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Global Corporate Venturing

Rise of the e-consumer

INSIDE

Contents

Global Corporate Venturing

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EDITORIAL

Unmissable action abounds

James Mawson, editor-in-chief

At the end of last month, Emmanuel Macron, president of France, gave a speech laying out a new national strategy for artificial intelligence (AI) in his country, and followed up with an interview with Wired technology magazine. Every few days there seems to be a similar type of announcement, in this case that the French government will spend €1.5bn ($1.85bn) over five years to support research in the field, encourage startups and collect data that can be used, and shared, by engineers, and public-led support for innovation, and industrial strategies being tried, including the creation of the Mission Oriented Innovation Network by UK-based UCL Institute for Innovation and Public Purpose last month.

There is often a circularity to these public pronouncements. Fifty-five years ago, UK Labour leader Harold Wilson warned his audience that if the country was to prosper, a "new Britain" would need to be forged in the "white heat" of this "scientific revolution".

Since then, and while some people might have had enough of experts, the argument is over the potential impact of AI and what roles will be left to people – "to create", according to noted investor and expert Kai-Fu Lee. In an interview with Edge last month he discussed predictions of "$15, 20, 30 trillion of value in the next 10 to 15 years", adding: "That makes for exciting areas to do investment, to do entrepreneurship."

While, indeed, AI might indeed be important – Macron picked out mobility and healthcare as two of the most exciting sectors facing change through the technology, change is apparent everywhere.

As Macron told Wired: "The core basis of artificial intelligence is research. And research is global. And I think this artificial intelligence deals with cooperation and competition, permanently. So you need an open world and a lot of cooperation if you want to be competitive."

Wilson's scientific revolution, often utilised by entrepreneurs, has indeed forged whole countries. China has leapfrogged even the US – let alone Europe – in whole sectors, such as drones, or vying for dominance in others, from genomics to payments and communications.

Wilson's scientific revolution, often utilised by entrepreneurs, has indeed forged whole countries

This change throws up new dynamics. In the consumer sector *(see sector focus)*, media companies such as Naspers are increasingly investing in startups even as their main advertisers reduce their traditional spending to follow consumers online. In turn, e-commerce companies such as Amazon are becoming more media-like. Amazon's advertising revenue could reach $4.5bn in 2018, a 61% increase from $2.8bn in 2017, according to investment bank JPMorgan.

Skills in one area are applicable across other boundaries, too. Japan-based games developer Gree, one of the country's most active and successful corporate venturers with more than 100 deals, has seen its visionary and co-founder, Kotaro Yamagishi, move to become CEO of Keio's university venturing fund and apply his organisational skills to professionalising a part of the innovation capital ecosystem in the world's third-largest economy *(see innovative region)*.

Yamagishi joins Symposium co-chairmen Tony Askew, head of REV Venture Partners, and Jacqueline Lesage Krause, head of HSB Ventures/Munich Re, and others as a keynote at the Global Corporate Venturing Symposium in London next month.

Their exploration of the opportunities that abound and meeting of peers from across the university and corporate venturing ecosystem will spur the ideas and opportunities for collaboration and deal syndication that could help define the next generation of success stories.

As George Hoyem, managing partner at In-Q-Tel, the US intelligence community's strategic investment unit, described our GCVI Summit in California at the end of January: "The content, networking, quality of people, contacts and opportunities to collaborate with the largest corporations in the world is frankly in my experience unprecedented."

Or as Jose Catalan, head of innovation at Masisa, put it: "Este summit es una excelente oportunidad para entender lo que esta pasando por la cabeza de las grandes corporaciones en relación a la innovación y al corporate venture capital. Imperdible." ("This summit is an excellent opportunity to understand what is going through the of large corporations in relation to innovation and corporate venture capital. Must be experienced.")

Unmissable indeed. ◆

NEWS

Prior pulls away from GM Ventures

Sherwin Prior, ranked 14th in the Global Corporate Venturing Rising Stars awards last year, will leave US-listed carmaker General Motors' corporate venturing unit, GM Ventures, to set up venture capital firm Blue Victor Capital. He said: "I am off to start my own venture fund focused on transportation."


Sherwin Prior

Jon Lauckner, GM Ventures' president, chief technology officer and vice-president of research and development, has previously described Prior as the "glue in the unit" of GM Ventures.

Prior joined GM Ventures in September 2010 and was responsible for activities that included operations, deal-sourcing, deal negotiations and portfolio management. Among his exits at GM Ventures were speech recognition specialist Maluuba, iris recognition technology provider Delta ID, chemical producer Sirrus, ride-hailing app Turo, battery technology developer Sakti3, automotive software producer OpenSynergy and geolocation software developer Telogis.

After graduating from Eastern Michigan University where he remains a board trustee, Prior held a couple of financial analyst roles before coming to General Motors. He left to return to his studies, this time at Michigan University, where he obtained an MBA. He then joined investment bank Morgan Stanley as a senior associate for a couple of years before moving to Northpointe Capital as an equity analyst from 2015 to 2010, while also lecturing in finance at Eastern Michigan University.

Intel's Jorgensen forges new path to Macquarie

Erik Jorgensen has left Intel Capital, the corporate venturing subsidiary of the US-listed semiconductor technology provider, to be managing director of Macquarie Capital's European principal investment business.


Erik Jorgensen

Macquarie Capital is the corporate advisory, capital markets and principal investment arm of Australia-based investment and banking firm Macquarie Group.

Reporting to Hugh Briggs, a senior managing director and head of Macquarie Capital's principal investment business in Europe, Jorgensen will work alongside Bill Rogers in the Green Investment Group. He will focus on investments in infrastructure technology, covering areas such as energy and renewables, utilities, transportation, smart cities and grids, batteries and other energy storage technologies.

Macquarie Capital's recruitment of Jorgenson follows its joint venture with monitoring and controls firm Spectris in December 2017, and the launch of its infratech partnership with marketing agency R/GA's Venture Studio in New York recently.

Jorgensen had been a UK-based investment director at Intel Capital for 10 years. His deals there include Sweden-based payments business iZettle, Finland-based open source database provider MariaDB and Germany-based electric aircraft developer Volocopter. Jorgensen began his career more than 20 years ago at San Francisco-based investment bank Hambrecht & Quist working on mergers and acquisitions for high-growth companies in the communications, semiconductor and software industries.

Golomb leaves HP to bank on IEG

Vitaly Golomb, formerly a partner at HP Tech Ventures, the corporate venturing arm of US computer and printer maker HP, has taken a position at investment bank IEG. He will be one of IEG's 16 managing directors and is also global head of principal investments.


Vitaly Golomb

Golomb said: "We are building out the US operation on the M&A, capital raise, and [initial coin offering] underwriting advisory and a global group of vertically-focused early-stage VC vehicles – expecting many corporate limited partners on the VC side.

A GCV Rising Stars winner last year, Golomb joined computer and printer maker HP in March 2016, two months before its split from server and enterprise software producer Hewlett Packard Enterprise. The demerger allowed HP to form its own corporate venture capital unit, HP Tech Ventures, while the existing team and portfolio, Hewlett Packard Ventures, went with Hewlett Packard Enterprise.

In his Rising Stars profile, Golomb, a member of the supervisory board at trade body the Ukrainian Venture Capital and Private Equity Association, said: "I have been an entrepreneur my entire career starting from 13 years old. Prior to being recruited to help HP build the corporate venture capital program, I was working on putting together my own seed fund focused on providing outstanding technical talent in Central and Eastern Europe and Southeast Asia a bridge to Silicon Valley."

Although he was planning on going forward with his own fund, Golomb said being "offered a unique opportunity to help build the CVC for Silicon Valley's original startup from scratch was not something I could pass up".

NEWS

Haymes high tails it from Nielsen


Bruce Haymes

Bruce Haymes, a New York-based managing director at Nielsen Ventures, the corporate venturing unit run by media information provider Nielsen, has left to pursue an "undisclosed opportunity elsewhere".

Haymes said: "After 10 years with Nielsen and seven years running Nielsen Ventures and Nielsen Innovate, the incubator formed in Israel by Nielsen and VC fund Partam Hi-Tech, I have accepted an amazing opportunity elsewhere.

Nielsen hired Haymes as senior vice-president of global business development and mergers and acquisitions at the start of 2008. He led more than $2bn in acquisitions and investments over a three-year period.

His role on that side of Nielsen's business development has been taken on initially by John Burbank, who oversees Nielsen's global corporate development and strategic innovation as well as Nielsen Ventures.

Haymes subsequently led Nielsen's early-stage investment and accelerator programs linking the corporate's long-term strategies with externally developed businesses, and founded and launched Nielsen Innovate in Israel.

Rombaut shoots to Seraphim


Frédéric Rombaut

Frédéric Rombaut, formerly managing director of corporate venturing funds for network equipment supplier Cisco and mobile semiconductor technology provider Qualcomm, has joined UK-based venture capital firm Seraphim Capital as general partner.

Seraphim has raised a $95m fund focused on the $350bn space technology market, and plans to launch an accelerator called Seraphim Space Camp and a new fund with a wider global scope. It is backed by limited partners including corporates SES, Airbus and Telespazio.

A previous GCV Rising Star, Rombaut was managing director of Cisco's Cisco Investment International unit. He left in early 2016 to focus more on personal investments through his FR Development vehicle, with Jon Koplin replacing him as UK-based managing director of Cisco Investments. Before joining Cisco in January 2012, Rombaut had been managing director of Qualcomm's European investment unit, Qualcomm Ventures Europe, for six years, having spent almost as much time at private equity firm Apax Partners up to 2003.

He began his career with IB2 Technologies, a joint venture between computer producer IBM and industrial group Bouygues. He went on to launch Bouygues Group's corporate development arm where he co-founded Bouygues Telecom, a €10bn ($12.4bn) mobile network operator.

Rombaut said he had joined Seraphim because "I am interested in backing the boldest entrepreneurs leading this spacetech revolution".

He added: "Space-enabled data has the potential to solve some of the world's most pressing problems by revolutionising innovation in a multitude of sectors, including telecoms, energy, smart city, agriculture, transport, maritime and logistics. With Qualcomm and Cisco I have witnessed first-hand the transformational impact such paradigmatic shifts can have on huge global markets."

Rombaut's arrival at Seraphim follows its recent recruitment of Matt O'Connell, formerly the CEO of both satellite operator OneWeb and GeoEye, the geospatial intelligence provider acquired by Digital Globe for $1.3bn.

Pietras presses on to Workday


Brian Pietras

Brian Pietras, former head of technology ventures at UK-based outsourcing company Hays, has joined US-based enterprise human resources and finance management software provider Workday as vice-president of corporate strategy.

Workday recently relaunched Workday Ventures as its $250m corporate venturing fund. It initially established the unit in 2015 under the leadership of Adeyemi Ajao, its vice-president of technology products strategy, to focus on data and machine learning technologies for the enterprise.

Ajao left Workday in 2016 and the unit has been relatively quiet over the past 18 months. The new Workday Ventures will also fund developers of technologies such as blockchain, augmented and virtual reality.

Pietras told Global Corporate Venturing: "In addition to corporate strategy and growth initiatives, I will continue to work closely with the venture, early-stage technology community and software-as-a-service ecosystem."

At Hays, which he left in October 2017, Pietras's deals included a limited partner commitment in Seedcamp's third fund and the series A round for background checks service Onfido. His past experience includes time at units run by consumer goods producer Unilever and energy utility Centrica.

NEWS

Vincent leaves Engie for Demeter

After four years as deputy director of corporate venture capital at energy group Engie, Eric Vincent has moved to a partner position at France-based venture capital firm Demeter Partners.

Earlier this year the city of Paris choose Demeter to manage its €200m ($245m) Paris Green Fund (Paris Fonds Vert), making minority investments in six sectors – buildings, mobility, energy, air, waste and digital technologies – for sustainable cities. Demeter had recently sold stakes in five portfolio companies – Fondasol, Quadran, Delta Recycling, Suaval and Contenur – in a five-month period, generating a more than 2.5-times return.

Vincent was deputy director of Engie unit Engie New Ventures, investing in decentralised power generation, alternative fuels, energy management, smart grids, energy efficiency, home comfort, mobility and smart cities technologies. Founded in 2014, under managing directors Grzegorz Gorski and Hendrik Van Asbroeck, the €165m fund has invested €65m in 16 companies worldwide. It co-develops a blueprint collaboration plan with each portfolio company covering a 12-to-36 month horizon.

Sun moves to Robert Bosch Venture Capital

Robert Bosch Venture Capital (RBVC), the corporate venturing subsidiary of Germany-based industrial equipment maker Robert Bosch, has appointed Xiaoguang Sun as head of venture capital in China. Sun moved from private equity firm Yellow River Capital, where he had been partner and managing director from 2016 to the start of this year. He had previously spent eight years as a director at chipmaker Intel's investment arm, Intel Capital.

Giga trades Experian for Ericsson

Asif Giga has left Experian Ventures, the strategic investment arm of credit information bureau Experian, to become an investment director at communications technology manufacturer Ericsson's corporate venturing unit, Ericsson Ventures.

Giga had been with Experian for about a year, assisting with its initial corporate venturing operations in financial technology-related areas such as security, data and analytics. From 2015 until 2017, he was a venture investor at Singtel Innov8, the venture capital fund owned by Singapore Telecommunications. He supported or led diligence on six investments during his time there.

Giga's venture capital career began in 2013 with an internship at VC firm Data Collective. He followed that by spending four months the following year at payment services firm Visa as an innovation and strategic partnerships intern.

He received his MBA from the Wharton School, University of Pennsylvania's business campus, where he graduated in the top 10% of the class. He founded US-based food vendor portal developer TastyTruck in 2014 with funding from Wharton's Innovation Fund.

Rakestraw leaves Monsanto for Temasek

Ryan Rakestraw has moved from Monsanto Growth Ventures, US-based agricultural product supplier Monsanto's corporate venturing unit, to become an associate director at Singapore state-backed investment firm Temasek.

Rakestraw said Temasek has had an agriculture business area for some time but the venture capital investment aspect was new. His departure from Monsanto came ahead of an expected acquisition by Germany-based chemicals group Bayer.

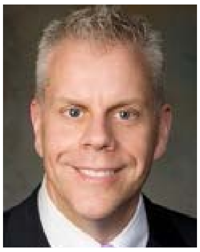
Prior to joining Monsanto Growth Ventures at the start of 2015, Rakestraw was briefly an operating partner at Yield Lab, an accelerator for early-stage agriculture technology companies, and before that associate, then principal, at venture capital firm Cultivation Capital.

Kilmer rejoins Battisti at C5 Capital

William Kilmer has been appointed by UK-based security-focused venture capital firm C5 Capital as a managing partner, rejoining his former Intel Capital colleague Marcos Battisti.

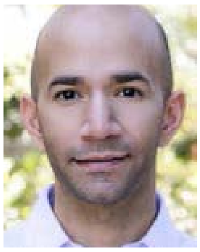
Kilmer was managing director for UK, Europe and the Middle East for US-listed chipmaker Intel's corporate venturing unit from the end of 2003 to November 2006, having previously been its director of strategic investments from late 1999.

Battisti, who had risen through the ranks of Intel Capital from 1998 to become vice-president before joining C5 in September 2016, worked with Kilmer during that time. He is head of C5's second fund, which is currently being raised.


William Kilmer

NEWS

Zaveri finds partner position in Gradient



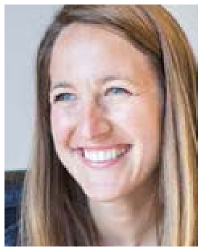
Muzzammil Zaveri

Muzzammil Zaveri has left venture capital firm Kleiner Perkins Caufield & Byers (KPCB) to join Gradient Ventures, the artificial intelligence investment arm of internet technology provider Google, Axios has reported.

Zaveri has taken a partner role at Gradient, according to its website. He joined KPCB in 2015 as an investor focusing on consumer and enterprise deals. He led investments in BuddyBuild, the app testing platform acquired by Apple in January this year, web analytics technology provider FullStory and customer interaction platform UJet among others.

Zaveri was previously an investor at China-headquartered internet group Tencent's Silicon Valley investment hub, working on investments in companies such as Vurb, the contextualised search app developer bought by social media company Snap for $110m in 2016.

Cannon shoots off to Index Ventures



Sarah Cannon

Sarah Cannon is to leave internet and technology group Alphabet's growth equity unit, CapitalG, for a partner position at venture capital firm Index Ventures, Recode has reported.

Cannon has been a principal at CapitalG since 2014, having been recruited from Harvard Business School where she was a graduate student. She was previously a project officer at multilateral financing body International Monetary Fund and a policy adviser for the US president's National Economic Council.

Founded in Switzerland in 1996, Index now operates from offices in San Francisco and London. It has closed eight early-stage funds and three growth-stage vehicles, and has some 160 companies in its portfolio.

Cannon will be Index's first female partner in the US. She expects to focus on sectors such as cloud productivity, blockchain, artificial intelligence and urban transport, and will advocate an international strategy that makes use of the firm's presence in Europe.

Hawkins leaves Universal for LocalGlobe

Sarah Cannon

Julia Hawkins has left her role heading investments for Universal Music UK, part of media conglomerate Vivendi, for a partner position at UK-based venture capital firm LocalGlobe.

Hawkins had been with Universal Music since 2011 and was head of strategy and investments at Universal Music UK, leading its strategic investment activities as part of Universal's global venture capital team. Although her experience chiefly focuses on media and music, she said in a blog post she was also interested in the healthcare sector, including areas such as genomics and gene therapy.

During her time at Universal, Hawkins led investments in three companies also backed by LocalGlobe – electronic musical instrument developer Roli, online yarn and knitting kit seller Wool & the Gang and music event promoter Sofar Sounds.

Prior to joining Universal, she spent two years as digital strategy manager at media group BBC Worldwide.

Cowan comes to Next47

Matthew Cowan, veteran venture capitalist and the co-founder and managing partner of growth equity firm Bridgescale Partners, has joined industrial conglomerate Siemens' Next47 corporate venturing unit in California.

Cowan co-founded Bridgescale with business partner Rob Chaplinsky in the mid-2000s. Their exits include the flotations of cybersecurity company Proofpoint and compensation software provider Xactly, and the sales of Jasper to Cisco, Rypple to Salesforce and Dayforce to Ceridian.

Germany-based Siemens set up Next47 in June 2016 to invest €1bn ($1.25bn at current rates) over five years, though the fund will shift to an evergreen model over the next few weeks or months according to an insider, meaning it will be able to reinvest the profits from its deals.

Next47 was formed out of the coprorate's former Siemens Venture Capital unit but with greater autonomy from business units to try and find new markets and disruptive companies.

Although it is run by Lak Ananth from California, the unit has teams in Europe and is expected to expand in China next year.

NEWS

Mitra meets Cisco after Infosys stint

Pankaj Mitra, a founding team member at Infosys Ventures, the corporate venturing fund of IT services provider Infosys, has become a US-based director at networking technology producer Cisco.

Mitra will focus on investments and mergers and acquisitions for Cisco in India, the former through its corporate venture capital arm, Cisco Investments.

Before joining Infosys in 2015, Mitra spent two years as senior manager for new products at cloud technology producer VMware, developing its hosted cloud services and subscription-based business lines.

During his time at Infosys, Mitra led investments in ANSR, Whoop, IdeaForge, Stellaris Ventures and was a board observer at Waterline Data Science, TidalScale and Airviz.

Infosys has been undergoing changes in its corporate venturing activities following the departure of its head, Ritika Suri, in September 2017.

SoftBank looks to fuse investment activities

Japan-based telecoms and internet group SoftBank is considering transferring its near-$100bn SoftBank Vision Fund, into a wider financial services operation, the New York Times has reported.

The new arm, SoftBank Financial Services, would incorporate the fund with Fortress Investment Group, the asset management firm SoftBank acquired for $3.3bn in July 2017. They would operate separately but would represent the main parts of the division. Rajeev Misra, who heads the Vision Fund as CEO of SoftBank Investment Advisers, is in the frame to lead SoftBank Financial services.

Rajeev Misra

Misra has a background in banking but was appointed senior managing director of Fortress in 2014 and SoftBank's head of strategic finance later the same year.

The division will also look to market private equity and debt funds to Middle Eastern investors, who have supplied a significant portion of the Vision Fund's capital as limited partners, under the Fortress brand name.

News of the potential switch has emerged as the Vision Fund looks to strengthen its investment team. It is currently advertising 14 positions according to Recode, which reports that it is seeking experienced venture capitalists to bolster a team that is tilted more toward financial services backgrounds.

Zhou Heiya greets Tiantu for $475m fund

China-based fast food chain Zhou Heiya International has formed a RMB3bn ($475m) retail-focused investment fund in partnership with venture capital firm Tiantu Capital.

The fund, tentatively named Shenzhen Tiantu Xingnan Innovative Consumption Industry M&A Investment Partnership, will target investments in the "consumption upgrade" and new retail space.

The filing revealed that the partners have supplied the first RMB1bn for the fund. Chusi Fangda, a limited liability vehicle established by Zhou Heiya, provided half of the capital, which came from its parent's balance sheet.

Tiantu supplied the remaining RMB500m, with RMB490m coming through subsidiary Tiantu Xing'an. It will manage the fund's investments on a day-to-day basis and will have three its five committee seats, with Chusi Fangda holding the other two. Tiantu Xingnan will make equity investments in companies but is also open to establishing new entities through partnership deals. Its capital is expected to be committed over a four-year period.

In addition to partnering Zhou Heiya in the fund, Tiantu is also one of its key investors. The food retailer, which was founded in 1997, went public in a $427m initial public offering in Hong Kong in late 2016, after which Tiantu retained a 7.9% stake.

Eight Roads directs $375m to third fund

Eight Roads Ventures, the venture capital branch of the financial services group Fidelity, has launched a $375m third fund aimed at Europe and Israel-based growth-stage companies.

ERVE III will be sector-agnostic, but Eight Roads identified enterprise, consumer, financial technology and healthcare IT as areas of particular interest. The vehicle, Eight Roads' third, will be managed by its London office, and is expected to make 15 to 20 investments of $10m to $30m each. In addition to providing capital, Eight Roads is also keen to support companies with scaling sales and marketing efforts, assisting with international expansion plans and creating a management hierarchy.

Eight Roads was established in 2015 through the merger of three VC and private equity divisions – UK-based funds Fidelity Growth Partners Europe and Moonray Investors, and China-based Fidelity Growth Partners Asia. It was allocated a $233m fund at that time.

NEWS

Cathay Smart Energy Fund gets Total commitment

Total Energy Ventures (TEV), the corporate venturing subsidiary of oil and gas company Total, has agreed to form a RMB1.5bn ($239m) fund in partnership with two other investors.

TEV, private equity firm Cathay Capital and Hubei High Technology Investment Guiding Fund Management, a fund overseen by the local government in the Chinese province of Hubei, will each provide RMB300m. The rest will be raised from external partners.

Cathay Smart Energy Fund will target China's new energy sector, investing in areas such as renewable energy, energy storage, distributed energy, smart energy, internet-connected energy and low-carbon technologies. Patrick Pouyanné, Total's chairman and CEO, said: "China is at the forefront of 21st century energy technologies"

Volvo turns the key on investment fund

Sweden-based carmaker Volvo Cars has launched an investment fund of an undisclosed size called Volvo Cars Tech Fund to back technologies that have the potential to transform the automotive industry.

The fund will focus on technologies such as artificial intelligence, electrification, autonomous driving and digital mobility services. Volvo recently launched a digital hub in Silicon Valley to augment its technology and services development.

The fund will invest globally and has already participated in a seed round for an undisclosed US-based advanced sensor developer. In addition to cash, Volvo could offer participating startups assistance in validating their technologies and getting their products to market. Zaki Fasihuddin, currently vice-president of strategic partnerships in Volvo Cars Silicon Valley Technology Centre, will head Volvo Cars Tech Fund as its chief executive.

Panasonic joins Scrum to create BeeEdge

Electronics producer Panasonic Corporation has joined forces with venture capital firm Scrum Ventures to launch US-based accelerator BeeEdge to form independent startups based on underutilised Panasonic technologies.

The accelerator is intended to combine Panasonic's technology expertise and Scrum's record in venture capital, which includes investments in fashion rental service Le Tote and autonomous machine developer Realtime Robotics.

Panasonic had set up a Japan-based accelerator with startup services provider Creww in 2016 that focused on areas such as home appliances, work and advanced technologies. The corporate subsequently announced in March 2017 that it would invest $100m in a US-based unit called Panasonic Ventures as part of a group-wide restructuring process.

Cisco sends cash to IDG Ventures India

Cisco Investments, the corporate venturing arm of networking equipment manufacturer Cisco, has committed an undisclosed amount to venture capital firm IDG Ventures India's third fund, the Economic Times has reported.

IDG Ventures India had initially targeted a $200m close for the fund but achieved a $208m close in 2017. The size of Cisco's investment has not been disclosed but Sudhir Sethi, chairman of IDG Ventures India Advisors, claimed it was the corporate's largest commitment in India to date. The firm, part of China-based VC group IDG Capital's global network, focuses on the software and software-as-a-service sectors.

Anterra Capital accelerates fund to $200m

Anterra Capital, the Netherlands-based, food-focused venture capital firm spun out of financial services firm Rabobank's VC unit, has added $75m to a fund that has now reached $200m.

Rabo Ventures spun Anterra off in 2013 with funding from Moonray Investors, a subsidiary of financial services group Fidelity, and the firm has confirmed that Rabobank and Fidelity unit Eight Roads Ventures remain as its backers.

Anterra invests across the food and agriculture supply chain, providing up to $20m in funding per company. It closed its first fund at $125m in March 2016 and has built a portfolio of 11 companies including crop protection technology specialist AgriMetis and gene editing technology developer Caribou Bioscience.

The extra capital was announced in tandem with investments of undisclosed size in Agriconomie, the France-based operator of an e-commerce platform for farmers, and Voltea, a Netherlands-based desalination system developer that had raised $5.5m in a 2015 series B round.

In addition to the new capital, Anterra has in the past year hired Axel Wehr from Bain Capital Private Equity as principal and Dan Harburg, formerly director of business development for robotics technology provider Soft Robotics, as a venture associate.

NEWS

Geodesic hits up Hitachi for $165m fund

Japan-headquartered electronics manufacturer Hitachi has agreed to contribute to a fund being raised by US-based venture capital firm Geodesic Capital with a $165m target.

Geodesic Capital Fund I-S will be a companion to Geodesic's inaugural fund, which closed at $335m in May 2016 with an anchor investment from trading conglomerate Mitsubishi.

Geodesic was launched in 2015 to help provide a path for US-based businesses to expand into Japan by making equity investments on behalf of Japan-based partners and helping portfolio companies find Japanese market strategies, employees and customers. Hitachi expects the Geodesic commitment to strengthen its links to the Silicon Valley entrepreneurial ecosystem for technologies such as artificial intelligence, robotics and the internet of things.

Hitachi also announced the launch of a US-based unit, Global Open Innovation Division, that will seek out collaborative opportunities with startups using Geodesic's contacts from next month The corporate will also establish a Japan-based equivalent, Open Innovation Division, as part of its existing Future Investment Division corporate venturing unit.

Novo commits $165m to Repair Impact Fund

Denmark-based pharmaceutical firm Novo Holdings has launched a $165m impact investment fund that will back developers of drugs to combat antimicrobial resistance.

About 20 projects across Europe and the US are expected to receive funding from the vehicle, Repair Impact Fund. It will provide between $20m and $40m a year in a three to five-year period. Repair will focus on the 12 bacterial families identified by the World Health Organisation and US Centres for Disease Control and Prevention as priority pathogens. Novo estimates more than 700,000 people die each year from infections resistant to antibiotics.

The fund was commissioned by Novo Holdings' owner, Novo Nordisk Foundation, to address the lack of early-stage funding for drugs fighting antibiotic resistance.

Sinar Mas and Yahoo Japan form $150m fund

Internet company Yahoo Japan and Indonesia-based conglomerate Sinar Mas have launched a Southeast Asia-focused investment fund in partnership with venture capital firm East Ventures.

The fund, EV Growth, has targeted a $150m close and the partners have already supplied $100m, Sinar Mas investing through its corporate venturing arm, SMDV. EV Growth will target IT and related technology developers in the region, and will provide between $5m and $15m to companies at series B stage and later in an attempt to plug a perceived gap at that part of the growth process for local startups.

Willson Cuaca, managing partner of East Ventures, said EV Growth will aim to fund between 15 and 20 companies. East Ventures has long been an active investor in Southeast Asia, most recently committing $30m to an Indonesian fund in September 2017. The fund will also look to invest in companies that complement Yahoo Japan's activities, according to Nikkei.

Five Seasons counts out first fund

France-based venture capital firm Five Seasons Ventures has raised more than €60m ($73.9m) from investors including food supplier Nestlé for the first close of its first fund.

The fund's limited partners include state-owned investment bank BPIFrance and the Italian government-created vehicle Fondo Italiano d'Investimento. Five Seasons will also have support from InnovFin Equity and Horizon 2020, both initiatives managed by the EU-owned European Investment Fund.

The vehicle will target early-stage developers of technology covering food-related areas such as waste, nutrition, supply, agricultural yields and alternative proteins. It will invest across Europe but is particularly interested in companies based in Italy and France. Although headquartered in Paris, Five Seasons has also set up offices in Bolgona, Italy, and London, UK.

