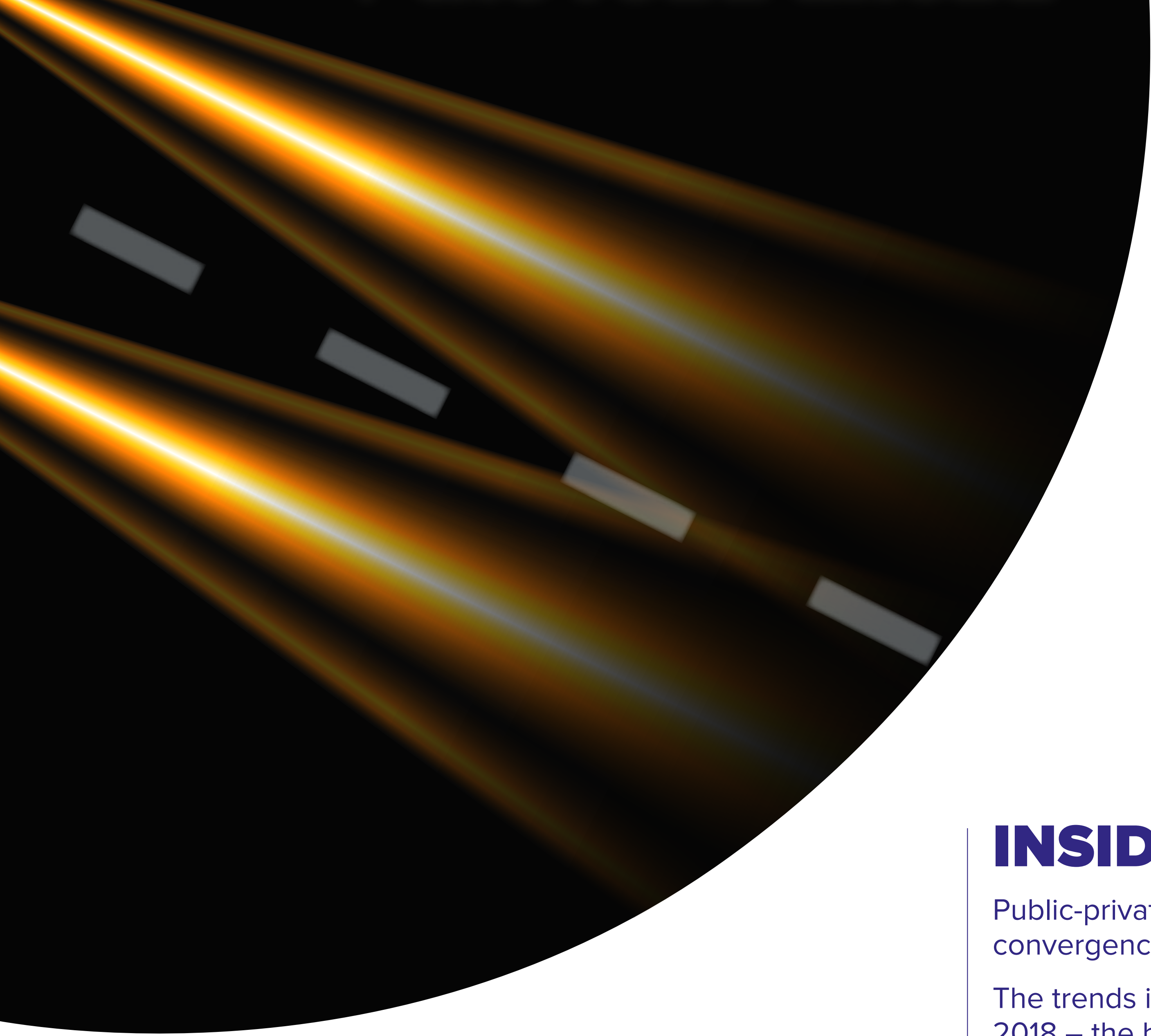
January 2019

Global Corporate Venturing

Transport eyes the road ahead



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Public-private convergence

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Annual review: another good venturing year

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Global Corporate Venturing

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EDITORIAL

Hope remains after a troubling 2018

James Mawson, editor-in-chief

As the new year dawns for those on the Gregorian calendar, it is worth looking at the trends shaping the industry. First, using the superforecaster theory to improve predictions, we can check back on the new main issues identified in this editorial last year:

"Cracks widening in the global economy is one. This will create opportunities for those with cash to pick up assets."

Economist Robert Schiller, in an interview with the CFA Institute published this month, said: "I am struck that we have seen since 2009 an extraordinary behaviour of the US stock market. Since 2012, we see a pretty extraordinary behaviour of the housing market. Also, of course, you add the bond market, which has recently showed some bubble-like aspects as well."

Effectively he was noting all three main markets had been in bubble territories – which the CFA said was unprecedented. Add in that Americans owe over $1.5 trillion in student loan debt, about $620bn more than the total US credit card debt, after a near-quadrupling in the past decade, and there has been plenty of liquidity. However, most main US stock markets entered bear territory – a 20% or more decline from peak prices – in the final quarter so it is fair to say the cracks have widened.

The financial techniques and sophistication of private equity and public market strategies on venture deals has been seen in the size and structuring of large rounds

The second prediction was "finding and tying up sources of longer-term capital that can be called down is probably the biggest strategic factor of 2018. It is no surprise the smarter groups, such as Tencent and Intel, have been tapping public markets or trade sales for portfolio companies where possible."

This certainly happened in 2018. Global venture capital exit activity had a record year, as 1,094 exits were made for a total of $165bn, according to data provider Preqin. Firms also put in place the longer-term financing through more structured fund models rather than relying on corporate balance sheets. While that is no guarantee liquidity will be available through a downturn, it offers more comfort to entrepreneurs that it could be.

Finally, this column predicted "the incredible valuations and funding for successful entrepreneurial companies has meant the venture industry is finally joining its more professional siblings in private irst near-$100bn fund raised by SoftBank and involvement in venture deals worth more than $180bn last year, according to GCV Analytics, indicates what can be achieved.

The financial techniques and sophistication of private equity and public market strategies on venture deals has been seen in the size and structuring of large rounds of at least $100m.

It is noticeable the type of recruits coming into corporate venturing last year, such as Chris Bartlett at Verizon from Morgan Stanley or Peter Tague to In-Q-Tel from Citigroup, reflect this sophistication.

Allied to this are the technology changes in corporate venturing itself. Artificial intelligence (AI), when the inputs are unbiased, is helping identify a longer tail of opportunities, and the blockchain and initial coin offerings can disrupt funding mechanisms.

Unsurprisingly, therefore, AI and blockchain seemed to be the top picks by those responding to our annual survey. For the full selection of predictions, selections as well as the annual data, see the World of Corporate Venturing 2019 supplement, published at the Global Corporate Venturing & Innovation Summit at the end of this month.

As to this year's main new themes, it is hard to see much new beyond the turbulence continuing to roil markets and industries. Probably the second bounce of the ball from greater integration of public and private markets will be the greater use by stock market investors of borrowing corporate venturing approaches for active engagement with listed holdings *(see analysis)*.

Attention to the ethics and culture of collaboration within venture syndicates could also come more to the fore as entrepreneurs question who their shareholders are and how to manage their disparate interests if an economic downturn does strike.

But hope remains. Technology is neither positive or negative – nor is it neutral for that matter – but as people consider more of the impact of their work beyond the risk and return equation so the potential to make the world a better place exists. That the venture industry is more diverse will hopefully reduce groupthink and encourage an enlightened approach to evidence-based questioning. The growth in the GCV Leadership Society, the record number of attendees to our events in 2018, and the development of the online GCV Connect platform to swap deals and collaborate indicate the willingness to do more together. ◆

NEWS

SoftBank expands Vision Fund before China entry

Japan-based telecoms group SoftBank has increased the size of the SoftBank Vision Fund to almost $98.6bn and is looking to open an office in China.

SoftBank established the fund with $28bn of cash and assets plus $1bn each from corporate limited partners Apple, Foxconn, Qualcomm and Sharp, $45bn from Saudi Arabia's Public Investment Fund and $15bn from Abu Dhabi's Mubadala Investment Company. The vehicle reached a $93bn first close in May 2017 and had been expanded to $97.7bn by November the same year. SoftBank has set a $100bn target for its final close.

Vision Fund has revealed in a securities filing it has now raised $98.6bn from 14 investors, up from $93.2bn from eight investors in 2017.

The news emerged as sources told Reuters the fund was putting together a Chinese team for a new office in Shanghai in 2019. SoftBank Investment Advisers, the entity that manages the fund, hired Eric Chen, a managing director at private equity firm Silver Lake, earlier this year to lead the Chinese team, the sources said.

The fund has offices in London, in the UK, and has also launched offices in India and Saudi Arabia this year.

Menwhile, Kirthiga Reddy has become a venture partner at the fund and will be joined by Carolina Brochado, according to TechCrunch. Reddy has joined SoftBank Investment Advisers after an eight-year stint at social media company Facebook, having led its global marketing partnerships after spending six years as managing director for India and Southeast Asia.

Reddy will focus on investments in artificial intelligence, robotics, health, bioengineering and internet-of-things technology. She told TechCrunch she was "actively recruiting" staff, particularly women.

Brochado has agreed to join the fund's London office following four years at venture capital firm Atomico, TechCrunch reported. Atomico hired Brochado in 2014 and made her a partner two years later.


Reddy


Brochado

Bytedance takes a turn at corporate venturing

China-headquartered digital media company Bytedance is looking to raise about RMB10bn ($1.44bn) for a corporate venture capital fund, the Information has reported. The company will provide RMB2bn of the capital while the remainder will be secured from external investors, in particular government-owned investment banks and funds, sources said.

Bytedance's two largest properties are news aggregation app Toutiao and TikTok, a short-form video sharing app with more than 500 million active monthly users. It agreed a $3bn investment by telecoms group SoftBank at a $75bn valuation earlier this year.

Finland adds to corporate impact investing

Finland-based electricity producer Fortum has committed €150m ($170m) to Valo Ventures, a US-based venture capital firm founded in the summer by Scott Tierney, a former partner at CapitalG, the corporate venturing arm of internet technology group Alphabet.

Valo will invest in early and growth-stage technology companies with products or services that promise a financial return, as well as long-term social or environmental benefits. Global issues on the agenda include empowered consumers, urbanisation and climate change.

Fortum had previously partnered external startups and research institutions, invested in internal ventures and has spent the past few years exploring its external venturing approach.

Pekka Lundmark, president and chief executive of Fortum, said: "We aim for a cleaner world and cannot do it alone."

Separately, multi-corporate innovation services provider Avanto Ventures, Finnish state-owned investment agency Sitra and Nordic Innovation have created an accelerator called Loop Ventures to target the circular economy.

Salesforce Ventures sends $100m to Japanese fund

Salesforce Ventures, the corporate venturing vehicle for US-headquartered enterprise software producer Salesforce, has launched a $100m fund to invest in Japan-based companies. The Japan Trailblazer Fund will invest in startups in the country that fit into the Salesforce ecosystem.

Salesforce Ventures has already backed some 40 companies in Japan including Terrasky, a Salesforce distributor that floated in 2015, as well as accounting software producer Freee, human resources technology provider BizReach and business card management platform Sansan. The launch of Japan Trailblazer Fund comes seven months after the unit put up $100m for a Canada Trailblazer Fund in May last year. It formed a $50m vehicle called SI Trailblazer Fund in May 2017 to back cloud consulting service providers.

NEWS

Saudi duo start IT fund

Oil and gas supplier Saudi Aramco and IT services provider Saudi Information Technology have teamed up to form a corporate venturing vehicle to back emerging information and communication technologies.

The as-yet-unnamed fund will look at promising growth-stage IT and communications businesses and will primarily invest in Saudi Arabia as well as other Middle Eastern countries in the Gulf Cooperation Council. It has not disclosed a fund size. Saudi Aramco already runs a corporate venturing unit, Saudi Aramco Energy Ventures, launched in 2012 to invest in spaces related to up and downstream oil and gas, water petrochemicals, renewable energy and energy efficiency.

Constellation commits $100m to women

Constellation Brands Ventures, the corporate venturing subsidiary of US-based alcoholic beverage producer Constellation Brands, has pledged to invest $100m in women-led and founded businesses over the next 10 years.

Focus on Female Founders will provide capital in addition to mentoring, access to distribution and retail partners, financial advice and introductions to a community of women entrepreneurs for businesses in the alcohol space and adjacent categories. The firm has already made investments through the scheme in US-based bottled cocktail producer Austin Cocktails and US-based alcohol beverage developer Vivify Beverages.

Bill Newlands, Constellation Brands' president and chief operating officer, said: "Women are an underrepresented demographic in the beverage alcohol industry and we are committed to doing our part to help change this."

The company launched a strategic investment arm, then known as Constellation Ventures, in 2015, completing its first investment, in pre-mixed cocktail maker Crafthouse, at the same time.

Mitsubishi subscribes to AP Ventures

Manufacturing conglomerate Mitsubishi has contributed to the second fund being raised by UK-based venture capital firm AP Ventures.

The fund reached a $90m first close earlier this year, with commitments from mining company Anglo American Platinum and the South African government-owned Public Investment Corporation (PIC).

The vehicle invests in businesses that employ platinum group metals in sectors such as energy storage, water purification and durable electronics. The first fund was launched in July 2018 with $100m each from Anglo American Platinum and PIC.

Stoneridge commits to Autotech Ventures

Stoneridge, a New York-listed automotive components manufacturer, has committed $10m to a fund managed by US-based venture capital firm Autotech Ventures, which seeks companies developing new technologies or business models that can enhance the ground-based transportation space. Corporations including Denso, Mahle and Murata Manufacturing had joined existing backers such as BorgWarner and Autoliv to help increase the firm's first fund to $120m in July 2017.

Shea helps Calibrate summon $80m first fund

US-based venture capital firm Calibrate Ventures has raised about $80m for its debut fund, including a commitment from Shea Ventures, the corporate venturing arm of property developer JF Shea.

Kevin Dunlap and Jason Schoettler, both former managing directors at Shea Ventures, founded Calibrate in 2017 to invest in software and hardware startups in the consumer and enterprise sectors. VC firm Foundry Group is among the fund's limited partners.

The US-focused fund plans to take part in 15 deals, investing between $3m and $6m in businesses generating revenue between $1m and $5m, typically providing about $5m as a first investment. It will look to companies raising series A rounds of between $10m and $20m, Dunlap told TechCrunch.

The fund's portfolio already consists of five companies including data management platform Alpha, business communication provider Broadly and robot developers Built Robotics, Embodied and Soft Robotics.

Prior to forming Calibrate, Schoettler and Dunlap were managing directors at Shea Ventures for 14 and 13 years respectively, focusing on early and growth-stage companies.

NEWS

Icos cultivates another corporate for $57m fund

Netherlands-based agriculture conglomerate Royal Cosun has become a limited partner in Icos Capital Fund III, a €50m ($57m) cleantech and sustainability-focused fund managed by venture capital firm Icos Capital. The fund targets investments in companies operating in the chemical, food and materials sectors, with a focus on renewable resources, sustainable processes and smart production systems.

The fund has invested in Switzerland-based agriculture technology developer Gamaya and Switzerland-based data analytics provider Squirro. Icos said it plans to add eight to 10 more companies to the fund's portfolio in the next three years. Chemicals producer AkzoNobel, steel processing and finishing business Wupperman and process engineering firm Bühler helped the fund achieve a first close in January 2017.

Bangchak to back startups with $50m

Thailand-based energy company Bangchak is set to invest $50m in biotechnology and clean energy-focused startups over a five-year period, the Nation has reported.

Suwat Meemook, executive vice-president of Bangchak subsidiary Bangchak Initiative and Innovation Centre, told the Nation the funds will be allocated to US, China and Europe-based companies between 2019 and 2024. The corporate's biotech deals will focus on bioplastics, nutrition and battery technologies, while the renewables portion will consist of rooftop solar, wind turbine and electric vehicle technology providers.

Bangchak has already made some investments, backing four companies across the US and South America, including a battery technology developer and the creator of a small-scale turbine for home use.

Hardware Club opens with $50m fundraise

Hardware Club, a France-based community for hardware technology startups, has completed the final close of a $50m debut fund that counts contract manufacturing services provider Foxconn as a limited partner.

Hardware Club Fund 1 reached a $28m first close in June 2017 following contributions from Foxconn, state-owned investment bank BPIFrance's French Tech Acceleration funds, financial services firm Crédit Mutuel Arkéa and venture capital firm Mistletoe. Commitments from venture capital investment platform Isomer Capital and VC firm Draper Esprit have taken the fund to a final close.

Hardware Club will invest in hardware startups in Europe and the US, with a focus on smart-home technology, connected transport and smart buildings. Since the first close in June, it has backed 28 companies including electronic bicycle producer Cowboy Bike, facial authentication identification platform Alcatraz AI and robotics developers Automata and Left Hand Robotics. The firm plans to invest in another 20 startups in the next 18 months.

Corporates help Work-Bench build $47m fund

US-based venture capital firm Work-Bench has raised $47m for its second fund, securing capital from limited partners that included several corporate backers, according to TechCrunch.

IT services firm Wipro, energy management business Schneider Electric and enterprise software producer CA Technologies all contributed to the fund, which was co-anchored by venture capital firm Industry Ventures and an unnamed Chicago-based family office. Investors also featured several private investors that backed Work-Bench's debut fund, which closed at $10m in 2013.

