



New York's Innovation Economy

JUNE 2016



PARTNERSHIP
for New York City



Deloitte.

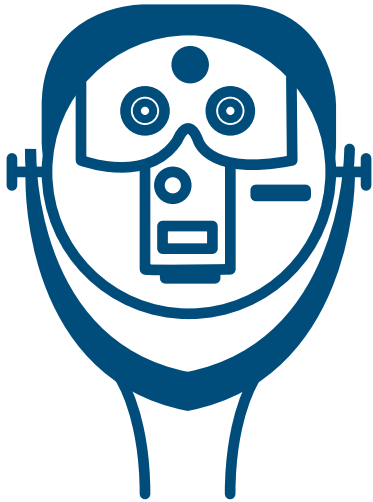
Introduction

The Partnership for New York City's Innovation Council was launched in 2015. Its purpose is to mobilize the resources and influence of business leaders in support of the city's fast-growing innovation economy.

Today, New York City is bustling with tech startups, supported by a host of investors, incubators and accelerators as well as corporate, government and academic initiatives designed to nurture and promote the sector.

As innovation activity has accelerated, however, high-growth startups have begun to hit speed bumps. New York's business environment is weighed down by more than its share of political, bureaucratic and industry forces that resist change. Protectors of the status quo are a threat to the city's future as a center of innovation.

Ironically, it is New York's business establishment that is most enthusiastic when it comes to embracing the new order. The global corporations, investment and professional firms that anchor the city's economy want to be at the forefront of the technological revolution. They understand that there is a natural alliance to be built with the "disruptors"—who are potential partners, vendors, clients and acquisitions. The Innovation Council intends to harness the mutual interests of the old and new economies of the city, in order to ensure that innovators from around the world continue to flock here and that New York will be a world-class innovation hub built on collaboration rather than disruption.



Current Landscape

**Supporting innovation
through collaboration
and investment**

\$704 billion
Gross city product

48
Fortune 500 headquarters,
more than any other U.S. city

3.7 million
private sector jobs
in the city



Large Businesses Anchor the Economy

New York City is home to 48 Fortune 500 headquarters, more than any other city in the United States. The city economy is strong with a gross city product of \$704 billion and a historic high of 3.7 million private sector jobs. Established industries remain the largest contributors to economic output.

Even though 96 percent of the businesses in the city are small (fewer than 100 employees), large businesses and nonprofit institutions with 100 or more employees account for 66 percent of the jobs.

Sources: Fortune 500, EMSI-2013, NYSDOL, U.S. Census Bureau, Statistics of U.S. Businesses

208,000 jobs
in tech firms and tech
jobs in other industries

Startups account for:
17% of net new job creation
9% of firms



Tech is growing fast, but remains a small contributor to New York City's economy:

Tech: 4% of economy
56% job growth
since 2003

Finance: 21% of economy
4% job growth
since 2003

Leadership in Diverse Industries Makes the City a Magnet for Innovators

New York is unique as a global headquarters city for multiple industries—financial and professional services, health and life sciences, media and entertainment, design, retail and fashion, and, of course, technology.

The technology revolution is disrupting traditional businesses in every sector. Thirty percent of leading CEOs are “extremely concerned” about new entrants disrupting their business model compared to 7 percent in 2014.

In New York City, industry leaders have embraced change and are partnering with innovators, rather than protecting the status quo. The combined number of jobs at tech firms and tech jobs in other industries has grown 35 percent since 2003 to a total of 208,000 jobs.

Sources: 2015 KPMG Fortune 500 Survey, U.S. CEO Outlook 2015, EMSI, U.S. Census Bureau,



Innovation Labs



Accelerators



Other Initiatives

New York's Established Businesses are Investing in Innovation

The proliferation of startup activity and tech talent in New York City has encouraged corporate investment in innovation, both internally and through venture funding and acquisition of other companies.

In order to stay current, nimble and effective, global businesses across industry sectors are locating specialized innovation centers in the city.

An increasing number of large businesses, such as MasterCard, IPG, Barclays, Pfizer, KPMG and IBM Watson, are launching labs and accelerators in the city to tap into the innovation ecosystem. Even companies without a prior New York presence, such as Roche and Samsung, are putting labs here to take advantage of the city's strengths and diversity.

