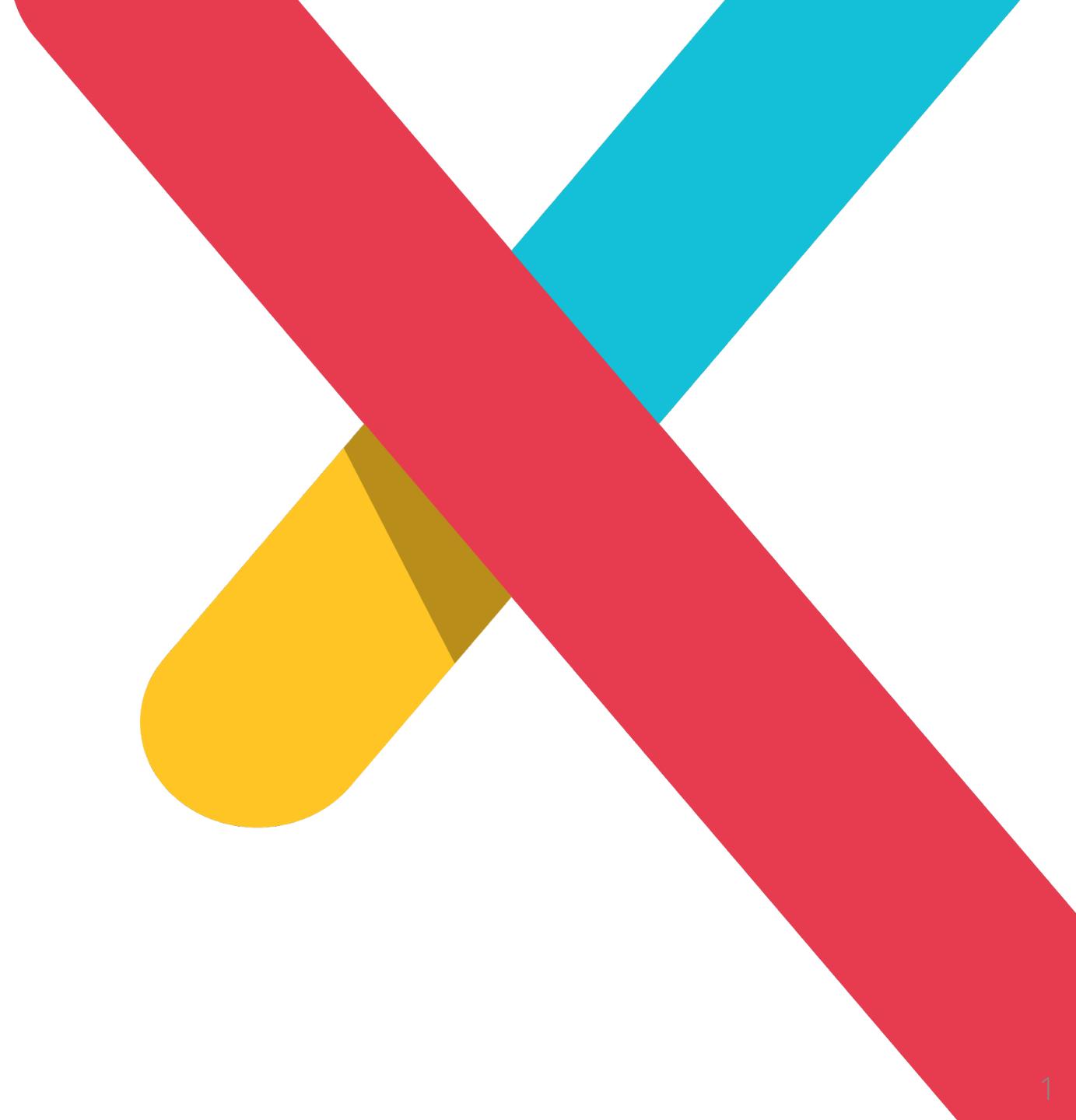




# How Early-Stage Ecosystems are Developing in the United States

October 2018  
Supported by the Kauffman Foundation



# Background: Collaboration with Kauffman Foundation

- With support from the Kauffman Foundation, Startup Genome selected 6 U.S. metros (MSAs) for startup ecosystem assessment
- Criteria for MSA selection:
  - Not in top 40 largest metros by population
    - Reason: many entrepreneurship datasets are available only for the largest U.S. metros, and other analyses and datasets do not provide adequate peer comparison for small or medium-sized cities
  - Regional economies growing more slowly than national economy
    - Determine how startup ecosystems can best be developed to contribute to sustainable growth
    - Used data from Economic Innovation Group used to make this determination
  - MSAs selected: Albuquerque, Fresno, Hartford, Springfield (MA), New Orleans, Reno
- Startup Genome worked with local partners to ask startup founders and executives to respond to our global survey
  - Globally, over 10,000 founders fill out our survey every year
  - We also collected secondary data and conducted interviews
  - Over 300 startup founders and executives filled out the survey across these 6 cities



# Key Highlights from Early-Stage U.S. Startup Ecosystems

Albuquerque



**Enjoys dense local networks:** on average, founders know 23 other founders, higher than the global average

Fresno



**Welcomes outsiders:** One-third of entrepreneurs in the city moved there from somewhere else

Hartford



**Closing the gender gap:** One-third of startups have a woman founder, more than twice the global average

Springfield



**Reaches global markets:** On average, Springfield startups have 13% of their customers outside the U.S.

New Orleans



**Building a strong culture:** Founders receive, on average, two hours of help per week from other founders

Reno



**Attracts companies:** One-in-seven Reno startups moved there from somewhere else in the U.S.

Thank you to our local partners in Albuquerque



**FatPipe™**

NEW MEXICO

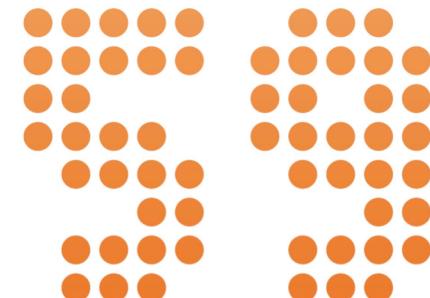
Verge FUND



Thank you to our local partners in Fresno

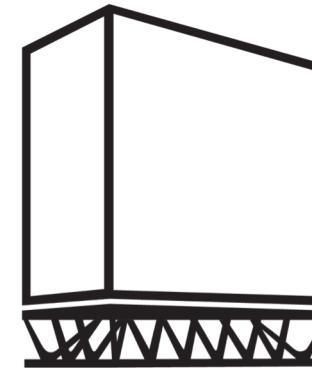


Water, Energy and Technology Center  
Craig School of Business  
Lyles Center for Innovation  
and Entrepreneurship



Thank you to our local partners in Hartford

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**UPWARD**  
IDEAS START HERE

Thank you to our local partners in New Orleans



trepwise™

Thank you to our local partners in Reno



NCET

Business.  
Technology.  
Events.™



Entrepreneurs  
Assembly

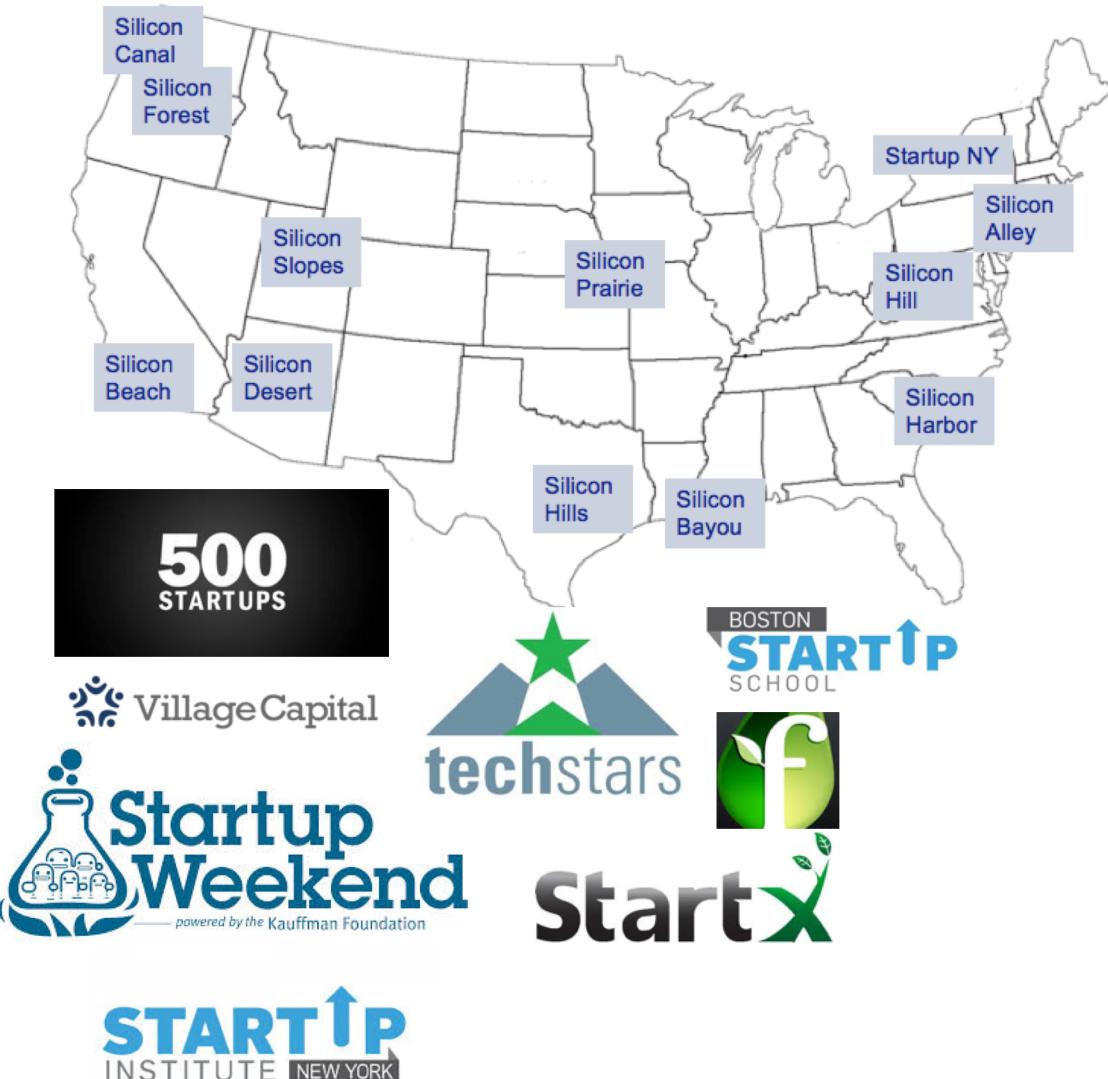
Thank you to our local partners in Springfield, MA



# Context: Startup Fever and the Imperative of Building Strong Ecosystems Everywhere

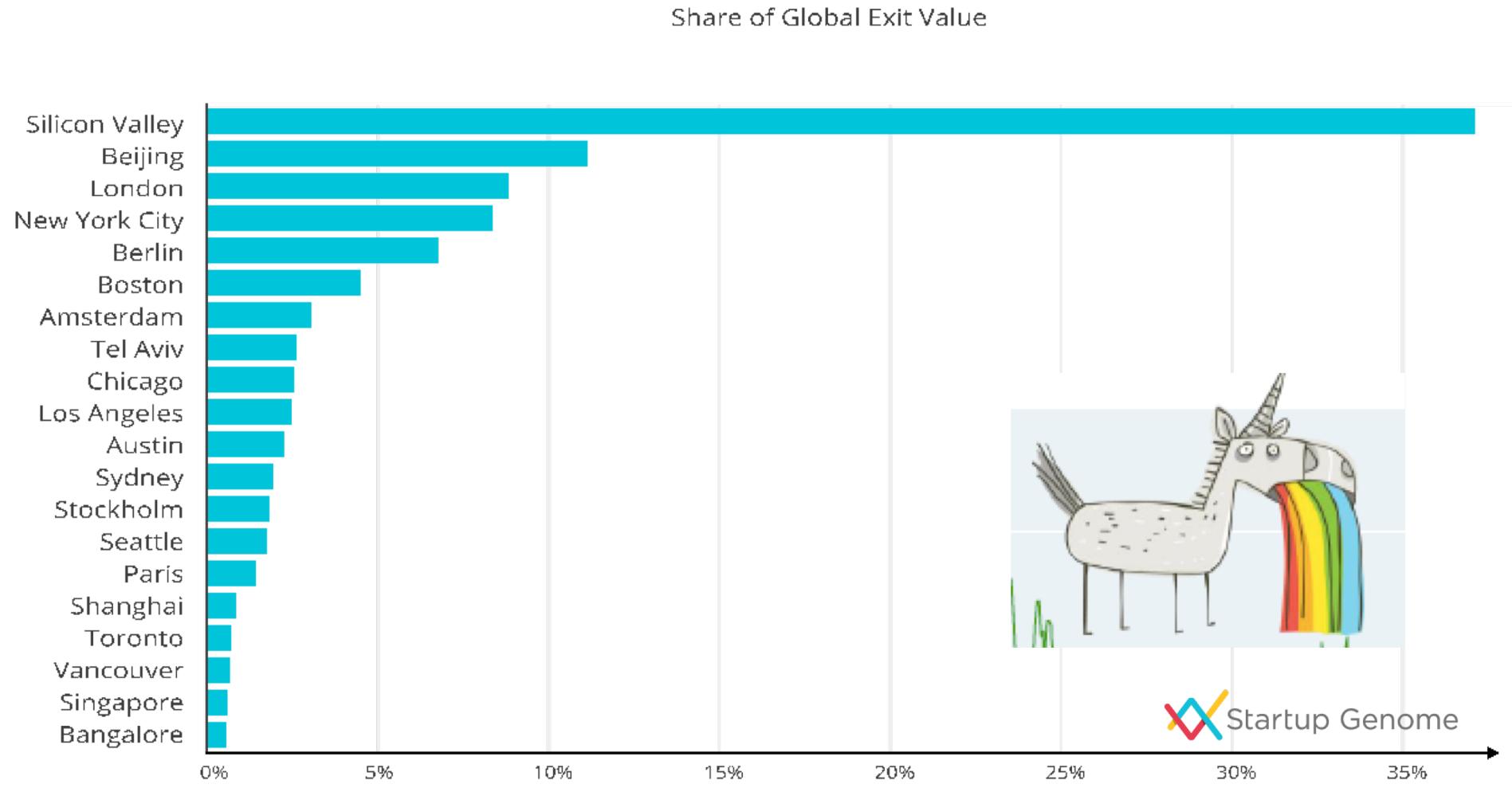


# We Have All Caught Startup Fever



- Everywhere wants to help, attract, and grow startups
- What do we have to show for it ... ?

