



# A decade of growth: investment in Pittsburgh's technology sector

Trends and highlights, 2008–2017



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working world

# A decade of growth in Pittsburgh's technology community

Ernst & Young LLP and Innovation Works, Inc. are proud to present our sixth annual review of Pittsburgh's technology investment landscape. We've now analyzed a decade's worth of comprehensive data on the companies attracting capital in the region, the investors funding them and the exits they generate. The trends emerging from the past 10 years paint a compelling portrait of regional growth and point towards a bright future.

**Over 450 unique Pittsburgh companies attracted a total of \$3.5 billion in investment over the past 10 years.** The amount of capital invested and number of companies receiving funding have both increased dramatically over the 10-year period, pointing to a robust pipeline of early-stage companies to drive growth over the next decade and beyond. **From 2008 to 2017, annual investment amounts grew 198%, and the number of annual deals increased by 129%.**

Pittsburgh's strong reputation and growing population of technology companies have proven a major attraction for investors. **Over 250 investment firms from around the world have invested in Pittsburgh-based companies in the past 10 years, including 20 out-of-town firms making their first investments in Pittsburgh in 2017.**

Pittsburgh's technology ecosystem also attracts A-list corporations. In the past decade, more than 80 local companies were acquired by the likes of Amazon, Autodesk, Delphi Automotive, IBM, Philips Healthcare, Smith & Nephew, and Yelp - all of which maintained operations in Pittsburgh. These deals, along with several public offerings, generated **more than \$8.7 billion in disclosed exit proceeds.** The values of many deals are undisclosed, so the total exceeds the reported figure.

Furthermore, major technology companies, including Uber, Facebook, Apple, Bosch, GE and Tata, have opened technical or research offices in Pittsburgh in the past five years. This is a testament to the high-quality research faculty and students at the local universities, which help furnish Pittsburgh with an exceptional base of technical talent. **In the past decade, Carnegie Mellon University, the University of Pittsburgh and Duquesne University attracted nearly \$10 billion in research funding.** In the same period, the universities doubled the number of technology licenses granted and more than tripled the number of patents issued.

Both EY and Innovation Works are committed to supporting entrepreneurial growth in the region. Tracking investment activity helps us begin conversations with new investors interested in regional deals, informs local investors about our status versus other communities, and chronicles what's working and where we need to focus efforts. We hope this report provides you with useful insights into the state of the local technology community and venture capital ecosystem and inspires new ways to move it forward.

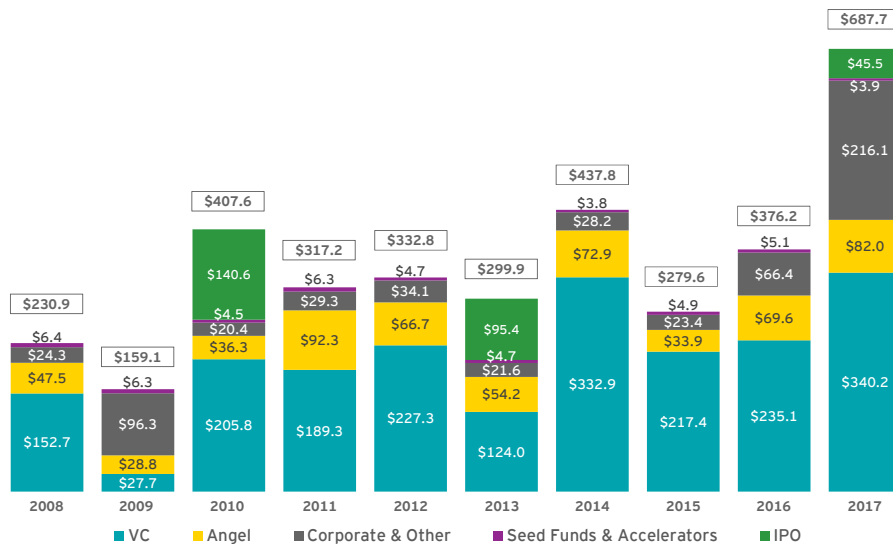


**Leon Hoffman**  
*Pittsburgh Office Managing Partner,  
Ernst & Young LLP*



**Rich Lunak**  
*CEO, Innovation Works, Inc.*

# Record year for tech investment in Pittsburgh



More than

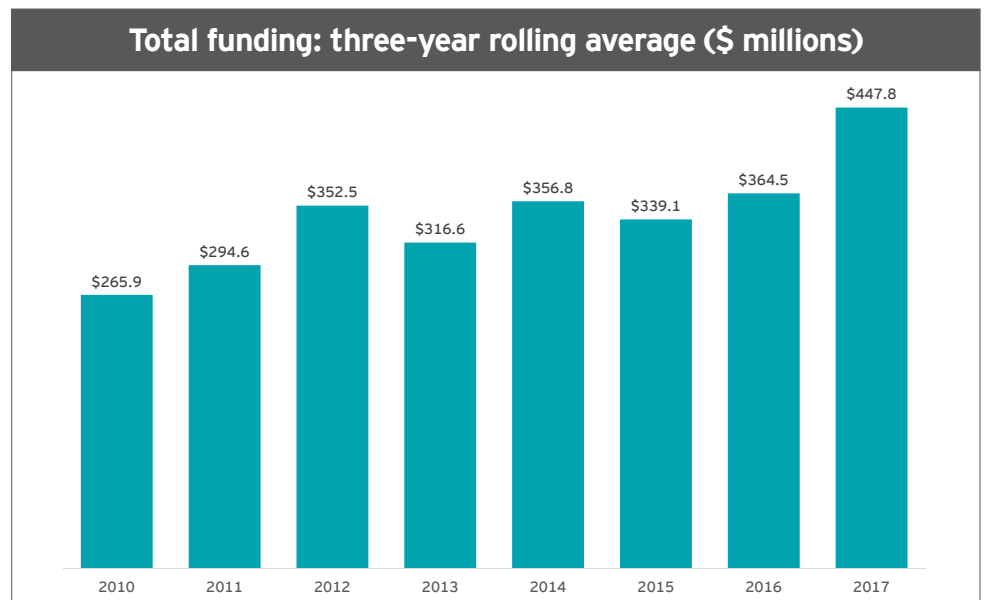
**\$687 million**

was invested in Pittsburgh technology companies in 2017, the largest amount in at least 10 years.

Source: CB Insights, Dow Jones VentureSource, Innovation Works, Pitchbook and Thomson Reuters ThomsonOne Database

**2017 marked the largest single year for total investment in Pittsburgh tech companies in at least a decade.** Funding from VCs and corporate investors were each at 10-year highs, driven by Ford's \$1 billion commitment to Argo AI\* and Petuum's \$93 million Series B financing round. The two aforementioned financing events are among the largest on record for privately held Pittsburgh tech companies.