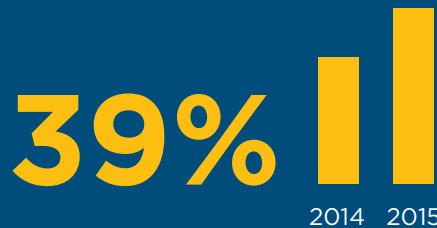
“As a large organization, you need a ready supply of new ideas, insights and technologies, not just from the inside but also from the outside.”

—Chief Information Officer of a major U.S. bank

VENTURE CAPITAL

8,300 

Each additional \$1 billion of VC investment creates an estimated 8,300 new jobs.



Annual venture capital investment in Downstate NY startups grew 39 percent from \$4.4 billion to \$6.1 billion between 2014 and 2015.

Tech Entrepreneurs Come to the City for Access to Capital and Customers

New York's corporate and institutional sectors are both investors in young companies and early adopters of new tech products. They help early stage entrepreneurs refine their products and introduce them to key markets.

In Downstate New York, annual venture capital (VC) investment has grown 39 percent from \$4.4 billion in 2014 to \$6.1 billion in 2015. Each additional \$1 billion of VC investment creates an estimated 8,300 new jobs. This includes 4,200 jobs with the companies receiving the investment, plus an additional 4,100 jobs elsewhere in the economy due to multiplier effects.

Sources: PwC Moneytree VC Report, EMSI

New York City

A global hub
for innovation

To inform the work of the Innovation Council, the Partnership worked with Doblin, Deloitte’s innovation consultancy, to examine the current innovation ecosystem, and identify public and private sector-led opportunities to create an environment where innovative companies can scale up and thrive.

Interviews were conducted with 46 stakeholders, including founders, VCs, corporate leaders, government officials and academics, to better understand the challenges and opportunities for New York City to enhance its status as a global hub for innovation.

It came as a surprise that tech startups in the city are not inhibited by the same issues that concern established companies, such as complex regulation and higher costs. Instead, they have unique issues that warrant further investigation.

The research identified six opportunities where collaboration and action can accelerate innovation in New York City.



Myths

**Challenges
facing high-tech
startups are not the
conventional ones**



Myth #1

Startups view regulation as the main inhibitor to growth in New York City.

Reality

There is a strong perception among startups that government regulation is a hurdle that comes later in the process, if at all, when they are going to market or highly profitable. Most ignore the rules when getting started.

“Regulation is a high-class problem that I would address later on.”

—Co-founder of an early stage startup

Regulation isn’t a factor until an organization grows or sells a certain number of products:

Example: Food Startup



Start

Regulation often does not apply at the beginning.

11 Employees

Employers must maintain injury and illness records required by OSHA.

100,000 Units

FDA labeling is required after 100 employees and 100,000 units sold in a calendar year.

Sources: 90% of Startups Fail: Here’s What You Need to Know About the 10%, Small Business Management: Entrepreneurship and Beyond, the Role of Entrepreneurship in U.S. Job 2014, Small Business Nutrition Labeling Exemption Guidance, OSHA Regulatory Guidance



Myth #2

Lack of affordable housing in New York City pushes innovation talent away.

Reality

While cost of living is high, it does not appear to be prohibitively so, especially compared to the cost of living in San Francisco or London.

**“The manager that I pay \$130,000
can make living in New York City work.”**

—Founder of mid-stage startup

**Average monthly
rent for a one
bedroom apartment**



83%

of renters working at
New York City tech firms live
in households that spend less
than 1/3 of their income on rent.

Cost of living ranking

12th

London

16th

New York City

Sources: Zumper National Rent Report: April 2016, U.S. Census Bureau,
American Community Survey Public Use Microdata, 2014, Mercer 2015 Cost of Living Rankings



Myth #3

Startups cannot find space
in New York City.

Reality

Startups can find space—however, it often is not flexible in size, terms of lease, or security deposit requirements. The space problem becomes serious as companies mature and grow.