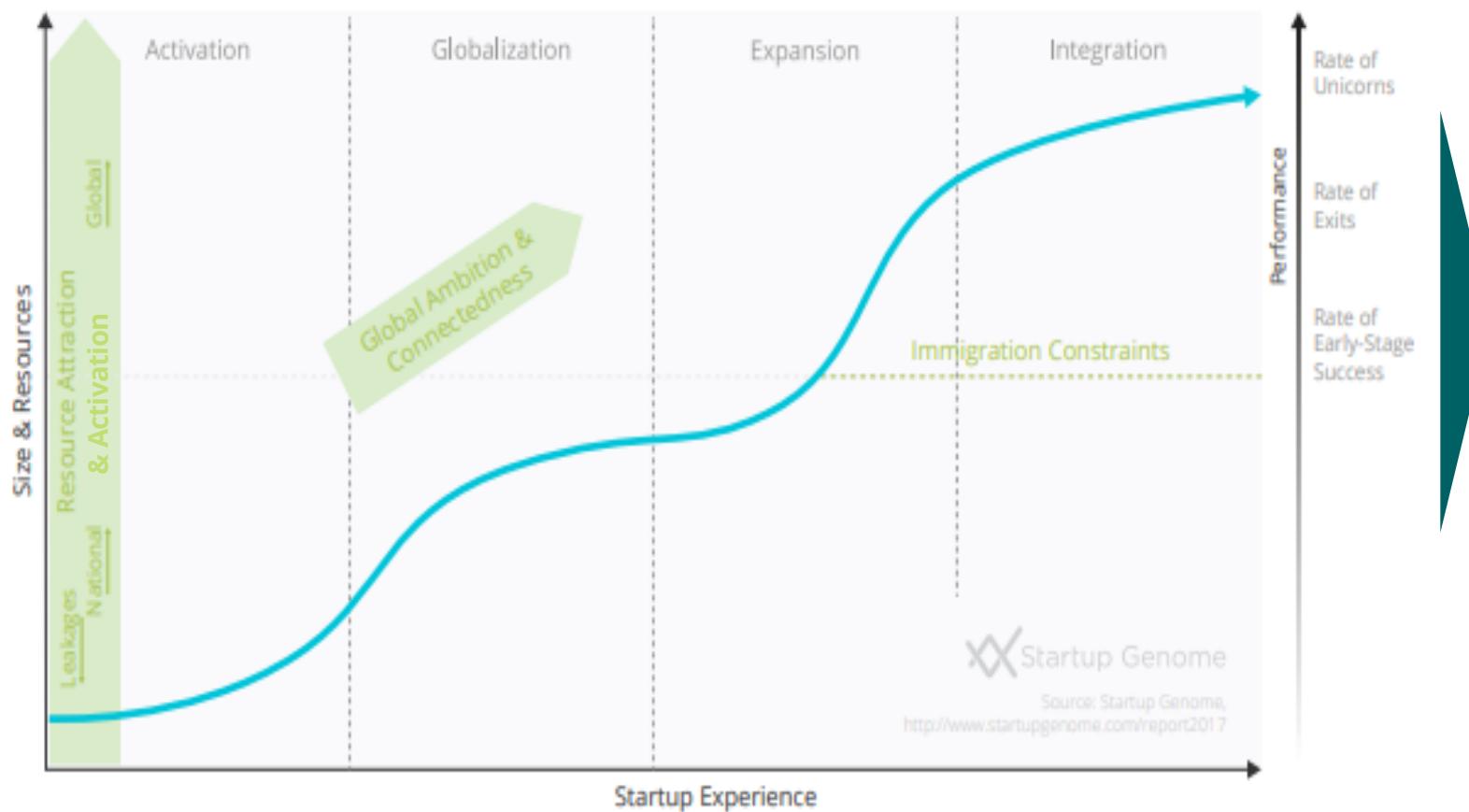
... Continued concentration in economic rewards being created by startups: at some point, Startup Fever will break—what then?



Data source: Startup Genome. Image source: Michael Cembalest, JPMorgan Chase

# To address this, a better model of how ecosystems change and grow is needed: Startup Genome developed the Ecosystem Lifecycle Model

## The Ecosystem Lifecycle Model

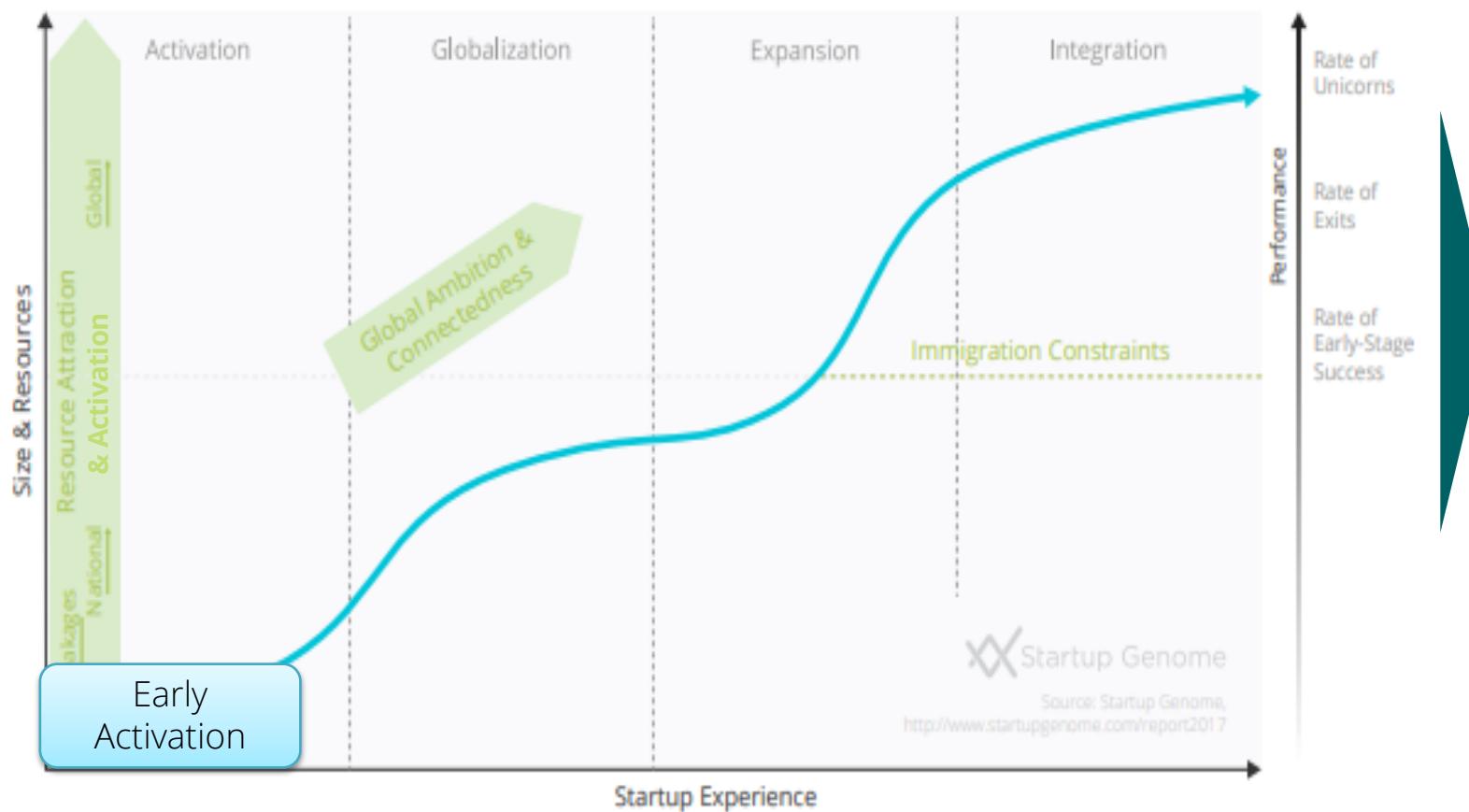


## How We Get Lifecycle

- 1 Startup Experience: the shared pool of know-how and tacit knowledge that grows over time
- 2 Startup Output: the number of tech-based startups in that city or region
- 3 Resources: the availability and accessibility of equity funding and talent

# Each of the 6 city ecosystems in this report is in the Early Activation phase—based on size, resources, and experience

## The Ecosystem Lifecycle Model



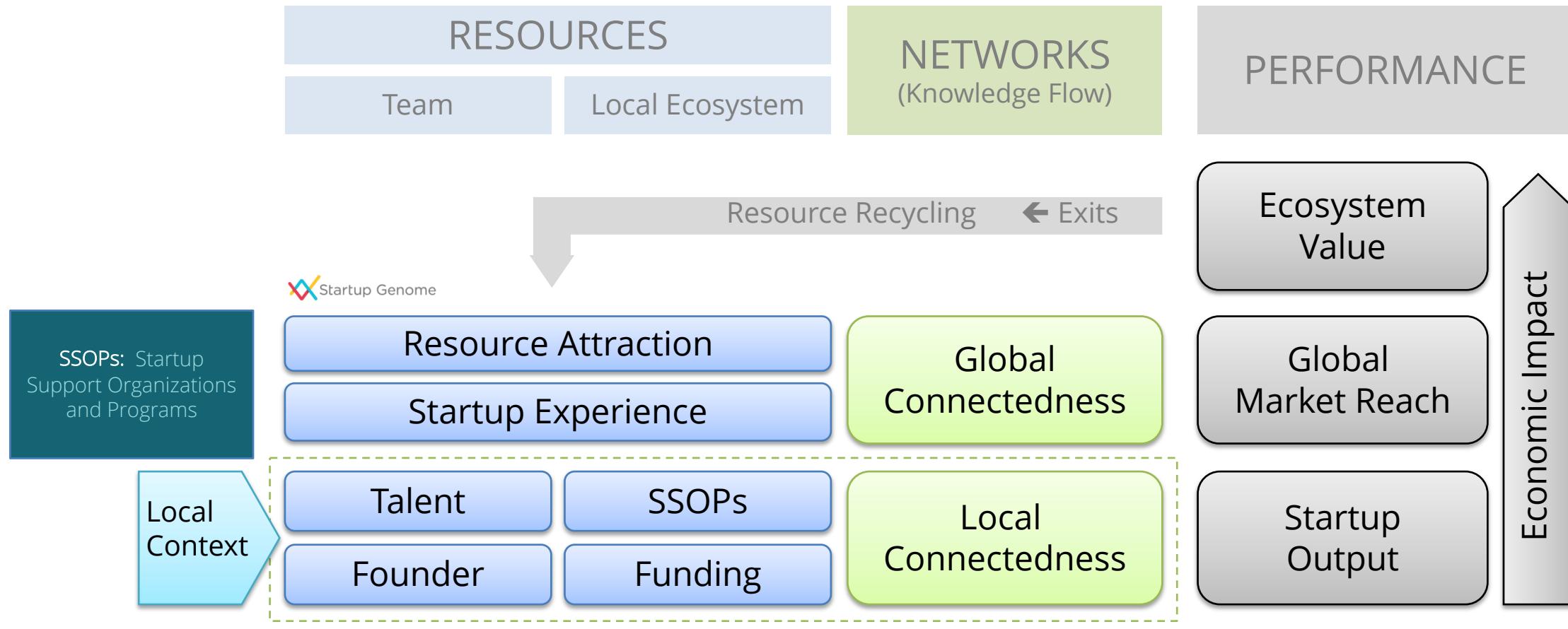
### Early Activation

- 1 Early Activation phase ecosystems are ill-served by existing models and approaches of ecosystem development
- 2 Need to better determine what works and doesn't work
- 3 How can these ecosystems leverage what they have, focus efforts, and enjoy rapid growth?

# Success Factor Model & Assessment

Benchmarking and comparison of 6 ecosystems

We assessed each ecosystem along our Success Factor model, which has been developed with thousands of data points on startups

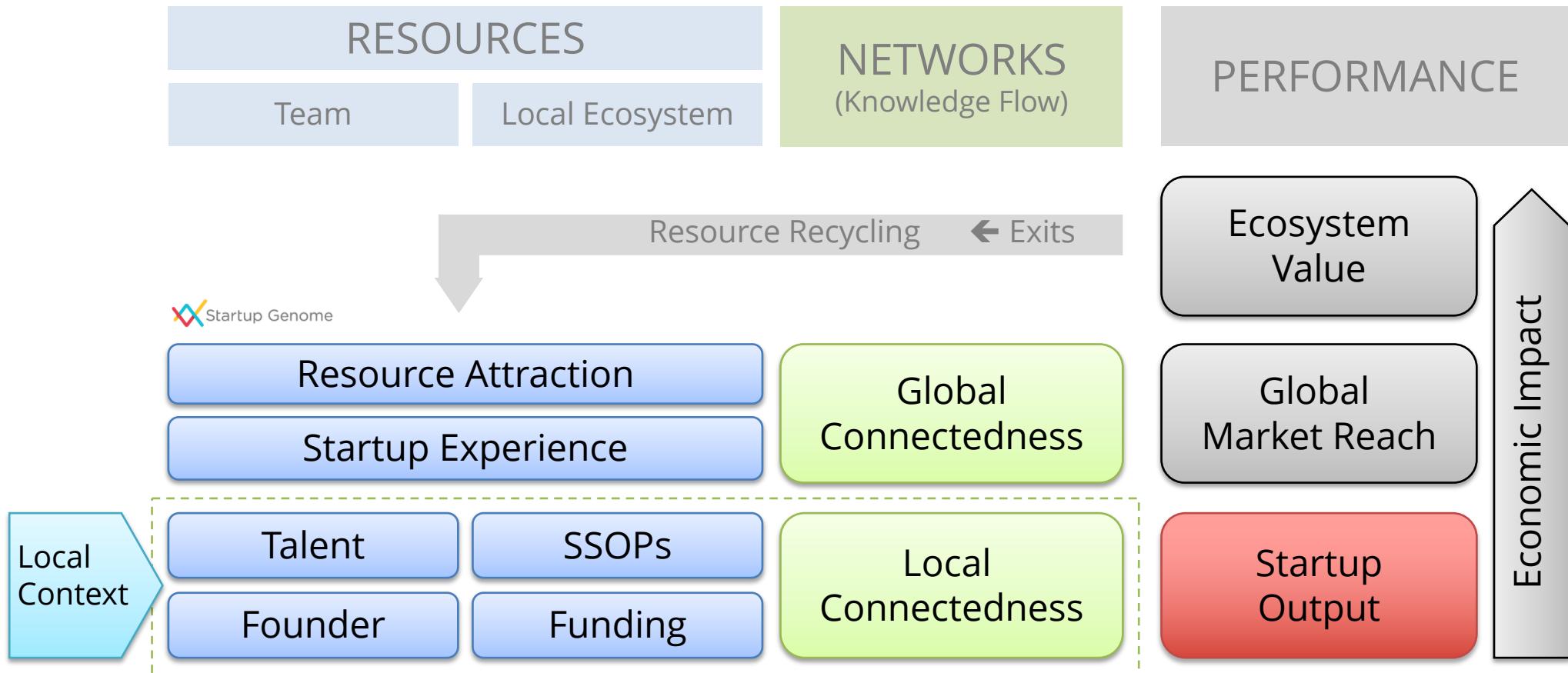


For the Success Factors included here, we compare the 6 ecosystems against global and Activation phase averages

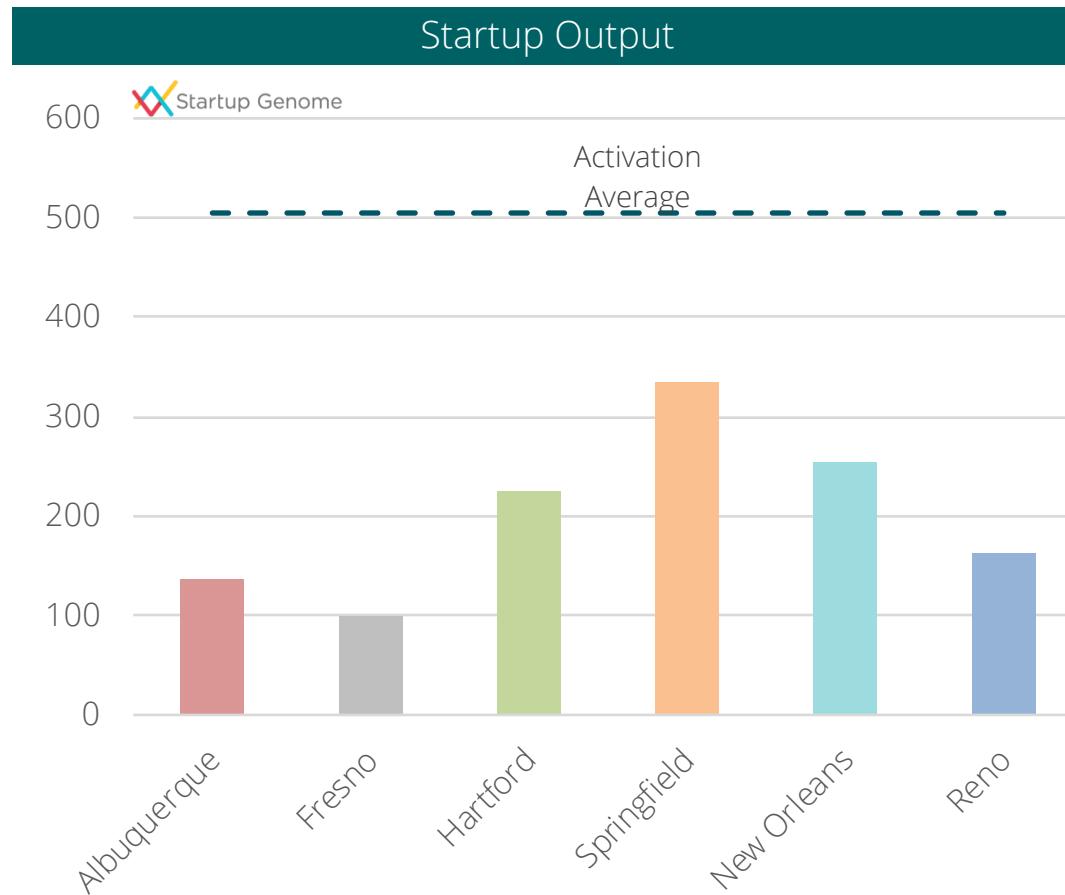
# Success Factors: what they assess

- 1. Startup Output**
  - i. How many tech-based startups are in each ecosystem? How does that compare to population?
- 2. Local Connectedness**
  - i. How are founders interacting with the local startup community?
  - ii. Are they building relationships with peers and others in the ecosystem?
  - iii. What kind of culture is developing in the ecosystem?
- 3. Global Connectedness and Global Market Reach**
  - i. Do founders know peers in other ecosystems, especially the leading ones?
  - ii. Are startups selling to markets beyond the United States?
- 4. Resource Attraction**
  - i. Do startups and entrepreneurs move to an ecosystem from elsewhere?
- 5. Founder Characteristics**
  - i. Basic demographics of founders

