each sub-sector compared to one another in ~300 ecosystems globally in terms of Series A Funding and Exit growth over the last five years
Smart Specialization: Sub-sectors in this quadrant are both strong locally and seeing a global rise in performance, representing the strongest potential
Sustain Advantage: Sub-sectors in this quadrant are strong locally but less so globally. Nonetheless, these are areas not to be overlooked due to the local advantage
Moonshots: Sub-sectors in this quadrant are not strong locally but are rapidly increasing globally in performance. While local performance is currently weak, this represents an area to invest in

Detroit has high potential to develop specializations within Cybersecurity, Life Sciences, Industry 4.0, Fintech and AI & BD



Overview

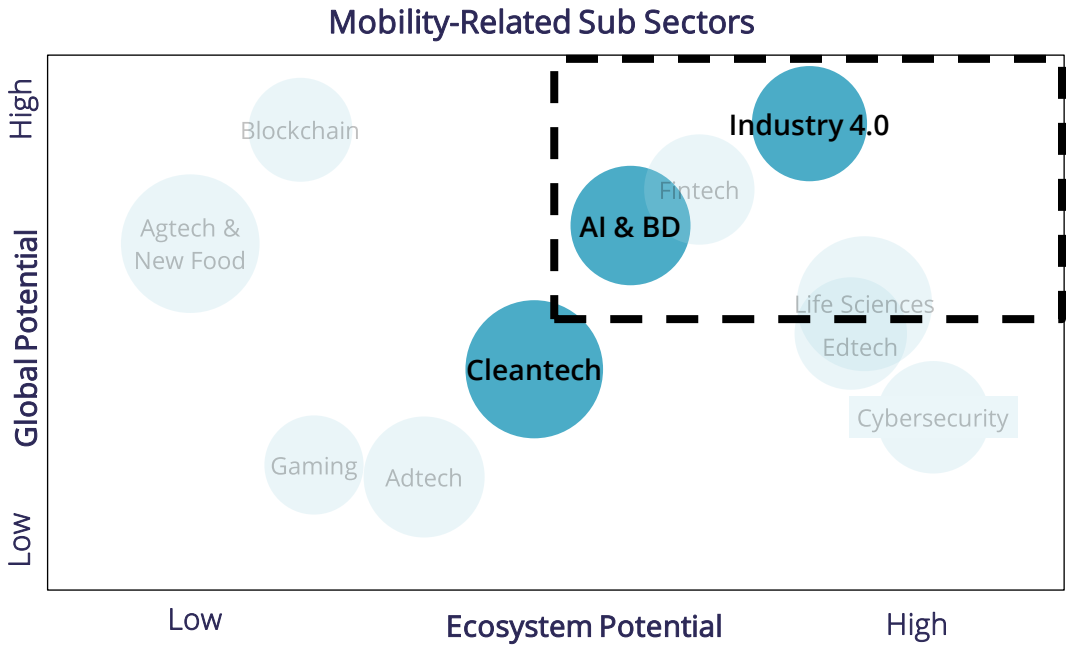
- **Cybersecurity** is the highest locally performing sub-sector and is a strong candidate to foster
- **Life Sciences** has potential as a leading sub-sector, although stiff competition exists within the region
- Anchored by local legacy corporations, strong potential for **Industry 4.0** exists both within Detroit and globally
- The need for a regional Artificial Intelligence and Big Data (**AI & BD**) strategy is critical to build on existing strengths and support growth of other sectors

Bubble size indicates local density of startups in a sub-sector compared to the global average. Larger density implies higher than average density or emerging cluster

Smart Specialization targets for highest-performing sub-sectors locally and globally

Based on inputs from global databases, including PitchBook, Crunchbase, Dealroom, USPTO, WIPO, Shanghai Rankings

Detroit has a strong legacy and overall performance in Mobility, which appears mainly in Industry 4.0, followed by Cleantech and AI & BD



Industry 4.0: Introducing sensors and software to optimize the manufacturing process of the Mobility sector

Example: Internet of Things (IoT) Solutions, Additive Manufacturing

Cleantech: Solutions specifically related to minimizing the carbon footprint of the Mobility sector.

Example: Energy Storage, Micro-Mobility, Fleetification, asset efficiency

AI & BD: Incorporating automated, robotic or analytical solutions to the Mobility sector.

Example: Autonomous Vehicles, Predictive Maintenance, In-Vehicle Experience

Bubble size indicates local density of startups in a sub-sector compared to the global average. Larger density implies higher than average density or emerging cluster

Smart Specialization targets for highest-performing sub-sectors locally and globally

Detroit exhibits relative strengths in Cybersecurity, Life Sciences, Edtech and Industry 4.0

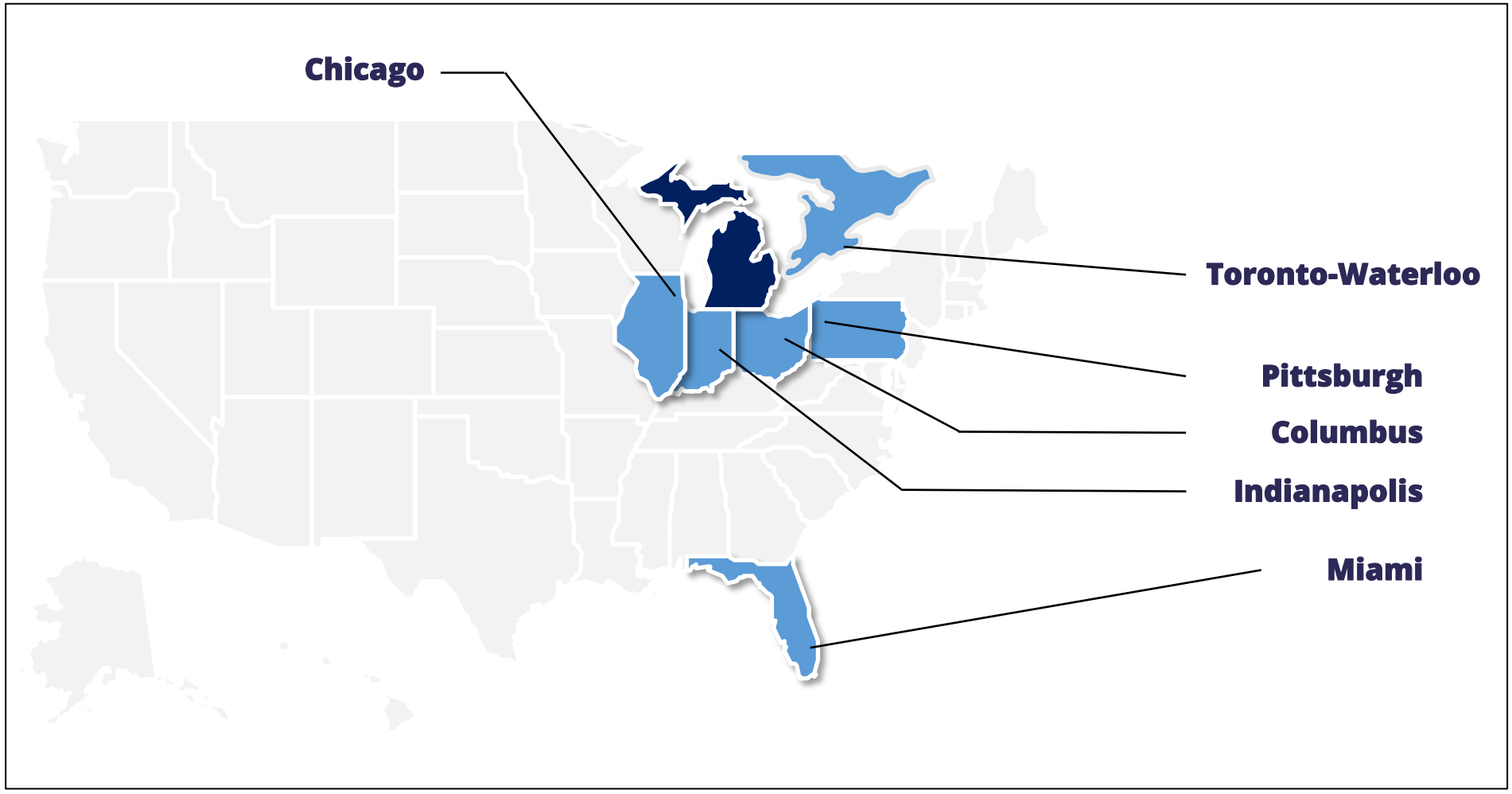
	Global Sub-Sector Ranks for Detroit out of 300 Ecosystems										
	Sub-Sector	Adtech	Agtech & New food	AI & BD	Blockchain	Cleantech	Cyber Security	Edtech	Fintech	Gaming	Industry 4.0	Life Sciences
	Overall	71	106	56	80	63	34	40	51	79	43	39
Startup Ecosystem	Performance	60	78	110	85	67	34	26	39	93	23	58
	Funding	92	88	50	89	59	33	58	73	71	50	32
	Startup Experience	59	59	42	50	29	32	37	55	81	44	24
	Focus	107	86	95	154	101	139	160	79	181	137	70
Traditional Innovation Ecosystem	Knowledge	103	107	98	108	83	99	123	60	130	88	112
	Talent	13	7	7	13	22	11	6	13	18	8	7
	Legacy		137			66			66		42	

Rankings are based on Startup Genome's Global Startup Ecosystem Report and sub-sector methodologies

Innovation Edge Key Takeaways: Industry 4.0 and Life Sciences emerge as the sub-sectors with the highest potential

The Tech Sector	• **Cybersecurity** is the best-performing sub-sector locally in Detroit and strong potential exists to build upon additional specializations based on **Life Sciences** and **Industry 4.0** • **Life Sciences** and **AI & BD** witnessed the highest aggregate funding levels locally, while Detroit performs better in **Industry 4.0** and **Cybersecurity** when compared to its peers • In terms of number and value of exits, Detroit performs higher than the peer average in **Cybersecurity** and **Industry 4.0**
The Traditional Innovation Ecosystem	• **Industry 4.0** is characterized by a strong traditional innovation ecosystem, accelerated by the presence of high-performing traditional Industries (by revenue) like Mobility and Manufacturing • **Life Sciences** and **AI & BD** are the best-performing sub-sectors concerning University performance for Detroit locally followed by **Industry 4.0** • Detroit witnessed the highest levels of patent development in fields related to **Industry 4.0** followed by **AI & BD**
Overall Ecosystem Summary	• Although Detroit performs well in **Cybersecurity** overall, the ecosystem has the potential to further specialize in additional tech sub-sectors, such as **Life Sciences** and **Industry 4.0** powered by ttraditional industries related to these sub-sectors • Additionally, there is a need in the ecosystem to create a regional Artificial Intelligence and Big Data (**AI & BD**) strategy, representing a critical horizontal enabler of other sub-sectors that would allow Detroit to build on existing strengths and support growth of other sub-sectors, such as **Industry 4.0**

We also looked at the key sector strengths within Detroit and benchmarked these against regional and comparable ecosystems



Relative to its peers, Detroit has sub sector strengths in Industry 4.0, Cybersecurity, Life Sciences and Cleantech

Indexed Scores for all sub-factors (Peer Average = 10)

		Adtech	Agtech & New Food	AI & BD	Blockchain	Cleantech	Cyber security	Edtech	Fintech	Gaming	Industry 4.0	Life Sciences
Startup Ecosystem	ESF Index	2.3	2.5	5.2	2.0	4.8	8.4	3.1	2.9	3.4	11.3	6.6
	LSF Index	0	5.8	5.9	2.7	10.0	14.3	4.8	3.8	0	17.7	13.0
	Exits Index	3.7	4.6	1.8	1.9	5.2	49.7	7.6	5.6	1.5	15.1*	5.6
Traditional Innovation Ecosystem	Corporate Fabric Score	-	5.1	-	-	16.0	-	-	7.7	3.8	15.9	6.2
	University Score	9.9	12.2	10.4	9.9	9.4	9.8	9.9	9.6	9.2	10.6	10.0
	Patent Score	10.5	5.7	12.2	9.4	12.5	9.4	5.9	9.8	6.1	12.8	9.4