“We can get a desk for two people for \$500 but it’s harder as we grow.”

—Co-founder and COO of e-commerce startup



Short-term work spaces give more options to early stage companies and startups.

Mid- to late-stage startups have fewer options.

Recent developments:

Brooklyn Navy Yard
Doubling employment to 16,000 by 2020

WeWork
Raised \$1.4 billion and leased 3,000,000 square feet

Cornell Tech’s Bridge
Additional 230,000 square feet

Sources: NYCEDC, Brooklyn Navy Yard, Grand Central Tech, Cornell Tech, Crain’s NY Business



Myth #4

Startups are leaving New York City.

Reality

Once founded in New York City, there is little evidence of startups moving out. Rather, as startups mature, they are more often acquired, fold (if not viable) or expand to lower-cost regions, keeping a New York City headquarters.

“I’ve never heard of any startups moving out of New York City.”

—Serial entrepreneur in New York City

Fastest Growing Companies in America 2015:

| | | |
|----------------------|------------|---|
| New York City | 416 | 100% have stayed in New York City. |
| Los Angeles | 277 | |
| Chicago | 229 | |
| Boston | 155 | |
| San Francisco | 148 | |

Not only are innovation companies staying, but some high-growth companies are moving to New York City:

Tycoon: Moved from Charlotte, NC
Infor: Moved from Atlanta, GA

Sources: Inc. 5000 2011, Inc. 5000 2015, Tech startups moving to NYC



Myth #5

Startups view taxes as inhibitors to growth in New York.

Reality

Startups have few corporate tax liabilities and are able to tap state incentives to support growth. However, later-stage companies and individual high earners see the New York tax burden as significant.

“Worrying about taxes would be a good problem to eventually have.”

—Founder of an early-stage startup

Awareness of existing tax incentives is low:

Qualified Emerging Technology Company Capital Tax Credit & Employment Tax Credit

Refundable tax credits based on capital investment and jobs.

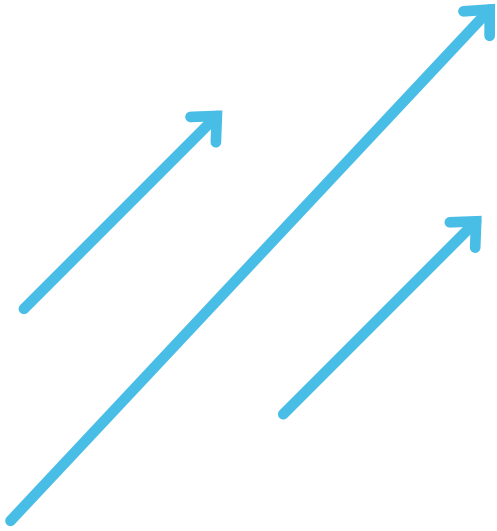
New York Excelsior Jobs Program

Refundable tax credits based on job creation. Program has low thresholds for strategic industries.

START-UP NY Program

Opportunity to operate completely tax-free for 10 years, while partnering with higher education institutions.

Sources: esd.ny.gov/businessprograms/data/taxes_incentives/getcs.pdf, Excelsior Jobs Program, START-UP NY 2014 emergency regulations (10-14-14), NYS Department of Taxation and Finance & The Tax Foundation



Opportunity

**Where collaboration
and action can accelerate
innovation in New York**

Clarifying the Ambition

Unlike single-industry innovation hubs, New York City lacks a clear sector focus, diluting its reputation and underselling its many strengths. A better marketing plan and clearer value proposition is needed to attract talent and investors.

SHORT-TERM

- Government and the private sector should align advocacy and support for enterprise software companies, where New York has a deep competitive advantage.

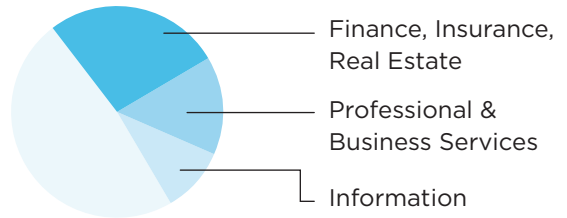
LONG-TERM

- Policies and programs should be aligned with a strategic plan, creating specific metrics for tracking progress in key sectors.
- Government and corporate procurement policies should target key sectors and be re-drawn to encourage opportunity for emerging innovation companies.