Sprim helps spirit $50m to healthcare fund

Healthcare technology services provider Sprim has launched TKS1, a Singapore-based venture capital initiative in partnership with asset management firm Tikehau Capital, with $50m. Sprim's participation in the fund will be conducted by its local corporate venturing unit, Sprim Ventures. The $50m figure represents its initial close. TKS1 will provide between $500,000 and $5m for early-stage life sciences and medical technology developers.

NEWS

Mars Petcare to adopt startups with $100m fund

US-based pet health and nutrition product supplier Mars Petcare has launched $100m corporate venturing vehicle Companion Fund in partnership with venture capital firm Digitalis Ventures.

The fund will be managed by Digitalis and will make investments in early and growth-stage companies operating in the digital health, diagnostics, nutrition and pet services sectors. The fund's partners are Leonid Sudakov, global president of connected solutions for Mars Petcare, Ben Jacobs, the corporate's head of ventures, and Digitalis partner John Kenny.

The fund is being established alongside an accelerator called Leap Venture Studio, which Mars will run together with marketing agency R/GA and charitable foundation Michelson Found Animals. Areas targeted by the accelerator include pet nutrition and wellness products as well as pet health, medical and diagnostics technology, genetics products and artificial intelligence, machine learning and analytics technology.

Leap will be situated at RGA's Portland, Oregon office, and from July this year will host 12 startups. Participants will benefit from expertise and advice, and will be eligible for investment from Mars or Michelson.

Corporates gather around Fireside

Consumer brands group Unilever and diversified conglomerate ITC have backed the final Rs3.4bn ($52.3m) close of India-based venture capital firm Fireside Ventures' first fund, VCCircle has reported. Hero Enterprise Investment Office, a branch of diversified trading firm Hero Enterprise, was also involved in the close, which followed an initial Rs1.8bn secured in June 2017.

The first close included industrial conglomerate RP-Sanjiv Goenka Group and health and skincare product manufacturer Emami as well as family office Sharp Ventures, investment firm PremjiInvest and private equity firm WestBridge Capital.

Fireside Ventures' fund will invest in 20 to 25 consumer brands over the next two or three years and will focus primarily on domestic companies. The firm is looking to satisfy changing consumer patterns and cater to values held by younger millennial customers, such as authenticity and ethical sourcing. It expects to discover brands more easily thanks to the digital economy and advances in retail infrastructure.

Fireside Ventures was founded by Kanwaljit Singh, a co-founder of VC fund Helion Venture Partners, where he focused on consumer-orientated companies.

Bose to sound out startups with $50m fund

US-based audio equipment producer Bose has committed $50m to corporate venturing unit Bose Ventures to support its augmented reality (AR) technology development.

Bose designs and manufactures headphones, speakers and audio systems, but announced the formation of Bose Ventures in tandem with the launch of an audio augmented reality platform called Bose AR. The firm has also built a prototype pair of smart glasses that can identify what a wearer is seeing and overlay relevant information audibly using a wafer-thin acoustics system Bose has developed.

Bose Ventures will fund startups developing AR technology that can feed into functions such as music, communications, education or travel. Those could theoretically encompass wearable devices, innovative audio technology and digital wellness as well as pure-play AR.

Portfolio companies will also receive assistance with product development, brand management and consumer information, and expertise covering areas such as intellectual property, the supply chain and sales.

Steve Romine, director of corporate development for Bose, is heading the fund as managing director. He is joined by Bose corporate development managers William Rice and Adam Jackson, who have been appointed venture investors.

Allegion locks in $50m corporate venturing fund

Ireland-based security products manufacturer Allegion has formed $50m corporate venturing vehicle Allegion Ventures to invest in complementary technologies.

Spun out of industrial product and home appliance group Ingersoll Rand in 2013, Allegion owns a range of security brands including lock maker Schlage, door exit system provider Von Duprin and bicycle lock producer Kryptonite.

Allegion Ventures will make investments of $250,000 to $5m in early-stage companies working on technology that can make buildings more secure and user experience smoother and less intrusive.

Rob Martens, head of external partnering and collaboration for Allegion, will lead Allegion Ventures as president. It will be managed by venture capital firm Touchdown Ventures.

NEWS

Seventure admits Adisseo to latest fund

France-based venture capital firm Seventure Partners has raised €24m ($29.7m) for the first close of a food-focused fund that has secured animal feed additive producer Adisseo as its cornerstone investor.

The fund will invest across Europe, North America and Israel but is also open to promising pitches from other regions, including Asia. Seventure has not disclosed a target size for the vehicle.

Seventure will provide funding for companies in the animal health, feed and nutrition sectors, as well as those developing digital technologies covering smart breeding, control and traceability of agriculture and livestock.

Verizon touches The Fabric in $15m fundraise

US-based company builder The Fabric has secured $15m from investors including telecoms firm Verizon's corporate venturing subsidiary, Verizon Ventures, for its third fund. Venture capital firm March Capital Partners has also contributed to the first close of Fabric 3, which is expected to reach its final close soon.

Founded in 2012, The Fabric collaborates with entrepreneurs to create cloud and infrastructure internet-of-things technology companies it helps to fund through series A stage.

The company has now raised a total of $41m across the three funds. Its portfolio companies include networking technology provider VeloCloud, which was acquired by VMWare in November 2017.

Genesis takes Cultivate(MD) to first close

US-based medical device developer Genesis Innovation Group has raised $7.2m for early-stage healthcare fund Cultivate(MD) Capital Fund with a $10m target.

Founded in 2013, Genesis partners developers of healthcare technologies through company launches as well as seed and pre-seed investments. Cultivate(MD) will invest across the healthtech spectrum but will focus on medical device and orthopaedic technologies. It will have access to Genesis personnel and contacts for its investment activities. Genesis launched the vehicle in November 2017.

Shoptalk Ventures opens up

Retail and e-commerce conference organiser Shoptalk and venture capital firm Commerce Ventures have seeded $1m US-based fund Shoptalk Ventures to focus on e-commerce and retail technology startups.

Shoptalk Ventures plans to invest in 20 companies within the next two years and Commerce Ventures, which itself concentrates on the retail and e-commerce sectors, will handle the fund's investment reviews, selections and due diligence independently.

Shoptalk runs conferences for the retail and e-commerce sectors that allow industry figures to collaborate and meet up with entrepreneurs, technology developers and investors. It will become a limited partner in Commerce Ventures as part of the deal.

Aisin and Fenox assemble $50m automotive fund

Japan-headquartered automotive components maker Aisin Group has launched a $50m US-based investment fund in partnership with venture capital firm Fenox Venture Capital.

Fenox will manage the fund, with CEO Anis Uzzaman taking a general partner position. Aisin will provide capital as a limited partner and will offer portfolio companies assistance in expanding in Asia.

The fund will look to invest in Silicon Valley-based startups developing automotive technologies that involve the confluence of hardware and software. Areas that will be considered include autonomous driving, zero-emission and connected vehicles, artificial intelligence, the internet of things, and augmented and virtual reality.

AgFunder seeds investment arm

AgFunder, a US-based investment, data and media platform for the agricultural technology industry, has formed a dedicated investment fund. The company invests directly in startups through the vehicle and intends to leverage members of its network as co-investors. It expects to use the fund to make one or two investments each month.

First Access to entertain startups

Entertainment and fashion agency First Access Entertainment has launched a seed fund with angel investor Simon Tikhman to support entrepreneurs targeting youth. The initiative – The Fund by First Access Entertainment – is intended to utilise Tikhman's venture capital expertise and First Access Entertainment's knowledge of youth culture.

The vehicle will concentrate on areas such as the internet of things, the shared economy, new marketing, fashion and music. Tikhman will lead the fund as managing partner, with First Access CEO Sarah Stennett as a partner.

Portfolio companies will get support from the fund's Los Angeles headquarters as well as First Access's locations in Los Angeles, New York, London and Stockholm. First Access has appointed a youth culture-focused advisory board to offer guidance on the fund's cultural ethos.

BBVA marks a decade of Open Talent

Financial services firm BBVA will initiate its 10th Open Talent startup competition later this year, aiming to uncover fintech ideas that could change the way consumers and organisations manage finance.

The program will award prizes of €50,000 ($62,000) in three categories, covering the participating startups most likely to reshape banking over the next decade improve customer banking experiences and how people manage their money and data, and alter how companies handle their financial and data operations.

The competition is open to startups worldwide. The best participant from each of the 11 countries in which BBVA is present will be invited with the three prizewinners to take part in an "immersion week" at its Spanish headquarters. The prizewinners, along with some of the best runners-up, will also have their business models pushed through the BBVA proof-of-concept development pipeline.

In addition to running the contest, BBVA will partner businesses throughout 2018 to tackle fintech priorities across segments including artificial intelligence, distributed ledger technology, insurance tech, consumer finance and asset management.

Startups board JD.com's AI Catapult

E-commerce and logistics group JD.com have said it will accept five artificial intelligence (AI) and blockchain technology startups into China-based accelerator AI Catapult, formed to augment JD.com's experience with AI, which it already uses for processes such as automation and customer service.

The corporate also hopes to learn more about blockchain, which it uses to record the origin of goods in its supply chain, and its AI research division is interested in how blockchain's scalability, privacy and efficiency could be improved.

The participants are Singapore-based decentralised database developer Bluezelle, UK-based e-commerce payments platform Nuggets, China-based financial technology startup Bankorous, Australia-based digital services marketplace CanYa and Australia-based product verification system developer Devery.

AI Catapult's graduates will have the chance to implement their technologies within the firm.

Amazon's Alexa Accelerator voices 2018 plans

US-based e-commerce platform Amazon has launched the 2018 edition of its Alexa Accelerator, which aims to nurture startups working with Amazon's Alexa voice-controlled artificial intelligence technology. Up to 13 startups will take part in the initiative, which is run by Amazon's Alexa Fund in partnership with accelerator operator Techstars. It will focus on technologies such as smart home devices, cars and transportation and connected learning.

The accelerator is situated in Seattle but up to three participants will be invited to work at Techstars London in a bid to expand Alexa Fund's international development pool. The 13-week program is scheduled to take place between July and September this year. Participants will present their products at a demo day in October.

Singha cracks open $25m for venture fund

Thailand-based beverage producer Singha Corporation has formed $25m corporate venturing vehicle Singha Ventures to back startups and venture capital funds, the Nation has reported. Singha Ventures will operate as an independent subsidiary and will not require board approval for investments. The fund will target consumer products brands in addition to retail, logistics, enterprise healthcare and renewable energy technology developers and service providers. It will limit its involvement in portfolio companies to sub-25% stakes.

NEWS

Free Electrons sparks second cohort

Free Electrons, an international accelerator backed by 10 energy utilities, has unveiled the 30 startups accepted into its second cohort.

The accelerator was launched in 2017 with an initial group of 12 startups on a six-month program. The 2018 batch is focused on energy-related technologies including the internet of things (IoT), digitisation, smart grids, e-mobility, energy management and energy efficiency. Participating startups will begin with a one-week bootcamp in Lisbon, Portugal before training for subsequent legs in Australia, the US and Germany.

Free Electron's members are American Electric Power, Ausnet Services, Origin Energy, Dewa, EDP, ESB, Innogy, SP Group and Tepco, while Portugal-based Beta-I is a partner. The 30 companies accepted for the 2018 Free Electron accelerator are:

Adaptricity (Switzerland, smart grids)
Chakratec (Israel, e-mobility)
Clevericiti Systems (Germany, IoT and digitisation)
ElectrIQ Power (US, energy management)
EQuota Energy (China, smart grids)
Fresh Energy (Germany, customer solutions)
Greenbird Integration Technology (Norway, IoT, digitisation)
GreenPocket (Germany, energy management)
GridCure (US, smart grids)
GridWatch MAC (Ireland, smart grids)
Howz (UK, business model innovation)
Hygge Power (US, energy efficiency)
Jungle AI (Portugal, IoT and digitisation)
Kisensum (US, smart grids)
Loqr (Portugal, IoT and digitisation)
Lumenaza (Germany, energy management)
Manetos Labs (Sweden IoT and digitisation)
Me SOLshare (Bangladesh, smart grids)
Meazon (Greece, IoT and digitisation)
Nnergix (Spain, smart grids)
Orison (US, smart grids)
RayGen Resources (Australia, clean energy)
Relectrify (Australia, clean energy)
Smart IoT (UAE, IoT and digitisation)
SmartGreenCharge (France, clean energy)
Spark Horizon (France, e-mobility)
Sterblue (France, energy efficiency)
Verv Energy (UK, IoT and digitisation)
VoltStorage (Germany, clean energy)
Wattwatchers (Australia IoT and digitisation).

Big deal: Uber falls for Southeast Asian Grab

Robert Lavine, news editor

Singapore-based ride-hailing service Grab has confirmed it is acquiring US-based peer Uber's Southeast Asian business in a deal that gives Uber a 27.5% stake in Grab, and shines a light on the direction of the sector.

Founded in 2012 as GrabTaxi, Grab operates an on-demand ride platform spanning taxis, motorcycles, private cars and carpooling, with a presence in 195 cities across Singapore, Indonesia, Malaysia, Thailand, Vietnam, the Philippines, Myanmar and Cambodia.

Uber has been operating in Southeast Asia for a while and, after selling its Chinese business to Didi Chuxing in a similar deal in April 2016, pledged to redouble its efforts in the region, but it has failed to keep up with Grab's locally-focused and more diverse service, which also takes in mobile payment.

In addition to the Didi Chuxing sale, Uber made a similar deal with Russia-based Yandex Taxi in July 2017, merging their businesses to form an entity in which it holds a 36.6% stake. Dara Khosrowshahi, Uber's chief executive, will join Grab's board of directors in conjunction with the deal.

Khosrowshahi said: "This deal is a testament to Uber's exceptional growth across Southeast Asia over the past five years. It will help us double down on our plans for growth as we invest heavily in our products and technology to create the best customer experience on the planet."

The latest transaction will effectively involve Grab adding not only Uber's ride services but its local food delivery operations to a range of services that also includes package delivery and financial services. Uber's Singapore and Malaysia-based UberEats activities will allow GrabFood to launch in those countries, and the latter, so far only available in Indonesia and Thailand, is expected to be available in all Grab's markets by the halfway point of 2018.

The deal comes at a time when Grab is looking to further expand its services, adding a GrabCycle bike-sharing service to combat local offshoots formed by China-based Mobike and Ofo. It is also widening its financial services offering to encompass microfinance and insurance.

Grab co-founder Tan Hooi Ling said: "We will rapidly and efficiently expand GrabFood into all major Southeast Asian countries in the next quarter. We are going to create more value for our growing ecosystem of consumers, drivers, agents – and now merchants and delivery partners. GrabFood will also be another great use case to drive the continued adoption of GrabPay mobile wallet and support our growing financial services platform."

Perhaps more importantly, at a time when voices calling for online giants like Facebook and Alphabet to be broken up are getting louder, the deal is another indication of how the cash-guzzling on-demand ride sector is consolidating under

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a relatively small number of owners and raises questions as to whether customers will be best served in regions where there is increasingly an effective monopoly on the sector.

Southeast Asia may not be in that position quite yet – Grab has a well-funded competitor in the shape of Go-Jek – but the industry worldwide is increasingly coming under the joint ownership of three players – Uber, Didi Chuxing and SoftBank, the Japan-headquartered telecoms and internet group that holds substantial stakes in the first two as well as in Grab.

Grab had raised $1.4bn from investors including SoftBank – which initially paid $250m for a reported 40% stake in 2014 before reinvesting in subsequent rounds – as well as travel agency Qunar, automotive manufacturer Honda and a host of institutional investors, before Didi Chuxing invested $2bn in July 2017 as part of a series G round also backed by SoftBank that is expected to close at $2.5bn.

SoftBank and Didi Chuxing were shareholders in Brazil-based 99 before the 99 agreed to an acquisition by Didi Chuxing in January this year. Uber and Didi Chuxing already owned shares in each other's companies after the 2016 deal, before SoftBank paid more than $7bn for a 15% stake in Uber together with two board seats, also in January.

Reports that month said Rajeev Misra, CEO of SoftBank Investment Advisers, believed Uber should pull out of several regions in order to consolidate operations in its key markets, and while the usual denials were generated in the aftermath, that does indeed seem to be what is taking place.

There is nothing inherently suspicious about that – Uber has spent huge amounts of money in countries with established local operators and is still reportedly a long way from profit, and a more precise focus could help with that – but it is also inarguably true that a move removes key competition for SoftBank's other portfolio companies in those regions.

Of course, SoftBank and Didi Chuxing are also notable investors in India-based Ola, which could well be the next company to strike a deal with Uber that involves a consolidation. They are also both shareholders in Uber's only real North American competitor, Lyft, though a merger between those two is likely to face real anti-monopoly measures, especially in a climate where the Qualcomm-Broadcom and CNN-AT&T mergers have recently been killed by the government. ◆

Big deal: DoorDash fetches $535m

Robert Lavine, news editor

US-based food delivery service DoorDash has picked up its first corporate funding, closing a $535m series D round led by telecoms and internet group SoftBank, and its next move could help solidify the links between food delivery and logistics.

The round also featured Singaporean government-owned fund GIC, venture capital firm Sequoia Capital and charitable foundation Wellcome Trust. The company has now raised $722m in total, its past backers including Kleiner Perkins Caufield & Byers, Pear Ventures, Khosla Ventures, SV Angel, CRV and Y Combinator.

Founded in 2013, DoorDash partners restaurants to deliver food to local customers, adding a service fee to cover the cost of delivery. Its largest markets are California and the cities of Seattle and Minneapolis, but it operates in more than 600 urban areas across North America.

The series D round valued DoorDash at $1.4bn post-money, almost doubling the valuation based on its $127m series C round two years ago. The latest funding will help drive an expansion the company hopes will take it to 1,600 areas by the end of 2018.

The company's business model differs slightly from rivals in that it actively seeks partnerships with restaurants, both local independent operators and national chains such as Wendy's or PF Chang's. The key to this is DoorDash Drive, which covers the delivery not only of individual meals but also large food orders to catered events or retailers.

The press release announcing the funding confirmed DoorDash's long-term plans, which involve establishing a last-mile delivery platform for any consumer-focused business. This would enable it to partner both local shops and online merchants to get products to customers more quickly than conventional mail or logistics services.

DoorDash's core offering is relatively similar to that of Uber Eats, the food delivery business started by ride-hailing service Uber, but moving into a logistics service staffed by "independent contractors" would theoretically put it closer to Southeast Asian operators like Grab or Go-Jek.

The movement is indicative of a startup space where logistics, consumer businesses and transport are increasingly moving closer together, not least due to the influence of corporate investors like SoftBank which can help form links through their positions in portfolio companies.

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SoftBank is also a shareholder in Uber, Didi Chuxing and several other ride-hailing companies, but it also has significant stakes in online sports memorabilia seller Fanatics as well as Asian e-commerce giants Alibaba and Coupang.

The last two have their own large-scale logistics operations but an expansion by DoorDash into more diversified logistics could theoretically precede some substantial investments by SoftBank in more pure-play consumer companies. Access to SoftBank's artificial intelligence-focused portfolio companies could also give DoorDash an edge on rivals when it comes to delivery strategies and efficiency.

E-commerce and cloud services firm Amazon could be pursing a similar strategy, having acquired grocery chain Whole Foods, itself an investor in grocery delivery chain Instacart. Amazon's recent acquisition of smart doorbell maker Ring is expected to enhance its Amazon Key service, but Instacart's contractor-based delivery platform could hypothetically be added to the corporate's existing logistics network at some point down the line.

Unlike China, the logistics sector in the US is still dominated by long-established players like UPS, DHL and FedEx, and startups have yet to disrupt the industry to the same extent as some other areas, but the signs are that such a change could be possible as delivery times continue to be reduced. DoorDash will be hoping to grab itself a slice. ◆

Analysis: Salesforce to exit Dropbox in IPO

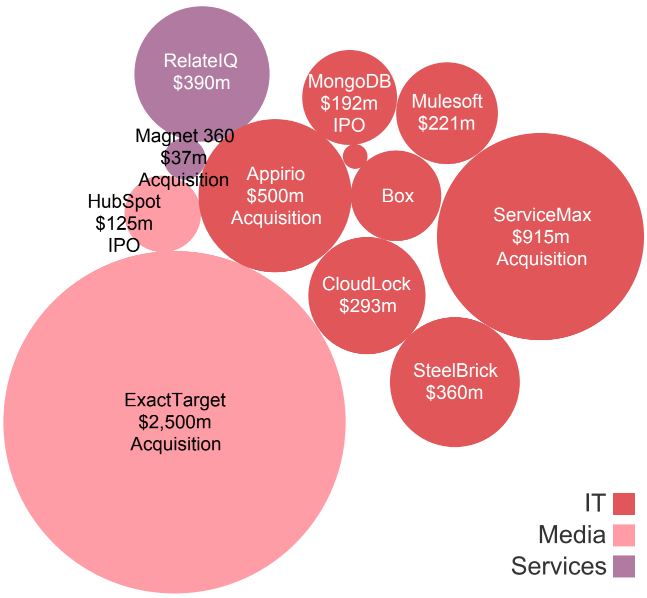
Kaloyan Andonov, reporter, GCV Analytics

In January, US-based file storage platform Dropbox filed for an initial public offering (IPO) to raise up to $500m on the Nasdaq Global Select Market, which would allow enterprise software producer Salesforce to exit. Goldman Sachs and JPMorgan Chase were select as lead underwriters.

The flotation is to follow over $600m in equity funding in addition to $1.1bn in debt financing from banks including JPMorgan, Bank of America, Deutsche Bank, Goldman Sachs, Macquarie and Royal Bank of Canada.

Founded in 2007, Dropbox runs a cloud-based storage and sharing platform with more than 500 million users, 200,000 of which are businesses and more then 11 million of which pay subscriptions. The company has been increasingly moving into business collaboration software. Dropbox's revenue increased from $604m to $1.1bn from 2015 to 2017, at a compound rate of 35%, having also generated free cashflow of over $300m last year.

Notable Salesforce exits in recent years



This is going to be one of the largest exits to date for Salesforce, which has been investing primarily in emerging enterprise software developers. Most of its notable exits in recent years, whether IPOs or acquisitions, have been from such enterprises. ◆

Comment: Risks of bringing a knife to a funding gunfight

James Mawson, editor-in-chief

There are a couple of interesting reactions to Japan-based internet conglomerate SoftBank raising nearly $100bn for the SoftBank Vision Fund, and the billions put out by Tencent or Naspers and others.

Some look at the peers trying to raise larger war chests based on the competition posed by the Vision Fund and call it an "inane idea that raising more money increases your chance of success", as described by data provider CB Insights.

While SoftBank's vision of trying to take potentially longer-term bets on the impact of disruptive technology is ambitious it

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is influential. As Recode noted in a rhetorical question: "What happens if I decline and SoftBank funds my rival instead?"

Recode quoted Dara Khosrowshahi, CEO of ride-hailing platform Uber, who said at Goldman Sachs's tech conference recently: "Rather than having their capital cannon facing me, I would rather their capital cannon behind me, all right?"

The quote came weeks after SoftBank chose to invest more than $7bn in Uber rather than its chief rival in the US, Lyft.

Naspers has just recycled close to $10bn by selling a small fraction of its shares in China-based internet group Tencent after a near 20-year hold and plans to use the money to fund other deals.

Fortune's Term Sheet reported Sequoia Capital was raising as much as $12bn for its global growth fund and other VC and growth funds in the US and China. It added: "In today's world, even a really well-funded startup company will have trouble competing when it is up against a super-have company backed by a mega-fund."

So what impact does a wall of funding have on Uber, Lyft, WeWork or the host of others raising not just hundreds of millions of dollars but billions in venture funding? Traditionally, equity, whether public or private, has been used to fund a company's growth before it reaches profitability, with investors being repaid through dividends or stock buybacks.

US-listed Tesla Motors' net loss has widened from nearly $83m in the 2008 fiscal year to almost $2bn in the fiscal year 2017, according to Statista, while Uber narrowed its fourth-quarter 2017 loss to $1.1bn, down from $1.46bn in the previous quarter, according to Reuters.

Alternatively, look at Meituan-Dianping, a China-based local services platform backed by corporates such as Xiaomi, Fosun and Tencent, which has entered discussions about an initial public offering in Hong Kong as soon as this year.

The company is exploring a valuation of at least $60bn, twice that at which it last raised equity funding, in a $4bn round led by Tencent in October 2017. Meituan-Dianping processed $57bn in transactions in 2017 between some 320 million consumers and 4 million merchants, and has received about $9.9bn in funding to date.

Heavy funding has paid off in terms of impacting consumers and investors

All those companies are valued at more than $50bn, so the heavy funding has paid off in terms of impacting consumers and investors, at least for now, which is hardly "inane".

The second group denies it has any impact on the innovation capital ecosystem and would prefer these investments to be viewed in a different category. This is understandable but potentially short-sighted.

Ahead of our GCV Symposium in May, I had a request from a keynote speaker for audience thoughts on SoftBank and Tencent. First, does the peer group consider them to be CVCs they aspire to emulate and could it ever be practical in their respective organisations? Second, do investments from the two have any reflection on core parent company strategy? Third, does the peer group value news about these two in the same digest as other CVC news?

This reflects the challenge of both aspiring to SoftBank's or Tencent's undoubted successes in backing entrepreneurs and their use of proceeds to reinvest in the next set of winners with even more money, and how to emulate them if they do want to.

Most listed companies have, however, preferred paying out to shareholders through dividends and share buybacks. For the 12 months to March 2017, shareholder return totalled $909.6bn in the Standard & Poor's 500 index, down 6.7% from the record $975bn for the 12 months to March 2016.

Amazon, whose market capitalisation is about double that of Walmart's, has been a poster child for long-term reinvestment that keeps net profits low but net operating cashflow high to reinvest in development. Similarly, Tencent said at the GCV Asia Congress in September its net income was primarily used for investments.

It is clear that large investments can drive market development and value creation, and the groups committing most fully to future innovation sources rather than paying back existing shareholders are among those whose market caps have improved most in the current economic cycle as customer growth continues to rise.

SoftBank's willingness to deploy its capital across different sectors and geographies may well see it creating a number of global market-leading businesses, as data provider PitchBook noted about its investment in secondhand car market operator Auto1 in January this year.

It is a pitch that chimes with the times. Erik Vermeulen, professor of law at Tilburg University, spoke at the 12th Annual Development Finance Institution Corporate Governance Conference, hosted by the European Bank for Reconstruction and Development in London, saying: "We had a lively and very interesting discussion on 'corporate governance in a digital age'.

"During the presentation and discussion, three corporate governance principles were identified, namely flat hierarchy – the trend towards more decentralised organisations – the inclusion of a variety of stakeholders, and storytelling – or open communication. Capital efficiency and financial metrics are, of course, still important indicators, but they need to be supported by a narrative that focuses on sustainability and innovation."

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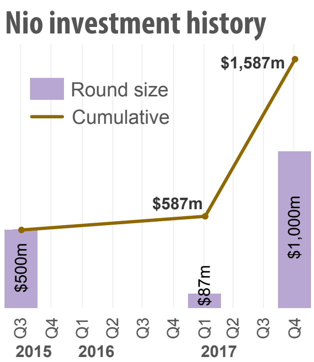
Siemens talks about the 400-fold decline in the cost of 3D printing in recent years, while the importance of intangibles is reshaping the economy. Tangible investment has declined from roughly 14% of private-sector gross value added to less than 10%, while intangible investment has done almost exactly the reverse, rising from 10% to 14%, according to professors Stephen Cecchetti and Kim Schoenholtz.

Ultimately, those unwilling or unable to compete at the top end of creating market-leading companies are effectively bringing a knife to a gunfight. They can win sometimes, in some areas, but the chances might be against them. ◆

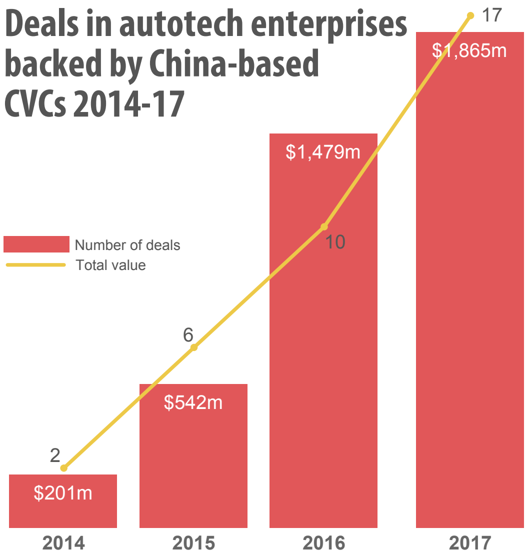
Analysis: Nio speeding up to a $2bn listing

Kaloyan Andonov, reporter, GCV Analytics

China-based smart electric vehicle developer Nio has hired eight banks as underwriters for an initial public offering (IPO) – Goldman Sachs, Bank of America Merrill Lynch, Credit Suisse, Morgan Stanley, Citigroup, Deutsche Bank, JPMorgan and UBS. The flotation will enable various China-based corporate backers to exit. The company hopes to raise between $1bn and $2bn in the transaction, which is expected to take place in the US during the second half of this year.