The total investment in technology companies experiences significant year-to-year fluctuations. To uncover the underlying trend, it is helpful to examine a three-year rolling average as shown in the adjacent chart. The value displayed for each year is the average of the total investment amount in the three prior years (i.e., the value for 2010 is the average of the total investment in 2008, 2009 and 2010). The average investment increased in each of the last three years and grew 68.4% since 2010.

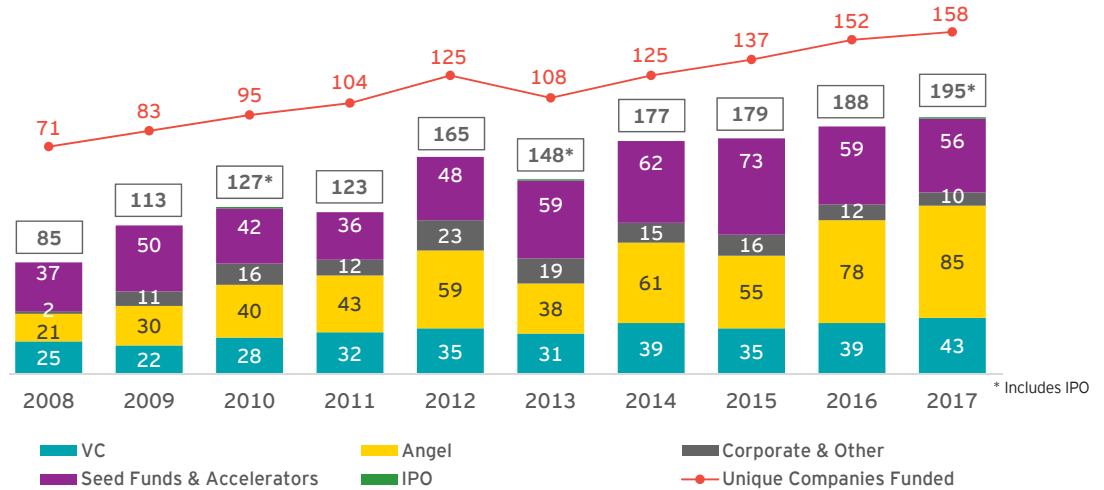


Source: CB Insights, Dow Jones VentureSource, Innovation Works, Pitchbook and Thomson Reuters ThomsonOne Database

\*Press releases from Ford and Argo AI described the financing round as a \$1 billion commitment over five years. For the purposes of this report, it was assumed that \$200 million would be invested each year over the five-year period. The 2017 investment amount for this report was prorated to reflect the fact that the financing round occurred in February.

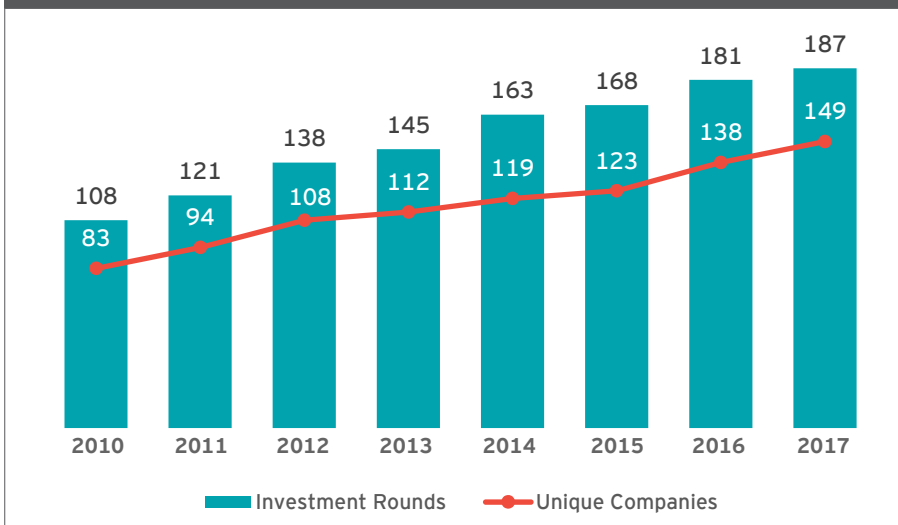
# Pittsburgh presents a robust pipeline of opportunities

In 2017, the number of financing rounds and the number of unique companies raising funding continued to grow, each reaching 10-year highs. **The number of deals funded by angels and VCs both reached 10-year highs in 2017.** The number of deals led by corporate investors decreased in 2017; however, corporate venture capital groups were participants in six of the 10 largest, local financing events in 2017.



Source: CB Insights, Dow Jones VentureSource, Innovation Works, Pitchbook and Thomson Reuters ThomsonOne Database

## Number of investment rounds: three-year rolling average



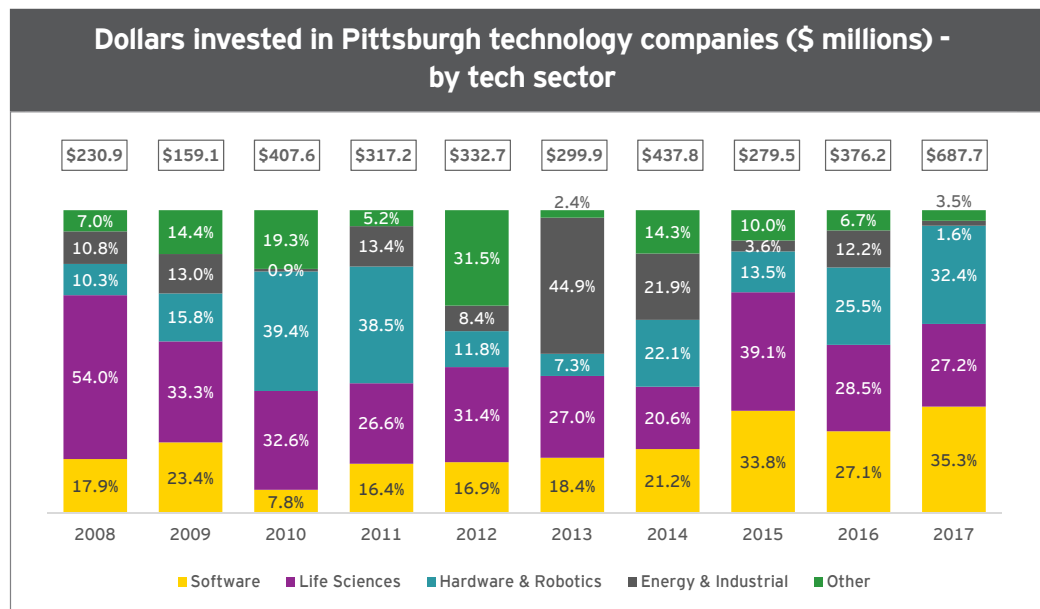
Source: CB Insights, Dow Jones VentureSource, Innovation Works, Pitchbook and Thomson Reuters ThomsonOne Database

The three-year rolling averages of the above data reveal a strong upward trajectory from 2010 to 2017. Specifically, the data indicates a 79.5% increase in the number of unique companies funded, a 73.1% increase in the number of deals. While the number of deals has increased, the median deal size has decreased, indicating a proliferation of early-stage companies raising smaller rounds, which serve as a pipeline for future growth.

