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Information Technology

INDUSTRY UPDATE

Emerging Tech In 2019

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All figures in Canadian dollars, unless otherwise stated.

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Emerging Technology In 2019

Now in our seventh year of writing this report, we are pleased that Canada's emerging technology areas excelled in 2018 and so far in 2019. In this report, we highlight 41 private companies and their opportunities. Our goal is to help you as investors discover the next Shopify or Lightspeed and get to know their founders and leaders earlier in their corporate life. As you do, it should make for higher-quality investment decisions.

Public growth companies like Shopify continue to exceed expectations. Shopify's shares are up ~85% year to date and up 15x since its IPO on May 12, 2015, at US\$17. In 2018, Shopify reached US\$1 billion in revenue and 4,000 employees. Today, its enterprise value is ~US\$27 billion, reflecting its path to US\$1 billion in revenue as the fastest of any software-as-a-service (SaaS) platform company, ever. Our view is Shopify's prospects remain strong as the company invests and focuses on the opportunity with Shopify Plus and e-commerce adoption in international markets.

The technology sector in the United States is also in strong shape, setting a positive tone for Canada. The FAANG (Facebook, Apple, Amazon, Netflix & Google) stocks have rebounded since the end of 2018. Cloud-based SaaS companies are also doing very well (in particular, Ceridian, Salesforce.com, AppFolio, ServiceNow and Workday, among others). Bessemer Venture Partner's Nasdaq Emerging Cloud Index—comprising 50 publicly traded NASDAQ emerging cloud companies—is up ~40% since the beginning of the year. This group currently trades at ~11x 2019E EV/Sales.

Privately, while the rate of new unicorn formation slowed in 2018, many are lining up for 2019 IPOs, or have already gone public. Investor demand for growth, with an emphasis on a network effect and recurring revenue, has set up a path for many of these emerging private companies to go public. So far, Lyft, Zoom, PagerDuty and Pinterest have all priced above their marketing ranges in high-profile public offerings. One offset has been Uber, expected to be the biggest IPO of the year. Its valuation has fallen as investors press for attractive pricing terms following Lyft's rocky public introduction. *The Wall Street Journal* has reported Uber is expected to price at the mid-point of its US\$44-US\$50 range, or below. This would value the company at US\$80 billion-US\$90 billion, down from its earlier indication. Airbnb is "taking steps to go public" but has not committed to a date. *The Wall Street Journal* reported that Slack is completing a direct listing through the NYSE. The We Company (formerly WeWork) has filed confidentially for an IPO, along with Postmates. Other potential 2019 candidates include Palantir Technologies and Robinhood.

For the most part, the 2019 IPO class has been well received by public markets, but questions about valuation, profitability, and competitive differentiation have affected the public performance of companies like Lyft. Lyft's disappointing performance did not seem to slow the U.S. IPO interest though; in April, there were four Chinese initial filings on U.S. exchanges within 24 hours. Three of these candidates are not yet profitable.

Unlike its neighbour, Canada does not produce many high-quality public technology companies that are growing rapidly and scaling globally. It has been four years since Shopify went public and five years since Kinaxis' debut. Before that, it has been 22 years since BlackBerry went public in 1997 and 30 years since Newbridge Networks (founded by Sir Terry Matthews) went public in 1989. All four companies achieved global scale and billions in annual revenue. While this can be done, it is difficult to achieve and rarely happens in Canada. Even in the U.S., many of the high-profile 2019 IPO candidates were founded during the last recession (Lyft, Uber, Pinterest, Airbnb and Slack). Building global scale is a challenge, taking time and resiliency.

Despite its history, Canada's technology sector today is in good shape with concentrations of high-quality companies and founders across the country, in Montreal, Toronto, Ottawa, Waterloo, and Vancouver (and markets in between). We actively track over 50 private companies with strong potential and global intentions. While some are in niche areas of technology, many have the potential and leadership to achieve success at scale.

We believe Lightspeed (which went public in March 2019) is the country's latest and next high-quality growth company with global scale possibilities. While Lightspeed's history as a public company has yet to be written, we are optimistic about its prospects. Lightspeed is a cloud-based point-of-sale (POS) solution for complex retailers and restaurateurs that can grow rapidly for the next few years. Our view is that its POS, together with fully integrated payments over its adoption cycle, should support our forecast for annual revenue growth of 50%. Tobi Lütke, founder and CEO of Shopify, and Dax Dasilva, Lightspeed's founder and CEO, are two great examples for other leaders across Canada's technology sector.

We continue to see SaaS implementation across many industry verticals, with subscription-based software tailoring to enterprises or large SMB markets. The ownership and, importantly, consent of leveraging and monetizing big data is also a key theme for many companies. Data ownership has come into the spotlight, and is aided not only by regulatory requirements but by increased consumer awareness. Many companies have already incorporated or are further investing in machine learning/AI capabilities. The need for security remains a focus across all verticals. While some companies are focusing on evolving or disrupting traditionally static or slow-moving industries, others are continuing to forge into nascent industries, like self-driving or e-gaming.

In this year's report, we look further at:

- CIBC's Technology & Innovation Sector Initiatives;
- Technology centre highlights from across the country;
- Public company themes and valuations; and,
- 41 top private companies that we believe should be on investors' "must-know" lists.

CIBC's Sector Coverage Initiatives

CIBC's Technology and Innovation initiatives have resonated and include our Technology & Innovation Blog, conferences, and technology centre tours. We remain active in all these areas.

The goal of our weekly *Technology and Innovation Blog* is to introduce, discuss and expand upon key trends with cross-sector and portfolio implications. Our blog also provides investors with access to leading founders and their companies across the private technology landscape. Lastly, it allows for many of us in Equity Research to reach across sectors and collaborate where technology and innovation meet.

We are pleased to see the response to our blog's content, with 36,000+ total reads since we began posting. Beginning in October 2017, weekly readership has climbed from admittedly low numbers to over 1,200. The top blog was "Where Is Canada's Leading Tech Centre?" [Click here to read the full post](#). Those who missed this might be surprised that our answer was Ottawa-Kanata. As always, we welcome any input for content.

Readers will recall that we have been writing regular updates on the 5G cycle, in collaboration with Telecom Analyst Bob Bek in our “Tracking the 5G Tidal Wave” series. We highlight “Tracking the 5G Tidal Wave: 5G Rolls Into Mobile World Congress” as one of our most popular and well-read posts. [Click here to read the full post.](#)

Our flagship investor conference, the *CIBC Technology and Innovation Conference 7.0*, is being held in Toronto on May 14. This year, investors will have access to over 25 public companies, and nine new private companies. Demonstrations and topics ranging from enterprise cloud services, e-commerce, enterprise AI and machine learning, self-driving and e-gaming will deliver a rich and valuable conference experience.

We also continue to host investor tours of Canada’s major technology centres, most recently in Ottawa, Vancouver, Montreal and Waterloo. Investors with an interest in tracking the next wave of technology companies should participate. These events offer valuable context to Canada’s tech centres and help attendees decide if they should invest in late-stage private rounds or consider these companies as possible investments, if and when they decide to go public. Readers might recall we hosted a tour of Lightspeed in August 2017 and its CEO and founder, Dax Dasilva, at our 2018 Technology and Innovation 6.0 Conference in Toronto.

We have been told that our content and events are providing unique and early exposure to emerging technology companies and their founders. This feedback is helpful and instructs our plans for 2019.

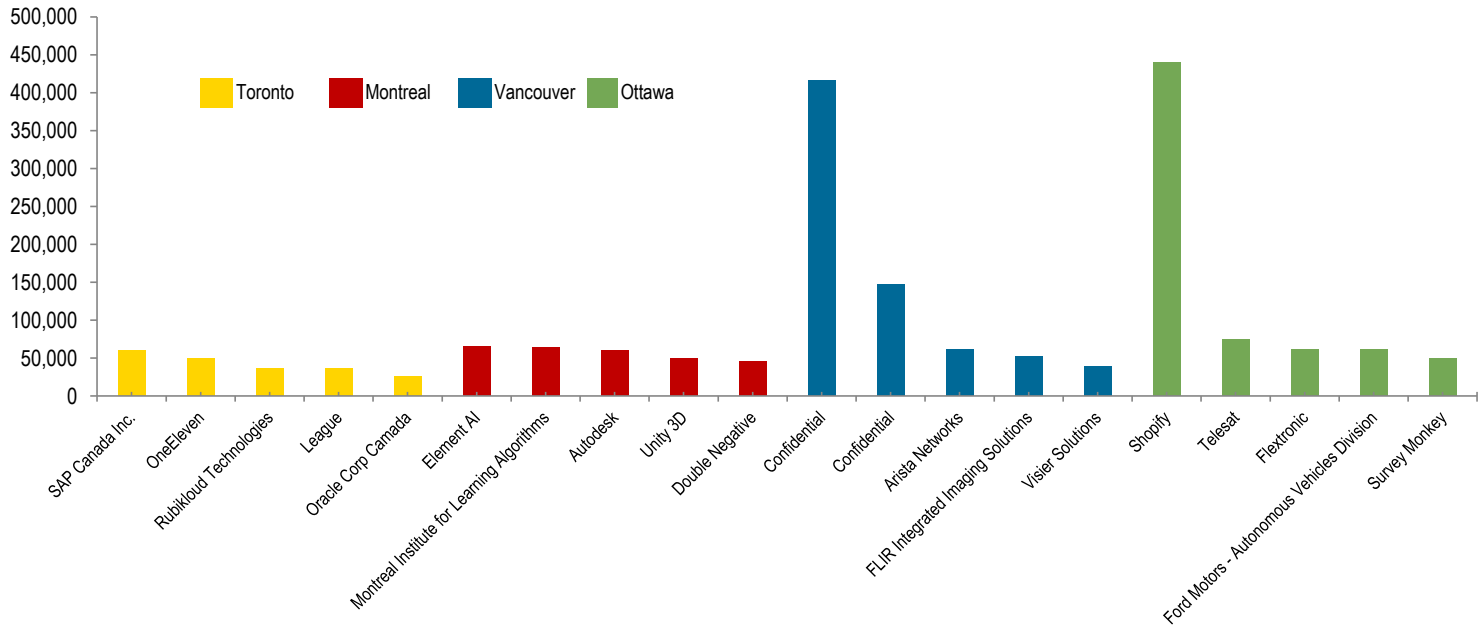
Technology Centre Highlights

“Canada’s tech markets are booming. In downtown Toronto alone, tech demand sits at 36% of all the current office space.” - Paul Morassutti, Executive Managing Director at CBRE Canada, from the 2018 Scoring Tech Talent report.

Expansion Supporting Growth: In 2018, CBRE ranked the best markets for tech talent in North America after surveying 50 cities and regions. Toronto ranked fourth, behind the San Francisco Bay Area, Seattle, and Washington, D.C. New York was fifth. Ottawa was ranked 13th, while Montreal was 14th and Vancouver 25th. The study also found that Ottawa had the best “momentum” with tech employment growth. Ottawa has the largest concentration of tech talent at 11.2%, more than three times the U.S. national average of 3.5%. Toronto is third most concentrated at 8.9%. It is interesting that the Waterloo region does not appear to be in CBRE’s top 50 regions in North America; however, in its 2018 Scoring Canadian Tech Talent Report, CBRE ranked Waterloo fifth overall in the country.

Exhibit 1 shows the top office space deals for tech talent in 2018. Once again, Shopify took the most space in Ottawa. Two private companies we are tracking—Rubikloud and Element AI—made this list, which signals their hiring and growth plans.

Exhibit 1. Top Tech Talent Office Space Deals By Square Foot In Canada (2018)



Source: CBRE.

CBRE also highlighted a very interesting cost comparison. For a 500-person company with 75,000 square feet of office space, the total costs in Canada ranged from US\$27.6 million in Montreal to US\$32.2 million in Ottawa (which is the most expensive Canadian market). For comparison, the cheapest U.S. market is Rochester, NY at US\$36.4 million. Another way to think about this sample company is that a 30% free cash flow margin would require US\$45 million in revenue or US\$90,000 per person.

Canada’s cost advantage is a blessing and curse. It has clearly helped fuel a number of companies, including Shopify, with largely only Canadian-based staff and offices. More broadly, the downside has come from U.S. firms that poach talent, buy companies, or just set up shop in Canada (which often does not allow for Canadian-made IP to stay in-country). We would like to see more founders like Tobi Lütke from Shopify, Dax Dasilva from Lightspeed and Terry Matthews from Wesley Clover advocate for building and keeping Canada’s IP in-country to improve and advance the competitive position.

Jim Balsillie, former co-CEO of Blackberry, has long advocated for government policies encouraging the creation and retention of homegrown IP. According to Balsillie, *“Performance in the ideas economy means that you have to generate IP after you invent something, so the accumulation of assets and data are a central part of it. The S&P 500, about 90 per cent of its value now is intangibles, up from about 16% in the mid-70s.”*

Balsillie’s view is that Canadian policy has not made this a priority over attracting global tech giants. Current and prior technology leaders who advocate for Canada’s IP and an ideas economy will help future leaders and companies to scale globally. We agree, and would like to see the narrow list of those who do this broaden to other founders, and see support from Canada’s policymakers.

In the meantime, the Canadian tech market continues to grow. The CBRE ranking reviewed 50 North American cities and is based on tech talent supply, growth, concentration, cost, completed tech degrees, industry outlook for tech job growth, and market outlook for both office and apartment rent cost growth.

The attributes of quality and cost are clearly important in attracting tech talent and companies. The San Francisco Bay Area and Seattle score the highest on both. Canada and the U.S. Midwest are the best value markets for tech talent.

In Toronto, the number of tech workers has grown by ~52% in the past five years, pushing vacancies down to less than 3%. This growth has also led to companies like Shopify making long-term commitments; case in point, its \$500 million investment in new facilities to support growth at its new Toronto office, The Well. This investment doubles Shopify's current footprint to 500,000 square feet. Shopify will have access to 254,000 square feet by 2022.

Exhibit 2. The Well Development In Toronto



Source: Allied REIT.

Culture Is Important In Attracting And Retaining The Best Talent: 2018

Glassdoor winners for the 10 “Best Places To Work in Canada” were: 1) Microsoft; 2) PointClickCare; 3) SAP; 4) Keg Restaurants; 5) Ubisoft; 6) Shopify; 7) Randstad; 8) Fortinet; 9) Intact; and, 10) Starbucks, with ratings ranging from 4.3-4.5, out of 5. Lightspeed, which achieved a rating of 4.3, is a known destination for innovative staff within Montreal’s revival as a technology center. The average company rating is 3.4 in Canada.

The top six private technology companies with a Glassdoor rating that we include in this report are PointClickCare (#2 overall), Element AI (4.8), Wave Financial (4.8), Solace Systems (4.8), D-Wave and Clio (4.6 each). Several of these companies are presenting at our *Technology and Innovation Conference 7.0* on May 14.

Ottawa/Kanata

Ottawa/Kanata is home to much of Canada’s technology sector, with 11.2% of total tech talent jobs. According to CBRE, in 2017 the region had the highest “momentum” in tech talent in all of North America, finding that the percentage of people employed in tech in Ottawa jumped 5% from 2014-2015 to 2016-2017. Kanata is home to Canada’s largest technology park. Downtown Ottawa has benefitted from Shopify’s growth and the energy it has brought to this government-centric city. Helped by the launch of its new light-rail transit, Ottawa’s vacancy rate has dropped to its lowest level in nearly two decades. Tech companies are now the biggest tenants in Ottawa’s central district, other than the federal government.

Just outside Ottawa, Kanata North comprises over 30,000 employees and over 500 companies that contribute over \$7.8 billion to Canada’s GDP. Within Kanata, Wesley Clover owns nearly four million square feet of Class A office space, which houses over 210 companies and 12,500 employees. Many of these companies are shown below. While other tech markets in Canada are also growing in scale, the density of high-tech expertise in the Kanata area is quite clear.

Exhibit 3. Kanata North: Canada’s Largest Technology Park



Source: CENGN.

Of the private, emerging tech companies in the area, we are tracking Assent Compliance, Solace Systems, Solink, and Corsa.

- In October, Assent Compliance received \$160 million from Warburg Pincus to enable the company to enhance its platform, while expanding its product compliance, vendor management and corporate social responsibility solutions. Assent has doubled its recurring revenue for the past four consecutive years.

- Other highlights from the Wesley Clover portfolio include Tutela (based in Victoria), which targets \$25 million-\$50 million revenue in the next two to three years while its employee base has grown 40% Y/Y; and, video surveillance software provider Solink, which plans on continued 100% Y/Y growth and expanding to 100 employees by the end of 2019.

Toronto

The Toronto tech landscape is diffused, but the region remains the most active in Canada. The city gained much attention last summer when CBRE reported that Toronto created more jobs (adding 22,500) than the San Francisco Bay Area, Seattle and Washington, D.C. combined in 2017. Toronto also has the fourth-highest total quantity of tech talent, with 241,000 people employed in this sector. Tech represents 8.9% of total jobs and the city has the third-highest concentration of tech jobs of North America's top 50 cities for tech talent.

There are many interesting companies in Toronto, a number of which have cloud-based SaaS platforms that are experiencing high revenue growth and customer retention rates. We are tracking ecobee, FreshBooks, Rubikloud, Q4, Tulip Retail, Wattpad, Ritual, PointClickCare, Cority, Overactive Media, TouchBistro, Vena and Wave Financial.

Venture capitalist-backed companies in Toronto raised US\$1.3 billion in 2018, a 47% increase compared to 2017 and the fifth consecutive Y/Y increase in funding.

- In Q2, Toronto's Ritual raised US\$70 million, led by Georgian Partners, to support the expansion of engineering teams in Toronto and San Francisco. Ritual plans to expand to more than 40 cities and aims to more than triple its restaurant count by the end of 2019. Also in Q2, TouchBistro raised US\$54 million, with plans to add 300 staff to its existing workforce of 325. TouchBistro's monthly recurring revenue (MRR) grew 58% Y/Y and the company has a goal of \$100 million in revenue by 2020 and has been doubling sales in recent years.
- Smart thermostat maker ecobee closed its Series C financing round at more than \$127 million, allowing the company to expand its suite of smart home technologies and make key additions to its leadership team.
- Wattpad has had over 565 million original story uploads shared, and nearly 1,000 Wattpad stories have been published as traditional books, or adapted for TV, film, or digital video. Most recently, Wattpad has partnered with Times Bridge to expand Wattpad's presence in India.

Toronto continues to be a global "hotbed" for artificial intelligence. Its leading lights include Geoffrey Hinton, University of Toronto Professor Emeritus, Google VP Engineering Fellow and now Chief Scientific Advisor to Vector Institute. Geoffrey Hinton, along with Yoshua Benjio (Element AI and Université de Montréal) and Yann LeCun (Facebook and New York University) received the Turing Award in March 2019. The Turing Award is known as the "Nobel Prize of Computing" and the trio of winners is often referred to as "The Godfathers of AI."

Toronto's AI efforts have been kept largely under the radar; in 2018, Samsung opened artificial intelligence labs in Toronto while Google and Uber completed similar moves. In April, philanthropists Gerry Schwartz and Heather Reisman donated \$100 million to establish a new "innovation centre" focused on artificial intelligence at the University of Toronto. Over the coming years, we expect that many use cases for AI and machine learning will move into the mainstream.

Quebec City/Montreal

Montreal is ranked 14th on CBRE's Tech Talent Scorecard Ranking, where 6.8% of total jobs are in tech. The city boasts international leadership in AI and deep learning, and has plenty of expertise in video games, advanced robotics and data centres. Montreal ICT contributes ~\$9 billion to GDP and produces ~70% of the entire province's ICT industry's GDP output. Montreal also claims 16% lower operating costs than other large North American regions, along with favourable taxation and incentive structures. Montreal-based VC-backed companies raised US\$861 million in 2018, a 29% increase over 2017. Overall, Montreal has become a very robust tech market.

