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How the giants invest in AI

Innovation suffers in agriculture

Contents

3	Editorial: Innovation rises as VC falls							
4	News 11 Big deal: Didi Chuxing buys a 99 12 Big deal: Auto1 accelerates with \$565m 13 Analysis: Celgene impacts Sanofi in a billion-dollar exit							
14	 Summit review: 700 'heroes of impact' gather The third annual Global Corporate Venturing & Innovation Summit 20 Discussion: Phase two of nanotechnology and beyond 21 Discussion: Automotive, mobility and travel 22 Are you ready for portfolio company rule changes? 22 UC entrepreneurs pitch at the GCVI Summit 							
24	 Special report: Rising Stars – on the cusp of great things 26 The top 25 27 The rest of the 100 	;						
29	 Sector focus: Services go down in 2017 38 Interview: Michael Redding, head of Accenture Ventures 							
41	Gaule's Question Time: A stereo focus on the global imp Chinese progress Tim Hardin,SPD Silicon Valley Bank Min Zhou, managing partner, China Materiala	oact of						
45	Comment: Five ways to become better at corporate venturing Bonny Simi, JetBlue Technology Ventures							
47	Analysis: How corporate giants invest in artificial intellige Kyle Kling, US investment director, MDI Ventures	ence						
50	Comment: Big agriculture – synergy at the expense of ir Keith Gillard, partner, Pangaea	inovation						
51	Interview: Touching base with Touchdown David Horowitz, Touchdown Ventures							
53	University Corner: Korea ready to boost spinouts Hicheon Kim, Korea University Business School Startup Institute							
54	Government House: Temasek bullish on India's new inverse opportunities	estment						
55	Analysis: Last month's venturing activity							
Addr 52-54	Global Corporate Venturing News editor: Rob Lavine ddress: Email: rlavine@globalcorporateventuring.com 2-54 Southwark Street, Reporter: Thierry Heles ondon SE1 1UN Email: kandanov@mawsonia.com Chief operating officer: Tim Lafferty	n						

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Editor-in-chief: James Mawson

Email: jmawson@globalcorporateventuring.com

Chief operating officer: Tim Lafferty Tel: +44 (0) 7792 137133 Email: tlafferty@globalcorporateventuring.com Production editor: Keith Baldock

Website: www.globalcorporateventuring.com



EDITORIAL

Innovation rises as VC falls

James Mawson, editor-in-chief



here is an apparent contradiction in the innovation capital ecosystem that is worth exploring. Sue Siegel, chief innovation officer at GE and CEO of GE Ventures, who is co-chairman of the Global Corporate Venturing & Innovation (GCVI) Summit, as she opened the conference at the end of last month said: "The pace of change will never be as slow as it is today."

Innovation, therefore, is speeding up and seen as increasingly important, but the number of venture capital-backed companies has been falling for the past three years.

The fall in volume from a peak of 19,288 venture-backed deals in 2015 to 12,929 last year according to data provider PitchBook, has been perhaps masked by the increase in the value of these deals to \$158bn in 2017 from \$146bn in 2015.

The value increase in the average round size may reflect the impact of deep-pocketed investors, such as the near-\$100bn SoftBank Vision Fund, and other corporate and sovereign-backed funds, among others. GCV Analytics found corporations involved in \$109bn of deals last year through more than 2,000 rounds.

But given the procyclical nature of venture capital historically, the fall in volumes in the venture industry overall perhaps indicates a wider change in sentiment among entrepreneurs. The democratisation of funding methods from friends, family and venture capital to a wider host of angels through crowdfunding and initial coin offerings (ICOs), as well as potentially cheaper startups, changes the dynamics for what types of business need venture capital.

The way we have worked in the innovation ecosystem is perfectly suited to a world that no longer exists

Gust has 500,000 funders and 70,000 investors, AngelList has a jobs board, Republic for crowdfunding, partnership with CoinList for ICOs and Producthunt for customers and development. The internet is awash with articles on how to find and raise money from investors on more equal terms.

So, the way we have worked in the innovation ecosystem is perfectly suited to a world that no longer exists. Going round the corner of the village to Stanford or Tokyo universities and hiring your roommate and investing in your friends will only get you so far. Local investors, making small-sized deals led by financial-only investors offering only capital and maybe some advice with terms skewed against founders and employees is an unappealing offering.

The entrepreneur's customers, products, capital, staff and even the buyers of her whole startup can come from anywhere and the diversity is important to that success.

Instead of "innovation village" capital, therefore, we are moving to city-scale venture capital, where international mixed syndicates can offer aligned terms and meet entrepreneur needs for capital, customers, talent, product development and help with an exit.

What we realised from the annual Global Corporate Venturing survey and inviting portfolio companies at our annual GCVI Summit was you are the so-far hidden wiring that connects it all.

The challenge of finding and working with entrepreneurs and putting them first while engaging them with the corporate parent is a difficult job. The ethos of collaboration encourages more altruistic character traits into the industry, certainly compared with the relative narcissists in much of financial services.

The discussion on diversity and balance that ran through the summit indicates an openness to change. Siegel is right, the pace of change will only become faster but identifying the themes and areas of unique competitive advantage requires people to want to engage and share their insights beyond a traditional core social and professional circle.

The focus of legendary communicators, such as Margit Wennmachers, a venture capitalist at Andreessen Horowitz, or Anna Catalano, board member at Kraton Corporation and Willis Towers Watson and former chief managing officer at BP Ventures, cannot be overstressed.

In her discussion with Peter Bryant, managing partner at Clareo, at the GCVI Summit, Catalano said: "Innovation happens when you are talking to someone who is unlikely to gravitate in your usual orbit – you have to be in touch with people who are not part of your world, and to remain curious about things that exist outside it. You are the means by which corporations can be affected – do not underestimate the power you have."

And that power includes changing the venture model itself. \blacklozenge

NEWS

Lambert joins National Grid

Lisa Lambert, former managing partner at venture capital firm Westly Group, has rejoined the corporate venturing community as senior vice-president and chief technology and innovation officer at UK and US-listed energy utility National Grid.

Before joining Westly two years ago Lambert worked at Intel Corporation for 19 years as vicepresident and managing director of Intel Capital's software and services group and the founder and MD of its Diversity Fund, where she led global investments in more than 100 companies.

At National Grid Ventures (NGV) she is in charge of venture and growth capital investing, internal and external innovation projects, such as technology scouting, incubations and accelerations, and technology commercialisation.

NGV's focus is on three areas – new energy technology, large-scale transmission projects across North America and the UK and commercial projects outside of traditional regulated utility frameworks, such as utility-scale renewables solar and wind - and liquefied natural gas (LNG).

Lambert, who was ranked first in the inaugural Global Corporate Venturing Rising Stars 2016 awards, said: "National Grid is already leading the way in building a clean energy future, and it is just scratching the surface on what is possible."

She has sat on the boards of several portfolio companies. She is also on the board of US trade body the National Venture Capital Association, is co-chairman of the Venture Forward initiative and is also founder, CEO and chairman of Upward, a global network of executive women designed to accelerate career advancement.

BMW's Noske takes Alliance Ventures MD position

Christian Noske has taken another step up by joining the \$1bn corporate venturing fund recently formed by automotive alliance Renault-Nissan-Mitsubishi. He has been appointed managing director of Alliance Ventures, which will get 40% of its capitalisation from each of Renault and Nissan, while Mitsubishi will supply the other 20%.

Noske will work alongside François Dossa, chief executive of Nissan Brazil since 2012, who left his old position to lead Alliance Ventures and co-manage its creation with its deputy head, Matthieu de Chanville, formerly a senior executive at consulting firm Boston Consulting Group.

Christian Noske

Alliance Ventures hired Noske from BMW i Ventures, the corporate venture capital unit of the Germany-based car maker, where he was a partner.

Noske was a GCV Rising Star in 2016 and 2017 following a promotion in 2015 to investment princi-

pal at BMW i Ventures and a further promotion to partner. His deals at the unit included investments in carpooling service Scoop and automotive media platform Rever.

After studying economics and computer sciences in Stuttgart, Germany, Noske went on to business development roles before finding an interest in consumer product development at Germany-based industrials group Robert Bosch.

Larizadeh Duggan kicks GV for Kobalt

Avid Larizadeh Duggan has left her general partner role at GV, the corporate venturing fund formerly known as Google Ventures, for an executive role at music publisher and royalty collection service Kobalt.

Larizadeh Duggan joined GV, a subsidiary of internet and technology group Alphabet, in 2014, from Boticca, the luxury fashion e-commerce platform she co-founded in 2010 and where she was chief operating officer. She was an associate at VC firm Accel between 2006 and 2009.

Kobalt has hired Larizadeh Duggan as chief strategy and business officer and she has also taken an executive vicepresident role. A GV spokesperson told TechCrunch that Larizadeh Duggan "found that she really missed the day-to-day operational aspect of building a startup, and Kobalt is a great fit for her. They will benefit from her leadership."

Klawitter climbs aboard InMotion

Lars Klawitter has joined InMotion Ventures, the open innovation arm of UK-based automotive manufacturer Jaguar Land Rover, as executive director for strategic business. He will oversee the development of InMotion's mobility services and their integration with its parent company's products and services, as well as strategic partnerships and the unit's response to government affairs. He will also be an internal consultant for InMotion.

InMotion hired Klawitter from Rolls-Royce, where he headed its personalised vehicle division, Bespoke, as general manager. He joined Bespoke in 2010 and expanded its activities to take in digital innovation and Rolls-Royce's connected car strategy. Before that, he was an IT general manager for Rolls-Royce for four years, having previously been an IT project manager at another automotive producer, BMW.





Renault-Nissan-Mitsubishi unveils \$1bn vehicle

Automotive manufacturing partnership Renault-Nissan-Mitsubishi has taken the wraps off a corporate venturing fund to invest up to \$1bn in startups through the unit. Alliance Ventures intends to provide up to \$200m for startups and open innovation projects in its first year of operation, with the \$1bn figure representative of what it could commit over a five-year period.

The alliance, initially formed when France-based Renault and Japan-headquartered Nissan exchanged equity stakes in 1999, was extended in 2016 when Nissan acquired a 34% share of Japan-based Mitsubishi.

The unit will target mobility technologies such as automotive electrification, vehicle connectivity, artificial intelligence and autonomous systems. It intends to invest at all stages of company development as well as incubating new businesses.

François Dossa, chief executive of Nissan Brazil since 2012, has left that position to lead Alliance Ventures and comanaged its creation with its deputy head, Matthieu de Chanville, formerly a senior executive at consulting firm Boston Consulting Group. The unit will have offices in France, Japan and China. Renault and Nissan will each provide 40% of its capitalisation while Mitsubishi will supply the other 20%, according to Reuters.

Alliance Ventures' first deal is an investment in Ionic Materials, a US-based developer of a solid-state battery that will be made from a non-flammable solid polymer electrolyte material.

Playtika to put up to \$400m into corporate venturing

Israel-based social game developer Playtika has launched corporate venturing unit Playtika Growth Investments and will invest up to \$400m through the vehicle. The fund will target domestic digital entertainment and consumer internet companies, particularly those with annual revenues of \$10m or more with proven business models that are profitable or close to break-even.

Founded in 2010, Playtika develops immersive social games and claims to have been the first company to bring freeto-play casino-type games to social networks. In addition to providing capital, it also plans to offer expertise to portfolio companies.

Playtika, which was acquired by a private equity consortium led by online game developer Giant Network Group for \$4.4bn in 2016, has not been active in corporate venturing, but claims to have put more than \$300m into the acquisition of 10 companies since it was founded.

Boehringer Ingelheim boosts CVC fund to \$300m

Germany-based pharmaceutical firm Boehringer Ingelheim has provided another €150m (\$184m) for its corporate venturing vehicle, Boehringer Ingelheim Venture Fund (BIVF), taking its total size to €250m.

BIVF was founded in 2010, and committed \$130m to invest in US-based startups when it opened its first office on the country's east coast three years later. The latest funding injection comes as it prepares to launch a second office on the west coast.

Portfolio companies receive between €500,000 and €3m from BIVF as an initial seed or series A investment, with the fund eventually looking to build its commitment to somewhere €10m to €15m.

The unit currently has 21 companies in its portfolio including immunotherapy developer Hookipa, which closed a \$59.6m series C round in December, and immuno-oncology drug developer ImCheck Therapeutics, which raised \$21.8m in a BIVF-led round months earlier.

BIVF's exits include RNA therapeutics developer Rigontec, which was acquired by Merck & Co for \$554m in September 2017, and respiratory syncytial virus vaccine developer Okairos, which GlaxoSmithKline bought for \$325m in 2013.

AMI and Baidu board \$200m mobility fund

China-headquartered internet company Baidu has launched a \$200m venture capital fund in partnership with Singapore-based mobility and artificial intelligence technology provider Asia Mobility Industries.

The Apollo Southeast Asia fund was formed to support Baidu's autonomous driving software platform, Apollo, and will invest in autonomous driving and smart transportation technology developers. In addition to venture capital investments, the fund will provide capital for advanced mobility research projects, technology exchange and deploying Baidu's driverless vehicle technologies in Southeast Asia.

The formation of Apollo Southeast Asia follows Baidu's launch of predecessor Apollo Fund in September 2017 with \$1.5bn of capital reserved for some 100 autonomous driving projects over a three-year period.



Qihoo 360 activates \$156m fund

China-based cybersecurity technology provider Qihoo 360 Technology has partnered the municipal governmentowned Beijing Cultural Centre Fund to set up a RMB1bn (\$156m) investment fund, China Money Network reported.

The fund will target early and growth-stage companies in the internet and cultural sectors, including businesses focusing on the areas of entertainment and new media information.

The company's past corporate venturing deals have included investments in identity authentication software producer EyeVerify, livestreaming platform Huajiao and mobile app developer Holaverse.

Beijing Cultural Centre Fund was set up in 2012 to bolster the city of Beijing's creative and cultural industries by providing a wide range of financing options such as guarantees and micro-loans.

ING banks on sustainable investments with \$123m

Netherlands-based financial services firm ING has set up a €100m (\$123m) fund aimed at sustainable companies working on products and services with a positive environmental impact.

The fund, Sustainable Investments, will invest the money over the next three to four years. It will be sector-agnostic and seek startups requiring capital to scale their operations either organically or through acquisitions. The vehicle will focus initially on companies in the Netherlands, Luxembourg and Belgium, but in the long term hopes to expand to other markets in which ING operates.

Mark Weustink, a director of ING's corporate investments division, will lead and manage the initiative.

MetLife unleashes \$100m co-investment arm

Insurance group MetLife has launched co-investment arm MetLife Digital Ventures backed by a \$100m fund that will make direct investments in startups.

MetLife Digital Ventures was launched alongside MetLife Digital Accelerator powered by Techstars, a 13-week insurance technology initiative formed in partnership with accelerator operator Techstars.

Up to 10 early-stage startups will each receive \$120,000 from MetLife Digital Accelerator and access to Techstars' mentor network and connections from the insurance industry, according to WRAL Tech Wire. The first cohort is scheduled to begin in the third quarter of 2018, with startups drawn from insurance-related segments such as markets, underwriting, healthcare and the gig economy.

Both units will be overseen by MetLife's chief digital office, which is run by Greg Baxter, formerly head of digital strategy at financial services firm Citigroup.

Block.One locks up \$50m for blockchain fund

US-based blockchain software producer Block.One and venture capital firm Tomorrow Blockchain Opportunities have launched a \$50m fund to invest in blockchain software developers.

The \$50m figure represents a first close of the fund – its final target has not been revealed. The companies said the first close was seeded by Block.One, but did not specify whether it supplied all the capital. The fund will invest in companies building products on top of Eos.io, an open-source software platform developed by Block.One.

Eos.io relies on blockchain technology to facilitate decentralised applications that work without requiring a centralised infrastructure. The platform offers features such as authentication and databases.

MediaMath works out corporate venturing equation

US-based venture capital fund MathCapital has been launched from the New York offices of its strategic partner, programmatic marketing technology provider MediaMath.

MathCapital's brief is to support developers of technology that can help drive the movement of marketing focus to digital devices.

Areas of interest include the application of artificial intelligence and machine learning technology to marketing, as well as consumer advocacy and notification platforms, marketing analytics, and offerings related to emerging technologies such as voice-activated systems and augmented and virtual reality.

Portfolio companies will get access to MediaMath's advertising and partner network as well as its internal business and marketing experience. MediaMath CEO Joe Zawadzki and Eric Franchi, co-founder of digital advertising agency Undertone, are the fund's partners.

Kuehne & Nagel and Temasek in investment pact

Logistics group Kuehne & Nagel International has launched a joint investment venture with Singaporean state-owned investment firm Temasek that will back technology logistics and supply chain technology developers.

The firms will assist early-stage startups working on technology or services capable of improving logistics business models through greater efficiency and consumer value. It will target technologies including big data, predictive analytics, artificial intelligence, blockchain and robotics.

Kuehne & Nagel's logistics expertise is expected to complement Temasek's capacity to formulate long-term investment strategies. The initiative supports Kuehne & Nagel's new KNplusNextGen digitisation strategy, which is intended to grow its business through technological innovation and acquisitions. The corporate opened a Singapore-based logistics innovation centre in 2016.

Cisco identifies Aspect for \$181m fund

US-based early-stage venture capital firm Aspect Ventures has closed its second fund at \$181m having raised capital from limited partners including networking equipment manufacturer Cisco.

Investment firm Knollwood Investments has also committed to the fund, as has Melinda Gates, co-chairman of philanthropic organisation Bill & Melinda Gates Foundation.

Aspect's Fund II will invest in early-stage technology startups, following the model of the firm's \$150m Fund I, which was launched in 2015 to target sectors such as cybersecurity, digital health, autonomous driving and artificial intelligence. Portfolio companies from the first fund include network security software provider ForeScout Technologies, which

went public in a \$100m initial public offering in October 2017 and which today has a market cap of almost \$1.3bn.

Aspect Ventures announced the close at the same time as the appointment of Kendra Ragatz as general partner and chief operating officer, and the promotion of Lauren Kolodny to a partner position.

Janey Hoe, vice-president of corporate development at Cisco, said: "Aspect is a great investment for us, and we also love what the team represents: 'diversity begets diversity.'

"Aspect's diverse investing team and collaborative nature differentiates the firm from others in terms of its portfolio and its approach to working with entrepreneurs and investors alike.

"Aspect Venture's shared focus on early stage cybersecurity innovations has been an added source of value to us."

AI Fund launched with \$175m

US-based incubator and venture capital fund AI Fund has been launched with \$175m of capital from limited partners including telecoms and internet firm SoftBank.

Al Fund will look to build companies using artificial intelligence to "improve human life". In addition to SoftBank, it has received commitments from venture capital firms New Enterprise Associates, Sequoia Capital and Greylock Partners.

The fund was formed by Andrew Ng, co-founder and co-chairman of online education provider Coursera. Ng, who also oversaw internet company Baidu's Al work as chief scientist between 2014 and March 2017, is Al Fund's general partner. Eva Wang and Steven Syverud are partners at the fund. The latter is also its chief operating officer.

Ng said in a blog post AI Fund would use systematic processes to build companies and was starting out with three AI-powered projects. The first, adaptive manufacturing technology startup Landing.AI, was announced last month.

Al Fund intends to invest in those technologies as they mature and become fully-fledged businesses, though it has not revealed how much it could invest or how it would be structured in relation to funding from external backers.

Ring Capital notches up \$172m for first fund

France-based venture capital firm Ring Capital has been launched with €140m (\$172m) of capital supplied by limited partners including food producer Danone and insurance provider AG2R La Mondiale.

Financial services firm Bred and state-owned investment bank BPlfrance are also among Ring Capital's LPs, as is Tikehau Capital, an asset management firm that has paid an undisclosed amount for a 25% equity stake in the firm.

Ring Capital will make growth-stage investments in

Europe-based digital and internet technology companies, providing between €1m and €15m for investments that can either be stake purchases or made as part of larger funding rounds sized between €3m and €30m.

The firm intends to fund at least 15 companies by 2021 and has already made its first investment, though it has not identified the portfolio company in question. It is currently lining up two more deals that are yet to close. Ring Capital has been founded by Geoffroy Bragadir and Nicolas Celier.

Partech targets African startups

US-based VC firm Partech Ventures has launched a €100m (\$123m) fund targeting the pan-African ecosystem, with backers including telecoms firm Orange, corporate services provider Edenred and outdoor advertising firm JCDecaux.

The fund, Partech Africa, has achieved an initial close of more than \$70m. Its limited partners include the International Finance Corporation, the private sector investment arm of the multilateral World Bank and EU-owned financial institution the European Investment Bank.

Averroès Finance III, a fund of funds managed by French state-owned investment bank BPIfrance and

backed by Proparco, a development financial institution partly owned by the government's French Development Agency, has also committed cash to the fund.

Partech Africa will focus on early-stage companies, supplying between €500,000 and €5m to startups in a wide range of sectors, including fintech and insurance technology, mobile consumers services such as entertainment and e-commerce, supply chain services and mobility. The fund will be headed by Cyril Collon and Tidjane Dème, who have both been promoted to general partner. The fund will operate from new offices in Dakar, Senegal.

Agent finds \$52m for first fund

Agent Capital, a US-based venture capital firm founded by Geeta Vemuri, formerly managing partner of corporate venturing unit Baxalta Ventures, has raised \$52m for its first fund, according to a regulatory filing.

The firm targets investments in developers of therapeutics that will address unmet patient needs, in areas such as oncology, immunology, rare diseases, neurology and the central nervous system. The filing said the capital had come from just two investors, and Agent Capital is targeting \$150m.

Vemuri initially headed Baxter Ventures, the \$200m corporate venturing fund launched by medical equipment producer Baxter Healthcare in 2012. When Baxter spun off its pharmaceutical activities into a new company called Baxalta in 2015, Vemuri moved across to lead its strategic investment arm, Baxalta Ventures.

Pharmaceutical firm Shire acquired Baxalta in May 2016 and announced a few months later it intended to wind down the unit, leading to Vemuri leaving the company in November. Agent Capital was formed in January 2017.

Agent Capital intends to invest up to \$15m in portfolio companies over their lifetime, and has already built a portfolio of five companies, including neurological drug developer Aptinyx, participating in its \$70m series B round last month.

Pi increases numbers with help from Hero

India-based venture capital fund Pi Ventures has raised \$25m from limited partners including the corporate venturing subsidiary of electronics manufacturer Hero Electronix, the Economic Times reported.

The \$25m figure represents a second close for the fund, for which Pi aims to raise more than \$30m in total. Other LPs contributing to the second close included financial services firm Canara Bank's Electronic Development Fund and private investor Sunil Kant Munjal.

Pi is focusing on developers of artificial intelligence, machine learning and internet-of-things technology addressing real-world problems. It has already made four investments, in blood diagnostics startup Sigtuple, breast cancer screening technology developer Niramai, medical data software provider Ten3T and energy management platform Zenatix.

The March 2017 first close of the fund featured investments by the state-backed Small Industries Development Bank of India, In Colour Capital, Accel, International Finance Corporation and individual investors Mohandas Pai, Binny Bansal, Deep Kalra and Sanjeev Bikhchandani.

StartUp Health stacks fund with corporate LPs

US-based venture capital firm StartUp Health has closed \$19.3m in capital for its second fund, securing commitments from insurance group Ping An, healthcare provider GuideWell and medical device producer Masimo.

StartUp Health Transformer Fund II is intended to invest in more than 200 health technology developers within the next two years, furthering StartUp's pursuit of solutions to global health challenges such as cancer or mental health.

StartUp Health's first fund provided capital for more than 100 companies in Australia, Brazil, Canada, England, Finland, Germany, Israel, Kenya, Mexico, Netherlands, Nigeria, Spain and the US. Exits include precision medicine technology developer Tute Genomics and wearable sensor maker Basics. It formed a partnership agreement with insurance firm Allianz in January 2017 to co-develop "at least two dozen" digital health companies over a two-year period.

