

**THE
REBELS,
GURUS AND
GAMBLERS OF
CORPORATE
VENTURE
CAPITAL**



**A
TECHNOLOGY
ALLIANCE
PAPER ON
CORPORATE
INNOVATION
AND REGIONAL
IMPACT**

ABOUT THE TECHNOLOGY ALLIANCE

For more than 20 years, the Technology Alliance has been highlighting the issues that underpin Washington's innovation-driven economy: education, research capacity, and an entrepreneurial climate. Our non-profit serves as the voice for innovation-driven companies across the state and is the only statewide organization focused solely on strengthening these areas across industry sectors. And we have built a track record of leveraging research, events and innovative solutions to raise awareness and drive action toward a stronger economy. This includes establishing the first concerted network of angel investors in the Pacific Northwest – the Alliance of Angels – and connecting potential investors to emerging technologies through the Innovation Showcase.

With this paper, we continue to explore how to strengthen the local entrepreneurial climate – this time through connecting the corporate drive for innovation with the local start-up and research communities. And this report is just the beginning. The Tech Alliance is committed to helping companies make connections that not only strengthen their own position, but also have a broader impact on the health of our regional, innovation-driven economy.

OVERVIEW

CORPORATE VENTURE CAPITAL

Companies wrestle with innovation dilemmas every day. Looking for increased market share, higher margins, new customers, ensured relevance, they hire or acquire talent, invest in research and development, partner, merge, and incubate. But a minority of companies take a formal approach to connecting their growth objectives with their innovation and investment strategies. Corporate Venture Capital (CVC) helps companies strategically source external innovation to further their internal goals.

In Seattle, a region rich with start-up activity and anchored by ten Fortune 500 companies, home-grown traditional venture capital has been limited, with Seattle ranking a distant fifth out of the top six regions in total annual investment. At the same time, Seattle ranks second (behind only Silicon Valley) on two key measures of a healthy innovation economy: employment in innovation industries and patent filings.¹ So how do we connect companies hiring their way to innovation with the start-ups and research entities cultivating great ideas (and people), and in the process make up some investment ground and bolster the strength of our local innovation economy?

CVC is one path forward. This report lays out why and how companies can use venture investing to drive their growth objectives. Looking at both data and examples, we explore the current state of corporate venture capital – broadly and in Seattle – as well as the potential. We present a framework to help companies match their interests with the right approach, and share best practices that exemplify a variety of approaches. And we offer a path forward – the beginnings of a playbook for how companies can create the venture approach that is right for them. The challenge is less in the process than it is in the commitment to our community – to leverage our collective assets, build connections, seek solutions, and reap rewards together.

**TOP
CORPORATIONS
SPONSORING
RESEARCH
AT UW AND WSU
2010-15**

UNIVERSITY OF WASHINGTON	WASHINGTON STATE UNIVERSITY
Genentech	Avista Utilities
Inter-American Development Bank	United Airlines
GlaxoSmithKline	Genus plc
Pfizer	Boeing
Bristol-Myers Squibb Company	Amgen
Boeing	TerraPower
Intel	Ocean Spray
Merck Sharp & Dohme	Pharma Chemie
Seattle Genetics	Spring Bank Pharmaceuticals
Sanofi-Aventis U.S.	Chemring Detection Systems

**2015
UPSTREAM
R&D
INVESTMENTS**

59.4
MILLION DOLLARS
INVESTED IN THE
UNIVERSITY OF
WASHINGTON

6.29
MILLION DOLLARS
INVESTED IN
WASHINGTON
STATE
UNIVERSITY

CVC'S FAR-REACHING STATE

The classic make-or-buy decisions apply to innovation in how companies invest in research and development, acquire talent, and ensure relevance. Led by the technology and pharmaceutical industries for decades, corporate venture capital has helped companies strategically source external innovation to further their internal goals.

The narrow definition of corporate venture capital is an equity investment by an established company in an entrepreneurial venture. In contrast to traditional venture capital firms (VCs) that purely focus on financial returns, most corporations seek strategic benefits related to their market positioning. Corporate venturing can both generate financial returns, and establish a foothold in emerging markets, complement R&D efforts both upstream and downstream, and provide early access to disruptive technologies.