- Lightspeed's successful IPO highlights the growing significance of technology companies in the Montreal region and, in 2018, a number of Montreal companies moved onto our radar. Companies such as Element AI and Hopper have global growth and scale ambitions, while ROOT Data Center is the fastest-growing data center company in North America. Montreal's advantage as a cool climate with very low energy costs is attracting global Internet scale-up companies like Facebook, Amazon and Google.
- Quebec City's LeddarTech should also be tracked. LeddarTech's solid-state LiDAR (SSL) technology should serve to lower the cost of automotive SSLs to ~US\$100, enabling mass-market volumes of autonomous driving cars, drones, industrial vehicles and more.
- LeddarTech and Hopper were both recently valued at close to US\$1 billion. As Canadian unicorns are rare, these two, which are at or near unicorn status, should be followed, in our view.
- We also highlight two other fast-growing Montreal companies: payment technology network Nuvei (formerly Pivotal Payments) and travel upgrade solution provider PlusGrade.

Vancouver

The Vancouver tech sector employs just over 106,000 people in British Columbia (~5% of the workforce). ICT contributes almost \$15 billion to B.C.'s overall GDP and is growing at 6% per year. Within Vancouver, there are almost 75,000 professionals in technology. Vancouver-based VC-backed companies raised US\$388 million in 2018, a 14% increase over 2017.

Vancouver is an important centre of innovation, but on a smaller scale than in Eastern Canada. Top companies to watch are Clio, D-Wave, Hootsuite, ACL, Mojio, Semios, Tutela (Victoria), and Vision Critical.

- Clio is a cloud-based legal practice management platform for small to mid-sized law firms. Clio's growth in high-quality cloud recurring revenue with a low churn rate represents a significant opportunity. We remind readers that Clio's venture backer, Bessemer Venture Partners, is the same firm that backed Shopify prior to its IPO.
- D-Wave is aiming to unlock the power of quantum computing and is well on its way to achieving this goal. The company is working on its next computing platform, a market-leading 5,000 qubit quantum computer. Commercial availability is planned for mid-2020. D-Wave's promise is to disrupt classical computing. The question for investors is when this will start to occur.
- Hootsuite, a SaaS company with ~1,000 staff, offers social media management, allowing users (currently 18+ million) to monitor, manage and view analytics of all major social media sites on an integrated platform. The platform pushes ads to various social media channels, runs campaigns across multiple social networks and drives internal communications.

Kitchener/Waterloo (KW)

Waterloo's tech industry remains prolific. According to CBRE, the Waterloo region's office vacancy rate is near a record low of ~11%. The Toronto-Waterloo Innovation corridor is home to over 15,000 high tech companies and employs over 205,000 tech workers, second only to Silicon Valley in North America. Spanning from Kitchener-Waterloo, Guelph, and Hamilton to the GTA, McKinsey projected that the corridor could contribute up to \$17 billion of Canada's GDP by 2025.

The Kitchener-Waterloo region is home to centres for Google (Chrome) and Shopify (Shopify Plus), the latter aggressively adding staff to its Waterloo facility. BlackBerry is also hiring, now that its restructuring is complete.

We continue to follow companies like D2L in online learning, Miovision in traffic management, and eSentire in cybersecurity. eSentire has moved its headquarters to Waterloo to support its growth. Waterloo's Factory Square (a former Blackberry complex) now houses eSentire's new 65,000-square-foot headquarters, up from 33,000 square feet used in Cambridge at the old headquarters. It will accommodate a brand new security operations centre, including 24/7 search and support for global "real threat hunting."

There is also a new group of emerging Waterloo tech companies that we believe should be followed closely. This list includes North (formerly known as Thalmic Labs), Vidyad, Clearpath Robotics, and Dejero Labs. Formerly of this group, Drone maker Aeryon Labs was acquired by Flir Systems for US\$200 million in January.

- North (previously Thalmic) recently introduced Focals, a pair of custom-built smart glasses with a transparent, holographic display that only the wearer can see. The North team is adding to the software experiences on Focals, adding new updates and integrating Spotify, real-time transit alerts, flight trackers and more. Reviews note that Focals have advanced smart glasses since Google Glass, but that further innovation is required for mass appeal. We agree, having recently tested Focals ourselves. Unclear at this point is demand, an issue called into question as North laid off close to one-third of its 400-person staff in February.

Among Waterloo's emerging class, we are keen to see which company breaks out to the next level.

The Other Markets

Finally, outside of the core technology markets in Canada, we highlight Calgary-based Benevity, the global leader in corporate social responsibility and employee engagement software. Benevity has processed over \$3 billion in donations and 17 million hours of volunteering time to almost 200,000 charities worldwide.

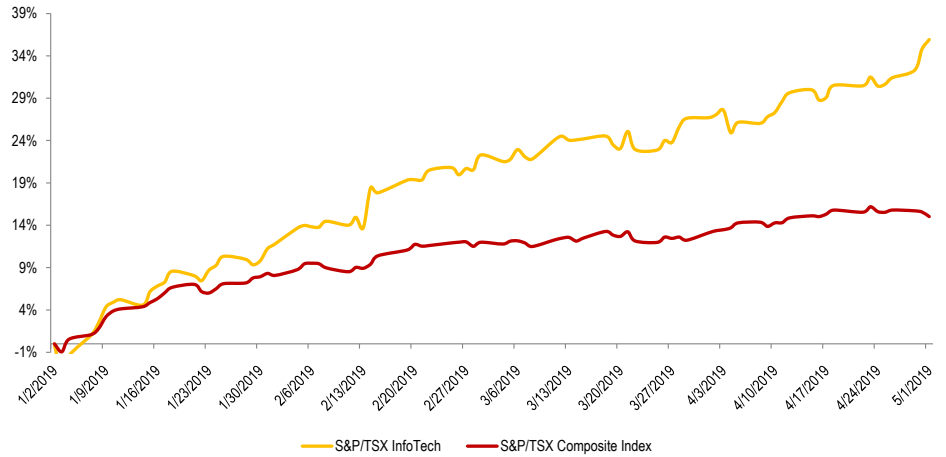
We also highlight Saskatoon's Vendasta, a white-label end-to-end digital marketing platform built to help B2B companies provide marketing solutions to local businesses. Its platform offers total solutions for local marketing problems, including improving awareness, findability, reputation, conversion and advocacy. Vendasta aims to be the first unicorn in Saskatchewan.

Lastly, Fredericton's Resson Aerospace is a predictive analysis company that uses data analytics with drones and robotics to help agricultural producers maximize production and margins. Resson went live with its commercial product offering in 2018 across multiple crops and geographies and its Series C in 2018 added Mahindra & Mahindra as a strategic partner.

The Public Technology Markets

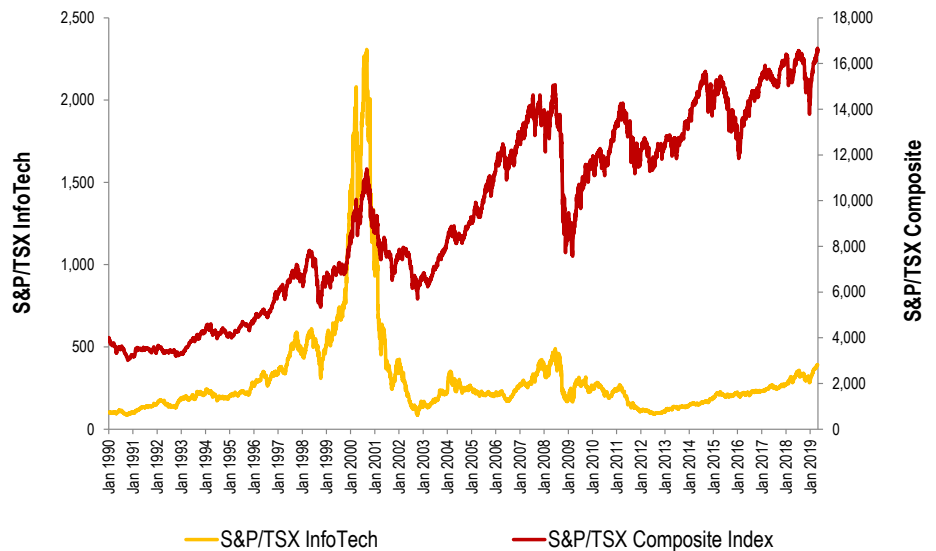
On the public side, the S&P/TSX InfoTech Index is up ~34% from a year ago and up ~36% year to date. The S&P/TSX Index is up 6% from a year ago and up 15% year to date. The technology sector has outperformed the overall market for the past two years, up 12% and 16% in 2018 and 2017, respectively. The S&P/TSX Index was down 12% and up 5%, respectively.

Exhibit 4. YTD Price Return - InfoTech Has Outperformed The Composite By ~20% YTD



Source: Bloomberg and CIBC World Markets Inc.

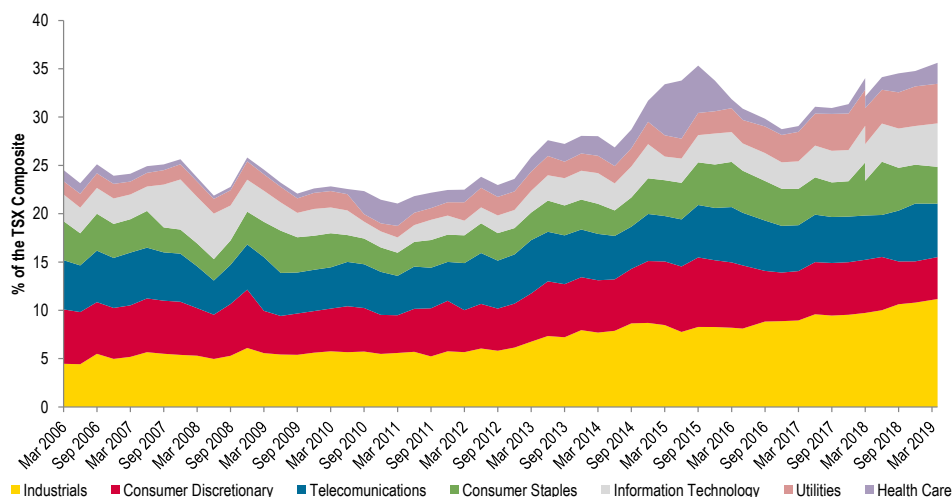
Exhibit 5. TSX Info Tech Versus The Composite Since 1990



Source: Bloomberg and CIBC World Markets Inc.

As a percentage of the TSX Composite, the InfoTech Index continues to grow, now at a weight of ~4.5%, up from 3.9% in May 2018 and approaching its highest levels since 2007/2008.

Exhibit 6. Since 2011 TSX InfoTech Has Increased Its Weighting To ~4.5%



Source: Bloomberg and CIBC World Markets Inc.

What's Changed In 2018? Shopify was added to the S&P/TSX 60 in March. The TSX Info Tech Index now comprises 10 members. Mitel was acquired by Searchlight Capital Partners in 2018 and Computer Modelling Group was removed from the index in March.

Exhibit 7. S&P/TSX Info Tech Index As Of May 2019 (Shares in MM)

May 2019								
Ticker	S&P/TSX Composite IT Sector Index	Weight	Weighting	Shares	Price (May 2, 2019)	GICS Sector	Forward P/E	Forward P/S
SHOP CN Equity	SHOP	Shopify	2788%	98.0	\$343.85	S&P Info Tech Index	412.5x	17.6x
GIB/A CN EQUITY	GIB/A	CGI Inc	2238%	245.3	\$97.10	S&P Info Tech Index	19.7x	2.1x
CSU CN EQUITY	CSU	Constellation	2216%	19.7	\$1,187.66	S&P Info Tech Index	25.3x	5.0x
OTEX CN EQUITY	OTEX	Open Text	1317%	268.8	\$53.50	S&P Info Tech Index	13.9x	3.6x
BB CN EQUITY	BB	BlackBerry	580%	492.6	\$12.42	S&P Info Tech Index	90.4x	4.4x
DSG CN EQUITY	DSG	Descartes Sy	389%	77.2	\$54.17	S&P Info Tech Index	26.6x	9.4x
KXS CN EQUITY	KXS	Kinaxis	184%	26.1	\$72.77	S&P Info Tech Index	49.0x	7.6x
ENGH CN EQUITY	ENGH	Enghouse Sy	119%	38.2	\$32.58	S&P Info Tech Index	26.9x	5.0x
CLS CN EQUITY	CLS	Celestica	108%	117.7	\$9.59	S&P Info Tech Index	9.5x	0.2x
SW CN EQUITY	SW	Sierra Wireless	62%	36.1	\$17.72	S&P Info Tech Index	43.6x	0.6x
Average							71.7x	5.6x

Source: Company reports and CIBC World Markets Inc.

Exhibit 8. S&P/TSX Info Tech Index As Of April 2018 (Shares in MM)

April 2018								
Ticker	S&P/TSX Composite IT Sector Index	Weight	Weighting	Shares	Price (April 17, 2018)	GICS Sector	Forward P/E	Forward P/S
GIB/A CN Equity	CGI Group Inc	23.4	23%	255.2	\$73.60	Information Technology	17.3x	1.9x
CSU CN Equity	Constellation Software Inc/Canada	21.9	22%	19.7	\$891.29	Information Technology	26.0x	5.0x
SHOP CN Equity	Shopify Inc	18.2	18%	92.1	\$158.04	Information Technology	100+	11.9x
OTEX CN Equity	Open Text Corp	14.9	15%	265.8	\$45.00	Information Technology	13.1x	3.4x
BB CN Equity	BlackBerry Ltd	8.2	8%	488.4	\$13.53	Information Technology	100+	6.5x
DSG CN Equity	Descartes Systems Group Inc/The	3.6	4%	76.8	\$37.20	Information Technology	29.8x	8.3x
KXS CN Equity	Kinaxis Inc	2.7	3%	25.5	\$84.14	Information Technology	64.7x	10.6x
CLS CN Equity	Celestica Inc	2.0	2%	124.2	\$13.08	Information Technology	9.3x	0.2x
ENGH CN Equity	Enghouse Systems Ltd	1.6	2%	18.6	\$67.45	Information Technology	32.6x	5.2x
MNW CN Equity	Mitel Networks Corp	1.6	2%	99.7	\$12.56	Information Technology	11.0x	0.9x
CMG CN Equity	Computer Modelling Group Ltd	1.0	1%	80.2	\$9.69	Information Technology	35.9x	10.0x
SW CN Equity	Sierra Wireless Inc	1.0	1%	35.9	\$21.26	Information Technology	18.8x	0.8x
Average							25.8x	5.4x

Source: Bloomberg and CIBC World Markets Inc.



Exhibit 9. S&P/TSX Info Tech Index As Of April 2017 (Shares in MM)**April 2017**

Ticker	Name	Weight	Weighting	Shares	Price (April 17, 2017)	GICS Sector ¹	Forward P/E	Forward P/S
GIB/A CT Equity	CGI Group Inc	28.1	28.1%	267.0	\$62.64	Information Technology	16.3x	1.7x
CSU CT Equity	Constellation Software Inc/Canada	20.9	20.9%	19.7	\$631.00	Information Technology	22.9x	4.5x
OTEX CT Equity	Open Text Corp	19.9	19.9%	263.1	\$44.94	Information Technology	12.3x	3.1x
BB CT Equity	BlackBerry Ltd	9.5	9.5%	482.7	\$11.68	Information Technology	100+	6.3x
DH CT Equity	DH Corp	4.5	4.5%	106.9	\$25.27	Information Technology	n/a	n/a
CLS CT Equity	Celestica Inc	4.0	4.0%	121.9	\$19.37	Information Technology	8.3x	0.2x
DSG CT Equity	Descartes Systems Group Inc/The	3.9	3.9%	75.8	\$30.35	Information Technology	33.3x	7.8x
KXS CT Equity	Kinaxis Inc	3.0	3.0%	23.5	\$76.61	Information Technology	49.2x	9.2x
SW CT Equity	Sierra Wireless Inc	1.8	1.8%	31.9	\$33.62	Information Technology	19.7x	1.0x
ENGH CT Equity	Enghouse Systems Ltd	1.8	1.8%	18.6	\$57.19	Information Technology	27.0x	4.1x
CMG CT Equity	Computer Modelling Group Ltd	1.4	1.4%	75.3	\$10.69	Information Technology	32.6x	10.0x
MNW CT Equity	Mitel Networks Corp	1.3	1.3%	87.8	\$9.13	Information Technology	8.2x	0.7x
Average							23.0x	4.4x

Source: Bloomberg and CIBC World Markets Inc.

Exhibit 10. S&P/TSX Info Tech Index As Of April 2016 (Shares in MM)**April 2016**

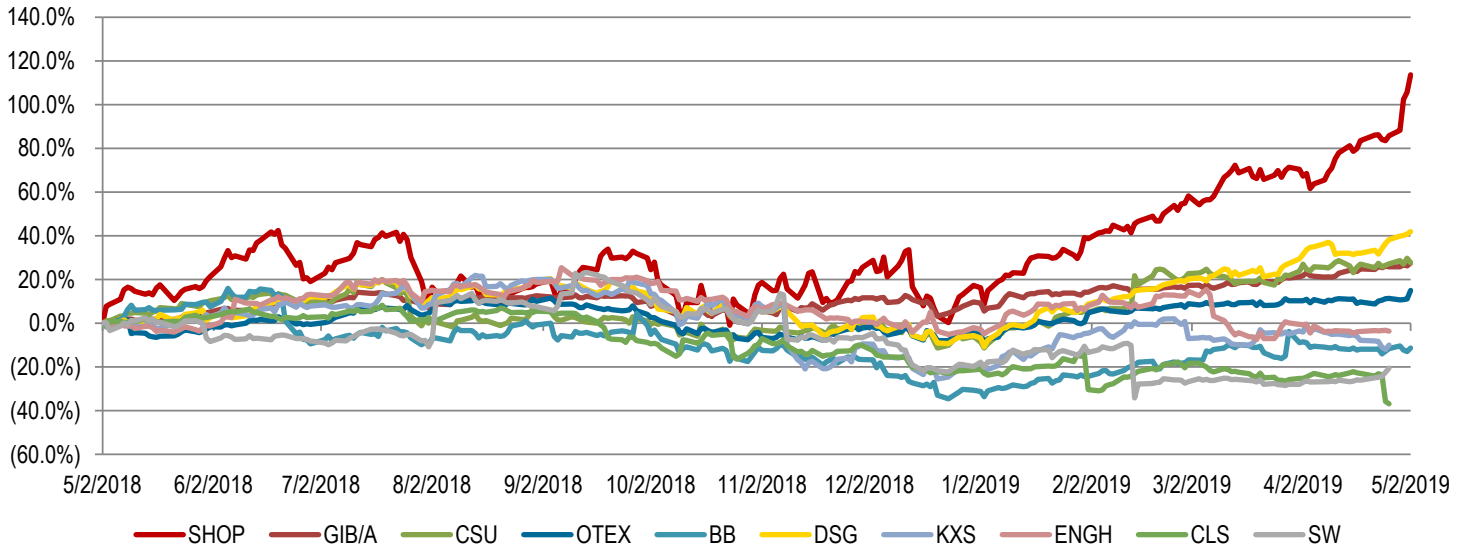
Ticker	Name	Weight	Weighting	Shares	Price (April 18, 2016)	GICS Sector ¹	Forward P/E	Forward P/S
GIB/A CT Equity	CGI Group Inc	33.0	33.0%	276.5	\$62.84	Information Technology	15.7x	1.7x
CSU CT Equity	Constellation Software Inc/Canada	19.1	19.1%	18.6	\$537.63	Information Technology	18.5x	3.5x
OTEX CT Equity	Open Text Corp	16.1	16.1%	121.1	\$69.89	Information Technology	14.4x	3.5x
DH CT Equity	DH Corp	8.0	8.0%	106.4	\$39.47	Information Technology	8.1x	n/a
BB CT Equity	BlackBerry Ltd	7.9	7.9%	458.6	\$9.09	Information Technology	45.7x	3.8x
DSG CT Equity	Descartes Systems Group Inc/The	3.7	3.7%	75.8	\$25.56	Information Technology	18.9x	6.7x
CLS CT Equity	Celestica Inc	3.2	3.2%	124.5	\$13.70	Information Technology	9.0x	0.3x
ENGH CT Equity	Enghouse Systems Ltd	1.9	1.9%	18.5	\$54.17	Information Technology	n/a	n/a
KXS CT Equity	Kinaxis Inc	1.8	1.8%	20.0	\$45.97	Information Technology	37.1x	6.3x
MNW CT Equity	Mitel Networks Corp	1.6	1.6%	93.0	\$9.04	Information Technology	6.4x	0.7x
CMG CT Equity	Computer Modelling Group Ltd	1.4	1.4%	74.8	\$10.19	Information Technology	n/a	n/a
SW CT Equity	Sierra Wireless Inc	1.2	1.2%	32.3	\$19.87	Information Technology	16.0x	0.7x
AVO CT Equity	Avigilon Corp	1.1	1.1%	35.0	\$16.32	Information Technology	11.6x	0.9x
Average							18.3x	2.8x

Source: Bloomberg and CIBC World Markets Inc.