StartUp Health's other partners include Genentech, a subsidiary of pharmaceutical firm Roche, along with biopharmaceutical and chemical firm Bayer and GE Ventures, the corporate VC subsidiary of industrial conglomerate General Electric. Ping An invested in StartUp Health Transformer Fund II through Ping An Global Voyager Fund, the \$1bn corporate venturing subsidiary for health and financial technology investments it unveiled in May 2017.

3one4 Capital accesses Reliance for second fund

India-based venture capital firm 3one4 Capital has closed its second fund at Rs2.5bn (\$39.3m), having raised capital from limited partners including Reliance Ventures, a subsidiary of conglomerate Reliance Industries.

Reliance was joined by DSP Investments and an assortment of private investors including Kris Gopalakrishnan, cofounder and vice-chairman of IT services provider Infosys, and Surendra Ramanna, founder and chairman of engineering services firm TRC Worldwide Engineering.

Founded in 2015, 3one4 targets areas such as enterprise intelligence and automation, media and content development, education healthcare and financial technology. The firm launched its first fund with Rs1bn of capital in early 2016. 3one4 Capital Fund II will provide between \$250,000 and \$2m to startups as part of early-stage rounds and has reserves for follow-on rounds. Companies that have so far received funding from the firm include finance-focused online media company YourStory and online butcher Licious.

Waves concentrates on Basics with \$30m fund

Waves Platform, a Russia-based creator of a platform for blockchain distributed ledger technology, intends to raise up to \$30m for a fund to invest in blockchain startups and projects.

Founded in 2016, Waves has created a decentralised platform that provides the tools and infrastructure for creating blockchain products, enabling anyone to issue, trade or exchange cryptocurrency tokens. The company secured \$16m in an initial coin offering in mid-2016 and plans to raise \$10m for its Basics fund this month before reaching a \$30m final close by April 2018.

Asset manager Maxim Kuzin will manage Basics, which will be registered in the Cayman Islands and will have a general-limited partner structure. Alexander Ivanov, founder and CEO of Waves Platform, will be the fund's principal.

Universal Electronics spells out Capital A investment

Remote control and sensor technology manufacturer Universal Electronics has committed an undisclosed amount to a fund being raised by Sweden-based venture capital firm Capital A Partners with a \$60m targeted close.

Capital A expects the fund to reach an initial close during the first half of this year and has also received

commitments from undisclosed additional investors. The fund will invest in the internet of things, mobility, humancomputer interface technology developers in the Nordics region, in addition to nanotechnology, security layer and advanced materials technologies compatible with those sectors.

AOI Tyo beams \$5m to Spiral Ventures

Media and advertising group AOI Tyo has committed \$5m to an Asia-focused fund managed by Spiral Ventures, the Singapore-based venture capital firm formerly known as IMJ Investment Partners.

Spiral was formed in 2013 by digital services provider IMJ Corporation before the latter's acquisition by media provider Culture Convenience Club the following year. IMJ was bought by professional services firm Accenture in 2016, and the fund rebranded to Spiral Ventures in March 2017 following a buyout from its management. It had raised \$45m at that point for a Japan fund expected to close at \$54m.

Spiral is targeting \$50m for Spiral Ventures Asia Fund I, according to an August 2017 report by DealStreetAsia. The fund will invest up to \$100,000 at seed stage and \$1m in early-stage rounds, with larger investments reserved for growth and pre-IPO stage.

Google visits the House for AI fund

Gradient Ventures, a corporate venturing arm of internet technology company Google focusing on an artificial intelligence technology, has backed Al accelerator and innovation hub Al@The House.

Al@The House will be run in partnership with University of California Berkeley and university-focused startup institute the House. It will invest as much as \$120,000 in university-related AI technology developers. The program is open to applications from companies with at least one UCBerkeley affiliated co-founder. Participants in the AI program will have access to expertise in thought leadership, engineering support and co-hosting events as well as potential follow-on investment from the House Fund.

The House Fund, a \$6m sector-agnostic vehicle, was launched in 2016 with the support of UC Ventures, an investment vehicle of University of California. The House also operates an accelerator program – House Residency.



Alexandria plants seed-stage platform

Alexandria Venture Investments, the strategic investment division of life sciences real estate investment trust Alexandria Real Estate Equities, has launched a seed-stage investment platform.

The vehicle, Alexandria Seed Capital Platform, is intended to accelerate seed funding for life sciences technology developers by bringing together participants from across the healthcare venture capital space. The unit's advisory board will include executives from pharmaceutical companies Pfizer, Roche and Eli Lilly, VC firm Arch Venture Partners and life sciences investment management firm Accelerator Life Science Partners.

The formation of the initiative follows the firm's establishment of life sciences startup platform Alexandria LaunchLabs in June 2017. LaunchLabs has so far admitted 20 applicants. Participants will be able to apply for funding from Alexandria Seed Capital Platform.

IBM and Comcast state blockchain funding intentions

Computing technology provider IBM and Comcast Ventures, the investment arm of mass media company Comcast, have put their weight behind an enterprise blockchain-focused initiative formed by US-based accelerator MState Growth Lab. MState will focus on pre-seed and seed stage companies developing enterprise blockchain products and services. Blockchain is a digital ledger technology perhaps best known for forming the basis of cryptocurrency Bitcoin.

Five startups will receive cash and take part in a a six-month program at Galvanize's offices in New York and San Francisco, with a particular focus on helping businesses connect with corporations on the Fortune 500 list to help them attract clients.

Comcast Ventures supplied \$250,000 for the fund, according to TechCrunch, while IBM will provide unspecified support services to startups. IBM may also choose to support startups that do not end up receiving capital from MState. Incubator and venture capital fund Galvanize and VC firm Boldstart Ventures have also provided an undisclosed amount of cash for the scheme.

MState will reportedly provide between \$25,000 and \$50,000 to each portfolio company. It has already backed its first startup through the fund, Blockdaemon, which enables clients to launch a blockchain network within minutes and quickly scale applications.

Comcast Ventures has additionally put "a few million dollars" into a separate blockchain-focused fund of funds, according to TechCrunch, though the vehicle was not named.

Pfizer analyses plans for neuroscience fund

US-based pharmaceutical firm Pfizer is to set up a corporate venturing fund geared toward the neuroscience sector, Fierce Biotech reported.

Pfizer launched its core strategic investment subsidiary, Pfizer Venture Investments, in 2004 and provides about \$50m a year for deals from the unit, which can commit up to \$10m per company per round. The as-yet unnamed fund is being set up as its parent company seeks to cut its internal spending on neuroscience research, which encompasses work on Alzheimer's and Parkinson's disease, shedding some 300 positions and several early-stage projects.

Pfizer said its overall research and development investment would stay the same, but the savings would be transferred to "areas where we have strong scientific leadership and that will allow us to provide the greatest impact for patients".

Dräger drops into HTGF's third fund

Medical and safety technology provider Dräger has committed an undisclosed sum to the third fund raised by Germany-based public-private investment partnership High-Tech Gründerfonds (HTGF), which has a target size of €310m (\$386m).

HTGF III began investing in September 2017 after closing an initial \$275m in March, and will provide up to €3m in equity funding for each portfolio companies. Dräger will join HTGF III's investment committee and will supply portfolio companies with its expertise. Dräger paid an undisclosed sum for a 51% stake in gas measurement device developer Bentekk in an April 2017 transaction that enabled HTGF, which had invested in the latter's 2016 seed round the year before, to exit.

The fund's corporate backers also include EWE, RWE, Evonik, Lanxess, Altana, BASF, Wacker, Büfa, B Braun, Robert Bosch, Cewe, Deutsche Post DHL, Drillisch, Hettich, Knauf, Phoenix Contact, Postbank, SAP, Schufa, Qiagen, Franz Haniel, Körber Group and Media & More Venture.



LifeTech and Ally Bridge form medtech fund

China-based medical device manufacturer LifeTech Scientific has partnered US-based private equity firm Ally Bridge Group (ABG) to launch a medical technology fund of undisclosed size.

The fund will help portfolio companies expand in China and is intended to combine LifeTech's expertise in the country, where an expedited drug approval process was approved in October 2017, with ABG's international investment profile. LifeTech received funding from ABG in 2011, and the latter facilitated medical technology producer Medtronic's

\$66.2m investment in LifeTech in 2012, in which it acquired a 19% equity stake. The firms have now agreed to become preferred healthcare investment partners, and LifeTech will also back ABG's

funds, which include the China-focused Ally Bridge LB Healthcare Fund launched in 2015.

NEC and TAU to welcome startups to class

Japan-headquartered IT equipment producer NEC has partnered Tel Aviv University (TAU) and its venture capital arm, TAU Ventures, to form an Israel-based startup incubator called AlphaC, Globes reported.

AlphaC will operate in a space at TAU Technical Engineers School and will focus on cybertechnology developers. The first three-month class will begin in February 2018. Startups will get access to partner companies as well as university resources, work space, mentors and communication channels to the cyber-sector.

TAU previously partnered industrial product maker General Electric, software producer Microsoft, conglomerate Tata, IT services provider HNA EcoTech, chipmaker Qualcomm's Qualcomm Ventures unit and VC firm Pitango to form an internet-of-things fund in November 2016.

Big deal: Didi Chuxing buys a 99

Robert Lavine, news editor

On-demand ride service Didi Chuxing took a big step forward in meeting its global ambitions last month by paying a reported \$600m for a majority stake in Brazil-based ride-hailing platform 99.

99 was founded in 2012 as 99taxi and has accumulated 14 million users spanning more than 500 Brazilian towns and cities. Its biggest competition is US-headquartered Uber, which has roughly the same number of users spread across fewer cities, but Cabify and Easy Taxi are also notable participants in the country and signed a partnership agreement in June 2017.

China-based Didi Chuxing increased its stake in 99 from 30% to 90% through the transaction, sources told the New York Times, the company having previously led a \$100m round for 99 in January 2017. It is also investing a further \$300m in the service, according to TechCrunch.

Qualcomm Ventures, the corporate venturing subsidiary of mobile semiconductor producer Qualcomm, exited 99 through the transaction after backing a 2013 round and a \$25m round two years later along with Monashees and Tiger Global Management.

Telecoms firm SoftBank invested \$100m in the company in May 2017 but its long-term alliance with Didi Chuxing – one of its portfolio companies – essentially means it will retain a strategic interest in 99. SoftBank has been a key investor in Didi Chuxing, supplying more than half of the \$9.5bn in funding it closed last year.

Didi Chuxing has offered assistance to 99 in the form of technology, operations and market expansion since its initial investment, and it plans to increase that as a direct owner. The extra funding combined with Didi Chuxing's existing expertise in the market is likely to result in 99 expanding rapidly.

Peter Fernandez, 99's chief executive, said: "We are confident that being part of Didi Chuxing will vastly enhance our capability to expand our services throughout Brazil to bring critical value to users, drivers and cities."

Cheng Wei, founder and CEO of Didi Chuxing, added: "Building on the deep trust between our two teams, this new level of integration will bring to the region more convenient, value-added mobility services."

The deal means Didi Chuxing, already the market leader in China, owns a key counterpart in Brazil while also holding stakes in players in the US (Lyft), India (Ola), Southeast Asia (Grab), the Middle East (Careem) and Eastern Europe (Taxify). It also picked up a stake in Uber as part of its acquisition of UberChina in 2016.

Didi Chuxing's investments point to growth in two areas. The first is geographical, as illustrated above. Its takeover of 99 gives it a foothold in Latin America that could provide a base to expand into nearby markets like Argentina, Chile and Colombia, which in turn could act as a prototype for similar moves in other regions.

NEWS

The other potentially more interesting area is lateral. In addition to its activity in funding direct counterparts, Didi Chuxing has also increasingly begun spending money on strategic investments in adjacent sectors. It reportedly acquired bankrupt bicycle sharing service Bluegogo last week having already built up a 25% stake in one of the Chinese market's two largest participants, Ofo.

Bicycle rental would be significant enough but the company provided \$200m in funding for automotive e-commerce marketplace Renrenche in a September 2017 deal that involved the latter's services being offered through Didi Chux-ing's app, and acquired 19Pay, an online payment platform launched by communications technology producer GoHigh Data Networks, for \$45m last month.

A geographic expansion would provide a significant headache for Uber, but it is perhaps the strategic deals that will have a greater impact in the long term as it points the way toward app-based, on-demand transport effectively being controlled by a small group of investors.

Or to put it another way, one key investor. SoftBank may be Didi Chuxing's largest shareholder but, either on its own or through the \$98bn Vision Fund, it also owns direct stakes in Grab, Ola and, as of this week, a 15% share and two board seats in Uber.

This raises significant questions concerning conflicts of interest. If SoftBank or Didi Chuxing either own or hold substantial stakes in more than one key competitor in many of the world's markets – Didi Chuxing and its portfolio companies now cover 60% of the world's population – what implications does that have for competition?

Moreover, some corporate venturers will be asking, what does it mean if we have invested in those companies? If the 99 deal is anything to go by, they may well end up with a golden handshake and a farewell as they are gently, but firmly, pushed out the door.

Big deal: Auto1 accelerates with \$565m

Robert Lavine, news editor

SoftBank Vision Fund, the venture capital fund formed by telecoms and internet group SoftBank, invested €460m (\$565m) in Germany-based online used vehicle marketplace Auto1 Group at a \$3.56bn valuation. Half the investment went into new shares, Auto1 said in a statement, but it did not disclose the identity of the selling shareholders.

Founded in 2012 and originally known as PKW1, Auto1 operates a used vehicle e-commerce platform that is open to both professional dealers and individual sellers in 30 countries. The service, which uses data analytics technology to link buyers with the most relevant sellers, has registered some 35,000 professional partners and is responsible for the sale of more than 40,000 vehicles a month.

The company has now raised almost \$1.1bn in total financing, according to the Financial Times. It had secured \$200m from investment firm DST Global, venture capital firms Cherry Ventures and Piton Capital, and Mutschler Ventures, the VC arm of property developer Mutschler Group, it said in a 2015 press release. However, Auto1 did not mention whether that figure could be tracked back to its formation or whether it was part of a forthcoming round in which it planned to raise \$500m in debt and equity financing, at a valuation of \$1bn, according to Bloomberg.

Auto1 added \$404m in debt and equity in a May 2017 series E round led by an \$84m contribution from investment firm Princeville Global. The round included Target Global and Baillie Gifford and valued the company at \$2.8bn.

The deal represents the first German investment by SoftBank Vision Fund, which has raised almost \$100bn in capital, but it could theoretically complement what are now sizeable stakes for SoftBank in on-demand ride providers Uber, Didi Chuxing, Grab and Ola, and Autol's e-commerce algorithm technology is likely to have been a factor.

The investment is also notable in that it is the first large corporate-backed round to be closed by a used car marketplace outside China (US-based Vroom and Carvana have each raised approximately \$300m in funding but have disclosed no corporate investors), where the likes of Yixin, SouChe, Chehaoduo and Renrenche have all secured large sums.

Hakan Koç, co-chief executive of Auto1, told the FT that Auto1 would use the latest funding to expand the range of products and services it provides, and SoftBank's holdings in ride-hailing platforms suggest one of those could be the supply of cars to their drivers, though automotive financing would also be a likely move. \blacklozenge



Analysis: Celgene impacts Sanofi in a billion-dollar exit

Kaloyan Andonov, reporter, GCV Analytics

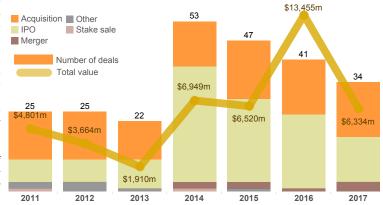
Pharmaceutical company Sanofi is to exit cancer treatment developer Impact Biomedicines, which was acquired by fellow pharmaceutical firm Celgene for \$1.1bn. However, over \$6bn more in capital may come contingent on specific milestones – up to \$1.4bn more depend on milestones related to approvals for myelofibrosis and other indications, while sales-based milestones could reach \$4.5bn.

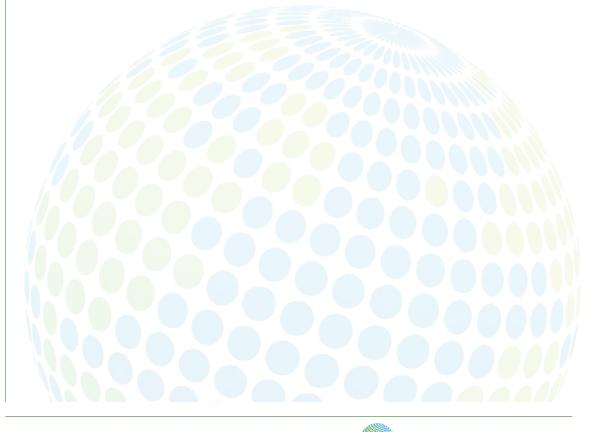
Founded in 2016, Impact Biomedicines develops therapies for complex cancers based on fedratinib, an oral smallmolecule inhibitor of the JAK2 kinase enzyme, which addresses bone marrow disorders polycythemia vera and myelofibrosis. Impact had acquired the development and commercialisation rights for fedratinib from Sanofi, which in turn took an equity stake of undisclosed size in the company. Sanofi had originally developed fedratinib but its rollout came to a

halt in 2013 when the US Food and Drug Administration issued a clinical hold order. After acquiring the rights, Impact convinced the regulator that the issues were solvable and the hold was rescinded.

This is a record-setting transaction within the exits from life sciences companies involving corporate investors. The number of such exits has been in a steady decline since 2014, as shown on the bar chart. However, that decline can attributed largely to the decreasing number of initial public offerings of such companies, while the number of acquisitions has remained fairly stable during that period. ◆

Corporate exits from life sciences companies





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of impact' gather

The third annual Global Corporate Venturing & Innovation (GCVI) Summit hit a new high this year – close to 700 attendees from 350 companies boasting aggregate annual revenues of \$6 trillion and nearly \$200bn in venture assets under management gathered for the two-day event in Monterey, California

Alice Tchernookova, features editor



he pace of change will never be as slow as it is today," said **Sue Siegel**, chief innovation officer at GE, CEO of GE Ventures, and the summit's co-chairman, when she opened the conference. "Change is going so fast," she added. "Today is as slow as it is going to get.

"In the future, you will see the current time as slow, which means things are only going to accelerate – which is a scary perspective. We already feel how tumultuous everything is, and how we struggle to keep up with all technologies. And yet things are only going to get faster. What this means from a corporate venture capital point of view, is that we cannot get complacent. We need to continue challenging ourselves."

She said: "Last year, Brexit had happened, the US elections had happened, and the French presidential elections were under way, which meant there was a lot of political tension. There was so much going on at that time that no one quite knew what to expect.

"We all thought in 12 months, it will have all settled down. And as it appears, it has not. In fact, what you see at the moment are natural disasters, cultural movements – such as the 'metoo' movement – new technologies such artificial intelligence (AI), cryptocurrencies, blockchain and autonomy, which are all disrupting the industry.

"And alongside this, you have geopolitical uncertainty. So as much as we all thought that 2018 would bring more stability and clarity, I am not sure we can say this now, as there is still so much that is unsettled – politically, culturally, and technologically.

Siegel, however, was confident that CVCs were "pretty well-equipped" to deal with this instability as, in her words, "the venture capital personality and mindset is one that lives in ambiguity, one that looks to find solutions to problems, and one that sees how ambiguity causes opportunity".

She said: "CVCs are very well-positioned in terms of being able to solve a problem through entrepreneurship and partnership, but also to help the strategies of corporations. It is very important that we keep on bringing freshness, novelty and the ability to question in order to challenge the accepted way.

"When you have corporations impacting industries, and industries impacting the world in turn, it becomes a pretty big deal."





As a result, she said CVC was a "discipline" becoming more necessary as research and development budgets shrink and productivity looked for. GE was using ventures and innovation tools to find novel concepts, catalyse growth and scaling impact and changing mindsets.

Siegel described the community as "heroes of impact" and CVCs as "true drivers of innovation", requiring people to stand up and take responsibility, share best practices and learn from one another as well as engage on diversity by men asking questions and women sharing understanding.

Intel Capital president **Wendell Brooks** gave an update on the firm's activity in the two years since he took over and focused on where it was adding value to portfolio companies and changing the focus of activity with an emphasis on diversity.

With 42 new investments last year, Intel invested \$690m compared with the

\$455m in the previous year's 34 deals with a particular focus on automation and Al.

Ten of Intel's portfolio companies were introduced to the public market in 2017 – a significant step up for the unit, which was helped by favourable market conditions, Brooks said, while another 26 exited through trade sales. Its latest investment initiatives have seen the number of women-led portfolio companies in new deals increase from 6% in 2015 to 15% in 2016 and 22% last year.

Brooks said: "When I was on this stage two years ago, I made the promise that Intel would commit to diversity. "Looking

at the audience here, it seems we are doing better than in the financial VC community, but it still is not enough."

Referencing its own new internship scheme, the president challenged all CVCs to look hire or intern at least one African American and one woman, saying this would "already be a big contribution to the community".

He added that the group had tasked Lee Sessions and Bryan Wolf to find more ways to "work together" with other CVCs to support portfolio companies and make "one plus one equal five". He said CVCs' advantages over financial VCs included due diligence, industry expertise, refining technology with engineering, endorsing technology and driving standards, accelerating route to market and driving company theses.

And while warning for groups to be prepared for recession and to take advantage of opportunities cre-



ated when capital is pulled back from VCs in a downturn, he added: "Intel Capital's mission is to invest around what our business units are doing, but also to make sure that any new opportunities and technologies we invest in are helping us learn. We are getting paid to learn, and to invest in wherever we think innovation is going."

A third highlight of the first morning session was the keynote presentation by **Young Sohn**, president and chief strategy officer at Samsung Electronics, a unit of the South Korea-based conglomerate, in which he delivered a key message: "Data will drive opportunities for everyone."

Comparing the explosion of data economy to the oil boom that drove much of the 20th century, Sohn said: "Data is the new oil." He said we were in the middle of "a big change", with a lot of opportunities emerging in the data space. According to him, the top five data companies currently have a combined market value approaching \$3 trillion compared with about \$1 trillion for the top five oil majors. All the things we do nowadays are happening with connected devices. One of my jobs has been to change Samsung from old to new, and to figure out how to embrace this change."



Anna Catalano, board member at Kraton Corporation and Willis Towers Watson, and former chief managing officer at BP Ventures, was interviewed by Clareo Partners managing partner Peter Bryant.

The pair's discussion focused on evaluating how today's board members view corporate venture and innovation. Highlighting once more the importance of diversity and open-mindedness, Catalano said: "Innovation happens when you are talking to someone who is unlikely to gravitate in your usual orbit. You have to be in touch with people who are not part of your world, and to remain curious about things that exist outside it."

Catalano likened the role of CVCs to that of translators and interpreters for the innovative technology space, whose role would be to explain what the future world will look like. She advised delegates: "Do not let events like this summit be just two days out of the year. Try instead to go back and figure out how you can effect change for a better world and try to make the necessary switches within your organisations before coming back next year.

"You are the means by which corporations can be affected – do not underestimate the power you have."

A recurring theme throughout the matinee and afternoon sessions, was the change in mindset and approach regarding the investor-entrepreneur relationship, with the need for CVCs to participate in the global community of entrepreneurs.



Jacqueline LeSage Krause



Rob Salvagno

Martin Haemmig, left, and Max von Zedtwitz

Several speakers were keen to highlight the need to encourage collaboration among CVCs. Jacqueline LeSage Krause, managing director at Munich Re/HSB Ventures, said: "As the industry is becoming more professionalised, there is increased interest in sharing knowledge on particular issues and establishing common practices.

Reporting on the new GCV Leadership Society accounting and operations taskforce, she added: "What we realised is, whether you are a new CVC or have been in the industry for a long time, we are all coming across the same issues. Rather than tackling them on our own and as if it was the first time these were faced, we thought it made sense to get this small taskforce together and establish common approaches to address them."