Founded as NextEV in 2014, Nio develops an electric autonomous sports car equipped with a personalised digital assistant that it aims to bring to market by 2020. The sports utility vehicle is to be equipped with an electric drivetrain, autonomous driving system and an in-car artificial intelligence system. Nio has already developed a supercar – the EP9 reportedly the fastest electrically-powered vehicle in the world.



Nio had raised substantial amounts of funding in corporate-backed rounds. The latest round ran to $1bn in November last year, led by internet group Tencent at a valuation of about $5bn. Earlier, in March, Tencent and fellow internet company Baidu co-led an $87m round, which also featured consumer electronics maker Lenovo and valued Nio at $2.9bn. In 2015, Tencent joined e-commerce firm JD.com to invest an undisclosed sum before participating in a $500m round later that year.

When it takes place, the IPO would be the exemplary exit for China-based corporates in the automotive space. Chinese corporate venturers have demonstrated considerable interest in the autotech space. These developments been in line with the rising corporate interest globally in this disruption-ripe space. ◆

Comment: Spotlight falls on Hong Kong

James Mawson, editor-in-chief

Unrelated announcements, revealing entrepreneurial billionaire Sir Li Ka-shing will retire from two of his Hong Kong-listed companies, CK Hutchison and CK Asset, and South Africa-based media and ecommerce giant Naspers' sale of part of its stake in Hong Kong-listed group Tencent, have focused attention on the island and value creation by two of the biggest business success stories of our time.

Naspers raised HK$76.9bn ($9.8bn), selling – for the first time – Tencent stock at HK$405 a share. Naspers sold 190 million shares, equal to 2% of Tencent's total issued share capital.

Naspers cut its holdings to 31.2% and promised not to sell more shares in the next three years. Its overall stake was valued at $175bn, according to Bloomberg, making it one of the greatest venture capital investments ever.

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Naspers' stake was diluted to just over 35% in China-based Tencent's 2004 flotation on the Hong Kong Stock Exchange. Underwritten by Goldman Sachs and oversubscribed 158 times, Tencent issued 420 million shares at HK$3.70 each in an IPO that raised HK$1.56bn (then worth $200m).

Since then Tencent, the operator of WeChat, a messaging service with a billion active users, has soared in value, even if Naspers' own entire market cap of $121bn is effectively a discount on its holding in Tencent, let alone its other investments, which stretch from Movile in Brazil to Flipkart in India and Udemy in the US as well as its main operating business in sub-Saharan Africa.

Naspers acquired 46.5% of Tencent in 2001 from existing shareholders including IDG Capital, then a corporate venturing affiliate of US-based publisher International Data Group, for $32m.

Tencent founder Pony Ma and four others had originally raised $2.2m from IDG and PCCW, a Hong Kong-based investment firm backed by Li Ka-shing. Li's other venture investments, including Skype in 2005, Facebook in 2007, Spotify, Waze, Siri, DeepMind through Horizons Ventures, have generally seemed as perceptive.

Li invests in Horizons' deals through his Li Ka Shing Foundation, though the firm was set up in 2002 and run by Solina Chau Hoi Shuen and her business partner, Debbie Chang Pui Vee.

According to a Forbes Asia profile, the Li Ka Shing Foundation has in turn put its winnings to work in ways such as a $130m donation to the Haifa-based Technion Institute of Technology to foster knowledge transfer between China and Israel where, through Horizons, Li has become the most active foreign investor, as investors would have heard at the recent GCV Israel conference.

As the best investors, such as Naspers, Tencent and Li, have long realised, the best deals come from backing local management and helping them around the world, but Hong Kong has been home to some of the most successful deals. ◆

The next GCV Asia Congress on September 20, sponsored by Tencent, will be held in Hong Kong.

SECTOR FOCUS

The e-transformation of the consumer sector

Kaloyan Andonov, reporter, GCV Analytics

GCV Analytics defines the consumer sector as encompassing e-commerce, food and beverages, fashion and apparel, consumer electronics, hygiene and beauty products and services, and other durable consumer goods.

The consumer sector is undergoing significant transformation. There are pressures on the demand side, changing what goes into products and packaging. There are also significant disruptors on the supply side, where e-commerce, pioneered by e-commerce company Amazon in book-selling, has been extended on a global scale to many types of product – from food and beverages through durable consumer goods to fashion and apparel.

The advance of e-commerce inevitably impacts the entire traditional retail value chain – from distribution and delivery to payment and customer service. This is clearly captured by our GCV Analytics data, as the major subsectors featuring emerging consumer business are e-commerce platforms, food and beverage companies and fashion and apparel innovators.

Consumer sector corporates have been investing in both their own sector and other areas that form part of the retail value chain, such as logistics, online payment technologies, consumer lending, big data technologies and transport.

A recent McKinsey report – Trends that will shape the consumer industry – identified key trends that are "likely to have large impact on industry profits".

The first key macro trend is the expected rise of new middle-class consumers. Economic growth in emerging economies is forecast to generate over a billion new consumers, spending between $10 and $100 a day, by 2020. More than 85% of this middle-class growth is set to take place in the Asia-Pacific region. These new consumers will drive demand for online sales in the same vein as developed and mature markets.

The second important trend is the new type of digital consumer. The report notes that many consumer packaged goods (CPG) companies "face some major strategic questions – including how to build a successful business through online retail channels, how to build brands and categories in a socially networked world, and how to exploit technology-driven opportunities to understand consumers more deeply and connect with them more often". This trend explains the interest and investments in big data, allowing companies to study in-depth customer profiles.

The report also points to the growing adoption of online purchases of products by consumers in the largest and most significant western markets – e-commerce in the US is estimated to be a $155bn market, in the UK, approximately a third of adults claim to shop regularly for food online, and about as many claim to buy apparel online in Germany. It is, thus, hardly surprising that e-commerce companies tend to invest in "cloud hosting (38%), content marketing (38%), email automation (33%), business Intelligence (31%) and marketplaces (31%)", according to a report by e-commerce software developer Divante. The findings of our data on corporate investments in VC rounds appear consistent with this statement.

The fourth key global trend is the consumer "shift to value" – that is, the orientation of consumers towards cheaper CPG brands, including private labels. While value offerings are predictably expected to attract large segments of consumers in emerging markets, which still lack high purchasing power, this is a trend also in mature developed markets, where the recent recession has driven consumers to be thriftier than before. McKinsey research, cited in the report, actually suggests that "70% of US consumers are looking for ways to save money" and are content with cheaper brands.

This trend is expected to put pressure on marketing and branding efforts and significantly erode profit margins. This has been already evidenced in the corporate venturing space, where in 2016, for example, US-based retailer Walmart acquired for $3.3bn Jet.com, an e-commerce platform offering customers the chance to save money on a wide range of consumer products.

As a counterpoint to the shift to "value offerings", however, there are changes in consumers' perceptions and desires which open opportunities for higher profit margins. Health and wellness are two important factors in consumers' minds. Nowhere is this more visible than in the rise of plant-based foods across the globe. According to the 2018 Food & Beverage Trend Report by food and hospitality consultancy Baum & Whiteman, while only 6% of consumers follow vegetarian diets and 3% consider themselves vegan, about 83% include plant-based foods in their diets to improve nutrition and health and 62% for weight management.

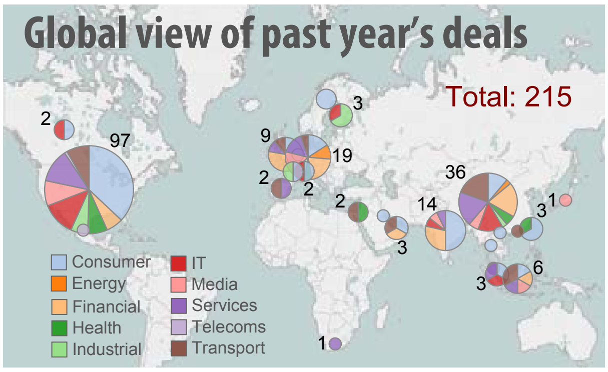
This food trend is also intertwined with consumers' growing environmental awareness and their aspiration to be "greener", as meat-based diets are considered to be bigger contributors to climate change. This new consumer mindset is fertile ground for rising brands in the food and beverage space in order to offset downward pressures on profits from the increasing preference for value offerings.

SECTOR FOCUS

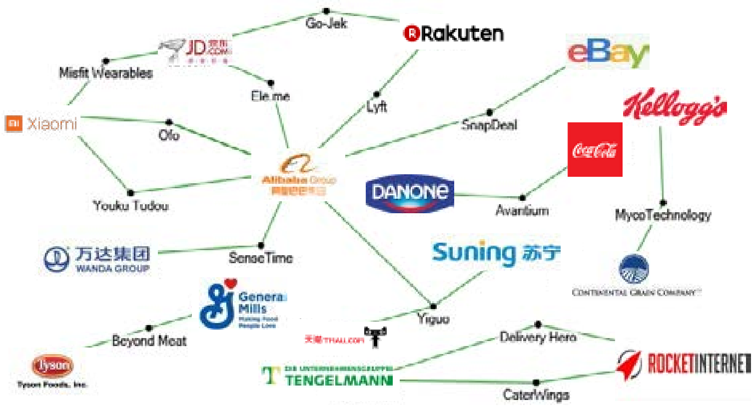
Another key global trend involves demographic changes across all markets. The world's population is ageing quickly, with over a billion people expected to be above age 65 in the next two decades, as the McKinsey report points out. This implies that CPG corporations will be forced to innovate to fulfil the needs of ageing consumers.

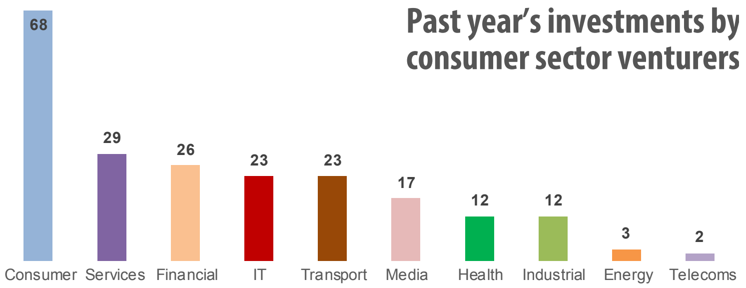
On the supply side, consumer goods companies must also be mindful of more volatile input costs due to "the emergence of bigger, fewer suppliers and natural-resource shortages". The report notes how concentrated are the supplies of certain key natural resources. "For example, 57% of the world's sugarcane is now produced in Brazil and India, while China and Russia together account for close to half of the world's aluminium production." Given this concentration, political crises or natural disasters can lead easily to upward pressure on global commodity prices and disruptions in supply chains.

Aside from e-commerce and the food and beverage space, there are notable trends in the clothing and apparel subsector, where digitisation of consumption is also a key disrupting factor. The State of Fashion 2018 report, by The Business of Fashion and McKinsey, notes that the fashion industry is undergoing transformative shifts, including "consumers' adoption of digital" with "raised expectations of customer experience and a higher scrutiny on convenience, price, quality, newness and a personal touch. Leading players are therefore creating innovative business models, using granular customer insights as a source of differentiation and pushing the limits of their end-to-end product development".



Co-investments of consumer sector venturers 2015 to date





The report also highlights the role big data plays in new business models in fashion, not only in omnichannel marketing but across the entire value chain. "The proliferation of data and exponential increases in technology performance have opened the door to the use of big data. The use of rich data and granular customer insights to inform decisions offers business opportunities across the fashion value chain, in areas ranging from dynamic pricing to optimised product replenishment." However, omnichannel integration, investing in e-commerce and digital marketing are cited in the report as top priorities by executives of leading fashion brands.

GCV reported 215 venturing rounds involving corporate investors from the consumer sector for the period between March 2017 and February 2018. A large part of those (97) took place in the US, while 36 were hosted in China, 19 in Germany and 14 in India.

The majority of these commitments (68) went to emerging enterprises in the consumer sector, with the remainder going to companies in a range of related sectors – 29 deals in services, mostly in logistics and supply chain services, 26 in financial, primarily in payment technologies and alternative consumer lenders, 23 deals in IT, big data technologies and software, as well as 23 rounds in transport, mostly in vehicle marketplaces as well as ride-hailing and car-sharing businesses. The network diagram, which shows co-investments of consumer corporates, illustrates the variety of enterprises that have received financial backing from consumer sector incumbents – from food delivery service Ele.me and e-commerce platforms like Snapdeal through on-demand transport services like Lyft and Go-Jek to vegan food products developer Beyond Meat and green chemicals producer Avantium.

SECTOR FOCUS

On a calendar year-on-year basis total capital raised in corporate-backed investment rounds went down 65% from $23.38bn in 2016 to $15.19bn in 2017. The deal count, however, rose 9% increase from 174 deals in 2016 to 190 in 2017.

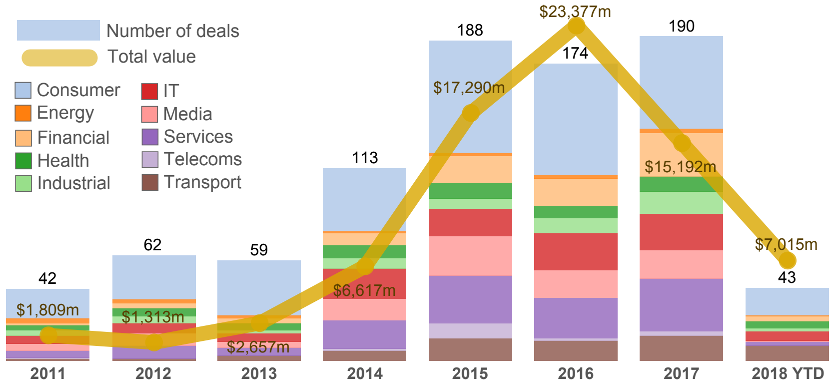
The 10 largest investments by corporate venturers from the consumer sector over the past year were mostly within the consumer and transport space.

The leading corporate investors from the consumer sector were e-commerce companies Alibaba and Rakuten, along with consumer products manufacturer Unilever. Alibaba and Rakuten also topped the list of consumer corporates committing capital in the largest rounds, along with e-commerce firms eBay and Amazon. The most active corporate investors in emerging consumer companies were media company Comcast, media and research company International Data Group (IDG), internet company Tencent and diversified internet conglomerate Alphabet.

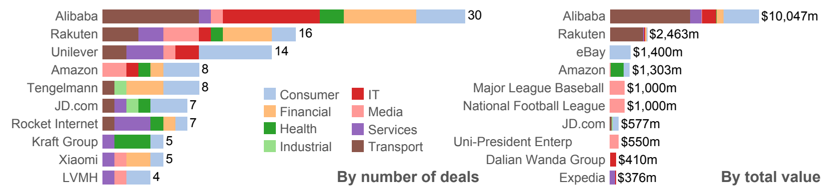
The presence of corporate venturers from the media sector among top investors in rising consumer businesses is notable. On the one hand, this could be attributed to downward pressure on marketing spending due to current disruptions in advertising. In 2015, the world's largest advertiser, WPP, warned of "unsustainable" and "inane" low prices putting a strain on its revenues and profits. These developments favour both consumer sector incumbents and rising enterprises, enabling them to cut promotion costs. On the other hand, this may also be an attempt by media companies to engage consumers more directly.

The rising consumer businesses in the portfolio of these non-traditional investors were concentrated primarily in food delivery and e-commerce platforms. The network diagram, representing corporate co-investments in consumer enterprises illustrates that.

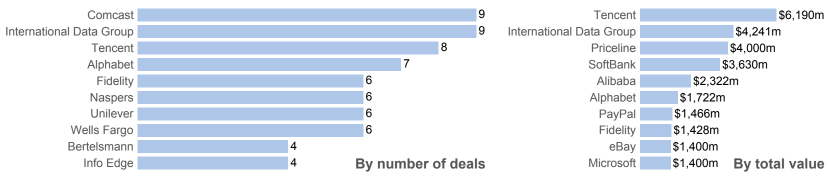
Deals by consumer corporates 2011-18



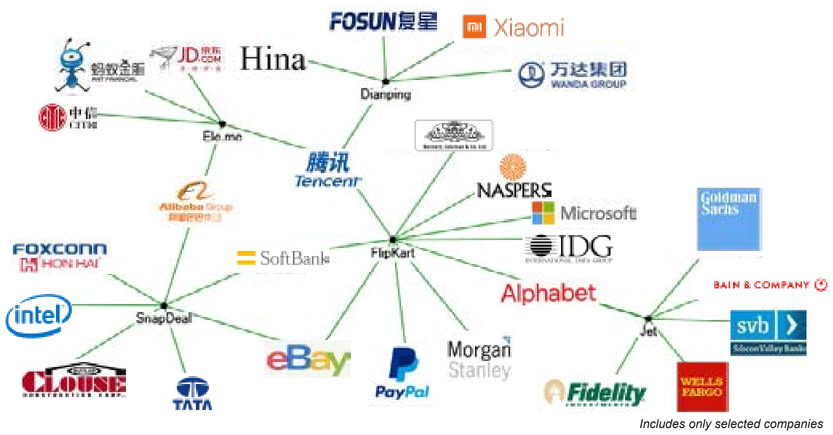
Top consumer sector investors



Top investors in consumer enterprises

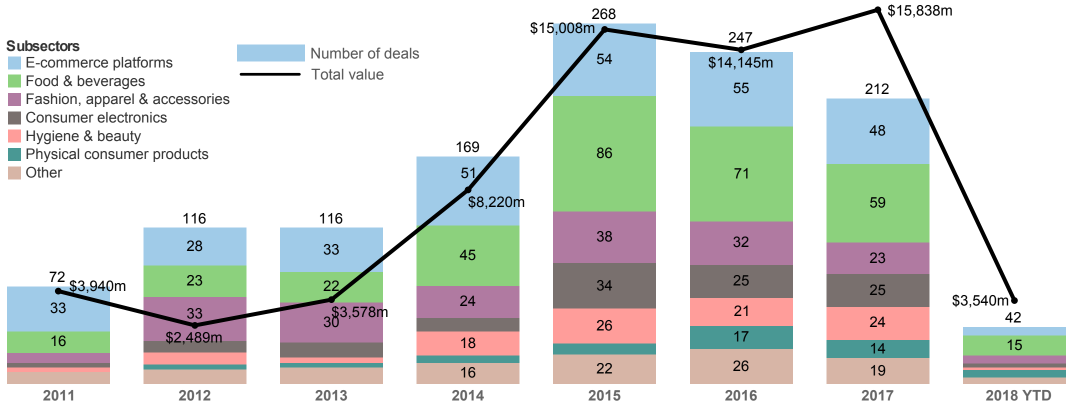


Corporate co-investments in consumer enterprises 2014-17



SECTOR FOCUS

Consumer sector deals by subsector 2011-17



Overall, corporate investment in emerging consumer-focused enterprises decreased slightly from 2016 to 2017 in terms of volume but increased in estimated value. According to GCV Analytics data, $15.84bn was invested over 212 rounds in 2017, up from the $14.15bn invested over 247 deals in 2016.

Deals

Consumer sector corporates invested in a number of large rounds, raised primarily by consumer, transport and media-focused businesses. Six of the top rounds were $1bn or more.

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, though the stake was probably held by GSR Ventures, the venture capital firm that backed Ofo at series A, B and C stages – Zhu is managing director at GSR. Founded in 2014, Ofo runs an app-based 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 in 22 countries.

Alibaba also paid approximately $857m for a 15% stake in China-based furniture retailer Beijing Easyhome Furnishing Chain Store Group as part of a RMB13bn ($2.04bn) funding round which also featured insurance firm Taikang and private equity firms Yunfeng Capital and Harvest Capital – the last reportedly invested $228m. Founded in 1999, EasyHome operates a chain of 223 stores across 29 Chinese provinces and municipalities that sell furniture, home improvement and building materials. It also provides home design and renovation services.

US-based ride-hailing platform Lyft expanded a round led by CapitalG, Aplphabet's growth equity arm, from $500m to $1.5bn. Rakuten took part in the round, among other investors. The transaction valued the company at $11.5bn post-money. Founded in 2012, Lyft runs an on-demand ride-ordering platform in the US and Canada that has completed more than 500 million rides and competes with Uber.

India-based e-commerce firm Flipkart raised $1.4bn from Tencent, eBay and software provider Microsoft at a post-money valuation of $11.6bn. Flipkart runs India's largest e-commerce marketplace by sales, carrying a wide range of consumer goods. However, profitability proved hard to come by as it faced fierce competition from domestic rivals like Snapdeal as well as foreign competitors such as Amazon. The funding was announced alongside news that it had acquired eBay India, the local branch of eBay, which will operate as an independent subsidiary.

Internet and telecoms conglomerate SoftBank, through the near-$100bn SoftBank Vision Fund, led a $1bn round in US-based sports e-commerce platform Fanatics. The round, first rumoured a month ago, also included sports bodies National Football League and Major League Baseball. The round valued the company at approximately $4.5bn. Fanatics runs an e-commerce platform that sells official sports team merchandise and apparel.

China-based on-demand bicycle rental service Ofo raised $1bn from investors including Alibaba. The other participants in the round, which valued Ofo at $3bn, were not disclosed but a report in July 2017 suggested SoftBank was in talks to lead the round with backing from ride-hailing service Didi Chuxing.

Grail, a US-based oncology diagnostics spinout of genomics technology producer Illumina, achieved a first close of its series B round at $900m. Tencent and Amazon invested in the round, which featured other corporates, mostly pharmaceuticals, such as Johnson & Johnson Innovation, which invested through its subsidiary Johnson & Johnson UK Treasury. Pharmaceutical firms Bristol-Myers Squibb, Celgene and Merck & Co, medical technology producer Varian Medical Systems, and pharmaceuticals supplier McKesson's corporate venturing unit McKesson Ventures, also contributed. Founded in 2016, Grail develops a blood test for early-stage detection of cancer that combines high-intensity sequencing technology with data obtained through computer science and population-scale clinical studies.

Alibaba agreed to pay RMB5.3bn to raise its stake in China-based logistics affiliate Cainiao Smart Logistics Network

Top 10 deals by consumer sector corporate investors over the past year

Company	Location	Sector	Round	Size	Investors
Ofo	China	Transport	Stake purchase	$3bn	Alibaba
Beijing Easyhome Furnishing Chain Store Group	China	Consumer	–	$2bn	Alibaba | Harvest Capital Management | Taikang Life Insurance Company | Yunfeng Capital
Lyft	US	Transport	E and beyond	$1.5bn	AllianceBernstein | Baillie Gifford | CapitalG | Fidelity | Janus Henderson Investors | KKR | Ontario Teachers' Pension Plan Board | Rakuten
FlipKart	India	Consumer	E and beyond	$1.4bn	Alphabet | eBay | Microsoft | PayPal | Tencent
Fanatics.com	US	Media	–	$1bn	Major League Baseball | National Football League | SoftBank
Ofo	China	Transport	E and beyond	$1bn	Alibaba | Didi Chuxing | SoftBank
Grail	US	Health	B	$900m	Amazon | Arch Venture Partners | Bristol-Myers Squibb | Celgene | Dentsu | Johnson & Johnson | McKesson Corporation | Merck & Co | Tencent | Varian Medical Systems
Cainiao Smart Logistics	China	Services	Stake purchase	$798m	Alibaba
Lyft	US	Transport	E and beyond	$600m	AllianceBernstein | Baillie Gifford | Janus Capital Group | KKR | PSP Investments | Rakuten
Sea	Indonesia	Media	–	$550m	Cathay Financial Group | Farallon Capital Management | GDP Venture | Hillhouse Capital Management | JG Summit Holdings | Uni-President Enterprises Corporation

from 47% to 51%. Cainiao was formed in 2013 by Alibaba, which held a 48% stake at the time of its formation, along 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.

Lyft also closed a $600m series G round featuring Rakuten that valued it at $7.5bn. The round included investment firm KKR's Next Generation Technology Fund, investment firms Janus Capital Group and Baillie Gifford, investment and research management firm AllianceBernstein as well as pension fund PSP Investments.

US-based augmented reality technology producer Magic Leap raised $502m in a series D round, featuring Alibaba, media company Grupo Globo and Alphabet. Singaporean state-owned investment firm Temasek led the round. Founded in 2011, Magic Leap develops an augmented reality headset with a dedicated operating system. Magic Leap's goggles are capable of superimposing animated computer graphics over a user's view of reality. Its light-field technology could be used for a variety of other purposes.

There were other interesting deals in emerging consumer-focused business that received financial backing from corporate investors from other sectors.

Tencent led a $4bn round for China-based online services provider Meituan-Dianping that valued it at $30bn. Travel services provider Priceline Group also participated in the round, as did Singaporean wealth fund GIC. Meituan-Dianping runs a local services and e-commerce platform that processes about 21 million orders a day, for items such as food, event tickets and flights, connecting 280 million customers each year with a network of some 5 million local businesses.

The SoftBank Vision Fund invested an amount reported to be "at least" $2.5bn in India-based e-commerce company Flipkart. An earlier report suggested hedge fund manager Tiger Global Management was set to sell shares to SoftBank as part of a prospective deal.

Alibaba led a $1.1bn round for Indonesia-based e-commerce platform Tokopedia. The round included undisclosed existing investors, and although they were not named, reports suggested SoftBank and venture capital firm Sequoia Capital took part. Tokopedia runs an online marketplace where merchants and local brands sell a range of consumer products spanning categories such as fashion, software, electronics, cars and lifestyle products.

Deliveroo, a UK-based on-demand food delivery service that counts communications technology provider Nokia as an investor, closed a $482m series F round which featured DST Global, an investment arm spun out of Russia-based internet company Mail.ru. Investment firm T Rowe Price Associates and financial services group Fidelity Management & Research co-led the round. Deliveroo operates an app-based service for users to order food for delivery.

E-commerce firm JD.com invested $397m in UK-based luxury online fashion seller Farfetch as part of a strategic partnership. JD.com will supply Farfetch with marketing, logistics and technology assistance to help it develop its service in China, where it already partners about 200 luxury brands and more than 500 retailers. Farfetch operates an platform that sells goods supplied by more than 700 luxury brands, and it has also developed an e-commerce technology product as well as in-store retail technology for bricks-and-mortar fashion sellers.

SECTOR FOCUS

Top 10 investments in emerging consumer sector enterprises over the past year

Company	Location	Round	Size	Investors
Meituan-Dianping	China	–	$4bn	Canada Pension Plan Investment Board | China-UAE Investment Cooperation Fund | Coatue | GIC | International Data Group | Priceline | Sequoia Capital | Tencent | Tiger Global Management | TrustBridge Partners
FlipKart	India	E and beyond	$2.5bn	SoftBank
Beijing Easyhome Furnishing Chain Store Group	China	–	$2bn	Alibaba | Harvest Capital Management | Taikang Life Insurance | Yunfeng Capital
FlipKart	India	E and beyond	$1.4bn	Alphabet | eBay | Microsoft | PayPal | Tencent
Tokopedia	Indonesia	E and beyond	$1.1bn	Sequoia Capital | SoftBank | undisclosed
Deliveroo	US	E and beyond	$482m	Accel Partners | DST System | Fidelity | General Catalyst | Index Ventures | T Rowe Price | private investors
Farfetch	US	E and beyond	$397m	JD.com
Peloton Cycle	US	E and beyond	$325m	Balyasny Asset Management | Comcast | Fidelity | GGV Capital | Kleiner Perkins Caufield & Byers | NBC Universal | Questmark Partners | True Ventures | Wellington Management
Essential Products	US	B	$300m	Access Industries | Altimeter Capital Management | Amazon | Redpoint Ventures | Tencent | Vy Capital
BigBasket	India	–	$300m	Abraaj Group | Alibaba | Bessemer | Helion Ventures | International Finance Corporation | Sands Capital | Trifecta Capital

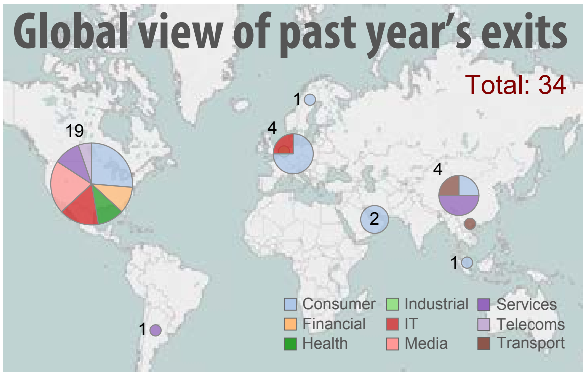
US-based fitness company Peloton completed a $325m series E round, which included Comcast NBCUniversal. Wellington Management, Fidelity Investments, Kleiner Perkins Caulfield & Byers and True Ventures co-led the round. Founded in 2012, Peloton operates a home fitness offering that combines its custom-made exercise bike with an app-based subscription service providing video access to live classes and performance-tracking metrics.

Access Technology Ventures, the corporate venturing vehicle of industrial conglomerate Access Industries, invested $100m in US-based smartphone producer Essential Products as part of a $300m funding round. Amazon also participated in the round, through its Alexa Fund, as did Tencent. The round reportedly valued Essential at between $900m and $1bn. Essential Products' core product is a smartphone with a high-spec 360-degree camera, an edge-to-edge display and a magnetic connector with wireless data transfer for accessories.