# Increased diversification among sectors funded

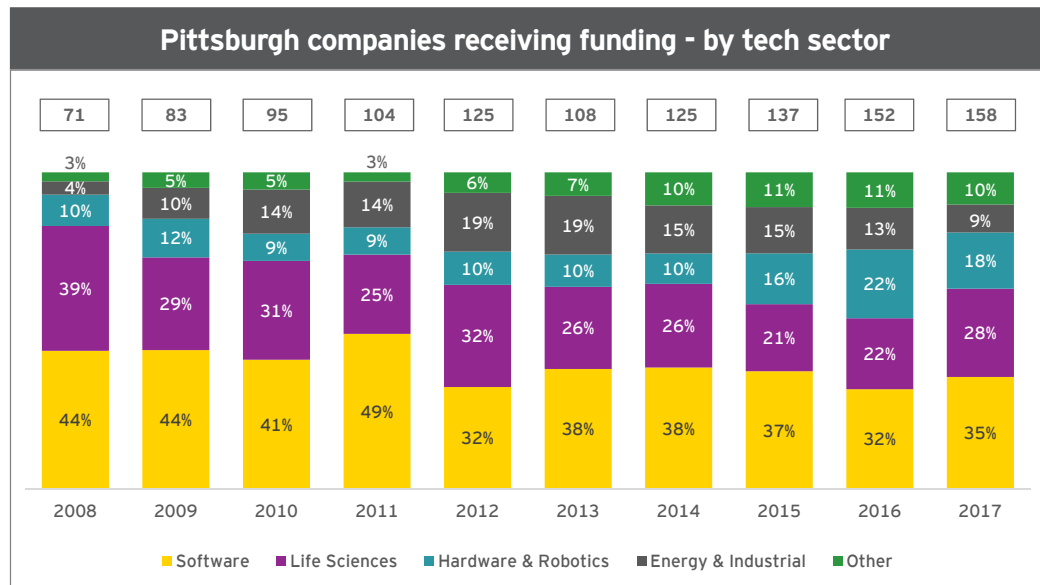
**Pittsburgh tech companies have attracted over \$3.5 billion in funding over the past 10 years, including \$2.1 billion in the past five years.**

The majority of investment dollars flowed to software and life sciences companies. The percentage of total capital attracted by hardware and robotics companies has increased over the past several years while the percentage flowing to energy and industrial deals has receded.



Source: CB Insights, Dow Jones VentureSource, Innovation Works, Pitchbook and Thomson Reuters ThomsonOne Database

**More than 450 unique local companies raised funding in the past 10 years.** This chart illustrates the industry sector composition of the unique companies receiving investment in each of the past 10 years. While life sciences and software companies still comprise the majority of companies receiving funding, their relative percentage of total companies decreased from 83% in 2008 to 63% in 2017, propelled by growth in hardware, robotics and other investments.

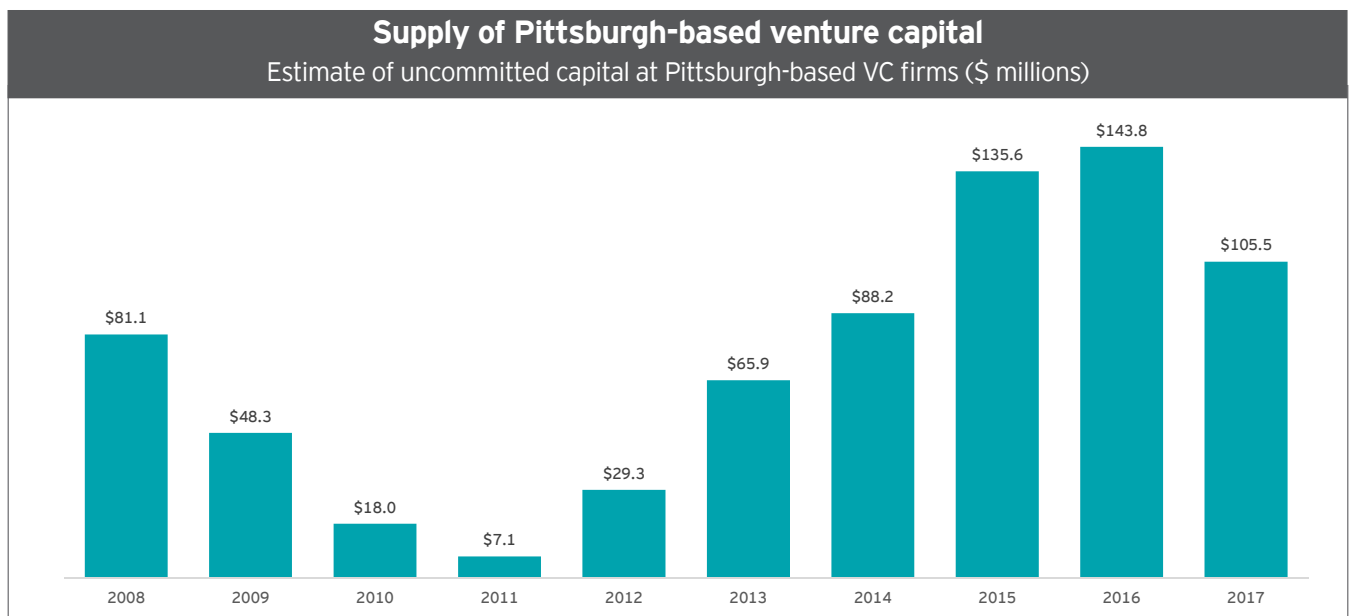


Source: CB Insights, Dow Jones VentureSource, Innovation Works, Pitchbook and Thomson Reuters ThomsonOne Database

# Fluctuating supply of local funding

The chart below estimates the annual supply of uncommitted funds at venture capital firms in the Pittsburgh region. This analysis considers the timing of new fund closings and assumes that a firm will commit 25% of a new fund's capital during each of the first four years post-closing. If a fund is managed by partners who are located outside of the Pittsburgh region, the amount of the fund's capital that is "located" in Pittsburgh is determined by multiplying by the percentage of the fund's partners who are located in the region.

The estimated supply of local venture capital funding decreased for the first time in six years. This is largely a function of several of the largest and most active local firms not having closed new funds in several years. This may be a concerning trend given the critical role local VC funds play in the community by leading Seed and Series A funding rounds that allow startups to grow and eventually raise sizable growth financing rounds from larger out-of-town firms.



Source: Innovation Works and Pittsburgh VCs

# Strong exit activity in Pittsburgh

More than 80 Pittsburgh companies exited in the period from 2008 to 2017, generating over **\$8.7 billion** in disclosed exit values. The terms of many deals are never disclosed, so the total value of exit proceeds in this window is larger than the disclosed value.

**2017 featured 16 exits - the largest single-year number of the past decade - for total disclosed values of over \$250 million.**

Companies that exited in 2017 represented a diverse array of industries including robotics, biotech, consumer and B2B software, ecommerce and healthcare IT.