The index's performance stems from the share price strength of several constituents. In the past year, the leaders of the Info Tech Index have included Shopify (share price up +114% Y/Y), Descartes (+42% Y/Y), CGI (+28% Y/Y), and Constellation Software (+27% Y/Y).

Laggards in the past year include Sierra Wireless (-23% Y/Y), Celestica (-37% Y/Y), and Kinaxis (-11% Y/Y).

Exhibit 11. Y/Y Returns Of The S&P/TSX Info Tech Constituents



Source: Bloomberg and CIBC World Markets Inc.

Looking Ahead: We foresee the technology sector becoming an even bigger component of the TSX Composite as we expect constituent company growth levels to continue to rise. We also would expect companies we are tracking in this report to eventually go public. As they do, these would be candidates for the technology index.

“Rule Of 40” Relative To Canadian Companies

Founders and investors often ask if there is, or if there should be, a valuation discount for Canadian technology companies. Our view is that investors base their valuation decisions on how a company ranks for its relative revenue growth, net retention or gross revenue (including upselling, less lost customers), free cash flow margins, size and liquidity. Beyond that, we believe that valuation should not be based on geography alone, and each potential investment should be assessed with a focus on these metrics.

Well-known technology investor Bessemer Venture Partners (BVP) tracks an Emerging Cloud Index of 50 global companies that trade on the NASDAQ. This is an appropriate place to test our assumption on valuation. We also compare valuation metrics to the FAANG stocks, partly because Shopify is historically highly correlated to Facebook and Amazon.

For growth companies, investors often look at the measurement of value and relative ranking, using enterprise value to revenue. The multiple is influenced mostly by revenue growth, but free cash flow margin is often considered. While there are a variety of metrics, SaaS companies are typically valued using the “40% rule,” which is simply the annual revenue growth rate + free cash flow margin (or sometimes EBITDA or gross margins). The quality of this metric is also impacted by the net revenue retention and the relative costs to drive incremental sales.

The market capitalization for BVP’s cloud index is ~US\$770 billion. This group has an EV/one year forward revenue multiple of ~11x. On average, the BVP index has a LTM revenue growth rate of ~35% and LTM FCF margin of 9%, implying a total of 44% for the “40% Rule.” Similarly, the FAANG stocks have higher FCF generation and slightly slower growth, still combining to a 40% overall value.

By comparison, in Canada, there are fewer companies across many technology sub-sectors. We also acknowledge that not all the names under our coverage are valued on this basis, but for this exercise, below we compare Canadian names on these metrics versus the BVP Cloud Index and the FAANG stocks.

Exhibit 12. BVP Index Versus FAANG Versus Canadian Public Companies

Metric	BVP Cloud Index	FAANG	SHOP	OTEX	CSU	DSG	KXS	LSPD*	BB*
Price/Sales (2019E)	10.9x	5.6x	17.6x	3.6x	5.0x	9.4x	7.6x	23.6x	4.7x
EV/Sales (2019E)	10.5x	5.4x	16.4x	4.2x	5.0x	9.4x	6.6x	15.5x	4.5x
P/E (2019E)	210.9x	37.1x	412.8x	13.9x	25.3x	26.6x	49.0x	nm	90.4x
Gross Margin	71%	51%	56%	66%	88%	73%	69%	69%	77%
Sales Growth (LTM)	35%	29%	59%	23%	23%	16%	13%	34%	-3%
Free Cash Flow Margin (LTM)	9%	11%	-2%	21%	20%	26%	10%	-19%	9%
Growth Rate + FCF Margin	44%	40%	58%	44%	43%	42%	23%	15%	6%

*Using C2020 estimates

Source: Bloomberg and CIBC World Markets Inc.

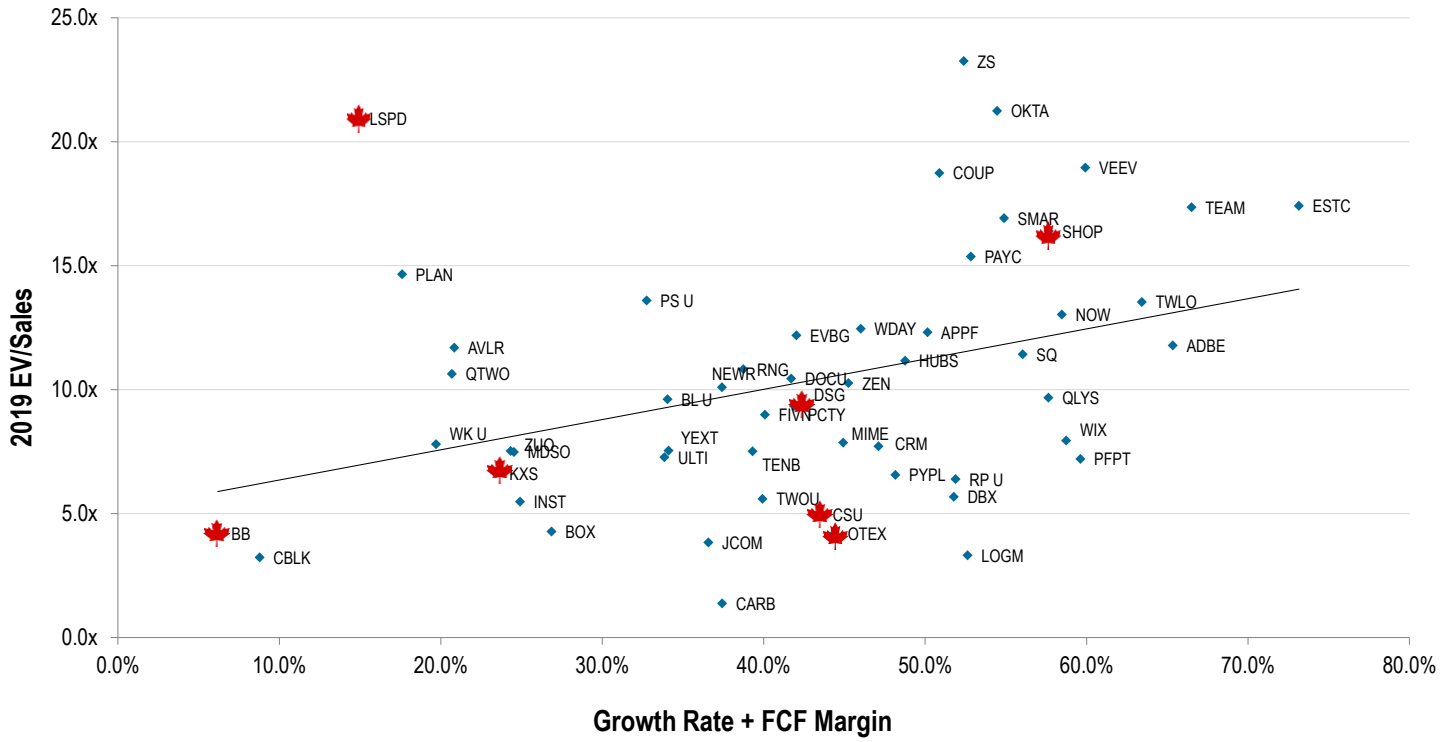
On a case-by-case basis, some Canadian technology names have outperformed peers and are receiving a premium valuation. While Lightspeed and BlackBerry are trailing peers on revenue growth, our forward expectations include growth of 35% and 50% in F2020 and F2021, respectively, for Lightspeed, and we estimate 25% growth in F2020 for BlackBerry. Both companies have invested in revenue growth, through Payments for Lightspeed, and Cylance for BlackBerry. Both companies now need to execute effectively to meet these expected levels of growth. This should lead to improved positions for both companies on the Growth Rate + FCF measurement.

Interestingly, many of the more mature Canadian software names, like Open Text, Constellation and Descartes, score well versus the BVP Cloud Index and the FAANG stocks. These companies are strong capital allocators, using free cash flow to fund organic and inorganic growth. Open Text has been consistently growing its margins, leading to solid free cash flow growth. Constellation is a best-in-class capital allocator and its ROIC has been an industry leader for years. And we regard Constellation as well positioned with a staffed-up M&A team and operating groups keeping more of their capital. Descartes has solid free cash conversion (85%+) that drives its attractive showing versus the BVP Index. The company uses its free cash flow primarily for inorganic growth, although it is also well positioned to benefit from e-commerce growth.

Based on these metrics, a company operating above the 40% rule has likely earned or is deserving of a premium multiple. It also appears—at least so far in 2019—that for SaaS companies, investors are placing more value on the growth metric over free cash flow, as demonstrated by the BVP index.

In our view, the performance and valuation of companies like Shopify, Open Text, Constellation Software and Descartes bode well for the emerging technology companies that we have highlighted. For example, as one of these private, emerging companies last year, Lightspeed has performed well to date, and there are expectations of strong overall growth and a large SMB market opportunity.

Exhibit 13. BVP Index And Canadian Companies 2019E EV/Sales Vs. Growth Rate + FCF Margin



Source: Bloomberg and CIBC World Markets Inc.

2019 Emerging Technology Companies

We introduce on the following pages those firms that we view as being among the fastest-growing private companies in Canada. Where possible, we include a profile for each company that includes sales figures (or company-estimated sales), growth estimates, headcount, market sizing, venture capital funding and descriptions. We also talk qualitatively about the industry, company, products and the company's plans moving forward. It is generally considered that the majority of these companies are on pace for material growth for the foreseeable future.

As we view these companies as highly innovative and attention-worthy, we recommend that investors add them to their own watch lists. Exhibit 14 lists the companies and their respective sectors.

Exhibit 14. 2019 Emerging Technology Companies

Number	2019 Emerging Tech Co.	City	Sub-Sector
1	ACL Services	Vancouver	Government Risk and Compliance Software
2	Assent Compliance	Ottawa	Supply Chain Data Management
3	Benevity	Calgary	Corporate Social Responsibility SaaS
4	Clearpath Robotics	Waterloo	Industrial Autonomous Vehicles
5	Clio	Vancouver	Legal Practice Management Software
6	Cority	Toronto	Environmental, Health, Safety and Quality Software
7	Corsa	Ottawa	Network Security
8	D2L	Kitchener	Learning Management Systems
9	Dejero Labs	Waterloo	Video Transport and Internet Connectivity
10	D-Wave	Burnaby	Quantum Computing
11	Ecobee	Toronto	Smart Thermostats
12	Element AI	Montreal	Artificial Intelligence
13	eSentire	Cambridge	Cybersecurity
14	Freshbooks	Toronto	Cloud-based Business Accounting Software
15	Hootsuite	Vancouver	Social Media Management Software
16	Hopper	Montreal	Online Travel
17	LeeddarTech	Quebec City	LiDAR Sensor Technology
18	Miovision	Kitchener	Traffic Management Software
19	Mojio	Vancouver	Connected Car Platform
20	North	Kitchener	Consumer Wearable Technology
21	Nuvei	Montreal	Payment Processing
22	Overactive Media	Toronto	Global Esports
23	PlusGrade	Montreal	Travel Technology
24	PointClickCare	Toronto	Electronic Health Records
25	Q4	Toronto	Cloud-Based IR
26	Resson	Fredericton	Precision Farming
27	Ritual	Toronto	Third-party Food Delivery
28	ROOT Data Centre	Montreal	Next-generation Colocation
29	RubiKloud	Toronto	Retail Artificial Intelligence
30	Semios	Vancouver	Agricultural Technology
31	Solace Systems	Ottawa	Messaging Middleware
32	Solink	Ottawa	Video Surveillance Software
33	TouchBistro	Toronto	Restaurant Mobile POS
34	Tulip Retail	Toronto	SaaS Retail Technology
35	Tutela Technologies	Victoria	Mobile Industry Data
36	Vena	Toronto	Cloud Financial Planning and Analysis Software
37	Vendasta Technologies	Saskatoon	Sales And Marketing Automation
38	Vidyard	Kitchener	Online Video Analytics
39	Vision Critical	Vancouver	Cloud-based Customer Intelligence
40	Wattpad	Toronto	Mobile Entertainment
41	Wave Financial	Toronto	Accounting Software

Source: CIBC World Markets Inc.



Assent Compliance

The Fastest-growing Supply Chain Data Management Company In The World

Industry

Globalization has allowed companies to expand their operations and supply chains across the world. As a result, many are in scope of various global regulations and supply chain data management complexities related to product compliance, corporate social responsibility and vendor management. A supply chain data management solution can offer companies a scalable way to address these complexities, while widespread cloud deployment has enabled providers to offer these capabilities on demand.

Company

Enterprise companies face challenges of scale and data volume in today’s global marketplace. Assent provides a platform solution that centralizes client supply chain data in one accessible location, scales to meet growing requirements, and integrates with leading PLM and ERP systems, ensuring clients get the most out of their data. Assent’s experts are trusted advisors for the most demanding supply chain data programs, and, combined with its advanced technology, increase supply chain transparency, reduce risk and protect the brand within a challenging regulatory environment. Clients include Polaris Industries, Advanced Micro Devices (AMD), Medtronic and General Dynamics.

Products

The Assent Compliance Platform is a world-class supply chain data management solution that automates manual processes; collects, centralizes and organizes supply chain data; and, provides essential insights into third-party operations. With Assent’s platform, companies can effectively and efficiently scale their programs to meet growing requirements, focus their resources on priority projects, reduce their overall risk and make informed business decisions. Assent’s platform also offers training and education through the Assent University, audit and inspection management through the Assent Audit & Inspection Manager, and various specialized services, including regulatory consulting, compliance reporting, manufacturing data and analysis services, and more. Pricing scales based on the types of data, number of suppliers, and number of parts but typically ranges from \$20K to \$1MM in annual recurring revenue. Net retention is in the range of 115%.

Plan Moving Forward

In October 2018, Assent Compliance received C\$161MM from Warburg Pincus in a Series C funding round, enabling the company to enhance its platform and expand its product compliance, vendor management and corporate social responsibility solutions. Assent has been growing at 70%+ per year, and has established itself as one of Ottawa’s fastest-growing companies. Its 2019 priorities include maintaining its growth rate, growing its channels and expanding its business into Europe.

All figures in US dollars, unless otherwise stated.

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	May 9, 2019
	Information Technology
City:	OTTAWA
Employees:	400+
Key Ratios and Statistics	
Sub-Sector:	Supply Chain Data Management
2019 Est. Market Size (Grand View Research)	\$700MM
2019–2024 Est. Growth Rate (Grand View Research)	8.9%
Founded:	2010
CEO:	Andrew Waitman
Founders:	Jonathan Hughes Matt Whitteker
Venture Rounds:	
Series C (Oct '18) – C\$161MM	Warburg Pincus
Series B (July '17) – C\$40MM	Greenspring Associates and prior investors
Series A (Mar '16) – \$20MM	Volition Capital, OTEAF, Royal Bank, National Research Council of Canada, BDC, Greenspring Associates
2017-2018	
Est. Sales Growth Rate	70%+

Company Description

Assent Compliance is the global leader in supply chain data management. Combining leading-edge technologies with extensive supply chain expertise, Assent provides SaaS solutions that manage third-party data to protect corporate brands, increase market accessibility, and reduce operational and financial risk.



Benevity

The Business Case For Corporate Purpose

Industry

Nearly 70% of employees are not engaged in their jobs, according to research from Gallup Analytics, at an estimated cost of \$450B to \$550B per year in the U.S. from lost productivity and employee churn. Infusing Corporate Social Responsibility (CSR) into strategy and operations has been found to build a positive business profile, and help attract, retain and engage today’s workers. Benevity’s research across 118 enterprise clients (of 2 million employees) showed a 57%+ reduction in employee turnover for people who participated in their company’s giving and volunteering programs. Giving in the U.S. has surpassed \$400B for the first time with the largest increase from corporations, at 8% Y/Y growth. Approximately 93% of the world’s largest 250 companies publish annual CSR reports, and 80% of companies with more than 5,000 employees have employee-based CSR programs (although only 25% are using software to manage them).

Company

Benevity is the global leader in corporate social responsibility and employee engagement software. Large, iconic brands rely on Benevity’s SaaS solution to power their own workplace giving, matching, volunteering and grant programs. This helps purpose-driven businesses attract, retain and engage today’s workers by connecting employees personally to the causes that matter to them, while helping companies have greater social impact in the communities they serve. Benevity is a certified B Corporation and part of a unique breed of for-profit companies with a social mission. Benevity added a new President and CFO in February. In January 2018, Benevity announced a strategic investment from General Atlantic after achieving record client growth.

Products

Benevity’s platform is available in 17 languages to an employee base of 10MM global users. It has processed over \$3B in donations and 17MM hours of volunteering time to almost 200,000 charities worldwide. More than 550 companies rely on Benevity’s platform to automate, scale and democratize their corporate purpose initiatives. Enterprise companies that partner with Benevity include Apple, Google, Microsoft, Cargill, Coca-Cola, the MLB, Samsung, SAP, TELUS, and more. Companies choose Benevity for its approach to corporate purpose, its leading user experience, and its capabilities that unify a company’s international audiences. Benevity’s revenue model is based on annual subscriptions, professional services fees, and a nominal charity support fee that covers eligibility vetting, aggregating and disbursing funds, tax receipting, donor tracking, reporting and charity support services.

Plan Moving Forward

In the last quarter, 42 new companies launched programs on Benevity’s platform. Companies like Ripple, F5 Networks and Dolby Laboratories added an additional 1.2MM users in the quarter. Benevity aims to fill an additional 200 full-time technology, sales, client success and other operational positions over the next 12 months to fuel its growth.

All figures in US dollars, unless otherwise stated.

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	May 9, 2019
	Information Technology
City:	CALGARY
Employees:	500+
Key Ratios and Statistics	
Sub-Sector:	Corporate Social Responsibility SaaS
2017 Est. SaaS Market Size (CSR Matters)	\$43BN
Founded:	2008
CEO:	Bryan de Lottinville
Founders:	Bryan de Lottinville Ryan Courtneage Jason Becker Don Grant Devin Connor
Venture Rounds:	
Strategic Investment (Jan 2018) - Undisclosed	General Atlantic
Series A (Jul 2015) - C\$38MM	JMI Equity

	2016	2017	2018
Est. Sales	N/A	N/A	N/A

Company Description

Benevity is a global leader in corporate social responsibility and employee engagement software.



Clio

Transforming The Practice Of Law, For Good

Industry

Adoption of legal cloud technology continues to increase, but the industry is still in its early stages. Cloud usage grew from 52% in 2017 to 54.6% in 2018, with solo and small firms leading the way (American Bar Association). There are more than one million practicing lawyers in the U.S. alone and international markets are 7x-10x that size. Solo, small and mid-sized practices represent 85% of lawyers in private practice.

Company

Clio was launched in 2008 as the first-to-market, cloud-based legal practice management solution. As a subscription-based service, each new customer offers a secure revenue stream that could last as long as the customer maintains his or her practice, with opportunities for upgrades and expansion as the client's firm grows. This allows Clio to frontload investment in sales, marketing, product development, and infrastructure based on rapid, predictable growth. Today, more than 150,000 legal professionals spanning 90 countries choose Clio to manage their firms. With over 150 app integrations from brands such as Microsoft Office 365 and Intuit QuickBooks, Clio offers more integrations than any other practice management platform and is the central hub for data-driven lawyers to meet their clients' needs. Bessemer Venture Partners, the same VC that invested in Shopify and Vidyard, led Clio's last investment round in 2014.