Work-Bench targets early-stage enterprise technology startups based in the US, and intends to invest in 20 companies through the new fund, providing about $1.5m for each deal, leading seed rounds and investing at series A.

Work-Bench Fund II has already made nine investments, in companies including cloud communication platform developer Dialpad, security software provider Scytale, algorithm development community manager Algorithmia and engineering analytics platform Seemle.

Telkomsel to dial up corporate venturing fund

Telkomsel, the mobile network subsidiary of Telkom Indonesia, plans to launch a corporate venturing fund, DealStreetAsia has reported. Telkom Indonesia already makes investments through MDI Ventures with $100m to be allocated over a four-year period. MDI Ventures lists 30 portfolio companies on its website including Japan-based online advertising platform Geniee, which listed on Tokyo's Mothers Market in December 2017, e-commerce services provider aCommerce and cross-border money transfer platform Instarem.

NEWS

L'Oréal shows corporate venturing is worth it

France-based cosmetics producer L'Oréal has formed corporate venturing unit Bold Business Opportunities for L'Oréal Development to invest in new business models.

The fund has already provided an undisclosed sum for France-based online fragrance brand Sillages Paris. The company, part of L'Oréal's incubator at innovation hub Station F, uses artificial intelligence and machine learning to create customisable perfumes.

Bold Business Opportunities will acquire minority stakes in startups exploring new business models in areas such as consumer marketing, research and development, digital and retail technology, communication, packaging and the supply chain.

Arrive tunes up $40m fund

Arrive, an investment and startup services entity formed by US-based entertainment company Roc Nation, has collected $20m for a dedicated corporate venturing fund, according to a regulatory filing. Arrive Opportunities Fund I has raised the capital from a single unnamed investor, and is targeting a close of $40m, according to the filing.

The fund is part of the company's investment platform, Arrive, launched in March 2017 to provide funding, advice and brand services to early-stage companies. Venture capital firm Primary Venture Partners is advising Arrive, with GlassBridge Asset Management, a subsidiary of holding company GlassBridge Enterprises, also offering support.

Founded by music producer Shawn "Jay-Z" Carter in 2008, Roc Nation provides songwriting, producing, music publishing, merchandising and music label services.

HubSpot finds room for $30m fund

US-based sales and marketing software producer HubSpot has launched $30m corporate venturing fund HubSpot Ventures to invest in emerging companies aligned with its business strategy.

Founded in 2006, HubSpot offers applications that help enterprises, including technology and software-as-a-service developers, conduct tasks such as sales and customer relationship management. HubSpot Ventures will primarily target businesses seeking seed, series A or series B funding, though it will also make a limited number of later-stage investments. Portfolio companies must be developing a software-as-a-service product with the potential to bring value to HubSpot's ecosystem and customers.

Corporates help switch on $29m industry fund

Power generation equipment supplier Shanghai Electric has invested in a RMB200m ($29m) China-based industry fund launched by an unspecified asset management firm, China Money Network has reported.

The fund will invest in domestic artificial intelligence (AI) and smart manufacturing technology developers. Shanghai Electric is providing $9.9m through a subsidiary, joining GCL (Shanghai), a vehicle controlled by energy conglomerate Golden Concord, which is investing approximately $10.2m. An unnamed China-based venture capital firm is the other limited partner, putting up $8.7m. The undisclosed asset manager will contribute roughly $290,000 and will manage the vehicle.

Apicil and Reech draw up investment policy

France-based social security insurance provider Apicil has joined a subsidiary of real estate services group Reech Corporations to launch a €10m ($11.3m) fund targeting insurance technology developers.

Reech will participate through its private equity and venture capital division, Odysseus Alternative Ventures (OAV). The vehicle – Insurtech Capital I – is targeting seed and series A-stage companies based in France and elsewhere in Europe developing emerging insurance technologies, business models and forms of insurance delivery. Investments will be sourced through a semi-automated system owned by OAV, drawing on a database of businesses mainly focusing on specific insurance-related issues such as digitisation.

Portfolio companies will gain access to OAV's networking contacts, resources and expertise, and the fund could grow to include commitments from insurers in Germany, Switzerland, the Netherlands and the UK.

NEWS

GS Shop stays tuned for Vietnam accelerator

Online and TV shopping provider GS Shop and venture capital firm 500 Startups have launched the Vietnam-based Saola Accelerator, DealStreetAsia has reported. Saola will provide up to $200,000 to startups, with 500 Startups investing an initial $100,000 in each participant through its $10m 500 Startups Vietnam fund which GS Shop has the option to match.

The accelerator will accept Vietnam-linked businesses in three cohorts, supplying guidance and $500,000 in privileges from partners including cloud computing platform Amazon Web Services, as they prepare to demonstrate their business plans to regional VC investors.

PwC Singapore finds its Tribe

Professional services network PwC Singapore's Venture Hub has signed a partnership agreement with Tribe Accelerator, a blockchain-focused accelerator recently launched by venture capital firm Trive Ventures, E27 has reported.

Tribe Accelerator is a six-month scheme backed by Singapore government agency Enterprise Singapore that also counts blockchain community Icon Foundation as a partner. Trive plans to use the initiative to enhance awareness of the distributed ledger technology that powers blockchain, through the demonstration of decentralised applications or back-end digital technology.

CIB opens account with CVentures

Egypt-based financial services firm Commercial Investment Bank (CIB) has launched corporate venturing unit CVentures to help drive emerging technologies in the fintech sector.

The fund will participate primarily in series A and B rounds but will also consider taking equity in seed-stage companies. It will focus on fintech businesses in Egypt, the Middle East and Africa. The move is intended to further CIB's efforts to foster Egypt's financial services industry, which the firm regards as having untapped potential.

CVentures has hired Emad Fouad, head of structuring, execution and venture capital at CIB as a managing director. He will focus on early-stage companies working on next-generation financial services platforms.

Fouad had held various private equity roles at CIB over 12 years, executing more than 30 transactions totalling over $500m in sectors including leasing, mortgage, asset management, telecoms, retail and textiles.

Del Palacio leaves Microsoft


Del Palacio

Itxaso del Palacio, formerly a partner at software provider Microsoft's corporate venture capital unit M12, has been appointed an investment director at UK-based venture capital firm Notion Capital.

Del Palacio joined M12, formerly Microsoft Ventures, in 2017, helping to launch its UK office in London and managing its business-to-business technology dealflow in Europe.

At M12, Del Palacio led financing rounds for, and held board positions at, background and credentials checking service OnFido, human resources software developer Beamery, language processing and translation software provider Unbabel and data anonymisation startup Hazy.

Notion Capital concentrates on enterprise technology and B2B-focused companies. and is currently investing out of its third fund.

Prior to M12, Del Palacio was a principal at specialist merchant bank Lepe Partners, where she led investments in mobile ticket booking platform developer Festicket and transport booking service Masabi.

Pieterson looks to scale Averest

Vincent Pieterson, formerly a managing director at RTL Ventures, Netherlands-based media company RTL Group's corporate venturing arm, has co-founded asset management firm Averest Capital. As a managing partner he will be responsible for deal execution, strategy, innovation and sustainability for its portfolio companies.

Averest Capital has €30m ($34m) to invest in Netherlands-based agritech, biotech, construction and retail businesses in the middle market. Each transaction will be between €5m and €10m.

Pieterson joined RTL Ventures an M&A adviser in 2012 before being promoted to managing director in 2016 to oversee investments in e-commerce companies and healthcare and educational technology developers.

He began his career as an investor at business advisory firm BDO's Netherlands-based branch, where he was recruited as a junior adviser in 2005 and later appointed M&A manager.

NEWS

Jurgeit jumps to Lundbeckfonden Emerge


Jurgeit

Andreas Jurgeit, formerly a director at Germany-based pharmaceutical firm Merck Group's corporate venturing arm, Merck Ventures, has joined life sciences foundation Lundbeck Foundation's early-stage investment unit, Lundbeckfonden Emerge as a partner.

Denmark-based Lundbeckfonden Emerge invests in biotech, life sciences, pharmaceutical and healthcare technology developers. Its portfolio companies include mucosal disease therapy developer Afyx Therapeutics and neuromuscular disorder-focused NMD Pharma.

Jurgeit has experience in R&D in target discovery and drug development from his doctoral and post-doctoral training at the University of Zurich from 2006 to 2011, collaborating with 3V Biosciences, an oncology therapeutics developer whose co-founder Urs Greber had been his professor.

Following his doctorate studies, Jurgeit pursued venture capital investments for five years at VC firm Redalpine Venture Partners, and business development and mergers and acquisitions at biotechnology producer Redbiotec. In 2015, he was active in startups and tech transfer at Switzerland-based natural and engineering sciences research centre Paul Scherrer Institute. He joined Merck Ventures in April 2016 as part of a life sciences team.

GV brings in Kapeller to target biotech

GV, a corporate venturing subsidiary of internet and technology conglomerate Alphabet, has hired Rosana Kapeller, former chief scientific officer at biotechnology company Nimbus Therapeutics, as its first entrepreneur-in-residence for life sciences.

Kapeller will concentrate on technologies that apply machine learning technology to the healthcare and life sciences sectors, with the intention of running a startup developing one of those technologies.

Kapeller spent eight years as the founding chief scientific officer of Nimbus up to March 2018, having previously co-founded peptide drug developer Aileron Therapeutics as vice-president of research, after 10 years at Millennium Pharmaceuticals, which was acquired by Takeda in 2008. Kapeller has also provided consulting services for venture capital firms Third Rock Ventures and Atlas Venture on their life sciences investments.

GV has also hired David Reshef, a statistician with a PhD from Massachusetts Institute of Technology, as a venture partner. He will focus on investments in machine learning technology developers operating in the biotech industry.

Grupo Benner takes Scaramel as innovation manager

Vinícius Scaramel, formerly an innovation area manager at construction materials producer InterCement, has joined Brazil-based business management software provider Grupo Benner as innovation and products manager responsible for implementing innovation processes, promoting intrapreneurial culture, and accelerating and leading innovation projects to maximise Benner's results.

The group offers software, services and business process outsourcing for diverse fields including transport and logistics, health management, corporate governance, tourism, business intelligence, human resources and enterprise resource planning.

In his two-year role at InterCement, Scaramel coordinated and managed its open innovation schemes in Brazil, Argentina, Cape Verde, Egypt, Mozambique, Paraguay, Portugal and South Africa. InterCement mainly works with civil construction firms in a Brazilian market that still adopts little disruptive technology and which has comparatively few startups.

Scaramel had been an entrepreneur, founding waste management consulting firm Bakuara in 2008 and co-founding construction waste management system provider ConstruSave in 2015, from which he joined InterCement the following year.

Gartlan goes to Yield Lab

Kieran Gartlan, a senior director of Latin America business development at exchange operator CME Group, has joined early-stage agricultural technology accelerator Yield Lab as a Brazil-based managing director.

Gartlan, who had been based in Brazil for more than two decades before a brief US-based spell from 2016, will oversee Yield Lab's activities in the country, including raising venture capital funds and generating dealflow in Brazil's agtech ecosystem.

Formed in 2014, Yield Lab is headquartered in the US state of Missouri and expanded into Europe by setting up an Ireland-based subsidiary in April 2017. It began operating in Latin America by launching an Argentina-based program later that year. Cloud-based commodities trading platform Agree Market, irrigation management system developer Kilimo, agricultural image processing technology developer Eiwa and agricultural management platform S4Agtech, have each received $100,000 through the Argentinian initiative.

NEWS

Zhong leaves Next47 for CR Capital

Rachel Zhong, formerly a US-based associate at industrial technology group Siemens' Next47 corporate venture capital subsidiary, has joined China Resources Capital Management (CR Capital) as a senior vice-president.

Founded in 2006, CR Capital is an investment arm of diversified Hong Kong-based state-owned conglomerate China Resources Group. The company runs a HK$127bn ($16.3bn) fund focused on areas such as real estate, healthcare, pharmaceuticals, renewable energy and infrastructure.

Before joining Next47, Zhong held product management roles at mobile voice technology developer Mobvoi's Beijing and Silicon Valley offices, and investor positions at cleantech solutions provider Bay Environmental Technology and another Siemens investment unit, Siemens Venture Capital.

Lübbehusen leaves Innogy Venture Capital behind

Michael Lübbehusen has left Innogy Venture Capital, the investment fund backed by energy utility RWE Innogy and wind power producer Conetwork Erneuerbare Energien.

Lübbehusen joined Innogy Venture Capital in 2016 and headed it in partnership with Frank Starrmann, who will take over sole management of the unit as managing director. Lübbehusen has not revealed his future plans.

The fund invests in renewable energy, energy efficiency and energy storage technology developers from seed to expansion stage. Its portfolio includes solar film producer Heliatek, renewable energy forecasting platform Enercast and materials analysis technology provider Mantex.

McIntyre re-emerges as impact investor

John McIntyre has joined the American Family Insurance Institute for Corporate and Social Impact as an investment director. McIntyre was previously managing director of technology company Citrix's Startup Accelerator investing in and developing early-stage programs and entrepreneurs globally for five years until early 2016 when he became a vice-president of venture investor training network Kauffman Fellows.

His career has included a three-year stint with Irish government-owned enterprise support agency Enterprise Ireland, where he was senior vice-president, west coast, Americas, software and services from December 2007 until December 2010.

Qian moves up at JD Finance

Bill Qian, formerly head of cross-border M&A at China-based e-commerce firm JD.com's financial technology spinoff, JD Finance, has been promoted to general manager of corporate ventures.

Qian oversees investments in enterprise services, industrial internet-of-things and consumer internet technologies. He has overseen investments in digital contact platform Jiatui Technology, collaboration software developer FangCloud and news aggregation platform Qutoutiao.

Having joined JD in July 2015 as head of crowdfunding business strategy, Qian initially concentrated his efforts on equity crowdfunding as part of a year-long stint in which it raised more than RMB1.1bn ($162m) for 89 startups. Concurrently, he helped JD Finance launch JD Innovation Ventures, the early-stage fund now renamed Qianshu Capital, which typically pursues series A deals and earlier for consumer-focused startups, in areas such as lifestyle, fashion, cosmetics, health and entertainment.

Qian moved across to head JD Finance's cross-border M&A in February 2017, helping form joint ventures in Thailand with retail conglomerate Central Group and Singapore-based principal investment firm Provident Capital in September the same year.

Analysis: PlanGrid highlights real estate boom

US-based software developer for architects Autodesk agreed to the $875m acquisition of PlanGrid, a US-based construction software developer. PlanGrid counts cloud services provider Box and internet technology conglomerate Alphabet among its previous backers – both invested in its $1.5m seed round in 2012.

Established in 2011, PlanGrid has developed a collaboration platform for general contractors, subcontractors, architects and owners to work together on projects in real time. The company claims its platform is currently used in over a million projects in 90 countries. Autodesk intends to integrate PlanGrid into its building information modelling software, Revit,

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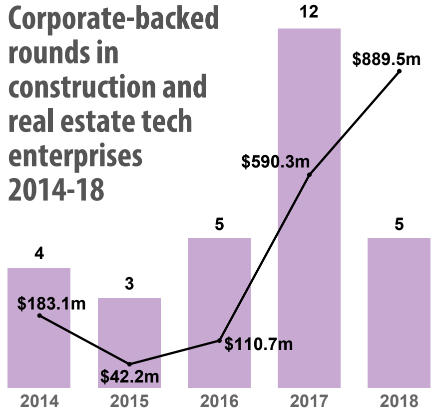
Corporate-backed rounds in construction and real estate tech enterprises 2014-18



and construction management platform Bim 360.

This acquisition is a success story for a business from the construction and real estate space, which has been receiving more attention from corporate venturers both in terms of number of corporate-backed deals and total dollars involved. If this trend continues, we are likely to see more acquisitions of such enterprises.

There are economic fundamentals to support the belief this trend will continue. We are currently in the expansion phase of the economic cycle following the recession of 2008 and the ensuing real estate bubbles in developed markets.

Until there is a serious market correction and as long as credit continues to be relatively cheap, there is no reason to suppose that the construction and real estate sector will stop growing and attracting innovative technology developers. ◆

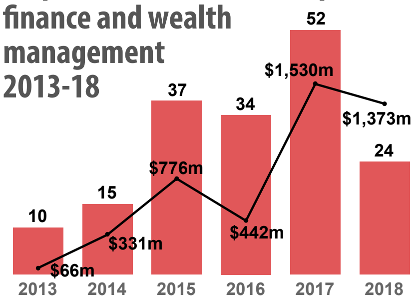
Analysis: Lufax deal shows subsector past its peak

China-based online financial services provider Lufax received $1.33bn in a round co-led by financial services firm SBI Holdings.

Other corporate participants in the deal were financial services firms JPMorgan, Macquarie Group, UBS, UOB as well as investment banking firm Goldman Sachs through its Private Equity Group division. The state-owned Qatar Investment Authority co-led with SBI the round, which reportedly valued Lufax at $38bn pre-money.

Established in 2011, Lufax was initially launched as a peer-to-peer lending and brokerage subsidiary of insurance firm Ping An but has since grown into a wealth management firm. It had a loan balance of about $24.5bn by the end of May 2018, according to analytics firm Online Lending House.

Corporate-backed deals in personal finance and wealth management 2013-18



Lufax is a fintech business in the subsector of wealth management and personal finance, which has seen plenty of corporate backed deals in recent years.