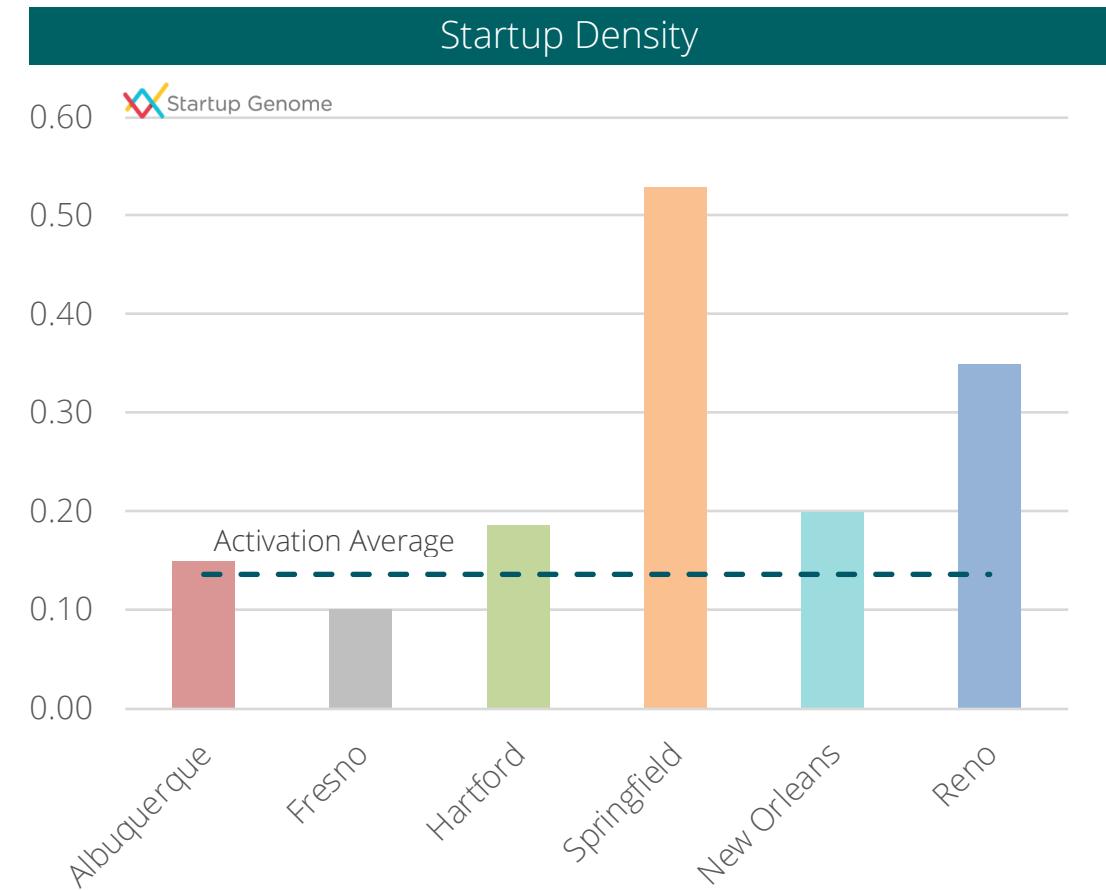
# 1. Startup Output: how many young technology-based or technology-enabled companies are in a given city or region



# While the number of startups is comparatively low across all six ecosystems, Startup Density adjusts for population



**Startup Output:** Number of Tech Startups within 62 mi (100km) of MSA center

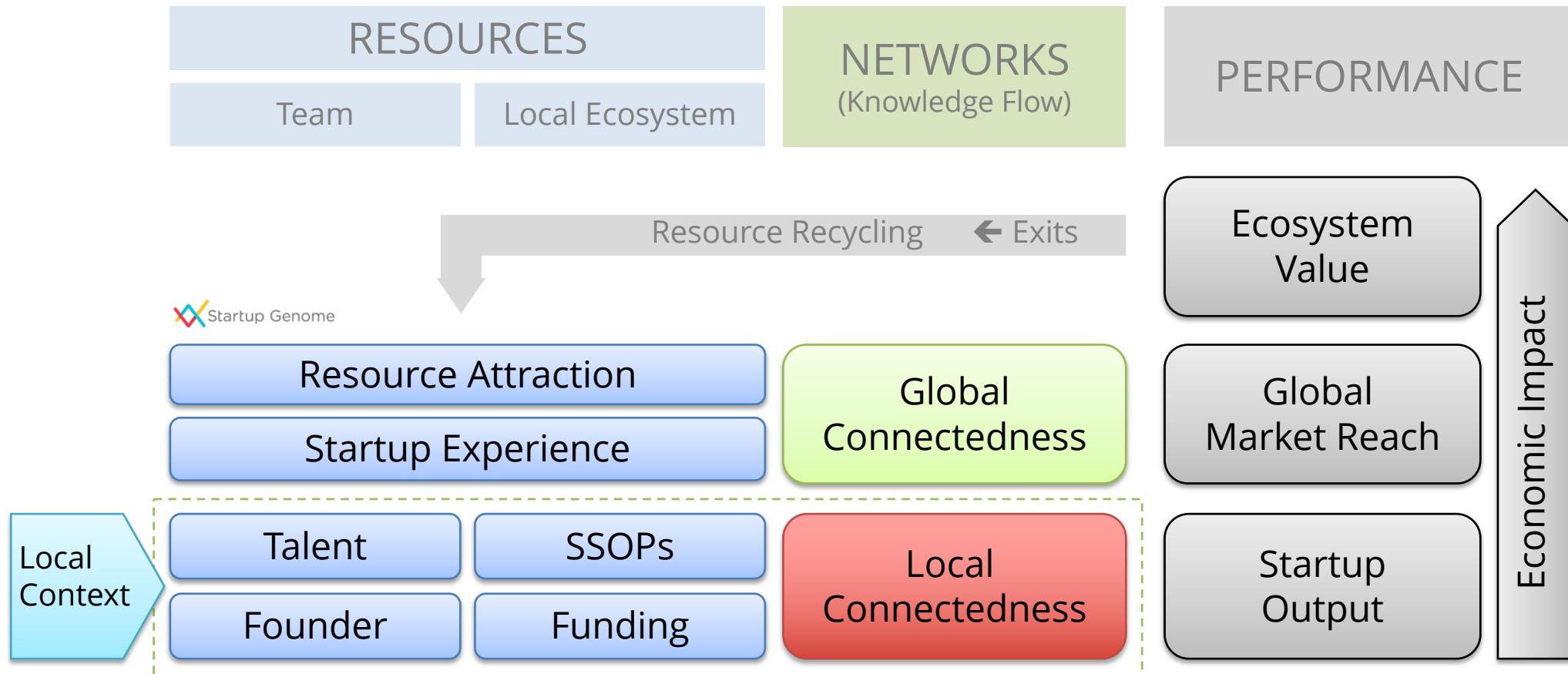


**Startup Density:** Number of Tech Startups per 1 million people in the ecosystem

# Summary observations on Output and Density

- Startup Output is typically low at the Early Activation phase
  - Many local resources have not yet been fully activated to feed the startup ecosystem
- Springfield (MA) has the largest number of tech startups in this analysis
  - The ecosystem has 300-350 tech startups in the ecosystem, not far below the Activation average of 500
- Reno and Springfield (MA) have high Startup Density for their phase
  - Both ecosystems have a very high number of tech startups for their populations
- Fresno has high potential to grow its Startup Output
  - The ecosystem has low Startup Density for its phase, indicating that there is strong potential for the creation of many more startups

## 2. Local Connectedness: a measure of interactions within the community (“collisions”), relationships, and culture



# In our global analysis, we found that Local Connectedness is strongly associated with ecosystem performance and startup success

Success Factor of Local Connectedness is comprised of following sub-factors:

## Sense of Community

- How founders, investors and experts help founders

## Local Relationships

- Number of quality relationships between founder and other founders, investors, and experts

## Collisions

- Participation of founders in community events and how many collisions ensue

**Sense of Community:** Average # hours of help (and introductions) received by others



Highly-connected founders enjoy a higher rate of success in their startups

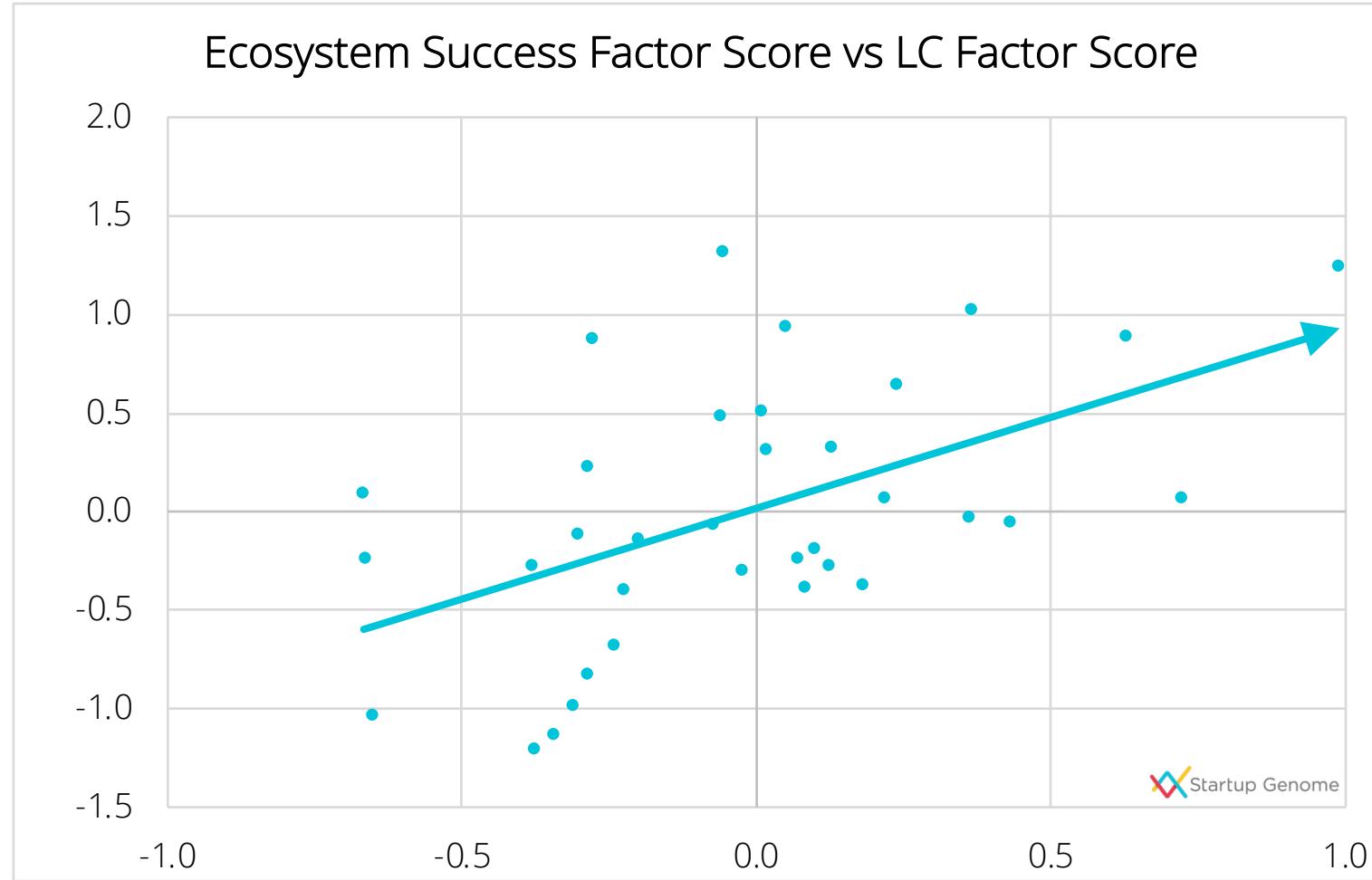


Less connected startups have slower revenue and employee growth

**Local Relationships:** Average # relationships with others in the ecosystem

**Collisions:** Frequency of monthly attendance at local events and # interactions with others in ecosystem

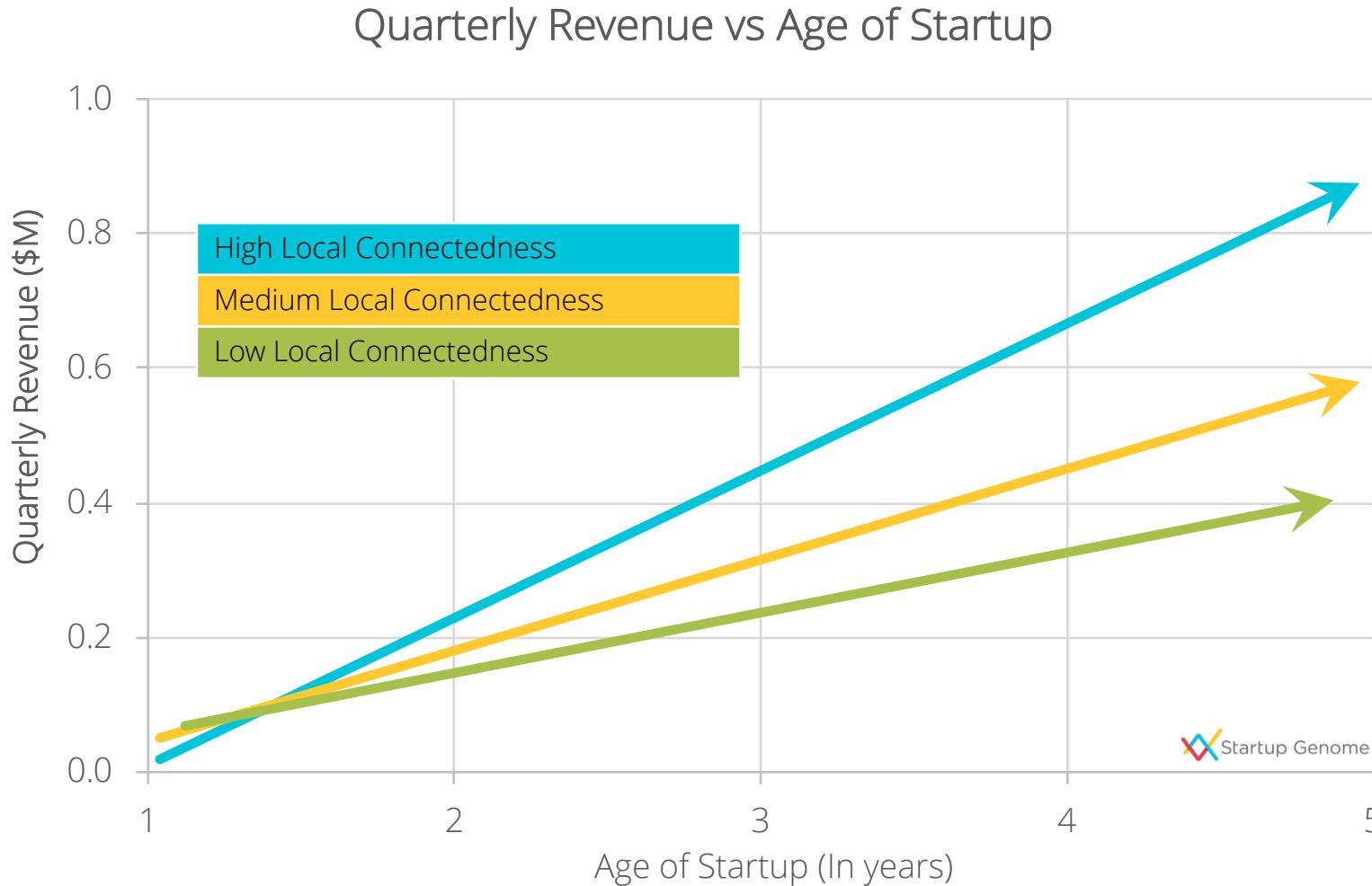
# Higher Local Connectedness is directly linked with the success of an ecosystem