Each successful exit strengthens the regional tech ecosystem. The investors realize a positive return and are more likely to invest in the region again. Other investors learn of the success and consider Pittsburgh as a more attractive investment destination. The founders and employees earn windfall gains and may stimulate the ecosystem as angel investors or mentors in addition to being financially well-positioned to pursue new ventures themselves.

Period 2008-2017:

**82** companies

**\$8.7 billion**

**Total value**

(disclosed and undisclosed)

## Representative deals

<b>Millennium Pharmacy Systems</b> acquired by <b>PharMerica</b> 2014	<b>iGate</b> acquired by <b>Capgemini</b> 2015	<b>GiftCards.com</b> acquired by <b>Blackhawk Network</b> 2016	<b>Net Health</b> acquired by <b>The Carlyle Group and Level Equity</b> 2017
<b>Powered Analytics</b> acquired by <b>Target</b> 2014	<b>Aesynt</b> acquired by <b>Omnicell</b> 2015	<b>Creehan &amp; Company</b> acquired by <b>Inovalon</b> 2016	<b>Krystal Biotech</b> IPO 2017
<b>LightSide Labs</b> acquired by <b>Turnitin</b> 2014	<b>Blue Belt Technologies</b> acquired by <b>Smith &amp; Nephew</b> 2015	<b>Think Through Learning</b> acquired by <b>Imagine Learning</b> 2016	<b>NoWait</b> acquired by <b>Yelp</b> 2017
<b>RedPath Integrated Pathology</b> acquired by <b>PDI</b> 2014	<b>Ottomatika</b> acquired by <b>Delphi</b> 2015	<b>Thar Pharmaceuticals</b> acquired by <b>Grunenthal</b> 2016	<b>ModCloth</b> acquired by <b>Jet.com</b> 2017

# Pittsburgh companies attract investors from around the globe

## Pittsburgh region

Adams Capital Management  
 AFG Ventures  
 AGSM  
 Birchmere Ventures  
 BlueTree Capital Group  
 Bradford Capital Partners  
 Draper Triangle Ventures  
 Eagle Ventures  
 Idea Foundry  
 iNetworks  
 Innovation Works  
 Meakem Becker Venture Capital  
 Newlin Investment Company

### Next Act Fund

Open Fields Entrepreneurs Fund  
 Pittsburgh Equity Partners  
 Pittsburgh Life Sciences Greenhouse  
 PLSG Accelerator Fund  
 Riverfront Ventures  
 Smithfield Trust  
 Startbot  
 Steelbridge Labs  
 The Robotics Hub

### Topanga Partners

UPMC Enterprises  
 Velocity Fund Partners

## California and Western region

ARCH Venture Partners  
 Breakout Labs  
 Bright Capital  
 Camp One Ventures  
 CapitalG  
 Correlation Ventures

### Cota Capital

CrunchFund  
 CureDuchenne Ventures  
 Foundation Capital  
 Gentry Venture Partners  
 Health Evolution Partners  
 Indie.VC

### Intel Capital

Kern Whelan Capital  
 Kleiner Perkins Caufield & Byers  
 Lightspeed Venture Partners