Alibaba led a $300m round for India-based online grocery BigBasket that included private equity firm Abraaj Group and venture capital firm Bessemer Venture Partners. Alibaba invested $146m in the round, which reportedly valued BigBasket at $950m. Founded in 2011, BigBasket runs an e-commerce platform that sells fresh produce, packaged food and beverages, spices and a range of household goods. It has 6 million registered users spanning 26 Indian cities.

Exits

Corporate venturers from the consumer sector completed 34 exits between March last year and February this year, including 21 acquisitions, nine initial public offerings (IPOs), two mergers and one business shutdown.



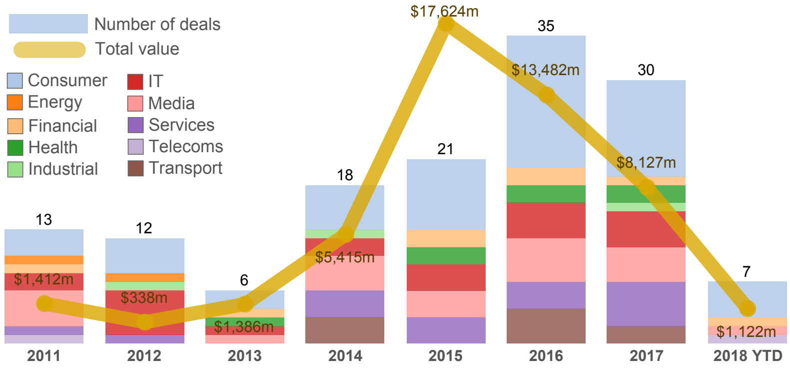
On a calendar year-on-year basis, there was only a slight decrease to 30 exits in 2017, down from the 35 in 2016. The estimated exited capital, however, fell more substantially to $8.13bn in 2017, down from $13.48bn in 2016 – a 40% drop.

US-based visual media platform Snap closed its IPO at $3.91bn, after its underwriters took up the option to buy an extra 30 million shares. Snap issued 145 million shares at $17 each, plus 55 million shares divested by existing backers, to raise an initial $3.4bn, giving exits to investors including Alibaba, Tencent and internet company Yahoo. NBCUniversal subsequently revealed it had invested $500m in Snap through the offering, giving it a 2.1% stake. Snap is best known for the Snapchat platform but its IPO filing indicates its long-term plans involve expanding into an all-purpose visual media company that will also delve into hardware.

Germany-based online food-ordering platform Delivery Hero went public in a €996m ($1.13bn) IPO that gave a partial exit to e-commerce holding company Rocket Internet. The IPO consisted of 18.95 million new shares, 15 million shares held by existing investors and 5.09 million shares held by the Rocket Internet-founded Global Online Takeaway Group. all at €25.50 each, at the top of the €22 to €25.50 range. Delivery Hero has built an online food-ordering and delivery platform that serves customers in more than 40 countries.

SECTOR FOCUS

Exits by consumer corporates 2011-18



Yixin Group, a China-based e-commerce marketplace operator spun out of automotive transaction services provider BitAuto, raised HK$6.77bn ($867m) in an IPO. The company issued almost 879 million shares on the Hong Kong Stock Exchange at the top of the IPO's HK$6.60 to HK$7.70 range. Its stock opened at HK$10 but closed at HK$8.12, giving it a market cap of about $6.54bn. Yixin runs an online platform that functions as a marketplace for vehicles, and also operates a financial services operation that provides leasing as well as financing for car purchases.

Giosis, the Singapore-based parent company of e-commerce platform Qoo10 which is backed by eBay, agreed to sell Qoo10's Japanese operations to eBay for $700m. The corporate will give up its stake in Giosis as part of the transaction. Founded in 2010 as a joint venture between eBay and online marketplace Gmarket's founder Ku Young Bae, Giosis operates six e-commerce marketplaces under the Qoo10 name across Singapore, Indonesia, Malaysia, China, Hong Kong and Japan.

Amazon agreed to acquire United Arab Emirates-based online marketplace Souq.com for $650m, giving media and e-commerce firm Naspers an exit. Founded in 2005, Souq operates the largest online marketplace in the Middle East by customer size, linking to about 75,000 businesses and offering some 2 million consumer items for sale. As a result of the purchase, Amazon will gain a foothold in a region where it has never operated.

Best Logistics, a China-based logistics service backed by Alibaba and manufacturing services provider Foxconn, raised $450m in 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. Founded in 2007, Best Logistics offers a range of services includ-

Top 10 exits by consumer sector corporate investors over the past year

Company	Location	Sector	Exit type	Acquirer	Size	Investors
Snapchat	US	Media	IPO	–	$3.9bn	Alibaba | Benchmark | Coatue | Fidelity | General Atlantic | General Catalyst | Geodesic Capital | GIC | GSV Capital | Institutional Venture Partners | Kleiner Perkins Caufield & Byers | Lightspeed Venture Partners | Meritech Capital | NBC Universal | Sequoia Capital | SV Angel | T Rowe Price
Delivery Hero	Germany	Consumer	IPO	–	$1.13bn	Global Online Takeaway Group | Naspers | Rocket Internet
Yixin Group	China	Transport	IPO	–	$867m	Baidu | Bitauto | China Orient AMC International | JD.com | private investors | Tencent
Giosis	Singapore	Consumer	Acquisition	eBay	$700m	eBay
Souq.com	United Arab Emirates	Consumer	Acquisition	Amazon	$650m	Baillie Gifford | International Finance Corporation | Jabbar Internet Group | Naspers | Standard Chartered | Tiger Global Management
Best Logistics	China	Services	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	Services	IPO	–	$332m	Accel Partners | Expedia | General Atlantic | Insight Venture Partners | Sequoia Capital | Tiger Global Management
Bonobos	US	Consumer	Acquisition	Walmart	$310m	Accel Partners | angel investors | Coppel Capital | Corazon Capital | Felicis Ventures | Forerunner Ventures | Glynn Capital Management | Lightspeed Venture Partners | Melo7 Tech Partners | Mousse Partners | Nordstrom | Otter Rock Capital | Peterson Ventures | Sandbridge Capital
WePay	US	Financial services	Acquisition	JP Morgan Chase	$300m	August Capital | Continental Investors | FTV Capital | Highland Capital Partners | Ignition Partners | Max Levchin | Maynard Webb | Philip Purcell | Rakuten | Raymond Tonsing
Delivery Hero	Germany	Consumer	Acquisition	Rocket Internet	$242m	Rocket Internet

ing express and freight delivery, business consulting, cross-border logistics, warehousing and inventory management. 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 tourism services provider 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. Founded in 1999, Despegar runs an online platform that sells flights and holiday accommodation package holidays on behalf of third parties. The platform, known as Decolar in Brazil, was responsible for $3.3bn in bookings in 2016.

Big box retailer Walmart agreed to buy US-based men's fashion e-commerce company Bonobos in a deal that would allow retail chains Nordstrom and Coppel to exit. Walmart is reportedly likely to pay about $300m for Bonobos. Founded in 2007, Bonobos specialised in chinos but has since expanded its clothing range to include suits, shirts, shorts and golf apparel.

Financial services firm JP Morgan Chase completed an acquisition of US-based payment processing platform WePay, giving an exit to Rakuten. JP Morgan Chase will pay just over $300m for WePay, though the price could rise to $400m including retention bonuses and earnouts related to certain targets. WePay has built a payment processing tool for online merchants that includes tools for risk compliance, onboarding and e-commerce support.

Rocket Internet sold about 5.7 million shares in Delivery Hero, the Germany-based food-ordering platform that had gone public earlier for approximately €197m in total. The sale valued the shares at roughly €34.50 each, a substantial jump from the IPO price of €25.50. The company increased the number of orders on its platform by 48% to almost 292 million in 2017 and its revenue by 60% year on year.

There were also a number exits from emerging consumer-related enterprises that involved corporate investors from other sectors.

Waimai, a food delivery service launched by China-based internet company Baidu, was acquired by Rajax, the operator of food delivery company Ele.me. Baidu will now own only a small stake in the business. The transaction reportedly valued Waimai at about $800m, though the company's worth had been estimated at as much as $2.5bn previously. Waimai operates an online platform for ordering food from local restaurants and fast food outlets. The company will continue operations as an independent entity.

Food and beverage producer Nestlé agreed to acquire a majority stake in Blue Bottle Coffee, a coffee roaster and retailer backed by Alphabet. Nestlé declined to provide details of the deal, but the size of the transaction was reported to be around $500m. Founded in 2002, Blue Bottle has built a premium coffee brand with a presence in the US and Japan. It also sells roasted, ground and ready-to-drink coffee online and in stores, and intends to expand its outlets.

Television streaming service Roku closed an IPO that granted exits to several media companies at $253m, after the underwriters took up the full overallotment option. Media groups 21st Century Fox, News Corp and Viacom were investors in Roku, as were financial services firm Fidelity and also, reportedly, online streaming service Netflix. Roku sells set-top boxes that allow subscribers to stream televisual content from a range of TV and online sources. It had more than 15 million active subscribers by June 2017 and made a net loss of $42.8m from revenue of $399m in 2016.

Fintech company Blackhawk Network acquired CashStar, a US-based digital gift card service backed by semiconductor

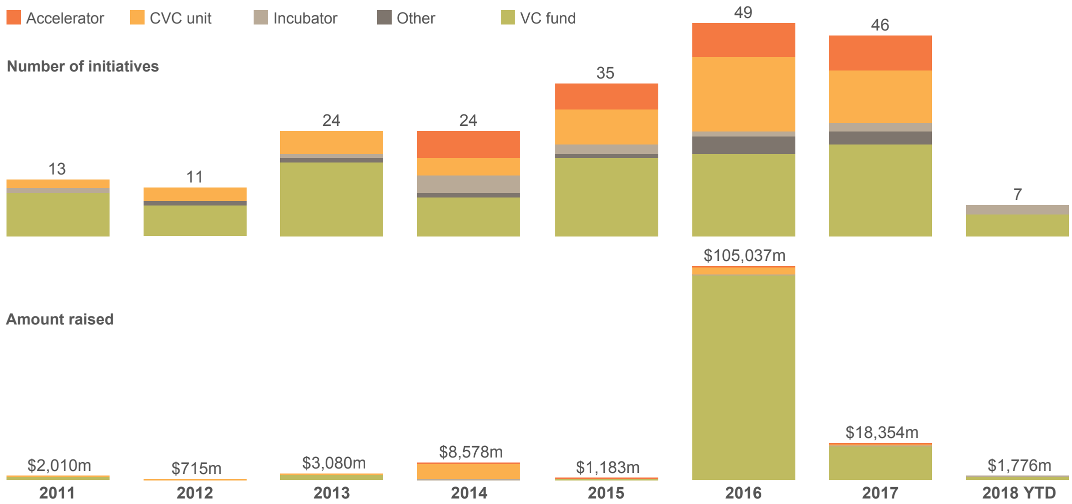
Top 10 exits from consumer enterprises over the past year

Company	Location	Exit type	Acquirer	Size	Investors
Delivery Hero	Germany	IPO		$1.13bn	Global Online Takeaway Group | Naspers | Rocket Internet
Baidu Waimai	China	Acquisition	Rajax	$800m	Ajisen Investment | Baidu | Hina Group
Giosis	Singapore	Acquisition	eBay	$700m	eBay
Souq.com	United Arab Emirates	Acquisition	Amazon	$650m	Baillie Gifford | International Finance Corporation | Jabbar Internet Group | Naspers | Standard Chartered | Tiger Global Management
Blue Bottle Coffee	US	Acquisition	Nestle	$500m	Alphabet | Fidelity | Index Ventures | Morgan Stanley | Tetragon Financial Group | True Ventures
Bonobos	US	Acquisition	Walmart	$310m	Accel Partners | angel investors | Coppel Capital | Corazon Capital | Felicis Ventures | Forerunner Ventures | Glynn Capital Management | Lightspeed Venture Partners | Melo7 Tech Partners | Mousse Partners | Nordstrom | Otter Rock Capital | Peterson Ventures | Sandbridge Capital
Roku	US	IPO		$253m	21st Century Fox | Anthony Wood | Fidelity | Globespan Capital PArtners | Hearst | Luminari Capital | Menlo Ventures | Netflix | News Corp | Sky | Viacom
Delivery Hero	Germany	Acquisition	Rocket Internet	$242m	Rocket Internet
CashStar	US	Acquisition	Blackhawk Network	$175m	FTV Capital | Intel | Mosaik Partners | North Hill Ventures | Passport Capital | undisclosed strategic investors
Huami	China	IPO		$110m	Banyan Capital | Morningside | Sequoia Capital | Xiaomi

technology producer Intel, for approximately $175m in an all-cash transaction. CashStar develops a platform for buying personalised digital and physical gift cards. Retailers can use the service to manage gift voucher-based promotions and marketing efforts.

Huami, a China-based wearable device producer with electronics manufacturer Xiaomi as backer, raised $110m in an IPO in the US. The offering consisted of 10 million American depositary shares issued on the New York Stock Exchange at $11 each, in the middle of the IPO's $10 to $12 range. Founded in 2013, Huami makes smart, wearable biometric devices that track a user's physical activity, monitoring heart rate, steps, length of sleep, weight and body fat composition. Its sole partner is Xiaomi, for which it creates products such as watches or smart bands.

Consumer sector funding initiatives 2011-18



Funds

Between March 2017 and February 2018, corporate venturers and corporate-backed VC firms investing in the consumer sector secured over $3.67bn via 39 funding initiatives, which included 18 corporate-backed VC funds, 10 new venturing units, five accelerators and four incubators.

On a calendar year-on-year basis, funding initiatives fell slightly in number– from 49 in 2016 to 46 last year. Total capital also went down from an estimated $105bn in 2016, which included the record-breaking $97.7bn SoftBank Vision Fund, to $18.35bn last year.

ClearVue Partners, a China-based venture capital firm focused on the local consumer food and drinks market, raised $362m for its second fund, featuring undisclosed corporate limited partners. The firm had previously raised $262m for its first fund in 2014, focused on food and beverage, consumer brands, internet and mobile deals.

US-based Union Square Hospitality Group (USHG) closed oversubscribed investment fund Enlightened Hospitality Investments (EHI) at more than $200m. The growth-stage equity vehicle included commitments from USHG and third-party investors, though the identities of those backers and the specific sums they provided were not disclosed. USHG operates a range of restaurants, cafes and bars, such as burger chain Shake Shack, together with a catering and events business and a consultancy arm. EHI will focus primarily on businesses in casual dining and hospitality technology, investing between $10m and $20m each time.

Germany-based industrial and consumer product manufacturer Henkel formed corporate venture capital subsidiary Henkel Ventures and plans to invest up to €150m through it. Henkel has so far invested €25m in its corporate venturing activities, supplying capital to barrier technology manufacturer Vitriflex and coating material producer DropWise as well as funds raised by VC firms Emerald Technology Ventures and Pangaea Ventures. However, the launch of Henkel Ventures will mean all the corporate's VC activities will be overseen by a single entity.

China-based cybersecurity technology provider Qihoo 360 Technology partnered the municipal government-owned Beijing Cultural Centre Fund to set up a RMB1bn investment fund. 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.

Packaged food producer Danone provided an undisclosed amount of capital to AccelFoods, a US-based venture capital fund that targets emerging food and beverage brands. AccelFoods closed its first fund in 2014 and is now expanding its second fund, which was formed in partnership with undisclosed corporates, to $35m. Danone's investment, made

Top consumer sector funding initiatives over the past year

Funding initiative	Type	Funds raised	Location	Focus
ClearVue Fund II	VC fund	$362m	China	Fast-moving consumer goods enterprises
Enlightened Hospitality Investments	VC fund	$200m	US	Casual dining and hospitality technology space
Henkel Ventures	CVC unit	$163m	Germany	Early stage, preferably series A, provide access to Henkel brands and global network.
Qihoo 360 Beijing Fund	VC fund	$156m	China	Early and growth-stage companies in the internet and cultural sectors
AccelFoods II	VC fund	$35m	US	Food and beverage
Juele Investment Fund	VC fund	$30m	China	Consumer-focused catering businesses capable of growing rapidly
Aavishkaar Bharat Fund	VC fund	$15.5m	India	Agriculture, financial services, healthcare, renewables, waste and sanitation
IDG Ventures India 2017 Innovation Program	Accelerator	$10m	India	Consumer technology, software, healthcare technology and fintech
GS&UP	Accelerator	$2m	Brazil	Retail, consumer and tourism technology startups
PepsiCo Lab	Accelerator	–	Russia	Food and drink startups
Rabo Food and Agri Innovation Fund	VC fund	–	Netherlands	Early-stage food and agtech developers
Tyson-Plug and Play incubator	Incubator	–	US	Early-stage companies operating near Silicon Valley and Chicago

through its corporate venturing unit Danone Ventures, was part of the second close. Acre Venture Partners, a VC fund affiliated with another food producer, Campbell Soup, is also a limited partner.

Food producer Juewei Food and Ele.me formed RMB205m China-based joint venture Juele Investment Fund to invest in catering companies. Ele.me and Juewei subsidiary Shenzhen Wangju Investment will each put RMB100m into the venture. The fund will invest in consumer-focused catering businesses capable of growing rapidly with access to funding, as well as companies with quickly scalable business models. Juewei, which sells products such as duck necks and chicken feet, and Ele.me are also seeking portfolio companies with which they can work to develop food-based products.

Diversified group Hero Enterprise provided Rs1bn ($15.5m) for Aavishkaar Bharat Fund, which is being raised by India-based impact investment firm Aavishkaar Venture Management. Aavishkaar is seeking about $310m for the fund, which will promote grassroots entrepreneurship, financial inclusion and employment, supporting companies providing services in areas such as agriculture, financial services, healthcare, renewables, waste and sanitation.

Unilever and Amazon partnered venture capital firm IDG Ventures India for an accelerator scheme. The IDG Ventures India 2017 Innovation Program will target startups in consumer technology, software, healthcare technology and fintech that are looking to raise between $500,000 and $5m in seed or series A funding. Unilever and Amazon participated through respective subsidiaries Unilever Ventures and Amazon Internet Services.

Brazil-based marketing and retail consulting firm Gouvêa de Souza formed a partnership with venture capital firm Bossa Nova Investimentos to form what they refer to as a startup potentialiser. The unit, GS&UP, is equipped with R$6m ($1.9m) and will work with retail, consumer and tourism technology startups, providing funding and industry expertise.

Beverage producer PepsiCo formed a Russia-based accelerator, PepsiCo Lab, to work with startups in the food and drink industry. Developers of technology in areas such as customer interaction, data collection and analysis, human resources management, sales facilitation and automation of operational processes will be considered.

Rabo Private Equity, an investment subsidiary of financial services firm Rabobank, launched subsidiary Rabo Food and Agri Innovation Fund that will back early-stage food and agriculture technology developers. The unit, which is connected to Rabobank's Banking for Food initiative, will invest in companies in the US and Western Europe that will help to promote food security. The new subsidiary will supply funding as well as industry knowledge and access to its network.

Meat processor and supplier Tyson Foods forged partnerships with innovation platform Plug and Play and startup hub 1871. Tyson will be able to form connections with early-stage companies operating near Silicon Valley-based Plug and Play and Chicago-based 1871.

People

Martin Tschopp was appointed chief operating officer of Naspers Ventures, the corporate venture capital arm of Naspers. The South-Africa-based media group launched its Silicon Valley-based Naspers Ventures in May 2016 to diversify its venture capital activities, which had been concentrated on traditional internet-focused areas such as e-commerce, classified listings and payment services. Tschopp comes from Kiva, a US-based operator of an online platform for lending money to students and low-income entrepreneurs in about 80 countries. He joined the company as CEO in April 2015.

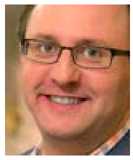
Tschopp

Reese Schroeder joined food producer Tyson's new corporate venturing unit. Schroeder said: "I have joined Tyson Ventures [as managing director] and am now working for Mary Kay James, our vice-

SECTOR FOCUS

president and general manager." James, formerly managing director at DuPont Ventures, the corporate venturing unit of the chemicals company, last year announced her move to Tyson Foods to run its $150m fund. Tyson Ventures invests in alternative proteins, food security and use of the internet in the food chain.

Skyler Fernandes, founding managing director of Simon Ventures, the corporate venturing vehicle of US-based real estate developer Simon, joined private equity and venture capital fund Cleveland Avenue as managing director of investments. Cleveland Avenue focuses on restaurants, food and beverage brands, and was founded by Don Thompson, a former CEO of fast-food chain McDonald's, in late 2015. When he left Simon, managing director Natalie Hwang, co-head of Simon Ventures since 2015, took over.


Fernandes

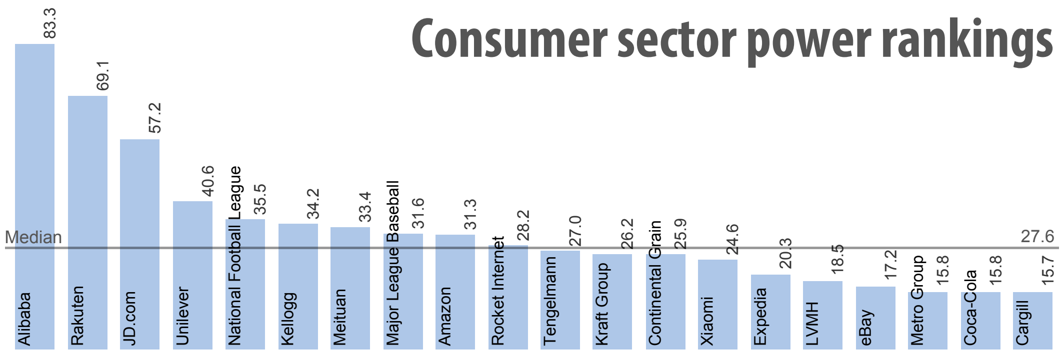
After a decade with Sweden-based furniture retailer Ikea, Matt Stanley became an investment manager in the group's "new venture investment unit responsible for investing in innovative companies that are building a more sustainable, connected and affordable life at home". Ikea already had its €60m GreenTech corporate venturing company, led by Christian Ehrenborg, making equity investments in green technology companies. The transfer for Stanley followed renewed focus by retailers and consumer products groups on innovation, following Amazon's acquisition of Whole Foods.


Allen

Jeff Allen, Mastercard's former vice-president for strategic investments, became principal for strategic business development at Amazon. Allen joined credit card operator Mastercard in August 2009 from investment bank Sagent Advisors and was a noted thought-leader in the industry, having published in Global Corporate Venturing his "five success factors in strategic investing".


Rosenberg

Rob Rosenberg joined Prolog Ventures as a partner. He had previously spent two years as senior vice-president of business and corporate development at vision-testing technology developer EyeNetra. Switzerland-headquartered biotechnology and chemicals supplier Lonza Group formed a corporate venturing fund in partnership with US-based venture capital firm Prolog Ventures. Prolog Lonza Consumer Fund will invest in North America-based consumer healthcare technology developers working on products that can improve or maintain the health of people and their pets. In particular, it will target areas such as personal and home care, medical food, dietary supplements, and functional food and beverages. ◆



University and government backing

Over the past year, university investments and commitments to university spinouts in the consumer sector reported by our sister publication, Global University Venturing, were concentrated primarily in fashion-related enterprises. University spinouts tend to foment innovation in the apparel space due to academic research on novel materials and smart clothing. It appears that much less research pertaining to food and beverage or other consumer products is being commercialised. Some of the largest funding rounds for consumer spinouts supported apparel-related businesses.

StretchSense, a New Zealand-based wearable sensor manufacturer spun out from University of Auckland, revealed that it had agreed a call option to be acquired by e-commerce portal StartToday, which already owned a 39.9% stake and would pay $72m for the remaining shares. The option, which costs $20m, is valid until September 2018 pending regulatory approval. StretchSense manufactures malleable sensors for clothing. They are marketed to smart apparel vendors as a business-to-business service.

E-commerce and internet company Amazon acquired Body Labs, a US-based body scanner developer based on research at Brown University, in a deal reportedly worth between $70m and $100m. Founded in 2013, Body Labs develops a body scanner, Soma, which can generate a 3D representation of people based on photograph or videos. The technology could help customers determine accurate measurements when they buy clothes online.

Government investments in the consumer sector, reported by our sister publication Global Government Venturing, followed a somewhat different pattern. Over the past year, governments and government-backed investors tended to bet on a wider range of e-commerce enterprises as well as last-mile food delivery businesses. This was achieved either through direct commitments or via other funds.

One of the best examples of a government-backed fund to target consumer enterprises over the past year came from Malaysia. Venture capital firm Gobi Partners achieved a $50m close for its $200m Meranti Asean Growth Fund on behalf of Malaysian government-owned investment firm Malaysia Venture Capital Management (Mavcap). Apart from Mavcap, electronics company Bosch, networking equipment maker Cisco Systems and Unilever also backed the fund. The fund will focus on cloud services, e-commerce and fintech, as well as supporting startups founded by Muslim entrepreneurs.

Poshmark, a US-based online fashion marketplace backed by property development group JF Shea, secured $87.5m in series D funding from a consortium led by Singapore state-owned investment firm Temasek. Founded in 2011, Poshmark operates a social marketplace focused on fashion that enables users to sell, buy and curate styles. The platform was initially geared towards women but is increasingly attracting men to its user base.

Aside from the potential all types of investors see in e-commerce and food delivery in general, such investments on the part of governments may also be attributed to practical policy considerations, such as boosting domestic consumption, which is widely regarded as the driving force of the economy under Keynesian economics. E-commerce, on the other hand, also presupposes a larger volume of electronic transactions, which facilitates control over the monetary units of exchange for public authorities. Strict oversight of the monetary supply is believed to be the key to successful economic policy by monetarists, the other dominant economic school of thought among policymakers. ◆

Interview: Saemin Ahn, MD, Rakuten Ventures

Saemin Ahn, Rakuten Ventures' managing director, talked to GCV's Robin Brinkworth about running the financially-focused CVC unit of the Japan-based e-commerce company, his contrarian investment strategy, and how to rip up the rulebook.

What excites you as an investor?

Being more of a contrarian has made for a lot of exciting verticals to focus on. If many investors head in one direction, I automatically look at what they have left behind. If you look at artificial intelligence (AI), right now a lot of the effort and energy is going into autonomous vehicles and looking to solve generic wider problems. This is the cycle I observe with the startups looking at narrow applications and looking at wider stencils.

So, the question I would ask myself is: If you want AI that is able to navigate exigent circumstances with many real-life variable elements – like autonomous vehicles – what kind of or how many millions of tests do you actually have to create and run to train those neural networks progressively and make them effective enough to deploy? How much does it cost, in time and actual dollars, to run those tests? Can those tests be replaced with simulations in virtual environments?"

With the above questioning, I look at simulation startups. That approach is much more interesting to me. What are the niches those sorts of pressures create organically?

Would you say you are suspicious of the market as a whole and look for value in places less fashionable?

I guess that is a very eloquent way of putting it. That is number one. Number two is that if there is so much investment or so much energy going into a specific vertical, then there will always be an abnormal amount of liquidity that flows through those pipes. When those pipes become full, they expand, and they create atypical cavities and gaps in the marketplace. Those gaps are also where I invest a lot of my time to find new ideas.

How does your methodology change from industry to industry?

One constant way that I look at investment targets is that I try find the right question. Creating the right problem statement takes the most energy. And once that is done, I simply research the industry and the company online.

Give an example of a problem statement and how you might view a company?

One example is when Cloudera got investments for their big data offering and Horton Works was IPO-ing on the stock exchange. This industry was seen by many as the next value goldmine. When I saw that much money being shoved into those pipes, I had a couple of predictions and those predictions came true.

Number one was that it is not lack of technology output from big data that is going to be the issue, it is going to be that you will not find enough data scientists to build out the outputs that you want. It is because those data scientists are being employed by Cloudera or the likes of Google, or they are actually building out their own startups. That is what

market abnormalities create. It creates giant vacuums of talent that go into different black holes or, secondarily, they themselves actually want to dream bigger and build out their own companies. Based on that problem statement, there are not going to be enough data scientists and algorithmic engineers to go inside companies to solve problems that these big corporations need.

With that I asked how Google solves those problems. Google has one really important thing that they do – they use an algorithm repository, company-wide, for engineering teams that enables them to retrieve code in a consistent manner. I said to myself: "Why is there no algorithm marketplace that does the same thing? I literally typed in "algorithm marketplace" and Algorithmia popped out. We invested in the seed round with Madrona capital, and their series A was done by Gradient Ventures, which is Google's AI fund. If Google's AI fund is convinced enough to invest in Algorithmia, then my problem statement was material and durable.

The deal count from consumer sector corporate venturers has been dropping since 2015. What do you think about that?

A lot of CVCs are becoming much more careful of the investments and the bids they make. At the same time, you have to be contextual to what kind of corporations you are dealing with. I see, more often than not, CVCs having a surprisingly high turnover rate. The investment manager next year might not be there just because of economic incentives, reorganisations or company priority shifts.

Those irregularities might be seasonalities. At least on Rakuten Ventures' side, we have always been patient about investments but internally we also count follow-on investments as investment executions. We do the same number of executions per year. We simply might not have been doing new investments that are visible to other people.

Consumer corporates investments in emerging businesses are focused on the consumer, services and financial sectors. Can you just speak to that?