Products

Produced with the cooperation of bar associations and law societies worldwide, Clio is cloud-based, allowing for secure, remote work and collaboration. Clio Manage is the leading legal practice management software, delivering calendaring, time tracking, note taking, document management, task management, legal accounting, bookkeeping, and billing—all from a single online interface. Clio also offers Clio Connect, a portal for exchanging information and collaborating with clients, as well as Clio Payments, which allows lawyers' clients to pay legal bills directly online with a credit card. In October, Clio acquired Lexicata, a popular legal client intake and CRM solution. Lexicata was evolved into Clio's platform as "Clio Grow," which launched in early 2019.

Plan Moving Forward

Clio is positioned to benefit from a multi-year adoption cycle and the growing adoption of cloud technology worldwide. The company plans to continue to grow its market share by offering more integrations through the platform with the API, and by continuing to expand its user base to larger firm sizes (>10 users) while maintaining its current dominant position with smaller firms. To support its goals, Clio plans to grow to 500 staff by the end of 2019. Clio is capital efficient, still holding on to much of its last 2014 raise. If able to meet and execute on its plans, Clio's path should eventually position it for an IPO.

All figures in US dollars, unless otherwise stated.

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	May 9, 2019
	Information Technology
City:	VANCOUVER
Employees:	350+
Key Ratios and Statistics	
Sub-Sector:	Legal Practice Management Software
2018 Est. Market Size (Technavio)	\$1.2BN
2018–2025 Est. Growth Rate (Technavio)	14%
Founded:	2008
CEO:	Jack Newton
Founders:	Jack Newton, CEO Rian Gauvreau, CPO
Venture Rounds:	
Series C (Mar '14) - \$17.89MM	Venture Funds Bessemer Venture Partners, Acton Capital Partners, Point Nine Management, Version One Ventures
Series B (Jan '12) - \$5.97MM	Acton Capital Partners, Point Nine Management
Est. Sales	2016 2017 2018E
	N/A N/A N/A

Company Description

Clio is a cloud-based legal technology solutions platform for law firms.



Cority

The Most Trusted EHSQ Software Provider

Industry

Environmental, Health, Safety and Quality (EHSQ) software helps businesses reduce the risks that come with their operations, allowing a company to stay up to date on industry rules, improve efficiency and prevent accidents. Verdantix found that 87% of EHS decision-makers view technology as “essential” or “valuable” for EHS management decisions. Positive drivers of ESHQ market growth include more stringent regulations in emerging markets such as China and overall increased corporate spending. Verdantix predicts that industries that face the highest levels of EHS risk will receive the most spend, but food/beverage, pharma and transport will contribute the most to industry-level growth.

Company

Cority (formally Medgate) enables organizations to use EHSQ software solutions to advance their journey to sustainability and operational excellence. Cority was founded in 1985 and began with a major project to develop an Occupational Health Software solution for 3M. Now with over 30 years of experience, Cority’s SaaS platform helps to track medical records, manage compliance and regulatory requirements, mitigate absences and make informed decisions. Its platform is ISO-certified, and highly secure, hosted in facilities around the world. Cority has a team of 350 experts that serve 800+ clients in 70 countries, supporting millions of end-users. Customers include Suncor, Dow Chemical, Siemens, and Barrick Gold. In April, Cority was named one of Canada’s Top Small and Medium Employers for the fourth consecutive year.

Products

Cority’s enterprise-grade EHS and cloud-based SaaS platform offers solutions that protect the wellbeing of workers and the environment, while ensuring global compliance. Its comprehensive EHS management system can be configured to meet any organization’s EHSQ needs. Cority can be deployed as an integrated, enterprise-wide, packaged solution, scaled down for mid-size companies or offered as a stand-alone solution for specific requirements. The Cority platform integrates common functionality across its main EHSQ solutions, which include safety management, ergonomics, industrial hygiene, training management, quality management and more. Its platform allows for reliable audit trails, automated workflows and notifications, data retention features and other benefits.

Plan Moving Forward

In 2018, Cority achieved License Order Sales growth of 33%, contributing to a CAGR of over 30%. In the same year, the company’s headcount grew 24%, it doubled its Birmingham, U.K. office space, and it opened a second office in Toronto to keep pace with demand. Cority’s revenue has consistently grown at a CAGR of 25%-30%. The company has been profitable for years, and its last strategic investment was to further product expansion, analytics innovation and strategic acquisitions.

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	May 9, 2019
	Information Technology
City:	TORONTO
Employees:	350
Key Ratios and Statistics	
Sub-Sector:	Environmental, Health, Safety and Quality Software
2019 Est. Market Size (Verdantix)	\$1.2B
2019–2024 Est. Growth Rate (Verdantix)	9.2%
Founded:	1985
CEO:	Mark Wallace
Founders:	Murray Balcom
Venture Rounds:	
Later Stage Strategic Investment (Mar '16)	Georgian Partners, Norwest Venture Partners, Bank of Montreal

	2016	2017	2018E
Est. Sales	N/A	N/A	N/A

Company Description

Cority is a cloud-based occupational health and safety management software solution.



Corsa

100% Traffic Visibility

Industry

Exploding traffic levels, further compounded by SSL/TLS encryption and growing IoT, 5G and SaaS, require a rethinking of network security. Cisco predicts that global IP traffic will increase threefold over the next five years. Currently, over 72% of Internet traffic is encrypted. Network security has lagged the evolution of networks themselves and is needed to protect the usability and integrity of networks and data. Attacks increasingly use encrypted malware and viruses, representing a significant threat. Security includes hardware and software technologies to manage access to the network, preventing a variety of threats from entering or spreading.

Company

Corsa is an Ottawa-based cybersecurity SaaS company that provides security socket layer (SSL) traffic visibility at 100Gbps. SSL traffic is common in everyday online interactions and transactions. Corsa processes and analyzes encrypted data 10x faster than competitors and addresses the inspection problem with a new approach to network security that scales to offer 100% traffic inspection for all traffic without impacting network performance. Large network owners can subscribe to Corsa’s security platform-as-a-service (PaaS) and select the amount of inspection capacity needed. As network traffic patterns change, inspection capacity can be added or removed to maintain the fullest network security levels. It offers a “click for inspection capacity” user experience and pay-as-you-grow model, allowing enterprises to gain a 10x savings in opex and capex compared to traditional firewall appliance refresh cycles that occur every three years.

Products

Corsa’s security PaaS is a cloud-based approach for high capacity networks that brings cloud economics and scale to network security. At the heart of its security, PaaS is a sophisticated integration of commodity servers with the Corsa security services load balancer and virtual security instances from leading vendors that is specifically optimized for elasticity, virtualization and the cloud. Its turnkey, software-defined network solution scales security functions in virtual service chains so all traffic can be inspected all the time.

Plan Moving Forward

Corsa’s new San-Francisco based CEO, Eduardo Cervantes, has completed five prior exits and has hired new cybersecurity executives (with experience from AT&T and Symantec) to the company’s management and Advisory Board. The plan for 2019 includes: 1) enhance Corsa’s product offering by adding two products to the RedArmor platform; 2) move the business from a hardware model to a monthly recurring revenue (MRR) subscription model; 3) hire the necessary talent to help with this new strategy; and, 4) close on a large financing round in Q4/19 or Q1/20, bringing in U.S.-based cybersecurity VCs and institutional investors.

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	May 9, 2019
	Information Technology
City:	OTTAWA
Employees:	28
Key Ratios and Statistics	
Sub-Sector:	Network Security
2019 Est. Market Size (Technavio)	\$1.7B
2018–2022 Est. Growth (Technavio)	5%
Founded:	2013
CEO:	Eduardo Cervantes
Founders:	Bruce Gregory
Venture Rounds:	Venture Funds
Series C (Mar '15) - \$9M	Celtic House Venture Partners, BDC Venture Capital, Roadmap Capital
Series B (Mar '15) - \$16.5M	Celtic House Venture Partners, BDC Capital Corporation, Roadmap Capital
Series A (July '13) - \$4.2M	Celtic House Venture Partners
Est. Sales	2016 2017 2018E
	N/A N/A N/A

Company Description

Corsa provides scalable, 100% traffic visibility without impacting network throughput performance.



D2L

Reinventing Teaching And Learning

Industry

The growth of wearable eLearning devices, digital learning in corporate and academic institutes, and Bring Your Own Device (BYOD) are some of the major driving forces in the Learning Management System (LMS) market. According to Bersin (a Deloitte firm), despite a growing LMS market, competition is intensifying. In the enterprise LMS market, major software conglomerates SAP (SuccessFactors) and Oracle offer module solutions to their customers and there is increased competition from online resources and from offerings such as GSuite, Workday, Microsoft Teams, Slack and Workplace by Facebook. However, there is little crossover of companies in the education and K-12 market. Education companies include Blackboard Learn, Moodle, Canvas, Sakai, and D2L. These education LMS firms are replacing outdated systems such as WebTC, adding or expanding web-based LMS for the first time.

Company

D2L (Desire2Learn) is a software leader that makes the learning experience better. The company's learning management system, Brightspace, is used by learners in higher education, K-12, and the enterprise sector, including the Fortune 1000. D2L has over 800 employees in offices around the world.

Products

D2L created Brightspace, a cloud-based online learning platform that helps institutions to deliver personalized learning experiences to people anywhere in the world. The platform makes it easy to design courses, create content and grade assignments, giving instructors more time to focus on what's most important: teaching and learning. At the same time, analytics reports track and deliver insights into the performance levels of departments, courses, or individuals. Brightspace is used by over 15MM learners in K-12, higher education, healthcare, government, and enterprise organizations. It was recently named the #1 LMS in Higher Ed by Ovum Research and #1 in Adaptive Learning by eLearning Magazine.

Plan Moving Forward

Growth is coming from enterprise uptake, with D2L today being a top corporate learning platform. New methods for engaging students in K-12, such as game-based learning, analytics and mobile access, have made big strides in improving teaching and learning. These approaches and markets, along with continuous innovation, are among the reasons the company believes it will continue to have a leg-up over education software competition. Further expansion is expected in international markets, including EMEA and Latin America.

All figures in US dollars, unless otherwise stated.

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	May 9, 2019
	Information Technology
City:	KITCHENER
Employees:	750+
Key Ratios and Statistics	
Sub-Sector:	Learning Management Systems
2018 Est. Market Size (MarketsandMarkets)	\$9.2B
2018-2023 Est. Growth Rate (MarketsandMarkets)	19.6%
Founded:	1999
CEO:	John Baker
Founders:	John Baker
Venture Rounds:	
Series B (Aug '14): \$85M	Venture Funds OMERS Ventures, New Enterprise Associates, Columbus Nova Technology Partners, Graham Holdings, Four Rivers Group, Aurion Capital
Series A (Sept '12): \$80M	OMERS Ventures, New Enterprise Associates
Est. Sales	2016 N/A 2017 N/A 2018 N/A

Company Description

D2L provides cloud-based SaaS learning solutions for K-12 and higher education customers, healthcare, government, and the enterprise sector.



Dejero Labs Inc.

Experts In Blended Connectivity

Industry

Accenture's 2017 "Future of Broadcasting" found that, while the broadcasting industry has experienced margin erosion, overall industry growth is expected, with the greatest growth projected to be in digital sub-segments, including OTT streaming and digital advertising. Multi-speed IT was cited as a value-creation opportunity to compete as industries digitize and increase in-house original content.

Company

With the vision of reliable connectivity anywhere, Dejero blends multiple Internet connections to deliver fast and dependable connectivity required for cloud computing, online collaboration, and the secure exchange of video and data. Dejero supplies the equipment, software, connectivity services, cloud services and support to provide the uptime and bandwidth that broadcast and media companies require. The company was recently awarded a prestigious Technology & Engineering Emmy Award for "excellence in engineering creativity" in the field of live transmission.

Products

Dejero provides a suite of video transport and connectivity products. Its transmitters are used for remote video acquisition, ideal for newsgathering, sports coverage and live event broadcasting from remote locations and while in motion. Its receivers reconstruct the video transported over IP networks from Dejero transmitters, and its apps, connectivity, and cloud services allow for a full integration with its products. Current customers include MLSE, CTV, CBC, ABC, FOX, NBC, and Rogers, among others.

Plan Moving Forward

Dejero continues to increase investment in blended connectivity and cloud-based content distribution. It recently unveiled IronRoute for media, which delivers reliable first- and last-mile connectivity by blending available broadband, cellular and satellite connectivity to distribute broadcast-quality content to network affiliates, group stations, and other media organizations.

Over the past 12 months, the company has boosted headcount by 35, with the majority of the increase focused on technical and sales/business development resources.

	May 9, 2019
	Information Technology
City:	WATERLOO
Employees:	145
Key Ratios and Statistics	
Sub-Sector:	Video Transport and Internet Connectivity
2018 Est. Market Size (Statista)	\$9B
Founded:	2008
CEO:	Bruce Anderson
Founder:	Bogdan Frusina
Venture Rounds:	
Series B (Nov '17) - \$32MM	Kayne Anderson Intelsat SA
Growth Funding (Feb '17) - \$14MM	Wellington Financial
Series A (Oct '14) - \$4.5MM	BEST Investment Counsel
Est. Sales	2016 2017 2018
	N/A N/A N/A

Company Description

Dejero is trusted for broadcast-quality video transport and high-bandwidth Internet connectivity around the world.

All figures in Canadian dollars, unless otherwise stated.

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D-Wave Systems Inc.

Commercializing Quantum Computing

Industry

In 2019, the “quantum computing supremacy race” continues to gain attention as quantum physicists partner with corporations to develop or commercialize quantum computing capabilities. In areas such as optimization, artificial intelligence, materials science, and cryptography, it is thought that quantum computing can transform the landscape by providing faster, better, and cheaper solutions to complex problems, using substantially less energy. The quantum computing industry is rapidly evolving with substantial investments in R&D being driven by governments. Competitors include D-Wave, Google, Intel, IBM, Microsoft, Alibaba, Rigetti, academic groups, governments and others.

Company

D-Wave’s mission is to unlock the power of quantum computing to solve the world’s most challenging problems, by delivering customer value with practical quantum applications. Its systems are used by institutions like Lockheed Martin, Google, NASA, USC, Los Alamos and Oak Ridge National Laboratories, Volkswagen, and Toyota Tsusho. With offices in Vancouver, British Columbia, Palo Alto, and Maryland, D-Wave has a roster of investors that includes PSP, BDC, Goldman Sachs, DFJ, Jeff Bezos, and the CIA’s VC arm, In-Q-Tel.

Products

The D-Wave 2000Q™ system being used by customers is a 2000-qubit annealing-based quantum computer. It is available through Leap™, D-Wave’s cloud service, or through sale or lease as an installed system. It is the most advanced quantum computer in the world. The company has announced that its 5000-qubit system is due in mid-2020, with more connectivity among qubits and lower noise. Built around “qubits” rather than bits, the processor is chilled almost to absolute zero to harness quantum effects. Leap™, launched in late 2018, provides cloud access to a live quantum computer, and an environment that includes open-source development tools, interactive demos, coding examples, and other resources to build and run applications in the cloud. The first minute of QPU time is free, which is enough to run 400-4000 problems. Users can add free time by open-sourcing the code they develop, or buying additional time starting at \$2,000/hr. D-Wave has had thousands of sign-ups through Leap. To date, D-Wave customers have developed 150 early applications for problems from airline scheduling, election modelling, automotive design, preventative healthcare, logistics and more.

Plan Moving Forward

D-Wave’s current system rivals the performance of classical alternatives on some applications. The next-gen system in 2020 will be far more powerful than the D-Wave 2000Q. D-Wave’s goal is to maintain its market leadership in practical quantum computing, expand the capabilities of its systems to outperform the best classical computers on real-world scientific and commercial problems, and work with its customers to deploy production applications.

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	May 9, 2019
	Information Technology
City:	BURNABY
Employees:	180
Key Ratios and Statistics	
Sub-Sector:	Quantum Computing
2024 Est. Market Size (Homeland Security Research)	\$10.7B
Founded:	1999
CEO:	Vern Brownell
Founders:	Geordie Rose Eric Ladizinsky (Chief Scientist) Haig Farris (BOD)
Venture Rounds:	Venture Funds
Over \$200MM	Fidelity, PSP, BDC, Draper Fisher Juvetson, Goldman Sachs Capital Partners, Discovery Capital, In-Q-Tel, PSP

	2016	2017	2018E
Est. Sales	N/A	N/A	N/A

Company Description

D-Wave is the world's first quantum computing company and the leader in the development and delivery of quantum computing systems and software.



ecobee

Smart Home Technology

Industry

Smart thermostats differ from traditional thermostats by connecting to home automation systems using software, sensors, Wi-Fi, algorithms, and user interfaces. With a strong emphasis on compatibility and connection, smart thermostats can regulate temperatures in more nuanced, customizable ways, optimizing user energy and cost conservation. Smart thermostat market growth is expected to show in all applications - including residential, commercial and industrial - but the residential application is expected to grow at the highest CAGR. It also holds the largest market share due to the growth of smart homes, increased awareness, and economic benefits. APAC is expected to lead the global market at a ~27% CAGR. A study by Parks Associates found that smart home purchase intentions are growing (from 26% in 2014 to 48% in 2017) and now 34% of consumers report a high intention to purchase a device. Today, more than 16% of U.S. households own two or more smart home devices. Nearly 50% bought in 2017 were purchased as an upgrade to an older model. Similarly, the global voice recognition market is expected to reach \$32B by 2025, at a 17% CAGR (Grand View Research).

Company

ecobee was the first to introduce Wi-Fi enabled thermostats to the market. ecobee sells millions of smart thermostats annually that can be controlled by smartphones, smartwatches, and voice-activated services. These services include Amazon Alexa, Apple HomeKit, Samsung SmartThings, Wink, and IFTTT. Additionally, home builders Mattamy and Clayton Homes are installing thousands of ecobee thermostats in new home developments while energy provider Enbridge offers rebates to customers who install the products, establishing ecobee as a collaborative and beneficial company for consumers. After ecobee's last raise in May, it added key additions to its management team through a new CMO, COO and CFO. In October, CEO and founder Stuart Lombard won EY's Ontario region's Entrepreneur of the Year 2018.

Products

ecobee's Wi-Fi thermostats include the ecobee4, ecobee3 and ecobee3 lite. ecobee 4 is the company's flagship smart thermostat, with built-in Amazon Alexa Voice Service. All ecobee thermostats pair with ecobee Room Sensors™, which read temperature and room occupancy, and together deliver the preferred temperature to each room for optimal comfort throughout the home. Customers can use the ecobee mobile app for room-specific temperature readings and to adjust their thermostat from anywhere. ecobee thermostats automatically adjust to the right mode when they sense occupants are away to optimize financial and energy savings. ecobee's Switch+ is the first smart light switch with built-in Amazon Alexa. Customers can ask Switch+ to control their lights, assist with tasks, play music or podcasts, or control other voice-enable devices in the home.

Plan Moving Forward

ecobee's Series C round was to continue to expand its suite of smart home technologies. The company considers an IPO as a potential next step, depending on market timing and execution.

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May 9, 2019

Information Technology

City: **TORONTO**

Employees: **~330**

Key Ratios and Statistics

Sub-Sector:	Smart Thermostats
2017 Est. Market Size (Transparency Market Research)	\$1.2B
Growth Rate 2017 - 2026 (Transparency Market Research)	23.7%

Founded: 2005

CEO: Stuart Lombard

Founders: Stuart Lombard

Venture Rounds:

Venture Funds

Series C (May '18) - \$36M Caisse de dépôt et placement du Québec (CDPQ), AGL Energy Ltd. and Business Development Bank of Canada

Series C (Mar '18) - \$61M Amazon Alexa Fund, Energy Impact Partners, EDC, GXP Investments, Northleaf Capital Partners, Ontario Capital Growth Corp, Relay Ventures, Tech Capital Partners, Thomvest Ventures

Series B (Aug '16) - \$35M Amazon Alexa Fund, Relay Ventures, Thomvest Ventures, Ontario Capital Growth Corp, Just Energy, Northleaf Capital, EDC

Series A-3 (Jan '15) - \$14.8M UTC Canada Inc.

