GREATER PHILADELPHIA’S GROWING INNOVATION ECOSYSTEM
Greater Philadelphia’s *resurgent innovation ecosystem*, perennial strength in the life sciences, health care and higher education, and a growing B2B tech community positions the tri-state region among the most attractive in the world for investors and entrepreneurs looking to establish and grow a business.
Funding
At All Stages

A Place for Local and National Investment

Since 2013, over $1.5B in venture funding has been invested in over 361 companies in the Greater Philadelphia region. In 2016, the Philadelphia Metro area made the Martin Prosperity Institute list of the Top 20 Global Metros by Venture Capital Investment; positioning the region as an emerging destination for startups and investors alike from around the globe.

National funds such as Comcast Ventures, First Round Capital, NewSpring Capital, and Safeguard Sciences are complemented by regional funds, such as BioAdvance, Gabriel Investments, Mission06, Osage Partners, Rittenhouse Ventures, Seventy Six Capital, SG3 Ventures and twelve active angel groups that have been established in the region making both formative and later stage investments. Ben Franklin Technology Partners of Southeastern Pennsylvania (BFTP) has been the leading seed-stage capital provider for Greater Philadelphia’s technology sectors for over 30 years; investing over $175 million in more than 1,750 regional technology companies.

¹PwC Q1 2013 – Q4 2015 aggregated investment dollars – all sectors – Philadelphia metro region
Talent Hub

A Place for New Ideas

The talent pool in Greater Philadelphia is **stronger than ever** with almost 90,000 students graduating from the region’s 100+ colleges and universities each year. There are over 13,000 STEM-related degrees awarded; creating a reliable stream of talent for the 280,000 STEM-related jobs held in the region.

Universities throughout the region are adapting curriculums to **align learning and resources with the demands of the entrepreneurial community**.

*Drexel University* recently created the nation’s first stand-alone entrepreneurship school offering majors and minors. *Temple University* and *Drexel University*, with *BFTP* each launched new funds in 2015 to advance technologies created at each school. *Thomas Jefferson University* and *Philadelphia University* are merging to create a new, world-class approach to education: offering more programs focused on solutions to real-world problems.

The region’s **low cost of living, excellent quality of life and exciting job market** means that more of these graduates are choosing to stay in Greater Philadelphia. The millennial growth rate in the city of Philadelphia is higher than any of the nation’s 30 largest cities due, in part, to the 64% of local students making the region their home after graduation.

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**Millennial Growth as Share of overall city population 2006 – 12**

Percent change among the nation’s largest cities

<table>
<thead>
<tr>
<th>City</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philadelphia</td>
<td>6.1%</td>
</tr>
<tr>
<td>Boston</td>
<td>5.7%</td>
</tr>
<tr>
<td>Nashville</td>
<td>5.6%</td>
</tr>
<tr>
<td>Baltimore</td>
<td>5.4%</td>
</tr>
<tr>
<td>San Francisco</td>
<td>5.3%</td>
</tr>
<tr>
<td>Denver</td>
<td>5.0%</td>
</tr>
<tr>
<td>30-city median</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Source: Pew Charitable Trusts
Greater Philadelphia is also home to a highly collaborative startup community where not only space but also ideas and resources are shared. Investors and private angel funds are interacting with entrepreneurs and service providers like never before, with vibrant networking opportunities such as those sponsored by Philly Startup Leaders, Philly New Tech Meetup and PAC T. Varied accelerator models thrive, including Project Liberty and DreamIT Health. EDSi and the civic-focused FASTFWD™ university challenge competitions, including the University of Pennsylvania’s AppitUP, are driving increased collaboration.

### Innovation and Incubation

#### A Place for Community

Anchored by Drexel University, Children’s Hospital of Philadelphia, University of Pennsylvania Health System, the Wistar Institute, University of the Sciences, and the University City Science Center, the renaissance of Philadelphia’s University City neighborhood is part of a national trend towards innovation districts in urban settings. There have been almost 10 million square feet of real estate projects in University City since 2010, with 32 new developments, including residential, academic, research, office and medical facilities for a total investment of $2B. Mixed-use development projects like uCity Square and Schuylkill Yards are bolstering the innovation ecosystem by building community through the intersection of a live, work, play dynamic. University City is leading Philadelphia’s job growth with 75,000 jobs – a 79% increase in middle-to-high-wage positions since 2008 – and 30,000 jobs per square mile, 63% more than Cambridge, MA.

Startups are swelling over 65 incubators, accelerators and co-working spaces in the Greater Philadelphia region. Benjamin’s Desk, a co-working space at the heart of Philadelphia, has expanded to a second site and will manage operations at the new Pennovation Center at the University of Pennsylvania, a 23-acre project dedicated to the innovation-based economy.