The number of deals in that subsector reached a peak last in 2017 at 52 transactions, worth an estimated total of $1.53bn of total capital invested, up from $66m invested over merely 10 rounds back in 2013. By the end of November 2018, there had been a significantly lower number of corporate-backed deals than the previous deal but total value had slipped to only slightly to an estimated $1.37bn, suggesting valuations of promising businesses in that space have risen. ◆

Analysis: HomeToGo acquires troubled Tripping

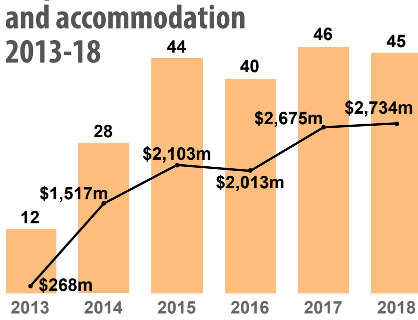
Germany-based holiday home rental platform HomeToGo acquired its US-based peer Tripping for an undisclosed sum providing an exit to human resources firm Recruit Holdings, which had first backed the company in 2014, when its Japan-based subsidiary RGIP was launched.

Tripping had raised over $50m in funding but was sold as a distressed asset. While the terms of the transaction were not disclosed, Industry analysts estimated the amount was likely to be at least €25m ($28m), according to Skift.com. Tripping's latest reported round was a $35m series C round in 2016, led by investment firm Princeville Global.

The company had reportedly run into trouble earlier this year, having spent much of the raised capital on online advertising and marketing. Reports in various media outlets suggested a conflict on the company's board between founders and investors. In September, Tripping laid off 15 employees, reducing the team to a bare operational minimum.

Founded in 2010, Tripping runs a metasearch engine which enables users to search for and compare holiday homes and short-term rent-

Corporate-backed deals in travel and accommodation 2013-18



NEWS

als listed on third-party websites including HomeAway, Booking.com and TripAdvisor. The company claimed to have indexed more than 12 million properties across 100,000 destinations to date and is expected to continue to operate as a separate brand after the acquisition.

Despite the company's woes, it is interesting to look at what has happened in the broader travel and accommodation space. According to GCV Analytics, both the volume and value of corporate-backed rounds in enterprises from that realm rose substantially from 2013 to 2015 – from 12 deals worth an estimated total of $268m to 44 rounds worth $2.1bn. From that point onward, the number of deals and their total value have remained relatively stable, above 40 transactions and $2bn a year. The short-term holiday rental sector has been disrupted most severely by businesses such as AirBNB that allow homeowners to let their properties on a short-term basis. ◆

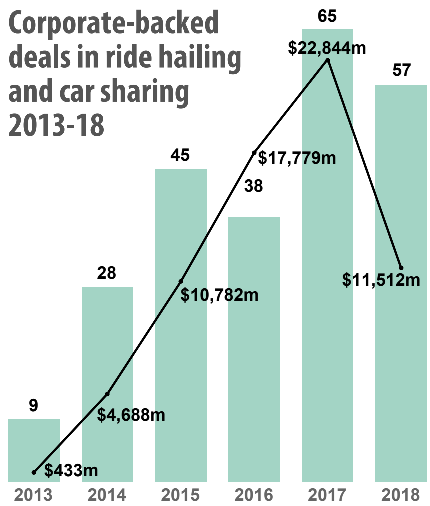
Analysis: Ride-hailing tested in first big IPO

US-based ride-hailing service Lyft has reportedly filed for an initial public offering expected to take place in the first half of 2019. Financial services firms JPMorgan Chase, Credit Suisse and Jefferies are among the underwriters for the offering but details about its potential size have not been revealed.

The company was last valued at $15.1bn after a $600m round in June 2018, led by financial services group Fidelity Management and Research and also backed by hedge fund Senator Investment Group.

The IPO would constitute an exit for a number of corporate investors, including Fidelity, internet conglomerate Alphabet's growth equity unit CapitalG, internet group Tencent, e-commerce firms Rakuten and Alibaba, automotive components producer Magna International, carmakers Jaguar Land Rover and General Motors, conglomerate Icahn Enterprises as well as its China-based peer Didi Chuxing.

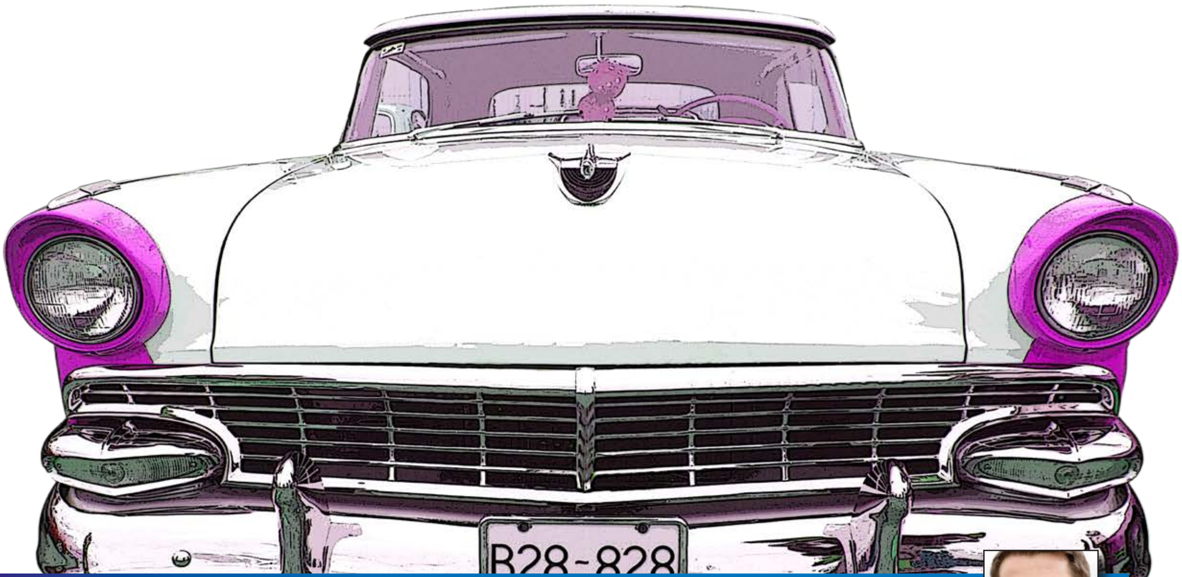
Founded in 2007 and having raised over $4bn in funding to date, Lyft runs an on-demand ride service in the US and in nine cities of the Canadian province of Ontario. It claims to have provided more than 375 million rides for a total of more than 23 million unique passengers in 2017.



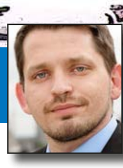
Lyft's IPO will be the first of a sharing economy ride-hailing business that has contributed to the disruption of the ride-hailing sector. Its rival Uber is rumoured to have plans to go to public soon. Moving into public markets will be major milestone for proving the long-term viability of the ride-hailing business model, on which much capital has been wagered. Billions of dollars have been poured into corporate-backed funding rounds of such businesses around the globe over the past five years. ◆

SECTOR FOCUS

Transport drives ahead



Kaloyan Andonov, reporter, GCV Analytics



GCV Analytics defines the transport sector as encompassing ride-hailing, car-sharing and rental in addition to connected, autonomous and electric vehicle technologies, vehicle marketplaces and platforms, public mobility and parking, vehicle hardware and maintenance, and other subsectors.

The global transport sector and its vast ecosystem were estimated at nearly $6 trillion in 2017 – $5,880bn, according to ResearchAndMarkets.com. This includes a wide range of modes of transportation services, including road, rail, air and marine, in addition to the manufacturing of means of transportation, such as automotive, aviation etc.

However, when it comes to mobility on the consumer level, some have coined and popularised the term “Aces” – autonomy, connectivity, electrification, sharing – to denote the disruption taking place in the industry. While the interest of corporate venture investors in connected car technology appears to have waned in recent times, according to our data, businesses from the ride-hailing, autonomous driving and electric vehicle realms have been all over the news.

It is difficult to estimate the total investment in autonomous and electric vehicle technologies and business models. The Brookings Institute estimated the size of the autonomous technology ecosystem at $80bn at least. There have been similar estimates of the electric vehicle ecosystem.

The technical viability of such technologies has been enabled thanks to significant advances in other fields, such as artificial intelligence, sensors and battery technologies. The potential mass adoption of autonomous and electric vehicles is expected to bring about safer travel while reducing the environmental impact of burning fossil fuels.

If both technologies are so promising and possible in the near term, what are the potential stumbling blocks on the road to their massification? As with any innovative technology, those have to do mostly with consumer perception. According to data from the 2018 Deloitte global automotive consumer study, while there has been some visible growth in the number of consumers who consider autonomous vehicles safe, there is still much room for improvement and persuasion.

In the world’s major automotive market, the US, 47% of respondents felt such vehicles would not be safe – a figure significantly lower than the previous year’s 74%, but more than half of consumers still need to be convinced. The same conclusion could be drawn for other major automotive markets, including Germany, France and South Korea.

In the case of electric vehicles, there is an additional issue of consumer perception. Most in markets like China and anxiety over being able to drive on a single battery charge, or about availability of charging stations are the major reasons for not purchasing such vehicles.

An additional problem is the monetisation of autonomous and electric technologies. Deloitte’s survey found that a sizeable proportion of consumers in major markets – Germany 50%, US 38%, Japan 31% – are unwilling to pay a premium for vehicles equipped with autonomous or semi-autonomous capabilities. According to the study, this is also true for electric vehicles – only 42% of consumers in Germany are willing to accept the higher cost of vehicles with alternative powertrain technology.

As price premiums are the major reason for consumer hesitance and, without them, the research and development costs

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associated with developing such technologies cannot be recouped, this may well threaten their economic viability. This is why incumbent automotive manufacturers have turned to startups, aiming to support and source external innovation in this space.

If the market adoption challenges are properly addressed and tackled in the coming years by marketers and automotive manufacturers, there is an opportunity for incumbents in the automotive industry. According to the Deloitte study, most consumers indicate they would be more likely to ride an autonomous vehicle of a brand they trust – 63% in the US. This implies that, while emerging brands such as Tesla will have their place on the roads of the future, most autonomous and electric cars are likely to be produced by the automotive brands consumers are already familiar with. This also implies that promising emerging businesses in this sector are more likely to find their place as suppliers to major brands.

The automobile industry in general is expected to grow. According to a Euler Hermes report, the automotive market is likely to exceed 100 million units this year. Worldwide sales of new vehicles are forecast to grow by 2.5%. These predictions are largely based on broader trends in private consumption and corporate investment, alongside low interest rates and rising incomes. These forecasts are made even within the context of a growing sharing economy, favouring use over ownership of motor vehicles. It is not, therefore, unreasonable to suppose corporate venturers will continue to back businesses that run e-commerce platforms selling vehicles or other service platforms for motor vehicles.

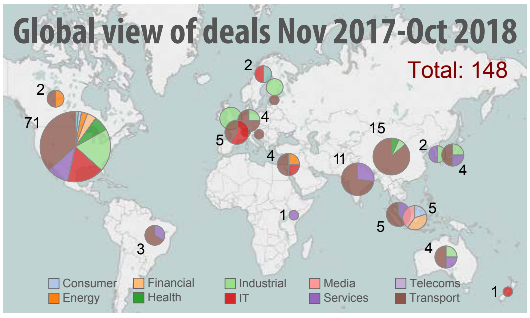
The other major realm of disruption in the transport sector is ride-hailing – where there have been significant sums invested in major markets. Ride-hailing enables customers to book a short-distance journey via connected mobile devices, whether car or bicycle. This innovative business model reduces traffic congestion and CO2 emissions and rationalises transport use in urban environments. This model has disrupted established service providers, such as taxis, and there have been and will be regulatory and legal challenges.

There are also concerns about the profitability and economic viability of the business model, given the intense competition. According to a report by Energias Market Research, the world's ride-sharing market is forecast to experience a cumulative annualised growth rate of 16.4%, worth $149bn by 2024. This growth is assumed to be driven by demand for greener mobility and on-road traffic reduction in markets that are experiencing rapid urbanisation, particularly the Asia-Pacific region, China and India.

Airlines are focused on increasing revenues and profit margins. According to a report – Air Transportation Market Global Briefing 2018 from Researchandmarkets.com – intense competition is forcing them to seek alternate sources of revenue, including from ancillary services. Airlines would be interested in any technology bringing efficiencies and lowering operating costs. The report estimates the global air transport market at roughly $650bn in 2017.

The rise of vertical take-off and landing technology, used in many unmanned aerial vehicles, along with cheaper battery technology costs, have raised questions as to whether flying cars rather than electric and autonomous cars will define the future of short distance mobility. US-based airline JetBlue has already backed a company, Joby Aviation, which is developing electric-powered aircraft.

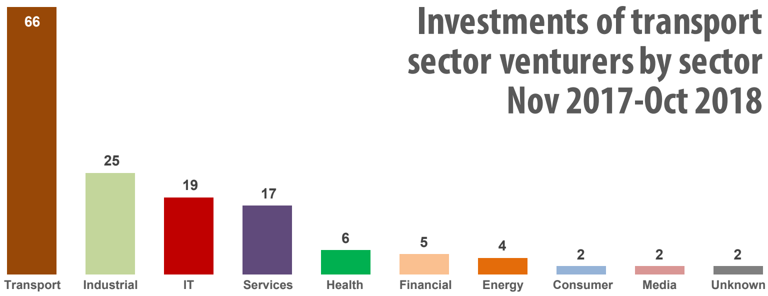
In the context of smart cities and ever smarter and greener vehicles, there is a new type of public mobility, which – enabled by the ubiquity of mobile devices – includes everything from planning a journey or a commute through booking a ride or a parking space, anything from parking and public transit apps through intelligent public transport ticketing system to electric and hybrid buses. With growing environmental and emissions concerns among public authorities, demand for the latter is likely to grow. As MarketResearch.com states, "with the advancements in technology the demand for battery electric buses is projected to grow at the fastest rate in coming years".



For the period between November 2017 and October 2018, GCV reported 148 venturing rounds involving corporate investors from the transport sector. Nearly half (71) took place in the US, 15 in China and 11 in India.

Many of those commitments (66) went to emerging enterprises from the same sector (mostly ride-hailing, developers of connected, autonomous and electric vehicle tech as well as vehicle marketplaces) but also with the remainder going into companies developing other technologies in synergies with the sector: 25 deals in the industrial sector (mostly 3D printing, advanced materials, robots and unmanned aerial vehicles), 19 in IT (primarily artificial intelligence technologies

Investments of transport sector venturers by sector Nov 2017-Oct 2018



SECTOR FOCUS

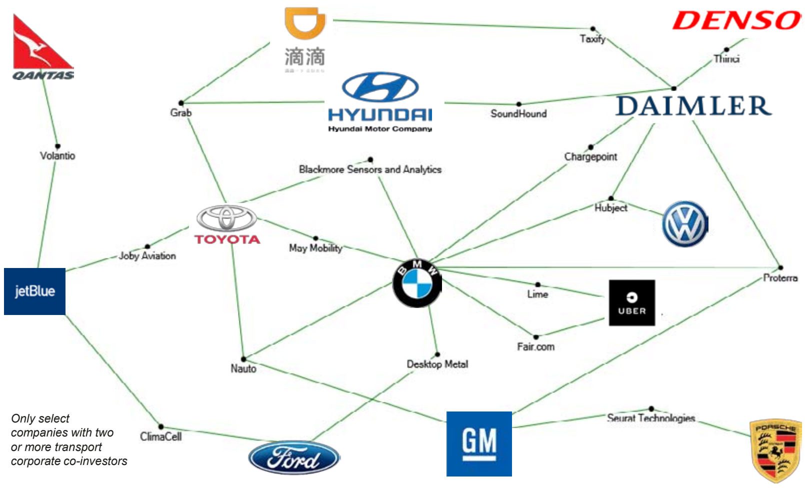
and cybersecurity) and 17 in business services (mostly logistics and supply chain services).

The network diagram showing co-investments of transport corporates illustrates the wide spectrum of investment interests of the sector's incumbents. The commitments range from ride-hailing and car rental services (Grab, Taxify, Lime) and developers of electric vehicle for mass transport (Proterra and May Mobility), additive manufacturing (Desktop Metal, Seurat Technologies) through artificial intelligence and machine learning tech with applications in automobiles (Nauto, ThinCl, SoundHound) to airline capacity management software (Volantio), electric aircraft (Joby Aviation) and even hyperlocal weather forecasting (ClimaCell). All these co-investments match the overall trends in the transport sector outlined above and the respective areas of interest they entail.

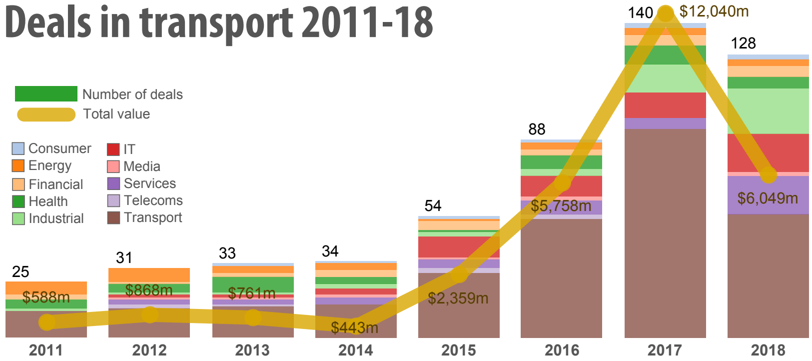
On a calendar year-on-year basis, total capital raised in corporate-backed rounds went up significantly from $5.78bn in 2016 to $12.04bn in 2017, a 108% increase. The deal count also grew by nearly 60% from 88 in 2016 to 140 in 2017. As for 2018, by the end of October, GCV had reported 128 deals worth an estimated $6.04bn.