Series A-2 (Aug '12) - \$21.6M Ontario Capital Corp, Relay Ventures, Tech Capital Partners, Just Energy

Est. Sales

Historical growth rate of approximately 100% per year

Company Description

ecobee provides home thermostats that can be controlled by smartphones, smartwatches and voice-activated services like Amazon's Alexa.



Element AI

Leading Organizations Towards An AI-first World

Industry

While the definition of AI varies, the market size is immense, at \$87B in 2019 (Element AI), estimated to grow at a 41% CAGR to 2025. The industry has faced recent challenges with data controversies and ethical uses of AI, but these are likely to be expected as AI moves from infancy into a more mature phase of its market development. Large enterprises are already leveraging machine learning, deep learning, and natural language processing to revolutionize current systems and increase operational efficiencies. AI has productive applications across a wide range of industry verticals, including financial services, healthcare, oil and gas, and automotive and transportation. AI is changing the way businesses operate and those that leverage AI's power to adapt are likely to succeed in the long run.

Company

Element AI is a global AI company delivering AI software products at scale. Founded in 2016 by seasoned entrepreneur JF Gagné and pioneering AI researcher Yoshua Bengio, the company turns cutting-edge academic research and deep industry expertise into scalable products that help organizations better navigate complexity. The company has over 500 employees, including more than 100 PhDs, working in five cities across North America, Europe, and Asia. Element AI maintains a strong connection to academia with an open, collaborative approach to research and takes a leadership position in government relations and policy-making around the impact of AI.

Products

Element AI's products augment decision-making for roles across organizations in two main sectors: financial services and supply chain. Industries served include insurance, banking, capital markets, transportation and logistics, retail, manufacturing, and cybersecurity. It specializes in training in small data environments and ensuring that a human-in-the-loop guides continuous learning and performance improvements. Systems are transparent and explainable to improve user experience and facilitate adoption, with flexible deployment models that can adapt to different requirements. Element AI's insurance products empower claims adjusters with decision support and streamline the claims lifecycle for improved loss ratios. In logistics, Element AI's products help port schedulers optimize the activity of sea and ground fleets based on traffic, weather and economic data.

Plan Moving Forward

In 2019, Element AI is focused on delivering products to clients and on refining and expanding its product offerings across financial services, supply chain and cybersecurity sectors.

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	May 9, 2019
	Information Technology
City:	MONTREAL
Employees:	500+
Key Ratios and Statistics	
Sub-Sector:	Artificial Intelligence
2019 Est. Market Size (Element AI Market Intelligence Analysis)	\$87B
2019–2025 Est. Growth Rate (Element AI Market Intelligence analysis)	41%
Founded:	2016
CEO:	Jean-François Gagné
Founders:	Jean-François Gagné Yoshua Bengio Anne Martel Nicolas Chapados Philippe Beaudoin Jean-Sébastien Cournoyer
Venture Rounds:	Venture Funds
Series A (Nov '17) - \$102MM	BDC Venture Capital, DCVC Management, Fidelity Investments, Hanwha Investment, Intel Capital Corp, Microsoft Ventures, National Bank of Canada, NVIDIA Corp, Real Investment Management, Tencent Holdings

	2016	2017	2018E
Est. Sales	N/A	N/A	N/A

Company Description

Element AI delivers AI software products at scale to help people work smarter and make businesses safer, stronger and more agile.



eSentire Inc.

Human Expertise At Machine Scale

Industry

According to Gartner, worldwide information security spending is forecast to total \$124.1B in 2019, up 9% from 2018. Organizations are spending more given regulations, board of directors' mandates for increasing vigilance, shifting mindsets, awareness of emerging threats, and the evolution to digital business strategies. Cybersecurity Ventures predicts global spending on cybersecurity products and services will exceed \$1T cumulatively from 2017 to 2021.

Company

eSentire is the largest pure-play Managed Detection and Response (MDR) provider and protects more than \$5.7T in AUM for clients in the financial sector. With over 650 customers across 30 countries, the company continues to expand globally, with sales offices throughout North America, the United Kingdom and Europe, as well as security operations in Canada and Ireland. eSentire boasts a 97% customer retention rate, with clients in financial services, legal services, technology, healthcare, extractive, transportation and biopharmaceutical. The sense of urgency driven by rising industry risk and increasing regulatory requirements has challenged many mid-market organizations working with limited cybersecurity and in-house resources and budgets. This has led to a steep climb in the number of threats processed through eSentire's Security Operations Centres (SOCs) in Canada and Europe, which have doubled Y/Y on a normalized basis.

Subscription Services

eSentire's managed detection and response service keeps mid-sized organizations safe from constantly evolving cyber-attacks that traditional security defenses are unable to detect. It delivers continuous monitoring, real-time threat detection and containment technology-as-a-service with human threat analysts on a 24/7/365 basis. In March, eSentire announced its esINSIDER solution, a cloud-based AI platform that searches for insider threats within customers' environments. The solution is a software-as-a-service (SaaS) model, protecting cloud, on-premise and hybrid cloud environments.

Plan Moving Forward

To support its growth, eSentire has moved its HQ to Waterloo where it will house a brand-new security operations center, including 24/7 support for global "real threat hunting." Waterloo's Factory Square (a former Blackberry complex) houses eSentire's new 65,000-square-foot HQ. This is up from 33,000 square feet used in Cambridge at the old HQ. eSentire is set to capitalize on the growing market, focusing on detecting previously undetected threats that have breached organizations' perimeters and are progressing through the IT environment. In March 2019, private equity firm Warburg Pincus, along with minority investors Georgian Partners and Edison Partners, invested \$47MM in the company to strengthen eSentire's leadership position through extensive investment in its threat processing platform to leverage AI and ML to support scaling into triple-digit revenues.

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	May 9, 2019
	Information Technology
City:	WATERLOO
Employees:	~450
Key Ratios and Statistics	
Sub-Sector:	Cybersecurity
2019 Est. Market Size (Gartner)	\$124.1B

Founded:	2001
CEO:	Kerry Bailey
Founder:	Eldon Sprickerhoff
Financing Rounds:	
Private Equity (Mar '19) - \$47MM	Venture Funds Warburg Pincus, Georgian Partners & Edison
Recap (Aug '17) - Undisclosed	Warburg Pincus
Series D (Feb '16): \$19.5MM	Information Venture & prior investors
Series C (Sept. '14): \$14MM	Georgian, Cisco, Northleaf, & prior investors
Venture (July '13): \$7MM	Edison, VentureLink

	2016	2017	2018
Est. Sales	N/A	N/A	N/A

Company Description

eSentire is focused on cybersecurity for mid-sized companies with a single service tailored to clients' individual business needs.



FreshBooks

ReFreshing The Books

Industry

In the United States alone, there are nearly 30MM small businesses. FreshBooks predicts that in the next five years 40% of the U.S. workforce will be self-employed and need its own accounting platform. The number of self-employed professionals in the U.S. could triple over the next two years. At the same time, businesses continue to move to the cloud. Public company Intuit has over 3.9MM QuickBooks Online subscribers, a 38% increase Y/Y. Other players in the SMB accounting market include Wave Financial, Zoho, Xero, Saasu and dozens of other free and fee-based solutions. Changes in market share are primarily due to growth in do-it-yourself through easy-to-use cloud-based platforms, at the expense of in-person accounting tax/services and online accounting services.

Company

Founded in 2003 after CEO Mike McDerment saved over an invoice and lost his work, FreshBooks is the world's leading cloud-based accounting software for small business. Since 2004, over 24MM people have used FreshBooks to send, receive, print, and pay invoices in over 160 countries. Over \$60B in invoices have been paid through FreshBooks and over 192 hours saved annually. The company specializes in small service-based businesses, typically of one to nine employees. This market comprises roughly 60% of the total SMB market in the U.S. Many e-commerce applications also allow integration with accounting software, including FreshBooks. For most business owners, accounting itself is secondary to running the business. FreshBooks is the easiest tool for managing the day-to-day billing tasks that owners and their teams care about most.

Products

FreshBooks allows businesses to create customized invoices, payments, forms, reports and more. Its software can track the time of projects and tasks, generating timesheets and invoices, and is offered for monthly rates, starting at \$15/month. It also processes invoicing and payments using its own FreshBooks Payments for a flat rate or through Stripe. FreshBooks continues to update its product, most recently adding bank reconciliation and double-entry accounting. FreshBooks has an open platform and 100+ new apps and integrations to help customers automate more of their workflow, save time and make running their business even easier. FreshBooks' own data show that 70% of accountants and bookkeepers say small business owners find traditional accounting software intimidating to use and 82% say new small business owners are prone to making mistakes when they use it themselves. Based on this, FreshBooks prioritizes the ease of use of its product.

Plan Moving Forward

FreshBooks is adding more powerful accounting features to help owners with accountants and prepare for tax time, without sacrificing the user-friendly nature of its software for business owners.

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	May 9, 2019
	Information Technology
City:	TORONTO
Employees:	285
Key Ratios and Statistics	
Sub-Sector:	Cloud-based Business Accounting Software
2017 Est. Market Size (Technavio)	\$3B
2017–2022 Est. Growth Rate (Technavio)	6%
Founded:	2003
CEO:	Mike McDerment
Founders:	Mike McDerment Levi Cooperman (VP Operations)
Venture Rounds:	
Series B (July 2017) - \$43 million	Georgian Partners, Accomplice LLC, Oak Investment Partners
Series A (July '14) - \$30 million	Georgian Partners, Accomplice LLC, Oak Investment Partners

	2016	2017	2018E
Est. Sales	N/A	N/A	N/A

Company Description

FreshBooks is a simple, cloud-based software application designed exclusively for self-employed professionals and their teams.



Hootsuite

The Leading Social Media Dashboard

Industry

The global social media management market is expected to grow from \$9.2B in 2018 to \$17.7B by 2023 (MarketsandMarkets). Key drivers include the need to increase ROI on social media strategy, increased focus on market and competitive intelligence, and the need for social media measurement to enhance the customer experience. From January 2018 to January 2019, global social media use increased by 9% (or 288MM users), reaching 3.484B users, according to Hootsuite's Digital 2019 report. Over 4B people use the Internet for an average of six hours per day. Digitization continues to disrupt traditional marketing efforts with increased demand for marketing automation, mobile apps, and social media tools. Additionally, data exhaust due to digitization continues to force greater transparency and performance-measured accountability, requiring marketing analytics.

Company

Hootsuite is a SaaS company that offers social media management, allowing users to monitor, manage and view analytics of all major social media sites in an integrated platform. The platform has the ability to push ads to various social media channels, run campaigns across multiple social networks, and drive internal communications. The company has the largest open social relationship platform with 250+ partner integrations and applications and is the preferred, certified partner of LinkedIn, Instagram, Google and Pinterest. The Hootsuite dashboard is available in 16+ languages and now more than 90% of Hootsuite's revenue comes from outside Canada. In April, Hootsuite was identified as a leader in sales social engagement by Forrester.

Products

Hootsuite is used by over 18MM people and 4,000 enterprises, including over 800 Fortune 1000 companies. Customers include Hong Kong Airlines, Longchamp, Meliá Hotels, Sony Music Entertainment, Virgin and World Wildlife Fund (WWF). There are several applications and software extensions/features to the core dashboard offering under a tiered pricing model (freemium, professional, team, business and enterprise). The freemium model allows the company to build scale with lower marketing overhead, and the value-add extensions drive up-selling, which increases the customer lifetime value.

Plan Moving Forward

In March 2018, Hootsuite secured \$50MM of growth capital from CIBC Innovation Banking. Proceeds were planned to help continue expansion in APAC, EMEA, and LATAM; further expand its platform offering to key industries like financial services, government and healthcare; and, double down on its industry-leading ecosystem through existing and new strategic partnerships and integrations. Successful prior tuck-ins include Creative Web Srl, AdEspresso and Liftmetrix Inc., Brightkit, uberVU, Seismic, Geotolo, TwapperKeeper.com, Swift App, and TwitterBar.

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	May 9, 2019
	Information Technology
City:	VANCOUVER
Employees:	~1000
Key Ratios and Statistics	
Sub-Sector:	Social Media Management Software
2018 Est. Market Size (MarketsandMarkets)	\$9.2B
2018–2023 Est. Growth Rate (MarketsandMarkets)	14.1%
Founded:	2008
CEO:	Ryan Holmes
Founder:	Ryan Holmes
Venture Rounds:	Venture Funds
Over \$250 million	CIBC Innovation Banking, OMERS Ventures Management, Accel Partners LLC, Insight Venture Management, Difference Capital, SVB Financial, FMR LLC, Blumberg Capital, Churchill Downs Inc.

	Revenue Growth (2017-2018)
Est. Sales Growth	35%+

Company Description

Hootsuite is a social media management system for brand management with over 18MM users.



Hopper

The Biggest Travel App In North America

Industry

The online travel market is estimated to reach over \$1T by 2022 (Allied Market Research). The air transport market is over \$700B while the hotel market is over \$500B. Travel and lodging is a large, messy and fragmented market, growing at 6%+ annually. Online travel agencies (OTAs) have captured ~40% of the U.S. online digital booking market. Of millennials, 52% prefer to book through OTAs.

Company

With over 36MM installs, Hopper is the largest and best “predictive” travel smart phone app in North America. Hopper predicts flight and hotel prices with 95% recommendation accuracy up to one year in advance and tells the user the best time to buy, or even suggests different trips using its AI. To date, it has sent 1.1B+ notifications that have led to 95MM trips planned and savings of ~\$2B. The Hopper app is a predictive algorithm that processes trillions of data points (based on seven years of historical pricing data), allowing it to make precise, personalized travel recommendations for hotels and flights. The personalized recommendations are generated by using about four years of proprietary user intent data (based on the 95MM planned trips). Hopper is used in 120+ countries. In total, Hopper has raised US\$184MM (C\$235MM), with an estimated valuation of ~C\$1B in October 2018 (TechCrunch).

Products

Hopper’s AI works to develop new suggestions for travelers based on their locations and destinations. This leads to 25% of bookings and is done without ads or spam. Hopper’s app is mobile-only, and upon a user entering their dates and destination, Hopper “watches” the trip. On average, the app will send 40 notification updates recommending the user wait for a better price. Once the algorithm determines the time has come to purchase a flight or lodging, a push notification is sent. At that point, the user can purchase the flight or hotel in the app. For this service, Hopper earns a commission from the airline or hotel and builds loyalty. Over 90% of the company’s sales are a result of a push notification. For the customer, savings can range from an average of \$50 for domestic flights to \$120 for international flights, and \$34-\$90/night for hotels.

Plan Moving Forward

Hopper’s CEO and co-founder, Frederic Lalonde, has the goal of leading Hopper to become the largest travel company in the world. Hopper operates in a “constant state of innovation.” To close the gap between the out-of-app purchases, Hopper is looking to build customer loyalty, and add ancillary features like travel insurance, frequent flyer plans, seat selections, seat classes, and installment features, etc. New partnerships are also expected. By the end of 2019, Hopper plans on growing its staff count to 500-600 and to 2,000-3,000 the following year. Hopper is investing efforts internationally, with certain foreign markets representing 100%-300% growth. Hopper will also be launching hotels globally with over 100,000 properties, available in markets worldwide by the end of year.

All figures in US dollars, unless otherwise stated.

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	May 9, 2019
	Information Technology
City:	MONTREAL
Employees:	236
Key Ratios and Statistics	
Sub-Sector:	Online Travel
2022 Est. Market Size (Allied Market Research)	\$1.0T
2018–2022 Est. Growth Rate (Allied Market Research)	6%
Founded:	2007
CEO:	Frederic Lalonde
Founders:	Frederic Lalonde Joost Ouwerkerk
Venture Rounds:	
Series D (Oct '18) - \$100MM	OMERS Ventures, Caisse de dépôt et placement du Québec (CDPQ), Accomlice, Brightspark Ventures, Investissement Quebec, BDC Capital IT Venture Fund, Citi Ventures,
Series C (June '15) - ~\$62MM	BDC Venture Capital, Accomlice, OMERS Ventures, Caisse de Depot et Placement du Quebec, Brightspark Ventures,
Series B (Aug '12) - \$12MM	OMERS Ventures, Brightspark Ventures, Atlas Venture
Series A (Aug '11) - \$8MM	Atlas Venture, Brightspark Ventures

	2016	2017	2018E
Est. Sales	N/A	N/A	N/A

Company Description

Hopper is a mobile app that analyzes trillions of data prices to predict how prices will change and notifies a user to buy or wait.



LeddarTech

Mastering LiDAR Sensor Technology

Industry

LiDAR is a sensor technology that measures distances and detects obstacles by sending pulses of invisible light that bounce back from remote objects and is a key sensing solution to enable autonomous driving levels 2 through 5. LiDARs have traditionally relied on mechanical scanning designs, which typically use multiple laser/receiver combinations and rotating mechanisms, translating into complex, expensive designs poorly suited for mass-market deployments. Costs for simpler configurations are decreasing to the mid- to low thousands from ~\$75K. In contrast, solid-state LiDARs (SSL) designed with no moving parts are set to achieve automotive-grade performance and reliability at a much lower cost and capture much of the market. LeddarTech estimates that its technology should allow the costs of automotive SSLs to fall towards the \$100 mark in the long term with mass-market volumes.

Company

LeddarTech is a leader in optical detection and ranging technology and has developed a unique, patented technology used to produce affordable, high-performance LiDAR solutions for autonomous driving and for drones, industrial vehicles, intelligence transportation systems and more. LeddarTech's goal is for its optical detection and ranging platform architecture to be used in every self-driving iteration and application. It works in close collaboration with Tier-1 automotive suppliers to offer customized LiDAR solutions for each OEM, fleet and mobility service provider customer.

Products

Leddar™ is an SSL technology that uses patented signal acquisition and processing techniques to generate a cleaner return signal at a lower cost. This enables lower detection thresholds for significantly increased sensitivity (up to 25x) and range over other SSLs. This proprietary technology can be delivered as a System-on-Chip (SoC) or assembled into sensor modules, depending on the application and the level of integration required by the client. Its LCA2 SoC production samples are available now and its LCA3 SoC can enable up to Level 5 autonomy. It will sample in 2019 with production in the first six months of 2021. LeddarTech believes it is several years ahead of its competition.

Plan Moving Forward

After growing to 175 employees (as of March 31, 2019), adding experience in semiconductor, software, AI and automotive, LeddarTech plans to add another 30 to its staff in 2019. Short-term goals are to start commercial deliveries of the LCA2 LeddarEngine for deployments into L2-L3 autonomous driving applications and into other mobility segments that include L4 autonomy for autonomous shuttles and robotaxis, and to demonstrate the long-range performance of its LiDAR development platform to show its scalability for the performance needed for L2 to L5 autonomous driving. With sampling and production from 2019 to 2020 for its SoC and signal processing library, the next couple of years are highly important.

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	May 9, 2019
	Information Technology
City:	QUEBEC CITY
Employees:	175
Key Ratios and Statistics	
Sub-Sector:	LiDAR Sensor Technology
2017 Est. Market Size (MarketsandMarkets)	\$2.1B
2018–2024 Est. Growth Rate (MarketsandMarkets)	25%
Founded:	2007
CEO:	Charles Boulanger
Founders:	Yvan Mimeault, David Gilbert and Marc Tremblay
Venture Rounds:	Venture Funds
Series C (Sept '17) - \$103.7MM	Aptiv PLC, Integrated Device Technology, Magneti Marelli, OSRAM Licht AG and Fonds de Solidarite FTQ
Series B (Nov '14) - \$8.7MM	Acces Capital Quebec, BDC Venture Capital, Desjardins Capital, Sofimac Innovation SAS
Series A (Jan '12) - \$8.2MM	Acces Capital Quebec, BDC Venture Capital, Desjardins Capital, Sofimac Innovation SAS
Est. Sales	2016 N/A 2017 N/A 2018E N/A

Company Description

LeddarTech provides high-performance, affordable solid-state LiDAR sensing technology for automotive, drones, collision avoidance and more.