I am very careful about fintech investments at the startup stage. Historically, fintech has one of the highest risk profiles and failing ratios. Name me five fintech companies that have actually been successfully IPO-ed or had monster exits. And if you can only name five companies, then that is a hard vertical to invest in as a venture capitalist.

It is just a very hard business because the incumbents are equally smart and more agile. When they really need to do stuff, they will do it. PayPal's Venmo did peer-to-peer transfer of money. The Federation of Banks in the US launched Zelle, and it took them only one year to scale out and become three times the size of PayPal's Venmo.

You have said you try to keep your stable down to about 17. Can you explain the rationale behind that?

The reason I would say 17 to 15 companies is because we are not a commercial VC. The way that commercial VCs would activate is to ensure their risks are disbursed, and for them not to deploy capital to their widest extent is doing a disservice. We suffer no penalties for being patient. This is the biggest superpower that a corporate VC has. I do not want to focus on spending too much time investing in many companies but simply make sure that Rakuten Ventures can grow as a brand with good reputation and good exits. You cannot go full sprint from the very start.

As trust builds between Rakuten Ventures and its parent, might you be employed as a vehicle to do larger investments?

Definitely. That would be one of our aspirations. As with anything, you have to take baby steps first. I am very much reticent about large capital deployments. Once we start the flywheel of dealflow, those will opportunistically and organically generate one or two clips that will provide us with opportunities to invest a lot of money in a few companies.

What might we expect this year?

We have already closed one deal. It was a follow-on for an e-book subscription company. We are probably going to do one or two more deals in London in the third quarter. Annually we are trying to do at least four to six investments, whether it is follow-ons or new deals.

You are based in Singapore while your corporate parent is based in Japan. There is both financial independence and geographic independence. How does that impact the way you think about making deals?

The unit was set up for Southeast Asia, but, to be honest, I did what I wanted to. I was just hoping not to get fired the next day. That has been my modus operandi.

Was there a point in time when it happened?

There was. When you look at a strategic investment department, it has all the bells and whistles of what a perfect PowerPoint looks like for a department. It is going to be super-intelligent, and "we are going to invest in the best strategic stuff". It has never worked out historically unless you have absolute control and material freedom of liquidity. When I got in, I said that this is not going to work and I ripped it all out and simply said let us be a true-blue VC firm with a single LP.

"We are very lucky to have such motivated and high-quality founders to work with"

Was Rakuten Ventures originally set up to be a strategic investment fund?

It was, and then I just started ripping it all to shreds. Thankfully, it has been a very good run. If you look at us just by the numbers, we are a statistical anomaly. We have 14 companies and not one has folded. Several of our companies are profitable – they are running at a very nice clip of growth. We are very lucky to have such motivated and high-quality founders to work with.

Were companies caught in that tension between strategic imperative and financial goals at the start?

Thankfully not. If anything, you want to be the right umbrella for your founders. If you are not going to be that, then you really have no business doing corporate venture capital investment. We just made sure that, number one, we are the correct umbrella to drown out all the corporate noise, and then look at adding value to the business.

What is your pitch to potential portfolio companies? How do you stand out when you are not leveraging Rakuten as a strategic CVC might?

One of our strongest suits, weirdly enough, has been our insight into the founders' products, the company's products, and that is simply how I fed back to the companies. This is how I feel about your products, this is where I think the problems are, this is where I think the growth is. I like your product but I think if we could pivot it a little bit this way, it will be much more desirable for corporations to take up.

How do you approach corporate development with a portfolio company?

It depends on the company. Some companies have hiring deficits, so we try to bring in head-hunters that we have known very well from one area to different areas. We try to deploy them and help them on those issues. If there are business planning issues, we have really smart people on our team that can help out. Our goal is to be flexible to their needs but to be pragmatic and sensible as well.

So you are part VC and a part network?

Whatever they need us to be. It really comes down to where the company wants to go to and if you, as an investor, have the necessary contact and knowledge base to support them. ◆

Interview: Reese Schroeder, MD, Tyson Ventures

GCV's Robin Brinkworth spoke to Reese Schroeder, managing director of Tyson Foods' new venturing unit, Tyson Ventures. A veteran in corporate venturing, Reese formerly ran Motorola Solutions Venture Capital and is a recipient of GCV's Lifetime Achievement Award. He talked about his new role, his challenges, opportunities and ambitions.

How have the first nine months or so been?

It has been a terrific learning experience. When I came on board at Tyson Ventures I really did not know very much about the space. I have learnt a ton in the first nine months. I tell people that I know 10 times more today than I knew when I started, and I will probably know 10 times more in another nine months.

What has been the trickiest part switching over from Motorola to Tyson, in terms of both relative age of the funds and industries?

What was really exciting to me is that it is a whole new industry for me. I am a great believer in always challenging myself, always trying to learn new things. This was a great opportunity for me to step into a role and be part of a founding team in a completely different space. One of the biggest challenges for me was that after 28 years at Motorola, and Motorola Solutions, I knew everybody. I knew where to go to ask a question about a particular topic. At Tyson, I am working with a new internal team. I think we have made great progress over the first nine months, but it is still something that I am

SECTOR FOCUS

working on, continuing to build and strengthen my internal Tyson network.

I went from being a veteran to a rookie almost overnight. When I left Motorola last June, Motorola Solutions Venture Capital had been in existence for 18 years, with a great reputation in the industry. What intrigued me about the Tyson Ventures opportunity was twofold. One is that it was a startup. Even though I had contributions and great success at Motorola Solutions, I was not part of the founding team. I was offered the opportunity to be part of a founding team and build the portfolio and this team from the ground up, which was really attractive.

The second thing I liked was that it was a totally new space to me. I did not want to get into anything at this point in time that could conflict with Motorola Solutions in any way. I have got too much respect for them to do something like that. This gave me the opportunity for a clean slate.

Tyson Ventures pursues themes of sustainability and the internet of food. Of these two areas, what emerging technologies and trends excite you most?

As an individual, under sustainability, we talk about alternate proteins. I knew a lot about plant-based vegetarian burgers. I had been eating them as part of my diet for three years. But, for example, cultured meats like Memphis Meats, one of our portfolio companies, is something I knew nothing about until I joined Tyson. It is really interesting and exciting, as an investor and an individual.

The other thing that excites me is the connected kitchen. I have always been a gadget guy. I was known at Motorola as the gadget guy. It is amazing how many different kitchen gadgets there are out there. We have invested in Tovala, a company that has created a smart oven. The oven has three cooking methods – broil, convection and steam. There is a barcode that you scan, push the button, and it goes through those cooking cycles and cooks a perfect meal in 15 to 20 minutes.

You have spoken about getting to know the people at Tyson Ventures, and you are clear that it is a strategic firm. How has that process worked?

We are definitely lean and mean right now. Tyson Ventures is really two people – myself as managing director and my partner Tom Mastrobuoni as chief financial officer. We are out there building the network, building the pipeline, executing transactions. We report to Justin Whitmore who is our executive vice-president of strategy and chief sustainability officer at Tyson Foods. That organisation gives a lot of visibility to the fund and that is of real benefit to us.

Having broad visibility, as we are part of Justin's staff, has definitely helped us open some of these doors and build the internal network. But neither I nor Tom is shy. We have taken a lot of time to reach out, introduce ourselves and have a dialogue about what we are doing at Tyson Ventures. There is a lot of genuine enthusiasm throughout the company for what we are doing and that is extremely gratifying to me.

There can be a lack of understanding between parent and corporate venturing unit. Is that a problem at all?

I do not think communication is going to be an issue. We have taken the approach that we will overcommunicate, if anything. We have fairly regular meetings with the three heads of our businesses. Tyson Foods has three business units – fresh meats and international under Noel White, prepared foods under Sally Grimes, and poultry under Doug Ramsey. Those three have a seat on the investment committee on a rotating basis. We are really going out of our way to make sure that everything we do is communicated and understood, all the way up the chain to our CEO, Tom Hayes.

What can Tyson Ventures offer those business units?

I am a huge advocate for corporate venture capital. For large companies, it is an absolute imperative. For Tyson Foods, Tyson Ventures can offer the perspective of the external entrepreneurial US ecosystem that the company cannot get without having that capability. Often the question comes up: "Why not partner versus invest?" For me, there is an analogy: "Why not just date a person rather than get married?" It is that way with investing in companies. You get a very deep view of that part of the ecosystem that you are not going to get without sitting in a boardroom. It is a lens into the ecosystem that you cannot get any other way.

What are your goals for the unit, and what will success look like?

In 2016, I was awarded Global Corporate Venturing's Lifetime Achievement Award from. Ten years from now, I would like to get my second, for what we did at Tyson Ventures. I want to turn Tyson Ventures into one of the top respected well-known corporate venture units. Tom and I share that vision, and Justin shares that vision as well. We do not want to be just another corporate venture capital unit. We want to be a unit that people admire, respect and want to work with. We are going to achieve that by doing right by the companies we invest in, and by doing right by the investors we work with.

We are already building a great network of co-investors, and we have got a great pipeline. We have three announced companies in the portfolio as of today. I have already mentioned Memphis Meats and Tovala, but we also have another exciting company, Beyond Meat, which is a plant-based meat alternative. In addition, we have a fourth company, the transaction for which will probably be closed in the next few weeks. In the next six months, we are going to get this portfolio up to six or seven companies. Over time, we want to build the team a bit. We are not going to go crazy but we do want to bring in some additional resources as the portfolio grows.

How would you characterise your investment methodology and how has it different from Motorola?

I do not know that it is totally different for me, from the standpoint that when I look at a potential investment candidate, the first thing I am thinking about is what the strategic fit is. How could Tyson work with this particular company? Which is very much the methodology I used before.

Once I am comfortable that there is a real potential strategic fit, I would say that Tom and I have the same level of discipline on the financial side as any financial investor. If something is not financially viable, it cannot truly be strategic. Conversely, if we can make an investment in a company, and we can work with them, we validate their solution, give them credibility in the market and give them opportunities for new distribution channels. All those things greatly increase the value of the company overall. That is what I mean by "doing right by the company" and "doing right by the investors".

Why have the number of deals involving consumer enterprises dropped year on year since 2015?

Maybe the VCs are just not seeing the level of innovation they were five years ago, when everyone was talking about "going mobile", e-commerce platforms and so on. If you come back to the food space, I would argue that if you look at things like the meal kit companies, which has been a big trend, those are e-commerce platforms. There is certainly a lot of life out there still. ◆

GAULE'S QUESTION TIME

Two views on tech transfer and university incubation

Andrew Gaule, left, talks to Tal Badt, director of business development, X-lab Tsinghua University, Beijing

Give us a brief introduction to yourself.

I come from Israel, born and raised there, and I have worked in Israel for some years as an intellectual property (IP) attorney. That brought me to working with a lot of high-tech and startup companies and I figured that pure law was not my forte and I really enjoyed the interplay between business and innovation. That actually brought me to China about seven years ago.

I got my MBA at Tsinghua University, and when I graduated I had just heard of X-lab, so it was really just the beginning of this innovation entrepreneurship platform for Tsinghua University, and I decided to join the core team. I have been working with them for almost five years.

Introduce Tsinghua University.

Tsinghua is basically the equivalent of Massachusetts Institute of Technology (MIT). It is ranked number one in China and globally – I just saw a 2018 university ranking that ranked it number one in computer science and engineering, actually overtaking MIT. Tsinghua is very much focused on engineering and hard sciences, but also has quite a few schools doing liberal arts, so it is a very interesting place to bring together people from different disciplines. That is what stands at the core of X-lab as well.

Describe what X-lab does and why it has been set up.

Tsinghua has people that really stick to their own vertical – people who are med school talking to other people from med school. There really was not a lot of mixing around with people from different backgrounds. We are trying to change that by opening up these verticals, and we created X-lab. It is an innovation platform. We do not call ourselves an incubator, even though we do incubate teams, because it is much more comprehensive.

The target is to facilitate and cultivate startups and bring people together from different disciplines. What makes it really special is a unique approach to entrepreneurship.

We are not sector-specific. We believe innovation can come from anywhere and everywhere. There is no ageism. We work with undergrads, master's and PhD students. Most of them are master's and PhD, but a really big alumni group as well. And we really do not care if you graduated five years ago or 20 years ago. We really value people with industry experience, and it makes it a very interesting dynamic place where people with a lot of different backgrounds come together.

We cater to early-stage startups and we try to provide whatever we can in support services and resources, bringing mentors, venture capital, consultancy, experiecne of specific sectors. Since we started about four and a half years ago, now we stand at a little over 1,190 project teams we are nurturing. Most of them are still active and about 485 are already incorporated. About 150 of those raised over $375m, so you can appreciate that most of them are early-stage startups but we have got a growing number of startups that are in growth stage already, and talking about A, B and C rounds. It is a very exciting place to be.

How does China's ecosystem comparing with other places, like Israel and the US?

The innovation hub in China is and always has been Beijing, and a lot of people are surprised to hear it, but it really has become number one for innovation in China because it brings together people from all backgrounds. It is not sector-specific, and it has become a real draw for people with really interesting backgrounds.

To compare with Israel, the innovation ecosystem is growing much more organically I would say. Because it is such a small country, people do not have as much difficulty getting to know one another, and military service brings people together. China is far different in the sense that starting in 2014, the government pretty much said: "We want to try to become a higher-value-based economy." So they started diverting a lot of funding and resources to building the ecosystem up. X-lab, by the way, started a year earlier. So we were ahead of the curve.

The view of entrepreneurship is also different. In Israel it would be much more organic and solution-oriented, whereas you would it find more lifestyle-oriented in the San Francisco Bay area in the US. In Israel, industries are much more solution-based, so you have got agri-tech, you have got cybersecurity, you have got some biotech. Automotive is picking up in recent years. And it is all stemming from the fact that it started as a country with a lot of problems and really not a whole lot of anything else. So you really needed to solve these problems and it has very much shaped the entrepreneurial mindset of Israelis.

GAULE'S QUESTION TIME

Chinese are somewhere in the middle. So I think it is geared towards quick, super-strong, super-aggressive commercialisation, but there are also many very serious scientists and researchers. So you kind of get everything in China. And being such a huge market it is not surprising.

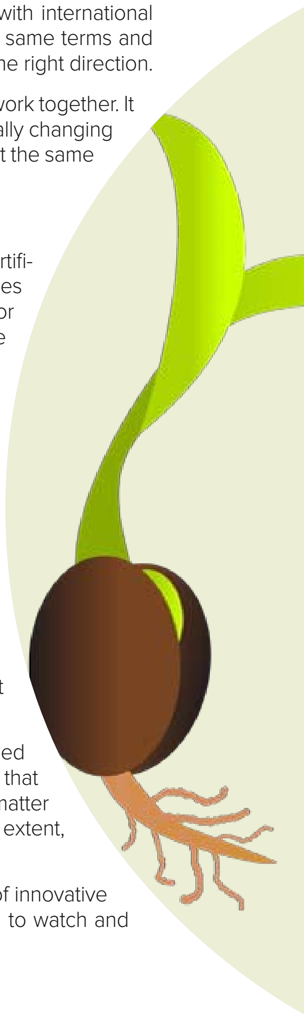
Some say China just copied products and software from the west. Do you believe this is true?

In the past decade China's IP environment has matured, really made leaps and bounds in my personal view. It is an imperfect system like everywhere else, so I am sure that you will be able to find people saying otherwise. But at least in tier-one and tier-two cities, you see that the situation has changed significantly.

There are professional IP courts now, with professional judges, and you can see that in terms of damages and decisions on IP infringements and other violations in favour of foreign companies operating in China.

As China becomes a higher-value economy, it is becoming more innovative, and it has to comply with international IP treaties. In order for others to protect their own inventions, they have to comply with and offer the same terms and conditions within mainland China. As I said, it is an imperfect system, but I really feel that it is going in the right direction.

I share this view with Ian Harvey, who chairs X-lab's IP centre, the international advisory board, and we work together. It has been an uphill struggle to try to tell people: "You may have been right in the past but things are really changing rapidly here, and you have to give it another look and understand that it is not what it used to be. And at the same time, there are other barriers and other obstacles that you need to take into consideration."



In which sectors is China now moving ahead, and where could it become dominant?

> "As China becomes a higher-value economy, it is becoming more innovative"

They already are, and if I am wrong, they are well on their way to dominating everything to do with artificial intelligence (AI). They are really right now at the top. You need AI to analyse the massive quantities of data – aggregation and then analysis and trying to analyse trends, whether it is for consumption or everything else. And we are hearing more and more about facial recognition software. So they are integrating everything.

I talk about "innovative new value chains" – how we are going to connect new technologies and startups to create different models, be that in digital health, cloud data, autonomous vehicles. So in terms of X-lab, how are you seeing your startups fitting into these new business models and these new value chains?

The whole value proposition that X-lab offers is bringing people in from different disciplines, so they each come with a different viewpoint about how to approach problems and what you can do to alleviate some of the issues we deal with, whether in daily life or something more significant.

We have quite a few startups that are doing digital health and remote connectivity devices. Everything to do with thinking about how you can tie it in with, for example, automotive. So you have entertainment systems analysing your wants and preferences. At the same time, it is analysing your heart rate and pulse and breathing, and trying to send information to your insurance companies, saying: "What was your role in this or that accident?" Or how it should translate to your policy.

This is very much the way that Chinese entrepreneurs approach it, first of all because it is encouraged and it is much easier with huge quantities of data from a lot of multiple sources, including some issues that the government is interested in solving. They are making this data available to people, and it is just a matter of trying to tap into it and see what you can do with it. Having a central government helps to a certain extent, with certain policies put in place.

X-lab is becoming very much a base for having people solve these issues and bring about all kinds of innovative new value chains, approaching things that you have not seen before. That makes it very interesting to watch and support.

Are you seeing global corporates now coming to connect with that sort of ecosystem?

We have worked with a lot of international companies. Because we are non-profit, X-lab is very much reliant on collaboration with industry. We have worked before with automotive companies, for example Audi and Volkswagen. With Volkswagen, we had a hackathon, so they wanted to get either access to talent or specific problems that they want to solve.

With Audi we did something much more significant. We ran an app challenge with them. It was a three-month challenge where we recruited several teams to build apps around the car's entertainment system. It was a combination of hardware and software. They were working with people from design backgrounds, also with their R&D people. A very interesting initiative, trying to think about the entertainment system, what you can integrate into it to become a much more comprehensive experience, not only from the way you use it but the way that the entertainment system collects information on you – your habits, what you are doing, how it translates to everything from the car experience. .

We were also working with Facebook, which approached X-lab. They wanted to come more from an educational perspective, because they are not currently active in mainland China. But we ran a semester-long course with them on entrepreneurship, trying to articulate insights from what they have done in Silicon Valley and how you build successful startups.

GAULE'S QUESTION TIME

We brought a bunch of their senior executives out to China through a semester-long process, where we had our own mentors work with students to help them apply some of the teachings and some of the insights that people shared with them.

Whether it is much more pragmatic, projected-based or whether we are targeting education on a broader scope, we try to attack innovation and entrepreneurship from multiple perspectives at X-lab.

What do you do to relax?

My role is so intellectual most of the time that I like to do things with my hands, so I bake. I make really nice stuff, especially breads.

Andrew Gaule, left, talks to Quentin Compton-Bishop, CEO, Warwick Ventures

Give us a brief introduction to yourself.

I head Warwick Ventures, University of Warwick's technology transfer office (TTO). We help commercialise Warwick research and promote knowledge exchange with industry. I also manage Warwick's spinout equity portfolio, and I am the lead sponsor of the Warwick Enterprise Partnership, a collaboration of various departments here, which supports and promotes enterprise among students, staff and the wider university community.

I came to Warwick after about 20 years working in startups as a co-founder and CEO. I started in software in California in the 1990s, novel composite materials (RolaTube), super-hydrophobic nanotechnology (P2i) and renewable energy – so really very diverse technologies where my role was one of getting them from technology to first product markets. Before that, I had roles in international business development and consulting.

Describe Warwick Ventures.

University of Warwick is a UK top 10 and global top 100 research-intensive university. Its research covers most sciences, medicine, arts and social sciences.

Warwick Ventures has a team of 10, including the two directors, with a range of expertise to cover all these fields of Warwick research. Each year we record about 100 innovation disclosures, file over 30 patent applications, negotiate about 20 licences and create about five new spinout companies. Our spinout portfolio of active companies currently numbers 24 in a wide variety of technologies and market sectors.

Explain your purpose and process.

Warwick Ventures' main purpose is to help Warwick research get into public use so that it is of benefit to the economy and society. This is mainly via the commercial routes of licensing Warwick IP to corporates and by creating spinout companies. These routes are mainly for technologies from the science, technology, engineering and maths faculties, but we also support academics in the arts, humanities and social sciences, finding additional ways for their research to benefit society which may not be commercial, for example data analysis, social enterprises, education and the application of behavioural science to social policies.

The technologies coming out of our university labs are usually very early stage. So our process is to help get them ready for licensing or, if a spinout, ready for investment.

First, we have to establish whether there is a market and a scalable business model. One effective way of doing that is to train the junior researcher to get first-hand market data based on an initial hypothetical business model. The researcher then goes out and talks to many businesses and other organisations around the world and comes back with a refined model, validated with some initial evidence. This makes a project more credible to investors. Sometimes the research shows that there is not a scalable business model and the commercial venture should stop. This is a good outcome also as it prevents wasted time and effort.

An additional and lasting benefit, whatever the outcome from the market research, is the development of the awareness, confidence and skills of academics themselves. This can be transformational, with some researchers transferring to be full-time employees of spinouts. For others the process prepares them for an academic future where funders are increasingly seeking economic and social impact. Last but not least, the process gives academics a very useful starting network of industry contacts.

Second, if we have shown there is a market and the project is going to spin out, we can start to attract commercial management to work alongside our researchers. Finding management for our spinouts is another key role for us. Where necessary, we train corporate executives with expertise of large-scale business models and markets, and who are looking for a change in career, how to work with very early-stage university startups. This all part of a general role we have

GAULE'S QUESTION TIME

in building the innovation ecosystem around our technologies, including corporates, development partners, business advisers, consultants, investors, facilities and so on.

Last, if we have the market potential and the management, we can go on to help raise the money spinouts need to get off to a good start.

Describe the people in the university, in Warwick Ventures and those outside with whom you engage.

Finding the right people for Warwick Ventures is a real challenge. They have to straddle two worlds – that of our academics and that of business. They need to have the education to understand the research of our academics and build positive relationships with them. They also have the experience and skills to do deals with corporates and investors. If they have an entrepreneurial and consultancy background, so much the better to help in forming spinouts.

Externally, we engage a lot with corporates, such as CVCs with the vision of where technologies and markets may be going, the business units themselves, which may already have contract research relationships with the university, and with financial investors. Warwick runs the Minerva Business Angel Network, one of the largest in the UK, and we have good relatiosnhips with our regional VCs.

I have outlined what I term "innovative new value chains" – connecting new tech, startups and corporates in new business models, such as digital health devices, data in the cloud, new direct relationships with patient consumers, also connected autonomous electric vehicles that car share. What role do you think universities and Warwick Ventures will play in these innovative new value chains?

"We engage a lot with corporates, such as CVCs with the vision of where technologies and markets may be going"

Universities and TTOs like Warwick Ventures have an important role. Universities are a rich source of innovations and ideas. But chucking the innovations over the wall to be picked up by corporates is not the way to go. We can add a lot of value in developing and derisking them, preparing them for take-up and investment. Increasingly, we take a more holistic approach, seeing how a particular technology fits within a business opportunity and seeing how we can connect the other pieces and resources that can lead to a scalable business model. A new sensor technology, for example, on its own is not enough to build a great business that delivers on our mission to obtain the greatest economic and societal impact from Warwick's research.

Illustrate what you have described with examples.

One is TrueDR, a new spinout that has high dynamic range (HDR) vision systems and software for terrain identification for autonomous vehicles, for example how to enable a car to distinguish between green grass and green-painted tarmac, or between water and ice, in high-contrast lighting conditions. Before we set up TrueDR, we engaged with an original equipment manufacturer to secure a first proof-of-principle project for the company. Once a couple of those commercial projects are completed successfully by TrueDR, it will be in a good place for Warwick Ventures to introduce it to seed investors and later to corporate investors.

Another is Medherant, which makes novel skin patches for pain relief. This spinout originated from a relationship with adhesives manufacturer Bostik, part of the Arkema group, which had developed a new medical grade adhesive and was looking for applications. Warwick Ventures suggested using it to carry over-the-counter drugs, such as ibuprofen, and provided proof-of-concept funding to one of our senior polymer chemists, Prof David Haddleton, to test whether certain over-the-counter drugs could be got in and out of the adhesive.

It worked, and so we lined up a core management team to work on the business model, helped negotiate a licensing-in of the Bostik material for the spinout and introduced Mercia Fund, a local VC investor. Progress since has been rapid, with further investment rounds, including a £4m ($5.7m) investment round in December, and a team now of more than 15 people.

What do you do to relax?

I am a natural historian and a generalist by nature – interested in nature, science, arts, history, international affairs and business. So I follow many things, but the only thing I really have time for is a bit of gardening and an association I co-founded and chair that promotes research, education and the preservation of the heritage of the peoples and communities of the Levant region in the eastern Mediterranean – the Levantine Heritage Foundation. I have a complicated ancestry part-rooted in the Middle East and met like-minded people who wanted to prevent the intergenerational loss of much heritage and culture. ◆

You can listen to this and other interviews on a podcast, subscribe at *gaulesqt.podomatic.com*. Andrew Gaule 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*

UNIVERSITY CORNER

A champion for innovation and entrepreneurship

University of California's Christine Gulbranson, chairman of the Global University Venturing Leadership Society, talks to GUV editor Thierry Heles about her drive to support the best and brightest among students, faculty and alumni

Christine Gulbranson is a force of nature. It is nigh on impossible not to be captivated by her passion for her job – senior vice-president, innovation and entrepreneurship, at University of California (UC) System – and her dedication to the ecosystem – also notable in her position as chairman of the Global University Venturing Leadership Society.

Yet despite her impressive résumé – which begins with five degrees from UC Davis, including an MBA and a PhD in materials science and engineering, and features general partner at VC firm Global Catalyst Partners, co-founder of nanotechnology developer UltraDots and chief executive of startup advisory firm Christalis, to name but a small selection – Gulbranson is approachable and empathetic.

Those characteristics come in handy in a job that requires her to create a network of, and engage, startups launched by UC's 250,000 students, 200,000 faculty and staff and 1.8 million living alumni. Last year alone, UC companies from licensed technologies brought in $21bn in revenue and $6.6bn in investments, and employed 18,000 people.

She began her job – a new position – in May 2016 and said her decision at the time was driven by the fact that she liked "building things that are new and this is a brand new division in a 150-year-old institution".

She continued: "It is an amazing opportunity considering the wealth of technology being developed. We average five inventions across the system per day and 100 research publications a day – most of which are in peer-reviewed journals. That is huge. As I was thinking about trying something new and how I could have an impact, the assets and resources of UC were enticing to me."

It helped that the job offer was with UC. Gulbranson added: "I am a graduate of UC Davis. Throughout my career I have built a wide-ranging skillset, and this job is a culmination of all those skills – skills that I can now bring back to an institution that has given me so much and enabled me to grow in my career."

The position is also a homecoming professionally. From 1997 to 1999, Gulbranson had already been director of research collaborations in the UC office of the president, before moving on to Lawrence Livermore National Laboratory, where her achievements included the creation of an incubator.

It is difficult to underestimate the amount of work faced by Gulbranson and her team, which includes Wendy Lim, chief of staff in the office of innovation and entrepreneurship, and Victoria Slivkoff, head of strategic partnerships and Asia-Pacific general manager in the same office.

Gulbranson, who reports directly to UC president Janet Napolitano, said: "UC is a behemoth with 10 campuses, five medical centres, three affiliated national laboratories and a state-wide agricultural and natural resources group. We are evaluating how we can capture all of the innovative and entrepreneurial activities going on within the system. As you can imagine, it is very dynamic."

How, exactly, is Gulbranson tackling the task? She explained: "We have more than 1.8 million alumni living all over the world. As we build out this entrepreneurial ecosystem, we want to engage our entrepreneurial alumni because there is such a wealth of human capital.

"These alumni can be mentors to the next generation of innovators and entrepreneurs, and we can engage them as entrepreneurs-in-residence, potential investors and corporate leaders that can partner with UC."

The groundwork had already been laid to some extent. Gulbranson said: "The individual campuses have done a really good job and have their ecosystems around their locations."

UNIVERSITY CORNER

The challenge was to connect these ecosystems and elevate these efforts by bringing in outside actors – alumni in China, Europe, Africa and elsewhere. The key, Gulbranson said, was creating "a sense of community". It was a sense she had always felt, adding: "Because it has afforded me so much, UC has been part of my family."

And she was not alone in this. "Many others feel the same way. We did not have a database of our entrepreneurial alumni, so I started a UC founders group on professional networking site LinkedIn that now has more than 1,000 companies. When I reached out to those alumni, most of the responses were: 'What can I do to help you? This is amazing.'

"They tell me their stories of how they started their company when they were an undergraduate or graduate student. Some describe how they launched their business after they graduated and often credit a professor who made a significant impact on them. As they build their startup they think about what they learned and try to inject that into the company culture."