The 10 largest investments by corporate venturers from the transport sector were concentrated in the same industry.

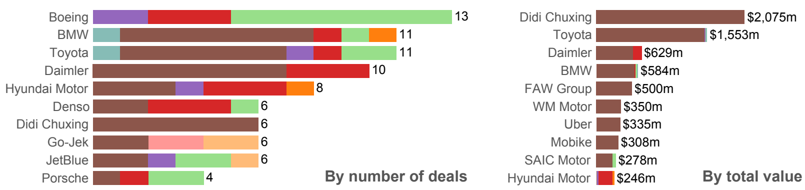
Co-investments of transport sector venturers 2017-18



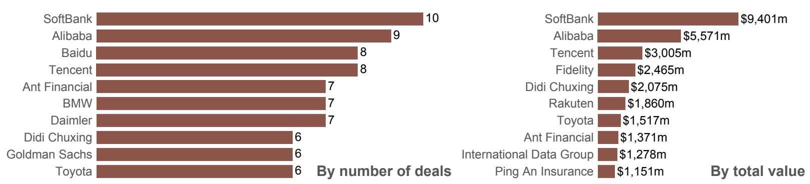
Deals in transport 2011-18



Top transport sector investors Nov2017-Oct 2018



Top investors in transport enterprises Nov 2017-Oct 2018



The leading corporate investors from the transport sector in terms of largest number of deals were aircraft producer Boeing and carmakers BMW, Toyota and Daimler. The list of transport corporates committing capital in the largest rounds was topped by ride-hailing service provider Didi Chuxing, followed by Toyota, Daimler and BMW.

The most active corporate venture investors in emerging transport companies were telecoms firm and conglomerate SoftBank, e-commerce company Alibaba as well as internet companies Baidu and Tencent.

The rising transport businesses in the portfolios of corporate venturers varied, encompassing anything from ride-hail-

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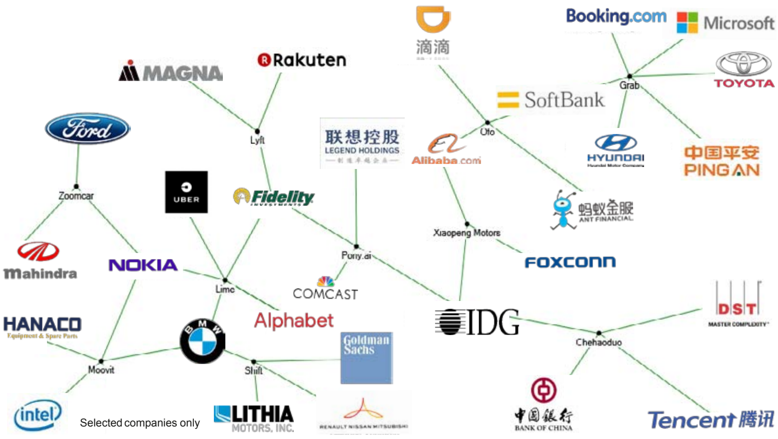
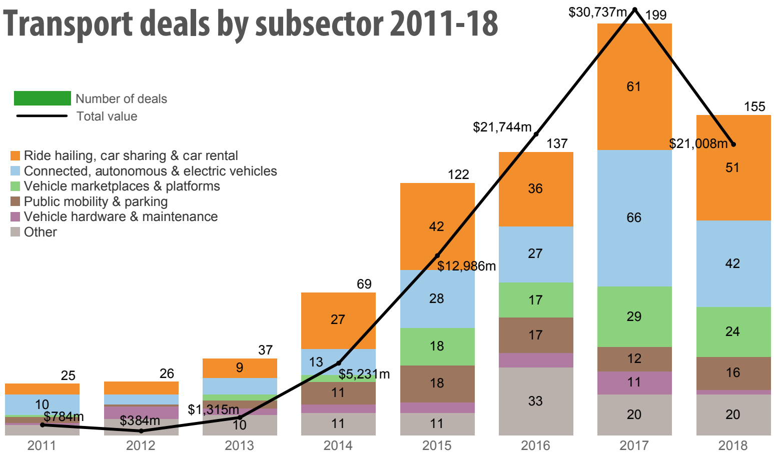
ing (Lyft, Grab and Zoomcar), bicycle and scooter rental services (Ofo and Lime) through public transit information apps (Moovit), autonomous driving software developers (Pony.ai) and electric vehicle producers (Xiaopeng Motors) to online vehicle marketplaces and platforms (Shift and Chehaoduo). This is illustrated by the network diagram of corporate co-investments in such companies *(overleaf)*.

Corporate co-investments in transport enterprises 2017-18



Transport deals by subsector 2011-18



Overall, corporate investments in emerging transport-focused enterprises went up significantly from 138 rounds in 2016 to 199 deals in 2017 and stood at 155 by the end of October 2018. Estimated total dollars went up from \$21.74bn in 2016 to \$30.74bn in 2017 and stood at \$21bn by October 2018.

Deals

Transport sector corporates invested in large multimillion-dollar rounds, raised by enterprises in the same sector. Two of the top 10 rounds stood at \$1bn.

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 reports suggested they included SoftBank and Didi Chuxing. Ofo runs an app-based bicycle-sharing service equipped with 10 million bikes across 200 cities, most in China, although it also has a presence in European centres such as London, Madrid, Milan, Vienna and Prague.

Singapore-based ride-hailing company Grab obtained \$1bn from Toyota at a valuation of more than \$10bn. The money came directly from Toyota, rather than through its investment vehicle Next Technology Fund, which had also taken part in Grab's \$2.5bn series G round previously. Founded in 2012 as GrabTaxi, Grab started out with taxi-booking platform MyTeksi but has since grown to offer a full range of ride-hailing services, including chauffeuring and carpooling. Grab has also introduced a food delivery service and a mobile payment platform. It operates in eight Southeast Asian countries.

Didi Chuxing acquired a majority stake in Brazil-based counterpart and portfolio company 99, paying \$600m. Reportedly, Didi previously owned 30% of 99, having led a round in excess of \$100m the previous year. Founded in 2012 and originally known as 99taxi, 99 runs an on-demand ride service with 14 million users in 500 Brazilian cities and towns.

China-based smart car developer Byton closed a \$500m series B round that included automotive manufacturer FAW Group and battery producer Contemporary Amperex Technology. TUS Holdings, the enterprise arm of Tsinghua University, also took part in the round alongside other unnamed backers. FAW was previously reported to be supplying \$260m to the round, though this was not confirmed. Founded in 2016 as Future Mobility, Byton is developing smart electric vehicles that boast features such as a gesture-based control system, a driver-assistance system, augmented reality mirrors instead of rear-view mirrors and a 49-inch electronic display on the dashboard. The series B funding will help Byton advance towards mass production, targeting the fourth quarter of this year.

China-based bicycle-sharing startup Hellobike secured \$350m in a funding round featuring carmaker WM Motor Technology and Ant Financial, the financial services affiliate of Alibaba. The round, which included venture capital firm Chengwei Capital, came just over a month after Hellobike merged with Youon Ditan, an affiliate of publicly-listed bicycle-sharing service Changzhou Youon Public Bicycle System. Founded in 2016, Hellobike operates an app-based bike-sharing platform with more than 80 million users. In contrast to some of the industry's biggest operators, it concentrates on third

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Top 10 deals by transport corporate investors over the past year					
Company	**Location**	**Sector**	**Round**	**Size**	**Investors**
Ofo	China	Transport	E and beyond	$1bn	Alibaba | Didi Chuxing | SoftBank
Grab	Singapore	Transport	E and beyond	$1bn	Toyota
99	Brazil	Transport	Stake purchase	$600m	Didi Chuxing
Byton	US	Transport	B	$500m	Amperex Technology | FAW Group | Tsinghua University | undisclosed investors
Hellobike	China	Transport	D	$350m	Ant Financial | Chengwei Capital | WM Motor
Lime	US	Transport	C	$335m	Alphabet | Andreessen Horowitz | Atomico | BMW | Coatue | Fidelity | Fifth Wall | GIC | Institutional Venture Partners | Uber
Mobike Chuxing Technology	China	Transport	–	$308m	Mobike
Renrenche	China	Transport	–	$300m	Didi Chuxing | Goldman Sachs | Tencent
Getaround	US	Transport	D	$300m	SoftBank | Toyota
Banma Network Technologies	China	Transport	–	$233m	SAIC Motor | State Development and Investment Corporation | Yunfeng Capital
SenseTime	China	IT	C	$620m	Fidelity | Hopu Investments | Qualcomm | Silver Lake | Tiger Global Management | undisclosed investors
Suning Sports	China	Media	A	$600m	ABC International | Alibaba | CCB International | China Minsheng Bank | Evergrande Group | Goldman Sachs | Jiangsu Province | SenseTime | Sports Industrial Fund of Zhejiang Province

and fourth-tier cities in China rather than the country's largest urban centres.

US-based electric scooter rental service Lime raised $335m in a round led by GV, a corporate venturing vehicle of internet and technology conglomerate Alphabet. GV was joined by its parent company as well as ride-hailing platform Uber, financial services group Fidelity Management and Research, venture capital firms Institutional Venture Partners, Atomico, Andreessen Horowitz and Fifth Wall Ventures, investment firm Coatue Management and Singaporean sovereign wealth fund GIC. The round reportedly valued the company at $1.1bn. Founded in 2017 as LimeBike, Lime operates a service that enables users to rent e-scooters, pedal bikes and electrically-assisted bicycles. It is available as a smartphone app but the company also accepts cash payments from customers without mobile devices.

China-based bicycle-rental platform Mobike spent RMB2bn ($308m) to launch car-sharing service Mobike Chuxing. The service can be accessed through Mobike's app, which had more than 200 million registered users across 180 cities as of November 2017. Subsequently, it was reported that FAW Group had paid an undisclosed amount for a 10% stake in Mobike Chuxing Technology. FAW, which disclosed the investment in a stock exchange filing, will supply electric vehicles for Mobike Chuxing as part of a strategic cooperation agreement. Mobike has raised more than $1bn from investors including Tencent, travel services provider Ctrip, hospitality chain Huazhu Hotels and Bertelsmann Asia Investments, a corporate venturing subsidiary of media group Bertelsmann.

Renrenche, a China-based operator of an online used vehicle marketplace, received $300m from investors including Didi Chuxing. Tencent also backed the round, which was led by investment banking firm Goldman Sachs. Founded in 2014, Renrenche operates an e-commerce platform for second-hand cars that is active in more than 80 cities across China. The company is also looking to develop financing services and plans to explore opportunities in the after-sales market in partnership with Didi, which expects to purchase a million used and new cars through Renrenche over the next three years.

SoftBank led a $300m series D round for US-based car-sharing service Getaround that included Toyota and unnamed "inside investors". Getaround runs an app-based service that enables users in 66 US cities to lease their cars to each other an hour or a day at a time. It provides up to $1m in motor insurance cover and roadside assistance. Toyota signed a strategic partnership with Getaround in 2016, as did Uber, which has offered Getaround to its own users through a joint venture called Uber Rent.

China-based smart car developer Banma Network Technologies closed a RMB1.6bn round backed by Shangqi Capital, the investment management unit of car manufacturer SAIC Motor. The round was led by SDIC Innovation Investment Management, a part of government-owned investment holding group State Development and Investment Corporation, and also featured private equity firm Yunfeng Capital. Founded in 2015 as a joint venture between Alibaba and SAIC Motor, Banma is working on cars that exploit internet-of-things technology. The company has launched one model, the Roewe RX5. The Roewe brand is owned by SAIC Motor, which handles the design and physical assembly of the RX5, while Alibaba provides its smart car operating system AliOS.

There were interesting deals in emerging transport-focused businesses backed by corporate investors from other sectors.

Didi Chuxing closed a $4bn funding round that included SoftBank and Abu Dhabi's Mubadala Investment Company, according to a source who said the deal valued the company at $56bn. Didi Chuxing runs a Chinese ride-hailing platform with 450 million registered users. In addition to taxis, it also offers car rental, carpooling, luxury and business transport, designated driver and urban bus services. The company said part of the funding would be used for an international expansion that would start with Taiwan, where it has licensed its brand to local operator Ledi Technology.

SECTOR FOCUS

Top 10 investments in emerging transport enterprises over the past year

Company	Location	Round	Size	Investors
Didi Chuxing	China	E and beyond	$4bn	Mubadala Investment Company | SoftBank
Ofo	China	Stake purchase	$3bn	Alibaba
GM Cruise Holdings	US	–	$2.25bn	SoftBank
Lyft	US	E and beyond	$1.5bn	AllianceBernstein | Baillie Gifford | CapitalG | Fidelity | Janus Henderson Investors | KKR | Ontario Teachers' Pension Plan Board | Rakuten
Uber	US	Stake purchase	$1.25bn	Dragoneer Investment Group | SoftBank | TPG
Nio	China	–	$1bn	Baillie Gifford | Citic | Lone Pine | Tencent
Ofo	China	E and beyond	$1bn	Alibaba | Didi Chuxing | SoftBank
Grab	Singapore	E and beyond	$1bn	Toyota
Faraday Future	US	Stake purchase	$860m	Evergrande Group
Chehaoduo	China	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 up | Sichuan Taihe Group | Tencent | Yunfeng Capital

Alibaba bought $3bn worth of shares in China-based bicycle-rental platform Ofo from investor Allen Zhu. Alibaba reportedly 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 stage, of which Zhu is managing director. 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.

SoftBank agreed to provide $2.25bn for GM Cruise Holdings, an autonomous driving spinoff of automotive manufacturer General Motors (GM). Cruise is developing autonomous vehicle technology that will be deployed in GM's Bolt range of electric vehicles. The technology is being tested in the US states of California, Arizona and Michigan, and is expected to reach the market this year. The company was formed in 2013 and GM paid $1bn to acquire it in early 2016, giving an exit to Qualcomm Ventures, the venturing unit of the chip manufacturer.

US-based ride-hailing platform Lyft raised $1.5bn in a round led by CapitalG, the growth equity arm of Alphabet. E-commerce firm Rakuten also took part, as did Fidelity Investments, Ontario Teachers' Pension Plan, AllianceBernstein, Baillie Gifford, KKR and Janus Henderson, according to a statement from Lyft. The transaction valued the company at $11.5bn post-money. Lyft's on-demand ride service is the second most popular in the US, behind Uber.

SoftBank closed its $1.25bn equity investment in US-based on-demand ride provider Uber. The funding was provided at a $69bn valuation as part of a larger deal in which a consortium of SoftBank, investment firm Dragoneer, venture capital firm Sequoia Capital and private equity firm TPG bought a reported $9bn of secondary shares from early investors and employees at a $48bn valuation. Uber is the US market leader in the on-demand ride sector and has a similar position in several other markets, boasting a presence in more than 80 countries across six continents. The primary share valuation means it retains its position as the world's most valuable venture capital-backed private company.

China-based smart electric vehicle developer Nio secured more than $1bn in a round led by Tencent. The round, which valued the company at about $5bn, included hedge fund Lone Pine Capital, asset manager Citic Capital and investment firm Baillie Gifford. Another internet company, Baidu, was set to co-lead the round but did not confirm its participation. Founded as Nextelectric, Nio is working on an electric autonomous car equipped with a personalised digital assistant that it aims to bring to market by 2020. It has already created a "supercar" called the EP9, said to be the fastest electric vehicle in the world.

Evergrande Health Industry, a healthcare subsidiary of property developer China Evergrande, bought a 45% stake in US-based electric vehicle developer Faraday Future for $860m. Other Faraday shareholders will retain 33%, with the remaining 22% held back for employees. Founded in 2014, Faraday Future is developing connected electric cars. The company's first production vehicle was unveiled in 2017 and will boast features such as autonomous parking capabilities and facial recognition.

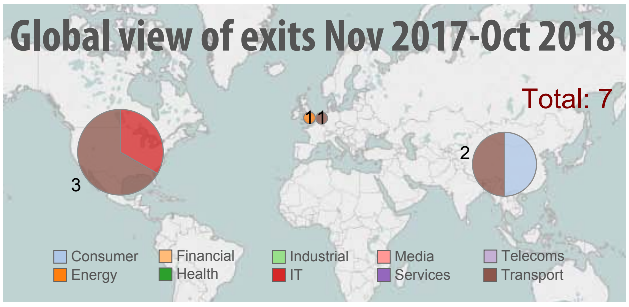
Tencent led an $818m series C round for China-based automotive e-commerce platform Chehaoduo. Shougang Fund, an investment branch of steelmaker Shougang, and ICBC International, a subsidiary of Industrial and Commercial Bank of China, also took part. Chehaoduo was formerly known as Guazi, which is still the brand under which its used car trading platform operates, but the company has expanded into new car sales through a brand called Maodou as well as online vehicle auctions and adjacent services such as insurance and appraisal. The company, which has also moved into vehicle leasing, reportedly holds a 68.3% share of the used vehicle auction market in China.