Miovision Technologies

Traffic Management And Smart Traffic Technology

Industry

According to MarketsandMarkets, Intermodal Transportation Planning System (ITPS) is the fastest-growing sub-segment of traffic management. Collecting traffic data has historically meant using either inductive loop detectors (40%), which consist of a loop of wires on the ground or cameras, infrared, microwave, or sound measurements (45%). While effective at measuring and classifying vehicles, they are limited in scope and typically take time and money to bury on busy road surfaces. Other methods for planning include expensive equipment or recording patterns manually. Miovision's approach, which uses video, machine learning and artificial intelligence, provides a more flexible approach. If the camera can see it, Miovision's systems can measure it, whether it's vehicular traffic, cyclists or pedestrians.

Company

Miovision designs, manufactures and sells video collection hardware and video processing software. The company serves thousands of municipalities worldwide. Customers include the City of Ottawa, the town of Milton, the Region of Waterloo, the City of Edmonton, the City of Detroit and Pima County (Arizona). The majority of revenue comes from North America, with some sales in Europe and APAC. Over the last 14 years, Miovision has accumulated the world's largest video traffic data repository by counting more than 8 billion vehicles and processed more than 10 million hours of video data.

Products

Miovision's products include tools used to collect traffic data throughout municipalities (the Scout portable video data collection device and DataLink analytics suite) as well as an intelligent traffic signal platform (TrafficLink), which enable cities to see what's happening in their intersections in real time - and act on those insights. Together, they allow cities to measure and manage traffic, gathering insights used to reduce congestion and exhaust emissions, and improve safety.

Plan Moving Forward

Miovision has attracted more than \$40MM in investment so far. The company is exploring options for a further capital raise to enable it to capture the growing market for intelligent traffic systems. Ultimately, the company aims to become the primary platform cities use to manage traffic and enable other smart city applications.

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	May 9, 2019
	Information Technology
City:	KITCHENER
Employees:	~200
Key Ratios and Statistics	
Sub-Sector:	Traffic Management Software
2018 Est. Market Size (MarketsandMarkets)	\$26.7B
2018-2023 Est. Growth Rate (MarketsandMarkets)	13.7%
Founded:	2005
CEO:	Kurtis McBride
Founders:	Kurtis McBride Tony Brijpaul Kevin Madill
Venture Rounds:	
Convertible Notes (May '18) – \$15MM	Mackinnon, Bennet & Co., McRock Capital, BDC Capital and HarbourVest Partners
Series B (Feb. '15) - \$23.7M	Mackinnon, Bennet & Co., Investeco Capital, Renewal Funds, Plaza. Ventures and Comerica
Series A (Prior to 2009) - \$1.8M	Unnamed

	2016	2017	2018
Est. Sales	N/A	N/A	N/A

Company Description

Miovision provides the tools municipalities need to better manage the flow of people and vehicles through cities and towns, helping reduce congestion and emissions, and increase safety.



Nuvei

The First Ever Community Of Payment Experts

Industry

The global payments industry topped \$1.9T in 2018, growing 11% over the prior year. This was the largest growth ever measured by McKinsey, which now expects that the \$2T global milestone will be passed two years sooner than expected. APAC (mainly China) continues to fuel growth, but there is strong growth in many geographic areas and channels. Despite continued pressure on banking fees, increasing competition, low interest rates and regulatory pressure, growth is underpinned by healthy underlying fundamentals, including electronic transactions, digital e-commerce growth and higher levels of cross-border activity.

Company

Nuvei produces fully supported payment solutions designed to promote and advance its partners' success. The company works with ISOs, ISVs, payment facilitators, developers and e-commerce platforms, supporting them with technology, expertise and customer service. Nuvei processes over \$15B in transactions annually, has 1,500+ partners, 50,000 merchants and 130 global bank networks. Formerly known as Pivotal Payments, the company rebranded in October to reflect its focus on partner growth initiatives and create "the first ever community of payment experts."

Products

Nuvei offers single-platform access to omni-channel payments, integrated solutions and a robust payment facilitation platform. Its payment technology solutions allow partners to accept all types of payments, including chip and PIN, Tap and Pay, and mobile wallets, through in-store payments, online, mobile and global acquiring integrated solutions. Nuvei's services include payment gateways, security and risk management, recurring and subscription billing, multi-currency pricing, dynamic currency conversion, Apple and Google Pay, and ACH payment processing. Nuvei offers simple, secure solutions and competitive rates for retail, restaurant and bar, e-commerce, hotel and hospitality, professional practices, B2B, taxis, and salons/spas that integrate with major POS systems.

Plan Moving Forward

Nuvei entered into a strategic investment in 2017 with Novacap and Caisse de dépôt et placement du Québec at a valuation of C\$525MM at the time. This was to further its advancement of fintech solutions and expansion into new markets. In 2019, Nuvei is focused on growing its e-Commerce, PayFac and integrated payments businesses.

	May 9, 2019
	Information Technology
City:	MONTREAL
Employees:	400+
Key Ratios and Statistics	
Sub-Sector:	Payment Processing
2018 Est. Market Size (McKinsey)	\$1.9T
2018–2022 Est. Growth Rate (McKinsey)	9%
Founded:	2003
CEO:	Philip Fayer
Founders:	Philip Fayer
Venture Rounds:	Venture Funds
Venture Round (Sept '17) - Undisclosed	Novacap and Caisse de dépôt et placement du Québec

	2016	2017	2018E
Est. Sales	N/A	N/A	N/A

Company Description

Nuvei provides payment processing services intended to deliver safer and smarter transactions.

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OverActive Media Group

Canadian Esports Ownership

Industry

The esports market is expected to exceed \$1B for the first time in 2019, growing 26.7% from 2018 (Newzoo). Around 82% of the total market will come from media rights, advertising and sponsorship. The highest-grossing individual esports revenue stream is sponsorship, which is estimated to generate \$456.7MM in 2019. The global esports audience is expected to grow to 453.8MM in 2019, at a 15% growth rate. Of these, 201.2MM are considered to be “Esports Enthusiasts” while 252.6MM are “Occasional Viewers.” Of the global esports audience, 79% are under 35 years old. Consulting firm Activate estimates that by 2021, U.S. esports will have more viewers than every professional sports league but the NFL. According to Newzoo’s Game Streaming Tracker, which tracks live streaming across Twitch and YouTube, the most popular games are League of Legends, Dota 2, Counter Strike: Global Offensive, and Overwatch.

Company

OverActive Media Group (OAM) is an integrated global company delivering esports and video game entertainment. OAM combines team ownership with audience engagement to better connect with fans, franchise partners and corporate sponsors around the world. OAM owns the Toronto Defiant of the Overwatch League, a League of Legends European Championship series franchise and recently fully acquired Splyce Inc., which is headquartered in Rochester, NY and operates regional teams in various other esports, including Rocket League, Smite and Starcraft II. OAM is headquartered in Toronto, Canada.

Products

OverActive owns a controlling interest in an Overwatch League franchise for the City of Toronto and surrounding area. This expansion franchise launched in the League’s second season this past February and will play at a Toronto-based venue in 2020. OverActive will be responsible for the business activities of the team. The company also owns Splyce, Inc. Splyce has teams and players competing in League of Legends, Starcraft II, World of Warcraft and others. OverActive purchased the group in November after previously investing \$1.5MM last June. OAM also owns a League of Legends European Championship series franchise and has secured a Toronto franchise in the new, soon-to-launch, Call of Duty league – making it the world’s only esports organization to own teams in the three biggest franchised leagues.

Plan Moving Forward

OverActive’s goal is to build a world-leading, global esports platform that will redefine the future of sports and entertainment. The aim is to create a professional esports company on the same scale as Madison Square Garden and Maple Leaf Sports and Entertainment. After acquiring Splyce, OverActive believed this gave the business “scope and scale to grow the enterprise on a global level.”

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	May 9, 2019
	Information Technology
City:	TORONTO
Employees:	~ 85
Key Ratios and Statistics	
Sub-Sector:	Global Esports
2019 Est. Market Size (Newzoo)	\$1.1B
2019 – 2022 Est. Growth Rate (Newzoo)	18% - 40%
Founded:	2017
CEO:	Chris Overholt
Founders:	Adam Adamou Babak Pedram
Venture Rounds:	Venture Funds
Raised approximately \$50M to-date	Individual Investors

	2016	2017	2018
Est. Sales	N/A	N/A	N/A

Company Description

Overactive Media is the world’s only esports organization to own teams in the three biggest franchised leagues.



Plusgrade

The Market-leading Provider Of Upgrade Solutions

Industry

The air transport market is estimated to be worth over \$700B (ResearchandMarkets) and the cruise line industry ~\$40B (Statista). Airlines are consistently choosing to invest in projects that contribute to cost savings, customer benefits and revenue enhancements. According to McKinsey, as ancillary sales are highly important, airlines must optimize total revenue by adopting bundling tactics, product-suggestion analytics, and dynamic pricing to create customized recommendations for additional purchases. Similarly, cruise lines are adapting on all fronts, particularly to appeal to millennial travelers.

Company

Plusgrade offers SaaS-based revenue optimization software. Its online revenue upgrade platform offers its global base of travel partners substantial value-added incremental ancillary revenue, as well as a merchandising strategy, helping to introduce new products, build brand loyalty and drive improvements in customer satisfaction. Plusgrade has arrangements with over 70 travel partners worldwide, including Air Canada, Celebrity Cruises, Lufthansa and Royal Caribbean. In 2016, Air Canada used Plusgrade to launch its Bid Upgrade feature. Plusgrade launched with WestJet in 2019. The company was honoured with the annual Deloitte Technology Fast 50 and Fast 500 Awards in 2016, 2017 and 2018. In 2018 it was awarded the Deloitte Technology Leadership award as a global leader in its sector.

Products

Plusgrade's signature product provides travelers with an opportunity to bid on upgrades to a superior class of service. It offers Premium Upgrade to maximize revenue on every departure, and Neighbour-Free to generate significant incremental value from unsold seats by offering passengers the opportunity to purchase additional space. Its white-label solutions are offered to partners to architect a world-class upgrade program. Scandinavian Airlines reported a 225% Y/Y increase in upgrade revenue the first year after implementing Plusgrade. Plusgrade takes a revenue share of the new revenue streams that it creates for its customers, allowing it to be successful in tandem with its customers. Delivered as SaaS, Plusgrade is highly scalable, offering a robust and highly configurable platform that supports airlines and cruise lines, and their global strategies.

Plan Moving Forward

In November 2018, Caisse de dépôt et placement du Québec announced it took an equity interest totaling \$200MM in Plusgrade. At the time, the transaction valued the company at over C\$600MM. This investment was to help Plusgrade execute its expansion plan, including penetrating new markets and expanding its suite of products. Plusgrade is rapidly expanding its team across its Montreal headquarters and its New York and Singapore offices. The company plans to continue to execute on the many opportunities in core verticals and beyond.

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	May 9, 2019
	Information Technology
City:	MONTREAL
Employees:	100
Key Ratios and Statistics	
Sub-Sector:	Travel Technology
2018 Est. Market Size (McKinsey)	\$1.0T
2018–2022 Est. Growth Rate (McKinsey)	6%
Founded:	2009
CEO:	Ken Harris
Founders:	Ken Harris
Venture Rounds:	
Private Equity Round (Nov '18) – C\$200MM	Caisse de dépôt et placement du Québec
Private Equity Round (Aug '15) – Undisclosed	TA Associates

	2016	2017	2018E
Est. Sales	N/A	N/A	N/A

Company Description

Plusgrade is a market-leading provider of upgrade solutions, a key segment of the ancillary revenue and merchandising sector in the global travel industry.



PointClickCare Corp.

Software For Long-term Care

Industry

Long-term and post-acute (LTPAC) software is used to maintain data on patient demographics, medical history, past problems, administered medications, progress notes, recurrent problems, vital signs, laboratory data and more. These platforms offer user-friendly interfaces, centralized databases, integrated electronic health records and billing solutions to help improve resident care, reduce labour costs, maintain compliance and increase reimbursements. The need for this software is growing with the aging population and the overall need for increased long-term and post-acute care, along with increased attention on patient record maintenance. PointClickCare's (PCC) core market today is characterized by customers within North America who provide care across the LTPAC market.

Company

PointClickCare Corp. is a leading provider of cloud-based software for the senior care market, serving over 16,000 LTPAC providers, including skilled nursing facilities, senior living communities, and home health agencies. The company provides a SaaS platform designed specifically to handle the unique business functions of skilled nursing facilities, senior living communities and in-home care providers, including care management, financial management, marketing and relationship management, analytics and compliance. More than 60% of U.S. skilled nursing providers use the PointClickCare platform. In 2018, the company was named to the Forbes 2018 Cloud 100, was named one of Canada's Best Managed Companies for the fifth year and CEO Mike Wessinger was recognized as one of the Top CEOs in Canada by Glassdoor.

Products

PointClickCare offers an integrated cloud-based software platform, specifically designed for the senior care market, which utilizes advanced cloud computing and data management techniques. Its multi-tenant architecture allows PCC to deliver highly functional, flexible and fast applications, which can be easily deployed on a variety of devices within its customers' operations. Its core platform is an integrated electronic health record (EHR) and revenue cycle management (RCM) solution. PointClickCare's patient analytics applications and tools allow providers to analyze quality outcomes and will enable population health capabilities through improved management of risk and better tracking of patient outcomes. In March 2018, PointClickCare introduced its Developer Program and a robust set of APIs. Most recently, PointClickCare acquired QuickMAR, a medication management solution for the LTPAC market.

Plan Moving Forward

Dragoneer Investment Group is PCC's largest shareholder (over 20% ownership) after it acquired another \$146MM of shares from existing investors in February 2018. In September, PointClickCare opened its new office in Waterloo to support its growing staff and customer base. Most new hires will be software engineers.

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	May 9, 2019
	Information Technology
City:	MISSISSAUGA
Employees:	1,500+
Key Ratios and Statistics	
Sub-Sector:	Electronic Health Records
2018 Est. Market Size (OECD and CMS)	\$3.3B
2018–2024 Est. Growth Rate (OECD and CMS)	6%
Founded:	1999
CEO:	Mike Wessinger
Founders:	Mike Wessinger Dave Wessinger (CTO)
Venture Rounds:	
Private Placement (Mar '18) - \$186MM	Dragoneer
Private Placement (Feb '17) - \$111MM	Dragoneer, joined with JMI Equity
Strategic Investment (Feb '11)	JMI Equity

	2017
Est. Sales	\$200M+

Company Description

PointClickCare is the leader in cloud-based software technology for the long-term post-acute care (LTPAC) and senior living industries.



Ritual

Social Ordering

Industry

There has been \$11.2B invested across 944 deals in the restaurant technology sector since 2014, according to Pitchbook. It estimates there has been almost \$6B of this investment across 45 deals in the Ordering & Delivery sub-market. Home delivery continues to gain momentum, with third-party delivery platforms now operating in most metropolitan areas. McKinsey estimates that the online penetration of the food-delivery market broke 30% in 2016, and is expected to eventually reach 65% per year.

Company

Ritual is a mobile pick-up app that connects restaurants with customers to offer a simple, time-saving tool to place, pay for and pick up lunch orders for themselves and their workplace teams. Ritual works with more than 5,000 restaurants to serve customers in 20+ cities across North America, the U.K. and Australia and is used by over 100,000 teams globally.

Products

Ritual's delivery alternative "Piggyback," is one of the biggest advantages for its users and restaurant partners. Piggyback is its social group ordering feature that connects workplace teams and allows them to collaborate on coffee and food orders, creating a peer-to-peer delivery network. Not only does it completely remove delivery costs for customers and the restaurant, it increases order size by up to 4x due to the ease of use, social features and transparent pricing structure. Piggyback is used by more than 100,000 workplace teams globally.

Plan Moving Forward

Ritual's last Series C investment round of C\$90MM (~US\$70MM) was led by Georgian Partners with participation from existing investors. This round will support the expansion of engineering teams in Toronto and San Francisco. Ritual plans to expand to more than 40 cities and aims to more than triple its restaurant count by the end of 2019.

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	May 9, 2019
	Information Technology
City:	TORONTO
Employees:	267
Key Ratios and Statistics	
Sub-Sector:	Third-party Food Delivery
2018 Est. Market Size (Pentallect)	\$13B
2018–2020 Est. Growth Rate (Pentallect)	13.5%
Founded:	2014
CEO:	Ray Reddy
Founders:	Ray Reddy Larry Stinson Robert Kim
<u>Venture Rounds:</u>	<u>Venture Funds</u>
Series C (Jun '18) - C\$90MM	Georgian Partners, Greylock Partners, Insight Ventures, Mistral Venture Partners
Series B (Sept '17) - C\$53MM	Insight Venture Partners, Golden Ventures, Mantella Venture Partners, Mistral Venture Partners, Greylock Partners

	2016	2017	2018
Sales Growth	NA	NA	NA

Company Description

Ritual is an ordering app that taps a network of co-workers and colleagues for fast and easy pick-up and pay at local restaurants.



ROOT Data Center

Powering Cloud Growth

Industry

Data centers centralize an organization’s IT operations and equipment, and store, manage and disseminate data. Each requires power, cooling, fire suppression, security and network connectivity. Carrier-neutral centers connect numerous telecom carriers and colocation providers. The requirements, architectures and service models for each data center vary significantly, but the overall data center market continues to grow, driven by the migration of data from private servers to cloud-based solutions. Cisco predicts that global cloud IP traffic will more than triple over the next five years, accounting for 95% of total data center traffic by 2021.

Company

ROOT Data Center is a colocation company with three Tier 3 carrier-neutral data centers in the Greater Montreal area. ROOT’s customers have access to more than 50 telecom carrier networks on site and through the downtown carrier hotel. It also offers direct access to public cloud providers through Megaport, its newest Network-as-a-Service Provider partner. Montreal is an advantageous location, as its electricity prices are ~45% less than the North American average.

Products

ROOT’s MTL-R2 is located 20 minutes from the Montreal airport, and is 175,000 sq. ft in size. It hosts 25 MW of capacity, with an upgrade of up to 50 MW at full build, making it Canada’s largest data center. Its MTL-R1, located 20 minutes from downtown Montreal, is a 46,000-sq.-ft campus for retail and wholesale, comprising two data centers that can host up to 15 MW. ROOT also offers a low Power Usage Effectiveness (PUE) of just 1.17 for Tier 3s. PUE is a measure of power efficiency in data centers calculated as the ratio of total energy used by a computer data facility to the total energy delivered to computing equipment. An optimal PUE would be 1.0. ROOT’s low PUE is predominantly attributed to its ability to use a free air cooling solution in the cooler climate. This solution also eliminates the need for water utilization, enhancing the environmentally friendly design that is combined with the benefits of 100% renewable power in the region. Its Kyoto cooling system uses a thermal wheel that supports air flow from one side to the other, separating inside and outside air streams, returning cool air to the data center. Conduction cools the wheel in the outside air stream as the wheel rotates. This system uses 75%-92% less power than alternate systems.

Plan Moving Forward

ROOT has also experimented with an ambient air-cooled data hall to service customers with cold data storage or AI learning requirements. This hall can achieve a PUE range of down to 1.06 on an annualized basis. While early, the company continues to see opportunities for artificial intelligence within the data center market. ROOT has seen a significant increase in demand in the last six months in the Montreal region, so maintaining capacity in its core region and deploying a significant amount of capacity in the next 12 months will be a key priority. Following that, new region expansion is on the roadmap.

All figures in US dollars, unless otherwise stated.

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For required regulatory disclosures please refer to "Important Disclosures" beginning on page 59.

	May 9, 2019
	Information Technology
City:	MONTREAL
Employees:	55+
Key Ratios and Statistics	
Sub-Sector:	Next-generation Colocation
2018 Est. Market Size (Global Data Center Market - ResearchandMarkets)	\$167B
2016–2021 Est. Growth Rate (Cisco)	10%

Founded: 2014

CEO: AJ Byers
Founders: Jason Van Gaal

Venture Rounds:	Venture Funds
Venture Round (Oct '17) – C\$90M	Goldman Sachs

	2016	2017	2018E
Est. Sales	N/A	N/A	N/A

Company Description

ROOT Data Center is a next-generation data center company, providing secure and reliable colocation services.



Rubikloud Technologies Inc.