This was one of several groups or hubs formed under the GCV Leadership Society to help the industry tackle issues better, while there was a separate session for government venturing leaders, and University of California, the largest public research institution in the US, with 1.8 million living alumni, showcased five of its entrepreneurial stars.

GCV founder and editor-in-chief James Mawson discussed with Rob Salvagno, head of corporate development and Cisco Investments, the unit's investment strategy and its progress since Salvagno stepped into his leadership role two years ago. US-based network equipment company Cisco has so far acquired around 200 companies, while its Cisco Investments corporate venturing unit invests an estimated \$150m a year.

Salvagno said having the same team working on both investments and acquisitions had been key in driving the unit's success. He added: "Although there is still a long way to go, we have the opportunity to be a top investor. We do a great job at tracking innovation, so what we really need to do now is build our core value proposition."

This, Salvagno said, was crucial for a unit's success. When setting up a unit, CVCs should first deter-



mine their investment approach. Was the goal to strengthen existing businesses, or to track innovation outside that? "These are two different philosophies, and you need to be clear about them both internally and externally," he said. "There is a lot of money out there, so you really have to look at what makes you unique. It is about believing in your core value proposition, and how it may benefit your portfolio companies."

The morning session was wrapped up with a data presentation by Martin Haemmig, adjunct professor at Cetim in Germany and the Netherlands, and Max von Zedtwitz, part of the Glorad Centre for Global R&D and Innovation.

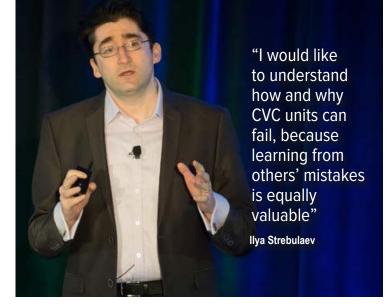
According to von Zedtwitz, much of the world's research and development efforts were still concentrated in the US, with around 24.1% of the world's R&D centres based in the country, including 315 in California, where the concentration is highest. The US also accounted for 35.9% of the world's transnational corporation R&D centres.

Reflecting on investors' approach to the Chinese market, he said: "Chinese customers are much more difficult to figure out, and this is why you need to be on the spot to understand them. Corporates are, however, now trying out a new way to access innovation in China, which involves not going after the technology itself, but after local entrepreneurs instead."

Von Zedtwitz, who described the phenomenon as "a big trend in open innovation", insisted on the importance of having access to the entrepreneur ecosystem, as it is the best way for foreign multinationals to keep a hand on the evolution of technology in the region.

He also spoke of the difficulty encountered by foreign businesses in understanding the Silicon Valley system. Establish-





ing a global R&D system could therefore be the next big challenge for the CVC community, he said.

Haemmig observed that the proportion of US corporations going international or global had increased over the past few years, although they still represented a minority, with 776 domestic investments as opposed to 320 overseas investments recorded in 2017. He also noted that between 2006 and 2017, 345 startups moved to Silicon Valley.

He said that in terms of deals, volume and internationalisation, CVC activity had hit an all-time high in 2017, with Asia consistently increasing its market share. But while CVC investments were more significant, the number of acquisitions of invested startups had decreased, indicating a rise in strategic collaborations.

Haemmig recommended that startups expand abroad from the very beginning of their activity, as opposed to waiting for

the completion of one or more funding rounds. Data had shown that "startups expanding to foreign innovation hotbeds do best when they move immediately after their local market validation".

The afternoon featured a conversation between **Ilya Strebulaev**, professor of finance at Stanford University's graduate school of business, and **Claudia Fan Munce**, adviser to New Enterprise Associates and former head of IBM Ventures. Strebulaev gave advice on best practices in corporate venturing.

According to Strebulaev, a unit could be considered successful if it had survived at least two CEOs. He said: "This conference is about success, and those who made it. But I would like to talk about those who are not here, and understand how and why CVC units can fail, because learning from others' mistakes is equally valuable."

Based on his research, in part carried out through annual surveys in partnership with Global Corporate Venturing, Ilya Strebulaev made several recommendations. The first step in establishing a successful unit was to determine its goal – financial or strategic, or both at the same time. He said units with a purely financial goal were the least likely to succeed, while those with a more balanced proposal tended do better. It was, however, "very hard to be successful in both at the same time", he added, hence the need to have clear goals from the outset.

Strebulaev added: "You need to make sure that your CEO gets the point and sees the research in action," adding that the most successful units usually reported to CEOs, or to a chief strategy officer. The least successful tended to report to chief financial officers or chief technology officers.

He also highlighted the strategic importance of deal sourcing and deal structuring, identifying smart syndication as another key to success. A good practice for a new CVC, for instance, was to try to partner more established investors, including financial VCs.

He added: "Through my teaching, I have realised that contracts and valuation – which we spend a lot of time on in class – are areas that industry players are largely ill-informed on. My advice is to familiarise yourself with these, as they are just as important."

Jaidev Shergill, head of Capital One Growth Ventures, took an in-depth look at investment strategy and his unit's evolution. Launched around three years ago, Capital One now has 10 team members, including five investments professionals. "We started in a very scrappy manner," said Shergill. "At the two-year mark, we had a good investment process, and so we



started looking at the strategic traction our investments could bring." Capital One currently evaluates companies with three metrics – 40% is based on investor relationship value, 40% on vendor relationship impact; and 20% on learning and culture impact.

These evaluations are repeated throughout the investment period, according to Shergill.

Jaidev Shergill

He added: "Using these metrics enables us to put the lens of strategic impact pre-investment and opens up the possibilities of seeing how portfolio companies evolve over time. It enables us to figure out the direction we want to go into from an investment perspective. It also helps us in our reporting to the investment committee, which in turn is more involved and able to see where we are in our journey, and can provide a more targeted help on specific issues."

The first day of the conference ended with a series of "unpanels" focused on different themes, including blockchain,





automobility, quantum computing and healthcare, among others.

The second day of the GCVI summit started with an interview of conference co-chairman **Quinn Li**, who heads Qualcomm Ventures, by **Faisal Rashid**, partner at law firm Fenwick & West. Li spoke of his "excitement" to be chairing the conference again this year.

He said: "It is exciting to see that this conference has grown so much since it started. I have come across many old friends, but I am also discovering many new faces, which tells me that there a lot of people out there who are just starting out. This makes it a very interesting time to be part of the industry. This summit makes a great opportunity for us to get together and learn from each other. For the new folks starting a new venture in particular, this is very valuable."

Asked by Rashid what "keeps him up at night", Li said most of his thoughts were of the next areas of investment that could be exciting for his team, and of how to keep up motivation and cohesion within that team. "In other words," said Li, "it is about finding where the next unicorn [a business worth more than \$1bn] will be, and how we can keep the right team infrastructure to do it."

Li said some key areas Qualcomm was currently looking at included the internet of things, autonomous vehicles and data technology. He added: "Venture is a long-view business where you really need to think things through. Once you commit to it, you have to plan to stick to it. Having that long-term horizon, and getting the needed support from management, are the two most important aspects."

A cybersecurity session featured **Dave DeWalt**, a member of Delta Air Lines' board and a former CEO at McAfee and FireEye, and Andrew Thorpe, corporate partner at Orrick.

DeWalt, who has been active in the cybersecurity space for the past two decades, spoke of a "shocking" level of threat. "It is getting out of control," he said. "We see massive conflicts of interest emerging, with obvious online criminal activity and espionage. Everyone is concerned about reducing risk."

He referred to Russian interference in the 2016 US elections, and said he knew of 5,000 Chinese intrusions into US companies, adding that the challenge of maintaining security and reducing infiltration risks was bigger than before. He said having a cybersecurity expert on a company board had become "paramount".

He added: "It is important not just to be ready from a technology perspective, but also with having trained people. Human trust and education are two very important elements in cybersecurity."

Diversity was a focus during the morning. A panel moderated by GE Ventures president **Marianne Wu** – Diversity dreams: where we want to be heading in 2018 and beyond – featured **Eileen Tanghal**, general partner at In-Q-Tel, **Janey Hoe**, vice-president at Cisco Investments, and **Lo Toney**, general partner at Plexor Capital, a fund incubated by search engine provider Google targeting minorities.

Wu said women in the CVC industry accounted for only 6% of C-level executives, and around 25% of the entire industry. Meanwhile, people of black or latino ethnicity accounted for only 3% of C-level executives. Only 5% of startup founders were women, while people of black or latino ethnicity represent as little as 1%.

"We need to start looking at diversity as a business opportunity," said Toney. "People from a different background might be able identity opportunities that others might not. Think about the composition of your team – you will rapidly realise that the more diverse it is, the more access to dealflow and investment opportunities you will have."

Eileen Tanghal

Hoe said: "Talking about it is not enough. Diversity now has to be set as a business target, just as everything else in the company, and the diversity strategy should be aligned with the overall business strategy. At Cisco, every time we make a new hire, we make sure that not only

the candidates are diverse, but also the panel interviewing them. You also have to ask your portfolio companies what the representation is like on their team."

In-Q-Tel's Tanghal added: "You guys have a lot of influence on the boards of your startups, and should also always try to convince financial VCs and CEOs to do more. Even if it is just a couple of hires - it all counts."



A second diversity panel brought together **Karen Kerr**, executive managing director at GE Ventures, and **Stacey Epstein**, CEO at communications technology company Zinc, who discussed the force of female founders and CEOs.

Epstein cast a more positive light on the state of diversity within the industry, saying: "Now is a great time for women to realise their dreams and get their funding. People are seeking diversity. Companies making new hires might even occasionally roll out the red carpet for you, because they know more female VCs are needed in the industry."

Epstein also encouraged business owners or recruiters to look through the ranks of already successful companies to find existing female talent – not just at C-level, but across all roles. But she lamented the lack of female role models. "When I was little, I did not think it would be possible for me to become a CEO, as nobody encouraged me to do it. But times are changing now, and the multiplication of these female executive role models is what will change things over time and resolve the pipeline issue we are currently facing.

"A lot of women take themselves out of the ring early in their careers for senior executive positions, because they think they will not be able to manage being a good mum while having that level of responsibility. They need to be reminded that you do not have to sacrifice things at home to be great at your job – men have done it for many years without ever asking themselves if they could."

In the afternoon, **Matt Jennings** and **James Piacentino**, respectively global vice-president and digital adviser at SAP Leonardo, discussed the group's digital transformation. Originally released by SAP in January last year, Leonardo was first branded as an internet-of-things platform giving customers a place to track sensor data from connected analytics. Relaunched in November, the platform is now a digital innovation system enabling users to take advantage of the possibilities offered by emerging technologies such as AI, machine learning, advanced analytics and blockchain.

SAP Leonardo, they said, aimed to offer faster innovation with less risk and to help streamline operations related to promoting and developing innovation. New technologies could help accelerate processes such as proof of concept, product incubation or early-stage productisation. The pair illustrated this with Vale, a Brazil-based logistics company for

Mark Smith



Mark Radcliffe

which SAP Leonardo recently created a custom solution to streamline purchase requisition. As a result, there had been an 86% reduction in purchase requisition rejections.

The pair, however, noted that a distinction should be drawn between optimisation and transformation. "Most people aspire to do something transformational, but it really is more often than not just an optimisation of an existing business process," they said.

Mark Smith, executive director at Verizon Ventures, was interviewed by **John Riggs**, partner at PwC Innovation Strategy. According to Smith, the unit currently had three team members in Israel, and eight directors in total – four of which are female, "which we are very proud of," he said. The group's major investments areas are aligned with the parent company's core activities in telecoms and telematics, including technologies such as the internet of things, advanced networks, digital media, internet services and smart transportation. To date, Verizon Ventures has invested in around 50 companies, of which it has acquired only one.

Other sessions largely focused on discussing investment in new technology areas such as blockchain, AI, and the internet of things. One panel brought together **Jacqueline LeSage Krause**, managing director at Munich Re/HSB Ventures, **Kavita Gupta**, managing director at ConenSys Ventures, **Bart Stephens**, partner at Blockchain Capital, and **Louis Lehot**, partner at DLA Piper, for a discussion on blockchain and initial coin offerings (ICOs) moderated by DLA Piper partner **Mark Radcliffe**.

Blockchain, the panel agreed, was still an area of investment people tend to approach with caution. Stephens said: "A lot of people like to focus on the transition itself, the ICO – which sounds a lot like IPO, a more familiar term – rather than on the idea of a 'tokenised network', which to me is far more important. A key aspect in managing to build a trend around something is also to have a network effect, but a lot of people and businesses fail to achieve that."

A solution, he suggested, was to provide a financial incentive in the form of tokens to get people to join the network. "If you provide a financial incentive, all of a sudden the user becomes a stakeholder," he said. "It is about encouraging people to take part in the wealth creation process, as opposed to networks like Facebook, which creates wealth only for a single individual."

The panellists also highlighted that, as with any new area investment, there was a regulatory need to ensure that there was investor protection, and that the US market remained competitive, offering regulations that were no harsher than other activity hubs such as Singapore, Hong Kong or London.

Lehot said: "We are at the tip of an amazing change in how companies are run with blockchain. We are looking at wholesale reimagining, with an increasing number of people taking part in the movement."

Radcliffe added:" We think that blockchain technology is fundamental and will disrupt many industries. We are seeing corporations studying how to tokenise their own product suite, and evaluate startups with strong tokenomics as potential acquisition targets. We expect that in 2018, many institutional venture funds will buy tokens, fund companies that issue tokens and help their portfolio companies to tokenise their product suite.

"Corporate venture investors need to be prepared for the new world of tokenised businesses, both in developing strategies for their corporations as well as assisting their portfolio companies in deciding whether and how to tokenise their products."

The conference ended with a keynote presentation by **Jedidiah Yueh**, author of Disrupt or Die: What the World Needs to Learn from Silicon Valley to Survive the Digital Era. Yueh's address – Failure of the innovation classics: what the world needs to learn from Silicon Valley to survive the digital era – was a reflection on innovation and startup creation, and on the entrepreneurial journey of those who "made it".

Calling himself an "accidental entrepreneur", Yueh has 20 years' experience in the digital space, having first been founding CEO of Avamar, specialising in the data deduplication market, and later launching Delphix, a software group specialising in streamlining data.

Having spent the past 20 years decoding innovation and collecting "hidden frameworks", as he calls them, Yueh strived to debunk certain myths surrounding Silicon Valley and successful entrepreneurs such as Mark Zuckerberg, Steve Jobs and Eric Schmidt. One myth, for instance, is the preconceived idea that one needs to have an "incredibly original" idea to start a business. "Those ideas are usually very commonplace," said Yueh. "A simple grain is always the start." Another misconception is the time developing this idea may take. "It took one developer one week to build Facebook," he said.

Yueh said what followed after the founding concept was based on a simple equation – legacy industry plus digital era equals digitally refactored industry. In other words, the digital avalanche offered the possibility of taking a simple idea and transforming it into a multimillion-dollar "monster" that would change the world.

A key question that all entrepreneurs should however asked themselves, he added, was: "Will your top transformation program win the future of your industry?"

Yueh also insisted that innovation, contrary to belief, was traceable and repeatable – one idea may lead to many others that were just re-explorations or derivatives of an original concept. Examples of this included Uber and its many duplicates, or all the social networks that took Facebook as their starting point. "There is a clear repetition of mega-successes in Silicon Valley," Yueh said.

Finally, the author reminded the audience of the importance of placing the idea before the individual, as it was the former that defined the latter. The idea itself was what was most important. Taking himself as an example, the author recalled how at the beginning of his journey in the entrepreneurial word, he was "nobody". He recast is formula as "reading the right books plus implementing the right framework equals winning the future of your industry".

The last slide of his presentation, which read "May the force of disruption be with you", came up as the perfect ending to this year's GCVI summit.

Discussion: Phase two of nanotechnology and beyond

Kaloyan Andonov, reporter

This main-stage session explored how today's corporates are responding to new nano cell technologies. The session was moderated by Tom Vanhoutte, partner at Belgium-based nano-electronics research institute Imec.Xpand. Speakers were **Tony Chao**, managing director at Applied Ventures, the corporate venturing subsidiary of semiconductor equipment maker Applied Materials, **Heejin Chung**, head of venture investment at South Korea-headquartered semiconductor supplier SK Hynix, and **Dong-Su Kim**, head of Samsung Ventures America, the venturing unit of the South Korea-based electronics manufacturing company.

Chao said of the strange nature of nanotechnology: "Nanotech is everything and nothing at the same time. It is everywhere – in clothes, phones, manufacturing – and you do not even know it is there. It is everywhere and nowhere at the same time."

Kim discussed the intersection of data and hardware, which went "hand in hand". He said that with the exponential explosion of big data and the associated need for data storage technology, hardware necessitated staying a step ahead.

Speakers also discussed the challenges for hardware companies, a domain with a high failure rate and an absence of large exits. Chung attributed this to the technical complexity involved and the longer time required for a hardware company to mature. "It takes much more time to mature than a web business," he said.

Other points included how corporate venturers could help hardware or advanced materials companies employing nanotechnologies overcome these challenges. Kim said corporates could provide money, guidance and customers, pointing out that Samsung often co-invested in such enterprises with semiconductor manufacturers such as Intel and Applied Materials. Chao added: "Deep tech startups require technical expertise to appreciate their potential, which CVCs do have. They have not only the money and appetite to invest but also see strategic value in their offering."

Discussion: Automotive, mobility and travel

Kaloyan Andonov, reporter

Tom Whitehouse, contributing editor at Global Corporate Venturing, chaired this sector spotlight session. Tony Cannestra, director of corporate ventures at Denso, Meghan Sharp, managing director at BP Ventures–Americas, and Bonny Simi, president of JetBlue Technology Ventures, participated.

Simi, co-head of a venturing unit and a practising pilot, said Jet Blue Ventures had been "very bullish" in the aviation space, as breakthroughs in electric propulsion would bring about significant disruptions in short-haul transportation. She said her unit's investment mandate extended beyond pure and deep tech into innovation related to travelling and the entirety of a customer's journey.

Cannestra touched on developments in autonomous vehicles and noted that there was a "rush of entrepreneurship" in this space, citing as an example Israel – a country without a native automobile industry, where



Tony Cannestra



Bonny Simi



Raj Singh

thousands of startups are currently working on autonomous vehicle technologies. He also said most of the technology for fully autonomous vehicles was likely to be developed in the next three to five years.

Sharp brought the perspective of an oil major to the possible electrification of transport. He said BP owned petrol stations around the globe and, with the advent of electric vehicles, the question would be whether motorists in the near future would be filling petrol tanks or charging electric batteries. Sharp said BP Ventures' capital had been increased and currently received \$200m a year, allowing it to invest more broadly in areas such as artificial intelligence (AI), mobility, digital and low carbon in addition to emerging enterprises developing technologies related to its core businesses.

Each of the speakers highlighted the trends they were watching. Simi said she was interested in how blockchain and AI technologies would impact JetBlue's space. Cannestra said the key to the adoption of emerging autotech lay in personalisation of vehicles. Sharp claimed the hottest new area was electrification and fast charging.

Later, in a breakout session, BP, JetBlue and Denso introduced startups to which they have committed capital. The event was moderated by **Jim Fischer**, partner at law firm Drinker Biddle & Reath, which sponsored the session.

Sharp introduced **Arcady Sosinov**, CEO of FreeWire, which had announced a round backed by BP Ventures just a day before. FreeWire develops a mobile charging system for electric vehicles. The technology currently operated at 50kW but it was scalable to make a 10 to 15-minute fast charging of an electric vehicle possible.

Sharp also introduced the audience to **Gary Tucker**, CEO of Zubie, another BP Ventures portfolio business, which develops a connected car cloud-based platform for vehicle management monitoring. Previously backed by other corporates, such as retailer BestBuy, automotive parts producer Magna and communications technology producer Comporium, Zubie's platform is used in small fleets, where trip data and vehicle diagnostics are collected and analysed.

Cannestra introduced **Brian Wong**, CEO of Trilumina, a Denso portfolio business, which develops lasers for solid state light detection and ranging (lidar) systems and 3D sensing. Wong described his company's mission as "to democratise lidar and 3d sensing". Founded in 2011, the company raised its first round in 2013 and has 41 patents granted and pending. It has also received backing from Caterpillar.

Cannestra also introduced **Abhay Jain**, CEO of Active Scaler, a Denso portfolio business, which he described as in-motion intelligence, providing a platform that offered car security and other services, automating vehicle management through contextual analytics, machine learning and artificial intelligence.

Global Corporate Venturing

Raj Singh, managing director of JetBlue Technology Ventures, introduced **Shimon Elkabetz**, CEO of ClimaCell, which provides weather data. Elkabetz said conventional weather forecasts lacked accuracy and granularity that may be needed for autonomous vehicles and aircraft. To provide more reliable and accurate data, ClimaCell's software analysed signal interference and collected data, sampling existing communications networks. Its data services were currently being used by major airlines in the US, with potential applications in autonomous vehicles and the insurance industry.

Lastly, Zunum Aero, a JetBlue Technology Ventures investee, was presented by **Birger Steen**, its commercial and corporate development adviser. Founded in 2013, Zunum Aero develops commercial hybrid-to-electric aircraft for regional transit by employing range-optimised powertrain and propulsion technologies. Steen said Zunum's aircraft could not only reduce environmental impact but also drive operating costs down.

Are you ready for portfolio company rule changes?

James Mawson, editor-in-chief

Financial rule changes this year have led to corporate venturing groups forming a working group to ensure the community implements best practices and "gets ahead for next time", according to Jacqueline LeSage Krause, head of Munich Re/HBS Ventures, the corporate venturing unit for the world's largest reinsurer, and David Stevenson, managing director at Merck Global Health Innovation Fund.

The two are co-chairing the GCV Operations & Accounting Taskforce to tackle issues surrounding multinational CVC investors emerging initially from the Financial Accounting Standards update on recognition and measurement (ASU 2016-01) of portfolio companies historically held at cost.

ASU 2016-01 came into effect in mid-December for listed corporations – private corporations have to start by next December – and requires changed processes for monitoring and valuing portfolio companies. The first reporting deadline, therefore, is the end of the first quarter, but the taskforce is looking more broadly at how the industry can define its influence, control and risks better, and measure and reflect the valuations on their corporate balance sheets.

In a roundtable discussion just before the taskforce was launched at the summit, **John Liang** and **Craig Cooke**, deals managing director and deals director respectively at Pricewaterhouse, gave an overview of the new accounting standard.

They said: "For equity securities with readily determinable fair value but no available-for-sale classification, all fair value movements must be recorded in net income."

Otherwise the default treatment would be fair value or at cost, minus impairment, adjusted for observable price changes, they said. While this alternative could be decided at the start, mark-to-market accounting was required if the status changed and so needed continued monitoring and price changes recorded in the same period as the information was received, which required "reasonable effort to identify any relevant transaction on or before the balance sheet date".

This relevant transaction is "an observable price change in an orderly transaction by the same issuer in the same or similar security", PwC said.

ASU 2016-01 also made other changes to disclosures, presentation, financial liabilities and deferred taxes. The overall impact of these changes would be increased earnings volatility, PwC said.

The GCV taskforce is drawing up a list of questions concerning the rule change that all CVCs should ask their auditor, and is also looking for four or five volunteers to join – contact *jmawson@globalcorporateventuring* for initial expressions of interest. A European roundtable discussion will be held in the spring with an update at the GCV Symposium in London on May 22-23 2018.

UC entrepreneurs pitch at the GCVI Summit

Thierry Heles, editor, Global University Venturing

This year's summit hosted a pitching contest featuring five startups founded by alumni of University of California – telemedicine and drug delivery company Pandia Health, peer-to-peer vehicle charging network EVMatch, medical device manufacturer Tergis Technologies, scientific research platform Hyperthesis and phone lens accessory producer Lume.

Introduced by **Christine Gulbranson**, the university's senior vice-president for innovation and entrepreneurship, and sponsored by innovation platform Future Planet Capital, the pitch event gave the startups an opportunity to talk through their offering before a jury of industry experts and the more than 650 delegates who attended this year's summit.