“New York City supports innovation, but what that means specifically is not clear. We need someone to say ‘come to New York City, we’re here to help you grow’.”

—Academic administrator of a public university

To attract high-growth companies, New York City should promote its core industries as attractive for tech. This is already occurring in Fintech, with investment in New York State 32 percent higher in 2014 (\$768 million) than in 2013.



New York City’s diverse industry representation makes a clear focus difficult. Seven industries are over-represented compared to national averages, with just four over-represented in Boston and San Francisco.



Sources: Data USA | New York, NY, Accenture & Partnership Fund for New York City, Fintech New York: Partnerships, Platforms and Open Innovation, EMSI

Cultivating an Innovative Business Climate

Government faces sometimes conflicting demands to both protect and improve the lives of people through innovation; politicians, unions and industry associations tend to be heavily biased in favor of the status quo.

SHORT-TERM

- Review and repeal laws and regulations that inhibit innovation.
- Provide startups with a point person within government to help navigate issues of scaling—space, financing and compliance with regulations.

LONG-TERM

- Create a robust public-private partnership to ensure government leaders are equipped with the knowledge and training to make decisions around innovation.

“Drones are an interesting example: they provide huge benefits but also raise issues— Everything is a cost-benefit analysis.”

-Former government administrator

24.7%

of wage and salary workers in New York belong to unions.

Innovative climate can be affected by numerous factors such as protectionist laws and regulations, worker environment (e.g., unions), and speed of decision-making.

75%

of respondents to a survey of private sector project managers think that government must make a quick response to strategic opportunities in order to sustain an innovation economy.

Sources: US BLS 2015, Federal Times 2015

Nurturing Innovation Champions

More champions for innovation are needed, especially in government, to provide innovators with visibility, recognition and credibility. Champions can be in formal positions or natural leaders within the innovation ecosystem.

SHORT-TERM

- Develop a cross-sector network of innovation champions. Advocates for innovation exist in government, academia, in various industries, at established corporations and startups, but in New York City they are largely disconnected.
- Create avenues for more collaboration between startups and established corporations. Startups gain credibility from such partnerships, while maintaining their independence, and corporations obtain visibility into the startup pipeline.

LONG-TERM

- Government and established private sector entities should recognize the contributions of innovative entrepreneurs, network founders and investors who are aligned with the city's strategic focus. Highlighting the work of these individuals broadcasts New York City's innovation, and reinforces an increasingly powerful network.

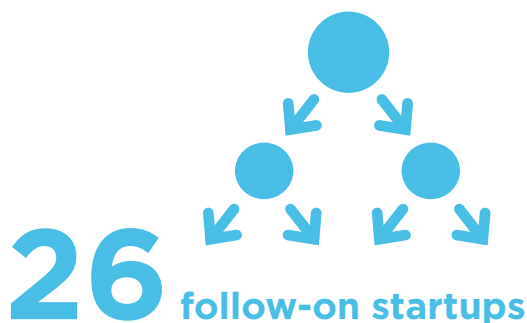
“It’s weird to be recognized by a foreign government before being recognized by New York City or New York State.”

—Founder of mid-size startup



Since 2014, 86 percent of consumer packaged goods companies have appointed a chief growth officer, charged with finding new, innovative business models, highlighting how corporates have elevated innovation champions to a C-Suite position.

Sources: The Power of Entrepreneurship Networks, Yahoo to buy rest of Right Media for \$680 million, The Emergence of the Chief Growth Officer in Consumer Packaged Goods



Champions who worked for Silicon Alley’s early success, DoubleClick, went on to help found 26 follow-on startups, such as Right Media, which Yahoo! acquired in 2007 for \$850 million.

Aligning Talent

There is often misalignment between the talent developed in or attracted to New York City and the specific skills needed, especially in engineering.

SHORT-TERM

- Support investment in programs like Computer Science For All, which seek to diversify the local talent pool by providing computer science in public high schools.