**53%**

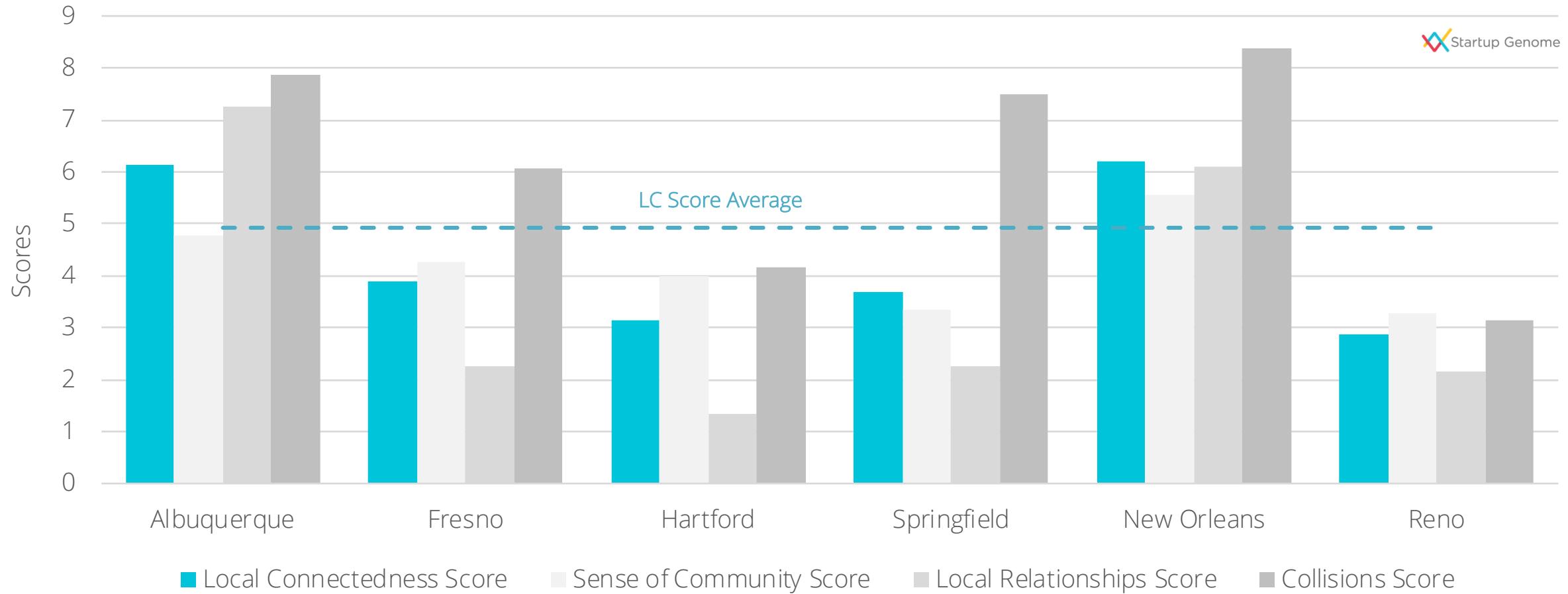
Correlation between Local Connectedness and 2017 Ecosystem Ranking Score

# Startups whose founders are more locally connected grow faster and have potential for bigger exits



>2X revenue growth for startups with high Local Connectedness vs. those with low Local Connectedness

# Albuquerque and New Orleans have strong Local Connectedness, even outperforming the global average among all ecosystems



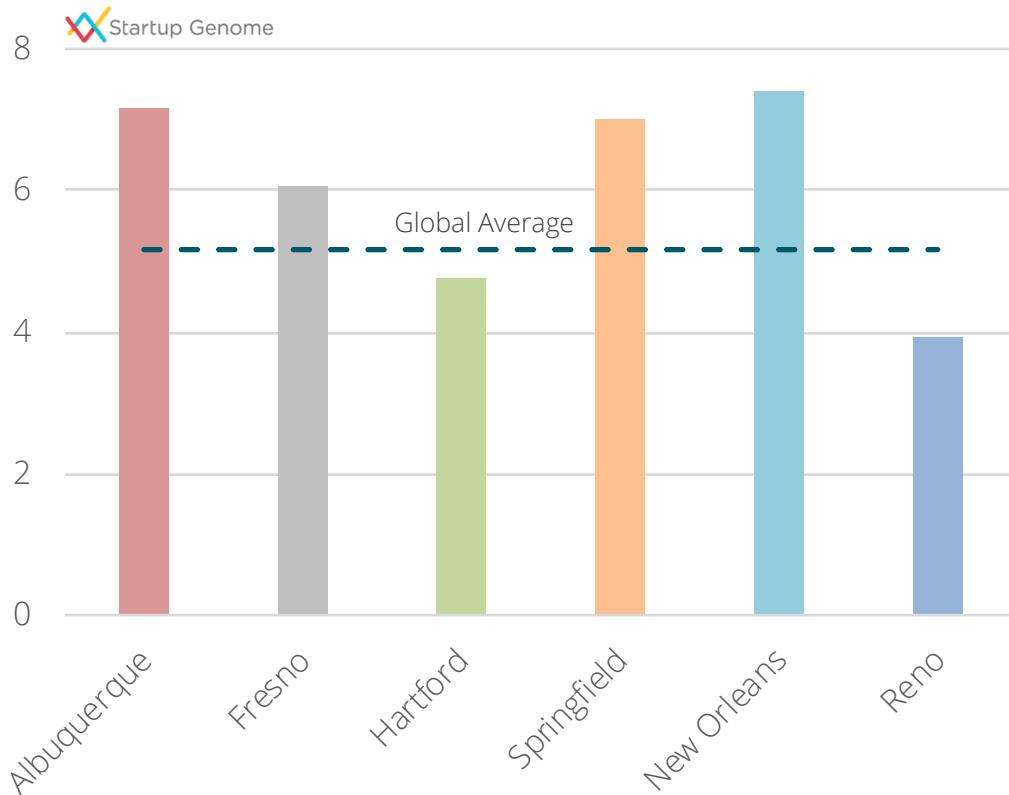
*"We have a real authentic entrepreneurship culture [in New Orleans]. We are getting better at working together. ... People feel a sense of change coming."*

-New Orleans Interviewee

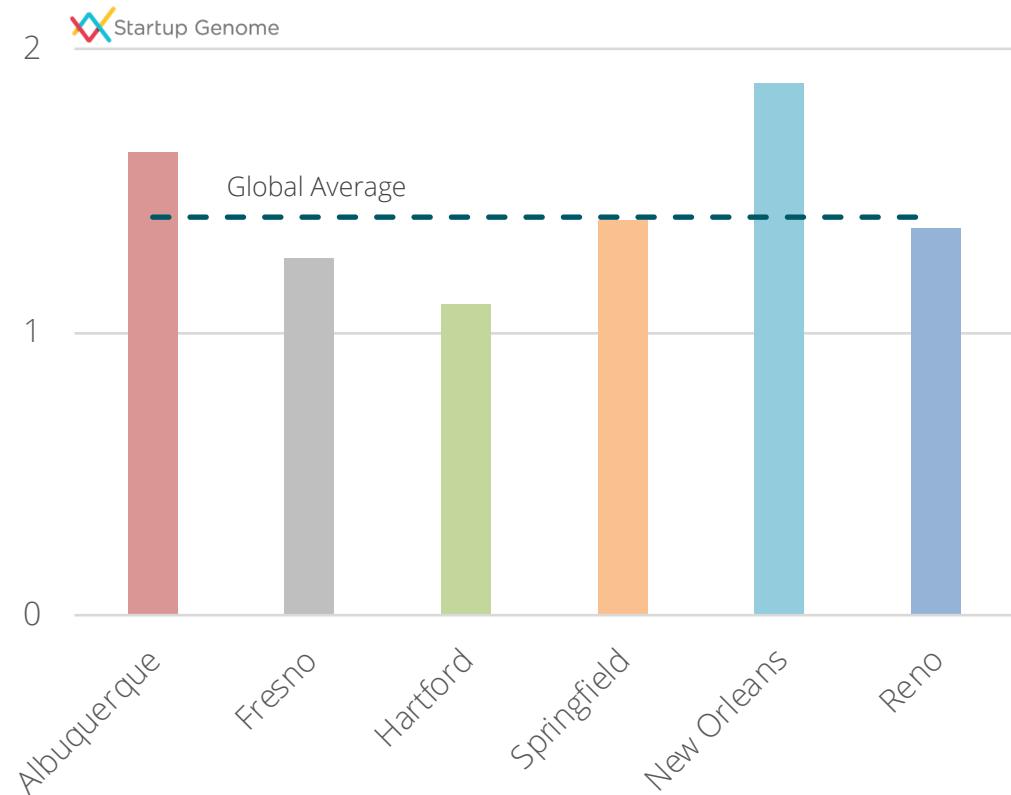


# Collisions are the vehicle for building Founder Relationships and a strong Sense of Community in startup ecosystems

Collisions with Local Startup Community



Frequency of Local Startup Events

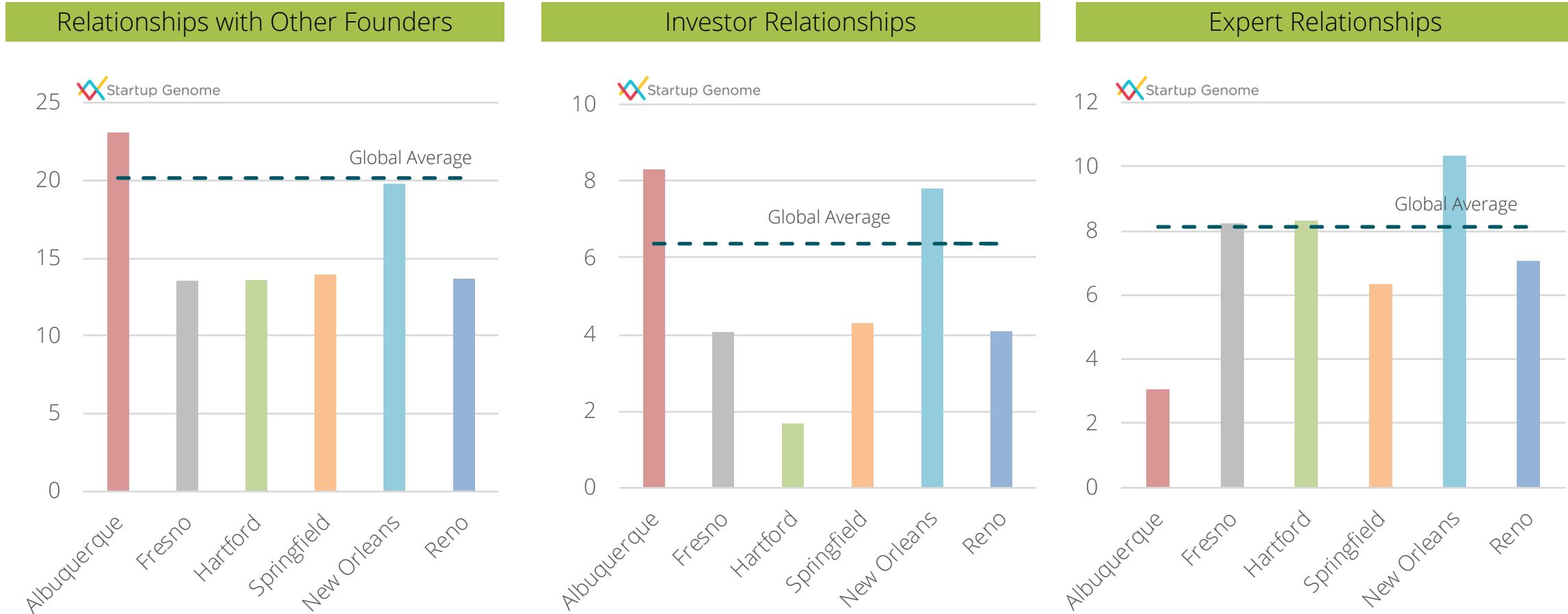


*"Springfield is Incredibly collaborative: everyone has crossover, everyone plays nice together."  
"No one ever says, 'we can't help you.'"*

-Paul G Silva, General Partner at Launch413, Springfield (MA)



# Partly reflecting their small size, these ecosystems show room for growth in relationships built among stakeholders and leaders



*"People here want to work together so there's a lot of cross collaboration—shared services, friendship, and social capital."*  
-Carley Feil, Hashtag, Fresno



# "Give before you get"—Sense of Community metrics capture the culture of giving and receiving help in an ecosystem

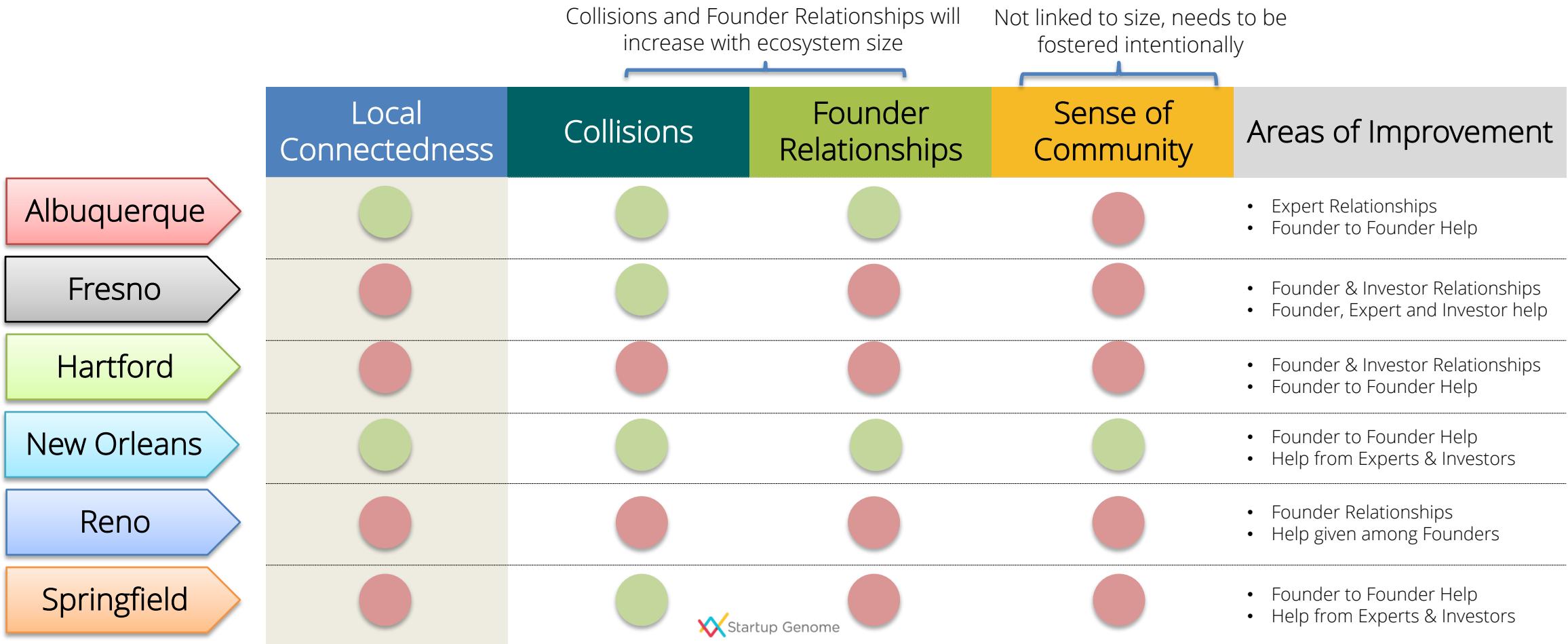


*"We were blessed because I had access to a lot of the resource most people have a hard time finding. Which is why I am giving back to them now."*