While 1,000 companies is a lot, it also seemed like just the beginning. Gulbranson launched UC's first systemwide startup showcase, held at the Global Corporate Venturing & Innovation Summit in January *(for a full report, see last month's magazine)* saying: "We are just scratching the surface of the innovative technologies and entrepreneurial ventures within the UC system. As an example, take Michael Urner from medical device maker Tergis Technologies. How do we elevate his startup so that he has a platform to tell as many people as possible about his product?"

She stressed that it did not matter whether a company was working on university-affiliated technology or was independent, as both needed support and both types of founder should be considered "UC-preneurs".

Technology transfer is already a well-established process at UC. "We have a really nice system of intellectual property (IP) development and technology commercialisation. That is set up and working well, but innovation is so much more than that. We do not have a system to help alumni who start companies that are not based on UC-invented technology. They are still a part of the UC family – they are UC-preneurs too.

"When you start anything, it is a heavy lift. You have to get out there and be a change agent"

"You do not necessarily need to have IP to have an innovative company. You could create a new process or be first to market. It is looking at the whole landscape, beyond tech transfer, to include the broad spectrum of innovation and all of what that encompasses."

Once Gulbranson started scratching the surface, even she was surprised to find how much impact UC alumni have had across the world. She said: "I did not know that an alumnus of UC Berkeley, Marc Tarpenning, is a co-founder of electric vehicle manufacturer Tesla. And the co-founder of ride-hailing app Lyft, Logan Green, is a UC Santa Barbara grad."

Some alumni may have chosen a more obvious path to entrepreneurship, though Gulbranson also gave an example of a 1988 history graduate from Berkeley who went on to launch a smartphone app that harnessesd the phone's camera to capture and analyse a user's complexion to enable a custom makeup match. His company, MatchCo, was acquired by skincare producer Shiseido.

These are the stories that would never be unearthed if UC had not created Gulbranson's position. She is proud of her role to date, noting: "It warms my heart to be able to engage this community and pull them back into the fold."

But what was the catalyst for the creation of a UC entrepreneur label? As with so many things in academia, it started with a faculty member who, Gulbranson paraphrased, realised that he had been with UC for 34 years, taken a company public and still had one that was private. Never once had he considered himself a UC entrepreneur.

Gulbranson's passion for building new things shone through again as she picked up on that point. "How do we shift that culture? How do we embrace that we are UC entrepreneurs and own that label? As the largest public research university with all of the entrepreneurs that we have in the world, it is mindboggling.

"That is why I launched the 'I am a UC Entrepreneur' campaign. We started with students, faculty and staff, and I was impressed watching their pitches. As an example, I did not know we were developing a new drug for ALS – amyotrophic lateral sclerosis – a group of rare neurological diseases."

Indeed, selecting a winner of the showcase, who will be at the GUV: Fusion conference this May in London, was an unenviable challenge. But even those who did not win – the honour went to Sophia Yen and her telemedicine and drug delivery service Pandia Health – received a significant boost from the showcase.

Gulbranson continued: "This competition gave all of the finalists an opportunity to tell their story to an important and influential audience. The challenge was not limited to getting exposure, or even raising capital. We want to allow startups to flourish, with a little bit of assistance from us. We have a huge network, so let's engage these entrepreneurs and help them out."

Helping startups to grow is a noble goal, but how did Gulbranson see the UC entrepreneur label evolve? She explained: "When you start anything, it is a heavy lift. You have to get out there and be a change agent."

People will typically challenge any effort to make a change, a reality that Gulbranson admitted she also faced. It had not put a damper on her ambitions, however. "Ultimately I want the entrepreneurs to own this label and I want them to see the value of participating. I want them to feel part of this community. That takes time.

"Specifically, for us it is a question of how we build that sense of community to help you along the way, because you are a UC alumnus and you are part of the community."

Would Gulbranson want to expand the UC showcase, not just at the GCVI Summit but in general? She replied with an enthusiastic yes. "This was a great platform and an amazing group to pilot this. I definitely see an opportunity to expand the showcase. I wanted to understand the feedback from the investors in the room and the corporate value for them and I heard really great feedback.

"On the other side, was it valuable to the startups? That was a resounding 100% yes. Let's build this out, let's make it bigger."

Such a response was a big relief for Gulbranson, who acknowledged: "It is really hard when you are doing something for the first time. I heard from the startups that they really did not know what this event was and that they applied because it sounded interesting. But when they arrived, the response was: 'Wow, the level of folks in the room is impressive. How would I have ever had this opportunity otherwise?'

"So, of course we are going to still partner with the GCVI Summit in the future. One of the tremendous values here is the corporate VCs. They have an amazing advantage over traditional VCs. Corporate VCs are potential beta-testers. Not only can they infuse money, they can test your product and bring these technologies into emerging markets. They are the whole package."

Completing the "triple helix", Gulbranson said she would happily target government investors too. She declared: "The breadth and depth of technologies that come out of the UC system are phenomenal. Of course, governments are going to be interested – new energy technologies, cybersecurity, artificial intelligence, healthcare, all of it.

"Universities are a tremendous and necessary player in the global economy"

"To pick up on the earlier question of why I took the job with UC – this is why. UC is the largest public research university and all the different technologies you can see in a day are amazing. This role is very exciting to me, to be able to think about multiple things at once and to figure out how we can help and elevate these cutting-edge technologies and new ventures."

But despite her passion for UC, Gulbranson freely acknowledged that this same model had applications across the university world – in fact, she noted it had already started.

"I was on a panel with the president of Johns Hopkins University, Ronald Daniels, and I heard from my counterpart there. He called her and said: 'We should be doing this too.' That is validation that we are heading in the right direction."

It was a cause Gulbranson was also keen to push in her role as chairman of the Global University Venturing Leadership Society. She added: "I was in tech transfer years ago, but in this day and age, innovation and entrepreneurship are more than tech transfer and we need to embrace this evolution. We need to figure out how we expand beyond the tech transfer model."

Indeed, Gulbranson's vision for the GUV Leadership Society is ambitious. She added: "When you think about the broader picture, innovation is really a nascent market. We are just scratching the surface of how we are going to handle it. When we initially met in May 2017 to set up the society, one of the beauties of it was that many universities around the globe were at different stages of building their entrepreneurial ecosystems and approaching the challenges differently.

Gulbranson continued: "I am very honoured to be chairing the society. I believe there is so much we can do with it. What I like about it is that it is very collegial. People are willing to be open and share how they are addressing investment, entrepreneurship and innovation."

The sense of competition always remained but, Gulbranson said: "We all have our focus and comfort zone, and other universities that we are closer to. But when you take down the walls, we are all the same. Maybe this one deal is not going to happen for me, but it may happen for you. Maybe six months from now the same will happen in the other direction."

In fact, this collegiality seemed natural to Gulbranson. "I understand competition, but we are all in this together. We are all trying to figure out how to build this ecosystem, especially in the beginning. I am all about helping the team."

The UC entrepreneur label, the GUV Leadership Society and Gulbranson's job could not have come at a better time. She concluded: "Universities are a tremendous and necessary player in the global economy. Twenty years ago universities were not seen as an important a player, but today they are a necessity. People need to become cognisant of that if they are not already. We need to figure out how we can all work together to grow the economy and solve the world's problems, because we have a wealth of really smart people that we can tap into.

"It is really beautiful to be involved in this, to be at the forefront of change, technology development, commercialisation and growing the next generation of entrepreneurs."

As enthusiastic as Christine Gulbranson is to lead the charge, as lucky as the university community is to have such a passionate spokesperson among its thought-leaders. The future could not look brighter. ◆

GOVERNMENT HOUSE

Can governments turn engineers into entrepreneurs?

Robyn Klingler-Vidra, lecturer in political economy, King's College London

In South Korea, the saying goes that "to be an entrepreneur you have to kill two women – your mother and your future wife". In South Korea, young male entrepreneurs would shame their mothers by not pursuing a professional career, such as doctor or lawyer, or working for a top *chaebol* – meaning conglomerate, such as Samsung and LG. By being an entrepreneur, a future wife would also suffer from shame, and the financial repercussions that come from this riskier lifestyle.

For policy scientists who study how and why culture is "sticky", we ask ourselves what governments can do to effect a seismic shift in favour of entrepreneurial behaviour. In the Korean case, could policy help to make it okay to tell your mother that you are going to be an entrepreneur?

Since the 1990s, the Singaporean government has used the rubric of turning its highly-trained "engineers into entrepreneurs". The aim has been to develop a more creative risk-taking culture. In the 21st century, governments around the globe have launched efforts to increase "technopreneurship". In doing so, they hope to emulate the spectacular rise of Israel as the "startup nation" or the ephemeral success of Silicon Valley. In the knowledge-based economy, innovation and entrepreneurship, and the confluence of the two, are thought to be essential to driving economic growth and job creation.

The objective is increasingly one of "inclusive innovation", that includes underrepresented groups – women, minorities, people with disabilities, the young, the old – in the process of innovation or technological innovation that addresses social issues, such as technologies that can improve agricultural productivity.

Aside from policies for promoting science and technology, such as R&D spending, governments deploy policies aimed at nudging cultural change towards the venture activities emblematic of Silicon Valley and the startup nation. In the UK's recently published "industrial strategy", there are frequent references to supporting "creative and innovative businesses" and entrepreneurs.

Government initiatives have helped to import entrepreneurial talent and create a buzz of entrepreneurial activity. Startup Chile is a good example. In 2010 the Chilean Economic Development Agency launched Startup Chile to tempt world-class entrepreneurs to build their businesses in the capital, Santiago. The program offers mentoring, networking and tax rebates to selected entrepreneurs.

In a forthcoming article in Asian Studies Review, Ramon Pacheco Pardo, King's College London, and I share our findings of how the Korean government's Creative Economy Action Plan, launched in 2013, has effected cultural, if not economic, change. The plan was originated by President Park Guen-hye – the daughter of former president General Park Chung-hee whose government oversaw Korea's modernising "miracle on the Han River". Park Guen-hye asserted that Korea would achieve its second miracle through a reorientation towards entrepreneurial creative economy activities, and by extension away from reliance on *chaebol* activities. She said: "Economic revitalisation is going to be propelled by a creative economy and economic democratisation."

A range of policies were implemented – 18 centres for creative economy and Innovation were launched, each with a *chaebol* as corporate partner. A series of funding initiatives followed to provide more diverse financing to entrepreneurs and startups. Regulatory reforms reduced barriers to M&As in the technology sector. The Ministry of Science in 2014 began investing $1.5bn in local telecoms to develop the world's first national 5G network. In 2016, K-Startup Grand Challenge – for me, a nod to Startup Chile – was launched to attract international startup teams to Seoul's Pangyo Techno Valley, offering help with visas and mentoring, and facilitating introductions to relevant *chaebols*.

Through three rounds of online surveys and personal interviews with members of the budding entrepreneurial ecosystem in Korea between the summers of 2016 and 2017, we found the plan had increased the quality of would-be entrepreneurs through greater business plan, pitching and other functional skills; increased the finance available for startups, so it is easier to build a business in 2017 than it was in 2013; and increased the number of entrepreneurs. This third finding is perhaps the most interesting. We pushed to understand the causal underpinnings – why are there more entrepreneurs in Korea now? Is it that there is more money, less bureaucratic tape, and greater tax incentives? Or is it now somehow more socially acceptable or attractive to be an entrepreneur?

The resounding answer is that the plan has made entrepreneurship and creative business ideas mainstream. It has normalised technopreneurship such that it is increasingly acceptable for young Koreans to tell mum they are not going to work for Samsung. The takeaway for us is that placing technopreneurship front and centre – in terms of public mindshare and not only in disparate policies – can make a start towards turning society's engineers into entrepreneurs – or at least eroding the predisposition that they will be killing their mum by starting their own high-tech business. To promote a culture of innovation and entrepreneurship, the state has a necessary role as a venture capital state. ◆

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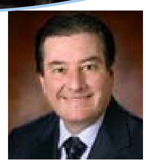

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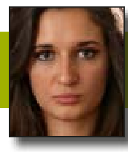
INNOVATIVE REGION

Japan’s treasure islands of venture

Alice Tchernookova, features editor



Surrounded by the Sea of Japan to the east and the Pacific Ocean to the west, Japan spans a territory of close to 378,000 sq km, 364,000 of which are land and the rest water. Often referred to as “the Land of the Rising Sun” because of its Japanese name “Nippon” – literally “the sun’s origin” – the country consists of 6,850 islands, the largest of which are Honshu, Hokkaido, Kyushu and Shikoku, which together make up about 97% of the territory.

Home to the world’s 11th largest population with more than 127 million people, Japan has often been singled out as an early demographic example of a population diminishing, rather than growing. Current estimates project that by 2065, figures could plummet to 88 million – a drop of as much as 30% compared with 2015.

Not only is Japan’s population shrinking, it is also ageing. With a median age of 46.7, it is the world’s second oldest, right behind Monaco, where the median age is around 53. Recent government studies also forecast that by 2065, people aged 65 and above will account for around 38% of the population.

A mitigating factor may, however, be that Japan has one of the world’s highest life expectancy, ranking second at 85.52. It also has one of the world’s most educated populations, ranking second – right behind Canada – with 50.5% of 25 to 64-year-olds having completed some form of tertiary education, according to the Organisation for Economic Cooperation and Development.

More than 70% of the land is mountains and volcanoes, and the country has often been seen as one that offers few natural resources. It is perhaps no wonder then that the country is known mostly for its groundbreaking contributions to technology and innovation, particularly in the areas of electronics and automotive.

The world’s third-largest economy, with a GDP of nearly $5 trillion, the archipelago has been home to some of these sectors’ most successful businesses, such as Canon, Casio, Nikon, Sony, Panasonic, Nintendo, Hitachi and Fujitsu for electronics, and Yamaha, Toyota, Nissan, Mitsubishi, Honda, Suzuki and Mazda for automotive, to name a few.

More recently, these traditionally strong areas have been supplemented by new technologies, which are progressively reshaping the innovational landscape in Japan. Ken Yasunaga, managing director at the public-private investment fund Innovation Network Corporation of Japan (INCJ), said: "Initially, internet services were the strongest and biggest source of entrepreneurs on the Japanese market.

"We have now started seeing new kinds of opportunities, including in the life sciences space – mostly dedicated to drug discovery – and in IT and software. But most of all, it is the internet of things (IoT), artificial intelligence (AI) and robotics that always the top the list these days."

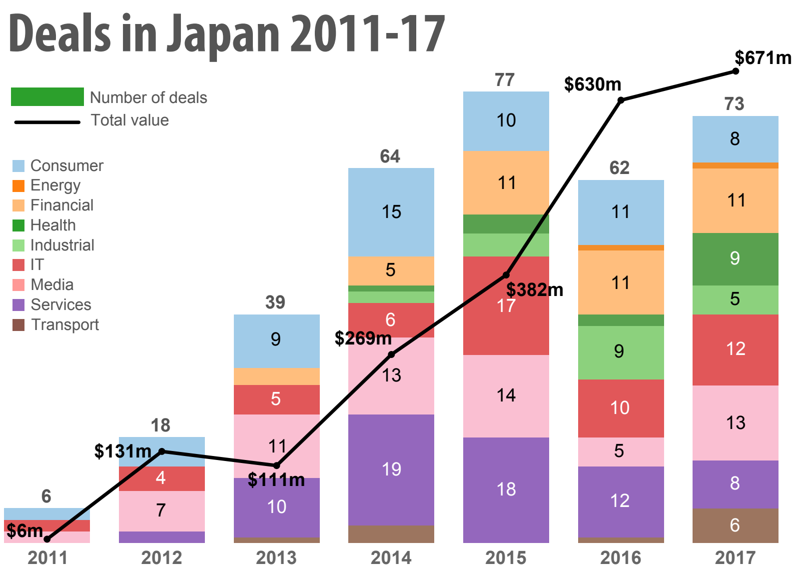
Flourishing activity

According to a report by the Japan Forum for Innovation and Technology, 32 of the top 300 corporate investors in 2016 were Japanese.

Mitsui & Co Global Investment, venture arm of the Tokyo-based general trading business Mitsui & Co, ranked first on the Japanese market and seventh worldwide. Other corporations listed among the 32 included Mitsubishi UFJ Capital, Cyberagent Ventures, DG Incubation, Astellas Venture, Gree Ventures, NTT Docomo, Takeda Ventures, and Nissay Capital.

While local corporates are being increasingly generous towards young innovative businesses – exactly 27 times more than five years ago, according to the Asia-focused finance publication Nikkei Asian Review – corporate venturing activity has been rising in Japan over the past few years. Last year alone, the country hosted 73 deals for a total $671m in funding, ranking 14th and sixth respectively worldwide.

Both deal value and volume have been increasing nearly consistently since 2011, with numbers jumping from $6m in 2011 to a record $671m last year, and from six deals to a record 73.



Hiroshi Saijou, CEO and managing director at Silicon Valley-based Yamaha Motor Ventures & Laboratory Silicon Valley (YMVSV), said this acceleration was largely triggered by Prime Minister Shinzo Abe's visit to Silicon Valley in 2015, when Abe met and talked with some of the valley's top entrepreneurial figures, including Facebook founder Marck Zuckerberg, Tesla founder Elon Musk and Twitter CEO Jack Dorsey.

In a public address, Abe declared his intention to support and develop the Japanese venture ecosystem. He announced a number of plans and projects, the highlight of which was the creation of the Stanford Silicon Valley-New Japan Project (SNVJ) – a platform aiming to establish a sustained collaboration between Japan and the valley.

This joint initiative included the launch of incubators and accelerators that would boost the global development of some of Japan's most promising startups. At the time, the SNVJ had set out to incubate 200 startups in strategic sectors including design, transportation, healthcare, robotics and retail. It also planned to encourage the collaboration of US and Japanese universities and research centres such as the Byers Centre for Biodesign and the Hasso Plattner Institute of Design at Stanford in the US, and the Tokyo, Osaka and Tohoku universities in Japan.

Saijou said: "I believe Japan has been getting much more hyped in terms of CVC activity lately, with established corporations being more proactive and more eager to acquire new opportunities. The market is growing, and the environment is generally positive.

"Over the past two years, the scene has become particularly exciting for hardware-related businesses. Robotics, IoT and AI are all new areas of innovation that have been brought to hardware design, giving way to new opportunities. Japan has always been known for the quality of its hardware manufacturing, and so foreign investors are starting to look to the Japanese market for good sourcing in these fields."

GCV Analytics data, however, reveals that the strongest sector last year was media, with 13 deals. IT followed with 12,

Top 10 corporate-backed deals in Japan 2011-17

Company	Sector	Round	Size	Investors
Preferred Networks	IT	–	$94.8m	Toyota
Cygames	Media	Stake purchase	$92.1m	CyberAgent | Incubate Fund
iSpace	Industrial	A	$90.2m	Dentsu | Development Bank of Japan | Innovation Network Corporation of Japan) | Japan Airlines | KDDI | Konica Minolta | Real Tech Fund | Shimizu | Sparx Group | Tokyo Broadcasting System | Toppan
Mercari	IT	D	$75m	Global Brain Corporation | Globis Capital Partners | Mitsui | Sumitomo Mitsui | World Innovation Lab
Inagora	Consumer	C	$68m	Itochu | KDDI | SBI Group
GMO Internet Group	IT	–	$65m	Sumitomo Mitsui
Seven Dreamers	Consumer	–	$60m	Daiwa Securities | Panasonic | SBI Group
Gumi	Media	E and beyond	$49m	B Dash Ventures | DBJ capital | Gree | Mitsubishi UFJ Financial | Sega | Shinsei bank | World Innovation Lab | undisclosed investors
Groove X	Industrial	A	$38.7m	AmTran Technology | Dai-ichi Seiko | Line | OSG Corporation | SMBC Venture Capital
Sansan	Services	D	$38m	DCM | Future Creation Fund | Salesforce

while financial services reaped 11. Other noteworthy areas were healthcare, with nine transactions, consumer and services with eight, transport with six and industrials with five.

Japan's traditionally strong automotive industry has been playing a pioneering role in the country's CVC effort, with flagship corporations such as Toyota and Yamaha the first to establish independent units.

Last year, Toyota launched its $100m venture arm, Toyota AI Ventures, dedicated to early-stage investments mainly within the autonomous driving and robotics spaces. Two years earlier, Yamaha had created YMVSV, with an original investment capacity of $450,000.

Jim Adler, managing director at Toyota AI and executive adviser to Toyota Research Institute, said: "There has been quite a bit of interest from abroad in finding startups in Japan. Japanese companies have, in turn, started doing more VC investments, which means we can expect CVC activity will continue to grow there. Certainly, within the automotive space, the fact that companies the size of Toyota are expanding their CVC activity is a clear signal that it is becoming more important."

Toyota's recently announced $2.8bn development effort in Tokyo – Toyota Research Institute-Advanced Development – co-led with suppliers Denso and Aisin Seiki, may drive even more CVC activity, Adler added.

In March this year, Aisin Seiki announced the launch of a $50m US-based investment fund in partnership with VC firm Fenox Venture Capital, which will manage the fund. And Denso last year said it planned to expand its venture investments in new technologies, working towards the creation of connected self-driving cars.

In 2015, Toyota also launched Mirai Creation Investment – a ¥13.5bn ($111m) vehicle co-founded with Tokyo's Sumitomo Mitsui Banking Corporation and the asset management firm Sparx Group, targeting startups developing advanced technologies for the car industry.

And the recently formed strategic alliance Renault-Nissan-Mitsubishi rolled out a $200m venture fund largely devoted to autonomous driving and AI, with Renault and Nissan each providing 40% of the capital, and Mitsubishi committing the rest. The conglomerate reportedly said it would look to invest up to $1bn over the next five years.

Other sectors, too, have given birth to significant venture arms, progressively establishing Japan as a player in global CVC. In 2016, optics and imaging products specialist company Nikon partnered asset manager SBI Investment to launch the $100m Nikon-SBI Innovation Fund dedicated to IT, AI and robotics. The same year, electronics, gaming, entertainment and financial services conglomerate Sony introduced its ¥10bn Innovation Fund, which has supported around 15 robotics and AI startups to date.

More recently, consumer electronics manufacturer Panasonic earmarked an investment of $100m for its new California-based venture arm Panasonic Ventures. Last month, this initial commitment was completed with the launch of BeeEdge, a US-based accelerator co-founded with San Francisco-based VC firm Scrum Ventures.

It would be impossible to talk about Japanese corporate venturing without mentioning the country's behemoth market player, SoftBank, and its near-$100bn SoftBank Vision Fund.

As reported by GCV, news of the fund first broke in October 2016 when the group announced plans for a $100bn fund that would be equipped with $25bn of its own capital plus $45bn from Saudi Arabia's Public Investment Fund as a limited partner (LP). The fund reached its first close in May that year, having accumulated $93bn from LPs, including $15bn from Abu Dhabi's Mubadala Investment Company, and $1bn each from electronics producers Apple and Sharp, chipmaker Qualcomm and contract manufacturer Foxconn.

By that point, SoftBank had already made some big moves, having chipped into a $500m round for online lending platform SoFi and a $330m round for India-based ride-hailing platform Ola in February, and provided $300m for co-working space provider WeWork the following month. The company also agreed to a $3.3bn acquisition of Fortress Investment Group – an investment manager with $70bn of assets under management.

A milestone in the firm's investment history, however, was passed when it invested $5bn in China-based on-demand ride-hailing platform Didi Chuxing as part of a $5.5bn round that reportedly valued the company at more than $50bn.

More recently, SoftBank led a funding round estimated at roughly $9bn to acquire a 17% stake in peer-to-peer ride-sharing app Uber, with Dragoneer, Tencent, TPG and Sequoia as co-investors in the transaction. The firm also said it considered making an investment of up to $1bn in China-based courier and delivery services provider Manbang Group.

In the most recent news, SoftBank said it was looking at fusing its investment activities, with plans to create a new entity – SoftBank Financial Services – which would incorporate both the Vision Fund and Fortress Investment.

However, the fund has so far made a negligible contribution to Japan's local investment market, as most of its activity has been abroad, comparable to peers, such as Rakuten and Gree, which have focused in markets, such as Southeast Asia. And relatively few international corporations, apart from corporate venturing groups from US-based Intel and Salesforce, have tapped Japan's local entrepreneurs. Ken Asada, head of Intel Capital in Japan, pointed to deals such as Trigence Semiconductor, which was founded in 2006 as a spinoff from Hosei University and received its first investment in 2012 from Intel Capital.

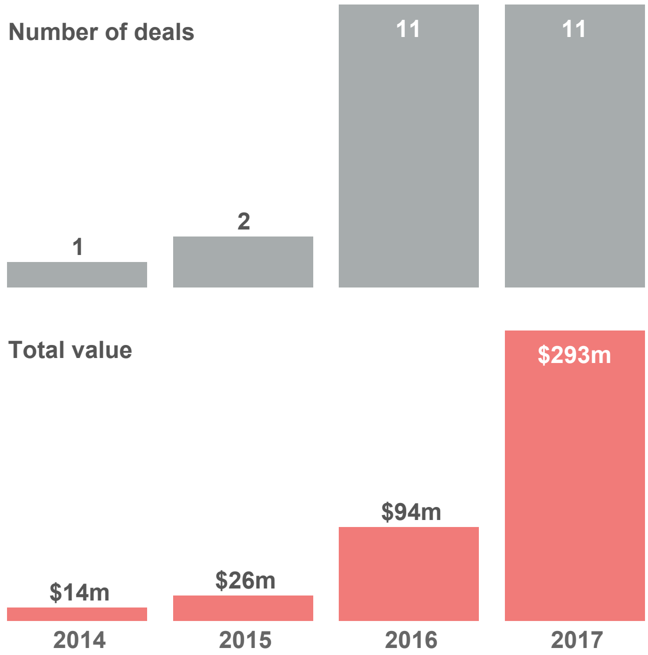
But returns are being seen by some of these international CVCs, with Shinji Asada, head of Salesforce Ventures in Japan, citing its first trade sale and three flotations, including Hottolink.

Government support

The Japanese government is keen for more and adding its weight. Ever since Abe's visit to Silicon Valley, the government has made it a high priority to support its venture ecosystem. Over the years, the number of government-backed deals has increased consistently, with two transactions recorded in 2015, and 11 in each of 2016 and 2017. Deal value also inflated, with $26m, $94m and $293m respectively invested over those three years, according to GCV Analytics.

Some entities in particular have been more active over the past two to three years,

Government-backed deals in Japan 2014-17



Top government investors in Japan 2014-17

13	Innovation Network Corporation of Japan
2	Development Bank of Japan
1	GIC
1	Japan International Cooperation Agency
1	Japan Science and Technology Agency
1	National Federation of Agricultural Cooperative Associations

Top 10 government-backed deals in Japan 2011-17

Company	Round	Sector	Sub-sector	Size	Investors
iSpace	A	Industrial	Space and satellite tech	$90.2m	Development Bank of Japan | Innovation Network Corporation of Japan | Real Tech Fund | Sparx Group
Scohia Pharma	–	Health	–	$87m	Innovation Network Corporation of Japan | Medipal Holdings | Takeda
Groove X	A	Industrial	Robotics and unmanned aerial vehicles	$38.7m	AmTran Technology | Dai-ichi Seiko | Global Catalyst Partners | Innovation Network Corporation of Japan | Line | Mirai Creation Investment | OSG Corporation | Shenzhen Capital Group | SMBC Venture Capital
From Scratch	C	Media	Digital marketing and adtech	$28.4m	Innovation Network Corporation of Japan | Rakuten | undisclosed strategic investors
Quantum Biosystems	–	Health	–	$20.5m	Edge Capital Investments | Innovation Network Corporation of Japan | Jafco | Mistubishi UFJ Capital | Mizhuo Capital
Raksul	–	Services	Logistics and supply chain services	$20.3m	Fidelity | Global Brain Corporation | Global Catalyst Partners | GMO Venture Partners | Opt
Atonarp	–	Industrial	–	$16m	Innovation Network Corporation of Japan | Innovative Venture Fund | Walden-Riverwood Ventures
Floadia	B	IT	–	$14.5m	Fortune Venture Capital | Innovation Network Corporation of Japan | TEL Venture Capital
Tokyo Otaku Mode	–	Media	Games, gaming and eSports	$13.7m	Cool Japan Fund
Kyulux	A	Energy	–	$13.5m	Japan Display | JOLED | LG Display | Samsung | undisclosed strategic investors

including the Japan International Cooperation Agency, the Japan Science and Technology Agency, the National Federation of Agricultural Cooperative Associations, and Singapore's sovereign wealth fund GIC.

But most of all, the government has been active through its own investment arm, the Innovation Network Corporation of Japan (INCJ). Launched in 2009, the INCJ is a Tokyo-based stage and sector-agnostic joint venture involving the Japanese government and 26 corporates, including large corporations such as Sony, Toyota and Mitsubishi.

So far, the government has contributed $2.6bn to the fund, while corporates have invested around $100m. In addition, the government guarantees a credit line of up to $16.4bn, bringing the fund's total funding capacity to almost $21m.

One of the INCJ's flagship transactions was the backing in 2012 of the merger of Sony's, Toshiba's and Hitachi's liquid crystal display divisions into a single entity, Japan Display, with a rumoured ¥200bn. In 2016, Japan Display secured a further ¥75bn from the government-backed fund, aiming to develop new technologies. By then it had gone public two years previously.