Artificial Intelligence For Retailers

Industry

With devices, sensors, RFID tags, shelf beacons, smart hangers, smart-location WiFi and more, the amount of retail data is doubling every two years. According to IDC's Digital Universe Study and ScienceDaily, 90% of retail data today is less than two years old. The combination of massive amounts of data and new, innovative technologies is creating a significant need for faster and deeper automated analysis of retail data; however, many legacy retail IT systems were not originally designed to handle the volume and complexity of current data. Research and Markets predicts that the market for artificial intelligence applications for retail will be worth nearly \$27B by 2025, a significant increase from \$1.6B in 2018.

Company

Rubikloud uses artificial intelligence and machine learning to deliver intelligent decision automation that helps a retailer transform their organization from the mass market into a customer-centric leader. The platform delivers automated instructions to layers such as the ERP, supply chain system, marketing automation tools and in-store experiences to improve promotional revenue, inventory out-of-stock rates and loyalty revenue. Rubikloud works with the world's largest retailers, who have collective revenue of over \$100B in annual sales in North America, Europe and Asia. Of Rubikloud's employees, 78% are engineers or data scientists.

Products

Rubikloud's SaaS products and platforms can be readily integrated with multiple data legacy systems and implemented within weeks. It offers three main products that all use deep learning, machine learning and AI. Its Price & Promotion Manager delivers highly accurate, automated mass promotional demand forecasting at chain, store and SKU levels. Customer Lifecycle leverages AI to understand customers and automatically generates curated experiences across various channels and customer touchpoints. Its Enterprise AI Platform is a cloud-native SaaS data platform built to handle enterprise data workloads - covering all aspects of the data journey from ingestion, validation, to a proprietary retail-specific data model and ML application. Rubikloud is also cloud-agnostic, working with AWS, Microsoft and Google, allowing Rubikloud to be flexible with each client and to expand globally.

Plan Moving Forward

CEO and Founder Kerry Liu believes that within the next five years retailers will operate their businesses through automation and AI. Rubikloud has a goal of building a billion-dollar business and in 2018 expanded its leadership team with Canadian tech veterans. Rubikloud was on track to grow revenue and customers 100% Y/Y in 2018. In 2019, the company remains focused on revolutionizing the enterprise retail industry with intelligent decision automation, and is poised to bring the same practical application to other verticals, including CPG and Trade Promotion Management.

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For required regulatory disclosures please refer to "Important Disclosures" beginning on page 59.

	May 9, 2019
	Information Technology
City:	TORONTO
Employees:	100+
Key Ratios and Statistics	
Sub-Sector:	Retail Artificial Intelligence
2018 Est. Market Size (Research and Markets)	\$1.6BN
2018-2025 Est. Growth Rate (Research and Markets)	49.8%
Founded:	2013
CEO:	Kerry Liu
Founders:	Kerry Liu Dan Theirl
Venture Rounds	
Series B (Jan '18) - \$37MM	Intel Capital Corp, Access Industries, Horizons Ventures Ltd, iNovia Capital, The OpenText Enterprise Apps Fund (OTEAF)
Series A (Jan '15) - \$7MM	Access Industries, Tom Group Ltd
Seed Round (Nov '13) - \$0.96MM	Horizons Ventures, MaRS Discovery District
Est. Sales	2016 N/A 2017 N/A 2018E N/A

Company Description

Rubikloud is an artificial intelligence company that has created a leading, cloud-native, machine-learning platform for retail.



Semios

Helping Growers Worry Less

Industry

Harvard Business Review expects that farmers worldwide will need to boost crop production either by increasing land or improving productivity through fertilizer and irrigation or methods like precision farming to meet rising food demand by 2050. M2M applications help farmers to make informed decisions and improve yields. These applications enable farmers and agriculture businesses to precisely manage crops, assess environmental impacts, and monitor the status of equipment. The farming industry has been undergoing something of a revolution, as the integration of sensing systems has led to the generation of large amounts of data that can be analysed using software tools, offering valuable insights into the promotion of yield growth.

Company

Semios' platform is a yield improvement tool that enables growers to assess and respond to insect, disease and plant health conditions in real time. The company is the leader in on-site sensing, big data and predictive analytics for perennial agricultural crops. Its proprietary system of in-crop wireless networks coupled with remote sensors, real-time pest monitoring and variable rate biological pest control is provided in a simple, powerful interface that allows a grower to reduce agricultural inputs and work towards increasing the quality of the crop produced. Semios' wireless IoT network comprises 500,000+ in-canopy sensors, providing valuable data for future innovation of its products.

Products

Semios' solution enables growers of high-value crops to monitor micro-climates, insect pest activity, and plant diseases to determine where and when to best take action to protect and increase crop value. Semios blankets each orchard block with its patented mesh network to install remote-controlled pheromone dispensers, camera traps for pests, water management sensors or leaf wetness devices. Network coverage enables 24/7 monitoring of insect, disease and other conditions necessary for optimum yield. System features focus on pests, frost, diseases and irrigation. Semios' revenue model consists of its hardware and related software. Pricing ranges from C\$75 to C\$300 per acre depending on product and pest management configurations. Semios provides services to four of the top 10 almond growers in California and two of the top five apple growers in Washington State.

Plan Moving Forward

Semios last received \$9.9MM in funding from Sustainable Development Technology Canada, to assist the company in developing machine-learning models to predict how environmental factors and agronomic decisions impact plant stress in tree fruit and tree nut crops. These additional tools will help Semios deepen its relationships with existing customers while accelerating adoption with new users in current and expansion geographical markets. Semios earned \$7MM in revenue in 2017, \$15.5 MM in 2018, and is continuing this pace in 2019.

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	May 9, 2019	
	Information Technology	
City:	VANCOUVER	
Employees:	100	
Key Ratios and Statistics		
Sub-Sector:	Agricultural Technology	
2018 Est. Market Size (Reuters)	\$4.4B	
2018–2023 Est. Growth Rate (Reuters)	12%	
Founded:	2009	
CEO:	Dr. Michael Gilbert	
Founders:	Dr. Michael Gilbert	
Venture Rounds:		
Venture Funds		
Grant – (Oct '18) - \$9.9MM	Sustainable Development Technology Canada	
Private Equity (Apr '16) - \$8MM	Undisclosed	
	2017	2018
Est. Sales	\$7MM	\$15.5MM

Company Description

Semios delivers precision data and intelligence to growers for daily decision-making that increases crop value.



Solace Corporation

Enabling Open Data Movement

Industry

High-speed, secure and reliable information sharing is a critical part of modern IT initiatives: data produced by one application needs to be shared with applications used by other departments, customers, partners, regulatory groups and more. Traditionally, this connectivity was delivered by enterprise message buses (ESBs) on premises or in data centers using proprietary formats. Enterprise digital transformation initiatives, including the move to the cloud, big data analytics, IoT, microservices and event-driven architectures, have gone beyond the capabilities of legacy ESBs and opened the market to new entrants, including open-source providers, and as-a-service offerings. Key players vary, but include IBM, Software AG, Confluent (Kafka), Amazon, Google, TIBCO, CloudAMQP and Salesforce's Mulesoft.

Company

Solace's event mesh technology enables data to be routed from one application to another, no matter where the applications are provided (no cloud, private cloud, public cloud). This is important across all industries, and Solace's customer base includes global companies such as Barclays, SAP, NASA, London Stock Exchange, Daimler, U.S. Department of Homeland Security, Harris Corporation, RBC Capital Markets and bet365. CEO Les Rechan joined in September 2017 after executive roles at IBM, Cognos and Halogen (he led the latter company to acquisition by Saba).

Products

Solace makes messaging middleware technology that enables companies to collect and distribute all of the data associated with executing business processes, making decisions and serving customers. The technology enables smart data movement by routing information between applications, devices and people across customer premises, data centers and public or private clouds using open APIs and protocols. Solace lets companies adapt legacy applications to meet modern requirements, overcoming challenges associated with adopting a cloud strategy, undertaking big data and IoT initiatives, and creating more scalable and robust event-driven architectures. Initially offered as hardware, Solace technology is now available as software (PubSub+) to be installed on customers' hardware or in the cloud and as a cloud-based service that is set up and maintained by Solace's messaging experts.

Plan Moving Forward

In 2018, Solace had order growth of over 30%, driven by more enterprises implementing event-driven architectures. As the market shifts from on-premises hardware to cloud-based solutions, Solace's recurring revenue has grown from one-third of revenue three years ago to one-half today, and the company predicts it will grow to two-thirds of revenue in two years.

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	May 9, 2019
	Information Technology
City:	OTTAWA
Employees:	~ 300
Key Ratios and Statistics	
Sub-Sector:	Messaging Middleware
2019 Est. Market Size	\$27B
Founded:	2001
CEO:	Les Rechan
Founders:	Craig Betts
Venture Rounds:	Venture Funds
Venture Funds (Various Dates):	Bridge Growth Partners Wesley Clover Genuity Capital Partners Tandem Expansion
Est. Sales	2016 N/A 2017 N/A 2018E N/A

Company Description

Solace enables open data movement that improves the speed and efficiency with which information flows between applications, devices and people.



Solink

Smart Video Security

Industry

The use of video security in business has grown significantly, owing to the need for on-premise physical security coupled with advancements in AI and cloud computing that make video readily available and that can transcribe pixels into data. The surveillance market has undergone a transformation since the previous decade and growth is fueled by the introduction of new digital technologies to detect and prevent behavior. Video Surveillance as a Service (VSaaS) is also driving market growth.

Company

Solink connects video and business data [such as point-of-sale (POS)] to simplify loss prevention, security and operations for restaurants, retailers and financial institutions. Its artificial intelligence can train vision-enabled workflows based on transactional systems. This improves fraud prevention and creates continuous auditing for multi-unit brands and SMBs. CEO and Founder Michael Matta views video analytics as a new medium for business intelligence - the ability to overlay insights to physical environments is the first day-to-day use case for augmented reality. Solink works with more than 30 major brands that have installed its technology in thousands of stores, restaurants, branches and warehouses. Customers include Tim Hortons, A&W, Chick-fil-A, and Access Financial. Solink gives customers easy visual to their operations, revenue, and risk.

Products

Solink is offered for restaurants, retail and financial institutions, starting at \$85/month per location. Solink operates on a subscription model, including hardware, installation, software and monitoring. It primarily works with existing video cameras and integrates with current POS systems. Solink's solutions offer: 1) loss prevention by monitoring spaces, transactions or individuals; 2) security through visibility into locations, including 360 cameras and motion alerts; and, 3) operations analysis through reports on revenue, motion and events and dashboards to view analytics like revenue by store, staff or transaction speed or size. Solink has differentiated itself through its products' ease of use.

Plan Moving Forward

Solink is one of Wesley Clover's portfolio companies, and has experienced strong growth. Going forward, it plans on continued 100%+ Y/Y growth, coupled with enterprise and partnership expansion. The number of Tim Hortons locations using Solink doubled in 2018 to 1,000 outlets. Solink has twice been named to the Ottawa Business Journal's list of Ottawa's fastest-growing companies and its three-year sales growth CAGR is 675%. Further plans include growing its staff to 100 employees by the end of 2019.

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	May 9, 2019
	Information Technology
City:	OTTAWA/KANATA
Employees:	75
Key Ratios and Statistics	
Sub-Sector:	Video Surveillance Software
2017 Est. Market Size (Mordor Intelligence)	\$34B
2018 – 2023 CAGR	15.41%
Founded:	2009
CEO:	Michael Matta
Founders:	Michael Matta
Venture Rounds:	
Series A (2019) - C\$16.3MM	'Valor Equity Partners, Generation Ventures, ScaleUp Ventures, BDC's IT Venture Fund
Late Seed (2018) – C\$5.0 MM	

	2018	2019
Est. Sales	N/A	N/A

Company Description

Solink is a platform for contextual analysis of video beyond surveillance applications.



TouchBistro

Supporting The Passion Of Restauranteurs

Industry

Restaurant industry sales were \$799B in 2017 and represented almost 4% of U.S. GDP and nearly 48% of total food dollars spent in the U.S. Despite this, the top 500 American restaurant chains saw stalled growth in 2017 in almost all segments. In response, restaurants are adopting new technologies to enhance the experience, including mobile ordering, delivery, or integrated POS systems. This has not gone unnoticed, as there has been over \$11.2B invested in 944 deals across the restaurant technology space since 2014, according to Pitchbook. Hospitality Technology’s annual POS Software Trends Report found that 49% of restaurant operators plan to add new functionality and features to POS software and 37% plan to deploy mobile POS in 2018 (up from 28% in 2017).

Company

TouchBistro is an iPad POS and integrated payments solution used by over 16,000 restaurants in more than 100 countries. It has deployed over 30,000 terminals and processes \$8.5B+ in payments. TouchBistro’s goal is to improve the experience of restaurant owners, staff and customers. TouchBistro is one of the fastest-growing tech companies in Toronto and has expanded into the U.S., Latin America and the U.K. It has four revenue streams: its SaaS subscription revenue, a payment processing revenue share, training fees, and hardware. Founder and CEO Alex Barrotti maintains that TouchBistro’s four competitive advantages are its: cost, commodity off-the-shelf hardware (iPads), a SaaS model and an open API platform to connect with other best-in-breed applications for restauranteurs.

Products

TouchBistro’s POS solutions are offered for full-service restaurants, quick service, bars and clubs, food trucks, and breweries. Features include tableside ordering, floor plan/table management, menu management, staff management and scheduling, customer relationship management, restaurant inventory management, reporting & analytics and support. Its reporting features are offered in the cloud for remote access. TouchBistro has a selection of payment partners (Worldpay, PayPal, Square, Moneris and others) for integrated payments and its own TouchBistro Payments for U.S. customers, powered by Chase. Some of its well-known customers include Toronto’s SteamWhistle Brewery, BarBurrito, New York City’s Raku, and Pampas in Las Vegas.

Plan Moving Forward

TouchBistro prioritizes the customer experience first. The company plans to add 300 employees in almost all areas. While TouchBistro’s financials have not been disclosed, its monthly recurring revenue (MRR) grew 58% Y/Y. It has goals of \$100MM in revenue by 2020 and has been doubling sales in recent years. As “dining is universal,” CEO Alex Barrotti foresees a large, global market opportunity as it is not limited to the U.S. (70% of sales) and Canada (20%). Its Mexico City office is now in its third-largest market. TouchBistro sees plenty of opportunity in each market, with a focus on Europe and South America in the near term.

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	May 9, 2019
	Information Technology
City:	TORONTO
Employees:	325
Key Ratios and Statistics	
Sub-Sector:	Restaurant Mobile POS
2018 Est. Market Size (Acumens Research and Consulting)	\$8B
2018–2025 Est. Growth Rate (Acumens Research and Consulting)	13.2%
Founded:	2011
CEO:	Alex Barrotti
Founders:	Alex Barrotti Geordie Konrad
Venture Rounds:	
Series D (Jun '18) - C\$72MM	OMERS Ventures, JP Morgan Chase & Co., Napier Park, Recruit Holdings, BDC IT Venture Fund, Relay Ventures
Series C (May '17) - C\$16.3MM	Napier Park Financial Partners, Recruit Holdings, BDC IT Venture Fund, Relay Ventures, Kensington Capital
Series B (Oct '16) - C\$17MM	BDC Venture Capital, Relay Ventures, Kensington Capital Partners, Round13 Capital, Huff Capital
Series A (Apr '15) - C\$6MM	Relay Ventures, Kensington Capital Partners, Difference Capital
	2017 – 2018
Sales Growth	100%

Company Description

TouchBistro is an iPad POS and integrated payments solution for restaurants.



Tulip Retail

Transforming The Brick & Mortar Experience

Industry

A move to in-store experiences and personalized service is now considered crucial for traditional brick-and-mortar retailers to compete with the growth of e-commerce. Omni-channel retailing is also expected to fuel industry growth. A 2017 study by BRP Consulting found that 89% of retailers plan to offer mobile solutions to associates within three years. Top companies in the market are Oracle, IBM, SAP/Hybris and Salesforce.com/Demandware.

Company

Tulip is a cloud-based software provider focused on mobile solutions for retail brick & mortar stores, specifically mobile apps for store associates and managers. Partnered with Apple and dedicated to worker empowerment, Tulip provides simple-to-use apps for store associates to look up products, manage customer information, check out shoppers and communicate with clients. Tulip's apps for assisted selling, endless aisle, line busting, clienteling and store communications improve the customer experience, helping to drive sales. Tulip is deployed across 25 countries and customers include Tory Burch, Saks Fifth Avenue, Kate Spade, Coach, Indigo, Michael Kors, and Bonobos, among others.

Products

The Tulip Retail platform is a SaaS product that runs in a fully managed private cloud instance. The platform collects, organizes, augments and synchronizes data between disperse client systems and its own database to make the data accessible to end-users through a mobile application. It provides core application services for managing retail information and developing business logic and applications. Tulip also offers out-of-the-box applications for associates: Assisted Selling, Clienteling, Checkout/mobile POS (mPOS), the Runner App, and Store Communications. Its checkout system allows associates to take payments as a stand-alone mPOS or integrate with an existing POS system. Tulip's customers have experienced a solid ROI, increasing store sales by 2%-10%, order sizes by 5%-10%, repeat purchases by 5%-20% and customer satisfaction by 10%-30%. Tulip has a growing partner network, including Salesforce, whereby it integrates with the Salesforce Commerce and Marketing Clouds for omni-channel. Salesforce invested in Tulip last May.

Plan Moving Forward

Tulip raised \$40MM in August 2017, led by Kleiner Perkins Caufield & Byers, for Tulip to expand aggressively, particularly in international markets, including Europe, Brazil and eventually China. On the product side, Tulip is focused on rolling out several new software releases with new application services, including Fulfillment (including Buy Online Pickup In Store) services. Since its founding in 2013, founder Ali Asaria has had the goal of building "one of the world's largest enterprise software companies" and is focused on an eventual \$100B market size.

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	May 9, 2019
	Information Technology
City:	TORONTO
Employees:	200
Key Ratios and Statistics	
Sub-Sector:	SaaS Retail Technology
2017 Est. Market Size (Transparency Market Research)	\$19.5B
2017-2025 Est. Growth Rate (Transparency Market Research)	23%
Founded:	2013
CEO:	Ali Asaria
Founders:	Ali Asaria
Venture Rounds:	
Series B (Aug '17) - \$40MM	Kleiner Perkins Jump Capital
Series A (Mar '14) - N/A	Plug & Play Ventures
Seed (Oct '13) - \$2.4MM	BoxGroup, iNovia, Kima Ventures, Founder Collective, Lerer Ventures, Promus Ventures, SoftTech VC
Est. Sales	2017 2018 2018E
	~\$15MM N/A N/A

Company Description

Tulip Retail provides a mobile platform built exclusively for store associates.



Tutela

Crowdsourced Mobile Insight

Industry

Mobile smart phone usage continues to grow at an incredible rate. Cisco's Visual Networking Index 2019 estimates that monthly global mobile data traffic will be 77 exabytes by 2022 and that annual mobile data traffic will reach almost one zettabyte (which includes 21 zeros). For context, in 2012 all the data in the world equaled 1 zettabyte. By 2020, with growth in video traffic from YouTube, Netflix and voice data from cell phone calls, global traffic is forecast to reach 40 ZBs. By this time, mobile is estimated to represent 20% of total IP traffic, of which 71% is 4G traffic and ~12% 5G. Given this growth, carriers and providers are expected to keep pace with the demand while improving mobile Internet services.

Company

Tutela offers crowd-sourced mobile data to telecoms and the mobile industry. Its anonymous location-based mobile insights help these customers to improve network coverage, quality of service, and related investment decisions. Tutela also offers mobile app developers a new revenue stream through its partner program, which aims to reduce the number of advertisements in apps by offering developers alternative sources of revenue. Tutela has offices in Victoria, British Columbia and London, U.K.