More than 750 corporations worldwide currently have venture units in operation or hold venture investments, according to the industry publication *Global Corporate Venturing* (GCV). In the first half of 2016, CVCs participated in \$8.6B across 633 deals.² Intractable global problems like sustainable energy, clean technology, and global health pressure corporations to innovate faster than their internal resources allow. Biotech and pharma companies rely on external investments and partnerships for up to 60 percent of their market capitalization. Corporate VC investments now reach beyond technology and pharmaceuticals into machinery, power and gas production, consumer goods and construction. Despite the risks, executive management teams increasingly view external investing as critical to their market intelligence and competitiveness.

For many companies, external investing starts with university partnerships. Locally, top institutions like the University of Washington, Washington State University, and Gonzaga are often used as both the idea generator and incubator across a wide range of fields from artificial intelligence, to biotech, to agriculture, to clean energy. This type of corporate R&D investment is not reflected in the national CVC data, but represents a significant and important way that many companies look at innovation. In Washington state alone, more than \$65M (in 2015) is directly invested in universities for corporate R&D, with the University of Washington ranking in the top 20 institutions nationally for business investments.

FINDING THE RIGHT INVESTMENT PATH



HOW CLOSE TO THE CORE OF THE BUSINESS IS THE INNOVATION?

HOW AGGRESSIVE DOES IT NEED TO BE?

IS IT IN THE RESEARCH OR APPLIED STAGE?

IS IT OPPORTUNISTIC OR SCALING?

Successful corporate venturing depends on leadership, mindset, risk-tolerance, and clear alignment of corporate objectives with investment strategy. While there is not one prescribed approach, there are frameworks that can help a company connect its interests with the most appropriate external investment opportunities. The process starts with answering questions about the innovation sought:

HOW CLOSE TO THE CORE OF THE BUSINESS IS THE INNOVATION?

HOW AGGRESSIVE DOES IT NEED TO BE?

IS IT IN THE RESEARCH OR APPLIED STAGE?

IS IT OPPORTUNISTIC OR SCALING?

A company must determine if it is trying to diversify its market or enhance its core (or both). Diversification may bring in additional revenue streams to offset over-dependence in one area, or it may be needed because the existing market is too mature or saturated. Enhancing core operations may provide the best short-term cost savings or may be the most palatable approach for the company culture. Ascertaining where your company falls on this spectrum in the first step.

At the same time, a company must consider how aggressive it is willing to be in seeking innovation. On the far end of the spectrum is a company with aggressive growth targets, the luxury of a long-term financial view, or an interest in disrupting a market segment. Amazon is known for their long-view strategy and their expansive view of their market; the \$100M Alexa Fund is the embodiment of this approach. Another more typical corporate VC, Microsoft Ventures, invests in start-ups close to their core – artificial intelligence, big data, cloud, security, etc. – while having a fairly high risk tolerance closer to a traditional VC.

But corporate venturing does not have one prescription. Hundreds of companies without a formal VC partner invest in external opportunities to further their own strategic and financial goals – from research to scale to market expansion. On the following pages are examples of partnerships and investments from Pacific Northwest companies and institutions that reflect the diverse array of goals and approaches that corporate venturing can take.

CVC PARTNERSHIP EXAMPLES

ITRON IDEA LABS



Itron Idea Labs is a group that is driving innovation within Itron. It is dedicated to identifying and creating new business models that directly support the technology and services company's core smart utility and city business. Every project is treated like a start-up and run by an Entrepreneur-in-Residence (EiR) hired from outside of the company. Using a "fast, agile and fearless" approach, teams quickly generate ideas and create prototypes that either evolve to market or go back to the drawing board. Due to the accelerated pace and greater independence than conventional R&D shops, teams can focus on business validation without fear of failure. Beyond solving customer problems and driving new models, Itron Idea Labs looks for technology trends that could disrupt Itron's own business model. The idea is to disrupt ourselves before someone else does. For example, the Lab's development of a mobile app for meter reading and maintenance for both gas and water disrupted Itron's existing business, but was adopted because it was a great innovation. Idea Labs purposefully has both clear impact metrics (ROI over time, measurable change to internal processes, and effect on the external brand and identity) and a high risk tolerance (happy with a success rate of about 20 percent). The Idea Lab is Itron's inner rebel.