#### Average Class A Office Space Rental Rates (USD/sqf), 2016 Q1

<table>
<thead>
<tr>
<th>City</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>$72.57</td>
</tr>
<tr>
<td>San Francisco</td>
<td>$72.04</td>
</tr>
<tr>
<td>Washington, D.C.</td>
<td>$36.93</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>$36.60</td>
</tr>
<tr>
<td>Miami</td>
<td>$35.48</td>
</tr>
<tr>
<td>Boston</td>
<td>$33.77</td>
</tr>
<tr>
<td>Houston</td>
<td>$29.82</td>
</tr>
<tr>
<td>Chicago</td>
<td>$29.75</td>
</tr>
<tr>
<td>Greater Philadelphia</td>
<td>$24.02</td>
</tr>
<tr>
<td>Atlanta</td>
<td>$22.98</td>
</tr>
</tbody>
</table>

Source: Jones Lang LaSalle Office Statistics

**Average Class A Office Space Rental Rates (USD/sqf), 2016 Q1**

- New York: $72.57
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- Miami: $35.48
- Boston: $33.77
- Houston: $29.82
- Chicago: $29.75
- Greater Philadelphia: $24.02
- Atlanta: $22.98

Source: Jones Lang LaSalle Office Statistics
Leader in Life Sciences

A Place Where Tech and Health Care Converge

The perennial strength of life sciences in Greater Philadelphia is deeply rooted and has established the region as a community of “firsts” from the country’s first hospital, cancer research center, and school of pharmacy to the concept of the first HMO.

Transformations are happening in digital health innovation: well over 100 digital health companies have received $900M+ in investments and exits since 2008. The Greater Philadelphia Chamber of Commerce’s CEO Council for Growth has convened the Health Care Innovation Collaborative that facilitates relationships and deals between innovators and the private sector.

World-class research for cell and gene therapy is happening here: University of Pennsylvania and Novartis are constructing a first-of-its-kind Center for Advanced Cellular Therapeutics that will be the epicenter for research using cell therapy technologies.

Spark Therapeutics, spun out of The Children’s Hospital of Philadelphia, is poised to have the first gene therapy approved in the United States to treat childhood blindness.

Adaptimmune, a UK-based immuno-oncology company that uses T-cells to destroy tumors, is now locating its new 46,000-square-foot U.S. headquarters in the Philadelphia Navy Yard, citing GSK’s presence, with whom they have a $350M deal.
Life science companies starting in the Greater Philadelphia region are boasting significant liquidity events.2

<table>
<thead>
<tr>
<th>Company</th>
<th>Acquired/Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omthera Pharmaceuticals</td>
<td>$424M ACQUIRED IN 2013 BY AstraZeneca</td>
</tr>
<tr>
<td>Auxilium Pharmaceuticals</td>
<td>$2.6B ACQUIRED IN 2015 BY Endo International</td>
</tr>
<tr>
<td>Acquired in 2015</td>
<td></td>
</tr>
<tr>
<td>NuPathe</td>
<td>$144M ACQUIRED IN 2014 BY Teva Pharmaceuticals</td>
</tr>
<tr>
<td>Spark Therapeutics</td>
<td>$161M IPO IN 2015</td>
</tr>
<tr>
<td>Cephalon</td>
<td>$5.8B ACQUIRED IN 2011 BY Teva Pharmaceuticals</td>
</tr>
<tr>
<td>Opthotech Corporation</td>
<td>$167M IPO IN 2014</td>
</tr>
<tr>
<td>VWR Corporation</td>
<td>$536M IPO IN 2014</td>
</tr>
<tr>
<td>ViroPharma</td>
<td>$4.2B ACQUIRED IN 2013 BY Shire</td>
</tr>
<tr>
<td>Trevena</td>
<td>$291M IPO IN 2014</td>
</tr>
<tr>
<td>Opthotech Corporation</td>
<td>$167M IPO IN 2014</td>
</tr>
<tr>
<td>Avid Radio-pharmaceuticals</td>
<td>$300M ACQUIRED IN 2010 BY Eli Lilly</td>
</tr>
<tr>
<td>Ceptaris</td>
<td>$250M ACQUIRED IN 2015 BY Actelion, Ltd.</td>
</tr>
</tbody>
</table>

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2 According to the CEO Council for Growth’s 2014 Technology Transfer and Commercialization Report, 10 companies that grow to a liquidity event (e.g. acquisition or initial public offering) of $100M or more within 10 years is a sign of a healthy innovation environment.
Life science startups are receiving impressive financings from local investors, national funders, and crowdfunding efforts. Since 2013, over 100 biotech and medical services companies have received over $747M in venture funding.3 Some of those companies include:

**Aclaris Therapeutics**

*Malvern, PA · $82M*
- Aperture Venture Partners
- Cormorant Asset Management
- F-Prime Capital Partners
- Mossrock Capital
- RA Capital Management
- Rock Springs Capital
- Sofinnova Ventures
- Vivo Capital
- Vivo Ventures