### Lucas Venture Group

Menlo Ventures  
 Montage Ventures

### NewGen Capital

Norwest Venture Partners

### Oriza Ventures

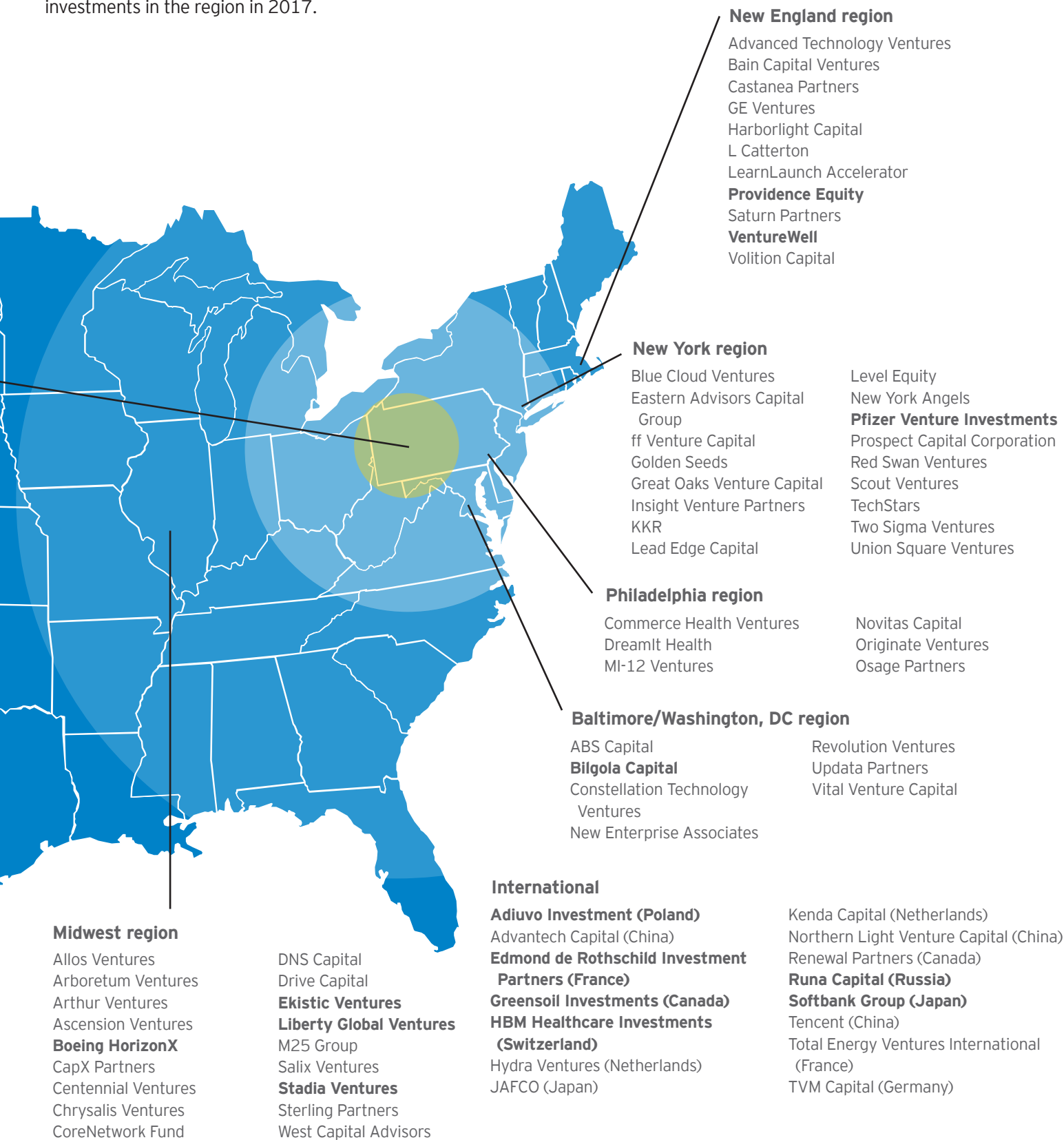
Partech Ventures

### Paxion Capital Partners

Qualcomm Ventures  
 Rincon Venture Partners

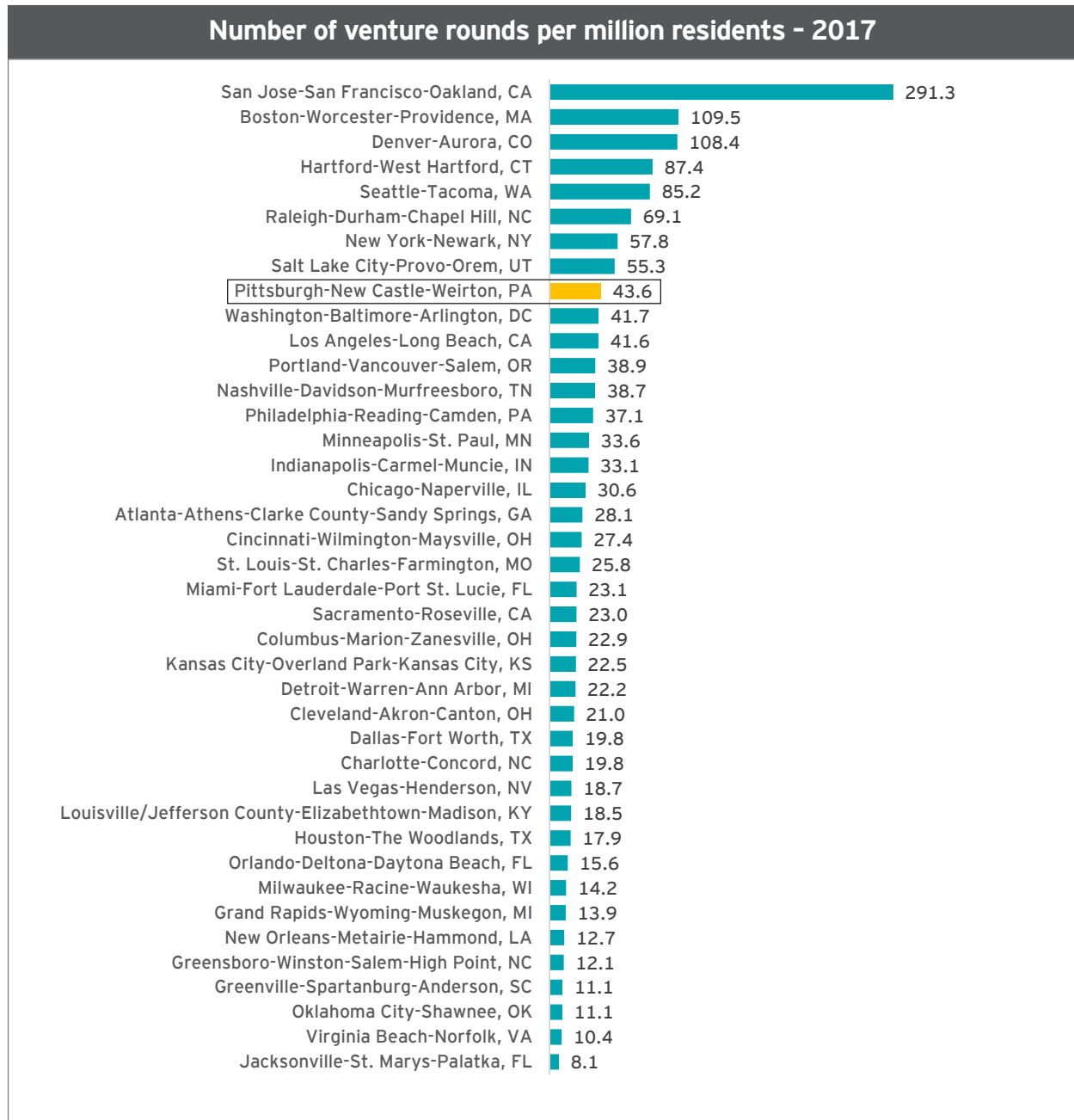
Riverwood Capital Group  
 Rothenberg Ventures  
 Salesforce Ventures  
 Sand Hill Angels  
 Silverton Partners  
 SJF Ventures  
 Space Angels Network  
 Tech Coast Angels  
 Tenaya Capital  
 Tridel Capital  
 Western Digital Capital  
 WRV  
 Y Combinator

Over 150 unique venture capital firms, angel groups and strategic investors have made investments in Pittsburgh companies in the past five years. The chart below contains a sampling of these firms including 20 firms - listed in **bold font** - that made their first investments in the region in 2017.



# Pittsburgh one of the most active cities for venture investment

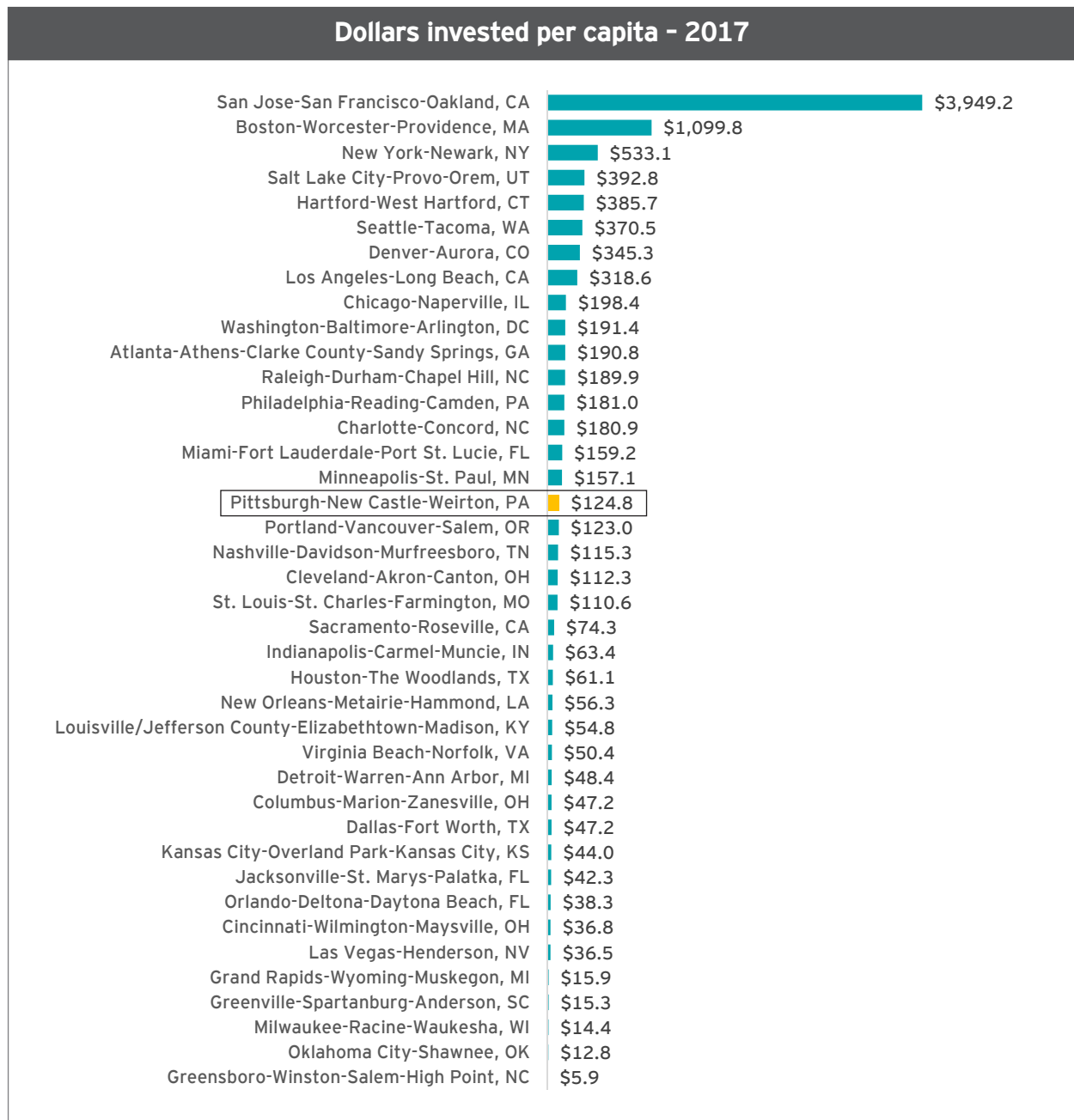
In a comparison of the 40 most populous metropolitan regions in the United States, Pittsburgh ranked 9th in terms of deals per million residents in 2017. Pittsburgh ranked 15th among the same regions for the total number of investment rounds in the 10-year period from 2008 to 2017. By comparison, Pittsburgh's population ranks 20<sup>th</sup> among the sample regions.