*Excludes Rivian

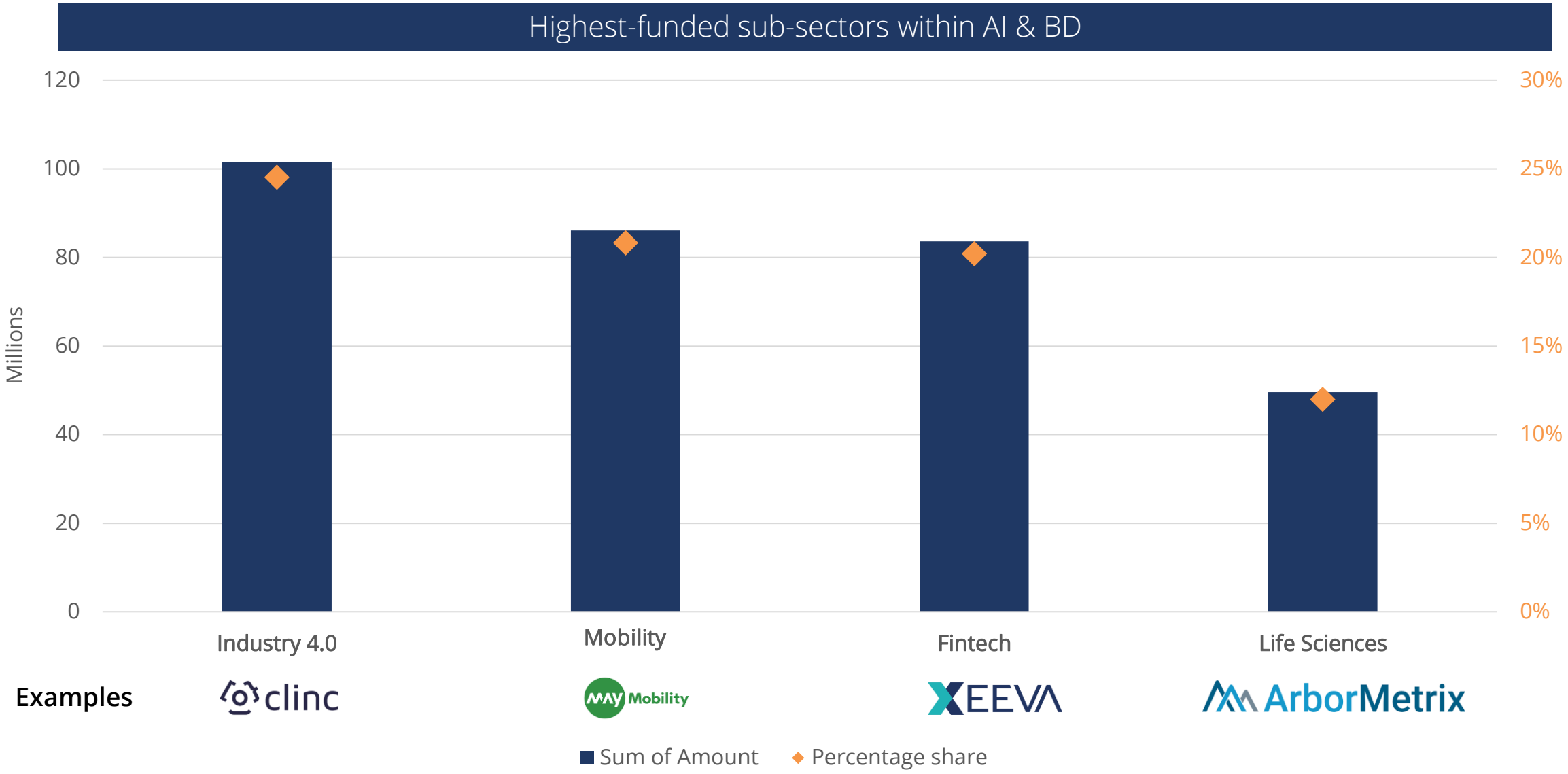
Detroit's Startup Ecosystem has seen the strongest funding performances in Life Sciences, AI & BD and Industry 4.0

Startup Sub-Sectors	Early-Stage Funding[1] in $M (2016-20)		Late-Stage Funding[2] in $M (2017-21)	
	Volume	Value	Volume	Value
Adtech	4	$4.3		
Agtech & New Food	4	$10.8	2	$42
AI & BD	82	$213.3	14	$208.4
Blockchain	9	$11.7	1	$10.3
Cleantech	15	$16.6	3	$6.9
Cybersecurity	20	$49.2	4	$152.3
Edtech	9	$11.4	3	$14.3
Fintech	25	$54.6	6	$111.8
Gaming	5	$11.4		
Industry 4.0	34	$141.4	9	$85.2
Life Sciences	53	$158.3	24	$377.7

Early-Stage Funding: Seed + Series A deals
Late-Stage Funding: Series B onwards

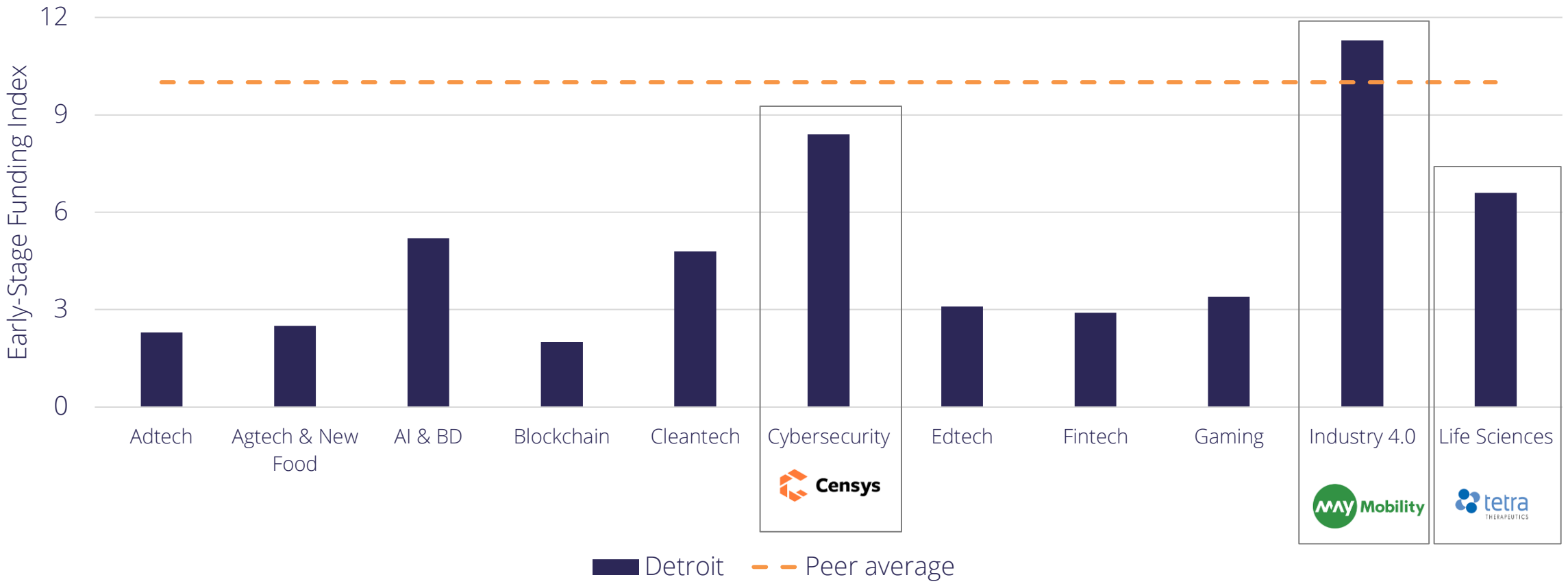
Source: PitchBook, Dealroom and Crunchbase

Detroit's best-performing sub-sectors within AI & BD are Industry 4.0 and Mobility, followed by Fintech and Life Sciences



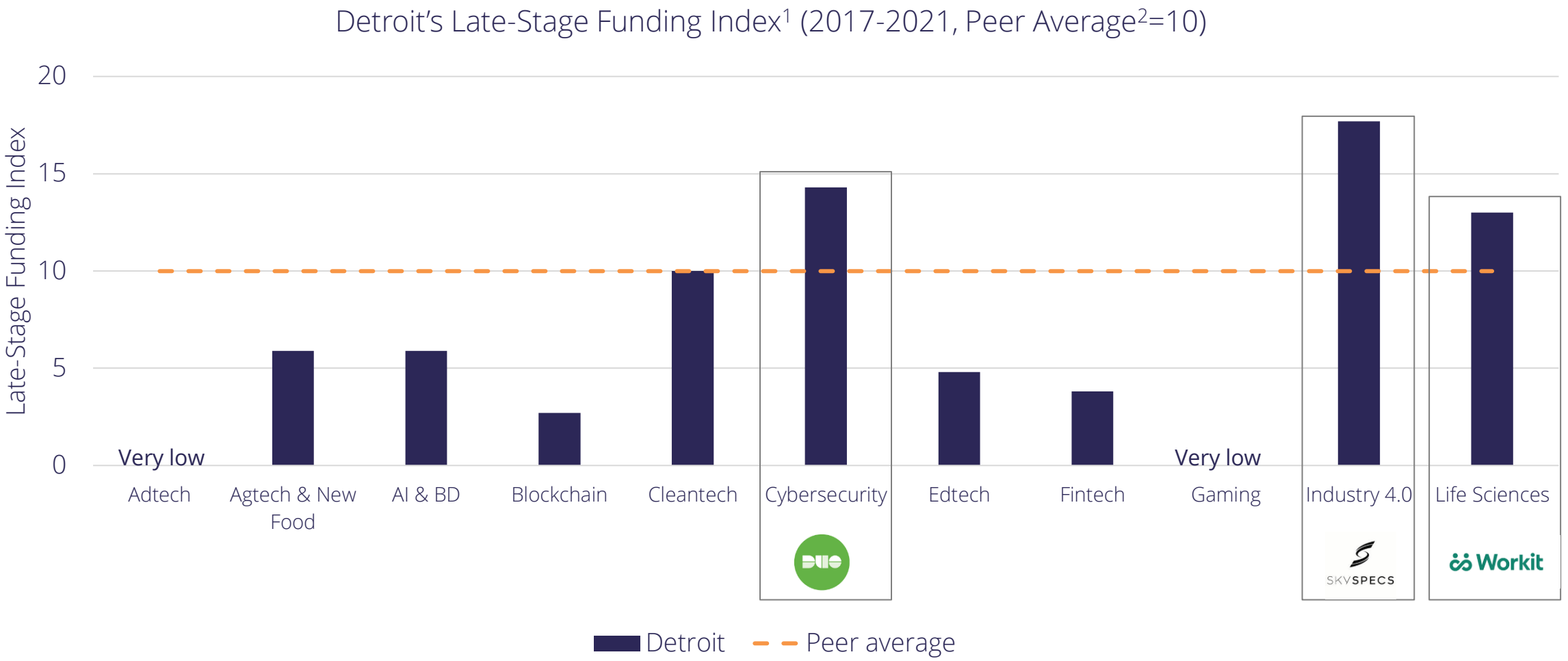
Detroit performs best in Early-Stage Funding in Industry 4.0, followed by Cybersecurity and Life Sciences

Detroit's Early-Stage Funding Index[1] (2016-2020, Peer Average[2]=10)