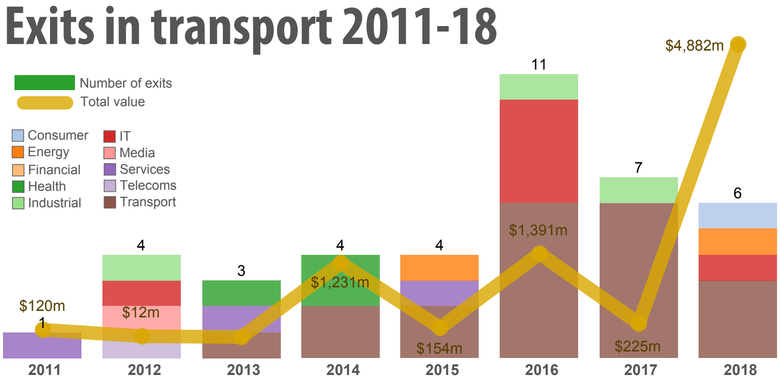
Exits

Corporate venturers from the transport sector completed seven exits between November 2017 and October last year – four acquisitions and three initial public offerings. On a calendar year-on-year basis, GCV also reported seven exits in 2017, down from the 11 tracked in 2016.

SECTOR FOCUS

China-based local services platform Meituan Dianping raised $4.22bn in an IPO that included a $400m investment by Tencent. Meituan Dianping issued 480 million primary shares on the Hong Kong Stock Exchange at HK$69 ($8.79) each, near the top of the IPO's HK$60 to HK$72 range. The offering valued the company at about $52bn. Established through the 2015 merger of group buying platform Meituan and restaurant listings service Dianping, Meituan Dianping operates an online portal that links to a range of services including food delivery, travel booking and event ticketing.





Pivotal Software, a US-based software development services provider spun out of software producer EMC, closed its IPO at just over $638m, after underwriters bought 5.5 million additional shares. The IPO initially consisted of 33.1 million shares at $15 each on the New York Stock Exchange, in addition to almost 3.9 million shares sold by industrial technology and appliance manufacturer General Electric. Other investors in Pivotal included EMC subsidiary VMware and automotive manufacturer Ford. The shares closed at $18.14, giving it a market capitalisation of $4.54bn. Spun out of EMC, which was renamed Dell EMC when acquired by computing technology producer Dell in 2016, Pivotal supplies software development technology as well as expertise to clients looking to create customised applications.

Cango, a China-based automotive sales service provider backed by corporates Tencent, Taikang Life Insurance and Didi Chuxing, floated in the US in a $44m IPO. The offering consisted of 4 million American depositary shares (ADSs) at $11

Top 10 exits by transport corporate investors over the past year

Company	Location	Sector	Exit type	Acquirer	Size	Investors
Meituan-Dianping	China	Consumer	IPO	–	$4.2bn	Canada Pension Plan Investment Board | Capital Today | China Structural Reform Fund | China-UAE Investment Cooperation Fund | Coatue | Darsana Capital Partners | DST Global | GIC | Hillhouse Capital Management | International Data Group | Lansdowne Partners | Oppenheimer Funds | Priceline | Sequoia Capital | Tencent | Tiger Global Management | TrustBridge Partners
Pivotal	US	IT	IPO	–	$638m	Dell | Ford Motor | General Electric | Silver Lake | VMWare
Cango	China	Transport	IPO	–	$44m	Didi Chuxing | Taikang Life Insurance | Tencent | Warburg Pincus
NewMotion	Netherlands	Transport	Acquisition	Royal Dutch Shell	–	Alliander | AutoBinck | DOEN Participaties | Egis Capital Partners | Entrepreneurs Fund | Tendris | undisclosed strategic investors
Parkmobile	US	Transport	Acquisition	BMW	–	BCD Holdings | Fontinalis Partners
Splitting Fares	US	Transport	Acquisition	Robert Bosch	–	Ann Arbor Spark | Jaguar Land Rover
Chargemaster	UK	Energy	Acquisition	BP	–	Beringea | BMW | ProVen Growth | Qualcomm
Black Duck Software	US	IT	Acquisition	Synopsys	$565m	Fidelity | Flagship Ventures | Focus Ventures | General Catalyst Partners | Intel | Red Hat | Sapphire Ventures | Siemens | Split Rock Partners
Kensho	US	Financial services	Other	S&P Global	$550m	Accel Partners | Alphabet | F-Prime Capital Partners | General Catalyst Partners | Goldman Sachs | New Enterprise Associates
Ascletis	China	Health	IPO	–	$400m	C-Bridge Capital | Focus Media | Goldman Sachs | Hangzhou Binjiang Investment | Pavilion Capital | QianHai Equity Investment FOF | Tasly Pharmaceutical | WTT Investment

each issued on the New York Stock Exchange. The company had initially targeted $300m for the IPO before setting a $10 to $12 range for 12.5 million shares. Cango operates an online platform that connects car dealers, buyers and financial institutions, helping to leverage financing for vehicle sales and provide after-sales services. It generated $55.6m in net income in 2017 from almost $168m in revenue.

NewMotion – a Netherlands-based electric vehicle charging station operator backed by vehicle distributor AutoBinck, energy distributor Alliander – was acquired by oil and gas company Shell for an undisclosed amount. Founded in 2009, NewMotion enables electric vehicle owners to charge their cars at more than 50,000 charging points across 22 countries. The stations draw their power primarily from renewable energy sources, and corporate clients can track the usage of each driver in their fleet through a cloud-based platform.

BMW acquired US-based parking space booking service and portfolio company Parkmobile for an undisclosed amount, allowing travel services provider BCD Group to exit. BMW had invested an undisclosed amount in Parkmobile in 2014. Parkmobile's platform enables motorists to hire parking bays through a mobile app which has more than 8 million registered users. BMW could adapt the company's software to allow drivers of its vehicles to hire parking spaces through in-car software. It has already integrated Parkmobile's services with its own parking location and booking app, ParkNow.

Industrial technology and appliance producer Robert Bosch acquired US-based carpooling platform Splitting Fares for an undisclosed sum, allowing carmaker Jaguar Land Rover's InMotion Ventures subsidiary to exit. The acquisition was InMotion's first exit. Founded in 2015, Splitting Fares has created an online platform that enables partner organisations such as businesses, universities and municipal authorities to organise ride-sharing for their staff members. It has about 140,000 users across the US, Mexico and Germany.

Petroleum supplier BP acquired Chargemaster, the UK-based operator of a network of electric vehicle charging points, for an undisclosed amount, allowing BMW to exit. Founded in 2008, Chargemaster designs, builds and installs electric vehicle chargers, and currently operates a network of 6,500 charging points across the UK involving both public and in-home systems. It receives money through a mix of subscription and pay-as-you-go fees. BP made the acquisition to support the installation of charging points on its garage forecourts.

Global Corporate Venturing also reported exits from emerging transport-related enterprises involving corporate investors from other sectors.

Meituan-Dianping bought China-based Mobike for $2.7bn. The transaction was reportedly being brokered by Pony Ma, chief executive of Tencent, which also owns a stake in Meituan-Dianping. Founded in 2015, Mobike operates an app-based, dockless bike-sharing service that has attracted hundreds of millions of registered users. The company launched a service in Paris in January 2018.

Nio – a China-based smart electric car developer with domestic corporates Tencent, Baidu, electronics manufacturer Lenovo and e-commerce portal JD.com as investors – raised about $1bn when it floated on the New York Stock Exchange. The IPO consisted of 160 million American depositary shares at $6.26 each, almost at the bottom of the $6.25

Top 10 exits from transport enterprises over the past year

Company	Location	Exit type	Acquirer	Size	Investors
Mobike	China	Acquisition	Meituan-Dianping	$2.7bn	Bertelsmann | Bocom International | Ctrip.com | Farallon Capital Management | Hillhouse Capital Management | Hon Hai | Huazhu Hotels Group | ICBC International | Joy Capital | Panda Capital | Qiming Venture Partners | Sequoia Capital | Temasek | Tencent | TPG | Warburg Pincus | private investors
Nio	China	IPO	–	$1bn	Baidu | Baillie Gifford | Citic | GIC | Hillhouse Capital Management | Hopu Investment Management | International Data Group | JD.com | Joy Capital | Lenovo | Pine Capital | Sequoia Capital | Shunwei Capital | Temasek | Tencent | TPG
Yixin Group	China	IPO	–	$867m	Baidu | Bitauto | China Orient AMC International | JD.com | private investors | Tencent
Uxin	China	IPO	–	$225m	Baidu | Bertelsmann | Coatue | Coller Capital | Hillhouse Capital Management | Huasheng Capital | Jeneration Capital | Legend Holdings | Tencent | Tiger Global Management | TPG | Warburg Pincus
Bluegogo	China	Acquisition	Biker	–	Black Hole Capital | Elex Technology
Ridlr	India	Acquisition	Ola	$50m	Indian Angel Network | Matrix Partners | Qualcomm | Times Internet
Cango	China	IPO	–	$44m	Didi Chuxing | Taikang Life Insurance Company | Tencent | Warburg Pincus
NewMotion	Netherlands	Acquisition	Royal Dutch Shell	–	Alliander | AutoBinck | DOEN Participaties | Egis Capital Partners | Entrepreneurs Fund | Tendris | undisclosed strategic investors
Carmudi Vietnam	Vietnam	Acquisition	Fram Skandinavien	–	Carmudi | Rocket Internet
Navdy	US	Other	–		Eniac Ventures | Formation 8 | Harman International Industries | Lightbank | Ludlow Ventures | Mesa-plus | Promus Ventures | Qualcomm | Upfront Ventures | Wareness.io | undisclosed

to $8.25 range the company had set. It valued Nio at $6.4bn.

Yixin Group, a China-based e-commerce marketplace operator spun out of automotive transaction services provider BitAuto, raised HK$6.77bn ($867m) in its IPO. The company issued almost 879 million shares on the Hong Kong Stock Exchange priced at the top of the IPO's HK$6.60 to HK$7.70 range. Its stock opened at HK$10 and briefly reached HK$10.18 before closing 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 provides leasing as well as financing for car purchases.

Uxin, a China-based automotive e-commerce platform backed by corporates Baidu, Legend Holdings and Tencent, floated on the Nasdaq Global Select Market, after having set its pricing range at $10.50 to $12.50. The company issued 38 million American depositary shares, representing 114 million ordinary shares. The company raised $225m, although it was expecting to raise up to $547m but was priced below the low end of its range. Founded in 2011, Uxin runs an online marketplace for used vehicles that includes tailored recommendations and related services such as insurance, financing, warranty and delivery. It also operates an auction-based service for businesses buying fleet vehicles.

China-based bicycle-sharing platform Bluegogo transferred its operations to its local peer Biker. Founded in 2016, Bluegogo operated a network of stationless bicycles that users can book, unlock and pay for through a mobile app. The company claims to have more than 20 million users. The company had reportedly fallen $30m into debt following its inability to secure series B capital, and competitors Ofo and Mobike both refused the option of an acquisition. Bluegogo has also suffered bad press – it was reported that the startup stopped paying staff and delayed wages until February 2018, amid allegations that the company's CEO Li Gang had absconded.

Ride-hailing company Ola acquired India-based operator of public transport tracking app Ridlr, backed by media firm Times Group and Qualcomm, for almost $50m. Founded in 2010, Ridlr has created a platform for buying tickets for public transport in 17 cities across India. The platform also monitors traffic jams using internet-of-things technology. Ola has not specified how it intends to integrate Ridlr into its own offering, only noting that it will add new technology and features to its product, allowing it to expand into additional locations.

IT service provider Fram Skandinavien bought the Vietnam arm of Carmudi, a car classifieds platform backed by e-commerce group Rocket Internet, for $50,000. Carmudi is an online classifieds portal for buying and selling new and used cars, motorcycles and commercial vehicles. Aside from the Vietnam incarnation, launched in 2014, it is available in six Asia-Pacific markets as well as Mexico, Qatar, Saudi Arabia and United Arab Emirates. Carmudi was founded in 2013 by Rocket Internet and raised $10m in series A funding the following year with contributions from Tengelmann Ventures, the corporate venturing arm of retailer Tengelmann, and other undisclosed investors.

Navdy, a US-based visual driving technology developer backed by Qualcomm, reached out to creditors as it prepared to liquidate, using a process known as "general assignment for the benefit of creditors". Founded in 2013, Navdy had created a control-based display for drivers to show information from their smartphone in the line of sight. The news about the liquidation process followed months of speculation about whether Navdy was still in business. Its social media accounts fell silent and customers have reportedly been unable to contact anyone at the company.

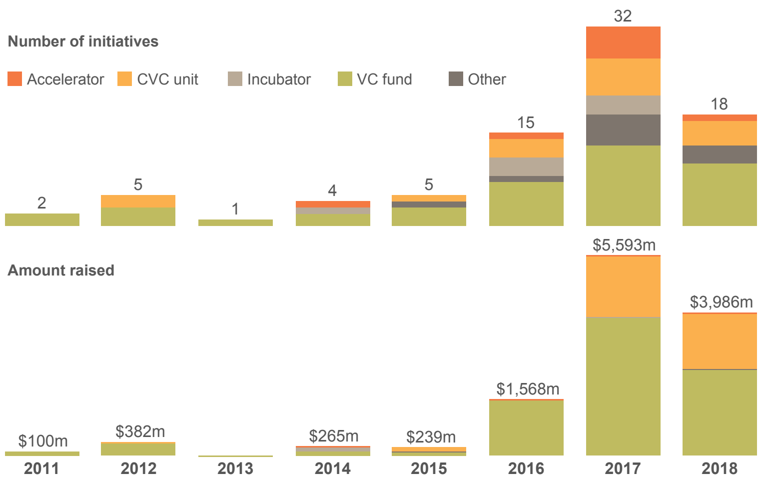
Funds

Between November 2017 and October 2018, corporate venturers and corporate-backed VC firms investing in the transport sector secured over $4.25bn via 23 funding initiatives, including four VC funds, four new venturing units, two accelerators and three other initiatives.

On a calendar year-to-year basis, funding initiatives more than doubled in number – from 15 in 2016 to 32 in 2017 – but then dropped to 18 by the end of October 2018. Total estimated capital followed a similar trail – from $1.57bn in 2016 to $5.59bn in 2017 and then down to $3.99bn by October last year.

Singapore-based logistics provider GLP launched a $1.6bn investment fund to target the logistics ecosystem in China. The fund will be managed by Hidden Hill Capital, the private equity arm of the corporate's local subsidiary, GLP China. Limited partners include unnamed insurance providers and long-term institutional investors, such as investment firm China Post Capital. The company has $50bn of assets under manage-

Transport sector fund initiatives 2011-18



SECTOR FOCUS

Transport sector funding initiatives over the past year

Funding initiative	Type	Funds raised	Location	Focus	Investors
Hidden Hill Modern Logistics Private Equity Fund	VC fund	$1.6bn	China	Transport, services	China Post Capital | Global Logistics Providers | Hidden Hill Capital
Alliance Ventures	CVC unit	$1bn	France	Transport	Mitsubishi | Nissan | Renault
B Capital Fund	VC fund	$360m	US	IT, Transport, industrial, health, financial, services	Boston Consulting Group
Grab Ventures	CVC unit	$250m	Singapore	Consumer, transport, services, financial	Grab
CarTech Fund	VC fund	$226m	China	Transport	Cathay Capital | Valeo | Yangtze River Industry Fund
Apollo Southeast Asia	VC fund	$200m	China	Transport	Asia Mobility Industries | Baidu
Lockheed Martin Ventures	CVC unit	$200m	US	IT, industrial, transport	Lockheed Martin
Aspect Ventures II	VC fund	$181m	US	IT, health, transport	Cisco Systems
State Farm Ventures	CVC unit	$100m	US	Transport, financial, IT	State Farm
Unnamed Aisin-Fenox fund	VC fund	$50m	US	Transport	Aisin Seiki | Fenox Venture Capital

ment, much of which is concentrated in real estate, and it expects to establish additional funds in future. The fund will invest in adjacent growth sectors that complement GLP's real estate business, with a focus on companies employing technology to enhance efficiency in the logistics industry.

Automotive manufacturing partnership Renault-Nissan-Mitsubishi launched corporate venturing fund Alliance Ventures to invest up to $1bn in startups. The unit intends to provide up $200m to startups and open innovation projects in its first year of operation – the $1bn is available over a five-year period. The alliance, initially formed when France-based Renault and Japan-based 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 will invest at all stages of company development as well as incubating new businesses *(see people, overleaf)*.

B Capital Group, a 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 global investments in healthcare, financial and insurance technology, transportation and industrial logistics, and what it refers to as consumer enablement. B Capital Fund had reached its first close at about $144m in 2016, and co-founders Eduardo Saverin and Raj Ganguly hinted at the time that the firm was aiming for a final close of about $250m.

Grab launched investment arm Grab Ventures to invest in eight to 10 startups over the next two years. The company will also operate an accelerator program, Velocity, targeting growth-stage businesses, in addition to incubating new services from within Grab. Velocity will accept four to six companies per cohort. Grab has recruited Singapore government agencies Info-communications Media Development Authority of Singapore and Enterprise SG as partners. Grab Ventures will invest across Southeast Asia.

China-based private equity firm Cathay Capital launched a RMB1.5bn ($226m) automotive technology fund, with 25% of the capital coming from automotive components supplier Valeo. Yangtze River Industry Fund, a vehicle formed by the government of Hubei province, and Valeo are the cornerstone investors in CarTech Fund, which also received backing from undisclosed additional investors. CarTech Fund will invest in China-based car and new mobility technology developers over a four-year period. The fund will focus on electrification, digital mobility, and autonomous and connected car technology, as China's transport industry gears up to introduce autonomous vehicles.