Source: Pitchbook and US Census

In 2017, Pittsburgh ranked 17th among the 40 most populous metropolitan areas in terms of dollars invested per capita. Pittsburgh ranks 18th among the same regions in terms of aggregate dollars invested in the 10-year window from 2008 to 2017.

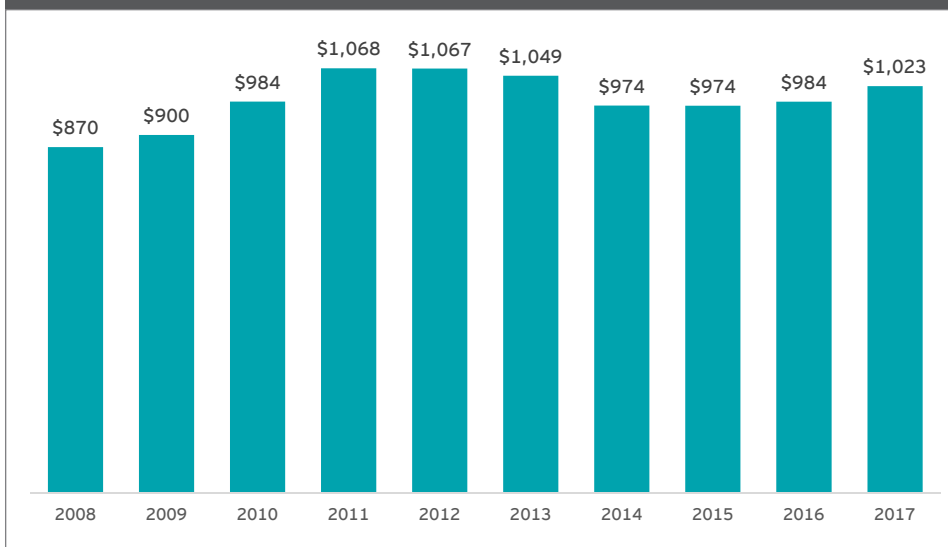
It may be worth noting that the majority of regions attracting more investment dollars than Pittsburgh also have a higher cost of living. Companies in these geographies must raise more capital to support similar growth.



Source: Pitchbook and US Census

# Universities catalyzing commercialization

Combined research budgets of Pittsburgh research universities (\$ millions)



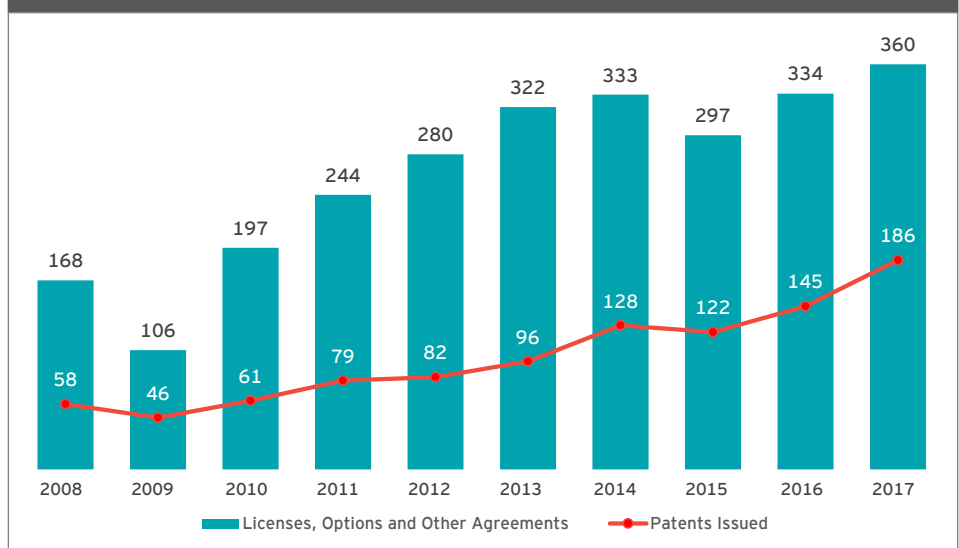
Source: Carnegie Mellon University, Duquesne University and the University of Pittsburgh

**Local research universities attracted nearly \$10 billion in research funding in the past decade.**

Additionally, the University of Pittsburgh and UPMC recently announced the \$200 million Immune Transplant and Therapy Center to fund technologies to treat and cure a range of diseases.

The past decade saw the emergence of new institutes focused on innovation and entrepreneurship, new university accelerators and more progressive technology transfer policies. These efforts are yielding exciting results. **The number of technology licenses granted more than doubled from 2008 to 2017, and the number of new patents issued more than tripled over the same period.** Furthermore, local universities collectively reported a 10-year high for new spinout companies in 2017.