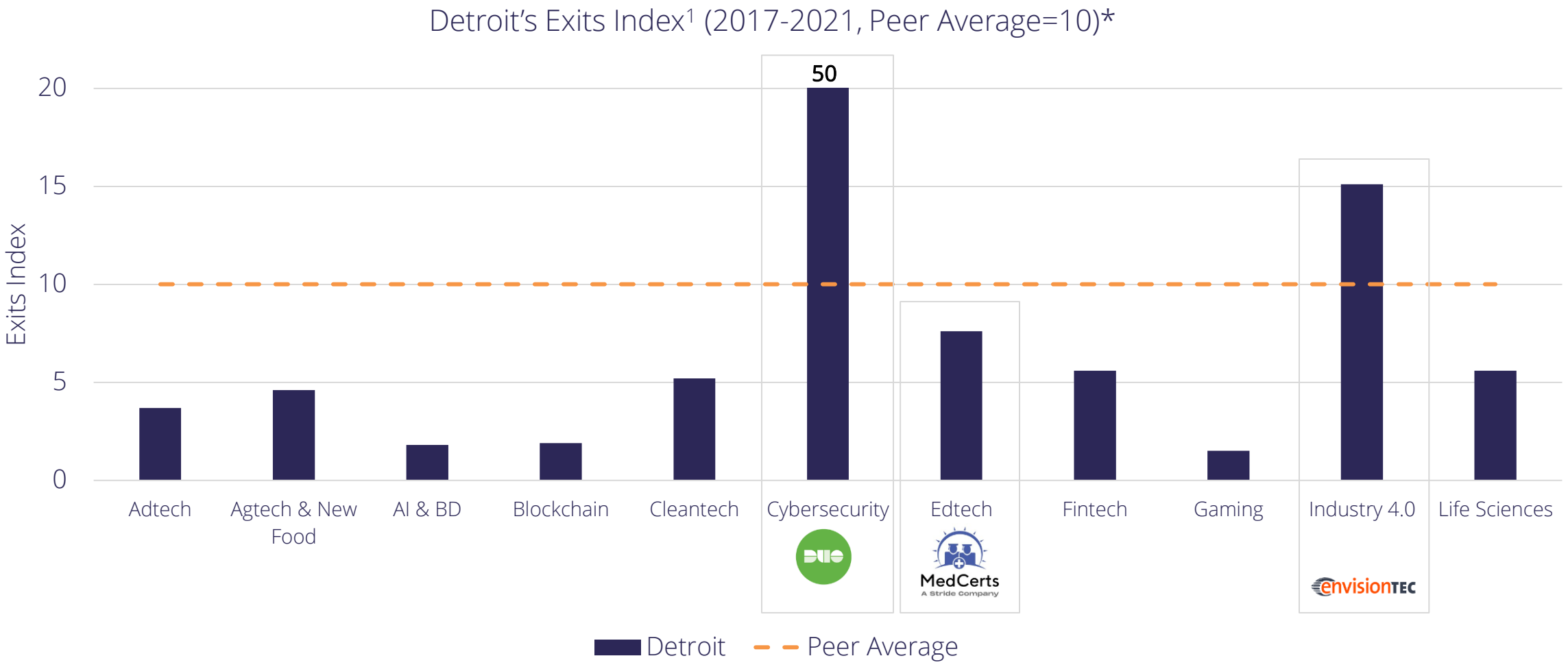
1. The Early-Stage Funding Index is calculated using volume (70%) and value (30%) of Seed and Series A deals in the ecosystem (Source: PitchBook, Crunchbase and Dealroom)
2. Peer Ecosystems include **Chicago, Columbus, Indianapolis, Miami, Pittsburgh, Toronto-Waterloo**

Detroit sees higher Late-Stage Funding performance than its peers in Industry 4.0, followed by Cybersecurity and Life Sciences



1. The Late-Stage Funding Index is calculated using volume (70%) and value (30%) of Series B+ deals in the ecosystem (Source: PitchBook, Crunchbase and Dealroom)
2. Peer Ecosystems include **Chicago, Columbus, Indianapolis, Miami, Pittsburgh, Toronto-Waterloo**

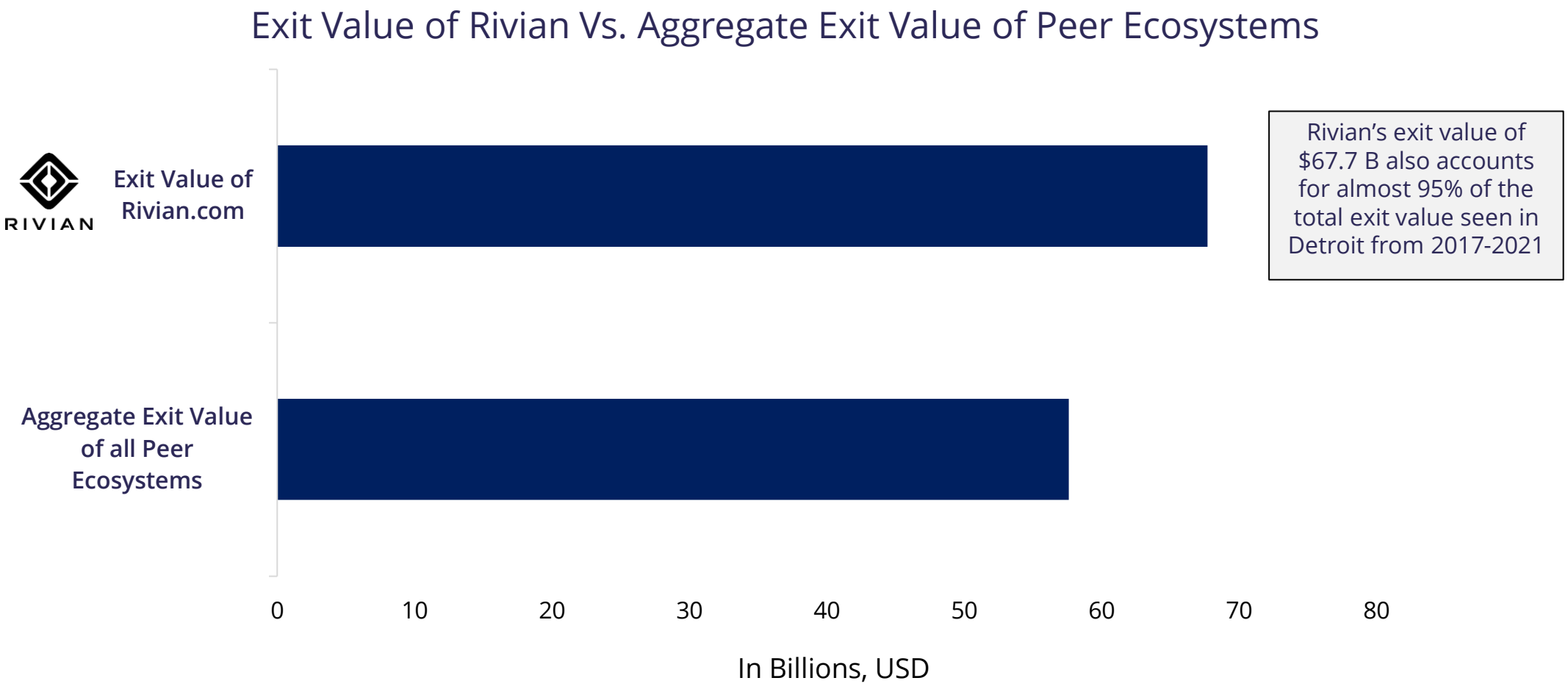
Detroit has witnessed higher exit activity in Cybersecurity and Industry 4.0



1. The Exits Index is calculated using volume (70%) and value (30%) of exit deals in the ecosystem (Source: PitchBook, Crunchbase and Dealroom)
2. Peer Ecosystems include **Chicago, Columbus, Indianapolis, Miami, Pittsburgh, Toronto-Waterloo**

* Excludes Rivian

Detroit saw its largest exit with the ~$68B Rivian IPO in 2021 by Rivian, greater than the exit value of all peer ecosystems in the last five years



Peer Ecosystems include Chicago, Columbus, Indianapolis, Miami, Pittsburgh and Toronto-Waterloo

Exit activity in Life Sciences and Industry 4.0 is the strongest, with velocity picking up in other sectors

Exit: IPOs and M&As (#)

	2017	2018	2019	2020	2021	TOTAL
Adtech		1		1	3	5
Agtech & New Food					1	1
AI & BD	2	1	1	1	2	7
Blockchain		1		1		2
Cleantech	1	1	3			5
Cybersecurity	1	3	3		1	8
Edtech		1		3	4	8
Fintech	3		2	1	1	7
Gaming					1	1
Industry 4.0	4	2			5	11
Life Sciences	6		3	5	5	19

Source: PitchBook, Dealroom and Crunchbase

Detroit has witnessed most of its $50M+ Exits in Life Sciences followed by Industry 4.0

$50M+ Exits (#) in Detroit (2017 – 2021)

Sub-sector	Count	Companies
Cybersecurity	1	DUO
Edtech	1	MedCerts
Fintech	1	GM CARD
Industry 4.0	2	envisionTEC, RIVIAN
Life Sciences	3	Celsee, NeuMoDx molecular, tetra THERAPEUTICS

Source: PitchBook, Dealroom and Crunchbase

The traditional innovation ecosystem provides growth pillars for the development of the startup ecosystem

Corporate Fabric

Corporate Fabric acts as a **backbone** for the startup ecosystem by providing legacy strengths, potential clients and subject matter expertise

University Lens

Universities **propel** the startup ecosystem by providing a flow of talent, knowledge and expertise in the ecosystem

Patent Creation and R&D

Patents filed in the ecosystem are a **measure of the innovation** and R&D happening in the ecosystem

Startup Genome

Corporate Fabric

Corporate Fabric Analysis Methodology: Analyzing the top 100 companies in the ecosystem by revenue

Step 1	Source the Top 100 enterprises (by revenue) in the ecosystem
Step 2	1. Leverage global databases and secondary research to assign corporations to their corresponding traditional sector 2. Industry sectors were assigned to their corresponding tech sub-sector. To ensure proper representation of each corporation's full scope of activities, weighted scores were assigned per sub-sector

Company	Industry	Legacy Industry to Sub Sector
Ford	Automotive	Industry 4.0 *(Primary)* Cleantech *(Secondary)*