-Lawrence Chavez, Albuquerque



# Identifying key gaps in Local Connectedness can help ecosystem leaders develop strong community culture



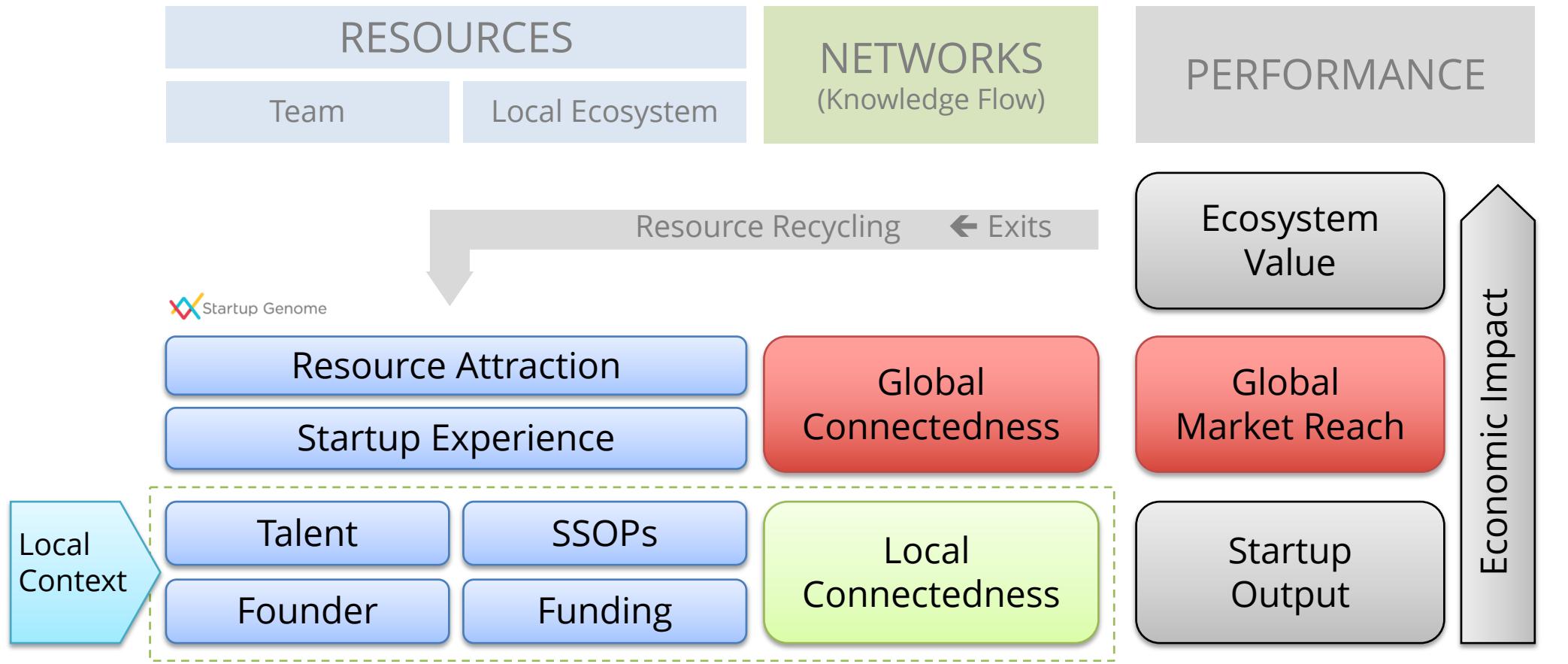
# We also looked at the Ecosystem Infrastructure in each city: what startup support organizations and programs (SSOPs) exist?

Next step for Startup Genome: determine impact of SSOPs across ecosystems

Success Factor									Scores
Accelerators	Any	Industry Focus	Operating for 5+ years	Any Funding	Equity Funding	Physical Space	Mentorship	Global	0
Incubators and Co-Working Spaces	Any	Industry Focus							50
	Any	Industry Focus							
Events	Hackathons	Pitch Competitions	B-Plan	Startup Creation	Meetups and Conferences				21
Investors	Individuals	Groups	VC Offices	Family Offices	City/State				4
Education	Tech Transfer Offices	University Entrepreneurship	K-12	Coding Schools					20
Inclusion/Diversity Programs	Women	Racial Minorities	Immigrants	Lower Socioeconomic Background	Other				20
Entrepreneurial Buzz	Buzz Score							Startup Genome	39
Score (0-100 scale)									18

Note: results in this chart pertain to a small, non-U.S. city, not any of the 6 assessed here

### 3. Global Connectedness & Global Market Reach: important for ecosystem performance and startup growth

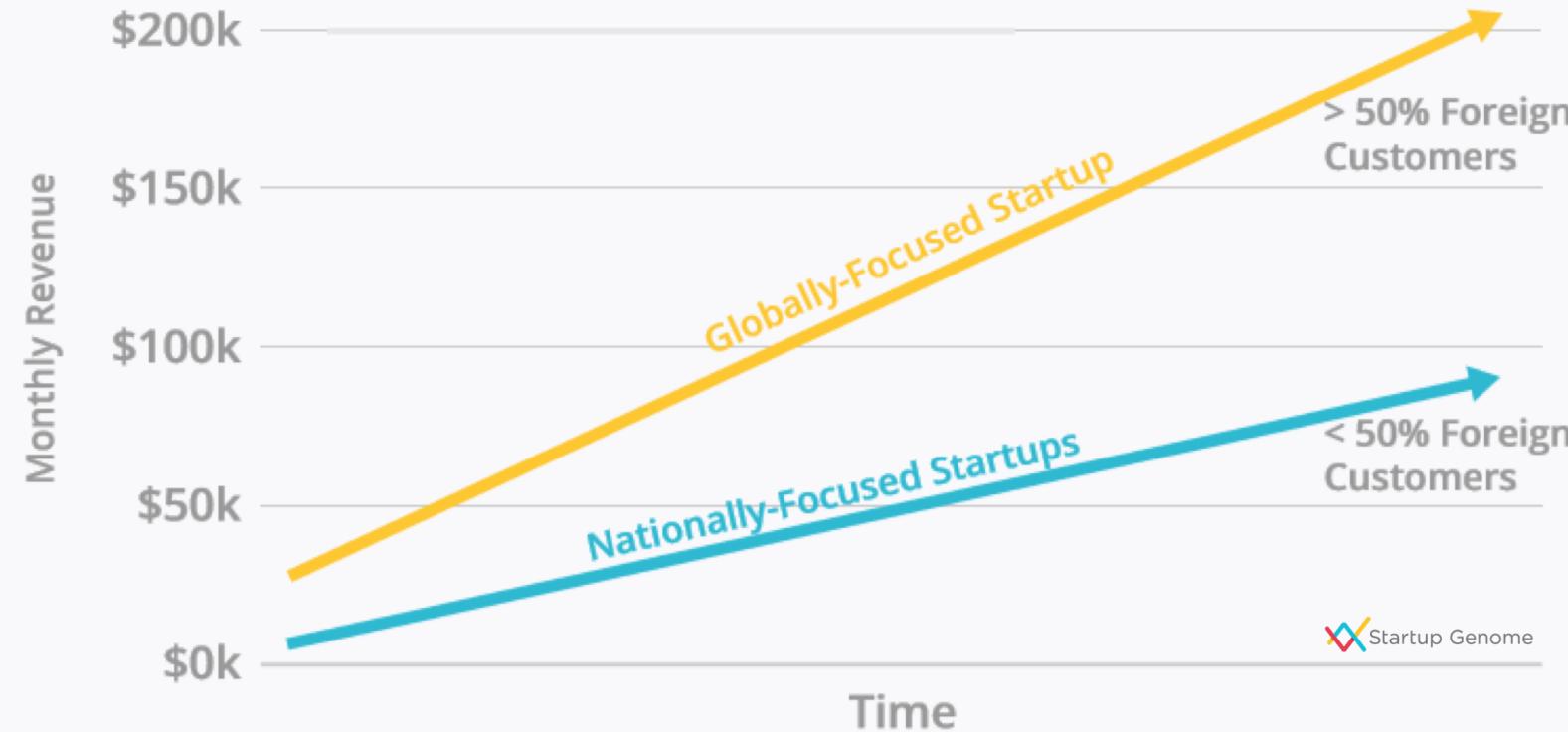


**Global Connectedness:** Average number of relationships with founders in top global ecosystems

**Global Market Reach:** Average % of customer outside US among startups in ecosystem

Startups with higher Global Market Reach early on see their revenue grow 2x faster → more likely to become scaleups

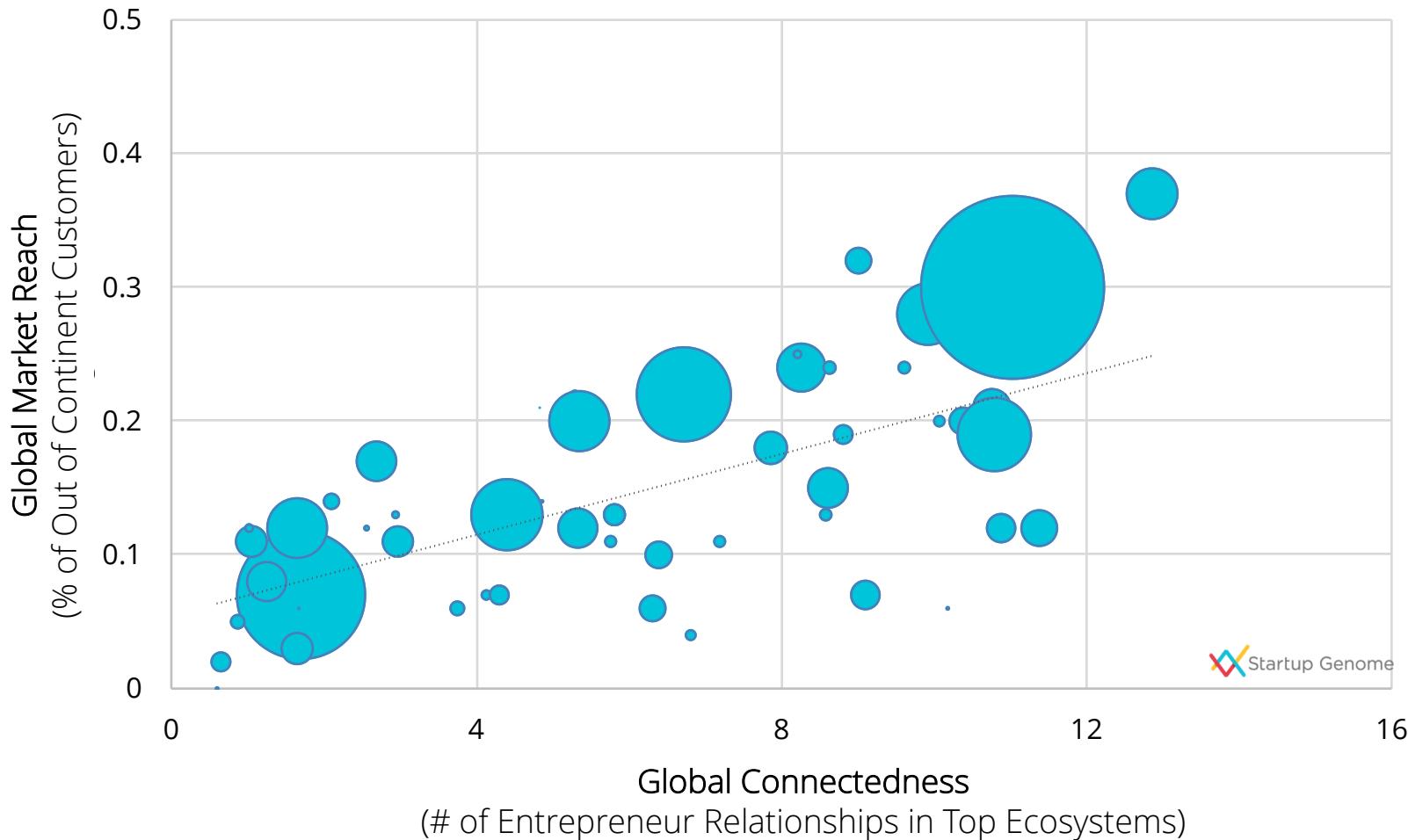
## Startup Revenue Growth vs. Global Market Reach



- 2x Revenue Growth
  - Acceleration
  - Larger Funding Round
  - Scaleup

# Global Market Reach (GMR) is Driven by Global Connectedness (GC)

Connections to founders in top ecosystems are the most valuable



## Overview

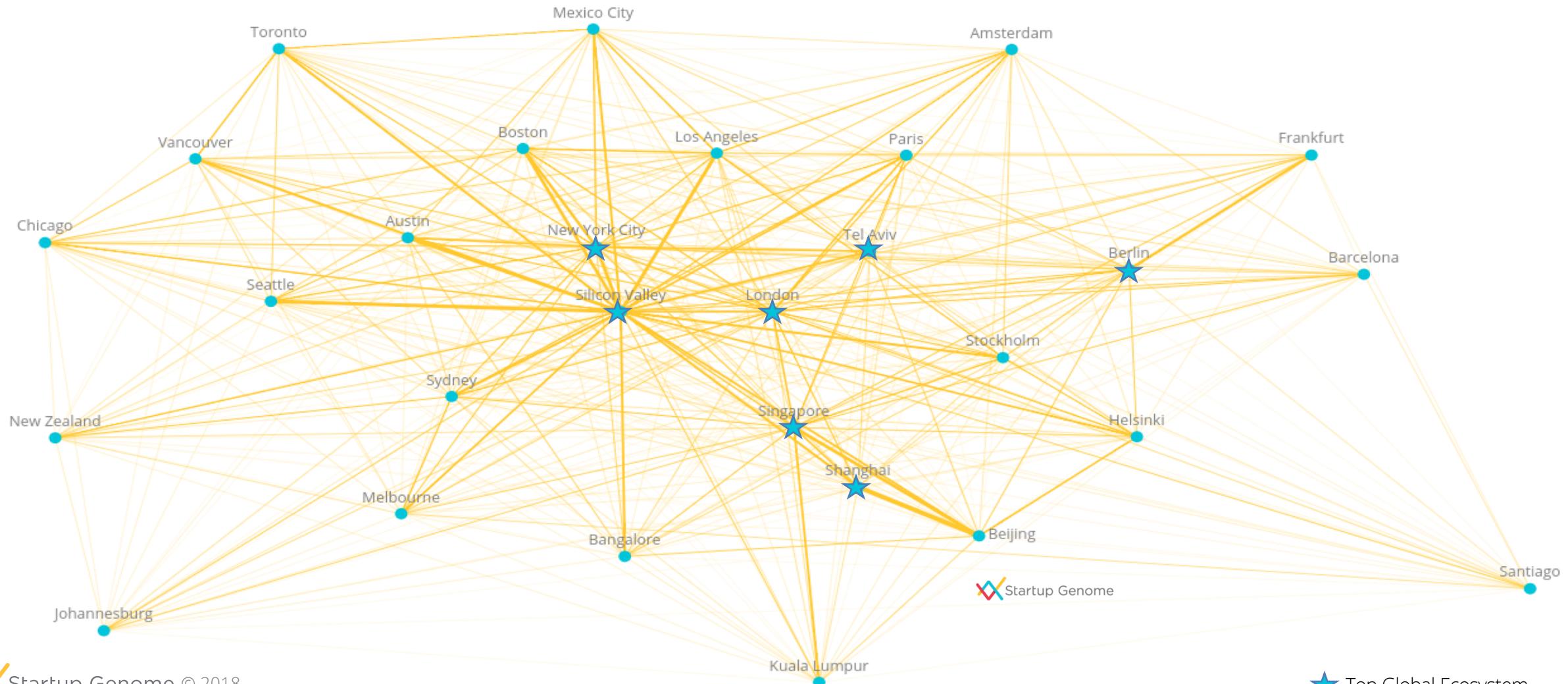
- Clear relationship between Global Market Reach and founder's connections outside the ecosystem
- Focus should be on building connections especially with top ecosystems