Patent generation and licenses from Pittsburgh research universities



Source: Carnegie Mellon University, Duquesne University and the University of Pittsburgh

Growth in Pittsburgh's technology economy took many forms in 2017: direct investment, company acquisitions, expansion of operations from some of the world's biggest names in tech, and new campus initiatives to further increase commercialization and entrepreneurship. In quotes and blog posts, here's a snapshot of the region's progress from some of the people making deals happen or reflecting on them.

**"It may be a secret outside the region, but Pittsburgh is a great place to hire, retain and grow talented teams. It's obviously well known for engineering and technical talent, but we successfully built all of our functional teams in Pittsburgh from scratch. From engineering and quality assurance, but also in sales, marketing, customer support and managed services."**

**Joe Ferrara**

*President and CEO, Wombat Security Technologies (acquired by Proofpoint)*

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**"There's no better place on the planet than Pittsburgh to develop the solutions that are transforming the health care system. We have it all here: medical and scientific expertise, software and engineering talent, and a long tradition of seeding ground-breaking innovation."**

**Tal Heppenstall**

*President, UPMC Enterprises, and EVP, Treasurer, UPMC*

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**"BlueTree has been amazed by the grassroots growth of a very vibrant and healthy ecosystem for startups in Pittsburgh. This is our 15th year of funding, and we have been a virtual witness to this growth, and a virtual beneficiary of some very lucrative companies. We find this to be the most auspicious time to be in the early-stage funding business of our region."**

**Catherine Mott**

*Founder and CEO, BlueTree Venture Fund and BlueTree Allied Angels*

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**"Level Equity has had an exceptional experience in Pittsburgh. In a city where we have a number of significant investors, it has been especially rewarding to invest in Pittsburgh's vibrant and growing technology ecosystem. Level was an early investor in Wombat Security Technologies, an amazing local growth story which recently announced its sale to Proofpoint Technologies. More recently, we participated, with the Carlyle Group, in the growth recapitalization of Net Health, another great Pittsburgh growth story. Pittsburgh-based businesses can take advantage of the deep talent pool from the city's many storied universities. Level Equity will continue to invest in this great city."**

**Ben Levin**

*Partner, Level Equity Management, LLC*

**“We’re excited about Ford’s commitment to invest \$1 billion over the next five years in Argo AI ... When we founded Argo AI, we knew our headquarters would be based here (in Pittsburgh) and we’re embracing this new generation of engineers and scientists who are both discovering the region’s energy and fueling it... Our ecosystem supports an established base of talent and a soaring reputation that continues to attract new talent ... We’re energized by the passion and commitment of this community.”**

**Bryan Salesky**

*Chief Executive Officer, Argo AI*

**Argo AI blog posts** | February 10, 2017 and February 23, 2017

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**“Pittsburgh is a terrific place to start and grow a technology business. The activity and energy levels in the startup community have never been better. This is a great time to be investing in Pittsburgh and we expect the high level of investment in the region to continue.”**

**Mike Stubler**

*Managing Director, Draper Triangle Ventures*

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**“At Golden Seeds, we have long admired the entrepreneurial landscape of Pittsburgh. Many forces are at play to create a healthy ecosystem, most notably the universities, the creativity of start-up founders and the strong investing community.”**

**Loretta McCarthy**

*Managing Partner, Golden Seeds LLC*

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**“Pittsburgh is a city that I’ve been bullish on for some time now, and continue to be excited for its future. M25 is fortunate to be invested in great Pittsburgh-based startups like Jetpack, ANGLR, and Idelic - all of which are beneficiaries of local resources in some way. It’s my firm belief that world-class talent and expertise in cutting edge technology as well as access to local programs and capital have Pittsburgh positioned to play an exciting role in tech and innovation going forward.”**

**Mike Asem**

*Director, M25*

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**“As the most active Pittsburgh-based venture group over the past twenty years, we’ve never been more bullish on the local tech scene. Over a third of our portfolio is based here, including many of our best-performing companies.”**

**Sean Sebastian**

*Partner, Birchmere Ventures*

# 2017 Pittsburgh investment highlights

The following were among the Pittsburgh companies completing significant funding rounds in 2017:



## ALung Technologies, Inc.

ALung is the leading provider of low-flow extracorporeal carbon dioxide removal (ECCO2R) technologies for treating patients with acute respiratory failure.

[www.alung.com](http://www.alung.com)

**CEO: Pete DeComo**

**Investors:** Abiomed, Allos Ventures, Birchmere Ventures, Blue Tree Ventures, Eagle Ventures, Innovation Works, Pittsburgh Life Sciences Greenhouse, Riverfront Ventures, The Accelerator Fund, UPMC Enterprises, West Capital Advisors, and other individual investors



## Bossa Nova Concepts

Bossa Nova builds autonomous robots to scan retail shelves and uses AI to create tasks for stores to restock shelves more efficiently.

[www.bnrobotics.com](http://www.bnrobotics.com)

**CEO: Bruce McWilliams**

**Investors:** Cota Capital, Intel Capital, Lucas Ventures, Paxion Capital, Walden International, WRV Capital



## c360Live

C360 is a Pittsburgh-based company focusing on 360-degree linear and over-the-top (OTT) broadcast quality video solutions. The company delivers multiple HD-SDI outputs directly to the broadcast backhaul for live immersive views for television events. At the same time, C360 also delivers a 4K stream to OTT platforms for distribution across VR and second screen (magic screen) applications. Unlimited users are empowered to control their independent views in VR and 360 video. C360's proprietary process and ultra high-quality output has earned relationships with Fox Sports, CBS Sports, ESPN, TNT, NASCAR, NFL, NHL, UFC, and many others.

[www.c360live.com](http://www.c360live.com)

**CEO: Evan Wimer**

**Investors:** BlueTree Venture Fund, Boeing HorizonX Ventures, MI-12 Ventures



## Carmell Therapeutics

Carmell® Therapeutics is a clinical stage biotech company with two product candidates in development, Bone Healing Accelerant in phase III and Tissue Healing Accelerant in phase II.

[www.carmellrx.com](http://www.carmellrx.com)

**CEO: Randy Hubbell**

**Investors:** BlueTree Allied Angels, Harbor Light Capital, Innovation Works, Keiretsu Capital, Newlin Investments, Pittsburgh Life Sciences Greenhouse



## Complexa

Complexa is a biopharmaceutical company that develops therapies for the treatment of inflammatory and fibrosis-related orphan diseases.

[www.complexarx.com](http://www.complexarx.com)

**CEO: Josh Tarnoff**

**Investors:** HBM, Innovation Works, Jafco, NEA, Pfizer Ventures, Pittsburgh Life Sciences Greenhouse, Riverfront Ventures, Rothschild, SHD, Private Investors



## Curavi Health

Curavi focuses on developing technological innovation across the post-acute care spectrum. Its first solution is a novel telemedicine platform which aims to significantly reduce potentially avoidable hospitalizations and to optimize resident care in nursing homes.

[www.curavihealth.com](http://www.curavihealth.com)

**CEO: Alissa A. Meade**

**Investor:** UPMC

# 2017 Pittsburgh investment highlights



## Duolingo

Duolingo is the world's largest language-learning platform.