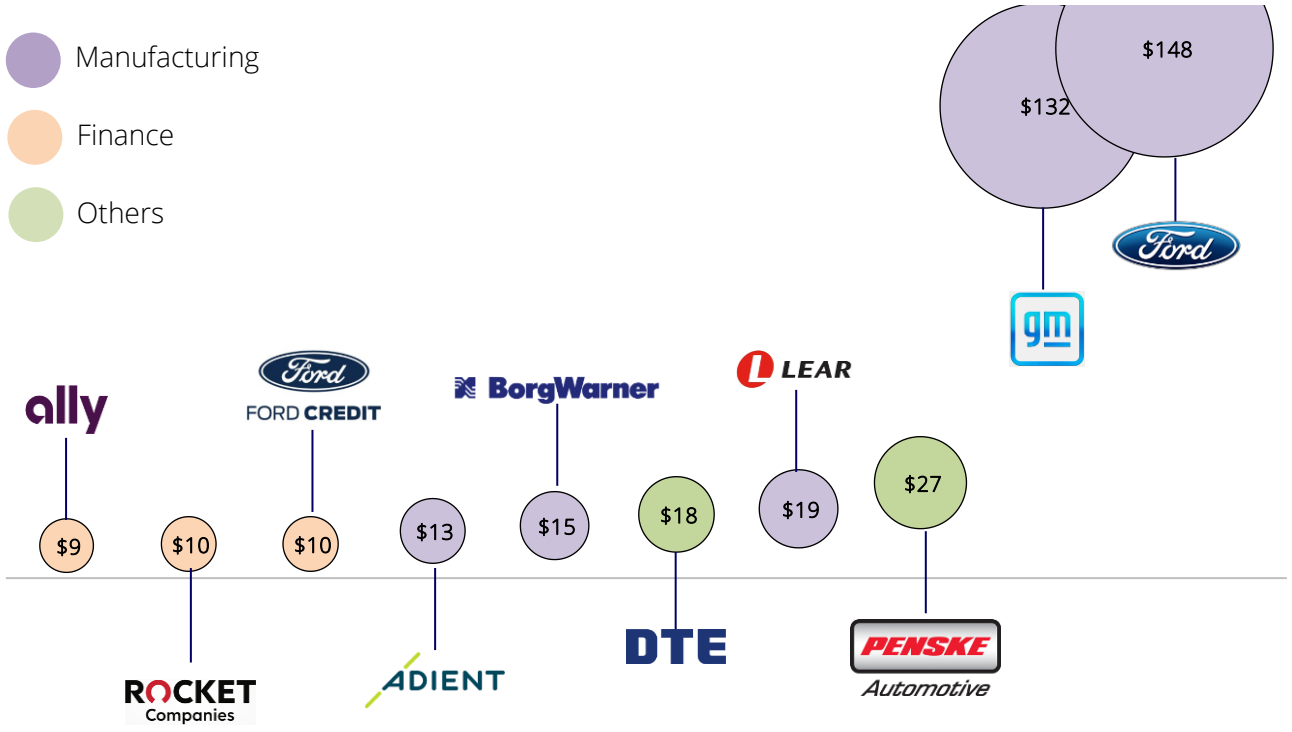
Step 3	We derived relative scores across three metrics for each Sub Sector: 1. Revenue (USD Million) 2. Number of Companies 3. Number of Companies with Revenue >50M USD

Corporate Fabric Analysis Methodology: Rationale

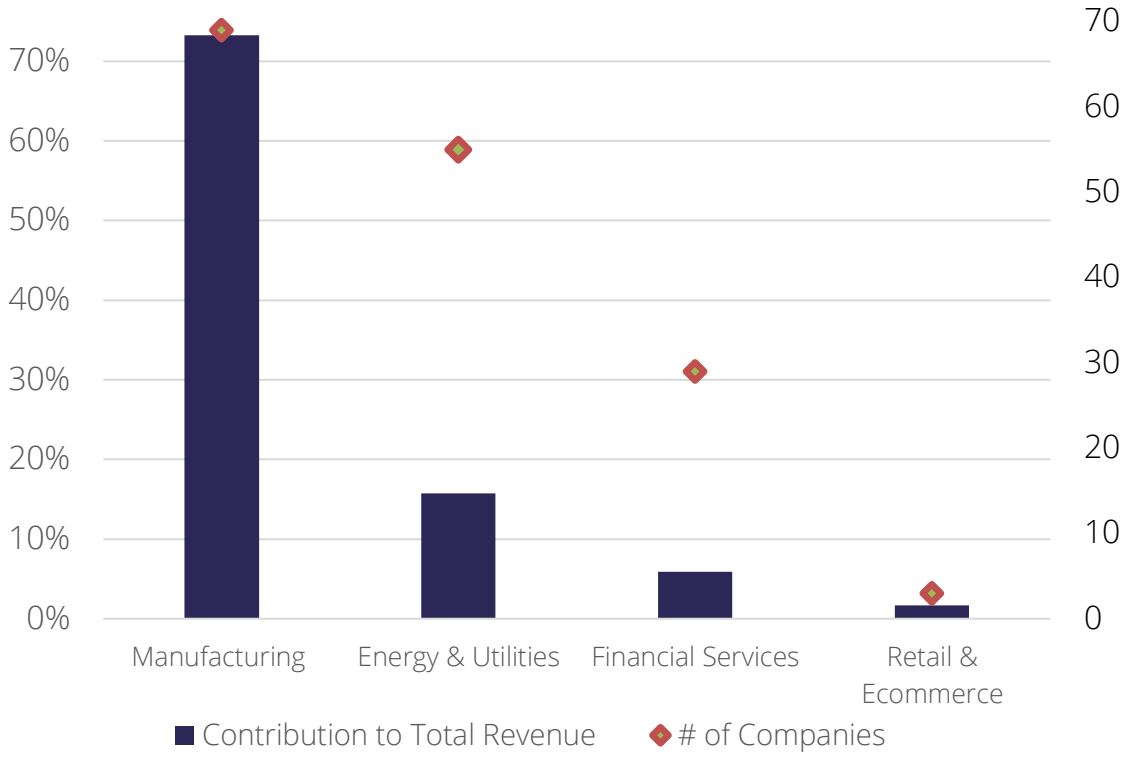
Identify existing sub-sector strengths	Key Success Factors for startups concern existing talent and expertise within an ecosystem. The presence of large companies in the ecosystem signifies that ample high-level experienced individuals, both in terms of executives and employees, are present and will benefit startups in the corresponding sub-sector
Define the local corporate market	Startups are on a journey for product-market fit. Looking at the existing corporate environment in their own backyard is relevant to understand what opportunities exist for founders to target, broken down by sub-sector
Collaboration and exit targets	Many large companies seek to work with startups to increase their innovative capacity and their competitiveness. They do this by either launching joint projects with startups or acquiring outright innovative businesses, thus giving founders their long-sought-after exit opportunity

Detroit's Corporate landscape is dominated by Transportation and Manufacturing companies

Detroit's ten biggest companies by Revenue ($B)



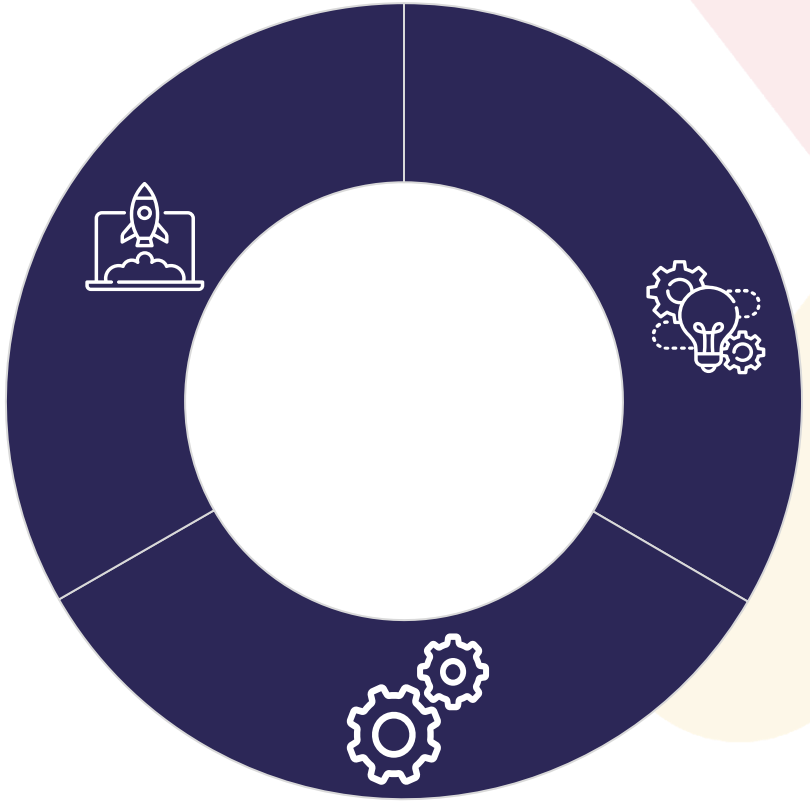
Top 5 Traditional Industries by Revenue



The 2 largest companies in Detroit by revenue are much bigger than the rest and are driving all the value created by the ecosystem's concentrated transportation sector.

Corporate/Legacy Fabric Analysis: Quantification Framework

Anchors
Number of companies in the sub-sector with Revenue >50M USD (33.3%)

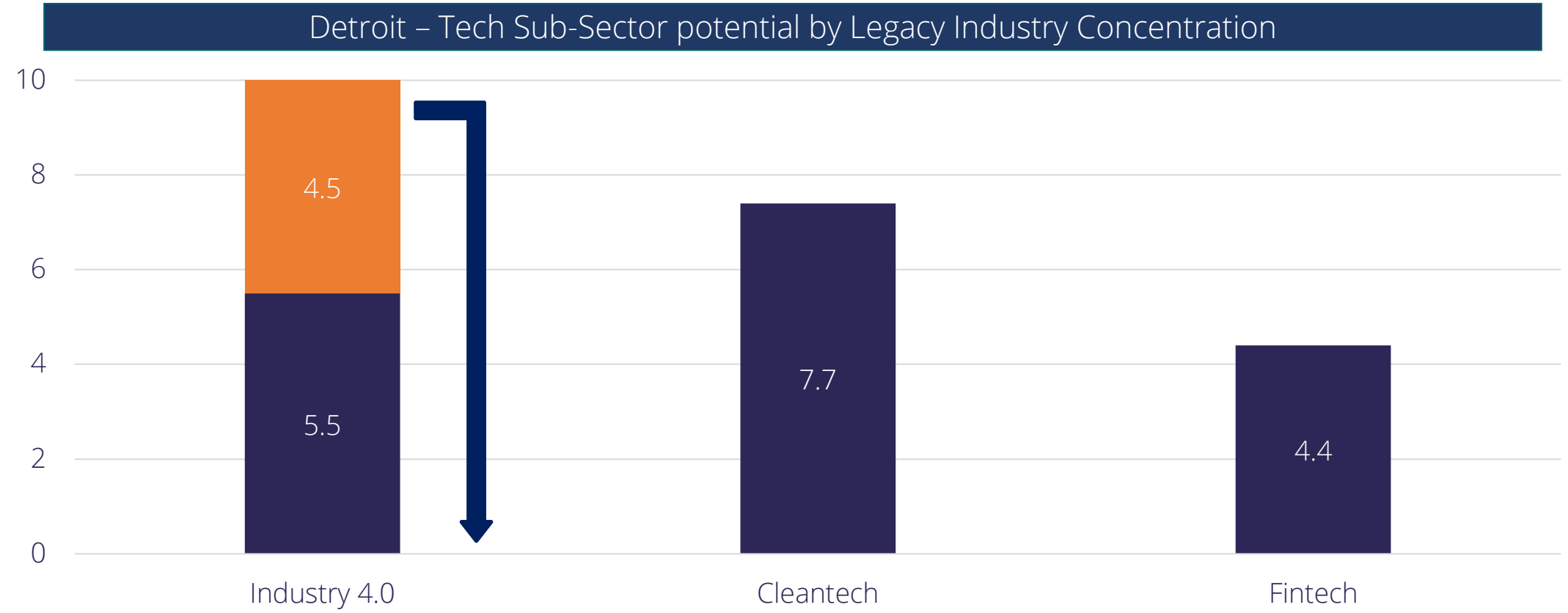


Volume
Number of companies per sub-sector (33.3%)

Value
Revenue of companies in USD Million per sub-sector (33.4%)

The biggest corporations in Detroit are associated with Industry 4.0, followed by Cleantech and Transportation