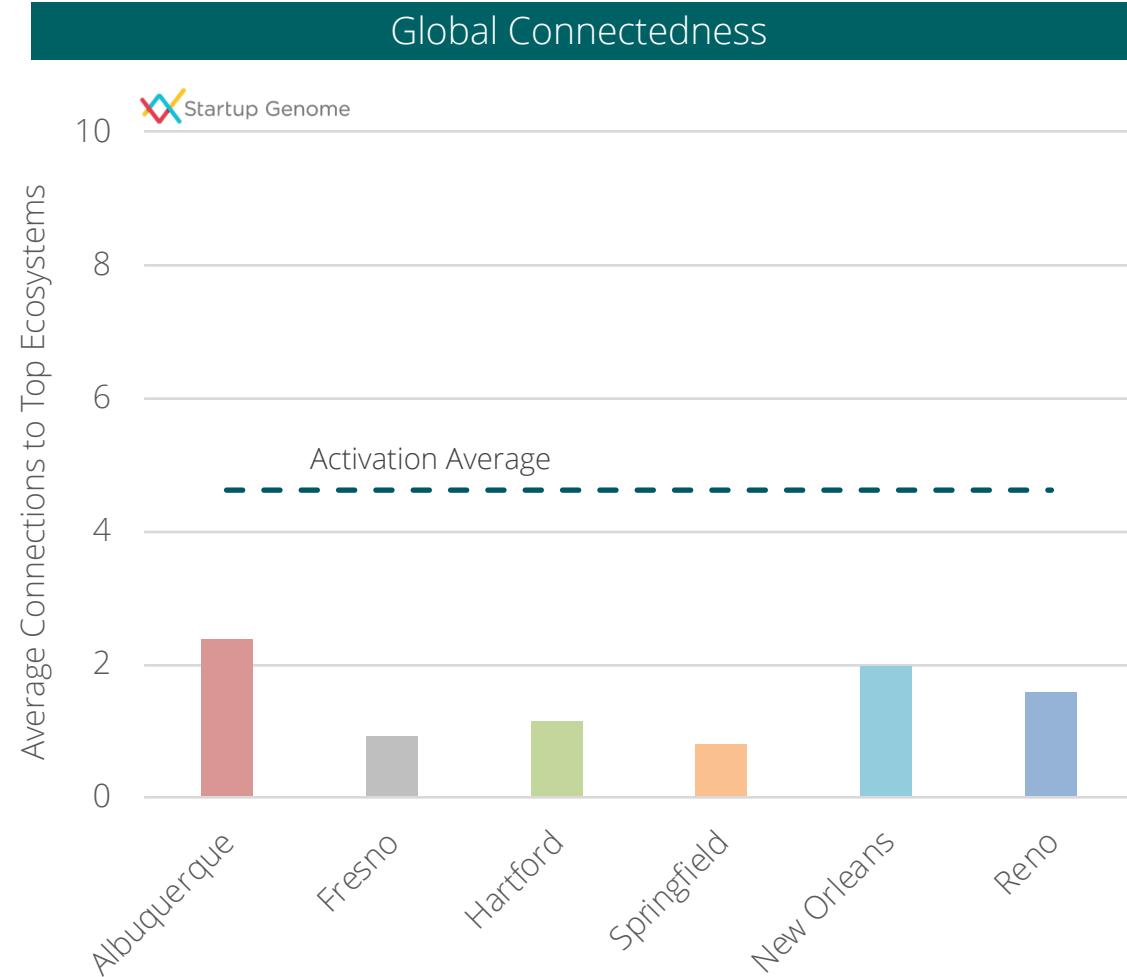
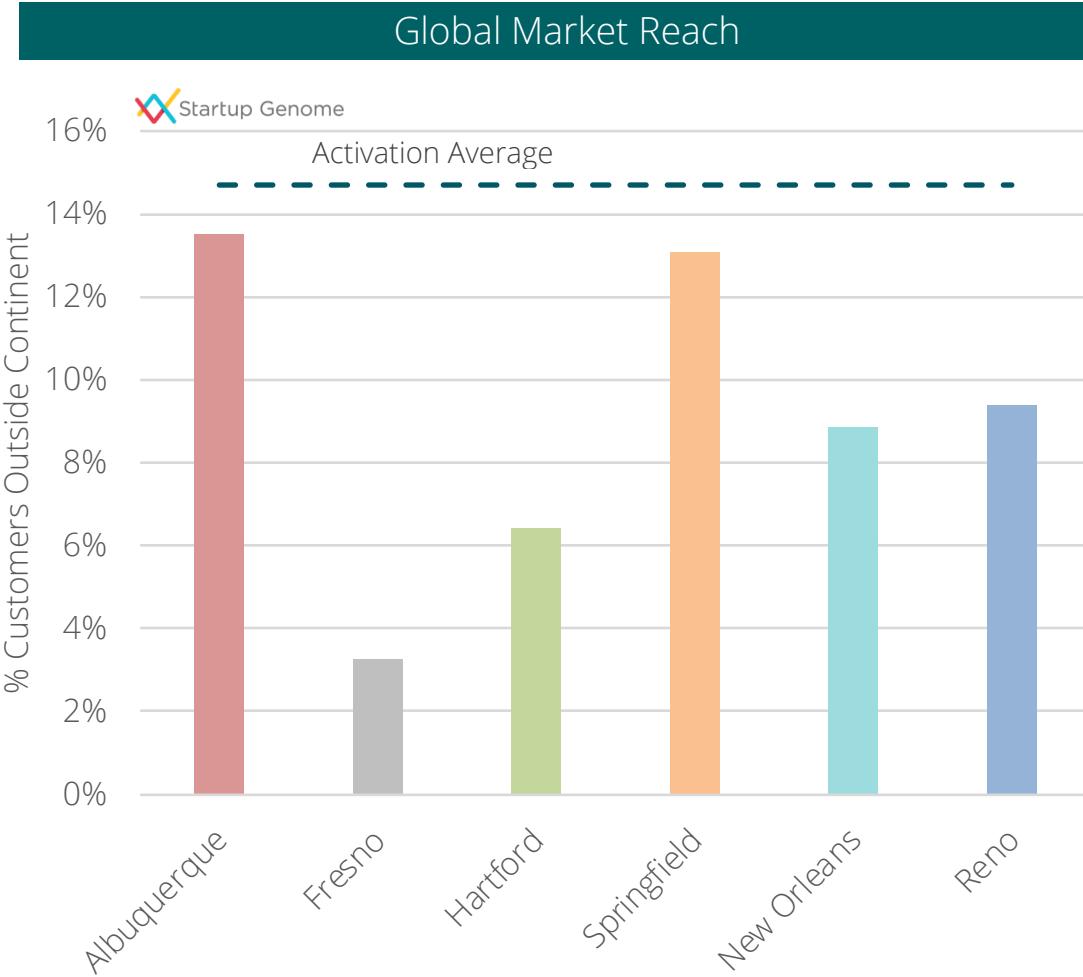
Size of bubble indicates ecosystem value (\$)

# Global Connectedness brings know-how, awareness, and ambition into an ecosystem—it's a global fabric of knowledge, ideas, and people

*Quality Relationships between Entrepreneurs*



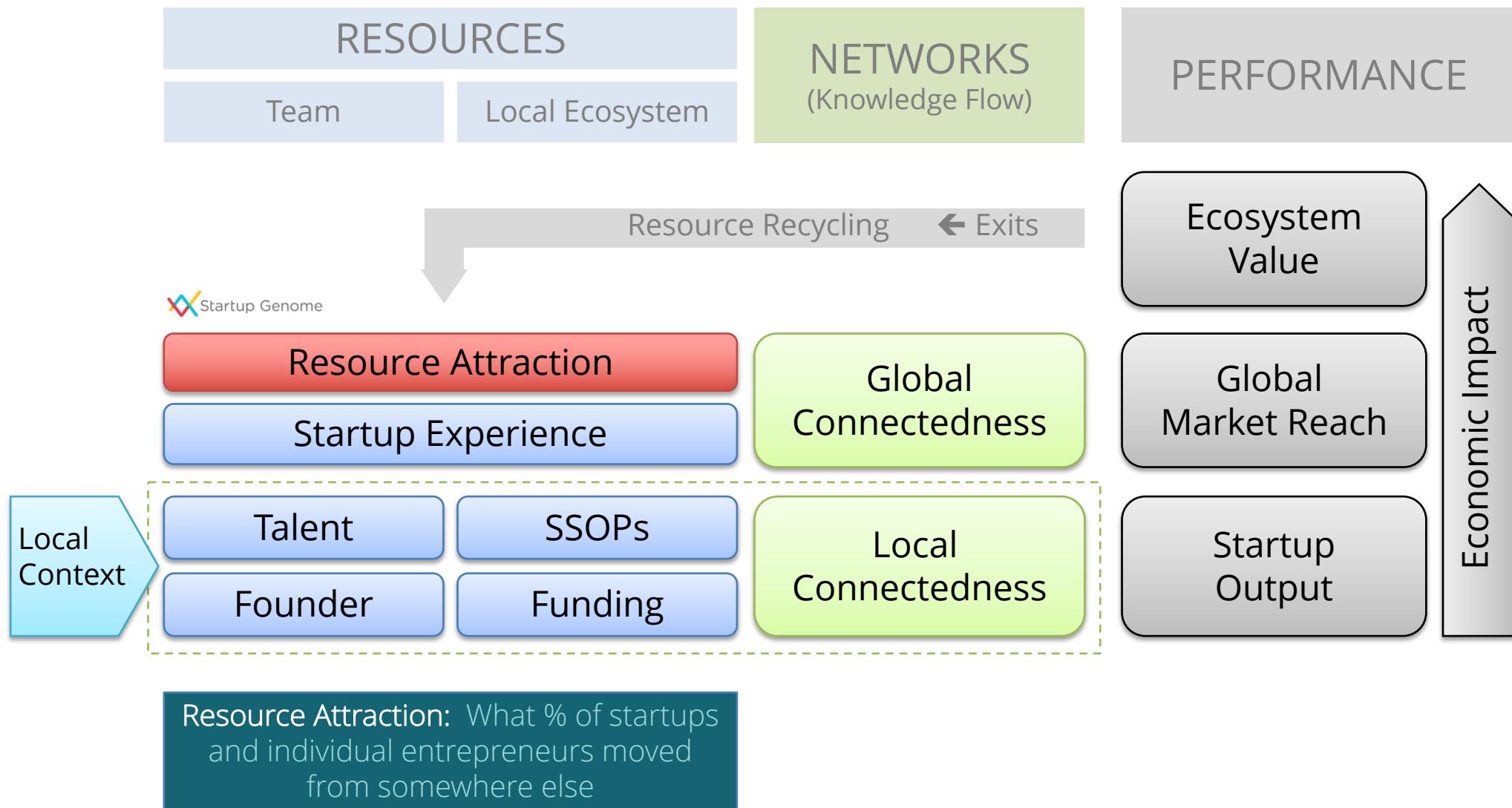
# Early Activation phase ecosystems typically have low GC and GMR—many American cities have low GMR due to large domestic market



# Summary: Global Connectedness and Global Market Reach

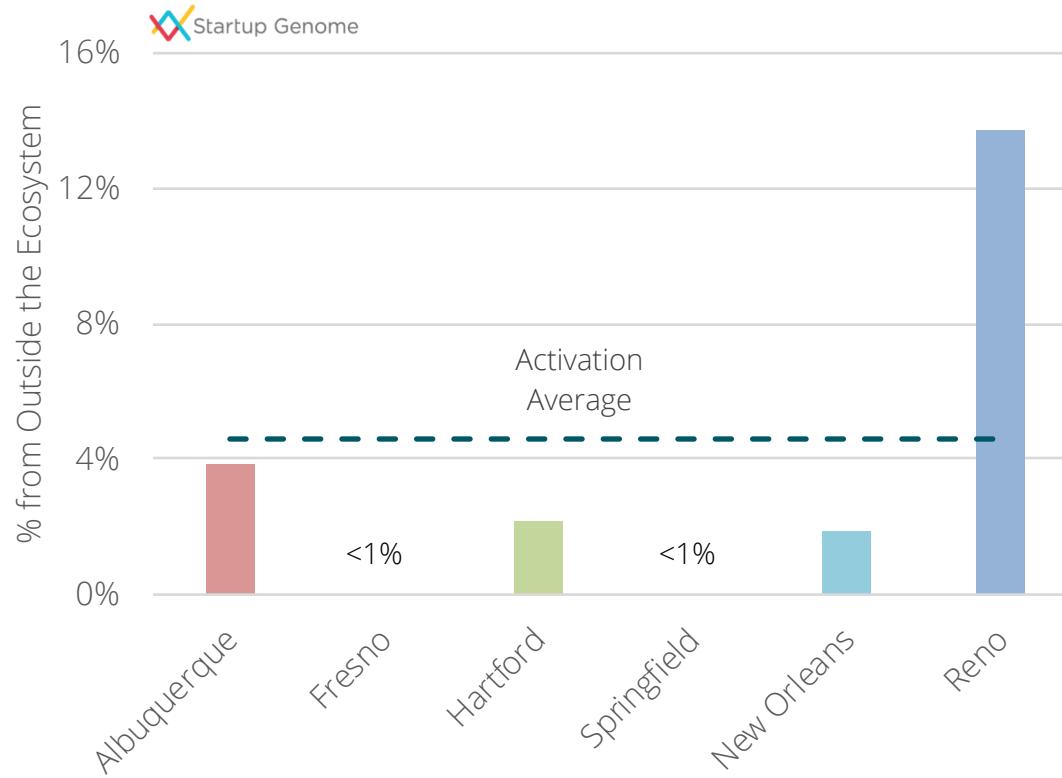
- Global Connectedness here captures relationships with top ecosystems
  - Silicon Valley, New York, Berlin, Singapore, London, Tel Aviv, Shanghai
- Each of the 6 ecosystems here has room for growth
  - This is normal for Early Activation and may not necessarily be a priority at this stage
  - These ecosystems may have connections to other regions beyond those measured
- Albuquerque and New Orleans have highest GC among peers
  - Hartford and Springfield have highest shares of immigrant founders in this group, but that hasn't yet translated into Global Connectedness
- Springfield and Albuquerque have relatively high levels of Global Market Reach—  
their startups are selling beyond U.S. and North America