Yasunaga said: "Our goal is to bring innovation to the Japanese industry by making investments, and we do this in two ways – through private equity and venture capital. We try as best as we can not to compete within the small domestic field, and so mainly target areas in which private VC money is insufficient. These, for instance, include capital-intensive or long-term sectors such as hardware, life sciences or semiconductors.

"We also try to grow the Japanese VC space by making limited partner (LP) commitments to VC funds and try to promote international exchanges by encouraging Japanese corporations to export themselves and acquire foreign businesses."

Following INCJ's trail, other government-backed funds have since been created. An example of these is Cool Japan Fund – a Tokyo-based public-private initiative supporting the international expansion of Japanese businesses mostly operating within the media, consumer and services industries.

Part of the government's wider Cool Japan strategy, which aims to promote Japanese cultural exports, the fund was established in 2013 with an original target of $1bn. So far, it has raised about $630m, 85% from the government. Since inception, the fund has supported around 20 companies, including Japanese TV channel operator Wakuwaku Japan, and cafe chain Green Tea World USA.

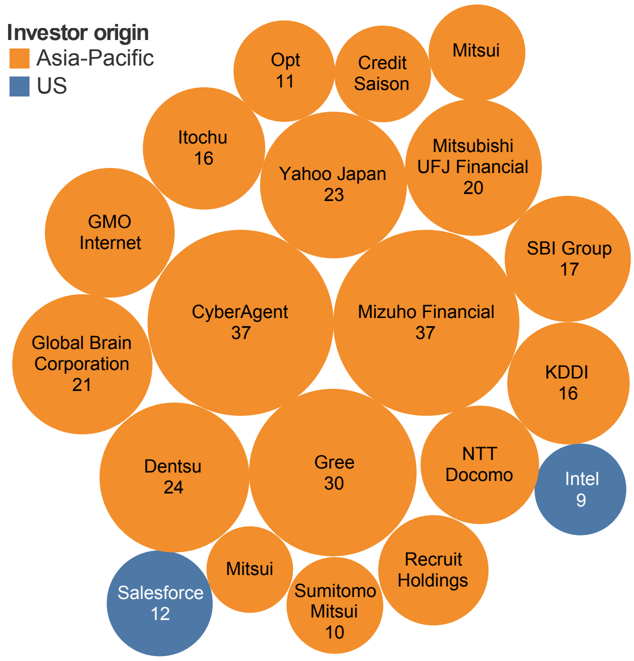
Last year, Cool Japan Fund also announced a $10m contribution to the Japan-focused entity of San Francisco VC firm 500 Startups, becoming its largest LP. The partnership was reportedly the first time the state had directly backed a non-Japanese venture capital firm. It also brought the total raised by 500 Startups' Japanese branch, launched in 2015, to $35m – ahead of its original target of $30m.

In spite of these efforts, the idea prevails that Japan's CVC market is still too small considering the size and weight of its economy. The INCJ's Yasunaga said: "The venture market here is still very small, with around $2bn of startup investment per year – a comparatively weak number next to the EU, the US or China."

According to the PitchBook-National Venture Capital Association venture monitor, venture investments in the US hit a record high in 2017, at an estimated total of $84.2bn – 16% more than the previous year. Meanwhile, Japanese startup funding reached ¥75bn – around $1.98bn – last year, according to consulting group Japan Venture Research.

"Ideally, a fully functioning venture ecosystem should not necessitate government intervention," added Yasunaga. "But Japan has not reached that stage yet."

Top corporate investors in Japan by deals 2011-17



Lacks and limits

Considering Japan is the third-largest global economy, 500 Startups partner James Riney, in a recent interview with the Financial Times, declared that "for the size of [its] economy, [Japanese VC] should at least be at the $10bn mark".

Toyota AI's Adler said: "Large nationals and multinationals can be part of Japan's venture growth, but cannot do it alone. Growing a venture ecosystem is a difficult task that requires a concerted and sustained effort across many components. It requires access to capital across the entire lifecycle of a company, year on year, decade on decade. This means a capital supply chain, starting from friends and family, to angel investors, to institutional investors, to VCs and CVCs. In Japan's case, that supply chain needs to be developed to help create a strong startup ecosystem.

"Another important ingredient is willingness to take risks, and to fail. Risk-taking is not as common in Japan" added Adler. "The propensity for people to join a startup, or start their own company, is a new thing in most areas in the world – unlike Silicon Valley, which has been developing an ecosystem of universities, capital, and risk-friendly entrepreneurs for decades. That ethos is rare."

An element of response to this apparent shortfall may have to do with Japanese culture itself. According to a report from the Science and Technology Office in Tokyo, the Hofstede model, which evaluates national cultures based on six criteria, scored Japan 92 out of 100 on its "uncertainty avoidance index", highlighting an inherent aversion to risk.

"There may indeed be some cultural issue around risk-taking, which is more common in other areas of the world," added Adler. "The propensity for people to join a startup or start their own company is a rather new thing outside of the areas that have for decades been developing an ecosystem with the relevant universities, capital and risk attitude. These trends are common in only few places around the world right now."

This idea was further confirmed by Yasunaga, who said: "A lot of Japanese corporations are still very shy about working with VCs. It is all a matter of credibility, as you cannot guarantee the long-term existence of a venture business.

"CVC is something that has only started to happen in Japan, and it is still very much an emerging space. Three years ago, the Japanese Venture Capital Association counted two CVC members – right now, this number has gone up to 28, but that is only the tip of the iceberg.

"Besides, most of the money still comes from the government and from corporates, while very little money is provided by institutional investors. The best scenario would be if there was enough LP money for the government to stop its intervention. But at the moment, there is still a severe lack of institutional money in the market – including foreign institutional money."

The fact that Japan's VC market has been dominated by corporate rather than financial VCs, may not have been positive for the ecosystem's development.

Kay Enjoji, president of TEL Venture Capital, the investment arm of the electronics and semiconductor group Tokyo Electron, said: "Some key issues in the Japanese venture ecosystem are the lack of strong financial VCs to support our investments, and the lack of professional CEOs to run them. Compared with other places, such as Israel or the US, it is difficult to find co-investors to partner and quality managers to rely on.

"I also find that Japanese financial VCs tend to go for easier exits, investing in less capital-intensive sectors such as software, rather than in long-term businesses operating in the life sciences or hardware industries, for example."

Enjoji was also keen to highlight the difficulties sometimes encountered by local startups in winning support from foreign investors. First because of potential issues caused by the language barrier, and second because some sectors are still restricted by the Foreign Exchange Control Law, and need approval to access such funding.

There is also the belief that Japan's foreign policy has failed to encourage immigration over the years. According to official records, the number of foreign residents living in the country hit a record high of 2.23 million in 2015. However, foreign residents account for as little as 2% of the population.

It is perhaps no wonder that foreign CVCs have reservations about investing in Japan. According to GCV Analytics, among the country's top 20 corporate investors between 2011 and 2017, only the two US-headquartered groups Intel and Salesforce, with nine and 12 deals respectively, were foreign.

For Yamaha's Saijou, it was clear the local market needed to open up. He said: "Japanese corporations and startups still operate in a very Japanese style. Their structure itself is Japan-unique, and very domestic. I believe they should operate with international standards. Even within our own [Yamaha's] strategy, we do not really look at Japanese startups at present, as we believe they are not international enough, and too inward-looking.

"At the same time, the local innovation ecosystem should be modelled to fit in with the Japanese culture. There is so much potential for established corporations to use their human and financial resources to their full extent, to be innovative and to find new business opportunities.

"Educating people to VC, putting training systems in place for company employees, being more open and working together with local startups – these are all challenges that Japanese corporates should take up right now."

To an extent, Japan has made some efforts to open its borders. In 2014, Abe's government introduced a skilled worker visa, aiming to lure fresh talent from abroad. Last year, the rules on permanent residency were also loosened, enabling skilled workers from overseas to apply for permanent residence after just a year living in the country. Finally, and perhaps as a way of soothing the severe workforce shortages currently facing the archipelago, the government announced earlier this year another review of visa rules by the summer, saying it would consider an extension of visa categories, mainly targeting technology professionals.

Could foreign talent and capital therefore be the key to unleashing the potential of Japan's venture ecosystem? The INCJ's Yasunaga seems to think so. "Japanese startups need foreign capital and support from international VC players to support them in their cross-border enterprise," he said.

"What I would like to work on is getting more international CVCs to come and play in this market, and discover the resources of our little treasure island – a hidden gold mine." ◆

Japan's strategic leadership on university venturing

James Mawson, editor-in-chief

Japan's most prestigious academic institution, University of Tokyo, has a challenge. It estimates 90 of its 27,449 students each year form a spinout or startup.

It, and the Japanese government, look at the "billionaire factories" in the US, such as Stanford University or Massachusetts Institute of Technology, and estimate that each student there tries about two startups before leaving the institution.

The government, therefore, has funded a $1bn university venturing scheme so Japan's top four universities can encourage more startups and spinouts, while other universities in the country, such as the prestigious Keio business school, have set up their own innovation initiatives.

But funding without a mindset shift will make little difference, so the Ministry of Education, Culture, Sports, Science and Technology developed the "learning from university-initiated venture creation symposium" organised by the Japan Venture Capital Association and hosted at the University of Tokyo to try to speed up the changes before the Olympics in 2020.

To encourage the next generation of students at universities to be more open to startups, Japan's Ministry of Economy, Trade and Industry is encouraging those in school over the age of 10 to think that entrepreneurship is better than learning even how to ride a bicycle or swim.

In this, having role models is useful. The symposium heard from Mitsuru Izumo, president and CEO of Euglena, a Japan-listed producer of food and energy from algae, how he had been inspired while a student on a trip to Bangladesh.

The startup was formed out of research at the University of Tokyo before listing in 2012, and Euglena has since become a limited partner (LP) in the $17m Next-generation Japan Advanced Technology Development Fund, targeting academic research-inspired startups, such as robotics developer Miraikikai.

Other corporate-backed university-focused venture funds include the $33m raised by Mirai Souzou from 13 LPs, including Denso, Astellas, Mizuho and Mitsubish-UFJ, according to Daisuke Kaneko, co-founder of the fund. He described part of his investment strategy as looking for the professors' side hustles, or work outside their public research.

However, such examples have been relatively rare, although the symposium also heard from Hiroaki Tsujimoto, chair-

Top 10 university-backed deals in Japan 2011-17

Company	Round	Sector	Affiliated university/ institution	Size	Investors
Quantum Biosystems	–	Health	University of Tokyo	$20.5m	Innovation Network Corporation of Japan | Jafco | Mitsubishi UFJ Financial | Mizuho Financial | University of Tokyo Edge Capital
Kyulux	A	IT	Kyushu University	$13.5m	Japan Display | Japan OLED | Kyushu University | LG Display | Samsung
Cyfuse Biomedical	A	Health	–	$12m	Cyberdyne | Jafco | University of Tokyo Edge Capital
Riverfield	B	Health	Tokyo Institute of Technology	$10.1m	Beyond Next Ventures | Jafco | SBI Group | Toray Industries
3D Media	A	Industrial	Ritsumeikan University	$10m	Innovation Network Corporation of Japan | Mistubishi UFJ Capital | Sparx Group
CureApp	–	Health	Keio University	$3.4m	Beyond Next Ventures | Keio Innovation Initiative | SBI Group
Digital Grid	B	Energy	University of Tokyo	$2.9m	Japan International Cooperation Agency
Nota	A	IT	Kyoto University	$2m	Mizako Capital | Opt | Yahoo Japan
Lang-8	–	IT	Kyoto University	2	DeNA | East Ventures | Individuals | Kyoto University | angel investors
Xenoma	–	Consumer	University of Tokyo	1.8	Beyond Next Ventures | Japan Science and Technology Agency | University of Tokyo

man of power device sensor Sirc, Shingo Aka, president and CEO of surface acoustics monitor Ball Wave, and Kotaro Tanano, director of surgical robotics company Riverfield, as three startups hoping to emulate Euglena's success.

But as with the Euglena-backed venture fund, a funding ecosystem to support the startups has been developing to cater for the increased entrepreneurial activity.

Apart from active corporate venturers in Japan, market insiders pointed to Globis and University of Tokyo Edge Capital (Utec) as two local VCs able to raise money relatively quickly from institutional investors.

Dai-ichi Life Insurance Company last month committed ¥1bn ($9.4m) to the Utec 4 fund with an eye on potential strategic insights as well as financial returns. Dai-ichi had earlier committed to the Keio Innovation Initiative 1 fund in July 2016 and the Miyako Kyoto University Innovation fund in November 2017.

Utec 4 is expected to close this month at ¥25bn and has been complemented by one of the four government-backed university venturing initiatives targeting the University of Tokyo. This initiative was UTokyo Innovation Platform Company (UTIPC) as a fund of funds able to commit to an expected five or six venture capital firms supporting startups from the University of Tokyo, including Utec 4 with a ¥2bn commitment, and 360 IP Japan fund and Global Brain No 6 fund, both with ¥500m commitments last year. In addition, UTIPC can invest directly in startups, usually at a later stage of development than those backed by Utec, such as wearable clothing company Xeome.

The other three government-backed university initiatives are targeting Tohoku, Kyoto and Osaka universities but Katsuhiko Oizumi, president and CEO of UTIPC, described the challenge as one of increasing the number of spinouts and startups from Japan's premier research university. He said University of Tokyo had between five and six spinouts a year and about 30 to 40 startups from a research base turning out about 600 patents a year. One effort UTIPC was funding was an incubator for pre-seed stage companies, with 64 applications last year.

Oizumi said: "There has already been an amazing change," with entrepreneurship now considered as an occupation. Previously, working for large corporations was favoured, but now students are advised that recruits there are not happy and instead are looking at entrepreneurial role models from the past 15 years, such as Kotaro Yamagishi, co-founder of Japan-listed games developer Gree and CEO of Keio Innovation Initiative (KII) since the end of 2015.

Yamagishi described his motivation for developing KII for Keio, Japan's oldest institute of modern higher education, as a way to "give back, as I was helped".

Having initially donated money to universities for brain research, then angel investing in startups, he was invited to lead KII. He described private universities as similar to large established corporations in having challenges in decision-making given a relative lack of ownership and leadership and "most not wanting change". As a result, he has set up KII with a small team and a focus on bringing professional investment and the right people to the science.

And the timing seems well-judged, given the increasing demand. ◆

Disclosure: Japan's government paid for the author's flights and accommodation to address the symposium in Japan

MONTHLY ANALYSIS

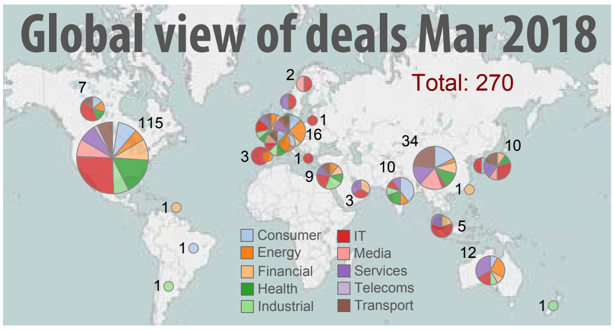
This is our data snapshot based on last month's investment activity. The charts and tables have been generated by our data platform GCV Analytics.

Deal volume and value go up

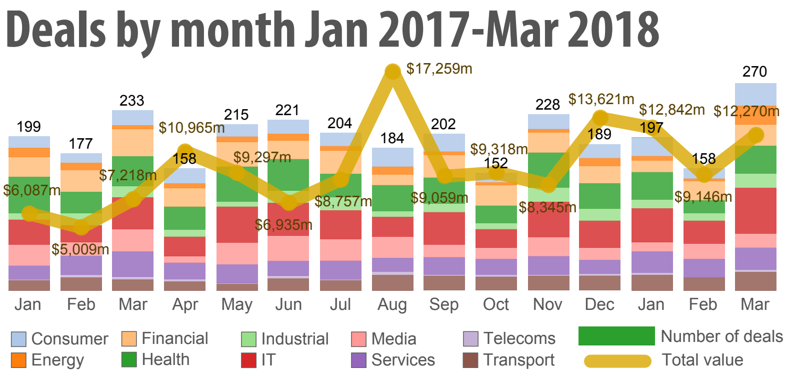
Kaloyan Andonov, reporter, GCV Analytics

The number of corporate-backed deals in March was 270, up from the 233 funding rounds in the same month last year. Investment value also increased significantly, by 70% to $12.27bn – up from $7.22bn last year.

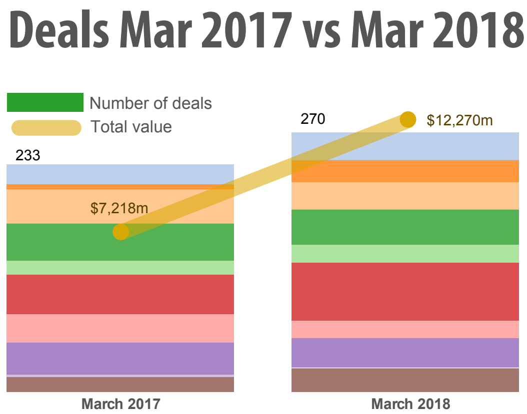
Compared with January and February this year, March has the strongest deal count, outperforming the 197 and 158 deals in January and February respectively. Total capital invested in March was almost as high as the $12.84bn estimated in January.



The US hosted the largest number of corporate-backed deals – 115 – while China was second with 34 rounds, the UK third with 16 and Australia fourth with 12.



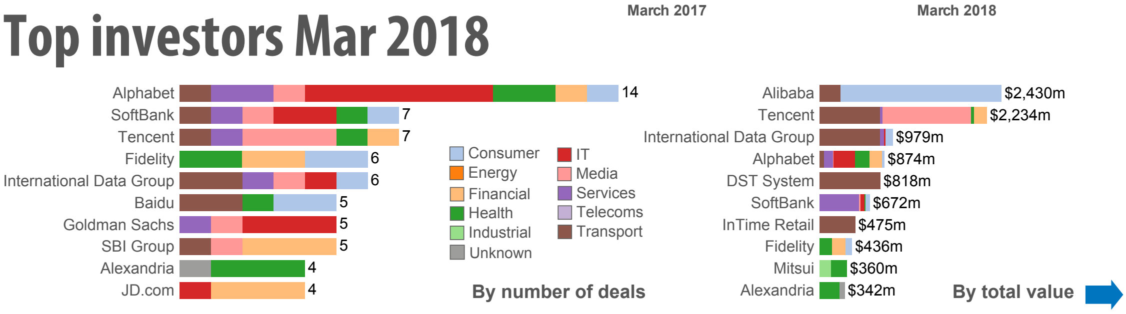
The leading corporate investors by number of deals were diversified internet and technology conglomerate Alphabet, telecoms and media company SoftBank as well as internet company Tencent. Of those involved in the largest deals, e-commerce firm Alibaba and Tencent topped the ranking, along with media research company International Data Group (IDG).



GCV Analytics reported 21 corporate-backed funding initiatives in March, including VC funds, new venturing units, incubators and accelerators. This figure is an increase over February's figure, when there were 18 such initiatives. The estimated capital raised by those initiatives was $1.82bn, down from the estimated $2.54m the previous month.

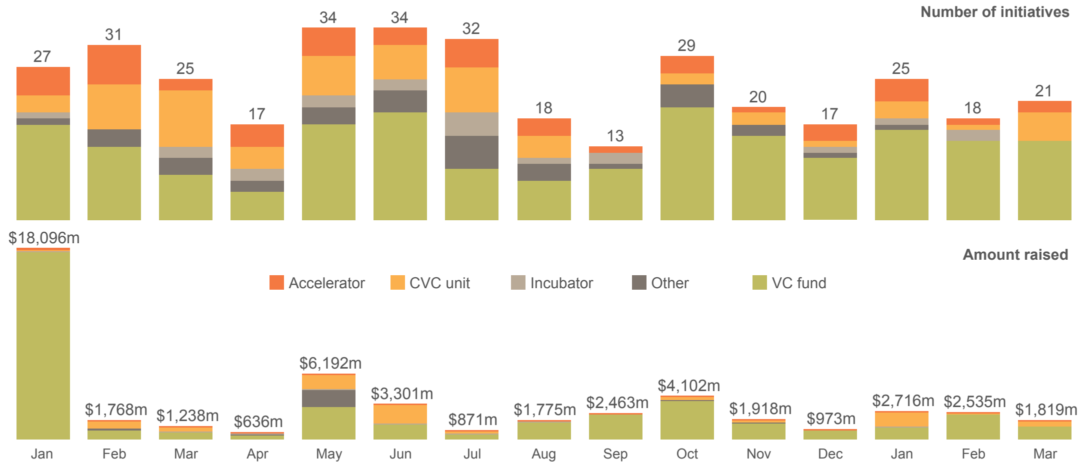
Deals

Emerging businesses from the IT and health sectors raised the largest number of rounds during the third

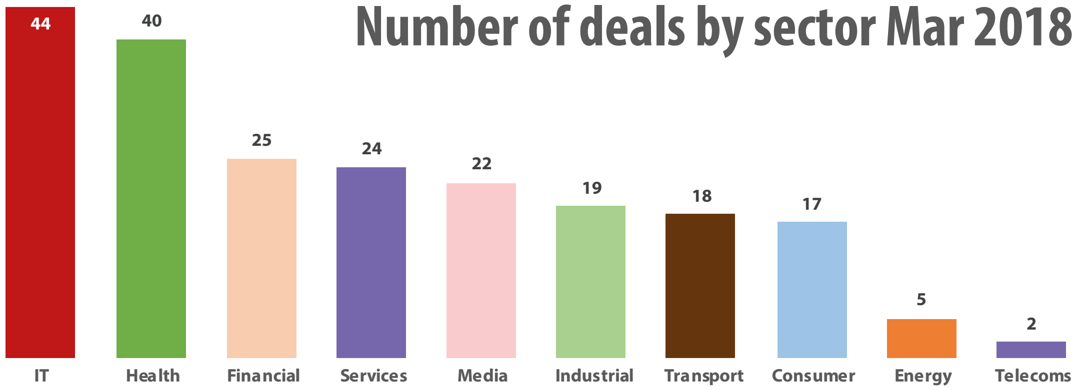


MONTHLY ANALYSIS

Funding initiatives Jan 2017-Mar 2018



Number of deals by sector Mar 2018



Deals heatmap Mar 2018

	Financial services	IT	Media	Consumer	Health	Industrial	Telecoms	Services	Transport
North America	47	31	17	8	15	11	12	11	6
Asia	24	18	13	9	3	6	3	5	1
Europe	32	3	7	5	3	3	3	1	1
Australia / NZ	7	1		2			2	2	2
Middle East	5		3			1			1
South America		1	1	1					

month of 2018. The most active corporate venturers were from the financial services, IT, media and consumer sectors.

Alibaba invested $2bn in Singapore-based online marketplace Lazada, effectively doubling its investment in the company, in which it already held an 83% share. Lazada runs an e-commerce operation spanning Singapore, Indonesia, Malaysia, the Philippines, Thailand and Vietnam with more than 145,000 merchants selling items such as electronics, household goods, fashion, toys and appliances.

Tencent led an $818m series C round for China-based automotive e-commerce platform Chehaoduo. Shougang Fund, an investment branch of steelmaker Shougang, and ICBC International, a subsidiary of Industrial and Commercial Bank of China, also took part in the round. Chehaoduo was formerly known as Guazi, which is still the brand under which its used car trading platform operates, but the company has expanded into new car sales through a brand called Maodou

MONTHLY ANALYSIS

Top 10 investments Mar 2018

Company	Location	Sector	Round	Size	Investors
Lazada	Germany	Consumer	–	$2bn	Alibaba
Chehaoduo	China	Transport	C	$818m	Capital Today | DST System | FountainVest Partners | GIC | H Capital | Industrial and Commercial Bank of China | International Data Group | Sequoia Capital | Shanhang Capital Investment | Shougang Group | Sichuan Taihe Group | Tencent | Yunfeng Capital
Douyu TV	China	Media	–	$630m	Tencent
DoorDash	US	Services	D	$535m	GIC | Sequoia Capital | SoftBank | Wellcome Trust
CHJ Automotive	China	Transport		$475m	BlueRun Ventures | Fancheng Capital | InTime Retail | Matrix Partners | Minshi Hexun Capital | Shougang Group | Source Code Capital
Huya	China	Media	B	$462m	Tencent
Ofo	China	Transport	E and beyond	$280m	Alibaba
Flying Whales	France	Industrial	–	$246m	Aviation Industry Corporation of China | Bpifrance | Office National des Forêts | private investors
Columbia Asia	Malaysia	Health	–	$210m	Mitsui | undisclosed investors
Helix	US	Health	B	$200m	DFJ Growth | Illumina | Kleiner Perkins Caufield & Byers | Mayo Clinic | Sutter Hill Ventures | Warburg Pincus

as well as online vehicle auctions and adjacent services like insurance and appraisal.

Tencent provided $630m of funding to China-based game-focused livestreaming platform Douyu. Originally known as AcFun, Douyu operates a platform that broadcasts gaming and eSports. It had 30 million daily active users as of late 2017, when it claimed it had also reached profitability.

SoftBank led a $535m series D round for US-based delivery services provider DoorDash, increasing the company's overall funding to $722m. DoorDash runs a last-mile delivery service for restaurants that operates across more than 600 cities in the US and Canada. It has local eateries and national chains among its users and intends to extend the service to a range of other consumer industries.

Chehejia Information Technology, a China-based electric vehicle developer also known as CHJ Automotive, closed a RMB3bn ($475m) series B round featuring department store chain Intime Retail. Founded in 2015, Chehejia is developing electric cars, which it plans to use for on-demand rental and ride-sharing services. It is also working on a seven-seat luxury sports utility vehicle it aims to mass produce by 2019.

Tencent supplied approximately $462m in series B funding for Huya, a China-based live game streaming spinout from social media platform YY. The size of the stake Tencent has acquired in Huya was not revealed, but the company has confirmed that YY remains its majority investor. Huya's online livestreaming platform allows users to stream their gaming to viewers in real time. It had more than 66 million monthly active users, including 5.7 million paying users, by the middle of last year.

China-based bicycle rental platform Ofo secured RMB1.77bn from Alibaba. Founded in 2014, Ofo operates a dockless bicycle-sharing service that had 200 million registered users globally by end of last year.

France-based airship developer Flying Whales raised a total of $246m in funding from investors including aerospace manufacturer Aviation Industry Corporation of China. Flying Whales is working on an airship that can carry up to 60 tons of cargo, with a first flight scheduled for 2021 when the company also aims to list on the public markets. It will initially focus on the lumber industry.

Columbia Asia, a spinoff of US-based healthcare provider Columbia Pacific Management, raised $210m in funding, $140m of which came from diversified conglomerate Mitsui. Mitsui had previously invested $101m in 2016. Columbia Asia operates 29 hospitals across India, Malaysia, Indonesia and Vietnam.

US-based personal genomics marketplace developer Helix closed the first tranche of a $200m series B round featuring genomics technology provider Illumina and medical research firm Mayo Clinic. Launched in 2015, Helix operates what it refers to as an online store for personal genomics products, offering services such as genetic sample collection, DNA sequencing and secure genetic data storage.

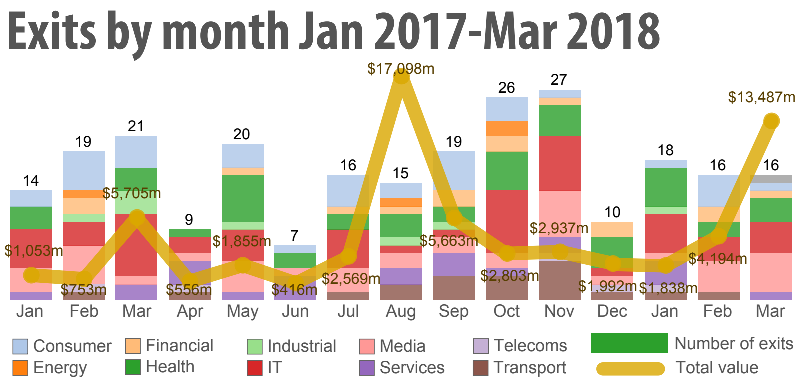
Exits

In March, GCV Analytics tracked 16 exits involving corporate venturers as either acquirers or exiting investors. The transactions included nine acquisitions, four initial public offerings (IPOs), one merger, one stake sale and one shutdown. The number of exits was the same as in February, but slightly lower than January. The total value of the exits was $13.49bn, a more than three-fold increase over February. However, a single transaction accounted for $9.8bn of that total.