LONG-TERM

- Create partnerships between educational institutions and companies to help facilitate hiring. Current hiring focuses on attracting engineering graduates from the top 4-year programs, potentially overlooking skilled graduates from 2-year programs or less prestigious 4-year programs.
- Help New York City companies, especially startups, assist potential employees in navigating the visa process. Visa issues can be a frustrating process that alienate much needed talent from working in New York City.

“We employ 600 engineers with cognitive learning expertise. We can’t find them in New York City, so these jobs are in Boston and Seattle. ”

—CEO of a major education innovation company

↓ 9th

New York City’s startup ecosystem is ranked 2nd overall, but only 9th in talent, according to the 2015 Global Innovation Ecosystem Report.

8%

Only 8% of New York City college students graduate with software and statistical skills.

2x

Cornell Tech hopes to begin closing the talent gap by doubling the number of graduate engineering faculty and students in the city by 2043.

19%

of all New York City job ads from March 2016 require tech and/or engineering skills.

Sources: 2015 Global Report, Data USA | New York, NY, Construction of Cornell Tech Roosevelt Island Campus Will Begin in January 2014

Fostering Meaningful Encounters

The New York City innovation ecosystem is splintered and disaggregated. A large population and multitude of activities make it difficult for innovators, especially newcomers, to form meaningful connections organically or strategically.

SHORT-TERM

- Refine Digital.NYC, the official city-run online hub for the New York City tech ecosystem, to highlight events and opportunities that support focus areas.
- Support Tech:NYC as it develops a singular advocacy voice for the city's tech sector.

LONG-TERM

- Develop sector-specific networks and accelerators to better connect corporate investors and adopters with local entrepreneurs.
- Invest in modifying and updating Internet Week to better represent the diversity of the tech ecosystem in New York City.

“It’s hard to look at all the various co-location, incubator and meet-up groups and figure out exactly what ones will be the most helpful.”

—Entrepreneur, Mentor, Thesis Advisor

While New York City has more startup events than other cities, people and companies can get lost in the flurry.

Number of events posted
for March 2016



Sources: Digital NYC events, 50 Events in Tech UK for March 2016

Harnessing International Reach and Workforce Diversity

New York City's leadership as a diverse, international hub is especially advantageous for innovation efforts that thrive on creativity and broad market testing.

SHORT-TERM

- New York City should capitalize on the inclusiveness of its innovation scene and build or scale current events that capitalize on New York City's diverse population of entrepreneurs (e.g., Women in Entrepreneurship "WE" Festival).
- New York City houses a large international community whose members not only bring new ideas but also offer feedback from a global lens and identify key global export markets. Innovators should be made aware of this unique opportunity.

LONG-TERM

- Students and post-docs from around the world attending New York City's many diverse universities and research institutions, should be identified and plugged into the innovation ecosystem.

“The U.S. tech sector is not diverse. The Valley is not diverse. New York City can be the place to drive diversity in the innovation economy.”

—Academic Administrator of a public university in New York City

28%

Brooklyn has the highest percentage of female tech founders.



Forty percent of New York City’s private companies are women-owned. The city has twice as many women-owned businesses as any other U.S. city.

Test drive the global marketplace:

200+

languages are spoken in New York City, giving a diversity of cultures for market testing.

35%

of New York City startups’ customers are located abroad.

Sources: Center for an Urban Future, Breaking Through: Harnessing the Economic Potential of Women Entrepreneurs, 2015 Global Report, New York City Department of City Planning

Focus

**Build on New York
City's strengths**

“Tech jobs” and startup activity alone will not transform the city economy or ensure long-term growth.

The city stands apart from its competitors for the same reasons it always has: deep capital markets, strong and diverse corporate and institutional leadership, and access to consumers around the world.

If New York focuses its innovation strategy on leveraging these assets, it can become the world’s most productive innovation ecosystem.

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Partnership for New York City
One Battery Park Plaza, 5th Floor
New York, NY 10004

pfnyc.org
innovateinnyc.org



Doblin/Deloitte
30 Rockefeller Plaza, 32nd Floor
New York, NY 10112

doblin.com
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