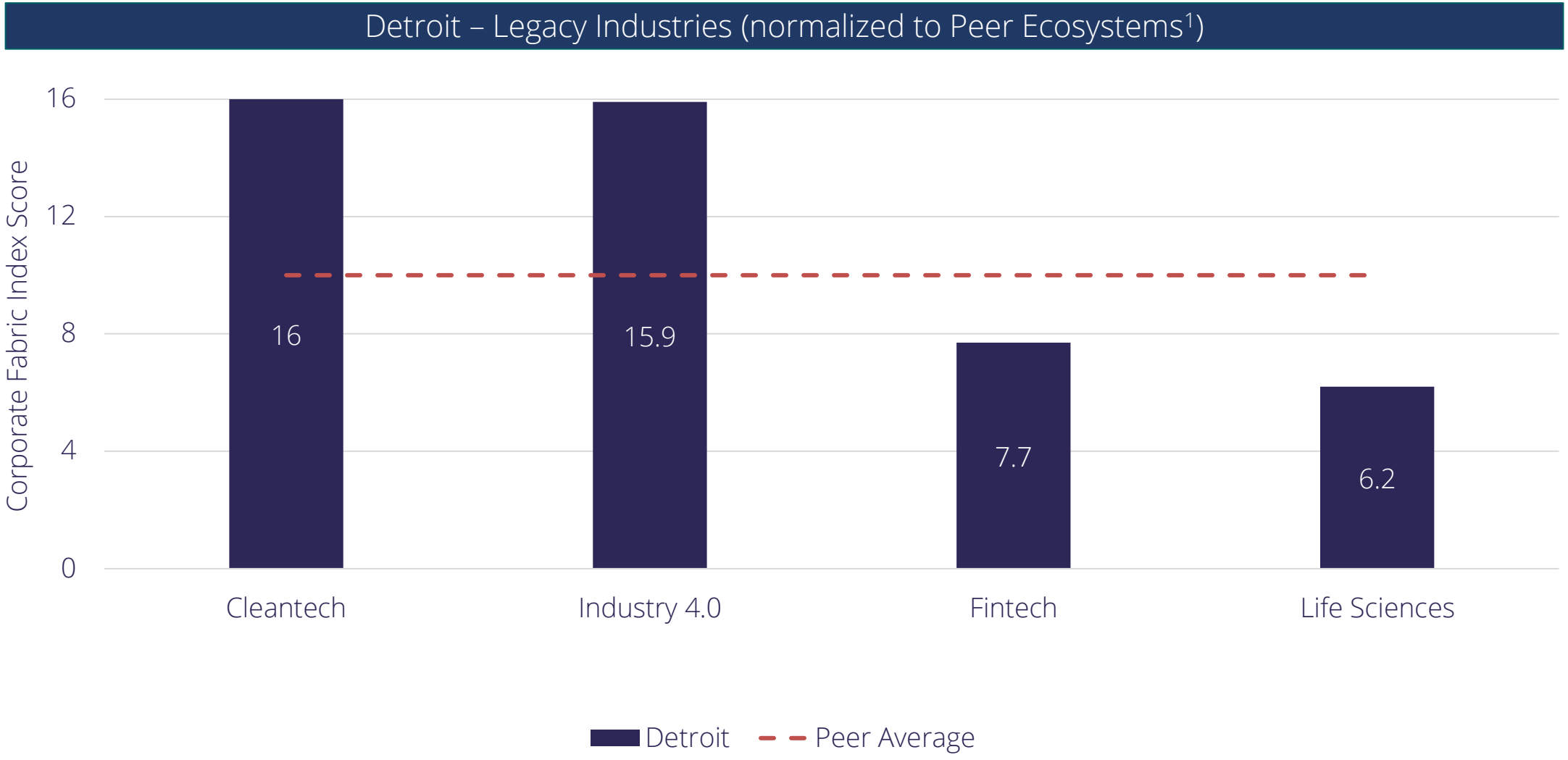
Relative index for concentration of Legacy Industries within an ecosystem (10 = highest concentration)



The highest volume of legacy industries in this sector

Disproportionately driven by Ford and General Motors

Compared to its peers, Detroit sees a higher concentration of traditional companies in Cleantech and Industry 4.0



 1. Peer Ecosystems include **Chicago, Columbus, Indianapolis, Miami, Pittsburgh, and Toronto-Waterloo**

Startup Genome

University Lens

University Strengths Analysis Methodology: Linking courses to sub-sectors and analyzing their strengths

Mapping University and Courses

1. Identification of top universities in the ecosystem
2. Mapped a set of **54 courses** to the sub-sector they would have an impact on.
   For Example: Fintech will be mapped to Computer Science, Finance and Economics, etc.

Analyzing University Performance

For each university and its courses, we sourced the following scores:

A) Total Score[1]
B) CNCI Score[1]
C) Top Score[1]
D) Number of Institutions
E) Number of Courses

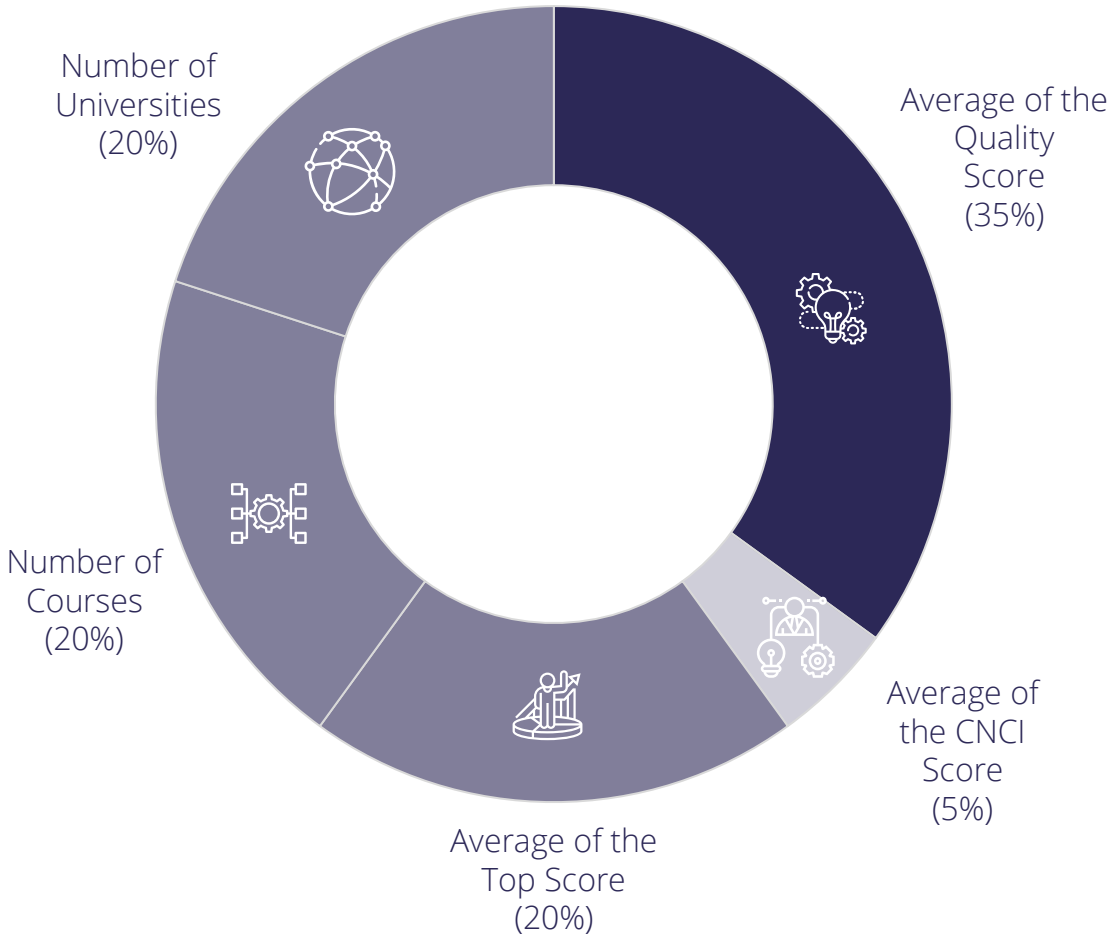
Note: All scores are sourced from Shanghai Rankings

Indexing to Peer Average

For each sub-sector, we calculated the relative scores across all highlighted metrics

1. Data sourced from Shanghai Rankings

University Strengths Analysis Framework



Shanghai Index Metrics Defined

Universities appearing in the Shanghai Index are scored in the following categories:

Total Score/Quality Score*: The total score is the linearly weighted sum of 6 indicator scores derived from the corresponding raw data. The indicators are as follows: Alumni score, (Award) score, Citation Score (CNCI), Nature and Science Publications, Science Citation Index, and publication scores divided by the number of full-time staff per department

CNCI Score: The ratio of citations of papers published to the average citations of papers in the same category, organized by year and category of journal publication

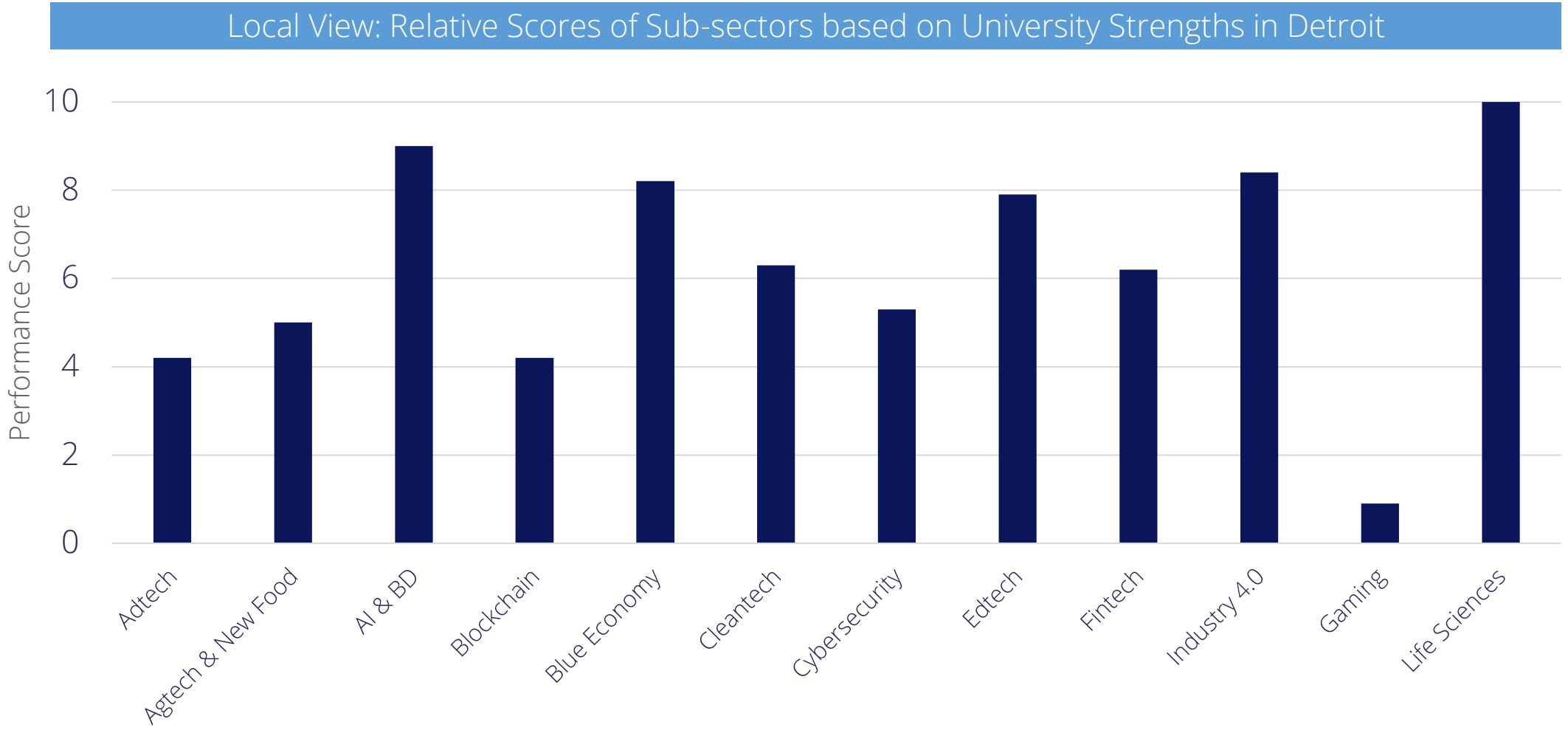
Top Score: Number of papers published in Top Journals in an Academic Subject for an institution. Top Journals are nominated by distinguished scholars through the Shanghai Ranking Academic Excellence Survey.