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

Aerospace and defence company Lockheed Martin doubled to $200m the level of funding its corporate venturing arm Lockheed Martin Ventures holds under management. The additional $100m followed tax form legislation in the US and will primarily go to early-stage startups in the areas of sensor technologies, autonomy, artificial intelligence and cybertechnology. The fund will invest in sectors such as autonomy and advanced manufacturing. The increased funding for the corporate venturing division forms part of a $460m commitment Lockheed Martin is making across its business operations.

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 has also committed to the fund, as has Melinda Gates, co-chairwoman of philanthropic organisation Bill & Melinda Gates Foundation. Aspect Fund II will invest in early-stage technology startups, following the model of the firm's $150m first fund, which was launched in 2015 to target sectors such as cybersecurity, digital health, autonomous driving and artificial intelligence.

US-based insurance firm State Farm started $100m corporate venturing fund State Farm Ventures. State Farm's core business involves life, health, property and casualty insurance as well as financial services products, but it has also moved into areas such as home automation, connected care and backup energy technology. The company did not disclose any venturing investments but it runs open innovation and research hub 485 Think Lab, and was one of 11 corporates providing $11m for autonomous vehicle research lab Mcity in November 2017.

Japan-based automotive component maker Aisin Group 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 as general partner. Aisin will provide capital as a limited partner and will offer portfolio companies help to expand 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.

People


Noske

Christian Noske joined the $1bn corporate venturing fund formed by automotive alliance Renault-Nissan-Mitsubishi. Noske was appointed managing director of Alliance Ventures, which received 40% of its capitalisation from each of Renault and Nissan, while Mitsubishi suppled the other 20%. Noske will work alongside François Dossa, chief executive of Nissan Brazil since 2012, who left his old position to lead Alliance Ventures and co-manage its creation with its deputy head, Matthieu de Chanville, formerly a senior executive at consulting firm Boston Consulting Group. Alliance Ventures hired Noske from a BMW i Ventures, the corporate venture capital unit of the eponymous Germany-based car maker, where he was a partner.


Prior

Sherwin Prior left General Motors' corporate venturing unit, GM Ventures, to set up venture capital firm Blue Victor Capital. Prior joined GM Ventures in September 2010 and was "responsible for a range of activities including GM Ventures strategy, operations, deal-sourcing, deal negotiations and ongoing portfolio management", he said. Wade Sheffer joined corporate venturing unit GM Ventures as managing director following the departure of Sherwin Prior. Before joining GM Ventures, Sheffer was executive director of chassis purchasing at GM. He joined GM in 1996 as a test engineer at the Milford proving ground. In 1999, he transitioned to the North America outbound logistics quality team and was based in Germany from 2002 to 2005. Sheffer relocated to Shanghai, China, in 2006 as deputy executive director at Shanghai General Motors in charge of purchasing. In 2009, he returned to the US where he held various leadership positions in global purchasing and supply chain.


Grass

Katherine Grass left travel services provider Amadeus, having established its Amadeus Ventures unit, for a venture partner position at travel-focused venture capital firm Thayer Ventures. Grass originally joined Amadeus in 2006 in a corporate strategy role before head its new corporate venturing subsidiary when it was formed in 2013. She was promoted to global head of innovation for the company the following year.


Yu

Nathan Yu, former vice-president of China-based carmaker Geely Holding Group, joined Nio Capital, the corporate venturing unit backed by Nio, as its fourth managing partner. Yu joined fellow managing partners William Li – also Nio's founder and chairman – Ian Zhu, who was formerly at Tsinghua Holdings' Tsing Capital unit, and Junyi Zhang, who used to head automotive activities at consultancy Roland Berger China.

Aditya Kumar, an experienced corporate venture and venture capitalist in Southeast Asia, joined Indonesia-based on-demand ride provider Go-Jek as vice-president of corporate development. The move took place while Go-Jek was in the process of raising up to $1.5bn, at a reported $4bn valuation, in a round including JD.com, Alphabet, Tencent, Meituan-Dianping and insurer Allianz.


Boshier

Craig Boshier joined Yamaha Motor Ventures & Laboratory Silicon Valley (YMVSV), Japan-based electronics and automotive manufacturer Yamaha's corporate venture capital subsidiary, as an Australia-based general manager. Yamaha hired Boshier from health and wellness consultancy Valu Health, a healthcare consultancy he founded after leaving BCG Digital Ventures, a subsidiary of consulting firm Boston Consulting Group where he was managing director. Boshier told Global Corporate Venturing that YMVSV had only been present in Australia for a few weeks and its priority was to establish offices and staff to cover the country as well as nearby markets such as New Zealand and Southeast Asia.

JetBlue Technology Ventures, the corporate venturing subsidiary of US-based airline JetBlue, promoted investment associates Christina Heggie and Ajay Sharma to investment principal. Heggie joined JetBlue as an investment associate in June 2016 and led its investment in Recharge Labs, a hotel booking app developer. Before joining JetBlue, Heggie was a marketing manager for Checkmate, a mobile services platform for hotels, and he had also held consultant roles at short-term accommodation providers such as Mövenpick Hotels & Resorts, Starwood Hotels & Resorts and AirBNB. Sharma was a founding member of the JetBlue venturing team.


Heggie


Sharma

Jeannine Sargent, president of innovation and new ventures at Flex, a US-based logistics services company, became a

SECTOR FOCUS

senior adviser at fund manager Generation Investment Management. Sargent had spent nearly six years at Flex, being "responsible for worldwide innovation activities including innovation labs, global design and engineering, launching new product businesses, the Lab IX technology accelerator, and corporate and venture investments".

Jill Ford, head of innovation and entrepreneurship for the US city of Detroit, joined Toyota AI Ventures, a Silicon Valley-based corporate venturing subsidiary of Japan-based Toyota, as principal. Ford had previously spent three years as the mayor of Detroit's special adviser to identify, design and lead the implementation of initiatives to attract and grow startups and small businesses in the city. Before the Detroit role, Ford had been an angel investor based in San Francisco and a venture partner for a social impact investing fund. ◆

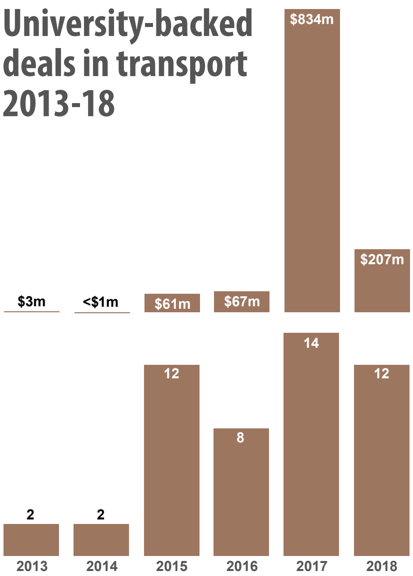

Ford

University and government backing for transport companies

GCV's sister publication Global University Venturing has reported various commitments to university spinouts in the transport sector. By the end of October 2018, GUV had reported 12 rounds raised by university spinouts, fewer than the 14 registered the previous year. The level of estimated total capital deployed in 2018 was $207m, considerably lower than the estimated $834m in 2017.

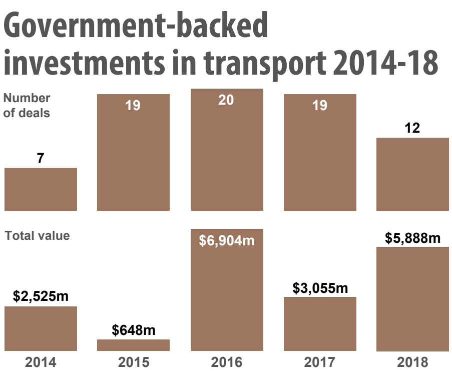
Yasa Motors, a UK-based electric motor manufacturer spun out from University of Oxford, attracted £15m ($21.4m) in a growth equity round featuring spinout-focused investment firm Parkwalk Advisors. Investment firm Universal Partners also participated in the round. Spun out in 2009, Yasa manufactures electric motors and generators. Its prime market is the automotive sector, but its systems are increasingly being used in the aerospace and marine industries.

Tier IV, a Japan-based autonomous driving technology developer, raised ¥3bn ($28.4m) from investors including University of Tokyo Edge Capital, the institution's venture capital arm. The round also featured telecoms firm KDDI and consumer electronics producer Sony, through its Innovation Fund, as well as venture capital firm Jafco. Founded in 2015, Tier IV is developing open-source operating system Autoware to power driverless vehicles.



May Mobility, a US-based autonomous transportation developer that holds five licences from University of Michigan, announced it had raised $11.6m in total. The spinout's backers include VC firms Tandem Capital, Trucks Venture Capital and seed fund Maven Ventures. May Mobility aims to launch self-driving shuttle buses in Detroit.

Government investments in transport-related enterprises, reported by GCV sister publication Global Government Venturing, remained relatively stable at 19 or 20 deals a year between 2015 and 2017. The estimated total capital in those rounds reached a peak at $6.9bn in 2016 but dropped to $3.05bn in 2017. By the end of October 2018, GGV had reported fewer deals (12) but considerably more investment value ($5.88bn).



Saudi Arabia's Public Investment Fund reportedly invested at least $1bn in Lucid Motors, a US-based luxury electric vehicle developer in which conglomerate Mitsui is also an investor. Originally founded as advanced battery developer Atieva before shifting focus in 2016, Lucid is working on Lucid Air, an all-electric luxury four-door car expected to have a range of 400 miles per charge. It will also incorporate features such as voice-activated controls and updatable software, meaning the car could advance through consecutive stages of autonomy. The sovereign wealth fund made the investment through a special purpose vehicle, and the funding is intended to support a launch in 2020.

Singaporean state-owned investment firm Temasek paid $225m for a stake in India-based corporate-backed ride-hailing platform Ola through a secondary share purchase. Temasek will take a single-digit stake according to sources, buying shares from early investors. It is also considering investing money directly in Ola, which is reportedly in negotiations with investors to raise $1bn in new funding. Formerly known as Olacabs, Ola runs an on-demand ride service that spans some 110 Indian cities, with a reported 125 million registered users. The company booked a loss of about $540m during the 2017 fiscal year. ◆

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ANALYSIS

Why private market strategies are outperforming public ones

James Mawson, editor-in-chief

The astonishing development of the private capital markets for fast-growing companies in the past five years is easy to record but only when put against public markets does the transformation in liquidity become apparent. Last year GCV Analytics tracked 2,775 deals worth an estimated $180.17bn of total capital raised *(see more in our annual review, the World of Corporate Venturing 2019, to be published at the Global Corporate Venturing & Innovation Summit at the end of the month).*

While the number of deals was a notable increase on a year-on-year basis (14%) compared with the 2,427 transactions reported in 2017, the total value of corporate-backed VC rounds grew by 55%, reaching another record high. The number of deals has risen by 60% since 2014's 1,732, while total value has almost quadrupled. A simple reason – the number of corporate venturers per given year has more than doubled, from 702 in 2014 to 1,591 in 2018, but the experienced, such as SoftBank, Tencent and Naspers, are doing even more.

This means that of all VC activity, corporate venturing's share by volume has increased from 8% in 2014 to 18% in 2018, using data provider PitchBook's numbers for the overall venture capital market.

ANALYSIS

The percentage of money coming from corporates is harder to measure given the opaque nature of private markets. However, the entire VC market amounted to $255bn of deals last year, of which corporations where involved in $180bn, so it is likely a higher proportion of the capital is coming from CVCs considering their deeper pockets.

One deal this month sums up the change. Singapore-based on-demand ride service Grab has increased the potential size of a series H round, already backed by several corporate investors, to $5bn.

The company has been raising money for this round since June, when it received $1bn from Toyota, adding $1bn in August from other investors, including Ping An Capital. The Mirae Asset–Naver Asia Growth Fund also backed the second close, after Booking Holdings invested $200m in October before Hyundai and Kia Motors provided $250m weeks later as Grab revealed the round included Microsoft, Citi Ventures and Goldman Sachs Investment Partners.

The company raised a further $50m from Kasikornbank the same week and secured a $150m commitment from Yamaha Motor last month to take the round to $2.85bn. Grab said it had planned to close the round at $3bn before the end of the year but the SoftBank Vision Fund is apparently interested in investing up to $1.5bn in the round, encouraging Grab to increase its size. It had previously raised a total of $3.7bn in funding.

For context, a $5bn round, let alone the estimated $8.7bn total it would then have, would put Grab just outside the top 10 largest IPOs on US stock exchanges, the world's deepest and most liquid markets, according to financial publisher Kiplinger.

A total of 191 companies went public in the US last year, raising $46.8bn. That was up from 2017's 160 IPOs and $35.5bn of proceeds but just a fraction of the private market's appetite. Add the similar amount estimated to have been raised on Europe's stock markets – it was $29.4bn in the first nine months – and China's exchanges – the most active by IPO volumes, with about $58.4bn raised last year in Hong Kong, Shanghai and Shenzhen, and the global public markets come to about two-thirds of the CVC-backed total and half of the overall venture market.

Strategic investment brings added value to portfolio companies that can help boost their performance

The flow of capital to private markets might be fickle but there is an underlying reason – strategic investment brings added value to portfolio companies that can help boost their performance. Better governance and leverage over listed peers is a long-held rationale behind private equity-backed portfolio companies' growth and performance but less clearly observed in the syndicated support of growth companies.

But with greater focus on an entrepreneur's five primary needs – capital, customers, product development, hiring and an exit – if an investor can offer more than capital, they portfolio company benefits. With passive investors dominating public markets, active managers broadly limited to deciding which companies to buy and sell, and some activist hedge funds focused on financial structures, break-ups and mergers, actually helping with a company's core business can deliver lucrative growth and a commensurate rise in shareholder value.

We are now seeing some successful corporate investors in the private markets trying to bring the model to the public ones. In a post at the end of October, Kasim Kutay, CEO of Novo Holdings, a $50bn Denmark-based investor in public and private life sciences companies, described its Principal Investments activities, and, in particular, its "lighthouse" strategy.

He said: "The Principal Investments team of Novo Holdings focuses on investing in larger or well-established life sciences companies. An investment typically exceeds $300m, and we aim to take positions of at least 10% in a company along with board representation.

"For the lighthouses in our portfolio, such as Chr Hansen and ConvaTec, and indeed for all our public holdings, we practise engaged ownership to optimally generate attractive long-term returns. The underlying philosophy is that, as highly-active life sciences investors, we deliver added value to our portfolio companies, regardless of how well run they are.

"The engaged ownership approach rests on two key tenets. First is representation on the board and second is our life sciences value-add. We bring ideas and suggestions to a board and management team. We can also raise an agenda through the board. We leverage knowledge in ever-widening circles to deliver as much value as we can."

Or take China-based media and internet company Tencent, whose portfolio companies have raised billions of dollars in IPO proceeds in the past few years but which has held on to the equity even as the value of its own holdings have climbed into the tens of billions of dollars. This follows a similar strategy used by its own corporate venturing backer, Naspers, as it reflects the added value long-term partners can bring.

The question for the rest of the investment market is: will they catch up or do they risk oblivion? ◆

SPECIAL REPORT

Venturing in 2018 – the trends

Rob Lavine, news editor

SoftBank's Vision expands

It is fair to say no VC investor – corporate or otherwise – has had as big a year as SoftBank Vision Fund's 2018. The fund expanded from $97.7bn to $98.6bn over the course of the year, and though it is yet to reach that 12-figure targeted close, barely a week went by without it making a large investment of one kind or another.

The most notable of those deals included a $1.1bn investment in dynamic glass supplier View, up to $2.25bn for autonomous driving technology developer Cruise, $2bn for e-commerce platform Coupang and a $3bn commitment to workspace provider WeWork. The fund has also made large investments in the likes of Oyo, OpenDoor, Zymergen, Wag, Zume and Cohesity.

The vehicle is showing no signs of slowing down, making nine-figure investments in flexible car provider Fair and telematics technology provider Cambridge Mobile Telematics last month. It also generated its first big return – an estimated $1.5bn profit on the $2.5bn it invested in Flipkart last year, when Walmart acquired a majority stake in the e-commerce marketplace in August.

None of that is to suggest that it has all been rosy for the Vision Fund. It is still in a growth phase, expanding its team and exploring an entry into the Chinese market, but a pledge of $45bn from Saudi Arabia's Public Investment Fund for a second fund was called into question by the murder of journalist Jamal Khashoggi in a Saudi consulate in October, and recent news that its limited partners are opposed to a $16bn acquisition of WeWork suggests it may have a harder time of it in 2019.

That is bad news for SoftBank, as the fund's rapid rate of investment means it may well have to raise a second fund just to ensure it can make follow-on investments in portfolio companies, and it is reportedly already seeking a total of $13bn from two credit facilities. Such is the weight of its current participation in venture funding, a downturn in its activity could end up impacting the tech space as a whole.

IPOs return to prominence

The IPO market had been recovering slowly since late 2016 but in 2018 it really accelerated, with the number of corporate-backed tech IPOs reaching 79 by the end of November, 10 more than the last high point in 2014, generating more than $25bn of proceeds.

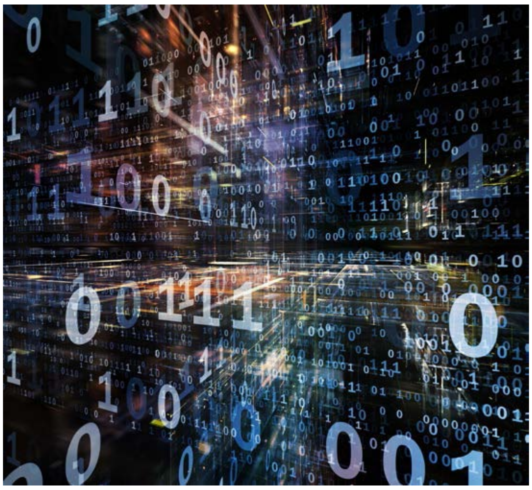
Banner offerings included fashion e-commerce platform Farfetch floating in an $885m offering in September, Dropbox becoming the latest enterprise unicorn to go public in an $869m IPO in April, Moderna fetching $604m last month in what was reportedly the largest IPO yet by a biotech company, and music-streaming platform Spotify opting for a direct listing in April, an approach now being considered by several other unicorns.