First to take the stage was Jude Calvillo, co-founder of Hyperthesis and alumnus of UC Los Angeles. Calvillo noted that it currently took researchers an average 35 hours to compile a literature review and 20 hours to identify a research gap. To address this, Hyperthesis has developed a platform that generates schematics of research papers based on metadata – extracted through natural language processing technology – enabling researchers to find relevant data through a visual interface and with a few clicks.

Calvillo claimed the platform was significantly faster than Google Scholar, a search engine that indexes scholarly literature such as peer-reviewed journals, conference papers and dissertations.

Hyperthesis, which is currently seeking \$380,000 to \$1m in equity funding, hopes initially to target universities and marketing consultancies. The startup also hopes to drive international synergy and discovery, allowing, for example, an English-speaking researcher to find papers in Chinese and significantly expanding the amount of accessible literature.

Heather Hochrein, co-founder of EVMatch and an alumna of UC Berkeley, solught to have a fundamental impact on



electric vehicle charging. Hochrein began by explaining "range anxiety" – drivers may not choose an electric vehicle for fear of running out of power without no nearby recharge facility. The solution, according to Hochrein, is a peer-to-peer charging network allowing drivers quickly to find the nearest charging point provided by a private user.

Drawing parallels with Airbnb, a platform that allows home owners to rent out rooms or properties, Hochrein noted that some providers on her platform had bought a charger specifically to generate passive income, despite not owning an electric vehicle.

The company was launched in California last year and has since grown to 100 hosts. There are zero infrastructure costs to EVMatch, which provides only the app and payment handling. The startup's initial target markets are urban and suburban neighbourhoods.

EVMatch is aiming to reach profitability by the end of 2019, growing from a current 350 customers to 50,000. The company is seeking \$750,000 in seed funding and looking for a lead investor to help scale the business to 3,000 customers and \$100,000 in revenue this year.

Next on stage was Brian Soo, founder of Lume. Soo, an alumnus of UC San Diego who is currently his company's sole member of staff, launched the business after graduating last year and has turned to crowdfunding platform Kickstarter to bring his first product to market. Lume has developed zoom and wide-angle lenses that can be attached to mobile phone camerass.

Targeting content creators, such as video producers on streaming platform YouTube, Lume has also developed a phone case that adds the ability for external storage and restores the ability to plug in a microphone – a functionality removed by both Apple and Google in their phones.

Michael Urner, co-founder of Tergis Technologies and UC Merced, is tackling ventilator-associated pneumonia in premature babies. Urner said 10% of babies in the US are premature, and the figure is rising. Premature newborns stay in an intensive care unit for 13 days on average, during which time they are at risk of pneumonia when dry air in the incubator can affects the lungs, cauing pneumonia. Urner's technology humidifies the air.

Tergis is seeking \$400,000 from strategic partners in return for an 8% stake, money it will need to secure regulatory approval in the US, start clinical trials at Children's Hospital Central Valley and market the device to hospitals.

Sophia Yen, co-founder of Pandia Health and an alumna of both UC San Francisco Medical School and UC Berkeley, is countering problems relating to the availability of birth control pills in the US, which can normally be supplied only to a fixed address, causing issues for women, such as students, who are mobile..

Pandia Health also offers a telemedicine service, where doctors can prescribe birth control pills without a physical appointment with a physician. In the longer term, Yen said the company hoped to offer other pharmaceuticals, such as sexual health products and medicines.

The company has already raised \$650,000 from friends, family and angel investors, and is now seeking \$1.5m to grow from 1,300 to 10,000 users – which would generate \$300,000 in monthly revenue. Yen said the business should be profitable by 2021.

Douglas Hansen-Luke, executive chairman of Future Planet Capital, thanked the five startups and announced Pandia Health as the winning company. It will be invited to compete at the Future Planet Capital Awards at the GUV:Fusion conference in London in May.



Rising Stars – on the cusp of great things

Awards held the night before the GCVI Summit in California recognises the burgeoning talents of corporate venturing's future leaders

James Mawson, editor-in-chief



esearching, selecting and writing the Global Corporate Venturing Rising Stars 2018 list has been another fascinating and inspiring dive into the wealth of talent tackling probably the hardest job in finance.

Mauro D'Amato, director at Intel Capital chosen by the chipmaker's corporate venturing president, Wendell Brooks, as a GCV Rising Star 2018, asked a smart question when told he had been nominated: "What are the common factors that make a Rising Star?"

For the literalists, US space agency Nasa says a star is usually formed by recycled dust and debris left behind by novae and supernovae blending with the surrounding interstellar gas and dust.

But, for these GCV Rising Stars, a look through the hundreds of people nominated by their bosses over the past three years and it is hard to see an immediate pattern.

While most have post-graduate qualifications and many are domain experts in their subject, they seem to have varied backgrounds often covering the full sweep from corporate experience, startups and previous venture investing experience. There is one who ran nuclear submarines for the US Navy, alpine skiers and another who is in the Guinness Book of Records.



There is also almost equal gender balance, even if fewer than a fifth of their heads of corporate venturing units are women.

They are, however, all seemingly destined for further success. As Skyler Fernandes, then head of Simon Ventures before being poached to be managing director of investors at Cleveland Avenue in Chicago, US, said in the inaugural Rising Stars nomination process: "Natalie [Hwang] was screened out of 546 candidates, and I was impressed by her knowledge of the space and background in investing as an angel. She also has a high degree of intellectual curiosity."

She stepped up after Fernandes's departure and now runs Simon Ventures as probably the youngest person in the country to run a corporate venturing group for a Standard & Poor's 100 company, and kindly shared her insights at a fireside chat at our Global Corporate Venturing Synergize conference in New York in October.

Ten of the initial top 20 in 2016's inaugural list, including – just from that year's top 10 ranking – Lisa Lambert from Intel Capital to managing partner at Westly Group, Jack Young from Qualcomm to head the US ventures team at Deutsche Telekom, Vanessa Colella to chief innovation officer at Citi, Rowan Chapman from GE Ventures to head of Johnson & Johnson Innovation in California, Eileen Tanghal from Arm to partner at In-Q-Tel, Nobuyuki Akimoto from NTT to managing partner at Translink Capital and Ray Schuder to overall head at Hewlett Packard Ventures, have been promoted or now run independent firms.

Another 29 from the remaining 80 have done the same, including Grant Allen to overall head of ABB Technology Ventures, Mariano Amartino shifting from Telefonica to Microsoft as Latin America startups director, Luis Arbulu from Samsung to Xertica and Olawale Ayeni from Orange to International Finance Corporation – and that is just the As in the alphabetical order from 2016.

But to go back to the Fernandes' original recommendation and the curiosity allied to knowledge pops out as a key factor for why they were chosen and have done so well.

When John Doherty, head of Verizon Ventures and a member of the GCV Powerlist 2017, nominated Merav Rotem Naaman, managing director at Verizon Ventures Israel, for this year's Rising Stars awards it was only a few months after Verizon had acquired AOL and she and her team at its Nautilus corporate venturing unit had been formally integrated.

And it is worth quoting Rotem Naaman's thoughts about why she had done well at some length: "There are many reasons why Israel has become 'the Startup Nation' – a small country that is virtually an island, where the vast majority of the population are recent immigrants, where 18-year-old kids have to serve in the military and take on responsibilities that for most people take decades.



"I grew up in this environment idolising my parents, grandparents and the other pioneers who lost everything in the World Wars and came to Israel to rebuild their lives and a new home. Asking questions and trying and failing were the norms; entrepreneurship was everywhere and in everything. And in me.

"From a very early age I was determined to create my own path, to define my own destiny and to take advantage of the opportunities that life presented, which were not necessarily part of what being raised as a female in a small orthodox community expected of me.

"So I left my community, first to serve in the military and then to attend university where I studied law. During my studies I took a year off to hike across South America and came back smarter, stronger, more open minded and with the courage to take big risks.

"I have brought this to my career where I challenged myself to take on the tough jobs and make big moves, from leaving a successful legal career in Israel to attend Harvard Business School, to starting Nautilus, AOL's investment arm in Israel, and now leading Verizon Ventures' first investment group that's located outside the US.



"My success is also rooted in the people that I surround myself with both at work and in my personal life. Good teams, happy teams, diverse teams along with my vibrant family and friends are the fuel that keeps me going."

This might help explain why Israelis appears the most overrepresented by number of Rising Stars as a proportion of population but success comes from the environment – what Nasa called blending – and people that surround the star.

In answer to D'Amato, then, whose own history of moving from Italy to the US with his entrepreneurial parents is impressive, I said the defining criteria that seemed to connect the Rising Stars seemed to be their strong ability to connect and manage the challenge of dealing with entrepreneurs and their myriad wants, foibles and worries. All venture investors have to do this but for corporate venturers there is also the seemingly ever-changing requirements of the parent providing the money though senior executive and strategy upheaval.

The empathy, or high so-called emotional quotient, and communication skills metaphorically to kiss all the frogs among the entrepreneurs to find those capable of transmuting into unicorns – private companies worth at least \$1bn – tackle the inevitable politics at the corporate venturing unit itself, and manage the often vast, sprawling and inward-looking business units at the parent as well as senior C-suite executives sitting in judgement on investment committees or deciding whether to continue funding versus other priorities.

This challenge is why, for his Rising Stars profile, Pär Lange, founding partner at phone operator Swisscom Ventures, summed it up for many: "I think Swisscom Ventures itself is my biggest success. While many other CVCs have been victims of reorganisations and strategy changes, we have managed to develop and improve our model continuously over the last 10 years without any disruption.

"The fact that we have brought strategic value to Swisscom in combination with having a portfolio with good returns has been key to our success."

Getting the combination right is hard. And it never goes away as groups, such as Naspers, have shown from its initial challenges in the 1990s to acquiring a

third of China's now-largest internet company, Tencent, around the start of the millennium. Tencent now has a market capitalisation of more than \$500bn and Naspers, without selling a share, still owns nearly a third of what it calls "its associate" – correctly reflecting the changing dynamics of its partnership over the past near two decades.

Jeffrey Li, managing partner at Tencent Investment, who was ranked first in the GCV Powerlist in May and who collected the Unit of the Year award at the GCV Asia Congress in October in Hong Kong, in his fireside chat moderated by Gloria Liu, partner at law firm DLA Piper, said: "For the past six years we have been reinvesting our profits back to venture while other corporations focus on M&A. We do do that but it is a small part compared with lots of minority deals, such as Didi Chuxing, 58 and Meituan, from our 50-strong team, which is still growing."

As well as individual excellence, as Rotem Naaman described of her own background, those you surround yourself with and the ambitions set by the corporate venturing leaders is an additional weighting. In-Q-Tel, which was included for the first time this year after a decision by the GCV Leadership Society advisory board chairman, Claudia Fan Munce, is potentially the most active strategic investor in the world with more than 50 new deals a year. When its managing partner, George Hoyem, who is highly regarded as a thought-leader and experienced venture investor nominates someone, in this year's list, Katie Gray, it counts.

Similarly, Tencent's Li nomination of Levin Yao for his "tons of deal experience" or when Sue Siegel, chief innovation



officer at GE and CEO of GE Ventures, writes to say someone is "a model for CVC and its important role in creating value for corporates in ways beyond corporate R&D or M&A" it is an important validation.

Some take the opposite approach. SoftBank's newly-appointed external public relations representative, Richard Appleton, said the whole team at its near-\$100bn Vision Fund would effectively take offence and boycott Global Corporate Venturing if any were described as Rising Stars as they had all obviously reached the top by joining the corporate venturing unit in the first place. And so, despite their activity, brilliant people and exciting investment theses and operations at SoftBank, none made the GCV Rising Stars 2018 list as the industry is built on inclusion rather than rejection and division.

Such a response does also point to a potential challenge for the industry as it grows, hubris, which tends to be followed by nemesis. The approach of Naspers and its collaboration and association with Tencent and other investee companies is probably an exemplar of what can be achieved and in leaders such as Charles Searle and Larry IIIg at Naspers and James Mitchell and Jeffrey Li at Tencent, there is a recognition of what partnership can bring.

The same pattern is now flowing through Tencent portfolio companies Didi Chuxing, Meituan-Dianping, JD and 58 and their investments, whose stars all made this year's top 25. For Didi's growth has been built on a clear corporate venturing strategy set by Jean Liu (GCV Powerlist 2017 winner) and Stephen Zhu, who is ranked first in this year's GCV Rising Stars list, and execution of this tool in its local and global expansion.

Time and again, the Rising Stars profiled in this and previous lists have identified the opportunities for sharing deals with their corporate venturing peers, the importance of transparency on their own strategic or financial goals and sharing best practices with each other and finding role models to show to entrepreneurs and other venture capitalists.

The fifth point the Rising Stars identified, highlighted again this year as in previous years as well as by the members of the Global Corporate Venturing Leadership Society luminaries, was to put entrepreneurs first.

The industry is a service provider between them and the corporations. While learning how to deal with both can seem more of an art than a science and best learned through experience there is a role for mentoring and giving back to the next generation of stars.

In this, as ever, we are grateful for the leaders who give up their time at the GCV Academy and in the mentoring programs run at the GCVI Summit and beyond to advise and train those whose reputations will help make the industry reach further heights.

Such mentoring by today's leaders of tomorrow's stars is part of a desire to leave the world in a better shape then you find it. Judging by the GCV Rising Stars 2018 list, therefore, the future still looks bright.

The top 25

1	Stephen Zhu, Didi Chuxing	15	Ka
2	Lisa Suennen, Risa Stack,		Cis
	Jonathan Pulitzer, GE Ventures	16	Rai
3	Levin Yao, Tentures	17	Nat
4	Akira Kirton, BP		Caj
5	Russell Dreisenstock,	18	Var
	Naspers Ventures	19	Sar
6	Mauro D'Amato and Nick		Na
	Washburn, Intel Capital	20	Jos
7	Katie Gray, In-Q-Tel	21	Nis
8	Stacy Feld, Johnson & Johnson	22	Me
	Innovation–JJDC		Ver
9	Ernest Fung, JD	23	Во
10	Li Xiaoyang, 58.com	24	Pra
11	Wen Jiang, Xiaomi		Ace
12	Chen Shaohui, Meituan-Dianping	25	Aja
13	Jonathan Larsen, Ping An		Jet
14	Gil Beyda and Daniel Gulati, Comcast Ventures		

- Karthik Subramanian, Cisco Investments
- 5 Rain Cui, JCI Ventures
- Nathan Krishnamurthy,
- Capital One Growth Ventures
- Varun Jain, Qualcomm Ventures
- Saman Farid, Baidu Ventures; Nan Zhou, Baidu Capital
- Joseph Jeong, Applied Ventures
- Nisha Dua, BBG (AOL/Oath)
- 2 Merav Rotem Naaman, Verizon Ventures Israel
- Bo Zhai, Alibaba
- Pramila Mullan,
 - Accenture Ventures
 - Ajay Sharma, JetBlue Technology Ventures



The rest of the 100

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Services go down in 2017

Kaloyan Andonov, reporter, GCV Analytics

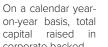


CV Analytics defines the services sector as encompassing education and edtech, accommodation and travel, logistics and supply chain services, human resources and related technologies, real estate, business and legal consulting, classifieds and review platforms, as well as communications (market research) technology, among other services.

GCV reported 156 rounds involving corporate investors from the services sector for the period between January and December 2017. A significant number of those, 64, took place in the US, while 21 were hosted in India and 18 in China.

56

The majority of these commitments went to emerging enterprises from the same sector (56), with the remainder going into companies from the IT (20), consumer (19), financial (16) and health (15), among others.

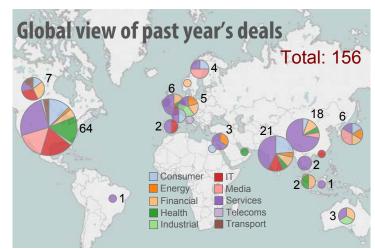


156 in 2017.

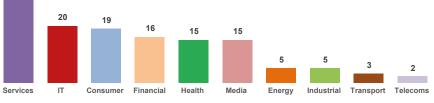
corporate-backed investment rounds went down from \$5.14bn in 2016 to \$3.17bn in 2017 – a 38% drop. The deal count also fell, decreasing by 12% from 178 deals in 2016 to

The 10 largest investments by corporate venturers from the services sector span mostly within services-related businesses.

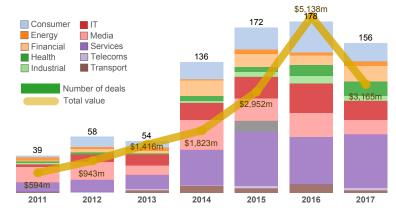
The leading corporate investors from the services sector were Japan-based human resources company Recruit Holdings, communications company WPP, private education services provider New Oriental Education and Tech-



Investments by services venturers by sector



Services sector deals 2011-17



nology as well as business consultancy firm Accenture.

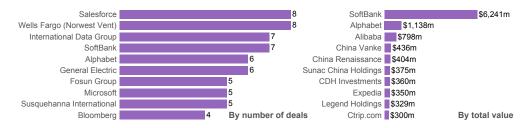
Property developer China Vanke topped the list of services corporates committing in the largest rounds, along with two other companies from the same subsector – property developer Sunac China Holdings and real estate developer Capi-



Top services sector investors



Top investors in services enterprises



taLand. The most active corporate venturers in the emerging services companies were cloud services provider Salesforce, banking services provider Wells Fargo and media and research company International Data Group (IDG).

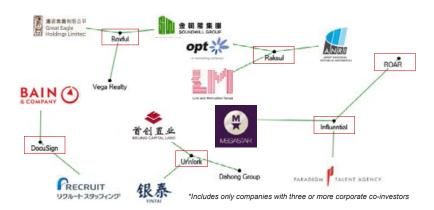
Overall, corporate investment in emergservices-focused ina enterprises registered growth from 2016 to 2017 in terms of total capital, although the deal count dropped slightly. According to GCV Analytics data, \$15.38bn was invested over 264 rounds in 2017, significantly up from the \$10.88bn over 278 deals in 2016.

The subsectors that have driven most of the growth of services since 2014 have been accommodation and travel, human resources and edtech.

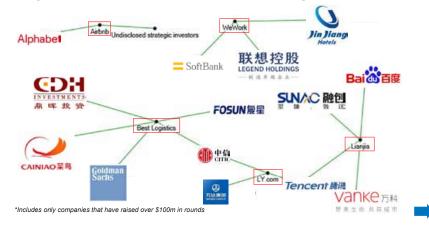
Deals

Services corporates invested in a number of large rounds, raised primarily by other service and consumer-focused busi-

Co-investments of services sector venturers 2014-Oct 2017



Corporate co-investments in services enterprises 2014-17

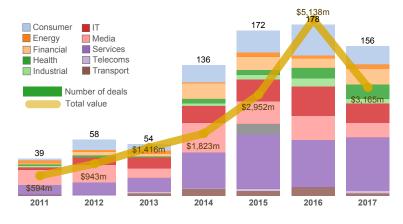




nesses, mostly China-based real estate and co-working space companies. While there were multimillion transactions, none of the top rounds stood above the \$1bn mark.

Vanke invested China RMB3bn (\$436m) in Lianjia, an China-based online real estate portal also known as Homelink, through a private placement. Vanke and Lianjia are already partners, having jointly launched home decoration service Wanlian in 2015. Vanke's investment comes as part of an overall strategy to expand its services to include additional offerings surrounding the second hand property

Services sector deals 2011-17



market. Lianjia started off in 2001 as a real estate agency but has grown significantly in recent years as it has developed an extensive property listings platform online.

Earlier, Sunac China Holdings invested RMB2.6bn for a 6.25% stake in Lianjia. Sunac took a board seat as part of the deal and, at the time of the transaction, announced plans to collaborate with Lianjia.

Easy Life Financial Services Holding Group, a financial services spinout of aviation-focused conglomerate HNA Group, received RMB1.9bn in series B-plus funding from a consortium of investors. The investors included CapitaLand, among a host of other investors. Founded in January 2016, Easy Life provides a range of payment services catering to the tourism industry, including foreign currency exchange, traveller's cheques, tax rebates and prepaid debit cards.

China-based co-working space provider URWork closed a \$178m pre-series C round co-led by diversified conglomerate Aikang Group, real estate developer Beijing Land Capital and media company Star Group. Investment firm Prosperity Holdings also co-led the round. URWork, also raised \$58m from undisclosed investors earlier in 2017, as reported by Bloomberg. Founded in 2015, URWork operates 88 co-working spaces in 22 cities across China, and in Taiwan, London and New York. URWork was founded by Mao Daqing, formerly a vice-president of China Vanke.

US-based home security technology developer Ring secured \$109m in debt and equity financing from investors including real estate firm JF Shea, mobile semiconductor producer Qualcomm and insurance firm American Family. Qualcomm and JF Shea invested through their respective corporate venturing units, Qualcomm Ventures and Shea Ventures, in the series D equity portion of the round, while Silicon Valley Bank supplied the debt portion. Ring develops a video-based doorbell that allows residents to see who is at their door before answering, but it has added other cameras to its product

Company	Location	Sector	Round	Size	Investors
Lianjia	China	Services	-	\$436m	China Vanke
			Stake purchase	\$375m	Sunac China Holdings
Easy Life Financial Services Holding Group	China	Financial services	В	\$273m	CapitaLand Chongqing Aviation Investment and Tourism Development Fund H Capital Jining Cultural Tourism Development Fund Pacific Crest Securities Shandong Bihai Tourism Development Fund
UrWork	China	Services	С	\$178m	Aikang Group Beijing Land Capital Prosperity Holdings Star Group
Ring	US	Consumer	D	\$109m	American Family Insurance Angel Investor DFJ Growth Goldman Sachs JF Shea (Shea Ventures) Qualcomm True Ventures
Linkem	Italy	Telecoms	-	\$106m	BlackRock Cowen Leucadia National Corporation
SoundHound	US	IT	-	\$75m	Global Catalyst Partners Kleiner Perkins Caufield & Byers MKann Nomura Recruit Holdings Samsung Sharespost Sompo Japan Nipponkoa Translink Capital Walden Venture Capital
Clutter	US	Consumer	С	\$64m	Alphabet Atomico Fifth Wall Ventures Sequoia Capital
UrWork	China	Services	В	\$58.3m	Dahong Group Junfa Group Shanghai Chuanghehui Fund Tianhong Asset Management Tianming Shuangchuang Technology
Practo	India	Health	D	\$55m	Altimeter CapitalG Matrix Partners Recruit Holdings Ru-Net Sequoia Capital Sofina Tencent Thrive Capital



				sector enterprises over the past year
Company	Location	Round type	Size	Investors
WeWork	US	Stake purchase	\$4.4bn	SoftBank
Airbnb	US	E and beyond	\$1bn	Alphabet China Investment Corporation Technology Crossover
				Ventures undisclosed strategic investors
Cainiao Smart Logistics	China	Stake purchase	\$798m	Alibaba
WeWork	US	E and beyond	\$500m	Hony Capital SoftBank
Compass	US	E and beyond	\$450m	SoftBank
Lianjia	China	-	\$436m	China Vanke
Lianjia	China	Stake purchase	\$375m	Sunac China Holdings
Traveloka.com	Indonesia	-	\$350m	Expedia
WeWork	US	Stake purchase	\$300m	SoftBank
Tujia	China	E and beyond	\$300m	All-Stars Investment China Renaissance Ctrip.com G Street
-				Capital Glade Brook Capital

range together with accessories such as a small solar panel to power the system and a tool that enhances the sound of alerts.

Italy-based wireless broadband service provider Linkem secured €100m (\$106m) in a round that included diversified holding group and existing investor Leucadia National Corporation. Financial services firm Cowen Group also participated in the round alongside funds managed by asset manager BlackRock on behalf of its clients, among other backers. Founded in 2001, Linkem provides an ultrabroadband fixed wireless network service to more than 400,000 subscribers across Italy.