[www.duolingo.com](http://www.duolingo.com)

**CEO: Luis von Ahn**

**Investors:** Ashton Kutcher, Capital G, Drive Capital, Kleiner Perkins, New Enterprise Associates, Tim Ferriss, Union Square Ventures



## Innovu

Innovu delivers a full range of secure, cloud-based analytic solutions that empower employer clients and their business partners to navigate their human capital programs to mitigate risk while optimizing quality, cost, and utilization of benefits and risk programs.

[www.innovu.com](http://www.innovu.com)

**CEO: Patrick Stewart**

**Investors:** Joel Adams, Jim O'Neill, Pat Stewart, Private Investors



## JazzHr

JazzHR is powerful, easy, and affordable recruiting software trusted by thousands of small and medium-sized businesses (SMBs) to help them find and hire the right talent, fast.

[www.jazzhr.com](http://www.jazzhr.com)

**CEO: Pete Lamson**

**Investors:** Birchmere Ventures, Innovation Works, Rincon Venture Partners, Riverfront Ventures, Salesforce, Volition Capital



## Knopp Biosciences

Knopp Biosciences is a privately held drug discovery and development company focused on delivering breakthrough treatments for inflammatory and neurological diseases of high unmet need in clearly defined patient populations.

[www.knoppbio.com](http://www.knoppbio.com)

**CEO: Michael Bozik, MD**

**Investors:** Innovation Works, Kramer Capital, LaunchCyte, Saturn Management



## Krystal Biotech

Krystal Biotech, Inc. is a gene therapy company dedicated to developing and commercializing novel treatments for patients suffering from dermatological diseases.

[www.krystalbio.com](http://www.krystalbio.com)

**CEO: Krish Krishnan**

**Investors:** KRYA, NASDAQ



## Near Earth Autonomy

Near Earth Autonomy bridges the gap between aerospace and robotics, creating a future where autonomous flight is commonplace and safe in a wide range of unmanned aircraft, from sub-meter to full scale whether carrying sensors, cargo or people.

[www.nearearth.aero](http://www.nearearth.aero)

**CEO: Sanjiv Singh**

**Investors:** Boeing HorizonX Ventures



### Niche

Niche is a platform that helps you discover schools and neighborhoods that are right for you.

[www.niche.com](http://www.niche.com)

**CEO: Luke Skurman**

**Investors:** Allen & Company LLC, Grit Capital Partners



### Petuum Inc.

Petuum productizes AI infrastructure and machine learning (ML) technology, to accelerate AI transformation for data-rich enterprises across industries and make even the most advanced AI technology accessible and affordable for everyone who needs it.

[www.petuum.com](http://www.petuum.com)

**CEO: Eric Xing**

**Investors:** Advantech Capital Partners, Northern Light Venture Capital, Oriza Ventures, SoftBank Corp., Tencent Holdings



### Prodigo Solutions

Prodigo Solutions is a healthcare transformation company that improves financial control and reduces supply chain cost for leading healthcare providers, affiliate networks and government facilities through its suite of proprietary and certified technology tools and performance management solutions.

[www.prodigosolutions.com](http://www.prodigosolutions.com)

**CEO: Joseph Mayernik**

**Investors:** Alliance Healthcare Partners, UPMC



### Peptilogics

Peptilogics is an early-stage biotechnology company utilizing an innovative platform technology to rapidly and effectively develop novel peptide therapeutics, with a focus on antibiotics targeting the growing global epidemic of multidrug-resistant bacterial infections.

[www.peptilogics.com](http://www.peptilogics.com)

**CEO: Jonathan Steckbeck**

**Investors:** BlueTree Allied Angels, BlueTree Enova Fund, BlueTree Venture Fund, Idea Foundry, Peter Thiel, Pittsburgh Life Sciences Greenhouse, Private Investors



### Pineapple Payments

Pineapple Payments provides powerful, versatile and omni-channel payment processing solutions for every business from startups to the Fortune 500.

[www.pineapplepayments.com](http://www.pineapplepayments.com)

**CEO: Brian Shanahan**

**Investor:** Providence Strategic Growth



### RoadRunner Recycling

RoadRunner is a technology-based recycling and waste management provider pioneering the use of predictive analytics to help customers recycle more and reduce operational expenses.

[www.roadrunnerwm.com](http://www.roadrunnerwm.com)

**CEO: Graham Rihn**

**Investors:** Adams Capital Management, Duane Woods, Tulco Holdings

# Methodology

The data in this report comes from a combination of the CB Insights, Dow Jones VentureSource, Pitchbook and ThomsonOne databases; private company data collected by Innovation Works, Inc.; and information reported by Carnegie Mellon University, Duquesne University, the Pittsburgh Life Sciences Greenhouse and the University of Pittsburgh. The investment rounds tracked in these data sets were completed by companies in the Pittsburgh region from January 1, 2008 to December 31, 2017. Note that changes may occur in this report from year-to-year due to updates in third-party databases and adjustments made to best reflect the timing of investment for rounds that have “rolling closes.” For the purpose of this report, both equity investments and convertible note investments were counted as “venture” investment. The geographic boundary of the Pittsburgh region used in this report corresponds to the Pittsburgh Metropolitan Statistical area, as utilized by the U.S. Census Bureau, with one exception: the regional comparison charts on pages 8 and 9 are based upon Combined Statistical Areas due to data reporting standards employed by the Pitchbook database. Throughout this report, the terms “deal” and “round” are used interchangeably, and refer to a single reported round of funding. Companies may complete more than one fundraising round in a single year, in which case each round is counted as a separate “deal.”

## About EY

EY helps companies transform from private entity to public enterprise, while also advising business leaders on how to execute strategic transactions to fund growth, accelerate innovation and internationalization, and gain access to new pools of capital.

Initial public offerings (IPOs) can help companies raise the capital they need to accelerate growth, become market leaders and provide shareholders with greater liquidity alternatives. IPO-bound companies typically run multi-track strategies, assessing mergers and acquisitions (M&A) alongside an IPO, and evaluating listing options around the world to raise capital and deliver an optimal valuation to shareholders.

[www.ey.com/ipocenter](http://www.ey.com/ipocenter)

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[www.ey.com/sgm](http://www.ey.com/sgm)

## About Innovation Works

Innovation Works, Inc. (IW) invests capital, business expertise and other resources into high-potential companies with the greatest likelihood for economic impact in the Pittsburgh region. IW is the single largest investor in seed-stage companies in this region and is one of the most active seed-stage investors in the United States. In addition to the seed fund, Innovation Works, Inc. has two nationally ranked accelerators: AlphaLab and AlphaLab Gear. IW also manages Riverfront Ventures, LLC, an early-stage venture capital fund. Innovation Works, Inc. is an initiative of the PA Department of Community and Economic Development and is partially funded by the Ben Franklin Technology Development Authority.

For more information, please visit [www.innovationworks.org](http://www.innovationworks.org)





### About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

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ED none.

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