ALASKA AIRLINES BIOFUEL PARTNERSHIP



Alaska Airlines has a commitment to environmental sustainability, including converting 20 percent of its jet fuels to biofuel. This commitment, however, was ahead of the market and certainly outside of the company's core capacities. So they partnered with Northwest Advanced Renewables Alliance (NARA) and 32 other organizations to create renewable, alternative jet fuel made from forest residuals – limbs and branches that remain after harvesting managed forests. If Alaska Airlines converts 20 percent of its entire fuel supply at Sea-Tac Airport to biofuels, it would reduce greenhouse gas emissions by about 142,000 metric tons of CO₂ - the same amount produced by 30,000 passenger vehicles in one year. This partnership forced Alaska to pursue scientific solutions far down in their future supply chain and squarely outside of their core capacity as a travel company. But the investment was perfectly aligned to the company's long-term strategic objectives – both financial and environmental. Alaska's biofuel investment reflects their willingness to invest upstream with an eye toward downstream returns – (sustainability, cost savings, market share).

**KRAFT,
HORMEL,
MARS AND
WASHINGTON
STATE
UNIVERSITY**



In 2010, three of the largest food processors came together to co-invest in the development of technology that would create a new market that each of them could benefit from. It was risky, it was outside of their core capabilities, and, if successful, it would create additional areas for competition. But the potential reward – huge market expansion – was worth the risks. The research was underway (initiated with federal funding) at Washington State University (WSU), and the challenge was to use microwave technology to shorten the time food is exposed to high heat, preserving the color, taste and texture of food, while eliminating the need for excess sodium, additives and enhancers. These big three food processors were looking for an entry point into the growing ‘healthy lifestyle’ sector. The resulting technologies – Microwave Assisted Thermal Sterilization (MATS™) and Microwave Assisted Pasteurization (MAPS™) – were licensed by a Colorado company, 915 Labs, which is creating a new market that all food processors can invest and compete in. An ancillary benefit has been the additional funding (USDA \$5M grant) that WSU has received because of the success of their research on sterilization technology. Initial federal R&D funding was critical to launching this technology and remains at the core of many – if not most – emerging innovations

**PETCO
AND
ROVER.COM**



Petco is a largely brick and-mortar supplier of products and services for pet owners. Rover.com, based in Seattle, is the nation’s largest network of pet sitters and dog walkers. Their partnership was a natural extension of a shared mission, and of Petco’s desire to stay relevant as the gig marketplace stretched into the pet world. In 2013, Petco invested \$3.5M in Rover.com, bringing distribution, brand visibility, and board leadership along with the cash infusion. For Petco, they were able to immediately expand their service offerings across a wide geography without having to do the software building and marketplace seeding.⁴

**LOWE’S
AND
PORCH.COM**



A similar partnership formed between brick-and-mortar, home improvement company Lowe’s, and Seattle-based start-up, Porch.com, which connects homeowners with handymen, contractors, and home improvement professionals. Lowe’s invested \$27.6M in Porch in 2014, to give their large consumer base additional service, extending their brand beyond products.

Both of these partnerships – Petco-Rover and Lowe’s-Porch – allowed the investing companies to extend their brand and services and stay market relevant without having to have owned the research and development. Petco and Lowe’s tapped into the innovation happening around their core business and looked for ways to build connections to get the highest leverage.