US-based conversational intelligence technology developer SoundHound secured \$75m in funding from investors including subsidiaries of human resources provider Recruit Holdings, electronics manufacturer Samsung and graphics technology provider Nvidia – Recruit Strategic Investments, the Samsung Catalyst Fund and Nvidia GPU Ventures respectively – among other investors. SoundHound develops a technology based on its Houndify artificial intelligence platform, which enables connected products to convert sounds into actionable processes.

US-based physical storage service Clutter closed a \$64m series C round. The transaction featured real estate technology-focused VC firm Fifth Wall Ventures, which is backed by a host of corporates, including real estate services provider CBRE, real estate and warehouse logistics company Prologis, house builder Lennar, office space developer Hines, apartment owner Equity Residential, real estate investment trusts Macerich and Host Hotels & Resorts and Lowe's Ventures, the venturing arm of home improvement retailer Lowe's. The round also featured GV, the corporate venturing unit formerly known as Google Ventures. Founded in 2015, Clutter operates a service for users to store physical possessions on demand. Users can arrange the collection or delivery of selected goods using an app.

India-based healthcare appointment booking platform Practo raised \$55m in series D capital from a consortium, featuring Recruit Strategic Investments. The round was led by internet company Tencent, which was joined by Capital G, the growth equity arm of diversified conglomerate Alphabet. Established in 2008, Practo has developed an online software for doctors and healthcare providers such as hospitals to conduct online consultations and manage appointments and health records.

There were other interesting deals in emerging services-focused companies that received financial backing from the corporate investors of other sectors.

Telecoms firm SoftBank and its SoftBank Vision Fund invested a total of \$4.4bn in US-based working space operator WeWork. The two will pay \$3bn to acquire a mixture of primary and secondary shares, and will provide \$1.4bn in funding for three new regional WeWork subsidiaries in Asia. WeWork did not disclosed which investors sold shares through the deal. Founded in 2010, WeWork oversees a network of 160 co-working spaces, stretching across 50 cities in 16 countries.

This was not the only financial injection into WeWork last year. A month previously, WeWork raised \$500m from SoftBank and private equity firm Hony Capital for its new China-based subsidiary WeWork China. Earlier, in March, SoftBank committed \$300m at a \$17bn valuation in a series F round, according to the Wall Street Journal. Hotel operator Shanghai Jin Jiang International Hotels, conglomerate Legend Holdings and Hony Capital, the private equity arm backed by Legend, also participated in that round.

US-based short-term accommodation marketplace Airbnb closed a \$1bn series F round that, according to reports, featured Alphabet. Airbnb did not disclosed the identity of investors in the round, which numbered 40, according to a regulatory filing, and valued the company at \$31bn. Airbnb runs an online and mobile platform that enables users to lease or rent properties over short periods, with the company taking a cut of the payment. It has since expanded into local tourism services under the Experiences banner, as well as travel booking.

E-commerce group Alibaba agreed to pay RMB5.3bn to raise its stake in China-based logistics affiliate Cainiao Smart Logistics Network from 47% to 51%. Cainiao was originally formed in 2013 by Alibaba, which held a 48% stake at the time of its formation, together with diversified conglomerate Fosun and retail chain Intime Retail Group. The company operates a logistics platform that coordinates delivery and warehousing for e-commerce operators, including Alibaba, and



uses third-party partners to fulfil the groundwork.

The Softbank Vision Fund invested \$450m in US-based online real estate transaction platform Compass. The funding, which followed the company's entry into the Chicago property market, will support an expansion into every major US city. Founded in 2012, Compass runs a luxury real estate brokerage that spans 30 US cities, and which operates using proprietary technology intended to simplify the property buying and selling process.

Online travel services provider Expedia committed \$350m to Indonesia-based travel and accommodation booking platform Traveloka. The \$500m total consisted of two rounds, and the rest of the funding was supplied by e-commerce firm JD.com, hedge fund manager Hillhouse Capital and venture capital firms East Ventures and Sequoia Capital. Traveloka had not previously disclosed other capital. Founded in 2012, Traveloka provides travel booking services for customers in Indonesia, Thailand, Vietnam, Malaysia, Singapore and the Philippines.

China-based holiday home rental marketplace Tujia.com secured \$300m in a funding round co-led by online travel agency Ctrip and investment fund All-Stars Investment. The deal valued Tujia at more than \$1.5bn. Founded in 2011, Tujia operates an online platform that enables users to rent out their homes to each other for short-term stays.

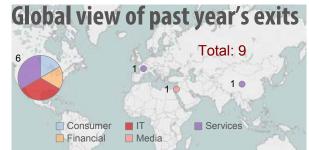
Exits

Corporate venturers from the services sector completed nine exits between January and December 2017 – eight acquisitions and one merger. These figures were a sharp and significant decrease from the 22 transactions recorded in 2016. The estimated value of exits dropped to \$805m, from \$906m the previous year.

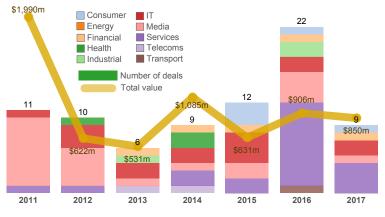
The table shows the four reported exits, arranged by transaction size, in which services-focused corporate venturers are investors that are either exiting or acquiring the business.

Enterprise software provider Sage Group agreed to acquire US-based financial management software provider Intacct in an \$850m deal, enabling payment services provider American Express and professional services firm Deloitte to exit. Founded in 1999, Intacct has built a cloud-based platform for enterprises that incorporates cash, inventory, contract and vendor management as well as accounting, purchasing, financial consolidation, revenue recognition, subscription billing, financial reporting and project and fund accounting.

Supply chain management company E2open acquired US-



Services sector exits 2011-17



based business planning software provider Steelwedge in an all-share deal that gave property developer JF Shea an exit. E2Open provides software that helps companies operate their supply chain networks. Founded in 2000, Steelwedge has built a software platform that combines elements including product, sales, supply and demand, strategy, operations and finances in a single place, enabling businesses to put together plans spanning multiple markets.

France-based courier service Stuart was acquired by GeoPost, a subsidiary of mail and logistics services provider La Poste, for an undisclosed sum. Founded in 2015, Stuart operates a last-mile delivery service aimed at a vast range of sectors from retailers to restaurants. Its platform can be integrated into a business's existing checkout infrastructure to offer real-time tracking. The company's network of independent couriers uses a variety of vehicles, including bicycles, cargo bikes, mopeds and cars. Nearly 90% of deliveries are made on foot or by bike.

URWork agreed to merge with competitor and incubator New Space. The deal created a company with a valuation of RMB9bn. URWork runs a network of shared working spaces and also provides services such as marketing, accounting and human resources to startups. Founded in 2015, New Space runs its own working spaces and also supplies incubation and fundraising services to startups.

Cloud infrastructure technology producer VMware acquired Apteligent, a US-based provider of mobile app perfor-

Top exits	Fop exits by services sector corporate investors over the past year								
Company	Location	Sector	Exit type	Acquirer	Exit size	Investors			
Intacct	US	Financial services	Acquisition	Sage Group	\$850m	American Express Battery Ventures Bessemer Costanoa Venture Capital Deloitte Emergence Capital Partners Goldman Sachs Hummer Winblad Venture Partners JK&B Capital Morgan Creek Capital Management Sigma Partners Split Rock Partners			
Steelwedge	US	IT	Acquisition	E2open	-	JF Shea (Shea Ventures)			
Stuart	France	Services	Acquisition	GeoPost	-	GeoPost			
UrWork	China	Services	Merger	New Space	-	Ant Financial Dahong Group Junfa Group Shanghai Chuanghehui Fund Tianhong Asset Management Tianming Shuangchuang Technology Yintai Land			
Apteligent	US	IT	Acquisition	VMWare	-	Accenture Alphabet AOL InterWest Kleiner Perkins Caufield & Byers Opus Scale Venture Partners VMWare			
vBrand	Israel	Media	Acquisition	Nielsen	-	Nielsen			
Applause	US	Services	Acquisition	Vista Equity Partners	-	Accenture Credit Suisse Egan-Managed Capital Goldman Sachs Longworth Venture Partners Mass Mutual Mesco Questmark Partners Scale Venture Partners			
August Home	US	Consumer	Acquisition		-	AGL Energy Comcast Creative Artists Agency KDDI Liberty Mutual Qualcomm Sandisk Singtel (Innov8)			
Trip.com	US	Services	Acquisition	Ctrip.com	-	Battery Ventures Expedia Homeaway Redpoint Ventures			

mance management software, for an undisclosed sum, allowing the subsidiaries of corporates Alphabet, Accenture and online service provider AOL to exit. Founded as Crittercism, Apteligent has built a software platform that enables developers to monitor app performance and user behaviour in real time.

Media and market research data provider Nielsen acquired one of its portfolio companies, vBrand, the Israel-based creator of a data analytics platform for sports media, for an undisclosed amount. The deal means vBrand and its machine learning technology, which uses image recognition to track the impact and reach of sports sponsorship across television and online media, will be incorporated into the Nielsen sports division. The company was a graduate of Nielsen's incubator, Nielsen Innovate, which the corporate launched in Israel in 2013 with \$25m in funding.

Investment firm Vista Equity Partners agreed to acquire Applause, a US-based digital brand services provider backed by Accenture, for an undisclosed amount. Originally known as UTest, Applause uses a software platform and a 300,000-strong network of what it calls on-demand digital experience experts to help brands ensure their websites, apps, internet-of-things products and in-store customer service are high quality. The service means clients can use a combination of digital testing, user feedback and market intelligence to determine whether new software or products will be received well by customers.

Lock manufactuer Assa Abloy agreed to acquire US-based smart lock producer August Home for an undisclosed amount, enabling eight corporates to exits: energy supplier AGL, talent agency Creative Artists Agency, mass media group Comcast, insurance firm Liberty Mutual, chipmaker Qualcomm, data storage provider SanDisk and telecoms groups KDDI and SingTeI. Founded in 2013, August Home provides smart locks allowing users to control access to their homes through their mobile devices. The company's products are compatible with Google Home, Amazon Alexa, Apple HomeKit and other smart home hubs.

China-based online travel agency Ctrip acquired US-based travel planning platform Trip.com for an undisclosed amount, providing an exit for online travel services provider Expedia. Originally known as Gogobot.com, Trip.com offers travellers personalised recommendations for places to eat, stay and visit using predictive intelligence that takes into account various factors including location and weather. Users can book hotels, restaurants and event tickets based on the platform's recommendations.

GCV also reported exits of emerging services-related enterprises that involved corporate investors from other sectors, most notably the telecoms, consumer and IT sectors.

Best Logistics, a China-based logistics service backed by e-commerce group Alibaba, raised \$450m in an IPO in the US. The company priced 45 million American depositary shares on the New York Stock Exchange at \$10 each, at the foot of the \$10 to \$11 range it had set. Alibaba had considered buying up to \$150m of shares in the IPO but did not ultimately do so. Best Logistics provides supply chain services such as warehousing and last-mile package delivery through third-party affiliates which use its technology platform. It serves more than 500 corporate customers as well as a range of small and medium-sized businesses.

Despegar, an Argentina-based travel and accommodation booking marketplace backed by Expedia, raised \$332m in an IPO on the New York Stock Exchange. The company issued almost 12.8 million shares at the top of the \$23 to \$26 range it had set earlier. Founded in 1999, Despegar runs an online platform that sells flights, holiday accommodation package holidays on behalf of third parties. Even though the platform, known as Decolar in Brazil, was responsible for \$3.3bn in bookings in 2016, and Despegar made a \$17.8m net loss that year from \$411m in revenue.

Consumer internet group Sea invested \$64m to acquire an 82% stake in Foody, a Vietnam-based online restaurant

Company	Location	Exit type	Acquirer	Size	Investors
Best Logistics	China	IPO	-	\$450m	Alibaba Brackenhill Tower Broad Street Principal Investments Cainiao Smart Logistics CDH Investments Denlux Logistics Invest Florence Star Worldwide Hina Group Hong Kong Jiashi International Group International Data Group Orchid Development Holdings Walden International
Despegar	Argentina	IPO	-	\$332m	Accel Partners Expedia General Atlantic Insight Venture Partners Sequoia Capital Tiger Global Management
Foody	Vietnam	Acquisition	Sea	\$64m	CyberAgent GITPx Pix Vine Capital Tiger Global Management
Housing.com	India	Merger	PropTiger	\$55m	News Corporation SoftBank
Shotspotter	US	IPO	-	\$30.8m	Claremont Creek Ventures Labrador Ventures Lauder Partners Motorola Solutions RT Groos
Zimmber	India	Acquisition	Quikr	\$10m	Aarin Capital International Data Group Omidyar Network
Reach150	US	Acquisition	SmartZip Analytics	-	Intel Orix USA Second Century Ventures
Rover	US	Merger	DogVacay	-	Petco
PetCoach	US	Acquisition	Petco	-	Brock Weatherup Comcast DreamIt Ventures Maveron Pet360
UrWork	China	Merger	New Space	-	Ant Financial Dahong Group Junfa Group Shanghai Chuanghehui Fund Tianhong Asset Management Tianming Shuangchuang Technology Yintai Land
Wanderful Media	US	Acquisition	OwnLocal	-	Advance Digital AH Belo Community Newspaper Cox Media Group Gannett GateHouse Media Graham Holdings Hearst Lee Enterprises McClatchy MediaNews Group EW Scripps

listings platform that counts internet company CyberAgent as an investor. Sea's acquisition of a majority stake in a Vietnam-based restaurant booking and food ordering platform was revealed in the filing for its IPO, though the details of the deal were obtained from a source. Founded in 2012, Foody operates a local discovery service that helps users find nearby restaurants, cafés and take-away outlets, allowing consumers to order food from, and leave reviews about the establishments.

Housing.com, an India-based real estate listings portal backed by SoftBank, was merged with competitor PropTiger in an all-share deal for \$55m. Housing.com was valued at \$70m to \$75m in the deal, while PropTiger was valued at \$200m to \$210m. The deal follows a six-month endeavour by Housing.com's owner Locon Solutions and its lead investor SoftBank to find a suitable buyer. The merged company also received a \$50m investment from Rea Group, a real estate advertising company owned by mass media conglomerate News Corp, and \$5m from SoftBank. Housing.com runs an online realty portal that has listed millions of properties since it was launched.

Communications technology producer Motorola Solutions exited US-based gunfire detection and analysis technology producer Shotspotter in a \$30.8m IPO on Nasdaq. The company issued 2.8 million shares at \$11 each, in the middle of the \$10 to \$12 range it had set earlier. Its shares closed at \$13.86 on its first day of trading. Shotspotter provides gunshot detection and location technology to law enforcement and security services through a software-based subscription model. The system combines cloud software with internet-connected sensors and communication networks.

Online classifieds company Quikr acquired home services start-up Zimmber for about \$10m in an all-stock deal. The transaction was part of a series of acquisitions made by India-based unicorn Quick last year in the home services vertical. Zimmber was previously backed by IDG Ventures India, the local venturing subsidiary of International Data Group (IDG). Founded in 2014, Zimmber operates an online marketplace for home repairs designed to offer trusted home services. The company currently handles jobs like bike, car and sofa cleaning, handyman services as well as appliance repairs.

Second Century Ventures, the venture capital arm of trade association the National Association of Realtors, exited referral management platform Reach150 in an acquisition by marketing technology producer SmartZip Analytics for an undisclosed amount. SmartZip, a developer of predictive marketing technology for the real estate industry, will integrate Reach150's technology into its SmartTargeting software. Reach150 has built a referral management platform that generates online advertising through an app that can request, review and publish recommendations from past clients.

Rover, a US-based dogsitting service provider backed by pet products retailer Petco, joined forces with DogVacay, a USbased online and mobile petsitting platform. The two companies hope the deal will help them accelerate international expansion efforts. Founded in 2012, DogVacay enables owners to book a stay for their pet with a host while they are out of town. Rover operates an online marketplace for owners to book dog sitters and walkers, allowing owners to track activity and see photos of their pet through an app.

PetCoach, the US-based petcare services platform backed by mass media group Comcast, was acquired by pet product retailer Petco for an undisclosed amount. PetCoach operates a platform that enables animal owners to connect with certified vets, pet nutrionists, trainers and groomers to receive personalised advice on improving the welfare of their pet. Brock Weatherup, co-founder and chief executive of PetCoach, will join Petco as executive vice-president for strategic innovation and digital experience.

Wanderful Media, a US-based deal finding platform backed by a host of media companies, was acquired by advertising



technology producer OwnLocal for an undisclosed sum. The companies shareholders were Advance Digital, AH Belo, Community Newspaper Holdings, Cox Media, EW Scripps, Gannett, GateHouse Media, Graham Holdings, Hearst, Lee Enterprises, MediaNews and McClatchy Company. Founded in 2011, Wanderful operates a platform called Find&Save that allows users to browse deals and coupons from local newspapers, retailers and other sources through Wanderful's website and app.

Funds

Through 2017, corporate venturers and corporate-backed VC firms investing in the services sector secured over \$3.67bn in capital via 27 funding initiatives, which included 18 corporate-backed VC funds, two new venturing units, four accelerators and two incubators. On a calendar year-to-year basis, the number of initiatives decreased, from 32 in 2016 to 27 last year. Total capital also went down from \$4.44bn to \$3.67bn over the same period.

China-based consumer electronics producer Xiaomi is set to invest up to \$1bn in 100 India-based startups over the next five years. Xiaomi joined forces with its venture capital affiliate Shunwei Capital as it seeks to build an ecosystem of mobile apps around its smartphones. Its investments will focus on manufacturing, entertainment content, fintech and hyperlocal services such as phone repairs. The corporate, which entered India in 2014, hopes the investments will help create more loyalty among Indian users.

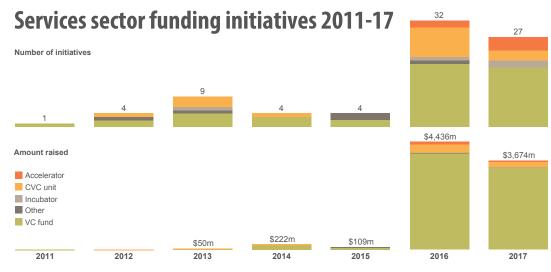
Germany-based e-commerce and online services holding company Rocket Internet closed its dedicated venture capital fund, Rocket Internet Capital Partners (RICP), at \$1bn. The final close represented RICP's hard cap, and Rocket Internet has claimed it is the largest internet-focused fund in Europe. RICP will target online companies in sectors including marketplaces, e-commerce, financial technology, software and travel services.

New Oriental Education and Technology announced plans to form a RMB2bn fund to invest in startups. The early-stage fund will be created alongside a \$1.52bn fund that will focus on growth-stage investments and merger and acquisition deals. Both vehicles will concentrate on companies in the education sector and will seek opportunities across the globe. The corporate intends to leverage its resources to help scale portfolio businesses, and is particularly keen on companies that exploit artificial intelligence to generate new education technologies and services.

China-based local services platform Meituan-Dianping formed a RMB3bn venture capital fund that will invest in the consumer internet sector. The firm was formed in late 2015 by the merger of group buying specialist Meituan and local listings and reviews platform Dianping in a deal worth \$15bn. The merged business raised another \$3.3bn in a January

Funding initiative	Туре	Funds raised	Location	Focus
Unnamed Xiaomi India fund	VC fund	\$1bn	India	Seeks to build an ecosystem of mobile apps around its smartphones, focusing on manufacturing, entertainment content, fintech and hyperlocal services such as phone repairs
Capital Partners in		Germany	Early and growth-stage deals, targeting online companies in sectors including marketplaces, e-commerce, financial technology, software and travel services	
Unnamed New Oriental Fund	VC fund	\$304m	China	Leveraging corporate resources to help scale portfolio businesses, particularly keen on companies that exploit artificial intelligence to generate new education technologies and services
Unnamed Meituan- Dianping Fund	VC fund	\$217.5m	China	Investing in companies operating in the retail, entertainment, food and beverage, hotel and tourism sectors in a bid to build an ecosystem around Meituan-Dianping's offering
Fifth Wall Ventures	CVC unit	\$212m	US	Focused on technologies that feed into the "built world", the ecosystem of companies that own and operate space, as well as those developing technologies that can modify and innovate how space is accessed and used
Samsung Next Fund	VC fund	\$150m	US	Invests in early-stage advanced software and services startups at seed to series B stage, targeting technologies including virtual reality, artificial intelligence and the internet of things
Unnamed Project A Fund	VC fund	\$148m	Germany	Targets fintech, human resources, insurance technology, property technology and industry 4.0. Will expand its focus to include digital health business-to-business and vertically integrated consumer brands for the new fund
Elaia Delta Fund IV	VC fund	\$125m	France	Will focus on Europe-based, early-stage companies developing digital technologies in the business-to-business or business-to-business-to- consumer spaces
YI Capital Fund I	VC fund	\$110m	China	Looking to back industrial internet startups in the accommodation, transport and financial services industries
Unnamed Prestellar Ventures Fund	VC fund	\$100m	Singapore	Invests in startups operating in the hospitality, consumer, financial services and rural product and services sectors, targeting deals in India, Sri Lanka, Bangladesh, Nepal and Southeast Asia





2016 round featuring internet group Tencent. Meituan-Dianping intends to initially raise RMB1.5bn for the fund, and in addition to providing capital itself, is set to secure finance from Tencent and agribusiness New Hope Group. The fund will invest in companies operating in the hotel and tourism sectors as well as in retail, entertainment, food and beverage, in an attempt to build out an ecosystem around Meituan-Dianping's offering.

US-based venture capital firm Fifth Wall Ventures was launched with \$212m from a syndicate of limited partners that includes several corporates, and will invest in real estate technology developers. Fifth Wall's anchor investors are real estate services provider CBRE, real estate and warehouse logistics company Prologis, house builder Lennar, office space developer Hines, apartment owner Equity Residential and real estate investment trusts Macerich and Host Hotels & Resorts. Home improvement retailer Lowe's is also an investor, as is real estate holding company Rudin Management Company. Fifth Wall is concentrating on technologies that feed into what it calls the "built world", an ecosystem of companies that own and operate space, as well as those developing technologies that can modify and innovate how that space is accessed and used.

Korea-based consumer electronics producer Samsung launched the \$150m Samsung Next Fund to invest in early-stage advanced software and services startups. The fund will be overseen by Samsung Next, the open innovation division formerly known as Samsung Global Innovation Centre, which has offices in San Francisco and Mountain View in California, as well as New York, South Korea and Israel. Samsung Next Fund will back startups at seed to series B stage, and is targeting technologies including virtual reality, artificial intelligence and the internet of things.

Germany-based venture capital firm Project A closed a €140m (\$148m) early-stage fund with contributions from several domestic corporates: retailer Otto Group, broadcaster ProSiebenSat.1, diversified holding company Franz Haniel & Cie, games and toy maker Ravensburger, food producer Dr Oetker and publishers Axel Springer and Gruner & Jahr are all limited partners in the fund. The European Investment Fund is also cornerstone investor in the fund. Project A targets the human resources, fintech, insurance technology, property technology and industry 4.0 sectors.

France-based venture capital firm Elaia Partners reached the first close of its latest fourth fund, having raised €115m from limited partners (LPs) including real estate services provider Nexity and energy utility EDF. Elaia Delta Fund's other LPs include airport operator Groupe ADP, insurance firm Mgen and financial services firms Bred Banque Populaire and BNP Paribas, as well as state-owned investment bank BPIfrance and the multilateral European Investment Fund. Elaia Partners IV will focus on Europe-based, early-stage companies developing digital technologies in the business-to-business or business-to-consumer spaces.