Number of Universities: The unique counts of leading universities from an ecosystem ranked by Shanghai Rankings

Number of Courses: The distinct number of programs or disciplines within an ecosystem ranked by Shanghai Rankings

* Only the courses in the 100 rankings globally are assigned a total score.

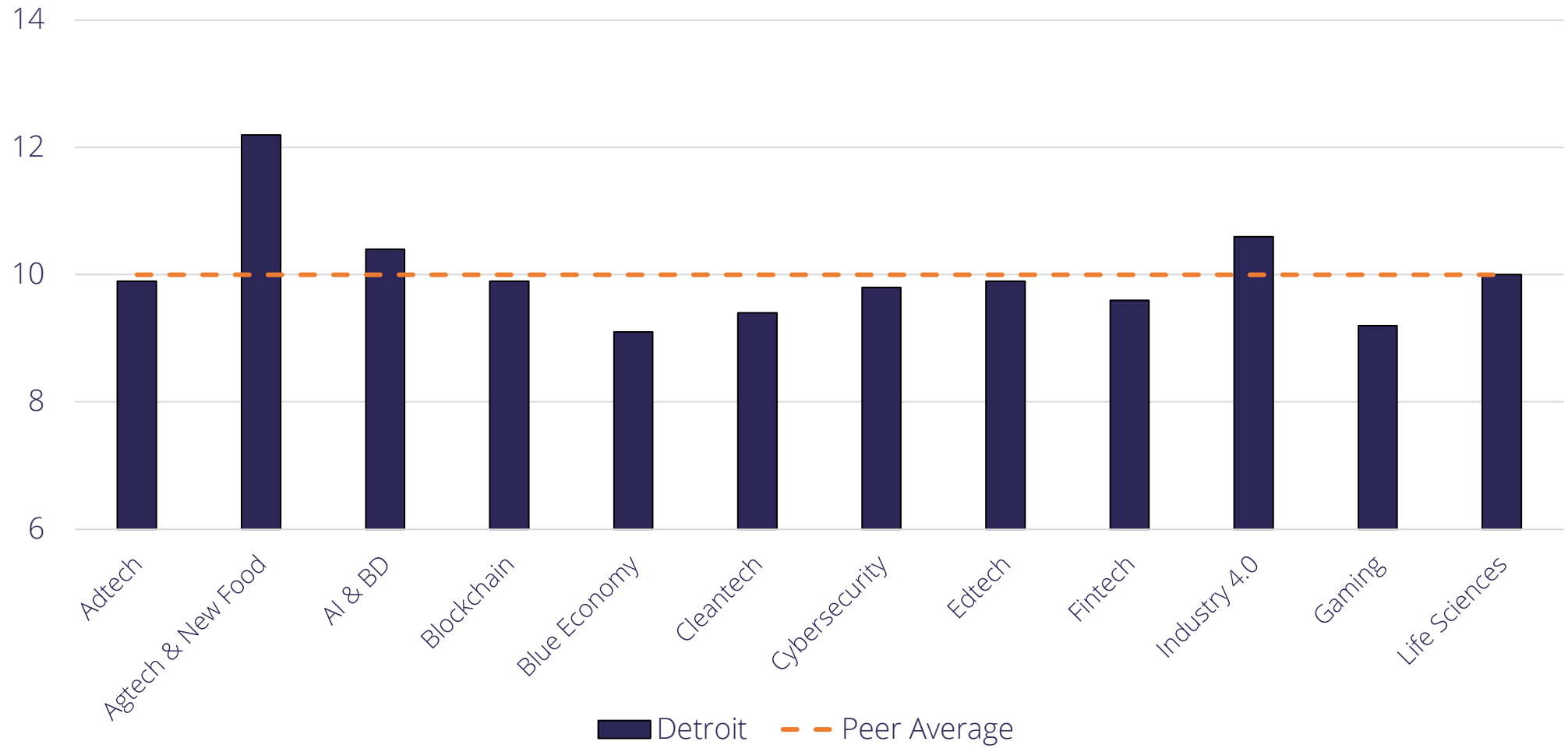
Within Detroit, relative university strengths are in Life Sciences, AI & BD, and Industry 4.0



All university strengths per sub-sector are compared and scored against the highest performing sub-sector in Detroit on this lens, which scores 10

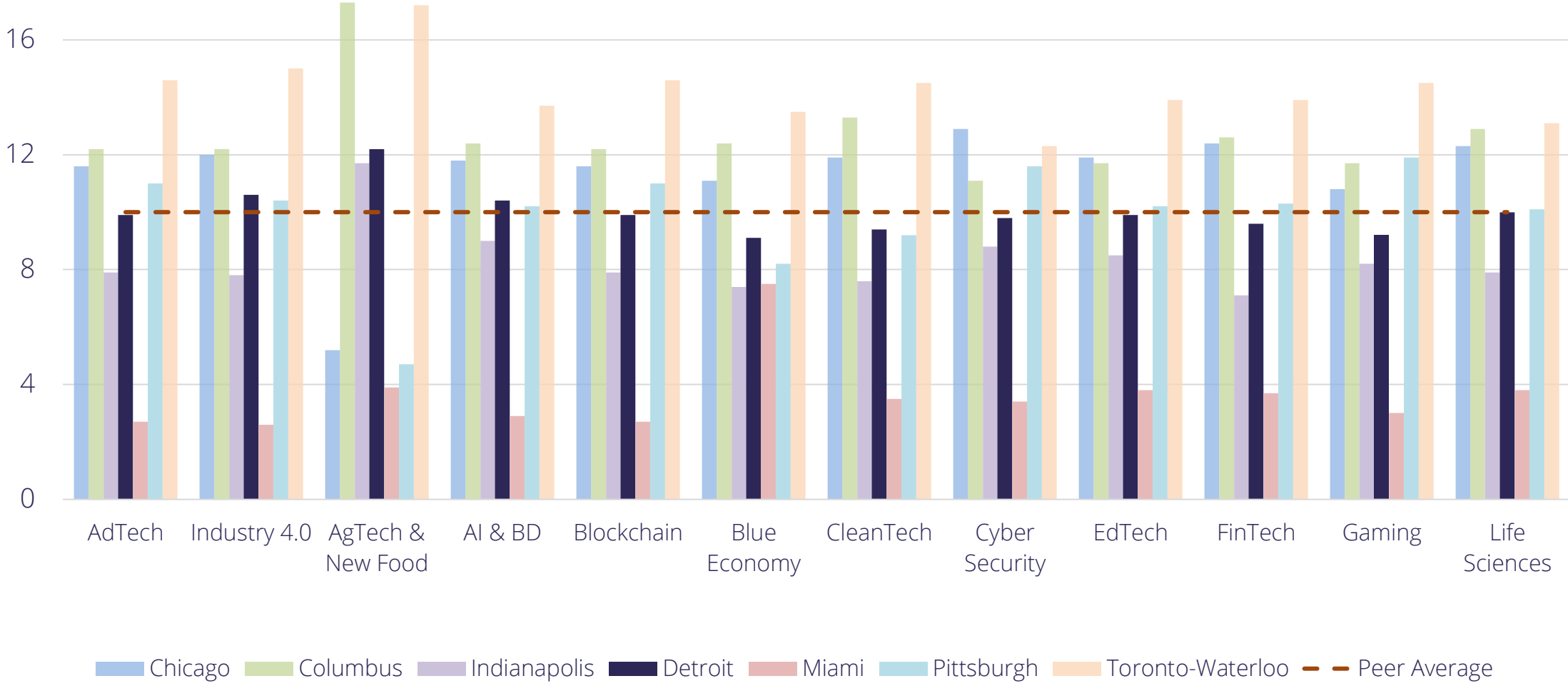
Relative to peer ecosystems, Detroit has stronger performance in Agtech & New Food, Industry 4.0, and AI & BD

Scores for Universities in Detroit per Sub-Sector (Normalized to Peer Average)



Relative to its peer ecosystems, Detroit is positioned in the middle of the pack in terms of university performance

Scores for Universities per sub-sector (Normalized to Peer Average)



Startup Genome

Overview of Patent Creation

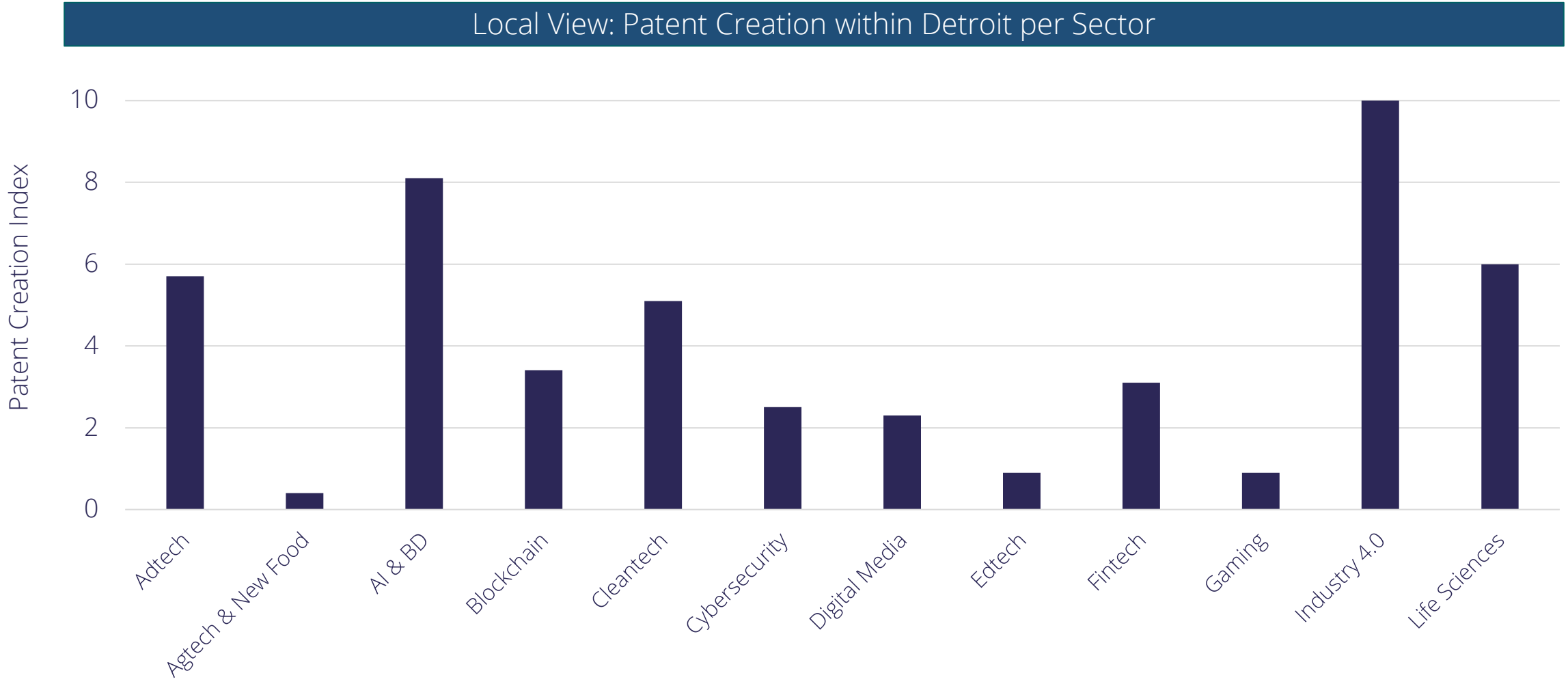
Patent Creation and R&D Analysis Methodology