The US IPO market may have looked good but Hong Kong was really booming, in the wake of new regulations implemented in April allowing companies to sell dual-class shares and non-revenue-generating businesses such as drug developers to float. The largest offering in Hong Kong involved telecoms tower manager China Tower raising $7.5bn, but electronics manufacturer Xiaomi raised $4.7bn in June and local services platform Meituan Dianping secured $4.2bn in September, floating at the top of its range at a $52bn valuation. However, the share price of both are markedly down since their IPOs, and the viability of the Hong Kong Stock Exchange is being questioned by other Chinese companies looking to list.

In addition to straight tech IPOs, SoftBank and Tencent both spun off subsidiaries in lucrative offerings. SoftBank Group's mobile subsidiary, SoftBank Corp, went public last month in a $24bn IPO that was the second-largest in history – behind Alibaba – while Tencent unit Tencent Music raised $1.1bn when it floated earlier in December.

Right now, however, it looks as if next year could be the biggest yet for tech IPOs, with the likes of Uber, Lyft, Slack, Pinterest and AirBNB among the decacorns that have confidentially filed for an offering, hired banks to oversee a flotation or stated that they have targeted 2019 to go public. The big question is whether the poor performance of the markets in 2018 means they have left it too long.

Crypto grows its presence



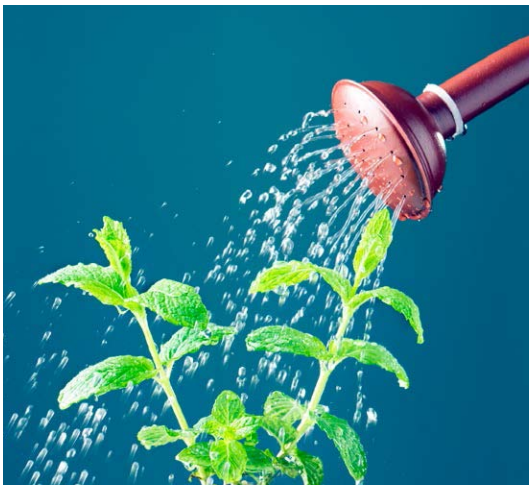
Digital currencies and crypto-technology continued to expand in 2018, and one notable development is that companies in the sector have begun to become active corporate venturers themselves.

Cryptocurrency trading platform Coinbase set up Coinbase Ventures in April while another exchange, Binance, committed $1bn to a strategic investment fund in June that was followed by an incubator in August. Both have been among the most active new entrants in the space, but Ripple also began investing, and it feels like almost every time a cryptocurrency or blockchain startup raises funding we see a new operator among the investors.

Corporates began to explore the sector more thoroughly too. Messaging platform Line launched $10m digital token fund Unblock Ventures in August, while internet company Kakao took part in a $15m cryptocurrency-only round for hybrid blockchain platform Orbs last month, suggesting this structure may become increasingly common.

Initial coin offerings may not have grown to the extent some predicted a year ago, and stablecoin may not be as viable as was expected, but the continued interest in blockchain technology means that in 2019 there may well be some significant rounds to follow the $300m raised by Coinbase in October and the $110m secured by cryptocurrency finance platform operator Circle at a $3bn valuation in May.

Agriculture's new approach



Farming and agriculture became increasingly important to corporate venturing over the course of the year, as the need for fresh local produce precipitated new models and corporate investors began to dip their toes into funding cannabis startups.

Urban farming first began to emerge properly in 2017, but activity increased this year, as more and more businesses began exploring an approach that involves combining vertical indoor crops with advanced sensor and artificial intelligence technology.

Alphabet investment unit GV led a $90m round for Bowery last month, following earlier investments in meat substitute developers, while BrightFarms doubled its overall funding to $111m in a $55m series D round in July, and InFarm received $25m in a February series A round. Elsewhere in agriculture, plant breeder Cibax filed for a $100m IPO, and crop technology developers Pivot Bio, Benson Hill Biosystems and AgBiome all raised substantial sums.
The distribution process also attracted disruption, as farm-to-plate platforms began to spring up, particularly in Asia.

The vertical farming approach owes some debt to the practices pioneered by cannabis growers, and as recreational cannabis becomes legal in more and more locations, and the sector attracts more funding, the question is how long it will take corporate investors – who have been understandably skittish – to get involved.

The answer is likely to mirror activity in the cryptocurrency sector, with the most active corporate participants consisting of the largest players in that industry. The likes of Scythian Biosciences and MJardin may not be immediately familiar to some, but they both took part in deals this year, and may well ramp up their investment activity in 2019. The tobacco industry has also begun to take notice, so be prepared to see companies such as Imperial Brands and Aleria popping up more often in deals.

The new breed of Chinese tech giants emerges

While WeChat owner Tencent, e-commerce firm Alibaba and internet group Baidu remain the largest players in Chinese tech, last year some of their biggest counterparts – and in some cases portfolio companies – accelerated growth and began to make their presence felt in corporate venturing.

Bytedance was already known as the operator of China's most popular news aggregation app, Toutiao, but some crafty acquisitions – in particular that of Musical.ly – widened its reach into a more diversified digital media company that received $3bn of funding from SoftBank in October at a reported $75bn valuation. Musical.ly was merged with Bytedance's TikTok short-form video app and became the company's star attraction, and by December ByteDance had followed investments in companies including 17Zuoye by pledging some $280m for a $1.44bn corporate venturing fund.

Meituan Dianping, meanwhile, went public at a $52bn valuation, floating at the top of its range in Hong Kong in September to raise $4.22bn, $400m of which was a cornerstone investment by shareholder Tencent. Meituan Dianping had already flexed its muscles by paying $2.7bn to acquire bicycle rental service Mobike in April. The subsequent downturn in China's bike-sharing industry and the decline in Meituan Dianping's share price – down more than two-thirds from the IPO price – may not be good signs, but the company has the basis for some rapid growth.

China's increasingly oppressive surveillance society is throwing up some rapidly-growing players, especially in the image recognition sector. SenseTime secured $620m in series C-plus funding at a $4.5bn valuation in May, and was in talks to raise $1bn from the SoftBank Vision Fund in July. By August it had hired Jennifer Xuan Li from Baidu as investment director, having invested in 51HiTech, Helian, Suning Sports and Moviebook last year, subsequently backing a $173m round for internet-of-things technology producer Terminus Technologies in October.

SenseTime's biggest rival, Megvii, is looking to raise a $500m round that will be closed at an expected $3.5bn valuation. Also known as Face-plus-plus, Megvii has also begun to take part in corporate venturing, investing in retail technology provider XianLife and video-based image recognition technology supplier Video-plus-plus.

Technology drives transport forward

Autonomous driving software continued to progress, as the added corporate interest in 2017 blossomed into some huge rounds. SoftBank invested up to $2.25bn in Cruise in June, Pony AI closed a $214m round in July and Momenta secured a $1bn valuation in October, while lidar sensor developer Quanergy raised funding at a $2bn valuation, and automotive mapping software providers DeepMap, MapAnything and RoboSense all raised cash.

The Renault-Nissan-Mitsubishi partnership unveiled $1bn strategic fund Alliance Ventures in January, shortly before internet group Baidu formed a $200m investment initiative together with mobility and artificial intelligence technology producer Asia Mobility Industries later the same month. Aisin Group, Volvo and Toyoda Gosei also launched auto-tech funds.

There was growth in trucking services marketplaces. Manbang Group nabbed $1.9bn at a $6.5bn valuation in April and is in talks with Tencent and SoftBank to add $1bn more in a round that will value it at $9bn. Its chief rival, Fuyoukache, raised $170m in a series D round last month, and Convoy and Next Trucking extended the business model to the US, the former notching up $185m in a September series C round, while LetsTransport transplanted the model to India.

Fleet management technology also got a healthy boost, with G7 Networks closing a $320m round backed by Tencent, Total and GLP last month. Telematics technology providers Cambridge Mobile Telematics, TransWiseway and KeepTruckin secured $500m, $102m and $50m respectively.

Advances in autonomous driving also fuelled investment in a new breed of car producers as a raft of smart electric vehicle makers emerged from China to take on Tesla, including Nio, which floated in a $1bn IPO in September, while Xiaopeng Motors secured $348m in January and another $585m in August, Chehejia completed a $475m series B round in March and carmaker FAW invested $260m in Byton in May.

Scooters pick up the slack in on-demand transport

If 2017 was the year bicycle-hiring apps made the pace, last year turned out to be all about electric scooter services, particularly in the US where the bicycle-rental platforms never fully took off.

The big winners were Lime, which raised $335m in a July round led by GV that included on-demand ride provider Uber, and Bird, which had secured $300m at a $2bn valuation a few weeks earlier, in a round that contained no corporate investors.

Even by modern standards, the pace of growth for both has been staggering. Lime closed that round at a $1.1bn valuation just five months after raising $120m in series B funding, and had hired GV's Joe Kraus as chief operating officer by November. Bird's valuation rose exceeded its $300m with another $100m round in March, in the process reportedly becoming the fastest independent company to achieve a 10-figure valuation.

As with ride-hailing, the model is extending internationally, with India-based Vogo raising $100m and Europe-focused Dott securing $22.5m in corporate-backed rounds in recent weeks, adding to the $49m received by France-headquartered Cityscoot in February.

It is not clear how viable the model is in the long term, particularly considering the trouble afflicting the bicycle-sharing industry. Ofo raised more than $2bn in 2017 but is reportedly close to collapse after excessive growth and repeated breakage, with some 11 million customers said to be seeking refunds. The higher costs associated with electric scooters could make those operators more vulnerable.

Genomics generates big money

Healthcare had a healthy year, but much of the big money was directed toward genomics-focused companies, and Illumina, which launched its Illumina Ventures unit less than three years ago, proved to be a big winner.

Personal genomics platform developer Helix completed a $200m series B round featuring Illumina and Mayo Clinic in June, and Illumina also invested in Kallyope, which uses genomics technology to target the gut-brain axis, and which closed its own series B round at $87m in December. GlaxoSmithKline invested $300m in personal genetics service 23andme in July, genetic sequencing technology producer Oxford Nanopore Technologies closed a $206m round in October and contract genomics service provider Wuxi NextCode received $200m in November. Others in the sector, including Genomatica, uBiome, Genetron and Singlera Genomics, also raised substantial sums.

An Illumina spinoff, cancer test developer Grail, raised $300m at a $1.6bn valuation in May and had reportedly considered Hong Kong for an IPO before news emerged last month that it had switched its focus to the US markets. Illumina's largest exit involved Myriad Genetics paying $375m for genetic screening service Counsyl in May.

Elsewhere in healthcare, Flatiron Health scored a huge exit for investors including GV in February, when Roche agreed to acquire it in a deal that valued the cancer research software provider at $2.15bn. Meanwhile, Moderna Therapeutics, the messenger RNA drug developer that closed the largest funding round for a biotech developer in 2015, went public in the largest IPO yet for a biotech company, securing $604m in the process. ◆

SPECIAL REPORT

The most important trends of 2018 and the big issues for 2019

In our annual survey of corporate venturing industry leaders, we asked what were the most important trends in 2017 and sought their insights into the big opportunities of 2018.

James Mawson, editor-in-chief

By covering all sectors and all regions, the Global Corporate Venturing annual survey of investors is a unique snapshot of the technologies that caught the eye of venturers last year and offer potential for this year.

Artificial intelligence (AI) and blockchain shone on many investors' eyes as the big tech issues of 2018. Looking ahead reveals these developments are still being closely watched, along with interest in wider fields, from fusion power to outer space, implantable therapeutics to disease-modifying drugs.

Ultimately, as Tom Bussey at HSBC said, it is about "moving more towards emerging technologies being used to solve real problems rather than the development of technologies for no considered purpose". In this, changes in regulation and society as much as new inventions hold the key.

In alphabetical order:

Nicolas Bailleux, group innovation director at Europcar Mobility Group, said blockchain was his big tech area of interest last year.

Ran Bar-Sella, vice-president of corporate innovation at Elbit Systems and CEO at Incubit Technology Ventures, for last year said:" AI, internet-of-things sensors, automotive sensors." And this year would be AI.

Bar-Sella

Jasper Bos, new head of M Ventures, for 2018 said: "In our field, still immuno-oncology drugs, the large acquisitions in cell therapies in oncology, and the further inroads that gene therapy and RNA therapeutics are making." He added for 2019: "Alternative therapeutic modalities and disease modifying drugs."

"Moving more towards emerging technologies being used to solve real problems rather than the development of technologies for no considered purpose"

SPECIAL REPORT

Paulo Braga, head of corporate venture at Eurofarma, said: "There were a couple of exciting technologies in 2018, but artificial intelligence and big data played a big role this past year, especially in the healthcare ecosystem." He added for 2019: "Healthtechs and digital therapies, especially the ones using AI to make easier, faster and cheaper treatments and diagnostics. We are in an imminent disruption phase within the sector and with great changes comes great opportunities."


Braga

Laurel Buckner, senior vice-president and managing director at ATN Ventures, for 2018 said: "AI, machine learning, hybrid cloud, 5G's promise and beginning debut of high bandwidth low-latency networks."


Buckner


Bussey

Tom Bussey, investment manager at HSBC Ventures, for last year said: "Moving more towards emerging technologies being used to solve real problems rather than the development of technologies for no considered purpose – the application of these technologies to specific problems should make for an exciting 2019." In addition, he added this year: "Changes in regulation often drive innovation – I am keeping a close eye on opportunities driven by open banking."


Cannestra

Tony Cannestra, director of corporate ventures at Denso, last year said: "The continued rise of semiconductor startups trying to solve the deep learning, machine learning and AI computer power issue." This year he added: "New mobility and advanced transportation; shakeup of startups in the industry will begin."

Tim Chater, executive partner at Pilot Lite Ventures, said: "Emergence of AI into mainstream" in 2018 was the big issue and AI would again be for 2019.


Cheng

Ann Cheng, senior investment manager at Hyundai Motor's Cradle, said AI was important in 2018, while adding blockchain for 2019 on top.

Andrea Course, principal at Schlumberger Technology Investments, for last year said: "Clean tech, internet and things and energy transition technologies." She added for 2019: "I think the trend will keep on growing on trying to find technologies that will allow us to innovate and optimise our current processes." While her colleague, **Jennifer Grigel**, added that edge computing, security, digital twins were 2018's big issues and IoT-enabled applications would be for 2019.


Course

Peter Cowley, head of Marshall's Martlet corporate angel fund, for last year said personalised medicine was his choice of tech, while also having concerns about the "worrying increase in hype of initial coin offerings (ICOs), crypto and blockchain". This year he expected: "ICOs are regulated out of existence – although that make take longer. Better deals if anticipated global downturn starts."


Cowley

Dirk De Boever, head of investments at Finindus, said AI dominated 2018 while industry 4.0 would do so in 2019.

Victoria De La Huerga, vice-president at Archer Daniels Midland's ADM Ventures, last year picked "digital everything, Amazon Go, big data and AI," while 2019 would see opportunities for cannabis and hemp.

SPECIAL REPORT

Christophe Defert, vice-president of Centrica Innovations, for last year said: "Everything as a service." This year he has "AI and autonomous technologies beyond mobility" as the main issue.


Defert

Michaela Dempsey at Scout RFP, for last year said: "Advancement in machine learning's intelligent analytics, internet of things and virtual reality." She added for this year: "Advancing machine learning as there is no AI without advancing this step. IoT is already out there and needs to be maximised."

Michael Dolbec, executive managing director at GE Ventures, said AI and edge computing were important in 2018 and would be again this year. His colleague, **Alex de Winter**, added: "Widespread application of blockchain and AI" in 2018 and AI for clinical decision support, precision medicine for 2019.


De Winter

Lara Druyan, managing director and head of innovation for the west coast US at Royal Bank of Canada, said: "AI is now being used to solve tangible problems and create value for customers, especially in financial services. Previously, many of the companies felt like technology in search of problems to solve." She added that for 2019: "AI will continue to be an important area. So will next generation architecture as the enterprise continues to be ripped and replaced."

Matthieu Eyries, managing direct at Air Liquide Group's Aliad corporate venturing unit, said last year;s trends were digital health and smart cities, while air quality and foodtech were the ones to watch in 2019.

Hélène Falchier, head of private equity and CEO of Open CNP at CNP Assurances, said AI was important in 2018, while "AI and maybe blockchain" would be in 2019.


Fischer

Albert Fischer, co-owner at Yellow&Bue FS and formerly with Nuon, for last year and this said: "Energy storage in the broadest sense."

Guenia Gawendo, innovation investments and scouting director at Telefónica, said edge computing was driving last year and this year, while **Miguel Arias, global entrepreneurship director** at Telefónica, said blockchain, AI applied to enterprise and the internet of things.

William Germain, former private equity investment professional at M&G's Infracapital now at Techstars, said for 2018: "Data analytics, artificial intelligence, re-engineering technologies." For 2019 he added: "Automated platforms and services across a range of sectors – leveraging technologies such as data analytics and artificial intelligence."