China-based venture capital firm YI Capital closed a first fund at RMB800m after securing home appliance manufacturer Joyoung as a limited partner. Joyoung was joined by national industrial guidance fund Zhongjin Qiyuan and Citic Industrial Fund of Funds, part of alternative investment management firm Citic, as well as additional publicly-listed companies and state-owned guidance funds. Founded in 2014, YI focuses on online and IT technologies that will enable traditional industrial companies to upgrade. In particular, the firm is looking to back industrial internet startups that will participate in the accommodation, transport and financial services industries as well as those providing other traditionally offline-based services.

Singapore-based venture capital firm Prestellar Ventures raised \$100m for a fund that counts Nepal-headquartered conglomerates CG Corp Global and NE Group as general partners. The fund's other GPs are India-based microfinance provider Satin Creditcare and Mauritius-registered private equity firm Frontline Strategy. Prestellar will invest in startups operating in the hospitality, consumer, financial services and rural product and services sectors, and is targeting deals in India, Sri Lanka, Bangladesh and Nepal in South Asia, as well as in Southeast Asia.



People

David Harris Kolada left OpenText, the enterprise software producer whose corporate venturing activities he led, to form venture capital advisory firm DHK Ventures. Kolada was hired by OpenText from cleanech fund Sustainable Development Technology Canada in 2015 as vice-president of venture capital, and he oversaw direct CVC deals as well as fund-of-funds investments. Further details of DHK Ventures were not disclosed.



Brian Walsh, short-lived head of Japan-based Konica Minolta's innovation strategy and new venture development efforts for North America, joined management consultant McKinsey's New Ventures Fast Growth Tech practice. At Konica Minolta's Business Innovation Centre, Walsh led an investment into robotics startup Knightscope that included a "significant strategic partnership".

Jeannine Sargent, president of innovation and new ventures at Flex, a US-based logistics services company, became a senior adviser at fund manager Generation Investment Management. Sargent had spent nearly six years at Flex, "responsible for worldwide innovation activities including Innovation labs, global design and engineering, launching new product businesses, the Lab IX technology accelerator, and corporate and venture investments".



Interview: Michael Redding, head of Accenture Ventures

Robin Brinkworth, reporter

You have been at Accenture for a while. How has the company changed, and more specifically, how has Accenture Ventures changed Accenture?

I have been at Accenture, as you said, for a long time. I joined at the tail of the mainframe era, and now we are dead in the middle of the digital era. The evolution of Accenture has really been from a classic consultancy into a services partner for our enterprise clients. We have gone from these point technologies to the digital ecosystems which are the storylines of today, so we have had to reimagine ourselves.

The role we have at Accenture Ventures is to make sure that Accenture has a systematic approach to emerging and disruptive technologies. We announced our first blockchain investment two years ago, and now those first investments are starting to be deployed at scale. Everyone said: "Oh, blockchain is going to be important." Accenture invested in Digital Asset Holdings' blockchain platform, and the Australian Stock Exchange announced in December 2017 that they are going to replatform their exchange on to a digital asset-based architecture. Accenture is in the story because of Accenture Ventures working with our business to say: "We believe blockchain is the future. Where can we put a stake in the ground?"

Is Accenture Ventures primarily a financial vehicle for Accenture, or are strategy and innovation more important?

As you look at the spectrum of corporate venture plays, we wholeheartedly embrace the end of the spectrum that is corporate strategic. I do not do a deal unless I have a sponsor, who has a Accenture services business case that rationalises why we should invest in an individual company. Of course, we want to do well on the capital return, but we do not even estimate a potential return on equity when we consider the investment. We entirely base it on: "How does this drive the organic growth of our business?" If it is sufficient strategic growth, then we would consider the investment.

What does Accenture offer to potential portfolio companies beyond just the cash investment?

I always like to say that we should be nervous about any startup that needs Accenture's money, as we are quite frankly nothing compared with the world-class VCs and corporate VCs that are out there. It is not about the cash, it is about the



go-to-market. If you are a startup and your target customer base is the world's biggest companies, would you not want to partner the number-one services firm that serves those companies?

Generally, we are going to invest in a B or C round company, so they have got product and early market traction, and they are ready to scale. They are in this conundrum – they have got engineering talent, and they have probably have a small client success or services arm. We come in and say: "You still do what you do best, which is to engineer the heck out of your technology; and we will wrap the services, the delivery side, and the industry verticalisation around you, so that you do not have to."

Can you elaborate on tending towards B and C rounds and how you would approach a potential investment in a company you like, depending on its stage of development?

The business case is predicated on Accenture's revenue opportunity. A B or C round company is going to have some momentum in the market already. There is a fact-base that we can then extrapolate from. How many more clients are there in that industry? How many more clients can we work with in side-industries? The more defined they are, the clearer that is. To go earlier, you are matching technological, market, and organisational risk, and the more of each you have. We default to this – we do not want to start the fire, we want to pour gas on it.

One of our plays is with a vertical softeare-ss-a-service play called nCino. They do commercial lending on top of Salesforce. nCino started in North

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America and cut their teeth on small and medium financial institutions like credit unions. We partnered them to break into their first tier-one bank. After that, we said: "Wow, this is going to sweep the industry." We invested. We have swept through quite a few of the North American tier-one banks, and now we are working with them on sweeping European banks. They had their regulatory frameworks down, they already had live customers, and they were ready to break into the big leagues. That is an example of meeting at the right time, making the right deal, and away we go.

Whereas nCino is an industry application, when you go into a new technology sector – like quantum or blockchain – you are going to have to take on more risk. You have to go upstream a little bit, and go to an earlier stage, knowing that there is a higher probability that you may not partner with the right one, because the market has not spoken yet.

The 1QBit deal seems like quite a strong example of that approach.

We believe quantum is the future – the question is when. If I had a crystal ball and could tell you that August 2019 was the date that quantum goes big, I would bet everything I have, retire and go live in Monte Carlo and watch my cash roll in. Like with blockchain, we need to put a stake in the ground. By investing, we have skin in the game, and therefore we have an institutional commitment to the domain, and in particular to 1QBit in this case, such that, if they can be successful with us, we can be successful together. The market will tell us who the winners and losers are, but we believe these guys have the potential.

This year, one of the recurring themes from our annual Rising Stars publication was the lack of coordination and understanding from corporate parents for venture units. How does that relationship work at Accenture?

Everyone is different, what works for us is that we are not a separate unit. We are not a fund, we are in-house, and we



are investing from the balance sheet. I am still in our leadership hierarchy. I have two bosses, one of which is our chief technology officer. We are always aligned to Accenture's business and partner strategies. Every quarter I sit down with a roster of people who own the divisional business strategies and say: "Where do your priorities lie? Where is your business going? Where are there individual partners we could pour gas on? Or do you have a hot topic that I could go research and go find a partner for you, because the signal has not yet risen from the noise?"

It does not hurt that because I have been here long enough, I know all the business runners. It is a network culture. They are willing to take my call, they are willing to listen, and they are willing to share their business priorities, because my success is their success.

Is there is an inherent advantage to being in-house, compared with being external?

We are a services firm versus a bank or a product company. We all have different business models, because its ultimately a choice of the C-suite to deploy hard-earned money in some new manner.

The benefit of a corporate venture arm should be to leverage the parent, whether you are inside or outside, because that is what differentiates you from one of a thousand other people with chequebooks, like a Sand Hill Road venture function. You have got millions of dollars? So does everybody else. It comes down to your competitive advantage, which could and should be your parent. Your job, whether inside or outside, is to bridge that, and use that to your advantage.

Going back to the nCino example, we have relationships with all their targets. If the top 25 banks in the world are their ultimate targets, we are probably at 23 or 24 of them already. The team that is bringing them to market can ring doorbells and say: "Let me introduce you to our Bank of X team, our Bank of Y team, and our Bank of Z team", "Oh, the head of commercial lending, Suzie, she is already a customer", or "We do not know Suzie but we know Steve, the chief information officer, and let's see if he would like to bring this to Suzie's attention".

How would you summarise Accenture's key focus areas and the strategy with which you approach investments?

We are going to rigorously index what the enterprise needs. The Uber of X is not interesting to us, because we are not a consumer play. That might be interesting to a VC, but that buyer from us is the enterprise who has to use it. For us, it always comes down to what it is worth to the enterprise.

There is applied intelligence, the intersection between artificial intelligence and big data. We are still in the first innings of what the cloud means. It is also all things digital, which really gets towards how the end-users, whether employees or customers, engage with the enterprise. That is where we pick up everything from digital marketing to augmented and virtual reality.

There is Industry x.0, pushing IT further into industry or manufacturing. Many industries are still straight-up 20th century – the 21st century has not yet dawned.

There is the transformation of the workforce, things like crowdsourcing and digital collaboration. Then we are going to get the outliers, things like quantum, which may shake the very foundations of current technological assumptions.

When you are looking at investments, do you think about exit strategies, or do you cross that bridge when you come to it?

We are not a fund, so I do not need to exit. I would like my money back, and I would like it to have appreciated, but I am not like: "Oh it is eight years in, I have got to get out." I am never going to force an exit – it is not in our nature.

For us, exits are a bit fraught, because we are concerned about what this does to our client's business continuity. They get acquired – what is the acquiring company going to do with that customer base? They IPO – great, do they stay solo or do they become an acquisition target for someone? We want our investments to be the next Workday, the next Microsoft and so on. We want them to have a 10, 20, 30-year lifecycle, because that is what most of our enterprise clients are going to use them for. There are systems created in the 1960s that are still alive.

How do you evaluate a potential portfolio company's leadership?

The question always comes down to whether this technology is a feature or a platform. Are you going to use them to build something else, or are they going to be the foundation of a business capability? If they are going to be the foundation, then we want to look to see if the leadership has that intent.

Some people have argued that some geographies are "built to flip" – build to a certain point and sell it. If that is their intent or their nature, we want someone else. Now, there are still market forces, or they get an offer they cannot refuse. Things will happen, and there will be exits.

Are there any deals in the pipeline, or is everything hush-hush?

At this point everything is a little hush-hush. I do not have anything written in a document that we could circulate. Our next announcement, knock on wood, would be no later than mid-February. Fingers crossed, we should have two or three deals by the end of February, given our pace is about eight to 10 deals a year.

Global Corporate Venturing

"They are willing to take my call, they are willing to listen, and they are willing to share their business priorities, because my success is their success"

A stereo focus on the global impact of Chinese progress

In this edition of Gaule's Question Time we look at two perspectives on technology and business in China, as the Year of the Dog starts February 16



Andrew Gaule, left, talks Tim Hardin, vice-president and head of corporate banking, SPD Silicon Valley Bank in Shanghai, China

Give us a brief introduction to yourself.

I have been with Silicon Valley Bank or one of its interests for nearly 22 years. I am currently with the joint venture we formed in 2012 with Shanghai Pudong Development Bank, SPDB. So it is the 50-50 joint venture between Silicon Valley Bank in the Silicon Valley California, US, and Shanghai Pudong Development Bank, which is the sixth-largest bank in China, headquartered here in Shanghai.

Let us talk about what is developing in China. People say: "China just copied products and software from the west." Do you believe this is true, and which sectors do you think are changing fastest?

There has certainly been a history in the past of that being the case, where intellectual property was not appropriately recognised in China, so there was that aspect of copying. I have personally seen that fundamentally changing over the last several years. Now I am seeing business model innovation and technology innovation originating from China and moving outward from this market as it gains a foothold, first domestically here in China, and then in Southeast Asia and then potentially more broadly than that.

A few industries specifically have garnered the most press. The sharing economy is one example. The adaptation of shared bikes is I think the one company or the one group of companies that gets press globally, but it is broader than that as well.

One area I have found the most interesting is the life sciences industry. China was one of the world's manufacturers and one of the world's labour markets, and the life sciences industry here five years ago was largely outsourced labour, highly-skilled labour, but in the form of clinical research organisations (CROs) for the large global drug companies, the Mercks and GSKs of the world, for example.

And over the last several years we have seen a lot of those scientists and practitioners migrate from the CROs into drug discovery, drug development companies of their own. Which is really exciting.

What sort of valuations are you seeing in China compared with other markets?

I have never been in a market in which the investors were not complaining about the valuations. I was with an investor just last week that has funds in China, funds in the US, and funds in Israel and in India. They were commenting that the US and China market are largely on par at the series A, series B stage. Then if you look upmarket from there, at the unicorn stages [companies worth at least \$1bn] the valuations of some of the larger companies in China are comparable to those in the US.

Tell us about the Bat – Baidu, Alibaba, Tencent – the leading Chinese and online businesses built up behind the great Chinese internet wall, and about their scale, speed of change and the different business models?

Those are the three largest internet companies in China. They are comparable to Google, Amazon, Apple and Facebook in the US in terms of both where they sit in the large, corporate technology ecosystem and in their valuations.

Baidu started in search and is the Google counterpart. They have been very active as an investor and acquirer of other companies, and now making a very strong play into artificial intelligence. Alibaba is the e-commerce juggernaut, so they would line up with Amazon. The one thing Alibaba does quite differently from Amazon is that they are also one of the largest consumer payment gateways. Every middle class and up Chinese local would have an Alipay account. Tencent is the largest social network in China, with a product called WeChat – everyone in China has a WeChat account, and that is how they message each other, that is how they share their moments, which are like Instagram or Facebook posts, and they use Tencent's form of payment.

So WeChat has a payment function and Alipay has a payment function, and nearly every person in China has both, and nearly every retailer in China from the largest to the very smallest can take either Alipay or WeChat. I lived in China 2011, 2012 and 2013. When I left it was an entirely cash-based economy. I came back earlier this year and cash is all but gone. There is a supermarket in our building here downstairs that is majority owned by Alibaba and they take only Alipay. They will not accept cash.



Global Corporate Venturing

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These companies can scale domestically, and achieve great scale domestically. But we have already seen all three of the Bat investing outside China, into similar businesses. So for example, Tencent, which is the gaming company, Supercell – a large European gaming company – has invested in other e-commerce companies. Both Tencent and Alibaba had invested significant funds in Flipkart in India and Lazada in Indonesia, for example.

I think the investment is the first foray into those markets, and they follow with their technology and business models. I think it is inevitable that they reach the west. I do not think their intent is to jump across the pond directly from China into the US, but rather throughout Southeast Asia. Having said that, it would not surprise me if for the next year or two we start to see either WeChat or Alipay make a foray into western markets directly.

I have outlined my term "innovative new value chains" – connecting new technologies, different startups and corporates to create different business models. How will China play within these innovative new value chains in terms of manufacturing tech or the social side of things?

I think they will play ultimately on both fronts. You will see large Chinese companies, both state-owned and privatelyowned, reaching into other markets to pick up technology to grow beyond their own R&D capabilities, and then you will see a number of those global corporates reaching into China, looking for both access to the market, but also access to technologies and innovation that are being brought forward in China before they are brought forward elsewhere.

I will give you one example. I do not have permission to give the name, but it is one of the largest furniture manufacturers and retailers in China. They have come to us saying: "We recognise that we are not in the flow of information that we think we need." They have asked us to help them source, for example, internet-of-things and connected-home relationships in the US technology market.

Do you have any insights on outside corporate venturing into China?

The ones that have been successful have feet on the ground. It is really challenging to do that from outside the market. Companies like Intel, for example, are examples of success on the CVC side. I had breakfast with the chief financial officer of Intel a couple of weeks ago, and he said 25% of their market is in China, and growing, so for them it is absolutely critical that they are here on the ground.

Companies here are more complex because of the nature of the currency challenges – with the renminbi and US dollar access, or lack of access, they get quite complicated quite young. But there is still an opportunity for a foreign dollar or sterling-denominated investor to be on the ground here and actively engaging with even very young companies.

What are you doing to relax - particularly in China?

I am a cyclist, occasionally braving the roads here, either on my own bike or a Mobike or Ofo, one of the shared bikes. And when the roads are not cooperative I ride in an online game called Zwift, which is a lot of fun.



Andrew Gaule, left, talks to Min Zhou, managing partner, China Materiala



Giving us a brief introduction to yourself.

I have a bit of an unusual background in that I grew up in China and I graduated from Tsinghua University before coming to the US with a scholarship. In total I spent 17 years in the US before moving back to China in 2010.

I started as a scientist. I did my PhD in material science at University of Southern California and then did R&D for six years at Rockwell Scientific. And then when Unilever started its corporate venturing back in 2003, I was fortunate to be one of the very first people they recruited to run the material science platform.

So that got me into venturing. I was with Unilever Tech Ventures for four years, and then I moved to a Silicon Valley Bank Capital, and did two years of fund-of-funds investing, responsible for the Chinese market. Those two years gave me a taste of looking at the overall venture capital space in China, and assessing funds and the type of companies they invest in.

So when I moved back to China in 2010, I had a corporate venture background and an understanding of the Chinese venture capital space, and I thought I wanted to start something different in China, which is to bring a hybrid of corporate venture and institutional venture to China and really looking at early-stage investing.

We started in 2010 with a bit of consulting. We started our first fund in 2011 with about \$25m of renminbi. That was a partnership involving the government and private individual investors in China. This was the first year the Shanghai government started its Government Sponsored Fund program for venture capital, so we were fortunate to be selected as one of the first 12 funds.

In 2016 we started our second fund, which is about \$60m of renminbi. Ve significantly updated our limited partner base. We still have government backing, which accounts for about 30% of the fund, and we have 10% private companies, and the remaining 60% is contributed by five multinational companies. We have GE, Samsung, BASF, BAT and Sabic all

investing in our second fund.

There are some common themes among the five corporates. First of all, they are all interested in the materials, manufacturing, digital industrial space. And second they are all first time investing in China in these spaces.

What are the contrasts between the Chinese and US technology ecosystems?

For a long time, China's entrepreneurial ecosystem was described as "wild west". I would still say it is probably a bit true now, because there are a lot more players in the ecosystem, it is much less organised, it is much less institutional, and a lot more dynamic and more chaotic in a way. China has a lot more entrepreneurs and a lot more investors. So unlike institutionalised VC firms in Silicon Valley in the US, we have investors from individuals to big corporates. They might do it ad hoc, they might have organised VC, and the VC firms themselves change much more rapidly. You have newer firms established, people leaving their old firms, getting new firms set up, on a daily basis.

Second, government plays much more of a role in this ecosystem compared with the west. So a lot of the hot topics or a lot of the hot investment structures are somewhat tied to government policy. For example, when the government started in 2013 or 2014 to encourage semiconductor development, all of a sudden we had 100 times more investment in semiconductors.

Tell us how China Materiala works, and the investors you have, why and how they are investing.

We must be a very unique firm in the sense of having both government investment and multinational companies in one fund, and it was a long and challenging process to bring all parties together. It is important to have government backing in the sense that the government plays an important role in the ecosystem. And a lot of entrepreneurs look for firms with government backing as a credibility mark.

We appreciate interaction with multinational companies. Each of our investors is a little bit different, but they are all first time in China, directly investing in China through our fund. So they are all doing this as their first experience.

The corporates bring to our fund a lot of industry insights, what they see globally, but more importantly also they bring their local access, their local markets and engagement to bear. That is very important to our startups. So almost all the companies in our current portfolio interact with our corporate investors. And it is one of the reasons they want our money – there is a lot of value added by our corporation.

It probably makes a lot of sense to invest in a fund because you need time to understand the market, to look at steadier flow and also to get together to have a bigger presence. Ours is a \$60m fund and it is still not a huge fund in China. But if you do it alone and you only have \$10m to play with, then you are much less visible in the marketplace.

Also, as the market is very dynamic and very chaotic, you need a local partner with a team to screen and understand the changing picture of the startup field.

China's technologies and scale and new ways of doing online and mobile commerce are important in generating what I term "innovative new value chains". How is China playing in these innovative new value chains globally?

We had this big Innovation China Conference sponsored by GE with speakers from a dozen multinational companies and startups. One of the core things that came out of that conference is that if you look at China's huge manufacturing base, the digitisation of traditional industries not only changes manufacturing but it really impacts how the business model for traditional business-to-business will work. So it has a far-reaching implication in terms of the new value chain. For example, previously equipment was sold, but usually 95% of equipment actually is not utilised the whole time. So there is a trend to purchase the services rather than purchasing assets.

GE talked about predictive maintenance, where you are predicting when the equipment needs to be maintained and giving the service provider revenue as well as saving customer costs.

Business-to-business is learning from business-to-consumer in terms of how the products are sold, the customer service and so on, because right now, with the digital tools, your product can create an opening for you to connect with your customers directly, rather than shipping the product to a distributor.

How do you think views of China are changing?

We are seeing a whole lot more entrepreneurs. These days, entrepreneurs are getting younger and bolder, and they also have more global mindsets. A recent example is this bike-sharing already coming out of China, spreading globally within a very short time period of starting up in China. It is a good example of how these companies had a global market in mind when they started, even in China.

We are really seeing accelerating innovation. People say China was good at copycat, but while you can copy a product, it is actually very difficult to copy a business model, because China is so structurally different, especially if you are in the business-to-consumer business. Consumer behaviour, consumer pace, the culture, the way of doing business are very different. So even if the product is similar, how it is structured and the product features, how they are sold, how they

"As the market is very dynamic and very chaotic, you need a local partner with a team to screen and understand the changing picture of the startup field"



interact with consumers, are very different. Those are all innovations.

I think the level of service is also very different. In China it is very difficult to just sell products. You need a whole lot more customisation. You need a very short response time. There is less standardisation. You need to respond a lot quicker to the market, which is a lot more brutal than the US because it is less structured, so there are more opportunities, but these opportunities are also fleeting, and you have a whole lot more complications. So Chinese companies are very agile.

I feel like China actually was never able to just copy the US companies and be successful in China. Certainly as we go forward, we see more and more truly local innovations. All the companies we invest in have US or global patents. They are globally leading in terms of their technology or their products and their business models.

Could you illustrate one or two companies where they are doing things, either in technology or in business models, and why they are thinking globally?

I can give you an example from both our funds. In our first fund we invested in a company in industrial internet of things. It started with an radio frequency ID chip that can track industrial assets. The first vertical the company went into had millions of gas cylinders circulating around the world. Being able to individualise the tracking for each cylinder really has huge implications for how the industry is going to change. This industrial gas company can now connect directly to consumers, and they have a whole lot more data to analyse. In five to 10 years' time you are going to see a very different model of how industrial gas is going to be sold. Really it changes the traditional industry.

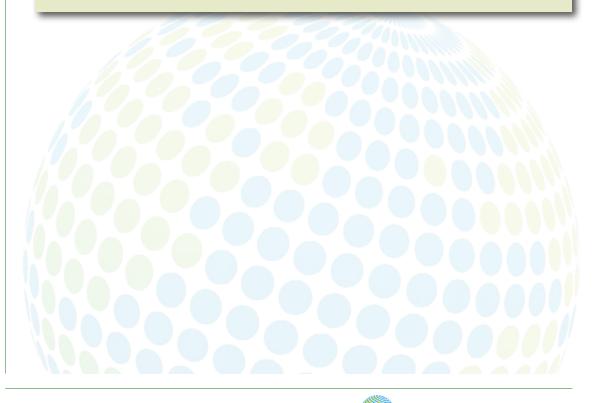
In our second fund we have invested in a 3D printing company which prints 10 times faster than other 3D printing methods. All our corporates are engaged with the company, so we have them doing business with GE, with BASF, with Sabic.

We are investing in an industrial big data company looking at the data from manufacturing and improving the product yield and efficiency. Even a 1% improvement in traditional industrial manufacturing gives you a huge output.

What do you do to relax?

I run round Century Park. I like walking in nature. There are more and more blue sky days in Shanghai, so I really enjoy that. And I enjoy reading, so I will take a glass of wine and read a good book. ◆

You can listen to this and other interviews on a podcast, subscribe at gaulesqt.podomatic.com. Andrew Gaule develops the capabilities and expertise of organisations leading open innovation, venturing and corporate venturing programs to drive strategic benefit. He supports innovation programs and collaborations with "innovative new value chains" in global organisations. If you have interview ideas, email andrew.gaule@aimava.com or James Mawson jmawson@globalcorporateventuring.com



COMMENT

Five ways to become better at corporate venturing

Bonny Simi, president, JetBlue Technology Ventures



n today's world of rapid innovation, we need to look only as far as companies like Lyft and Airbnb to see how quickly industries can be disrupted by startups and new technologies. According to Innosight's study of turnover in the S&P 500, we are entering a stretch of accelerating change in which lifespans of large corporations are getting shorter.