1. Collected the patent creation data from WIPO and USPTO by applicant location and date for the past 10 years

2. Mapped the patents to the relevant sub-sector using IPC (Internal Patent Classification) codes

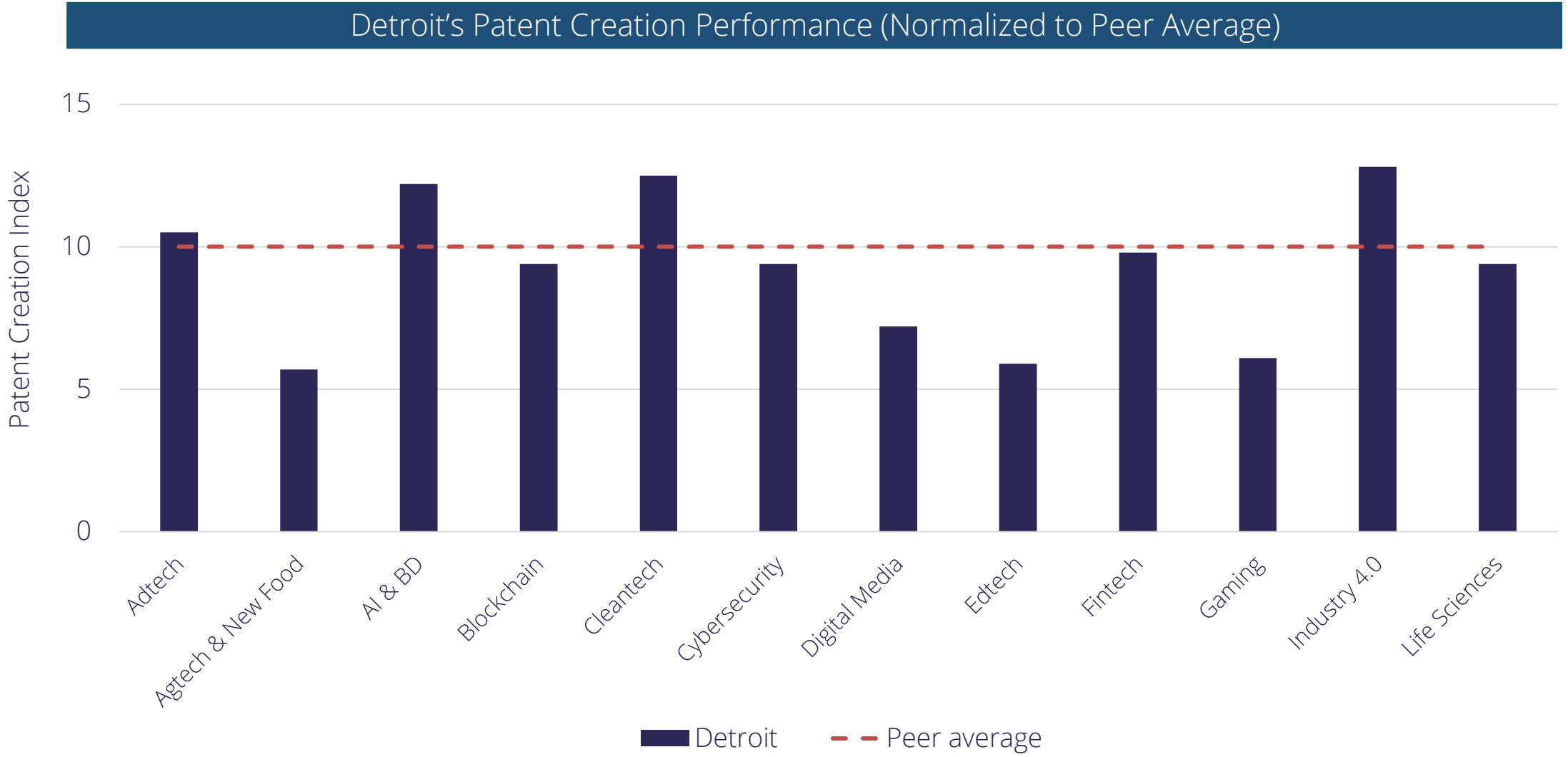
3. For each sub-sector, we then calculated the scores based on the number of patents filed

Detroit local patent creation is strongest in Industry 4.0, followed by AI & BD and Life Sciences

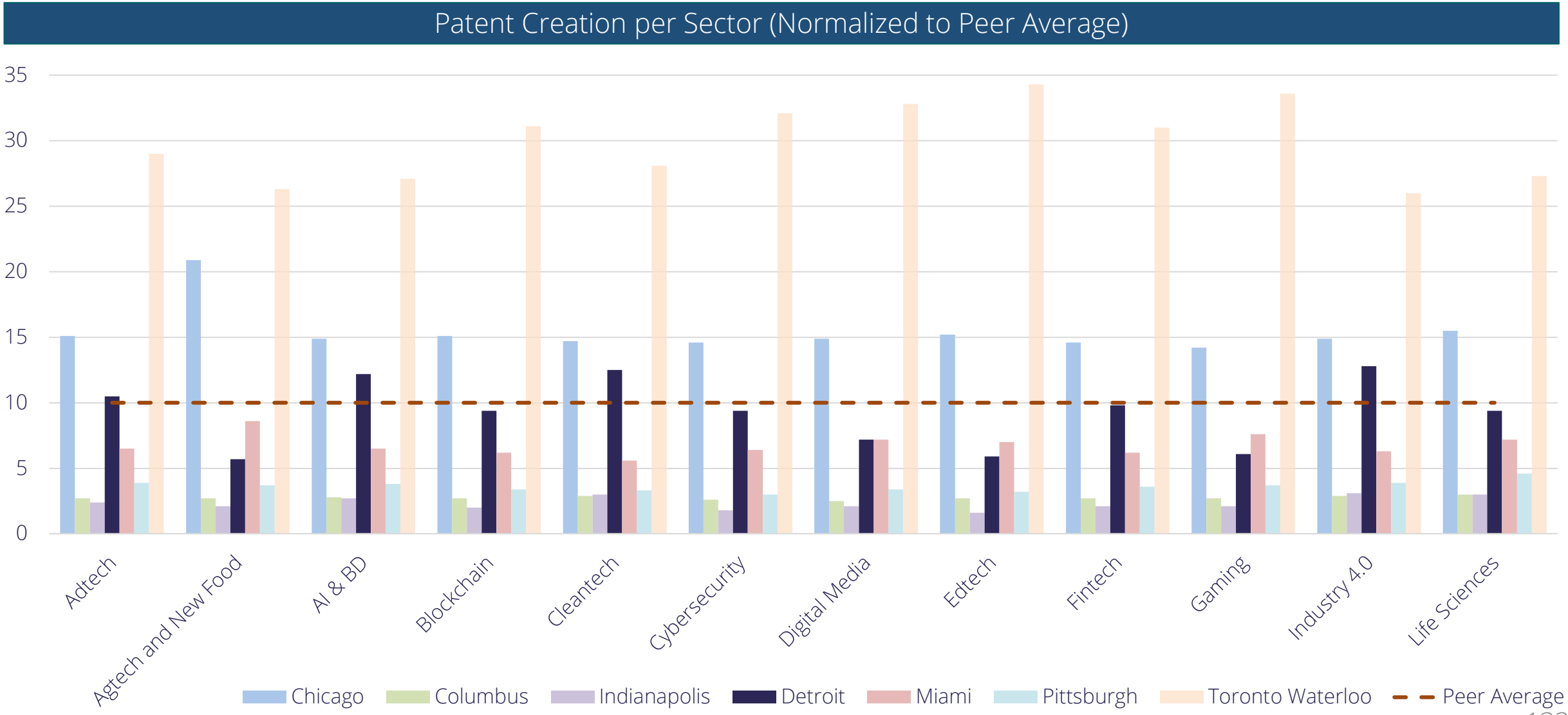


All sub-sectors are compared and scored against the highest patent creating sector in Detroit, which scores 10

Detroit is strong in Industry 4.0, Cleantech, and AI & BD when compared to the peer average



Detroit's patent creation lags behind Toronto-Waterloo and Chicago in all sub-sectors but outperforms other peers



Agenda

1. Introduction
2. Ecosystem Lifecycle Phase
3. Success Factor Assessment
4. Innovation Edge
5. Way Forward

Our assessment underlines three key themes to prioritize to advance Greater Detroit's Startup Ecosystem to the next level

Focus Areas for Detroit	
Community	• Founder community helps each other but while Ann Arbor is very connected, Detroit is much less so • Lack of center of gravity and cohesion across all stakeholders • Route to Scaling Success: Despite gaps in average ambition and scaleup program, the rate of $100M exits is good and so are connections to the top ecosystem
Startup Support	• Portfolio of programs is generally considered of low quality • Portfolio of programs has not been managed and aligned to local strengths • New innovation centers bring some alignment to local strengths but will exacerbate dispersion and lack of coordination
Early-Stage Funding	• Seed: small to no gap in seed-funding rate and amounts, but lack of local angel groups aligned to best practices that can lead and provide the needed capital and more • Series A: clear gaps: low success rate from seed to Ser. A and low median deal sizes, with local investors rarely able to lead sizeable rounds

Leadership is needed to accelerate the development of Ecosystem Pillars

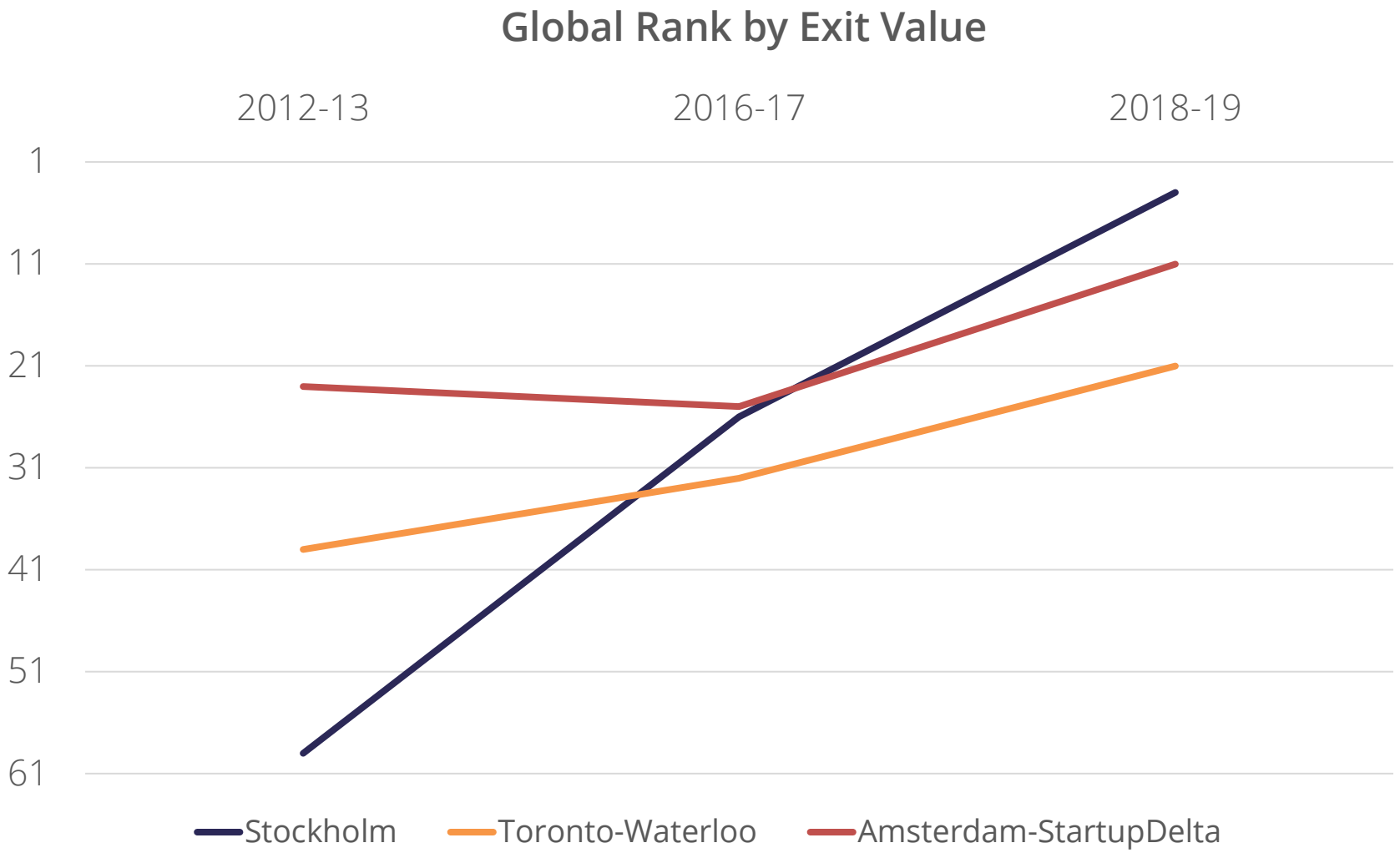
Grow a connected and entrepreneur-centric community with a strong culture of helping and learning from each other