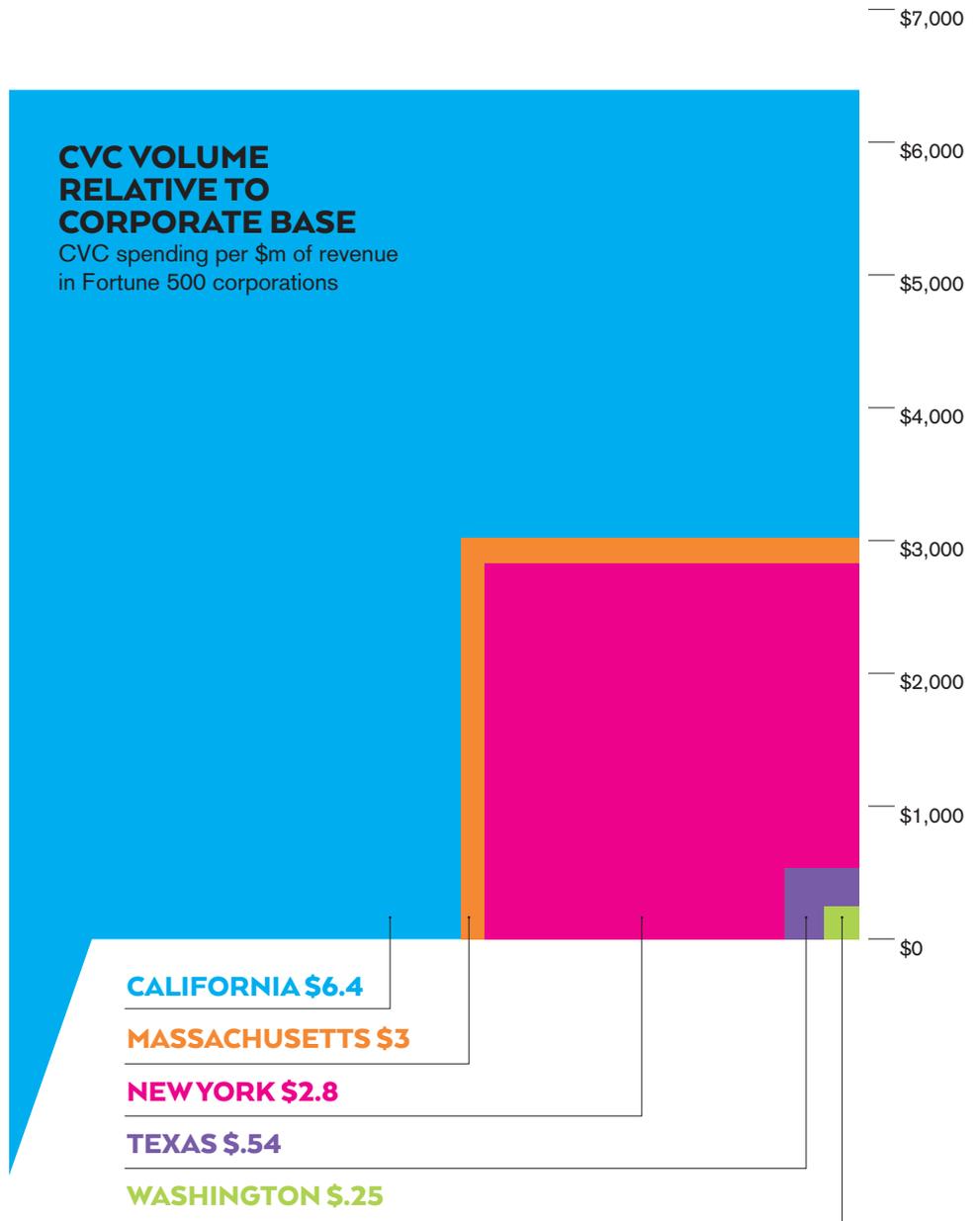
REGIONAL IMPACT AND OPPORTUNITY

Corporate venture investment is first and foremost a value creator for companies – creating both strategic and financial value. According to the GCV survey, approximately 13.5 percent of corporations involved in CVC-like activity reported an internal rate of return (IRR) of more than 30 percent, roughly 30 percent reported more than a 20 percent IRR, and 60 percent reported a greater than 10 percent rate of return.

The combination of pressure to stay relevant in constantly evolving markets and a generally favorable risk-return ratio should make corporate venturing attractive to more companies. In Washington state, that is not the case; Washington’s major corporations invest less of their wealth through CVC than corporations in other innovation economies. While it is not surprising that the total value of CVC deals in and around Seattle is lower than in Silicon Valley or Boston, when adjusted for the size of the local corporate base, the differential is even greater. Comparing firms of similar size, major Texas companies spend more than twice as much on CVC as those in Washington.⁵ Major corporations in New York and Massachusetts outspend their Washington peers by a factor of 10. It seems as if these regions have a fundamentally different view of the role of external investment in driving corporate innovation

CVC VOLUME RELATIVE TO CORPORATE BASE

CVC spending per \$m of revenue
in Fortune 500 corporations



The benefit of corporate external investments extends beyond direct value to the company, impacting the health of the larger innovation economy. Growing the number of start-up and research investors, the types, and the total size of the investments is critical to strengthening the talent base and expanding research capacity. Ready capital, great start-ups (ideas & leaders), and ample institutional research capacity are interconnected – pressure on one triggers the same on the others.