In fact, Innosight's research shows that the 33-year average tenure of companies on the S&P 500 in 1965 narrowed to 20 years in 1990 and is forecast to shrink to 14 years by 2026. Companies in the Fortune 500 are showing the same type of turnover. The compelling message is that new technologies enable rapid innovation, and large companies have a lot to learn from nimble startups.

Increasingly, global companies are beginning to take startups and disruptive innovation more seriously, often turning to the corporate venture capital (CVC) model to drive growth and remain competitive. To illustrate, we can look at the PitchBook-NVCA Venture Monitor, which shows that corporate venture investors are playing a growing role within the VC industry, participating in rounds that amounted to 44% of all 2017 venture deal value, and in 29% of all ventures deals over \$25m. In total, CVCs participated in 1,268 completed financings – a 15% year-on-year increase – worth a record amount of over \$37bn last year.

But, as global giants expand their footprint in corporate venturing, they must understand fuelling the innovation engine for the long haul requires the right approach. Let us take a look at our strategy at JetBlue Technology Ventures (JTV) for making corporate venture capital a win-win proposition for JetBlue Airways and the start-ups we invest in.

1 Create a vision – and ensure alignment

Unlike VCs, CVC investments are primarily focused on strategic returns and less so on financial returns, though strategic value generally follows with financial returns for both the startup and the corporation. CVCs typically invest off the balance sheet and place a great deal of importance on strategic insights that can be provided back to the parent company, including new business models, enhancements to existing systems, or expanded product lines. To do this successfully, a delicate balance of CVC independence and high-level coordination with the parent company is needed. This requires a dedicated team of investment professionals who understand the VC world and have the freedom to focus on investments operating alongside those who knows the parent company industry inside and out.

At JetBlue Technology Ventures, we have a dedicated group of investment professionals who operate as a nimble team that moves quickly at the pace of Silicon Valley, and a leadership and operating team who ensure alignment with the current and future needs of JetBlue Airways. The JTV operating principal is imbedded in the parent company and the JTV investment team is based in Silicon Valley.

Additionally, JetBlue Airways' most senior leaders have regular visibility to the JTV innovation pipeline via the investment committee, including chief digital and technology officer Eash Sundaram, chief financial officer Steve Priest, chief commercial officer Marty St George and associate general counsel Brandon Nelson. To ensure we have an outside perspective, the investment committee recently expanded to include Toyota Al Ventures' managing director, Jim Adler.

2 Determine investment rationale

When it comes to determining in which areas a CVC invests, strategic themes can help focus decision-making and provide necessary structure to the selection process. This creates clear guidelines for the types of innovation to invest in, and allows the team to become subject-matter experts on the areas in which they are focused. We are interested in early-stage startups that marry technology and travel. We want to enhance the entire travel industry – not just the airline industry. We further clarify our vision by focusing on companies that align with at least one of our investment themes, which you can learn more about here.

3 Become part of the ecosystem

While JetBlue Airways is based in Long Island City, New York, JTV is purposely located 3,000 miles away in Silicon Valley. According to a report by Martin Prosperity Institute – Rise of the Global Startup City – the top 10 cities and metro regions globally account for more than half (52%) of total global venture investment worldwide. Furthermore, the report says in the US, the San Francisco Bay area, including Silicon Valley, remains the world's leading centre for venture capital investment, attracting more than a quarter of all global venture investment. Being at ground zero for tech innovation provides the opportunity to work closely with incubators, VC firms, universities and other organisations driving innovation.



COMMENT

For us, launching JTV in Silicon Valley was the obvious choice. Being in the heart of the premier innovation ecosystem in the world allows us to reap the benefits on a daily basis. Of course, we do spend significant time in New York, Boston, Austin, Atlanta, and increasingly in global innovation ecosystems such as London, Tel Aviv, Berlin, and soon in Southeast Asia. Whether it is Silicon Valley or another emerging startup ecosystem, it is important to become a part of the in the ecosystem to benefit from it. Additionally, creating a strong network is the key to creating dealflow. We share insights and co-invest alongside many of the top VCs in Silicon Valley.

We have also scaled our network by creating partnerships with various accelerators and incubators in the Silicon Valley and around the world, including Plug and Play Tech Centre, RocketSpace and 500Startups. Additionally, we look for organisations that are plugged into our specific industry, such as Travel Tech Con, a community group for emerging tech in travel, and Future Travel Experience (FTE), an independent online media, events and industry change leader dedicated to enhancing the end-to-end passenger experience.

Alongside FTE, we became the corporate launch partner for the Global FTE Start-up Hub, which makes it possible for corporate innovators and startups in the air transport and travel sector to connect both digitally and physically. These relationships and more have helped our team gain exposure to more than 2,000 startups since our inception in February 2016, and have invested a growing number – 16 as of today.

4 Provide value to startups

When it comes to venture investing, whether VC or CVC, continued success means providing value to portfolio companies, beyond just the financial investment. According to a survey conducted by GCV Analytics, the most common ways to help startups involve providing access to partnerships and supplier or consumer networks (88%), offering access to R&D or technical expertise (78%), and helping with marketing and public relations (55%). Additionally, CVCs provide domain expertise, often support early implementation and/ or commercial agreements and even help to make relevant industry connections for entrepreneurs.

Finding the right opportunity to work with complementary CVCs can magnify the value of an investment dramatically

At JTV, we do all of the above, and then some. For example, we have experience working closely with the regulators on many matters, including aircraft certification, safety reviews, air and hotel operations, revenue and loyalty systems and more, so we can help our startups understand and navigate the travel and hospitality industries. We also invite companies to be incubated in our Silicon Valley offices. Travel tech is a space that is not readily understood by traditional VCs, so we provide industry validation of the startup's business model and technology. Finally, we also help to make connections at JetBlue, across the travel industry, and with other venture capital firms for our entrepreneurs.

5 Collaborate often

Working together, CVCs have the power to transform industries. Finding the right opportunity to work with complementary CVCs can magnify the value of an investment dramatically. Each CVC can contribute its unique area of expertise to a startup to help it excel. We see an emerging trend of CVC's either leading deals or forming a CVC syndicate to complement a VC lead. This is a win-win for all parties – CVC, VC and startups.

For example, we have just announced an investment alongside Intel Capital and Toyota AI Ventures in the series B funding of Joby Aviation, a startup that aims to make electric vertical takeoff and landing (eVTOL) transportation a reality. In this deal, Intel brings its expertise in data and enterprise, Toyota offers deep technical and manufacturing expertise, and we contribute our expertise in aircraft operations and logistics.

"We are excited to be backing Joby Aviation and believe that our collaboration with other corporate investors like JetBlue Ventures and Intel Capital is a great example of how incumbents can team up to help startups like Joby Aviation drive disruptive innovation," said Jim Adler.

Wendell Brooks, president of Intel Capital, added: "I think it is important that we corporate VCs cooperate and collaborate. Looking at our newest investment in Joby Aero, I get excited that Intel can bring autonomous technology, Toyota can bring battery and carbon fibre technology, and JetBlue can bring aviation and flight management expertise to bear. The three of us, working together, will drive value in a meaningful way."

Other deals we have worked on alongside other CVCs include our investment in Filament, where we co-invested with Verizon Ventures, Samsung Ventures and Intel Capital, our investment in FLYR, where we co-invested with Amadeus Ventures, and Zunum Aero, where we co-invested with Boeing HorizonX.

Logan Jones, managing director at Boeing HorizonX, said: "We share the same collaboration philosophy as Bonny and the JetBlue Technology Ventures team and it's paying tremendous dividends for our startup partners. Combining our collective strengths help our portfolio companies move with speed and credibility. And as our portfolio companies and partners succeed, Boeing gets better too."

With support from many different industries, together we can help our startups grow faster and holistically. It is clear that in today's world of rapid innovation, the global giants are waking up. Large corporations now know that capturing enough innovation to remain competitive requires external as well as internal efforts, and if done properly, we see a bright future ahead for corporate venture.





Kyle Kling, US investment director, MDI Ventures



recently published an article on the overall trends in the artificial intelligence (AI) industry. After reviewing more than 1,600 AI startups globally, I was able to group most into 22 subcategories, reveal fundraising trends, identify countries leading the AI race and more.

Taking it one step further, I wanted to share how the largest corporations by industry invest in AI startups. Watching corporate venturing activity is a key indicator in spotting industry disruption. Corporate funds typically have very rigorous investment criteria and chase after investments that either add new revenue streams, boost operational efficiencies or attempt to partner future competition.

I analysed more than 200 of the most active CVC funds as well as the most influential corporations across 11 industries. My goal was to find which AI subcategories receive the most funding by industry, what corporations lead in AI investment per industry, what are the most popular AI startups in each industry and what AI startups are making the most impact across all industries.

The 11 industries I researched are as follows:

- Tech giants top 15 largest or most influential technology corporations.
- Finance largest most active banks or financial institutions globally.
- Telecoms largest telecoms by continent.
- Electronic manufacturers largest semiconductor, chip and electronic device manufacturers.
- Media largest media, advertising or entertainment corporations.
- Industrial largest industrial manufacturing corporations that includes construction, appliances, metals, aerospace, chemicals and so on.
- Commerce worlds largest e-commerce and retail stores.
- Insurance largest life, health, automobile or reinsurance providers.
- Consulting largest strategy, tech and accounting consulting firms.
- Automotive largest automotive or parts manufacturers.
- Healthcare largest hospitals, biochemical or pharmaceutical corporations.

I also took TechCrunch's 2017 top 10 VC list and used it as a reference point to compare against corporations. VCs typically have a much longer-term vision than corporations and should indicate which AI startups will have more of an impact in five to 10 years.

All of this information is what I was able to find publicly. I am sure there are many undisclosed investments made by these corporations. However, this subset of information will give you a general idea of the common trends among industries.

Al investment analytics by industry

There was over 400 investments and acquisitions made by large corporations in AI startups. The top VC's and tech giants outpace all other industries with the most investments in AI startups. However, it is surprising to find the finance, telecoms and media industries are leading outside the tech industry. Surprisingly, the healthcare industry invested in the smallest number of AI startups.

Global Corporate Venturing

ANALYSIS

Most industry giants are investing in more US AI startups than international (INT) startups. This means corporations abroad are pushing more capital to the US and fewer US investors are moving capital outside the US. Given that there are significantly more AI startups built in the US, this is probably why we have this disparity. It is surprising however, to see the top VCs actually invest less abroad than most tech giants.

In my previous article I split all AI startups into two categories. First by horizontal, which are startups building AI tools – think of this as the hammer or measuring tape. Second by vertical, which are startups creating a service using a form of AI – think of this as the plumber or construction worker. Most industry leaders are investing in slightly more horizontal AI categories than the vertical AI categories. This is probably driven by corporate desire to find tools that improve existing products and services as opposed to trying to create a whole new product offering.

Al startups that raise funds from corporations are raising significantly more capital than the global benchmark of \$10m-\$11m. That startups receive capital from corporations signals to the industry that there are potential synergies, therefore future growth expectations are much higher and price goes up. International Al startups raise a significant amount more capital than US Al startups. This can be a result of a tremendous amount of capital abroad with a very little supply of Al startups, which inevitably drives up prices.

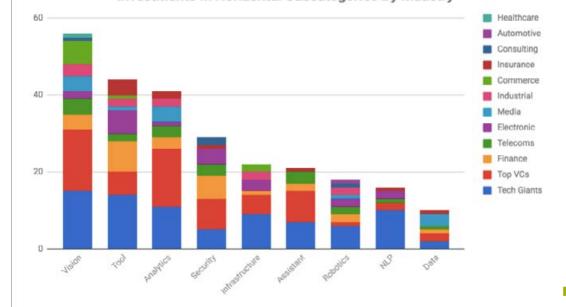
If you were to break apart the average fundraising by location into categories, it will paint a slightly different picture. It seems US corporate investors either find more opportunities or impactful AI startups in the vertical category or fewer compared with the horizontal category. For the international community it is the opposite to the case in the US.

There do not seem to be any outliers by country that pushed the average capital raise. The countries that receive the most investment from each industry and top VCs are the UK, China, Israel, Canada, Japan and Singapore. These countries lead because they have very active corporations investing in their community and they also lead with the largest number of startups and funding outside the US.

Al subcategory investment analytics by industry

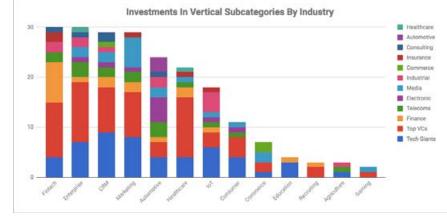
The graph below showcases how corporations from each industry are investing across the nine horizontal AI subcategories. To help you parse through the graph, I broke down the top subcategories per industry:

- Tech giants vision, tool and analytics.
- Top VCs vision, analytics, security and assistants.
- Finance tool, security and vision.
- Telecoms vision, analytics, security and assistants.
- Electronic tool, security and infrastructure.
- Media vision, analytics and data.
- Industrial vision, tool, analytics, infrastructure and robotics.
- Commerce vision and infrastructure.
- Insurance tool and analytics.
- Consulting security.
- Automotive robotics.
- Healthcare vision.



Investments In Horizontal Subcategories By Industry

The graph on the right represents how corporations across all industries have invested in 13 vertical AI subcategories. The graph shows how fintech, enterprise, customer relationship management (CRM) and marketing are the most popular subcategories among all industries and top VCs. This means corporations are



focused on investing in operational efficiencies and customer acquisition. However, if you were to remove top VCs, the most popular subcategory is automotive, followed by marketing, CRM, fintech, enterprise and the internet of things (IoT). In addition, Top VCs invest significantly more in healthcare than they do in automotive. The top subcategories per industry are as follows:

- Tech giants CRM, marketing and IoT.
- Top VCs enterprise, healthcare and fintech.
- Finance fintech.
- Telecoms enterprise and automotive.
- Electronic automotive.
- Media marketing.
- Industrial IoT.
- Commerce commerce.
- Insurance fintech.
- Consulting CRM.
- Automotive automotive.
- Healthcare enterprise and healthcare.

Top AI investors and startups by industry

To recap some of the information above, I wanted to share who are the most active AI investors in each industry, the most popular AI startups in some industries, and the most popular AI startups overall. The top investors and startups are below.

- Tech giants most active investors are Intel, Google and Salesforce. The most popular AI startups are MindMeld, CognitiveScale and Unbabel.
- Top VCs most active investors are NEA, Andreessen Horowitz, Khosla and Accel. The most popular AI startups are Kensho and Timeful.
- Finance most active investors are Bloomberg, Mastercard, Goldman, Fidelity and Citi. The most popular Al startups are Kensho, Moneytree, H2O.ai, Appzen and Versive.
- Telecoms most active investors are SoftBank, NTT and Singtel. The most popular AI startups are Precision Hawk and MindMeld.
- Electronic most active investors are Dell and Nvidia.
- Media most active investors are R/GA, Comcast and KBS. The most popular AI startups are Vidrovr and Indicative.
- Industrial most active investors are GE, ABB and Bosch. The most popular AI startup is Maana.
- Commerce most active investor is Alibaba. The most popular AI startup is SalesPredict.
- Insurance most active investor is New York Life.
- · Consulting most active investor is Bain.
- Automotive most active investors are Ford and Toyota.
- Healthcare no investor stood out as the most active

The startups with funding from the largest number of industries are Cyngn, Lemonade, Graphcore, Vicarious, Abeja, Tamr and MindMeld.

The startups with the most corporate investors are Kensho, Cyngn, MindMeld, Moneytree, Maana, Lemonade, H2O.ai and Bonsai.

I hope this gives you a better overview of the AI startup ecosystem. As a reminder, this only showcases public information corporations are willing to share about their investments in AI. However, I think it is a good indicator where AI is growing, where it is not, and where it could be in the future.

This is an edited version of an article first published in Linkedin



COMMENT

Big agriculture – synergy at the expense of innovation

Keith Gillard, partner, Pangaea



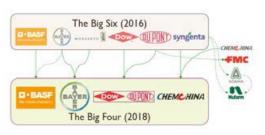
n December 2015, Dow and DuPont set off the greatest wave of consolidation ever seen in the agricultural chemistry and agricultural biology sector. Two years later, the two have become DowDuPont – the largest chemical company in the world. But in between, the entire ag-chem-bio industry has been mired in uncertainty with a focus on demonstrating synergy, at the expense of innovation.

ChemChina was next into the fray in February 2016, announcing it was acquiring Syngenta. The transaction closed last June at \$43bn. Since then, Syngenta has announced it is transferring a large crop protection portfolio to Adama, while Syngenta and Adama will jointly divest an off-patent crop protection portfolio to Nufarm for \$490m. The process may not be finished for Syngenta. ChemChina is in merger discussions with Sinochem with a view to surpassing DowDuPont as the world's largest chemical company.

Monsanto is used to having a target painted on it, but in the fever of consolidation, it became the belle of the ball. For a year, the press was awash in stories of interest from German giants BASF and Bayer. In September 2016, Monsanto stopped the rumours by agreeing to a \$66bn offer from Bayer. The acquisition is expected to complete this year.

BASF is not left out of all of this. In October 2017, it announced it was acquiring a large portfolio of seeds and herbicides from Bayer for \$7bn. This will make BASF a major player in seeds at last, after years of trying. That deal is also expected to close this year.

Most of the ag-chem-bio companies were so preoccupied with their overwhelming immediate concerns that innovation became a lower priority It is not just tier one. Simultaneous with its merger with Dow, DuPont agreed to sell its crop protection portfolio to FMC, while in turn acquiring FMC Health and Nutrition. In September, Agrium and PotashCorp announced they were merging to create the largest fertiliser company in the world, which should close sometime in the next few weeks.



Most of the ag-chem-bio companies were so preoccupied with their overwhelming immediate concerns that innovation became a lower priority, as evidenced by the annual reports of "the big six". Dow, DuPont, Monsanto, and Syn-

genta all cut their research and development spending in 2016 after cutting it in 2015, with DuPont being the most aggressive – down 8% in 2015 followed by another 11% in 2016. Even BASF cut 2016 R&D by 5%. Of the tier-one companies, only Bayer, the biggest acquirer, increased its R&D budget in 2016, by 9%, while increasing its headcount and R&D spend as a percentage of sales.

A few strategic venture investments were made over the period, including Bayer's investment in a new \$100m joint venture with Ginkgo Bioworks. Monsanto Growth Ventures co-led the Series C for Pangaea portfolio company NewLeaf Symbiotics as well as series A investments in Arvegenix and FarmLead. Compare these three deals in 18 months with 10 in the 18-month period immediately before. Syngenta Ventures invested in Solap4, AgriMetis, and Boragen during the acquisition period – three in an 18-month period, one of which was a follow-on, compared with eight in 2015.

Pangaea's agtech portfolio companies did well in this period, with four significant up-rounds. Vestaron closed its \$18m series D in July 2016, NewLeaf its \$30m series C in July 2017, and Calysta closed two rounds with a \$30m series C in February 2016 and a \$40m series D in May 2017. Dealflow, however, was affected by the slowdown in the sector; Pangaea's 2016 new agtech dealflow was down 20% compared with 2015. Last year looks better, though – the first three quarters exceeded the 2016 total.

By the middle of 2018, with over \$100bn having changed hands, the "new normal" will be established. From an oligarchy of the big six, agricultural chemistry and biotechnology will be dominated by a new "big four" – DowDuPont as the new largest overall chemical company, at least for a while, BASF in the unfamiliar number-two position but with a new seed portfolio, ChemChina trying to resolve diverse cultures in a new organisation, and Bayer the new king of ag-chem-bio. Tier two is also strengthened, with Adama, FMC and Nufarm enjoying greatly expanded crop protection offerings, and AgriumPotashCorp dominating fertiliser.

As the wave of consolidation recedes, the need to innovate is returning. BASF, Bayer, DowDuPont, and Monsanto's latest quarterly reports all show an increase in R&D spend in 2017, with only Syngenta contracting further. There will, no doubt, be further divestitures, but I expect that acquisitions will increase. It has already begun. In September, John Deere acquired Blue River Technology, a venture-backed startup with less than \$5m in sales, for \$305m. And shortly before completing its merger, DowDuPont acquired Granular, another venture-backed startup with less than \$3m in sales, for \$300m. I predict another golden age of agtech exits, as a whole new crop of great agtech startups is ripe for harvest.

This is an edited version of an article first published on Pangaea's blog

INTERVIEW



Touching base with Touchdown

Christina Riboldi, program director for the Global Corporate Venturing & Innovation Summit held in Monterey, California, on January 31-February 1, talks to David Horowitz, founder and CEO of Touchdown Ventures

David, you and I met in January of 2015, right after Touchdown Ventures was launched, and, according to our research, Touchdown Ventures now operates many corporate venture funds. I know you are continuing talks with a variety of multinationals that are considering starting corporate venture programs. Can you share your current model for those who are unfamiliar with Touchdown Ventures?

It has been great working with you and GCV. Touchdown Ventures takes a unique approach to venture capital. Rather than raising pooled vehicles from institutions, we partner large corporations to manage their own branded corporate venture funds. Today, we work with more than 10 corporations and are proud of how we have grown so quickly.

We manage each of these corporate funds separately with dedicated teams from Touchdown. This makes our business complex and has required that we think differently about the scale of a venture capital firm – we are now getting close to 20 investment professionals on our team. The other key difference between Touchdown and typical venture capital firm is that we optimise both for financial returns as well as strategic impact for our corporate partners.

It is important to note that we do not really use an outsourced model because we work so closely with business unit leaders to manage the corporate venture activity. You should think of Touchdown the same way you would think of an internally staffed corporate venture unit.

GCV appreciates Touchdown Ventures' continued support for the Global Corporate Venturing & Innovation Summit. A major annual component of the program has been the ability to provide insight on ways to pursue corporate venturing. For corporates thinking about starting up a CVC unit, what do you think are key considerations?

It is so important to set up the venture program the right way. When we start a new program from scratch, we will build a comprehensive list of program goals and priorities to establish associated key performance indicators and measure whether the venture program is successful.

You would be surprised how many corporate venture funds do not take the time to define and measure success. There is often a cowboy mentality to getting started immediately and worry about strategy and process and infrastructure later, which usually leads to complete chaos down the road and fits poorly with most professional cultures. It does not take long to set up a venture program, but you should not skip this step.

Of course, measuring strategic value is one of the biggest challenges of running a corporate venture unit. Our experience managing multiple funds has enabled us to create a set of best practices to do this.

How can corporate venturing support parent company objectives?

We really see the corporate venture unit as the gateway to startup dealflow for the entire corporation. For most companies, the corporate venture effort is the best window into the future available. Sometimes we will identify a startup that may not even be raising capital – and therefore we are not going to invest right away, or maybe ever – but that startup may have a product capability that solves a problem that a business unit executive has identified. Our role in that case may be to help the business unit enter into a commercial relationship with that startup, with or without an investment.

Other times, a startup is so strategic that, rather than considering an investment, the company becomes an M&A target. Reviewing all this dealflow helps the corporation understand what disruptions are likely three, five, seven years down the road. We strongly believe success is not just the return on investment from your portfolio but how the entire venture program is bringing insights, commercial relationships and new opportunities to the corporation. The financial returns are, of course, essential too. You have to be viewed as a winner.

What do you think next-generation CVCs should think about?

I really believe the most successful CVCs are not only great investors but also key advisers on innovation to the corporation's executive leadership. To do so effectively requires a lot of communication. It is important to put yourself in the shoes of the CEO or other senior leaders in the corporation and understand what problems those people are trying to solve.

There is also just as much coordination required outside the corporation, with portfolio company CEOs, co-investors, and other ecosystem participants. Corporate venture capital is really one of the toughest roles, because there are so many stakeholders inside and outside the parent company, often with conflicting goals. So my strongest advice is to focus on good communication.