Products

Tutela aggregates performance and usage data from 250MM+ mobile devices around the world by running in the background of over 3,000 third-party mobile applications where the user has agreed to provide data. Tutela then holds the data securely on a cloud-based database and analytics platform. The data is processed and published through a web-based dashboard and through reports. Dashboards include: identifying coverage problems down to specific cell sites, analyzing broad or local network performance, drilling down by operator, network type or device type, and benchmarking results against competitor networks. This allows mobile companies to spot gaps, improve mobile Internet services and identify opportunities to improve the quality of the mobile Internet. Mobile telecoms that subscribe to Tutela's software have direct access to these dashboards in real time. Tutela does not collect personal or unique device data, and protects the device owner's privacy while complying with data protection and privacy laws. Tutela largely has a subscription model, where the value of a customer engagement is determined by a number of elements, including the nature and use of the information, data density and the frequency of sampling. Key public customer wins include Telefonica, Milicom, and Rohde & Schwarz.

Plan Moving Forward

Tutela is one of Wesley Clover's portfolio companies. It targets \$25MM-\$50MM in revenue in the next two to three years and its employee base has grown 40% Y/Y. The company aims to achieve growth through organic sales and expansion of product offerings.

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	May 9, 2019		
	Information Technology		
City:	VICTORIA		
Employees:	34		
Key Ratios and Statistics			
Sub-Sector:	Mobile Industry Data		
2018 Est. Market Size (Retail Mobile Sector - CRTC)	\$24.5B		
2017-2022 Est. Growth Rate of Mobile Data Traffic (Cisco)	46%		
Founded:	2013		
CEO:	Hunter Macdonald		
Founders:	Hunter Macdonald Brennen Chow		
Venture Rounds:		Venture Funds	
Seed (Oct '16) - Undisclosed	Wesley Clover, Vancouver Founder Fund, Yaletown Venture Partners, East Valley		
	2017	2018	2-3 Year Target
Est. Sales	\$1.5M	\$10M	\$25MM- \$50MM

Company Description

Tutela crowdsources anonymous statistics from millions of devices every day to inform the mobile industry and improve the world's mobile Internet.



Vena Solutions

Financial Planning And Analysis In The Cloud

Industry

Integrated planning involves the Office of Finance collaborating with department heads, senior executives and others to look beyond financials and uncover insights that drive better business decisions. With such an abundance of data, businesses can access insights not previously available to them. While useful, this data abundance can be overwhelming to collect and correlate, especially with Microsoft Excel remaining the de facto tool for such purposes. SaaS and cloud-based financial planning and analysis (FP&A) platforms like Vena's eliminate Excel's limitations to enable an integrated, real-time approach to business planning.

Company

Vena Solutions redefines how medium- and large-sized companies manage their budgeting, forecasting, reporting and business planning. Vena provides finance and executive teams an FP&A Cloud that combines Excel with a centralized database, workflow automation, powerful reporting and advanced analytics. The company has hundreds of employees across four continents and over 40,000 users at over 500 global customers, including Nike, White Castle, Deloitte and Tanger Outlets. Vena has enjoyed more than 100% revenue retention every year since its founding, with an increasing share of growth coming from expanded use cases at existing customers. Vena is one of the fastest-growing vendors in its sector and the recognized leader in usability relative to competitors such as Adaptive Insights, Anaplan and Host Analytics.

Products

Vena's FP&A Cloud automates, eliminates errors and uncovers new insights from companies' core finance and accounting processes, from account reconciliation and regulatory reporting to rolling forecasts, scenario modeling and business planning. Vena offers its software on an annual subscription basis depending on users, processes and data requirements. Vena's primary differentiator is that it is the only company in its class to embrace - not replace - Excel as a business user interface, leading to unparalleled adoption and quick time-to-value for its customers. In the last year the company unveiled more than 100 new and enhanced features, ranging from a more intuitive workflow UX to ad hoc reporting and direct integration with tools such as Office 365 and Power BI.

Plan Moving Forward

Vena raised C\$115MM in January, led by JMI Equity and joined by existing investor Centana Growth Partners. Vena plans to use the investment proceeds to accelerate its industry-leading growth and scale its operations to meet the business and financial planning needs of its thousands of worldwide customers. Among other priorities, Vena plans on doubling its Customer Success team and adding 100 new employees to its Toronto headquarters.

All figures in US dollars, unless otherwise stated.

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	May 9, 2019		
	Information Technology		
City:	TORONTO		
Employees:	300		
Key Ratios and Statistics			
Sub-Sector:	Cloud Financial Planning and Analysis (FP&A) Software		
2018 Est. Market Size (Gartner)	\$3.14B		
2018–2025 Est. Growth Rate (Cisco)	13.2%		
Founded:	2011		
CEO:	Don Mal		
Founders:	Don Mal Rishi Grover George Papayiannis		
Venture Rounds:			
Series D (Jan '19) -C\$115M	JMI Equity, Centana Growth Partners		
Series C (July '16) -C\$30M	Centana Growth Partners		
Series B (Oct '13) - Undisclosed	Undisclosed		
Series A (Oct '12) - \$3M	Klass Capital		
	2016	2017	2018E
Est. Sales	N/A	N/A	N/A

Company Description

Vena provides intuitive budgeting, planning and forecasting software for medium- and large-sized companies.



Vendasta Technologies

White-label B2B Marketing

Industry

Small and medium businesses (SMBs) are facing an increasing need to adopt digital solutions for their marketing, advertising, and customer engagement, relying on several logins across a multitude of online channels to manage them. Cloud solutions play a prominent role in fulfilling these needs, partly due to lower IT investments, cost effectiveness and ease of accessibility. These tools are difficult for an SMB to manage, as business owners have multiple responsibilities, several logins and often lack the knowledge to ensure their online success. SMBs rely on experts in their locale such as digital marketing agencies, telcos, or media companies to assist with their digital footprint.

Company

Vendasta is a white-label, end-to-end cloud commerce platform that helps B2B companies sell digital solutions to SMBs. Used in 25+ countries, the platform can be rebranded and used by MSPs, ISVs, VARs, marketing agencies, media companies, telcos, cable companies and banks & credit card providers. These channel partners use the platform to access and resell domain names, and for websites, office productivity (GSuite, Office 365), reputation management, digital advertising and other business tools for the SMBs. The platform helps the channel partners sell the tools, manage client tasks and accounts, and expand their product offerings. For channel partners, the platform also lowers the cost of acquiring SMB customers, offers new products and services, streamlines order fulfillment, and shows SMB clients proof of performance. This essentially turns the partners into “cloud brokers” - the digital point person for all SMB needs. In turn, the SMBs can access reports and digital highlights under a single login. Vendasta has served more than one million businesses, has 28,000+ salespeople using its platform and has 10,700+ B2B channel partners.

Products

Vendasta’s products include its platform, marketplace, and fulfillment services. Its platform allows agencies to drive down the cost of sales while increasing margins using its needs-assessment, automated email marketing campaigns, simple CRM, marketplace of re-sellable apps & services, and white-label fulfillment agency. Potential customers can explore its platform for free. For \$50/month, the Vendasta Starter package is available with features that include its white-label capabilities and “hot lead” notifications. Other prices range from \$250 up to \$999 for pro and enterprise-level, custom plans.

Plan Moving Forward

Vendasta has a goal of being the first unicorn in Saskatchewan. In 2018, it was named to the Deloitte Technology Fast 500. The company is forecast to grow to 300+ employees by the end of 2019. Vendasta will continue to grow its solutions marketplace beyond marketing (e.g., Xext, ZenReach, Brand Monitoring, Agendize, Boostability) and productivity (e.g., GSuite, Office 365, Constant Contact, GoDaddy) into protection (MyCorporation), operations (Stripe), and connectivity vendor offerings.

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	May 9, 2019
	Information Technology
City:	SASKATOON
Employees:	275
Key Ratios and Statistics	
Sub-Sector:	Sales And Marketing Automation
2018 Est. Market Size (Allied Market Research)	\$27B
2018 – 2023 CAGR	16.6%

Founded:	2008
CEO:	Brendan King
Founders:	Brendan King

<u>Venture Rounds:</u>	<u>Venture Funds</u>
Debt Financing (May 2016) – C\$4MM	Vanedge Capital
Series B (2012-13) - C\$8.3MM	BDC Venture Capital, Vanedge Capital
Series A (Aug 2008) - C\$3MM	Victoria Park Capital

Revenue	2018 \$30MM
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Company Description

Vendasta is a software company that builds a platform for helping local businesses with digital marketing.



Vidyard

Unlocking The Value Of Video

Industry

The video platform for business markets is growing materially, driven by increasing demand for video content as a way to interact with brands. The most recent Cisco Visual Networking Index (VNI) forecasts that IP video traffic globally will be 82% of all IP traffic by 2022, up from 75% in 2017. Internet video traffic is estimated to grow fourfold from 2017-2022. Top competitors include YouTube, Wistia and Brightcove but there are hundreds in total, many of which specialize in specific niche segments of online video marketing.

Company

Vidyard is a video platform that helps businesses transform communications and drive more revenue through the strategic use of online video. Customers can expand their use of video content to personalize their marketing and sales efforts, while tracking rich analytics that help them optimize performance and generate better results. Often classified as a B2B video platform for business solutions, its customer base includes Honeywell, Microsoft, LinkedIn, Marketo, HubSpot, Drift, Citibank, Sharp and others. In 2017, Vidyard's B2B customers published 83% more videos on average compared to the prior year. In 2018, Vidyard launched an OEM relationship with HubSpot whereby HubSpot now embeds Vidyard into its core platform for its customers.

Products

Vidyard's products include those for video hosting and management, video analytics, video creation, video content personalization, interactive video and live streaming. They are used to help businesses scale their use of video content, generate more sales leads, engage prospective buyers and push audience viewing data into leading marketing automation platforms and customer relationship platforms to allow businesses to better understand their buyers. Vidyard's solutions allow users to send personalized video emails, track who is watching a video and how long it was watched, and then use those insights to personalize their follow-up. This can all be tracked and reported within Vidyard's platform, as well as within Salesforce, Marketo, Oracle Marketing Cloud, HubSpot and more. Customers like Oracle see a 2.6x higher click-through rate on outbound marketing campaigns. Pricing ranges from \$150/month - \$850/month or can be customized.

Plan Moving Forward

Vidyard is in "scale-up" mode, with plans for growth in the High Tech, Financial Services, Manufacturing and Education industries and customer expansion in EMEA and Asia-Pacific. Production innovation remains a priority, including video presentation, video selling and interactive video. Vidyard continues to emphasize its partner strategy, and has recently launched integrations with leaders in the SalesTech space, including Salesforce, SalesLoft, Outreach, InsideSales.com and others. It is also investing heavily in reseller partner channels.

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	May 9, 2019
	Information Technology
City:	KITCHENER
Employees	225
Key Ratios and Statistics	
Sub-Sector:	Online Video Analytics
2017-2022 Est. Growth Rate (VNI)	33%

Founded:	2010
CEO:	Michael Litt
Founders:	Michael Litt (CEO) Devon Galloway (CTO)

Venture Rounds:	Venture Funds
Series C (Jan. '16): \$35MM	Battery Ventures, Uncork Capital, OMERS Ventures, iNovia Capital, Salesforce Ventures, Bessemer Venture Partners
Series B - Jan 2015 - \$18MM	OMERS Ventures, iNovia Capital, Salesforce Ventures, Uncork Capital, Bessemer Venture Partners
Series A - Mar 2013 - \$6MM	OMERS Ventures, iNovia Capital, 2 others

	2016	2017	2018E
Est. Sales	N/A	N/A	N/A

Company Description

Vidyard shows exactly how viewers interact with videos, allowing customers to continuously improve their marketing strategy based on measurable results.



Vision Critical

Creating Continuous Customer Intelligence

Industry

More than \$1.5T is spent on marketing and communications worldwide. An amount of \$130B is being spent on marketing technology and \$33B on market research, with the industry undergoing a significant evolution in the past decade. Companies are faced with the need to make real customer-driven decisions at the speed of business. In the age of empowered, social and mobile savvy customers, companies need to understand buyer needs in order to give them what they want. Customer intelligence is now a primary driver in the more defined predictive analytics market. More recently, consumers are valuing their own personal data online. A study conducted by Vision Critical found that 81% of respondents believe more should be done by governments or brands to ensure their personal information is protected.

Company

Vision Critical provides a cloud-based customer intelligence platform that allows companies to build engaged, secure communities of customers with whom they can interact continuously across the enterprise for ongoing, real-time feedback and insight. Unlike traditional customer research, Vision Critical's customer intelligence platform replaces static data with real-time actionable customer intelligence gathered through ongoing, two-way dialogues with customers who have agreed to provide feedback to help inform business decisions. Over 700 of the world's most customer-centric companies use Vision Critical's technology, including Sun Life Financial, BuzzFeed, LinkedIn, GoDaddy, and VMWare.

Products

Vision Critical's latest customer intelligence platform, Sparq, enables brands to build online communities with a variety of online applications and activities to continuously engage with thousands of their customers for insight to help drive better business outcomes. It uses a suite of AI applications to optimize engagement and enable deeper insight for faster decision making. The turnaround time is near instantaneous versus the six to eight weeks for typical survey feedback, and the relationship-based approach offers tangible benefits. Sparq allows its customers to engage with deeply profiled customers who have given consent to participate in ongoing activities that are in full compliance with regulatory requirements. This allows customers not only to use customer insights, but build trust and reach millennials. On average, its platform leads to a 39% increase in order value, 70% decrease in customer churn, 5x improvement on marketing campaign metrics and 5x the products to market.

Plan Moving Forward

In February 2017, W Capital and Georgian Partners closed a \$58MM purchase of stock from existing investors, including ex-CEO Angus Reid. Vision Critical updated its Sparq platform in the Spring and added new product innovations and integrations in September, including Text Analytics and Sentiment Analysis.

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	May 9, 2019		
	Information Technology		
City:	VANCOUVER		
Employees	500+		
Key Ratios and Statistics			
Sub-Sector:	Cloud-based Customer Intelligence		
2018 Est. Market Size (MarketsandMarkets)	\$5.4B		
2018 – 2022 Est. Growth Rate (MarketsandMarkets)	22.1%		
Founded:	2000		
CEO:	Scott Miller		
Founders:	Andrew Reid		
Venture Rounds:		Venture Funds	
Private (Feb '17) - \$58MM	Georgian Partners W Capital Management		
Series F (July '14) - \$15MM	Georgian Partners, Kensington Capital, Northleaf Capital		
Series E (Jan '14) - \$3MM	Difference Capital		
Series D (Aug '12) - \$20MM	OMERS Ventures		
	2016	2017	2018E
Est. Sales	N/A	N/A	N/A

Company Description

Vision Critical provides a cloud-based customer intelligence platform for real-time customer feedback and insight.



Wattpad

Revolutionizing Content Creation

Industry

According to Statista, the global entertainment and media market is expected to grow to \$2.2T by 2021. The U.S. comprises one-third of the global media and entertainment market. The U.S. publishing sector is the largest in the world, and by 2020 digital publishing will account for 45% of all publishing, according to the U.S. International Trade Administration.

Company

As the world's largest community for readers and writers, Wattpad has become a global entertainment platform that connects 4MM writers with 70MM+ readers. Readers spend an average of 37 minutes per day on its platform (up from 30 in 2018). Writers can contribute stories that are posted one chapter at a time and build their follower base, allowing readers to comment throughout. Wattpad uses its own Story DNA machine learning technology, deep learning and neural networks to enhance its ability to discover stories for adaptation and content trends that are used across the entertainment industry. Nearly 1,000 Wattpad stories have been published as traditional books or adapted for TV, film, or digital video. Some of its largest productions include the internationally distributed film *After*, *Light As A Feather* with Hulu, *Cupid's Match* with CW Seed, and *The Kissing Booth*, which production company Komixx made for Netflix. Most recently, Wattpad has partnered with Times Bridge to expand Wattpad's presence in India.

Products

Wattpad has had over 565MM original story uploads shared, and more than 24 hours of reading material is posted every minute. After 10+ years in existence, Wattpad is leveraging its user base and established network effect to become a full-stack entertainment company. Wattpad Brand Solutions allows brands to connect with its global community of users with a variety of advertising solutions, including building their own stories or ads through video, images or music. Movie trailers, products or campaigns can be launched on the app, and the company has established partnerships with Lionsgate, AT&T, TELUS, Cadbury, Paramount, Disney, and Netflix among others. Wattpad Studios operates like a multi-channel network and partners with the entertainment industry to co-produce Wattpad stories for print, film, television and digital platforms. Tap is an app for chat-style stories offered on a freemium or subscription basis. Since launch in early 2017, over 3B Taps have been recorded on the platform. In January, the company launched Wattpad Books, a new direct publishing division. The new division plans to publish six books in 2019, 18 books in 2020, and many more in future years.

Plan Moving Forward

Wattpad's CEO Allan Lau has outlined his vision of building Wattpad to become a global, multi-platform entertainment company to "rival some of the biggest entertainment companies in the world." Wattpad plans on continued investment in machine learning and interactive storytelling, expanding the company's global entertainment footprint in TV, film, digital media and publishing. The company also plans to grow its team across all departments.

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	May 9, 2019
	Information Technology
City:	TORONTO
Employees:	140
Key Ratios and Statistics	
Sub-Sector:	Mobile Entertainment
2018 Est. Market Size (Statista)	\$2.0T
2017–2021 Est. Growth Rate (Statista)	5.1%
Founded:	2006
CEO:	Allan Lau
Founders:	Allan Lau (CEO) Ivan Yeun
Venture Rounds:	
Series D (Jan '18) - \$51MM	BDC Venture Capital, Kickstart Ventures, Peterson Group LLC, Raine Ventures LLC, Tencent Holdings, and Canso
Series C (June '12) - \$46MM	AME Cloud Ventures, Golden Venture Partners, Kholsa Ventures, Union Square Ventures
Series B (June '12) - \$17.3MM	OMERS, Northleaf Capital, August Capital Master Management, Raine Ventures, Prior Investors
Series A (Sept '11) - \$3.5MM	Golden Venture Partners, Union Square, Version One, individuals
Est. Sales	2016 2017 2018E
	N/A N/A N/A

Company Description

Wattpad is a mobile social networking app and digital entertainment platform for readers and writers to discover, share and connect.

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Constellation Software Inc. (2g, 7) (CSU-TSX, C\$1138.89)
Descartes Systems Group Inc. (2g) (DSG-TSX, C\$54.15)
Kinaxis Inc. (2g, 7) (KXS-TSX, C\$71.01)
Lightspeed POS, Inc. (2a, 2c, 2e, 2g) (LSPD-TSX, C\$23.36)
Open Text Corporation (2g, 9) (OTEX-NASDAQ, US\$39.95)
Shopify Inc. (2g, 12) (SHOP-NYSE, US\$255.56)

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Abbreviation	Rating	Description
Stock Ratings		
OP	Outperformer	Stock is expected to outperform similar stocks in the coverage universe during the next 12-18 months.
NT	Neutral	Stock is expected to perform in line with similar stocks in the coverage universe during the next 12-18 months.
UN	Underperformer	Stock is expected to underperform similar stocks in the coverage universe during the next 12-18 months.
NR	Not Rated	CIBC World Markets does not maintain an investment recommendation on the stock.
R	Restricted	CIBC World Markets is restricted (due to potential conflict of interest) from rating the stock.
Stock Ratings Prior To December 09, 2016		
SO	Sector Outperformer	Stock is expected to outperform the sector during the next 12-18 months.
SP	Sector Performer	Stock is expected to perform in line with the sector during the next 12-18 months.
SU	Sector Underperformer	Stock is expected to underperform the sector during the next 12-18 months.
NR	Not Rated	CIBC World Markets does not maintain an investment recommendation on the stock.
R	Restricted	CIBC World Markets is restricted (due to potential conflict of interest) from rating the stock.
Sector Ratings (note: Broader market averages refer to S&P 500 in the U.S. and S&P/TSX Composite in Canada.)		
O	Overweight	Sector is expected to outperform the broader market averages.
M	Marketweight	Sector is expected to equal the performance of the broader market averages.
U	Underweight	Sector is expected to underperform the broader market averages.
NA	None	Sector rating is not applicable.

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(as of 09 May 2019)	Count	Percent	Inv. Banking Relationships	Count	Percent
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Neutral (Hold/Neutral)	145	43.9%	Neutral (Hold/Neutral)	145	100.0%
Underperformer (Sell)	20	6.1%	Underperformer (Sell)	20	100.0%
Restricted	5	1.5%	Restricted	5	100.0%

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