In the Seattle region, the potential impact of increased corporate venturing could be even greater than in other regions because of the strength of this region's innovation ecosystem. Relative to other states, Washington lands in the top tier⁶ when considering:

RESEARCH AND DEVELOPMENT INPUTS - LOCAL AND FEDERAL FUNDING FOR R&D, SMALL BUSINESS INCENTIVES, AND OTHER FINANCIAL SUPPORTS;

HUMAN CAPITAL INVESTMENT - VOLUME OF ADVANCED DEGREES, ESPECIALLY IN SCIENTIFIC DOMAINS;

TECHNOLOGY AND SCIENCE WORKFORCE - SHARE OF LOCAL EMPLOYMENT IN TECHNICAL FIELDS; AND

TECHNOLOGY CONCENTRATION AND DYNAMISM - SIZE, GROWTH, AND STABILITY OF THE LOCAL TECH SECTOR.

Aside from internal benefits to companies, CVCs' impact to the larger start-up ecosystem remains small if significant (corporate investments represent about 20 percent of all VC deals). But any additional contributions to the flywheel effect of increased investment in regional start-ups and research will not only leverage and strengthen the local innovation ecosystem, it will make it more visible and attractive to larger outside investors. There's an unquantifiable multiplier effect for every corporate dollar invested in a regional start-up or research institution – and Washington state is poised to seize on it.

WASHINGTON IS A STANDOUT WHEN IT COMES TO



A COLLECTIVE COMMITMENT

The challenge is both to help large corporations connect internal growth goals with external investment opportunities, and to daylight the great start-ups and researchers with relevant technologies and ideas. It is a challenge that the Technology Alliance embraces but cannot own. In the end, growing the strength of the innovation economy is a collective effort that promises both individual and collective returns.

The Technology Alliance is poised to do its part through exploring four areas:



Though there is no one prescribed path to external corporate investing, there are best practices and recommended sequencing. The Tech Alliance is prepared to codify these and create an accessible and actionable playbook for CVC. The playbook will also include other partners and resources with related expertise and experience.



For companies who both see the internal value of external investments and are committed to strengthening our regional economy, the Tech Alliance will support efforts to pool funds focused on doing the same.



Providing a forum and venue for great small companies to pitch their technologies to larger companies can ease the discovery challenge for the venturers while creating more opportunities for the start-ups. The Tech Alliance will build on its past work in this space and partner with others already engaged in similar efforts to create these alternate pitch platforms.



One of the best ways to determine an investment path forward is by understanding the strategies of others. The Technology Alliance will continue to convene companies from across industries and with varied approaches to external investing to create a powerful learning network.

CONCLUSION

The strength of this region's innovation economy is our biggest asset, and how we leverage this asset – the talent, the corporations from across sectors, and the emerging ideas from start-ups and our research institutions – for a broader benefit is our collective challenge.

The Tech Alliance is committed to helping corporations discover the connections between their own goals and this great Pacific Northwest ecosystem. We look forward to working together.

¹ http://svcip.com/files/SVCIP_2016.pdf

² https://www.cbinsights.com/reports/CB_Insights_Corporate-Venture-Capital-H1-2016.pdf

³ <http://www.forbes.com/sites/peterdetwiler/2016/05/02/trons-idea-labs-innovate-or-risk-being-pushed-aside/#15bc7083146d>

⁴ <https://www.rover.com/blog/rover-petco-partnership/>

⁵ CVC spending – “The H1 2016 Corporate Venture Capital Report”; CB Insights (2016) and also Pitchbook custom report (2017). Fortune 500 revenue – Hoovers (2017).

⁶ State Technology and Science Index; Milken Institute (2016)



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