## 4. Resource Attraction: the gravitational pull of ecosystems in drawing startups and entrepreneurs from elsewhere

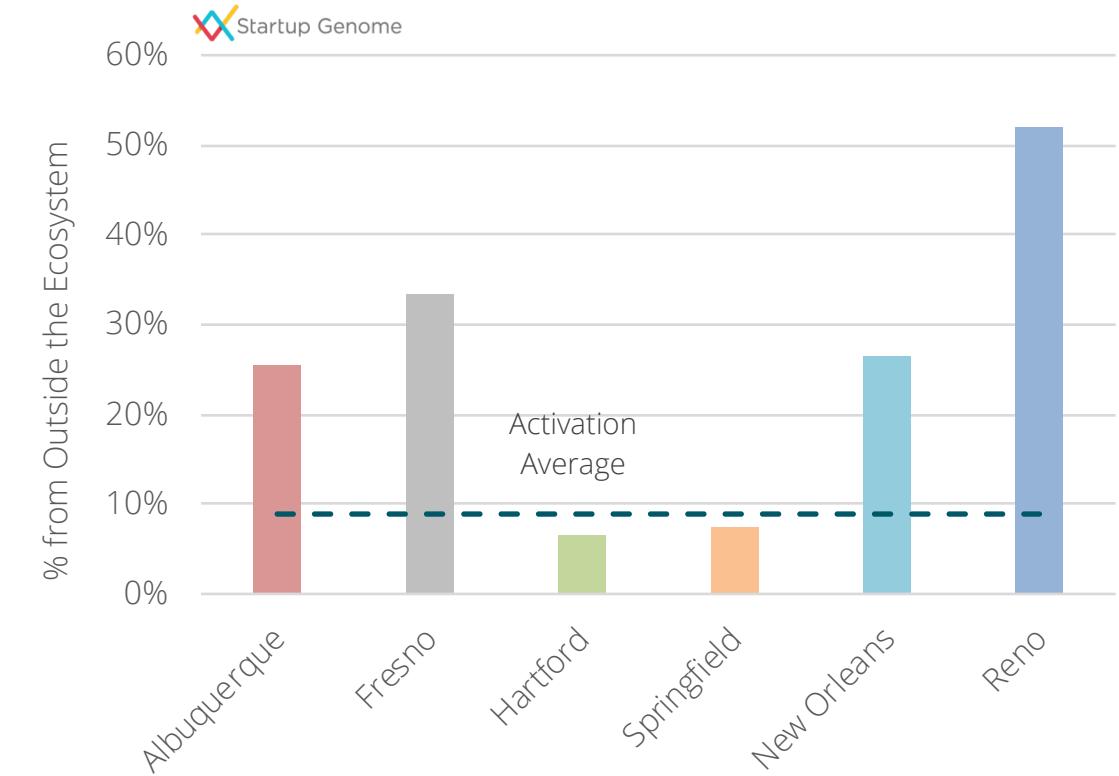


# Each ecosystem draws entrepreneurs from other parts of U.S.—Reno shows strong pull for startups

National Startup Attraction



National Entrepreneur Attraction



The biggest reason given for startups moving to Reno is the lower cost of doing business. At the entrepreneur level, the top reasons for moving are cost of living and quality of life.

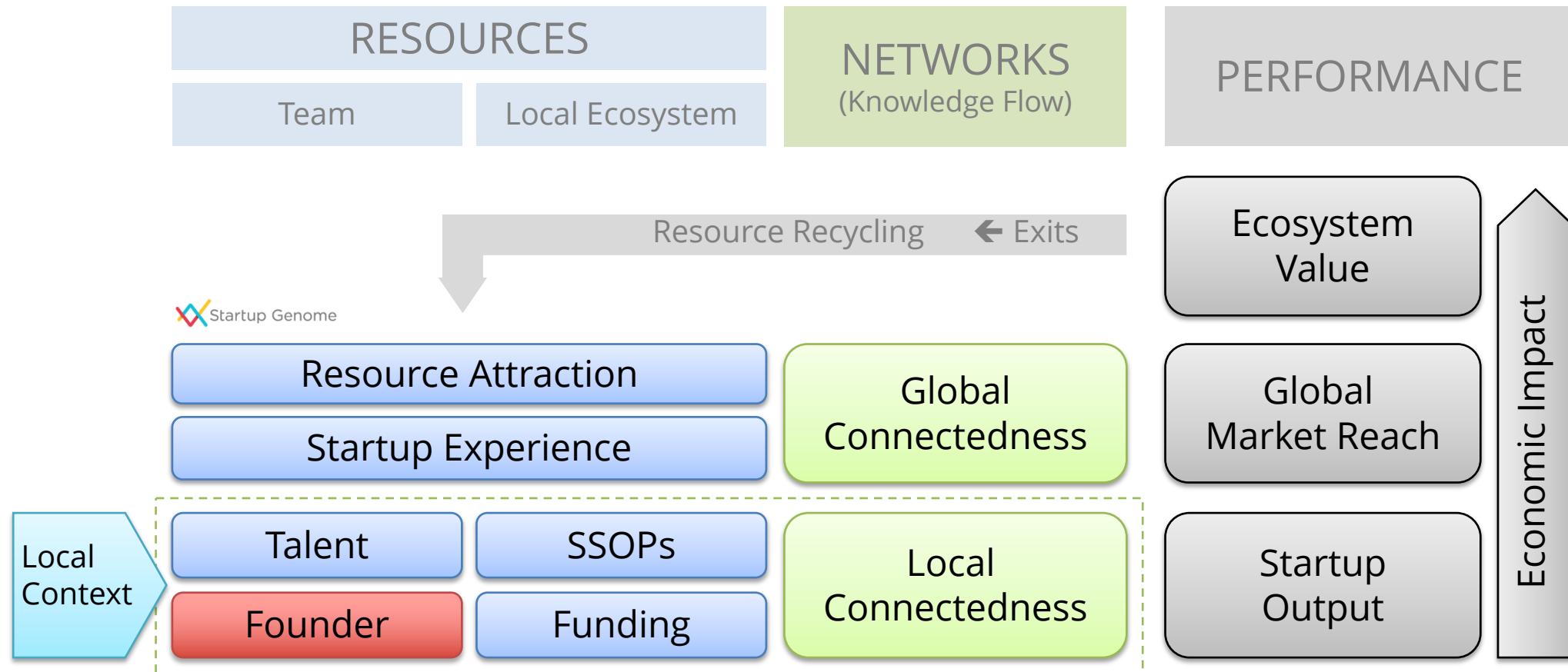
Source: Startup Genome Survey



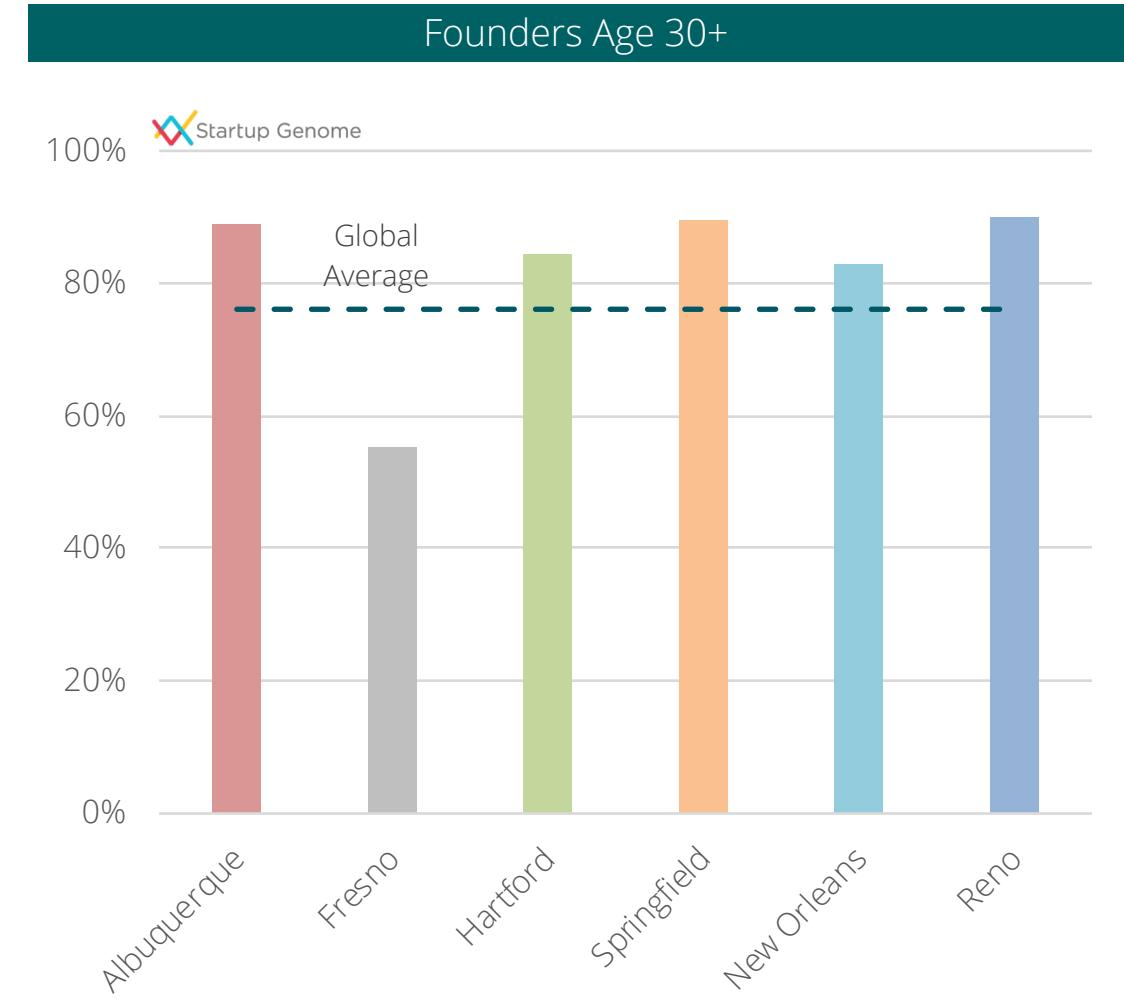
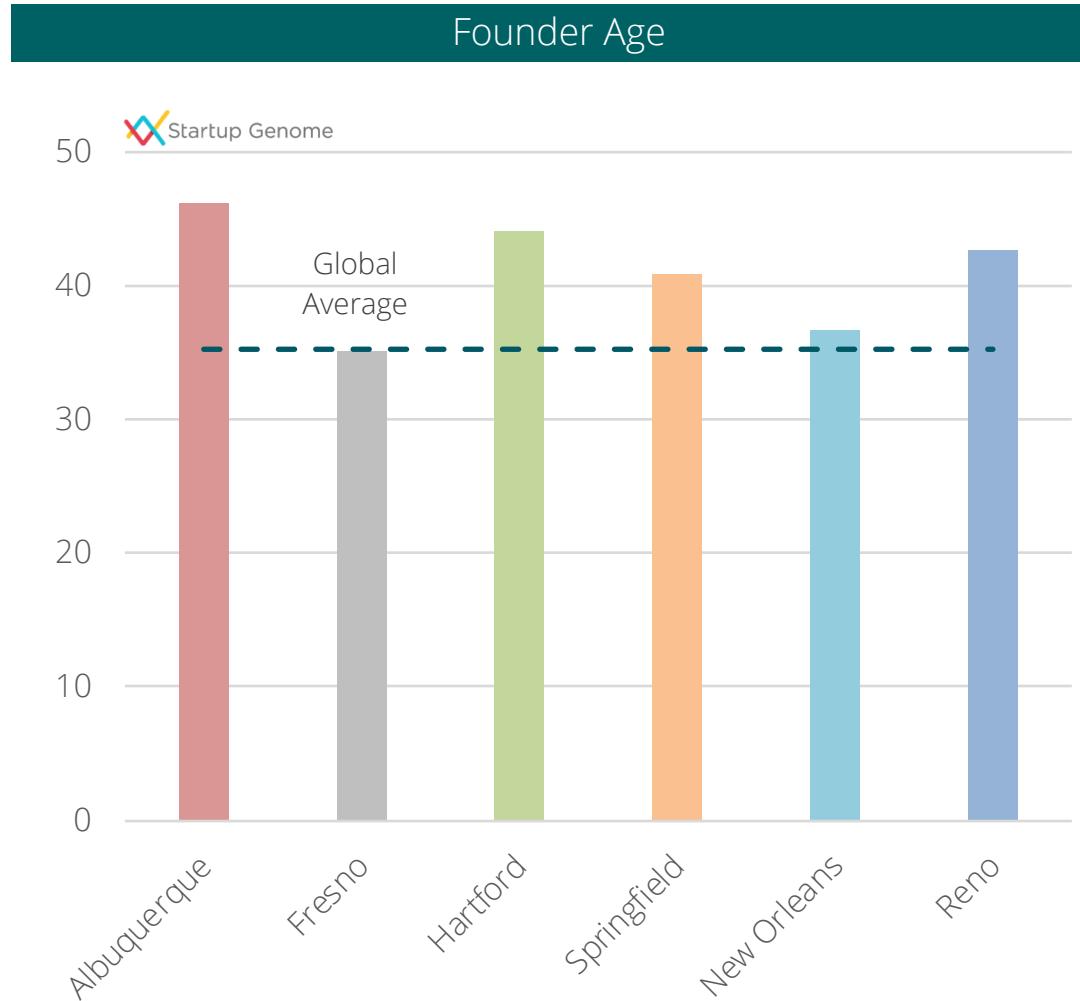
## Summary: Resource Attraction

- Startup Attraction: existing startup relocates to another location
- Entrepreneur Attraction: individual moves (usually for non-business reasons) and subsequently starts a company in new location
- Reno attracts and retains many people from elsewhere—presumably its proximity to California helps drive this
  - Lower cost of doing business was cited by startups as top reason for moving
  - Interviewees also pointed to Tesla plant announcement, saying it had led to an influx of potential entrepreneurs
- Fresno draws lots of potential entrepreneurs from elsewhere: one-third of Fresno founders moved to the city from another part of the country

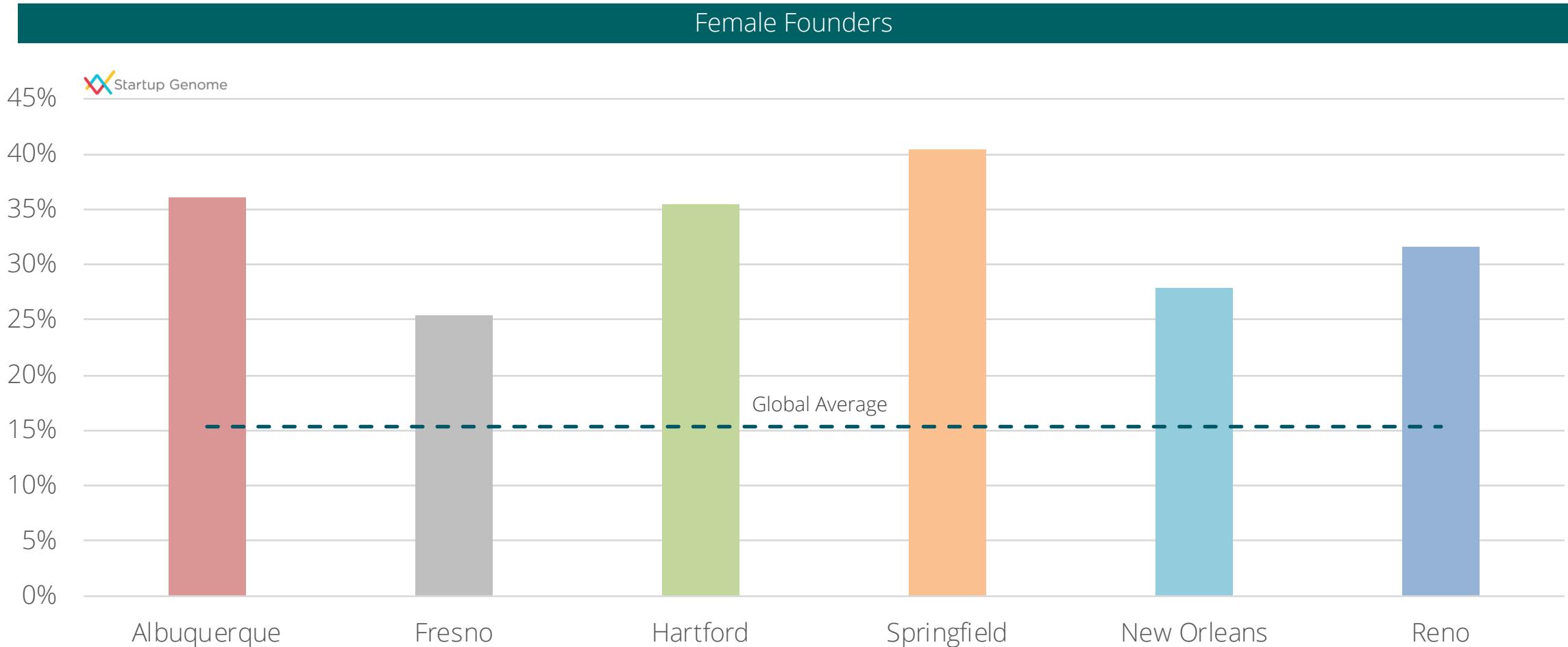
## 5. Founder Characteristics: basic demographics about ecosystem