Media and e-commerce firm Naspers sold HK$76.95bn ($9.8bn) of shares in Tencent, in which it had invested $32m in 2011. Tencent operates large-scale online services offering centred on its messaging app, WeChat, which has more than 1 billion users. At the end of last year, it was the fifth most valuable company in the world and had a market capi-

MONTHLY ANALYSIS

Top 10 exits Mar 2018						
Company	**Location**	**Sector**	**Type**	**Acquirer**	**Size**	**Exiting investors**
Tencent	China	–	Stake sale		$9.8bn	Naspers
Prexton Therapeutics	Switzerland	Health	Acquisition	Lundbeck	$1.11bn	Forbion Capital Partners | Merck Ventures | Seroba Kernel Life Sciences, | Sunstone Capital | Ysios Capital Partners
Dropbox	US	IT	IPO		$756m	Accel Partners | Baillie Gifford | Benchmark | BlackRock | Fidelity | Foundation Capital | G Squared | Goldman Sachs | Kaiser Permanente | Mark Cuban | Mass Mutual | Salesforce | Wellington Partners | Y Combinator | angel investors
Kensho	US	Financial services	Other	S&P Global	$550m	Accel Partners | Alphabet | F-Prime Capital Partners | General Catalyst Partners | Goldman Sachs | New Enterprise Associates
Bilibili	China	Media	IPO		$483m	China Media Capital | FingerFun | H Capital | Haitong International | Huaxing Capital Partners | International Data Group | Legend Holdings | Qiming Venture Capital | Qiming Venture Partners | Tencent | Tiger Global Management | Venture International | Windforce Ventures
Evident.io	US	IT	Acquisition	Palo Alto Networks	$300m	Alphabet | Bain Capital | True Ventures | VenRock
Booker	US	Services	Acquisition	Mindbody	$150m	Bain Capital | First Data | Grotech Ventures | Jubilee Investments | Revolution | TDF Ventures | Vital Financial
Arcus Biosciences	US	Health	IPO		$138m	Alphabet | Celgene | Column Group | Droia Oncology Ventures | Foresite Capital | Invus Opportunities | Novartis | Stanford University | Taiho Pharmaceutical
Saavn	India	Media	Merger		$100m	Reliance Industries
Acacia Pharma	UK	Health	IPO		$50m	F-Prime Capital Partners | Gilde Healthcare | Lundbeck | Novo



talisation of about $505bn. Naspers acquired a 46.5% share of Tencent through its $32m investment, three years before its IPO in Hong Kong.

Pharmaceutical firm Lundbeck agreed to acquire Netherlands-based central nervous system disorder therapy developer Prexton Therapeutics for up to €905m ($1.11m), allowing pharmaceutical company Merck to exit. Lundbeck agreed to pay €100m up front, with the rest to come in the form of development and sales milestone payments. Founded in 2012, Prexton is developing foliglurax, a small-molecule modulator of a glutamate receptor that could be an oral treatment for Parkinson's disease.

US-based collaboration and data storage platform Dropbox went public in a $756m IPO on the Nasdaq Global Select Market. The company issued 36 million shares at $21 each, giving it market capitalisation of $8.22bn. Dropbox had reportedly raised its price range from $16 to $18 a share, to $18 to $20. It was revealed also that Salesforce had acquired 4.76 million additional shares by investing $100m via a private placement. Founded in 2007, Dropbox runs a cloud-based storage and sharing platform with more than 500 million users, more than 11 million of which are paying subscribers.

Financial data and analysis provider S&P Global agreed to acquire US-based data technology provider Kensho Technologies for approximately $550m, enabling Alphabet to exit. Founded in 2013, Kensho has developed an artificial intelligence platform that allows users to ask questions about complex problems in plain English and receive answers within seconds.

Bilibili, a China-based online entertainment platform backed by Tencent and mobile game developer FingerFun, raised $483m when it floated in the US. The company priced 42 million American depositary shares at $11.50 each, in the middle of its $10.50 to $12.50 range, equating to a $3.19bn market capitalisation. Its stock opened at $9.80 and closed at $11.24. Bilibili operates an online platform focused on anime, comics and gaming that incorporates video streaming, mobile games and livestreaming. It had an average of 76 million monthly active users in the first two months of 2018.

Cybersecurity software producer Palo Alto Networks agreed to acquire US-based cloud security technology developer

Evident.io for $300m, allowing Alphabet to exit. Evident's core product, the Evident Security Platform, continuously monitors deployments in cloud computing platforms such as Microsoft Azure or Amazon Web Services to detect and manage security risks.

Wellness business software producer Mindbody agreed to acquire Booker Software, a US-based developer of salon and spa management software, allowing payment technology provider First Data to exit. Founded in 2010 and formerly known as GramercyOne, Booker has built an end-to-end software offering for spas and beauty salons that includes online booking and payment, customer relationship management, automated marketing and staff management tools.

US-based cancer treatment developer Arcus Biosciences, which counts several corporates among its investors, closed its IPO at $138m. The company issued 8 million shares at $15 each, at the top of its range, to raise an initial $120m. Investors in Arcus include pharmaceutical companies Celgene, Novartis and Taiho, the latter of which had invested through its Taiho Ventures unit, as well as GV, a subsidiary of Alphabet. Founded in 2015, Arcus Biosciences is working on cancer immunotherapies.

Saavn, an India-based music streaming service backed by media groups Bertelsmann and Liberty Media, agreed to a merger with JioMusic, a digital music subsidiary of conglomerate Reliance Industries. Reliance will invest up to $100m in Saavn as part of the agreement, providing $20m immediately to support international growth and expansion efforts for the merged platform. The corporate will also buy $104m worth of stock from existing shareholders including Bertelsmann and Liberty. Founded in 2007, Saavn operates a music streaming service that focuses on Bollywood, regional Indian and English language music. The platform claims to have 30 million songs.

Acacia Pharma, a UK-based nausea and vomiting treatment developer backed by pharmaceutical firms Novo and Lundbeck, raised €40m in an IPO on Euronext Brussels. The company issued about 11.1 million shares at €3.60 each to institutional investors in the US, the UK and Europe. Founded in 2007, Acacia develops intravenous therapies for post-operative nausea and vomiting, a condition that affects approximately 30% of patients and as many as 80% of high-risk patients who use anaesthetic gases and opioid painkillers. ◆

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

QUARTERLY ANALYSIS

The following is a snapshot of the data we have collected on investment activity over the past three months. To verify reported deals, we contact about 300 corporate investors each quarter – these comprise roughly 18% of the global CVCs we cover, but account for most of the deals that are made public.

Venturing activity increases in the first quarter

Kaloyan Andonov, reporter, GCV Analytics

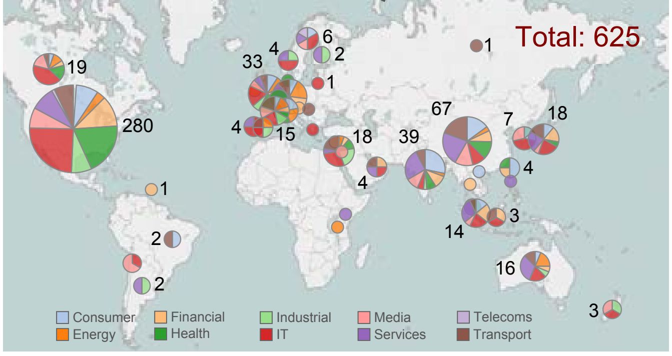
In the first quarter of 2018, GCV Analytics tracked 625 funding rounds involving corporate venturers, a 3% increase over the 609 rounds recorded in in the first quarter of last year. However, the estimated total investment surged to $34.26bn, 87% higher than the $18.31bn recorded last year.

The US hosted the largest number of funding rounds (274), while China was second with 67 deals, India third with 39, and the UK fourth with 33. The total was 10% higher than the last quarter of 2017, up from 569. Estimated total investment also went up 10% from $31.28bn.

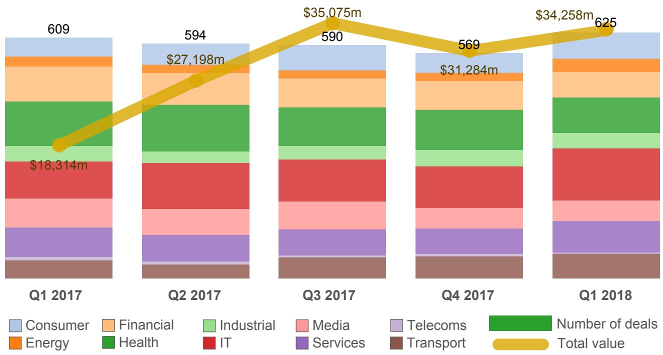
Emerging enterprises from the IT, health, services and financial services sectors proved the most attractive for corporate venturers, accounting for at least 66 deals each. The top funding rounds by size, however, were raised mostly by companies from a variety of sectors. The most active corporate investors came from the financial services, IT, media, consumer and services sectors.

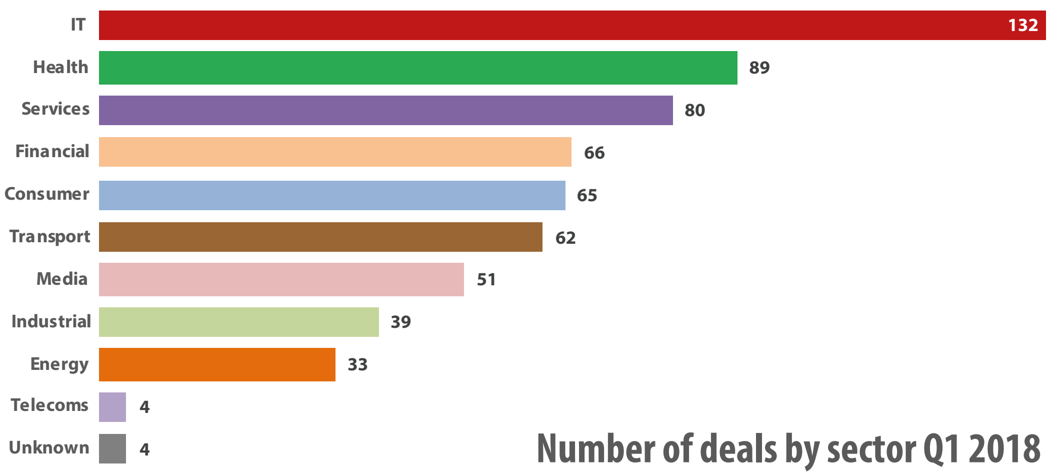
The leading investors by number of deals were diversified internet conglomerate Alphabet, internet company Tencent and telecoms firm SoftBank. The list of corporate venturers involved in the largest deals by size was topped by e-commerce

Global view of deals Q1 2018



Deals by quarter Q1 2017-Q1 2018





Number of deals by sector Q1 2018

QUARTERLY ANALYSIS

firm Alibaba, along with Tencent and SoftBank.

Deals

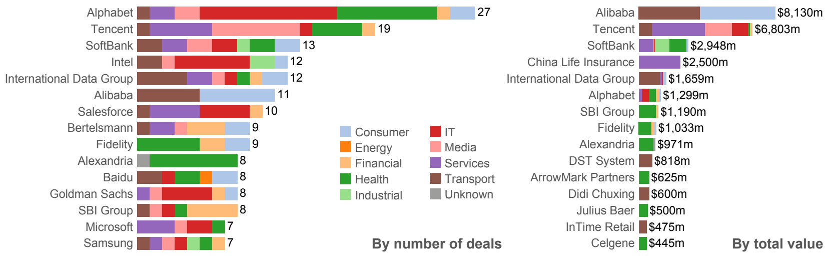
Most of the funding from the biggest rounds reported in the first quarter went to emerging enterprises in the transport, consumer and services sectors. Six of the top 10 rounds were above $1bn.

Alibaba bought $3bn of shares in China-based bicycle rental platform Ofo from private investor Allen Zhu. Alibaba reportedly acquired the shares at a $10bn valuation. The stake was probably held by venturing capital firm GSR Ventures, run by Zhu. Founded in 2014, Ofo has developed an app-based bicycle rental platform that had 200 million registered users worldwide at the end of last year. It has 10 million bikes in service across 250 cities in 22 countries.

Deals heatmap Q1 2018

	Financial services	IT	Media	Consumer	Services	Health	Industrial	Telecoms	Transport	Energy
North America	104	74	42	29	32	39	24	28	24	12
Asia	45	42	29	29	18	7	16	7	7	
Europe	48	15	11	11	6	9	9	13	5	5
Middle East	8	3	3	2			4	1	2	
Australia / NZ	10	1		2	2		1	3	3	
South America	1	1	1	1				3	1	
Africa							1		1	

Top investors Q1 2018



JD Logistics, a spinoff of China-based e-commerce firm JD.com, received funding from investors including Tencent and

Top 15 investments Q1 2018

Company	Location	Sector	Round	Size	Investors
Ofo	China	Transport	Stake purchase	$3bn	Alibaba
JD Logistics	China	Services	–	$2.5bn	China Development Bank | China Life Insurance | China Merchants Group | China Structural Reform Fund | Hillhouse Capital Management | ICBC International | Sequoia Capital | Tencent | undisclosed investors
Beijing Easyhome Furnishing	China	Consumer	–	$2bn	Alibaba | Harvest Capital Management | Taikang Life Insurance Company | Yunfeng Capital
Lazada	Germany	Consumer	–	$2bn	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
Chehaoduo	China	Transport	C	$818m	Capital Today | DST System | FountainVest Partners | GIC | H Capital | Industrial and Commercial Bank of China | International Data Group | Sequoia Capital | Shanhang Capital Investment | Shougang Group | Sichuan Taihe Group | Tencent | Yunfeng Capital
Douyu TV	China	Media	–	$630m	Tencent
Ziroom	China	Services	A	$621m	Sequoia Capital | Tencent | Warburg Pincus | undisclosed investors
99	Brazil	Transport	Stake purchase	$600m	Didi Chuxing
DoorDash	US	Services	D	$535m	GIC | Sequoia Capital | SoftBank | Wellcome Trust
Moderna Therapeutics	US	Health	–	$500m	Abu Dhabi Investment Authority | Alexandria | ArrowMark Partners | BB Biotech | EDBI | Fidelity | Julius Baer | Pictet | Sequoia Capital | Viking Global Investors
CHJ Automotive	China	Transport		$475m	BlueRun Ventures | Fancheng Capital | InTime Retail | Matrix Partners | Minshi Hexun Capital | Shougang Group | Source Code Capital
Huya	China	Media	B	$462m	Tencent

insurer China Life in a round that closed at about $2.5bn. JD Logistics was formed by its parent company a year ago out of a logistics operation it had already been running for a decade. It has seven fulfilment centres and more than 400 warehouses, which it claims is the largest fulfilment infrastructure of any China-based e-commerce firm.

Alibaba paid approximately $857m for a 15% stake in China-based furniture retailer Beijing Easyhome Furnishing Chain Store Group as part of a RMB13bn ($2.04bn) funding round. Founded in 1999, EasyHome operates a chain of 223 stores across 29 Chinese provinces and municipalities that sell furniture, home improvement and building materials. It also provides home design and renovation services.

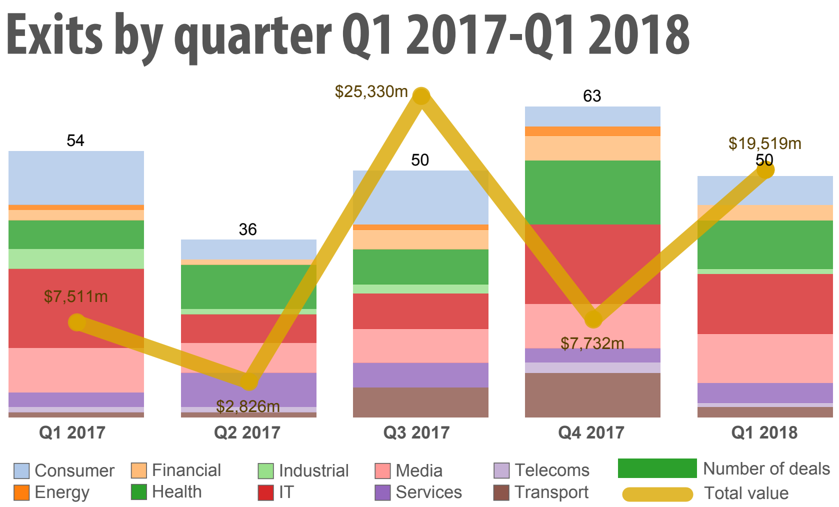
Alibaba committed $2bn to online marketplace Lazada, thus doubling its investment in the company. Alibaba now holds an 83% share. Lazada runs an e-commerce operation spanning Singapore, Indonesia, Malaysia, the Philippines, Thailand and Vietnam with more than 145,000 merchants selling items such as electronics, household goods, fashion, toys and appliances.

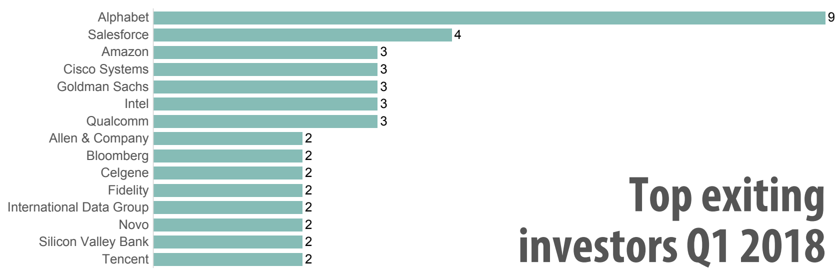
Tencent also led a $1bn funding round for China-based social media app Kuaishou, which reportedly valued the latter at $18bn. The round's other investors included venture capital firm Sequoia Capital China. Kuaishou runs a mobile app which enables users to upload and share photos and videos, and livestream videos to their followers, who can reward them with virtual gifts.

Exits

GCV Analytics tracked 50 corporate-related exits during the first quarter, including 35 acquisitions, 10 initial public offerings (IPOs), two mergers, two business closures and one stake sale. The majority of these transactions took place in the US, China and Europe.

The top exiting corporate was technology and internet company like Alphabet, with nine exits. The total estimated value of exits was $19.52bn – a single transaction accounted for around half of this.





Media and e-commerce firm Naspers sold a HK$76.95 ($9.8bn) stake in Tencent, in which it had invested $32m in 2011. Tencent operates large-scale online services centred on its messaging app, WeChat, which boasts more than a billion users. Naspers had purchased a 46.5% share of Tencent through its $32m investment three years before its initial public offering in Hong Kong, and now holds 33.2%.

Pharmaceutical firm Roche agreed to acquire cancer research technology provider Flatiron Health, paying $1.9bn, thus giving an exit to GV – the corporate venturing unit of Alphabet. At the time of the acquisition, Roche already owned a 12.6% stake in Flatiron. The price for the remaining shares implied a valuation of approximately $2.15bn. Founded in 2012, Flatiron develops an oncology research software platform that stores data from electronic health records. The company works with more than 265 community cancer clinics.

Pharmaceutical firm Lundbeck agreed to acquire Netherlands-based central nervous system disorder therapy developer Prexton Therapeutics for up to €905m ($1.11m), allowing another pharmaceutical company Merck to exit. Lundbeck is to pay €100m up front, with the rest to come in the form of development and sales milestone payments. Founded in 2012, Prexton is developing foliglurax, a small-molecule modulator of a glutamate receptor that could potentially be an oral treatment for Parkinson's disease.

QUARTERLY ANALYSIS

Top 15 exits Q1 2018

Company	Location	Sector	Type	Acquirer	Size	Exiting investors
Tencent	China	–	Stake sale		$9.8bn	Naspers
Flatiron Health	US	Health	Acquisition	Roche	$1.9bn	Allen & Company | Alphabet | Baillie Gifford | Casdin Capital | First Round Capital | Great Oaks Venture Capital | IA Ventures | Laboratory Corporation of America | Social & Capital | SV Angel
Prexton Therapeutics	Switzerland	Health	Acquisition	Lundbeck	$1.11bn	Forbion Capital Partners | Merck Ventures | Seroba Kernel Life Sciences, | Sunstone Capital | Ysios Capital Partners
Impact Biomedicines	US	Health	Acquisition	Celgene	$11.1bn	Medicxi Ventures | Sanofi
Tantan	China	Media	Acquisition	Momo	$760m	Bertelsmann | DCM | DST System | Genesis Capital | GX Capital | LB Investment | SAIF | Vision Plus | YY
Dropbox	US	IT	IPO		$756m	Accel Partners | angel investors | Baillie Gifford | Benchmark | BlackRock | Fidelity | Foundation Capital | G Squared | Goldman Sachs | Kaiser Permanente | Mark Cuban | Mass Mutual | Salesforce | Wellington Partners | Y Combinator
Giosis	Singapore	Consumer	Acquisition	eBay	$700m	eBay
Kensho	US	Financial services	Other	S&P Global	$550m	Accel Partners | Alphabet | F-Prime Capital Partners | General Catalyst Partners | Goldman Sachs | New Enterprise Associates
Bilibili	China	Media	IPO		$483m	China Media Capital | FingerFun | H Capital | Haitong International | Huaxing Capital Partners | International Data Group | Legend Holdings | Qiming Venture Capital | Qiming Venture Partners | Tencent | Tiger Global Management | Venture International | Windforce Ventures
Evident.io	US	IT	Acquisition	Palo Alto Networks	$300m	Alphabet | Bain Capital | True Ventures | VenRock
Faceu	China	Media	Acquisition	Toutiao	$300m	International Data Group | Lightspeed China Partners | Meitu
CoreOS	US	IT	Acquisition	Red Hat	$250m	Accel Partners | Alphabet | Fuel Capital | Intel | Kleiner Perkins Caufield & Byers | Work-Bench | Y Combinator
Delivery Hero	Germany	Consumer	Acquisition	Rocket Internet	$242m	Rocket Internet
Booker	US	Services	Acquisition	Mindbody	$150m	Bain Capital | First Data | Grotech Ventures | Jubilee Investments | Revolution | TDF Ventures | Vital Financial
Arcus Biosciences	US	Health	IPO		$138m	Alphabet | Celgene | Column Group | Droia Oncology Ventures | Foresite Capital | Invus Opportunities | Novartis | Stanford University | Taiho Pharmaceutical

Pharmaceutical company Sanofi exited cancer treatment developer Impact Biomedicines, which was acquired by fellow pharmaceutical firm Celgene for $1.1bn. Celgene paid $1.1bn up front. However, an additional $6bn in capital may come contingent on specific milestones. Founded in 2016, Impact Biomedicines develops therapies for complex cancers based on fedratinib, an oral small-molecule inhibitor of the JAK2 kinase enzyme, which addresses bone marrow disorders polycythemia vera and myelofibrosis.

Social media company Momo agreed to acquire China-based social engagement platform Tantan for about $760m, allowing media group Bertelsmann and social network operator YY to exit. The transaction consists of $601m in cash and 5.3 million new shares in YY. Tantan runs a social meeting app that operates through a swipe-left-or-right mechanism that can be used to make platonic or romantic connections.

Funding initiatives

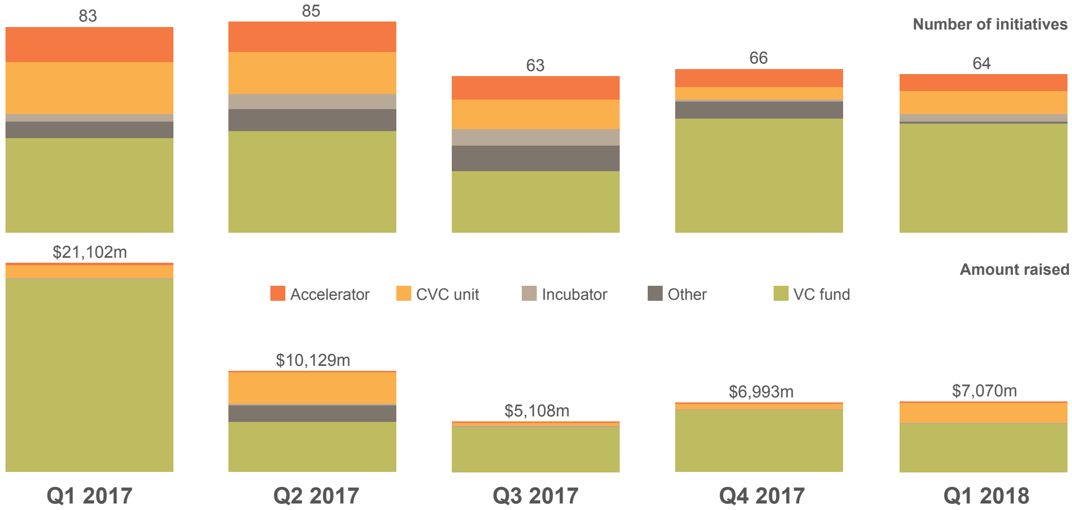
Corporate venturers supported a total of 64 fundraising initiatives in the first quarter, down from the 83 reported during the same period in 2017. The estimated total capital raised, $7.07bn, was also considerably lower than last year's figure of $21.1bn.

The initiatives in question include 44 announced, open and closed VC funds with corporate limited partners, nine new corporate venturing units, seven corporate-backed accelerators and three corporate-backed incubators, among others.

Norwest Venture Partners (NVP), the US-based venture capital firm sponsored by financial services firm Wells Fargo, closed its largest fund yet c at $1.5bn. NVP was originally founded as a VC affiliate of financial services provider Norwest Corporation, before the latter merged with Wells Fargo in 1998. Norwest Venture Partners XIV will invest from seed to late stage in consumer, enterprise and healthcare technology developers. The firm's previous fund, Norwest Venture Partners XIII, had closed at $1.2bn at the start of 2016.

QUARTERLY ANALYSIS

Funding intiatives by quarter Q1 2017-Q1 2018



Automotive manufacturing partnership Renault-Nissan-Mitsubishi launched a corporate venturing fund to invest up to $1bn in startups. Alliance Ventures intends to provide up to $200m per year. 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.

China-based fast food chain Zhou Heiya International formed a RMB3bn retail-focused investment fund in partnership with venture capital firm Tiantu Capital. The fund, tentatively named Shenzhen Tiantu Xingnan Innovative Consumption Industry M&A Investment Partnership, was disclosed through a Hong Kong Stock Exchange filing. It will target investments in the "consumption upgrade" and new retail space.

Israel-based social game developer Playtika launched corporate venturing unit Playtika Growth Investments. The vehicle will invest up to $400m, targeting domestic digital entertainment and consumer internet companies, particularly those with annual revenues of $10m or with profitable business models. Founded in 2010, Playtika develops immersive social games and claims to have been the first company to bring free-to-play casino-type games to social networks.

Eight Roads Ventures, a venture capital branch of financial services group Fidelity, launched a $375m third fund aimed at Europe and Israel-based growth-stage companies. ERVE III will be sector-agnostic, but Eight Roads identified enterprise, consumer, financial technology and healthcare IT as areas of particular interest. The vehicle will be managed by its London office, and is expected to make 15 to 20 investments of $10m to $30m each.

B Capital Group, the US-based investment firm sponsored by management consultancy Boston Consulting Group (BCG), closed an oversubscribed venture capital fund at $360m. Founded in 2015 in partnership with BCG, B Capital targets

Top 10 funding initiatives Q1 2018

Fund	Country	Sector	Type	Size	Investors
Norwest Venture Partners XIV	US	IT, consumer, health	VC fund	$1.5bn	Wells Fargo (Norwest Venture Partners)
Alliance Ventures	France	Transport	CVC unit	$1bn	Renault, Mitsubishi, Nissan
Shenzhen Tiantu Xingnan Innovative Consumption Industry M&A Investment Partnership	China	Unspecified/ sector-agnostic	CVC unit	$475m	Tiantu Capital, Zhou Heiya
Playtika Growth Investments	Israel	Media	CVC unit	$400m	Playtika
ERVE III	US	Consumer, financial, health, IT	VC fund	$375m	Fidelity, Eight Roads Ventures
B Capital Fund	US	IT, transport, industrial, health, financial, services	VC fund	$360m	Boston Consulting Group
Baidu Ventures III	China	IT	VC fund	$318m	Baidu
Cathay Smart Energy Fund	China	Energy	VC fund	$239m	Cathay Capital, Total, Government of Hubei
Apollo Southeast Asia	China	Transport	VC fund	$200m	Baidu, Asia Mobility Industries
Aspect Ventures II	US	IT, health, transport	VC fund	$181m	Cisco Systems

global investments in healthcare, financial and insurance technology, transportation and industrial logistics, and what it refers to as “consumer enablement”. The firm intends to back between 20 and 25 portfolio companies with the fund, and the extra capital will also enable it to make follow-on investments.

Baidu Ventures, the corporate venturing subsidiary of China-based internet group Baidu, closed its second renminbi-denominated fund after raising almost RMB2bn. In addition to capital from Baidu itself, the fund secured commitments from external limited partners. Although their identities were not disclosed, they include industrial firms and a government-owned entity. Baidu Ventures focuses on artificial intelligence and big data technology developers, generally investing between seed and series B stage in China and the US.

Total Energy Ventures (TEV), the corporate venturing subsidiary of oil and gas company Total, agreed to form a RMB1.5bn fund in partnership with two other investors. TEV, private equity firm Cathay Capital and Hubei High Technology Investment Guiding Fund Management, a fund overseen by the local government of the Chinese province of Hubei, committed RMB300m for the fund, while the rest is raised from external partners. Cathay Smart Energy Fund will target China’s new energy sector and will invest in areas such as renewable energy, energy storage, distributed energy, smart energy, internet-connected energy and low-carbon technologies.

Baidu 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. It 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.

US-based early-stage venture capital firm Aspect Ventures closed its second fund at $181m having raised capital from limited partners including networking equipment manufacturer Cisco. Investment firm Knollwood Investments also committed to the fund, as did Melinda Gates, co-chairwoman 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 targeted sectors such as cybersecurity, digital health, autonomous driving and artificial intelligence. ◆