Develop a portfolio of sustainable local organizations that support startups through the stages and is adapted to ecosystem objectives and sub-sector strengths

Grow a community of investors leveraging best practices and providing competitive access to capital, combined with mentorship, across stages and sub-sectors

Build a leadership group and operating team with the resources to execute a shared vision that is driven by and accountable to objective ecosystem performance metrics

The performance of 3 ecosystems stands out in the last 10 years – each with a dedicated leadership team

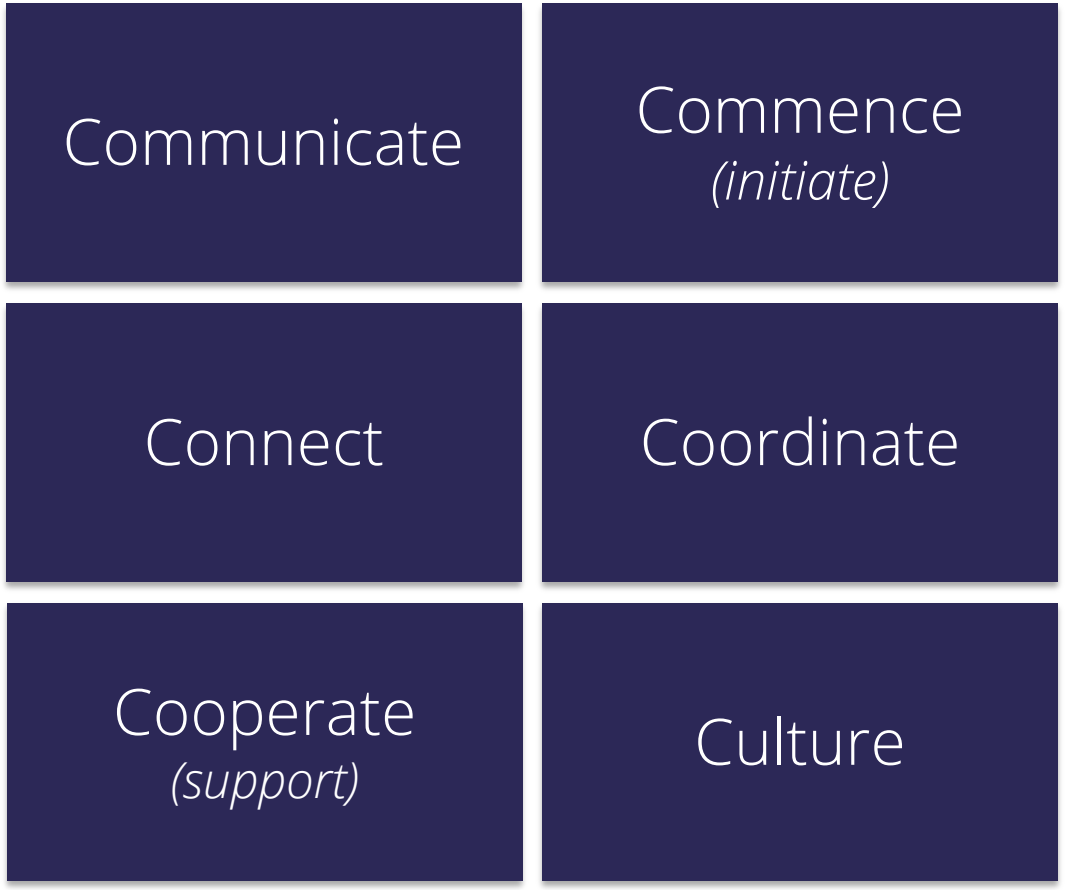


Key to accelerating startup ecosystems: entrepreneurial-minded teams focused on driving startup ecosystem success through action

Define a **strong vision**, objectives and develop a narrative around it

Connect everyone: entrepreneurs, investors, universities, program leaders, corporations

Support the success of existing initiatives, organizations, and programs



Kickstart new initiatives and programs that are missing

Align and foster cooperation between organizations and programs

Foster a culture of entrepreneurship and community support among all

We call them Keystone Teams

Relevant Best Practice Examples

MaRS COMMUNITECH

Public-Private partnerships leading the Toronto-Waterloo ecosystems, driving action and advocating for policies with the provincial government

TQ

In 2016, entrepreneurs in Frankfurt created a private innovation agency, Tech Quartier bringing startups, corporates, and new talent together

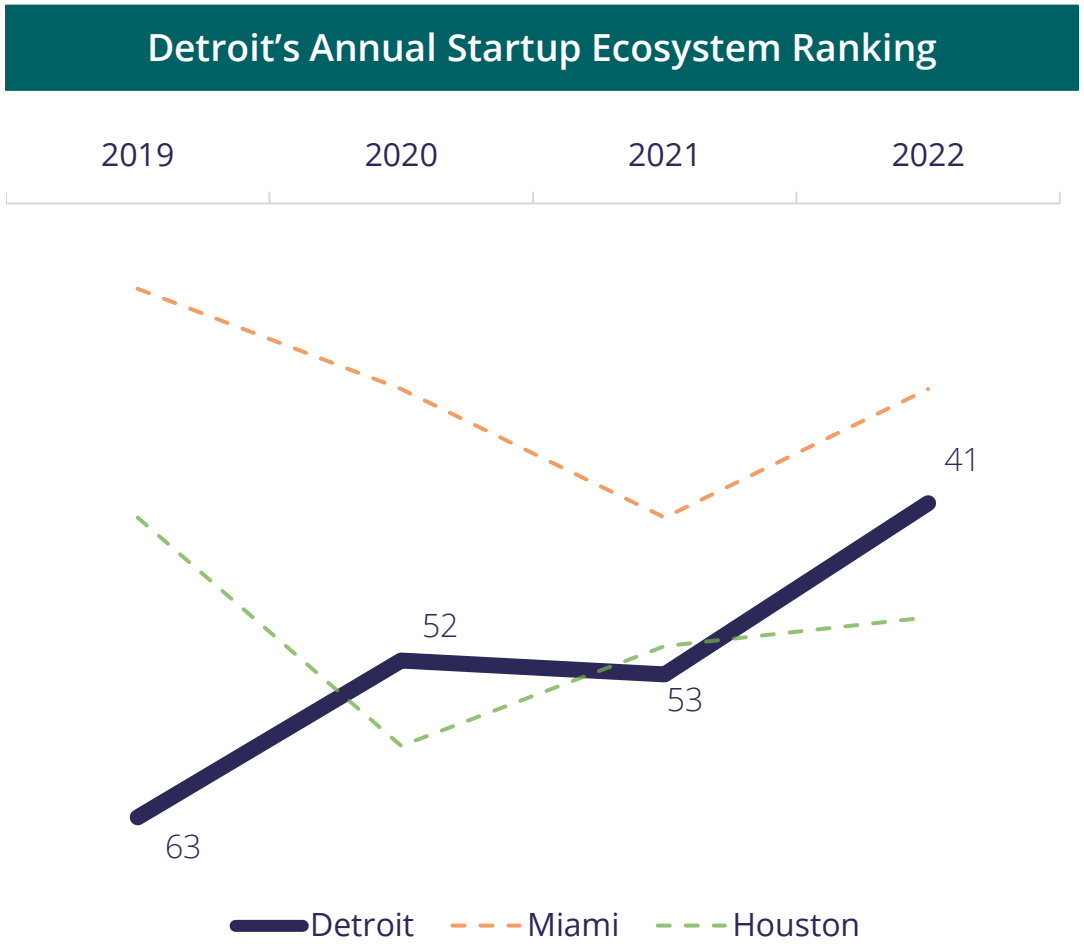
startup amsterdam

Created in 2015 and supported by the City of Amsterdam, StartupAmsterdam kicked off dozens of projects and initiatives promoting innovative and sustainable entrepreneurship

OhioX

Founded in 2019 as a nonprofit with an explicit goal of advocacy and programmatic initiatives to support founders in Ohio

Detroit has been steadily climbing the Global Ecosystem Ranking—it can go further with the right action-oriented leadership

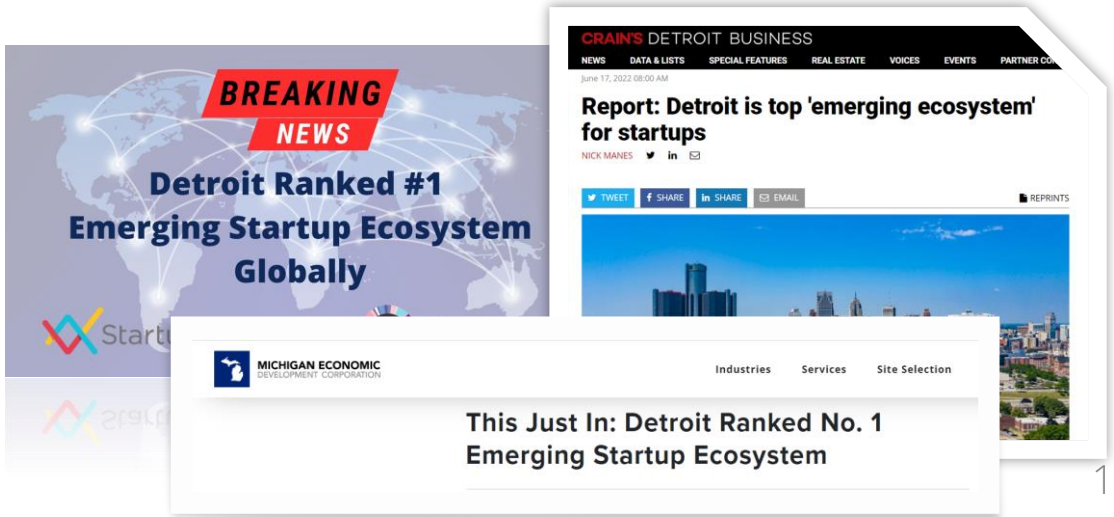


Key Highlights of Progress

▲12 **Increase in Global Ecosystem Rank in 2022**
Startup Genome's Global Startup Ecosystem Report 2022

#1 **Highest Ranked Emerging Ecosystem**
Startup Genome's Global Startup Ecosystem Report 2022

$91B **Valuation of the Startup Ecosystem from 2019 H2 to 2021** ($35B w/o Rivian)



Startup Genome

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