**Celator**

*Princeton, NJ · $96.88M*
- BDC Venture Capital
- Business Development Bank of Canada
- Domain Associates
- GrowthWorks Capital
- Quaker BioVentures · Philadelphia, PA
- ROTH Capital Partners
- Thomas, McNerney & Partners
- TL Ventures Wayne, PA
- Valence Life Sciences
- Ventures West

**PhaseBio**

*Malvern, PA · $143.12M*
- Astellas Venture Management
- Fletcher Spaght Ventures
- Hatteras Venture Partners
- Johnson & Johnson Development Corporation · New Brunswick, NJ
- New Enterprise Associates
- OSI Pharmaceuticals

**Trice Medical**

*King Of Prussia, PA · $18.1M*
- BioStar Ventures
- HealthQuest Capital
- Safeguard Sciences · Radnor, PA

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### Growing Tech Scene

#### A Place to Develop

Philadelphia’s industrial and professional services legacy has generated an important and growing B2B technology sector. The IT industry has enjoyed considerable growth in the past 15 years with an annual growth rate of 4.4% since 2001, exceeding the regional GDP growth rate.

**Comcast’s** new $1.2B Technology & Innovation Center is set for completion in 2018 and will be its second flagship facility in the city that is expected to create an estimated 1,500 new tech jobs.

<table>
<thead>
<tr>
<th>Company</th>
<th>Acquired By</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>eMoney Advisor</td>
<td>Fidelity Investments</td>
<td>$250M+</td>
</tr>
<tr>
<td>Cadent Group</td>
<td>Cognizant</td>
<td>Undisclosed</td>
</tr>
<tr>
<td>Boomi</td>
<td>Dell</td>
<td>Acquired in 2010 by: Dell</td>
</tr>
<tr>
<td>Fiberlink</td>
<td>IBM</td>
<td>$375M</td>
</tr>
<tr>
<td>GSI Commerce</td>
<td>eBay</td>
<td>$2.4B</td>
</tr>
<tr>
<td>Card Connect</td>
<td>FinTech Acquisition</td>
<td>$350M</td>
</tr>
<tr>
<td>Coldlight</td>
<td>PTC</td>
<td>$105M</td>
</tr>
<tr>
<td>iPipeline</td>
<td>Thoma Bravo</td>
<td>Undisclosed</td>
</tr>
<tr>
<td>Kenexa</td>
<td>IBM</td>
<td>$1.3B</td>
</tr>
<tr>
<td>Octagon Research</td>
<td>Accenture</td>
<td>Undisclosed</td>
</tr>
</tbody>
</table>

*Note: The values are approximate and do not necessarily reflect the exact amount paid for each acquisition.*
Greater Philadelphia based tech startups are receiving impressive rounds of VC funding from local and national funders and angel investors. Since 2013, over 150 IT and software companies have raised over $507M in venture funding. Some of those companies include:

**Curalate**  
**Philadelphia, PA**  
$39.85M  
First Round  
MentorTech Ventures  
New Enterprise Associates  
Vayner/RSE

**Monetate**  
**Philadelphia, PA**  
$46.05M  
Common Fund  
First Round  
Floodgate  
Lead Edge Capital  
OpenView Venture Partners

**RJMetrics**  
**Philadelphia, PA**  
$23.95M  
August Capital  
Kartik Hosanagar  
Lerer Hippeau Ventures  
Red Swan Ventures  
SoftTech VC  
SV Angel  
Trinity Ventures  
Vision Ventures  
Zelkova Ventures

**SevOne**  
**Wilmington, DE**  
$202M  
Bain Capital  
Bain Capital Ventures  
Brookside Capital  
HarbourVest Partners  
Osage Venture Partners  
Baia Cynwyd, PA  
Westfield Capital Management

**Sidecar**  
**Philadelphia, PA**  
$15.12M  
ARC Angel Fund  
Ascent Venture Partners  
Ben Franklin Technology Partners of Southeastern Pennsylvania  
Gabriel Investments  
Innovation Capital Advisors  
Wilmington, DE  
Innovation Ventures  
Wilmington, DE  
Jonathan Brassington  
Philadelphia, PA  
MAG Fund  
Michael Rubin  
Conshohocken, PA  
Michael Phelan  
Baia Cynwyd, PA  
Nextstage Capital  
Audubon, PA  
Osage Venture Partners  
Baia Cynwyd, PA  
Paul Melchiorre  
Exton, PA  
Robin Hood Ventures  
Philadelphia, PA  
Sashi Reddi  
Philadelphia, PA

*PwC Q1 2013 – Q4 2015 IT and software data for the Philadelphia metro region*
A Top 10 Region for Venture Capital in the U.S.
- National Venture Capital Association

To learn more and to arrange a visit with Greater Philadelphia business and civic leaders, connect with Matt Cabrey (mocabrey@selectgreaterphila.com or +1 215-790-3727); Meghan Kelly (mkelly@selectgreaterphila.com or +1 215-790-3889); and Jeanne Nevelos (jnevelos@selectgreaterphila.com or +1 215-790-3726) of Select Greater Philadelphia.

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