Global Corporate Venturing

"You would be surprised how many corporate venture funds do not take the time to define and measure success"

Global Corporate Venturing Leadership Society

GCV Leadership Society mission:

The GCV Leadership Society is for corporate venturing leaders and aims to be the pre-eminent provider of data, information, events and other services for the global corporate venturing community. The Society helps develop the corporate venturing leaders of the future.

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For more information or to apply today contact Janice Mawson: +1 (703) 380 25 69 | janicemawson@globalcorporateventuring.com



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^t Non-corporate venturers will have more limited access to the GCV Leadership Society unless authorised by its board.

Why Join?

- Support your industry
- Help shape thought-leadership and best practice to increase success
- Network with the most influential corporate venturers in the world these could be your co-investors or partners
- Raise your company's profile to increase co-investment and dealflow opportunities
- Increase your personal profile for your next career move
- the industry forward in areas such as deal flow, investment models, excellence and intellectual property





UNIVERSITY CORNER

Korea ready to boost spinouts

Hicheon Kim, professor of strategy and organisation, and director, Korea University Business School Startup Institute



en years ago, the government of South Korea changed the law to allow universities to have technology holding companies to commercialise the university's technology and research, and to facilitate the formation of spinouts. In 2008, Seoul National University, Hanyang University and Samyook University launched their holding companies – modelling them on Oxford University Innovation, University of Oxford's tech transfer office, and SRI International, a non-profit research institute spun out of Stanford University. As of the end of 2016, there were 48 university holding companies owning 435 subsidiaries.

Nonetheless, the actual performance of the companies does not match their increase in number. For instance, the businesses of Seoul National University Holdings recorded an annual sale of \$25m in 2016, which represented less than 1% of that recorded by the portfolio of Tsinghua Holdings, the commercialisation arm of Tsinghua University.

Regulations account in part for the lacklustre performance of university holding companies. For instance, until recently, universities have been allowed to invest in spinouts only through holding companies. And by law, they were required to own stakes of at least 20%.

Such requirements are more of a hindrance than a help in promoting the formation of and investment in spinouts. To begin with, faculty members and researchers may not be willing to relinquish 20% equity, which gives them an incentive to try to work around university holding companies. This reluctance to hand over a significant equity stake is greater for ideas and projects with big commercial potential.

Every time portfolio companies seek to secure additional external investments, university holding companies are bound to make follow-on commitments so as to maintain their minimum 20% equity. This, in turn, means outside investors are less willing to invest since 20% or more is already taken by university holding companies.

Recently, the government relaxed the regulations to promote university spinouts and entrepreneurship.

First, the change means university holding companies are now able to raise, and serve as general partners of, angel or venture capital funds. As such, they can invest in spinouts as general partners and are no longer required to take the minimum 20% equity. Second, the government now allows universities to operate their own accelerators. In the past, institutions were encouraged to operate incubators to help spinouts, but by law they were not allowed to invest in them.

Now, however, the government plans to assign a larger role to accelerators that provide funding as well as workspace, mentoring and networking. To qualify, accelerators need to meet minimum requirements on the amount of paid-in capital, staff size and qualification, and the size of their investment fund. Accelerators that meet the conditions will be favoured for various government grants and initiatives. By launching accelerators, universities can provide an end-to-end service for and multiply the routes of investing in spinouts.

Third, the government has pledged funds to incentivise investments in spinouts. For instance, the Ministry of Education announced the creation of a \$15m fund dedicated to spinouts, the credit guarantee scheme Korea Credit Guarantee Fund announced a plan to invest \$275m in spinouts, and the government pledged a \$910m fund to support startups in general, part of which will go towards spinouts.

Of course, more should be done to promote spinouts than deregulation and new initiatives. Too often, university holding companies are understaffed and not professionally managed. Korea University Holdings and Seoul National University Holdings recently recruited outside staff with a background in startups and the venture capital industry to lead their operations. However, this is an exception rather than the norm. University holding companies are often run by university faculty or staff who lack the necessary skills and experience.

Students in South Korea have traditionally been quite risk-averse, preferring to work for big enterprises such as consumer electronics companies Samsung and LG or conglomerate Hyundai. However, this seems to have been changing in recent years as many students show a growing interest in startups and entrepreneurship. Over the past four years, the number of entrepreneurship courses has more than doubled, while the number of student entrepreneurship clubs has increased more than fivefold.

The former administration acted as a planner and strong supporter for establishing a creative economy by encouraging entrepreneurship and startups. The Moon Jae-in administration – inaugurated in May this year – continues, maybe even furthers, its support for entrepreneurship and startups. The government also recognises the importance of the roles of universities, relaxing some regulations and introducing new initiatives aimed at university startups. It remains to be seen how the university innovation ecosystem will evolve and interact with the existing startup ecosystem.



GOVERNMENT HOUSE



Chris Torney, reporter

Singaporean government-owned investment firm Temasek says it is taking a positive view on the Indian economy in 2018 and beyond, and it plans to expand its equity investments in both startups and established companies in the near term.

Speaking at the Association of Southeast Asian Nations (Asean) India Pravasi Bharatiya Divas (PBD) event in Singapore last month, Temasek's joint head for India, Rohit Sipahimalani, said his organisation was particularly interested in investing in India's growing financial services industry.

"The sector benefits from digital identity creation in India," Sipahimalani added. "Digitisation and financialisation of savings clearly has a big benefit to consumer lending, but beyond lending also to growth in insurance asset management."

Sipahimalani said one of Temasek's major advantages in India was its flexibility in being able to deploy capital in small or large businesses. "I would also say that the startup ecosystem is very vibrant and India today," he added. "If you go to the major business schools or technical colleges, the top 2% of people today do not want to join Facebook or Google or Microsoft – they want to set up their own companies or join a startup."

Temasek benefited particularly from exposure to startups through its venture-debt arm InnoVen Capital, Sipahimalani said. And the organisation also expected to play a greater role in bridging the gap between India and the Asean markets.

"There may be companies in Singapore and Asean who want to invest in India but are not that comfortable with the Indian environment," he said. "But they are happy to have Temasek come in as an investor alongside them.

"Similarly, there are Indian companies, particularly fintech companies we have invested in, which have technologies which will be quite applicable in Southeast Asia. I think one of the roles we can play is really introduce them to the right partners and help them expand on this part of the world."

PBD is an annual event aimed at strengthening business ties between India and the Indian diaspora around the world. It is held in a different city every year.

Rohit Sipahimalani



This is our data snapshot based on the past month's investment activity. The charts and tables have been generated by our data platform GCV Analytics.

Deal count drops in January

Kaloyan Andonov, reporter, GCV Analytics



here were 168 corporatebacked deals in January, down from the 199 funding rounds in the same month last year. Investment value, however, increased by 108% to \$12.66bn, compared with \$6.09bn in January 2017. On a month-on-month basis, the deal count in the first month of this year fell from the 185 rounds worth \$13.61bn in December.

The US hosted the largest number of corporate-backed deals, 83, while China was second with 24, India third with 10 and the UK fourth with eight.

The leading corporate investors by

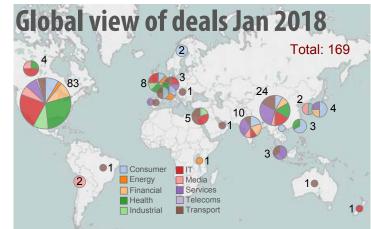
number of deals were diversified technology conglomerate Alphabet, internet company Tencent as well as chip and semiconductor manufacturer Intel. In terms of involvement in the largest deals, e-commerce company Alibaba topped the ranking, along with telecoms firm SoftBank and Tencent.

GCV Analytics reported 20 corporate-backed funding initiatives in January, including VC funds, new venturing units, incubators, accelera-

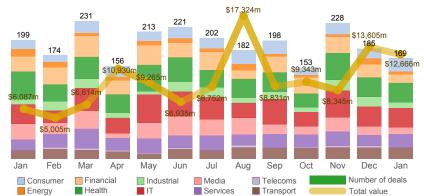
tors and other. This figure implies an increase over December, which registered only 16 such initiatives. The estimated raised capital in those initiatives stood at \$1.92bn, up from the estimated \$855m in December.

Deals

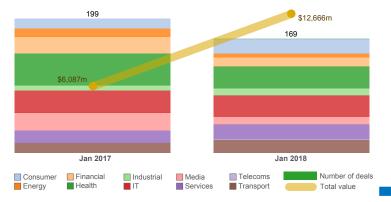
Emerging businesses from the health, IT, services and consumers sectors raised the largest number of rounds in the first month of 2018. The most active corporate venturers were from the IT, financial services and consumer sectors.



Deals by month Jan 2017-Jan 2018

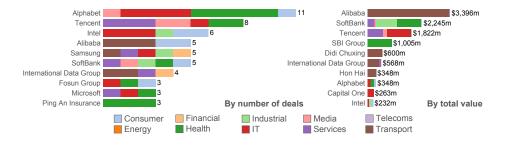


Deals Jan 2017 vs Jan 2018

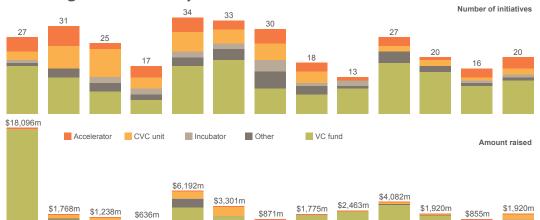




Top investors Jan 2018



Funding initiatives by month Jan 2017-Jan 2018



Jul

Aug

Alibaba bought \$3bn worth of shares in China-based bicycle rental platform Ofo from investor Allen Zhu. Alibaba acquired the shares at a \$10bn valuation, according to Chengxiao, though the stake was probably held by GSR Ventures, the venture capital firm that backed Ofo at series A, B and C stage. Founded in 2014, Ofo runs an appbased bicycle rental platform that had 200 million registered users worldwide at the end of 2017. It has 10 million bikes in service across 250 cities spanning 22 countries.

Feb

Mar

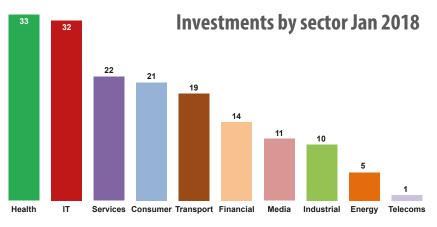
Apr

May

Jun

Jan

Tencent was reported to be set to lead a \$1bn funding round for China-based social media app Kuaishou, valued it at \$18bn. The



Sep

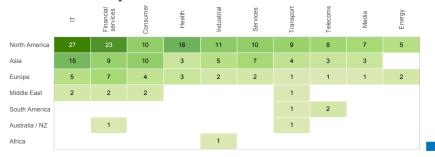
Oct

Nov

Dec

Jan

Deals heatmap Jan 2018





Top 10 investments Jan 2018						
Company	Location	Sector	Round	Size	Investors	
Ofo	China	Transport	Stake purchase	\$3bn	Alibaba	
Kuaishou	China	IT	-	\$1bn	Sequoia Capital Tencent	
Ping An Healthcare Management	China	Health	_	\$1bn	SBI Group SoftBank	
Katerra	US	Industrial	-	\$865m	Canada Pension Plan Investment Board Divco West Real Estate Services Navitas Capital SoftBank Soros Fund Management Tavistock Group	
Ziroom	China	Services	A	\$621m	Sequoia Capital Tencent Warburg Pincus undisclosed investors	
99	Brazil	Transport	Stake purchase	\$600m	Didi Chuxing	
Xiaopeng Motors	China	Transport	С	\$348m	Alibaba China International Capital Corporation GGV Capital Hon Hai International Data Group Matrix Partners Morningside Yunfeng Capital Yuri Milner	
Wag	US	Services	-	\$300m	SoftBank	
Snowflake Computing	US	IT	-	\$263m	Altimeter Capital Management Capital One Iconiq Capital Madrona Venture Group Redpoint Ventures Sequoia Capital Sutter Hill Ventures Wing Ventures	
SomaLogic	US	Health	-	\$200m	iCarbonX Madryn Asset Management Nan Fung Life Sciences	

round's other investors include venture capital firm Sequoia Capital China. Kuaishou runs a mobile app that enables users to upload and share photos and videos, and livestream videos to followers, who can reward them with virtual gifts. The company has 100 million active users but aims to triple that figure in 2018.

Ping An Healthcare Management, the medical data collection and analysis subsidiary of China-based insurance provider Ping An Insurance, raised almost \$1bn in funding in a round co-led by the SoftBank Vision Fund, which supplied \$400m, alongside fellow lead investor financial services firm SBI Holdings, which provided \$450m. The deal valued Ping An Healthcare Management at \$8.8bn. Established in 2016, Ping An Healthcare Management has developed a platform for public medical insurance services and hospitals to manage various aspects of healthcare, such as social health insurance, drug distribution and medical treatment.

The SoftBank Vision Fund led an \$865m series D round for US-based construction services platform Katerra. Chinabased contract manufacturer Foxconn also participated. Katerra has created a construction services business that includes architecture and interior design, engineering, the supply and construction of building materials and the construction itself.

Ziroom, a China-based operator of an accommodation rental services platform, secured RMB4bn (\$621m) in a series A round featuring Tencent. The round reportedly valued the company at \$3.1bn. Founded in 2011 by Homelink, the real estate agency also known as Lianjia, Ziroom was spun off in 2016. It leases apartments from owners, renovates them and rents them to tenants.

China-headquartered ride-hailing platform Didi Chuxing acquired a majority stake in Brazil-based counterpart and portfolio company 99 for \$600m. According to the New York Times, Didi Chuxing previously owned 30% of 99, having led a round in excess of \$100m for the company a year ago. Founded in 2012 and originally known as 99taxi, 99 runs an on-demand ride service with 14 million users across some 500 Brazilian cities and towns as of May 2017.

Alibaba and Foxconn co-led a RMB2.2bn funding round for China-based smart electric vehicle developer Xiaopeng Motors. The corporates co-led the round with venture capital group IDG Capital, a venturing arm of research and media company International Data Group, investing alongside Yunfeng Capital, the private equity firm co-founded by Alibaba chairman Jack Ma, among others. Xiaopeng, also known as Xpeng, is working on an all-electric sports utility vehicle dubbed the G3. The company unveiled the car at the Consumer Electronics Show this year and plans to launch the vehicle commercially later this year.

The SoftBank Vision Fund agreed to invest \$300m in US-based dog walking service Wag at an undisclosed valuation. Founded in 2015, Wag has created an app-based on-demand service that gives owners access to insured and bonded walkers in their own communities.

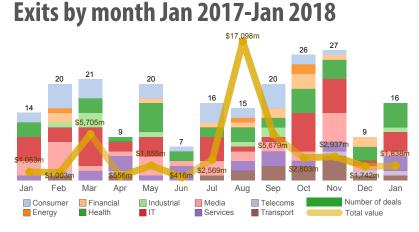
US-based data warehousing software provider Snowflake Computing completed a \$263m growth round featuring Capital One Growth Ventures, a corporate venture capital vehicle for financial services provider Capital One. The round was closed at a \$1.5bn pre-money valuation. Snowflake has created a cloud-based data warehousing software product that can store and rapidly analyse large amounts of data in a single place. It runs on the Amazon Web Services platform and is scalable.

US-based personalised health information platform SomaLogic closed a \$200m round, following an extension provided by Nan Fung Life Sciences, a subsidiary of conglomerate Nan Fung, and Madryn Asset Management. Digital health technology developer iCarbonX anchored the round. Founded in 1999, SomaLogic has developed technology that measures changes in thousands of proteins in the human body, using the data to provide real-time personalised insights into, and recommendations for, a user's wellbeing and health.

Exits

In January, GCV Analytics tracked 16 exits involving corporate venturers as either acquirers or exiting investors. The transactions – most of which took place in the US – included 12 acquisitions and four initial public offerings (IPOs).

The number of exits rose compared with the previous month, December 2017, when there were only nine. Total estimated exited capital



amounted to \$1.84bn, a 5% increase over the December figure of \$1.74bn.

Pharmaceutical firm Celgene agreed to acquire US-based cancer treatment developer Impact Biomedicines in a \$1.1bn deal, giving an exit to fellow pharmaceutical company Sanofi. Founded in 2016, Impact is developing therapies for complex cancers based on fedratinib, an oral small-molecule inhibitor of the JAK2 kinase enzyme, which will address bone marrow disorders polycythemia vera and myelofibrosis.

Open-source software provider Red Hat agreed to acquire US-based IT infrastructure automation software producer CoreOS for \$250m, giving exits to chipmaker Intel and internet and Alphabet. Founded in 2013, CoreOS has developed an open-source software product that helps automate functions for cloud infrastructure such as installing important software updates, updating and patching servers, and tackling issues such as machine failures or networking outages.

Menlo Therapeutics, a skin condition treatment developer backed by pharmaceutical companies Novo and Merck & Co, closed an IPO, having secured approximately \$137m. The company initially issued 7 million shares, up from 6.5 million, on the Nasdaq Global Select Market priced at the top of its \$16 to \$17 range to raise \$119m. Menlo's shares opened at \$20.50 and closed at \$33.39. Founded in 2011, Menlo is developing a drug, serlopitant, that would be the first to win regulatory approval in the US as a treatment for pruritus, itching caused by skin conditions such as psoriasis, atopic dermatitis and prurigo nodularis.

Company	Location	Sector	Туре	Acquirer	Size	Investors List
Impact Biomedicines	US	Health	Acquisition	-	\$1.1bn	Medicxi Ventures Sanofi
CoreOS	US	IT	Acquisition	Red Hat	\$250m	Accel Partners Alphabet Fuel Capital Intel Kleiner Perkins Caufield & Byers Work-Bench Y Combinator
Menlo Therapeutics	US	Health	IPO	-	\$137m	Aisling Capital Bay City Capital F-Prime Capital Partners Novo Presidio Partners Remeditex Ventures Rock Springs Capital VenBio Partners Vivo Capital
Armo Biosciences	US	Health	IPO	-	\$128m	Alphabet Celgene Clough Capital Partners DAG Ventures Decheng Capital HBM Healthcare Investments Kleiner Perkins Caufield & Byers Nanodimension OrbiMed Qiming Venture Partners Quan Capital RTW Investments Sequoia Capital
Practice Fusion	US	Health	Acquisition	Allscripts	\$100m	Artis Ventures Band of Angels Deerfield Management Felicis Ventures Founders Fund Glynn Capital Management Kleiner Perkins Caufield & Byers Longitude Capital Morgenthaler Ventures OrbiMed Orix Growth Capital Qualcomm SV Angel
Restorbio	US	Health	IPO	-	\$98m	Fidelity Nest.Bio Ventures Novartis OrbiMed Quan Capital Rock Springs Capital
Knightscope	US	Industrial	IPO	-	\$25m	Bright Success Capital Konica Minolta undisclosed investors
Skyport Systems	US	IT	Acquisition	Cisco Systems	-	Alphabet Cisco Systems Index Ventures InstantScale Intel Northgate Capital Sutter Hill Ventures Thomvest Ventures
Whosay	US	Media	Acquisition	Viacom	-	Amazon Comcast Creative Artists Agency Greylock Partners Primary Venture Partners Tencent
Buddybuild	US	IT	Acquisition	Apple	-	Amplify Partners Bloomberg First Round Capital Kleiner Perkins Caufield & Byers



Armo Biosciences, a US-based immuno-oncology therapy developer that counts pharmaceutical company Celgene and Alphabet as investors, raised \$128m in an IPO consisting of just over 7.5 million shares issued on the Nasdaq Global Select Market priced at \$17 each, above the \$14 to \$16 range set by Armo. The number of shares offered was also increased from about 6.7 million. Founded in 2012, Armo is working on immuno-oncology treatments and intends to invest \$35m of the IPO proceeds in advancing its lead drug candidate for pancreatic ductal adenocarcinoma to phase 3 clinical trials.

Practice Fusion, a US-based electronic medical record platform backed by mobile chipmaker Qualcomm, accepted a \$100m acquisition offer from healthcare technology producer Allscripts. The purchase price represented a significant loss in valuation and could still change, with the figure being "subject to adjustment for working capital and net debt". Founded in 2005, Practice Fusion operates a cloud-based electronic health records database aimed at small and independent doctors' surgeries. The platform currently supports 5 million patient visits across 30,000 practices each month.

Pharmaceutical firm Novartis is set to exit Restorbio, a US-based ageing-related disease therapy developer that has filed to raise up to \$85m in an IPO. Co-founded in 2016 by biopharmaceutical company PureTech Health, Restorbio is working on treatments for several ageing-related conditions involving decline of the body's immune system which have no approved treatment in the US, including respiratory tract infections.

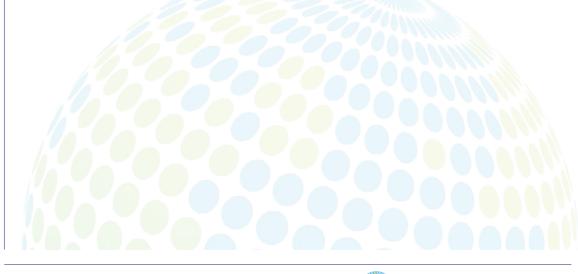
US-based autonomous security system developer Knightscope closed \$25m in funding, consisting of \$20m in a regulation A-plus offering and \$5m in related private placements from backers including imaging technology producer Konica Minolta. Founded in 2013, Knightscope produces robots that act as mobile security guards. The robots autonomously monitor a pre-defined environment.

Networking equipment maker Cisco agreed to acquire Skyport Systems, a US-based hyperconverged infrastructure technology provider that is also one of its portfolio companies. Cisco did not disclose how much it would pay for Skyport, which has raised \$67m in venture capital from an investor base that also includes GV and Intel Capital, subsidiaries of Alphabet and Intel respectively. Skyport has developed a hyperconverged system that streamlines the creation, management and security of data centres. Following the acquisition, it will become part of Cisco's data centre – computing systems product group division.

WhoSay, a US-based marketing platform backed by corporates Tencent, e-commerce company Amazon, media companies Comcast and Creative Artists Agency (CAA), was acquired by media group Viacom for an undisclosed sum. The acquisition followed a two-year partnership between the companies, during which WhoSay handled more than 50 advertising campaigns for a variety of Viacom units, such as television channels MTV and BET. Co-founded by entertainment agency CAA and chief executive Steve Ellis in 2010, WhoSay operates a creative marketing agency aimed at a wide range of talent from micro-influencers – social media users with 1,000 to 50,000 followers – to international celebrities.

Canada-based app testing platform Buddybuild was acquired by computing company Apple for an undisclosed sum, providing an exit to media company Bloomberg's early-stage investment subsidiary, Bloomberg Beta. Founded in 2015, Buddybuild offers mobile app development tools for Apple's iOS operating system as well as the rival Android platform, though its support for the latter will now cease in March 2018. Buddybuild's platform includes continuous integration and delivery, user feedback and crash reporting, and is used by audio streaming portal SoundCloud and media company New York Times.

Note: Monthly data can fluctuate as additional data are reported after GCV goes to press



Turning Raw Data into Meaningful Insights

Global Corporate Venturing Analytics delivers corporate venture teams the data and tools they need to develop their insights and data-driven decisions.

GCV Analytics Unique Features

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Arnaud's CEO asked him how many deals their closest five competitors had done that year. Minutes later he pinged her the answer – and all the detail plus some cool looking charts.



Marie urgently needed to create a graph showing the number of CVC investments, and their dollar value, in healthcare in Asia over the past two years. Three minutes later the graph was in her presentation.



Zhang is a consultant and had a meeting scheduled with a CVC. Needing to do a quick bit of background research he popped into GCV Analytics. He walked into the meeting knowing what deals they had done and who they had co-invested with and was also able to tell them what the competition had been doing.



Anika works for a government and needed to benchmark inward venture investment from corporates, compared to other similar countries. She used the information to get an increased marketing budget.

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