# Most founders across the world are in their 30s, on average, when they start—research has found that success can rise with age



# U.S. ecosystems generally do better than global average on inclusion of women founders—but still plenty of room for improvement

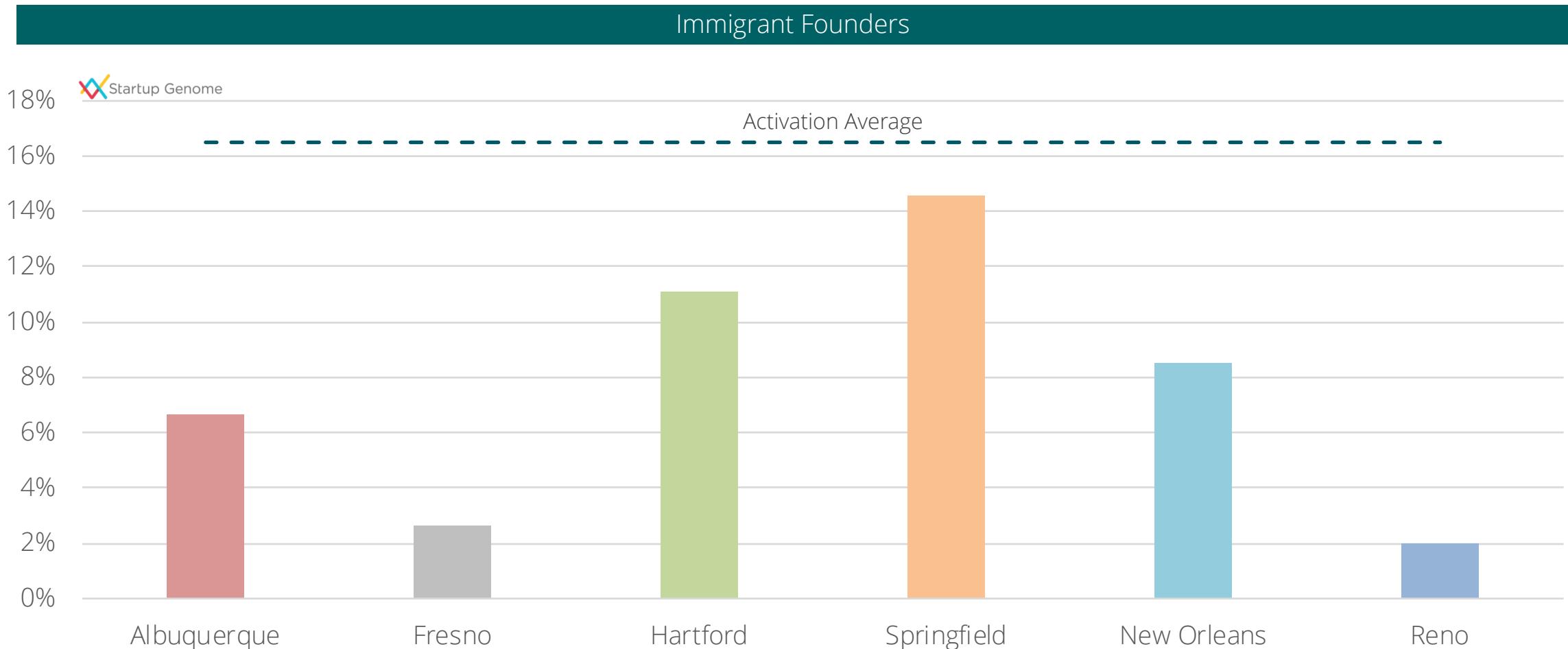


*"The people that are coming out and participating are excited, like minded, and they see a greater future for themselves and the city. There is lots of peer learning."*

-Hartford Interviewee



# Immigrant founders have been important source of innovation and job creation in United States for decades



*"Springfield has always had deeply liberal roots, with a lot of focus on collective success. Inclusion has always been of significant value, and is beginning to reflect in the ecosystem's culture of entrepreneurship."*

-Springfield Interviewee



# Summary: each ecosystem has key strengths to leverage, must prioritize where to focus to help accelerate growth

<b>Albuquerque</b>	Activate more local resources (people, talent, capital) into ecosystem	Create more cohesive and helpful culture
<b>Fresno</b>	Create more startups	Build on activities to create more local connections
<b>Hartford</b>	Foster more Local Connectedness	Increase regional visibility as attractive for startups
<b>Springfield</b>	Create more connections among local founders	Build on strong base of diversity and global dimension
<b>New Orleans</b>	Globally-known city: increase attraction levels	Cultivate culture of help among founders
<b>Reno</b>	Activate more local resources to grow Startup Output	Create stronger culture of support among founders



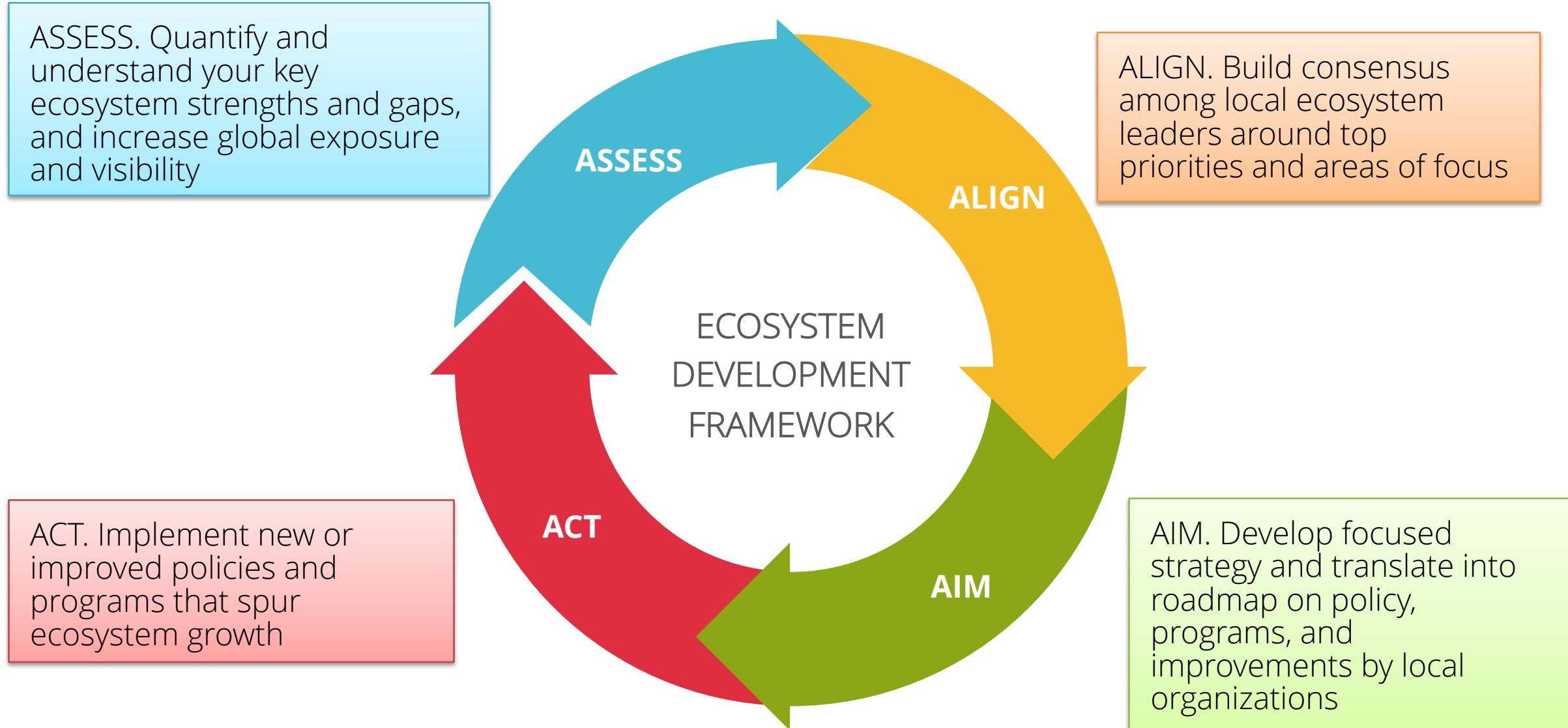
# About Startup Genome

Join us as a Member!

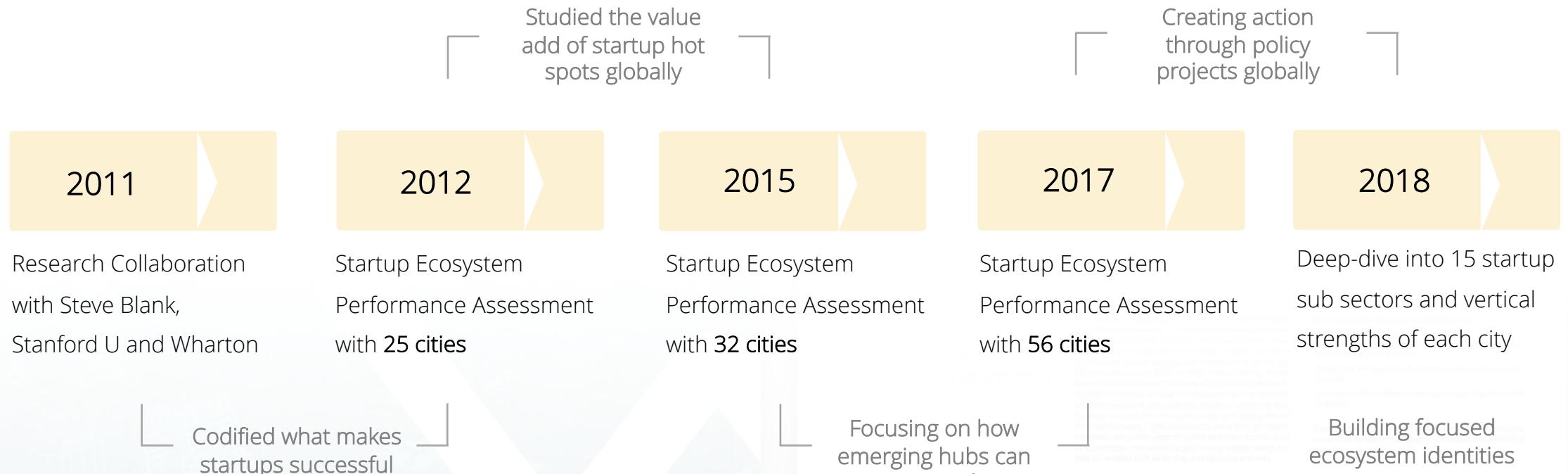
Increase the local and global visibility of your ecosystem

Gain insight into ecosystem performance, startup success, and actions to take

# From assessment to action: how Startup Genome works with Members



# Our work is rooted in a long track-record of robustly assessing factors determining startup and ecosystem success



Global Startup Ecosystem Ranking 2017

Performance categories (bottom 5 companies)

#1  
Silicon Valley

Building focused ecosystem identities

Next's edition coming

Entrepreneurs are the main audience, representing 50% of our users of the Startup Ecosystem Report during 2012

87% of the roughly 1000 survey respondents recommended that SGR 2012 to someone else and 95% would like to read the SGR 2013

82% considered the ranking to be the most valuable part of

# Cities and regions join us as Members—and together we assess ecosystem performance and startup success

## Annual Scope in Numbers

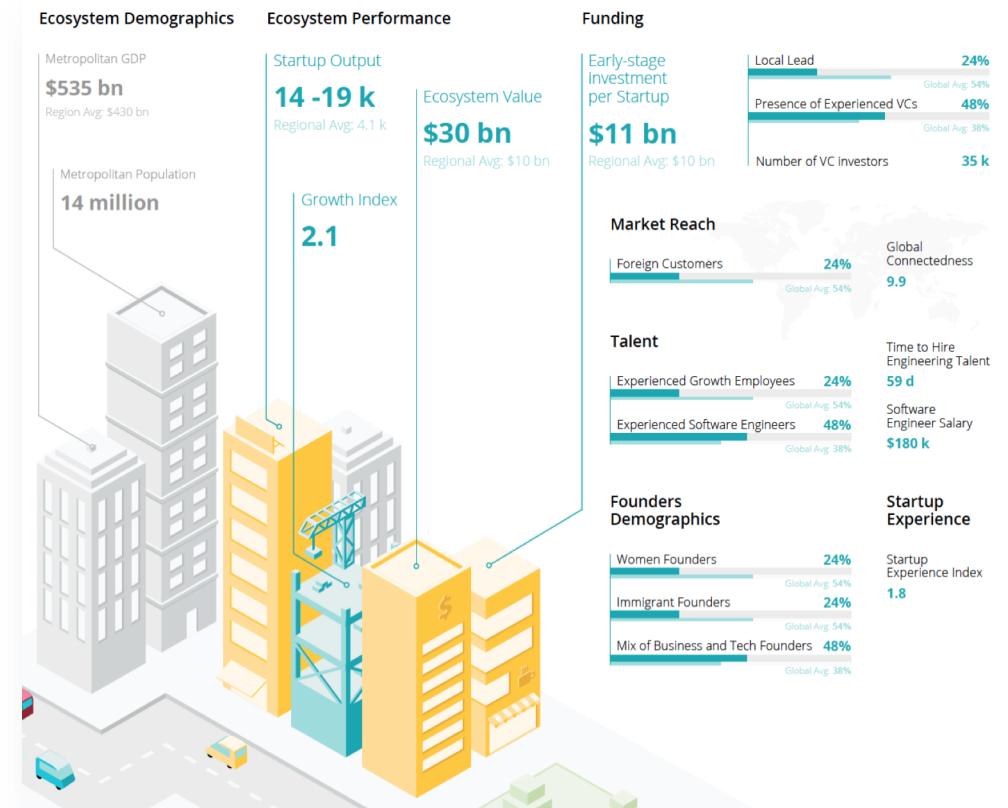
- 12,000+ startup leaders from 100+ cities take our survey
- 300+ support organizations partner with us
- 200+ experts provide context through interviews
- 60+ cities assess their startup ecosystems through us
- Data on > 1 million companies from web-scraping



CrunchBase



dealroom.co



# We help our Members address urgent challenges in their pursuit of economic development through stronger startup ecosystems

## Cities and Regions ask:

What have our investments and activities in supporting startups achieved?



## Outcomes with Startup Genome:

Clarity: precise identification of strengths, gaps, and impact of local organizations and programs

What do we do next to improve our ecosystem and support startups?



Focus: determination of key gaps and prioritized steps to address those gaps

How do we get better data on our ecosystem and how we compare to others?



Rigor: quantitative assessment, based on primary research with startups, plus global benchmarking

How can we create greater visibility—locally and globally—for our startup ecosystem?



Exposure: celebration of Member strengths on global platforms

*Existing tools and approaches are inadequate and unreliable in addressing these challenges*

# Acknowledgements

- Thank you to Tricia Whitlock and Shane Reiser for their tireless work in survey promotion, interviews, data collection, and relationship-building. This report and the city-specific assessments could not have happened without them.
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  - Pranav Arya
  - Lubin Arora
  - Tilman Wiewinner
  - Matthias Ivantsits

# Join Us!

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