Gogolev

George Gogolev, general manager at Severstal Ventures, for last year said "material informatics".

David Goldschmidt, vice-president and managing director at Samsung Catalyst Fund, for last year said AI, while this year would be more about blockchain-related tech.

Scott Gunther, director of commercial development at IAG's Firemark Ventures, said computer vision drove last year and this year in tech.


Hollins

Brian Hollins, growth equity investor at Goldman Sachs, said: "Prescriptive analytics, sales enablement, robotics process automation." For 2019 he added: Continuous data protection, edge computing, genomics."

SPECIAL REPORT


Kabir

Amir Kabir, principal at Munich Re Ventures, for last year said: "Artificial intelligence, especifically neuro-lingusitic programming, semantic analysis, robotics process automation and bots.


Kamalia

Ankur Kamalia, managing director and head of venture portfolio management at Deutsche Boerse's DB1 Ventures, for last year said: "Digital asset infrastructure build. Data privacy issues." He added "platform expansion, digital assets, enterprise fintech" for 2019.

George Kellerman, new CEO of Yamaha Motor Ventures, said: "The rise of vertical take-off and landing for autonomous aerial commuter vehicles" was last year's big issue. And agricultural robotics and automation would be the tech for 2019.

David Kingham, executive vice-chairman at Tokamak Energy, said private investment in fusion energy last year would mean we are "on the cusp of a big breakthrough" in 2019.

Florian Kolb, managing director of Innogy New Ventures, said data interoperability was last year's issue, leading to "data-driven business models" in 2019.

Jon Koplin, managing director at Cisco Investments, said blockchain, AI and machine learning. For 2019 he added supply chain.

Axel Krieger, managing director and founding partner at Digital-plus Partners, said AI last year and "applied AI" this year.

Patricia Kroondijk, strategy manager at Financial Innovation Lab–Hitachi America, said machine learning, blockchain, robotics process automation were last year's big issue.

Shashi Kumar, mentor at Group Sunkyoung (SK) Group, said mobility was the core tech for both last year and this year.


Letalik

Ben Letalik, innovation and ventures at TD, said: "Artificial intelligence, data privacy" for 2018 and "segment-specific, vertically integrated solutions" this year.


Nakada

Bo Liu, principal for venture investments at JJDC in Shanghai, China, said AI was last year's big issue. His colleague in Boston, US, **Marian Nakada**, added, for 2018: "Cell therapy for oncology and gene therapy for a range of diseases." She added for 2019: "Breakthrough data sciences approaches to elevating R&D effectiveness."


Machado

Wikings Machado, director at Siemens' Next47, for 2018 said: "There is great opportunity in the deep technologies that are fuelling fundamental changes across all industries. Examples of these technologies are autonomous vehicles, artificial intelligence, internet of things and additive manufacturing." For 2019 he added: "In my role leading our business development efforts in the US, I see huge opportunities to be a catalyst for growth for any company by bridging the gap between their game-changing technologies and the leaders of the industries that can benefit from them most."

“Edge computing and augmented analytics might be among the biggest investment opportunities in 201”

Ashish Mahashabde at American Express Ventures for last year said: “Autonomous systems moving beyond the hype and entering the ‘trough of disillusionment’.” He added for 2019: “Deep learning, edge computing, computer vision.”

Makkar

Pankaj Makkar, head of Bertelsmann India Investments, said mobility and electric vehicles drove 2018, while adding fintech as well as mobility for 2019.

Miner

Jack Miner, managing director at Cleveland Clinic Ventures, for 2018 said AI.

Nadkarni

Girish Nadkarni, president at Total Energy Ventures, for last year and this said: “Artificial intelligence and outer space-related technologies like geospatial analysis.” He added internet of things for 2019.

Hirokatsu Nakayama, investment director at Omron Ventures, said the increasingly cashless economy was important, while tech out of Israel would be significant in 2019.

Masa Nishikawa, president at Kanematsu Ventures, said autonomous driving was important last year and cybersecurity would be this year.

Palcheck

Tony Palcheck, managing director at Zebra Technologies, for last year and 2019 said: “To me, there were the three As – automation, analytics and artificial intelligence.”

Agustina Palmai, corporate development at Mercado Libre, for last year said: “Fresh delivery and digital payments solutions.” While “logistics solutions” was the tech to watch for 2019.

Peck

Sebastian Peck, managing director of InMotion Ventures for Jaguar Land Rover, said micro-mobility drove last year, while “all things mobility” would dominate this year.

Maria Peterson at JSR Micro, said quantum computing was important last year and AI would be in 2019.

Pitz

Andrew Pitz, investment manager at Transamerica Ventures, for last year said: “Continued development of AI and machine learning – the real use cases, not the hype – but also crypto and blockchain use cases starting to be figured out.” For 2019 he added: “Tokenisation of real-world assets. Can bring liquidity to illiquid markets and can develop new derivatives markets.”

Prunier

Rémi Prunier, investment manager at Orange Digital Ventures, for last year said: “Artificial intelligence and privacy – thanks to General Data Protection Regulation. Edge computing and augmented analytics might be among the biggest investment opportunities in 2019.”

SPECIAL REPORT

Rajesh Ramanujam, emerging business investments at Lam Research Capital, for 2018 said artificial intelligence.

Mark Richey, venture partner for Medical Growth Fund at BioEnterprise, for last year said: "Social determinants of health and the application of machine learning and AI in directing intervention services and programs for optimal outcomes." This year he said it would be "data lab and data science services".

Don Riley, venture executive at Chevron Technology Ventures, said: "The two most impactful trends in 2018 are the widening use of machine learning and corporate digital transformation." He added for 2019: "Carbon capture, sequestration and reuse."


Riley

Philipp Rose, managing director at Robert Bosch Venture Capital, said quantum computing was a big issue last year while "AI, future mobility, deep tech" would be this year's.

Jamie Rutledge, director and head of technology scouting, external research and strategic technology investments at Dyson, for last year said: "The various implementation of AI in the corporate environment for efficiency and augmentation." He added for this year: "The various uses of blockchain – note Bitcoin – in conjunction of AI and robotics in the supply chain."

Craig Schedler, venture partner at Northwestern Mutual Future Ventures, said: "Increased use of robotics process automation and continued growth of AI. For 2019 he added: "Investments in serving the population and digital health."


Seiffert

Peter Seiffert, head of Embraer Ventures, said blockchain was the big technology for last year and AI would be in 2019.

Raj Senguttuvan, emerging business and partnerships at Analog Devices' Analog Garage, for last year said genomics, AI, bio-sensors and autonomous vehicles, while industry 4.0 technologies, augmented and virtual reality, bioengineering and AI would factor this year.


Simi

Bonny Simi, president at JetBlue Technology Ventures, for last year said: "The evolution of the electric vertical take-off and landing vehicle also known as air taxi. In 2017 there were only 20 companies with public information about their efforts, and as of October 2018, there are over 100." For 2019 she added: "Blockchain, AI and machine learning will start providing significant investment opportunities."

Marc Sluijs, founder of DigitalHealth.Network, said digital therapeutics was the big technology for last year and would be again in 2019.


Sobajima

Kenyu Sobajima, head of at KDDI Open Innovation Fund, said artificial Intelligence was important last year and would be again this year.

Vinay Solanki, head of Commercial Growth Fund at Channel 4, for 2018 said: "Continued consumer adoption."

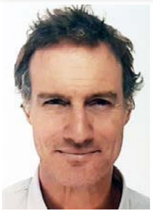

Solibieda

Markus Solibieda, managing director at BASF Venture Capital, for last year said: "The advancements in 3D-printing technology." He added for this year: "Agtech, 3D printing, platform business models." His colleague, **Han Qin, investment manager**, for 2018 said AI, big data, machine learning and business-to-business platforms for this year.

"We now see the beginning of true personalised medicine"

William Taranto, president at Merck Global Health Innovation Fund, for 2018 said: "The advancement of AI in healthcare. We now see the beginning of true personalised medicine." But for this year he added: "Body sensor monitoring in healthcare is at a point where the technology is so advanced and the data is so rich that it is still a hot area."


Taranto


Thurn und Taxis

Philipp Thurn und Taxis, founder and CEO of Constantia New Business Capital, sister company of Constantia Industries, said artificial intelligence was important last year, while "investing against the current as the tide goes out" would drive 2019.

Fumiko Uraki, deputy general manager at Mitsubishi Chemical Holdings, said cryptocurrency was the big technology for last year and data security would be in 2019.

Brad Vale, founder of Strategic Healthcare Investment Partners, said blockchain was 2018's big issue.


Vale


Waite

Rita Waite, manager at Juniper Networks, for 2018 said: "AI continues to be an important trend in the market. We are seeing increasingly more use cases that drove value from the technology. We need to build the infrastructure to support it."

John Wei, senior investment manager at Sabic Ventures, said digital was the big technology for last year and would be again in 2019.

Mitchell Weinstock, partner at HP Tech Ventures, for 2018 said machine learning, while his partner, **Angelo Del Priore**, added: "Blockchain not. Actually, its crash is a great reminder for the need of real value to sustain a trend." He added for 2019 that productised AI would be the area to watch.


Wilkinson

Jim Wilkinson, chief financial officer at Oxford Sciences Innovation, said digitisation dominated in 2018, while AI would in 2019.

Yannick Willemin, head futurist at SGL Group, said: Additive manufacturing and material functionalisation were 2018's big issues but sensors and actuators with the underlying technologies would be key to 2019.

Ben Wright, director at 3M Ventures, for 2018 said machine learning and AI. ◆

"Blockchain's crash is a great reminder for the need of real value to sustain a trend"

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

Another good year for corporate venturing

Kaloyan Andonov, reporter, GCV Analytics

In 2018 GCV Analytics tracked 2,775 deals worth an estimated total of $180.17bn. While the number of deals increased on a year-on-year basis – 14% compared with the 2,427 transactions reported in 2017 – the total value of corporate-backed VC rounds grew by 55%, reaching an all-time high.

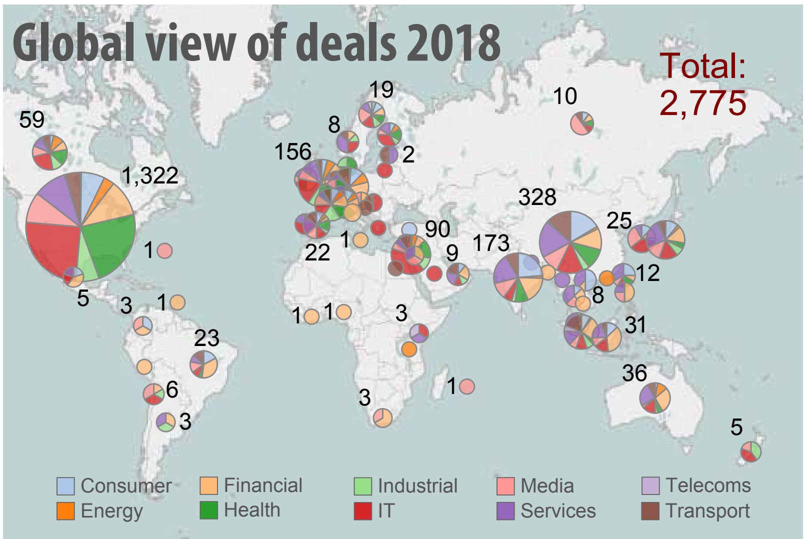
Nearly half the corporate-backed transactions last year took place in the US (1,322). Other notable innovation geographies were China (328), India (173), the UK (156), Israel (90) and Canada (59).

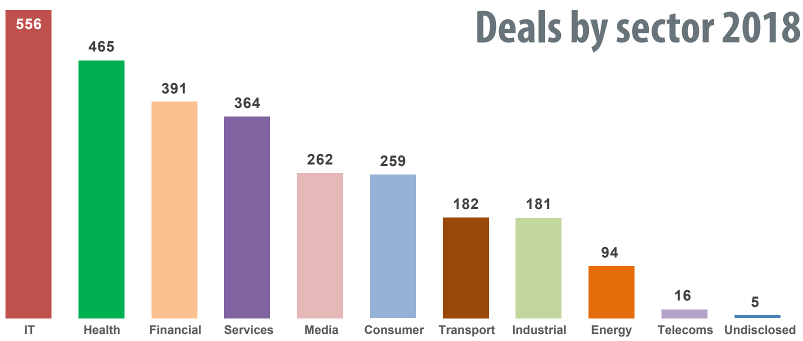
Emerging businesses from six sectors raised the largest number of corporate-backed rounds – IT with 556 deals, health with 465, financial services with 391, business services with 364, media with 262 and consumer with 259.

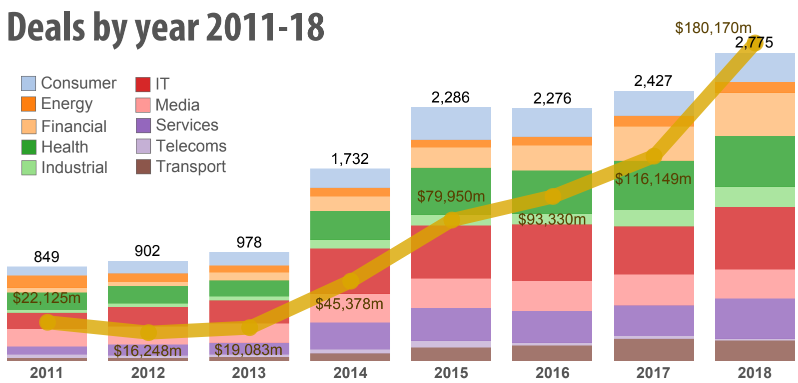
These figures do not necessarily always coincide with the sectors that have drawn most attention in the media or raised most capital.

Looking at 2018 on a quarterly basis, the deal count rose from 642 deals in the first quarter to 740 transactions in second, briefly plateauing at 729 transactions in the third, only to slide back down to 664 deals in the fourth.

In terms of total value, there was an upward trend during the second and fourth quarters in comparison with preceding



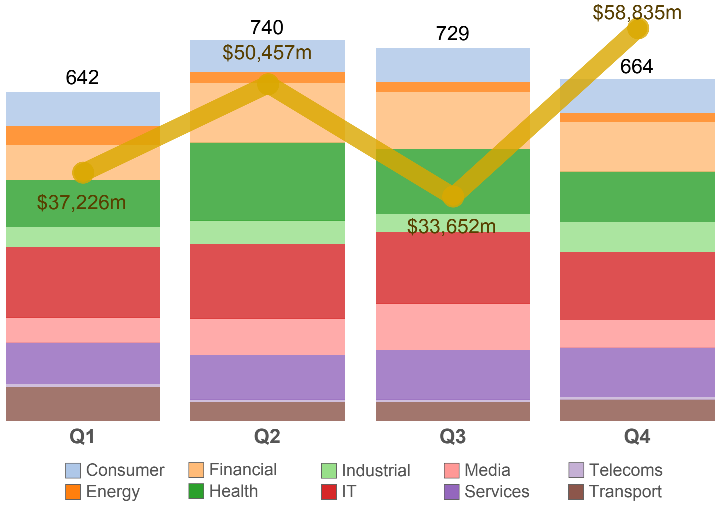




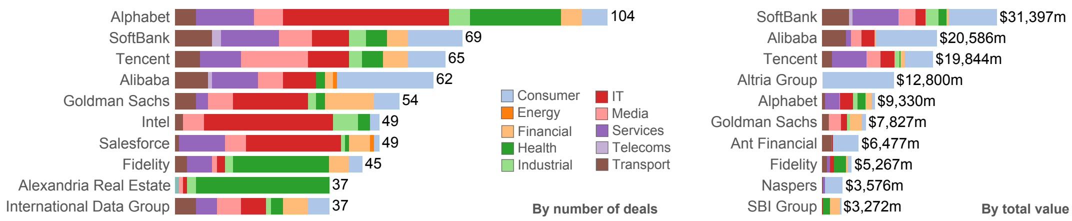
quarters. The second and fourth quarters registered the the highest estimated total capital involved in corporate-backed rounds per quarter at $50.46bn and $58.84bn, the latter a record.

Similar to 2017, US and Asia-based investors were the top corporate investors in 2018 – diversified internet conglomerate Alphabet with 104 deals, telecoms company SoftBank with 69 and internet company Tencent with 65, e-commerce firm Alibaba with 62, financial services firm Goldman Sachs with 54, semiconductor manufacturer Intel with 49 and cloud service provider Salesforce with 49, among others. The top three investors involved in the largest rounds were SoftBank, Alibaba and Tencent.

Deals by quarter 2018



Top investors 2018



Deals

GCV Analytics tracked many large deals through 2018. All the top deals were well above $2bn. These rounds were raised mostly by emerging businesses in consumer-oriented businesses such as food delivery, bike rentals as well as in logistics, autonomous automotive technologies and other areas. The most frequent corporate backer of these top rounds were Alibaba, Tencent and SoftBank.

Cigarette manufacturer Altria Group paid $12.8bn for a 35% stake in e-cigarette maker Juul Labs. The transaction valued the company at $38bn. The stake purchase reportedly gave hedge fund manager Tiger Global Management a $1.6bn dividend, while Juul's employees were said to have received some $2bn through the deal. The company had declined Altria's initial approach in early 2018, when it proposed acquiring Juul at a valuation of approximately $5bn. Juul was formed by vaporiser producer Pax Labs in 2015 before being spun off two years later.

Ele.me and Koubei, the merged local services subsidiaries of Alibaba, raised $4bn at a $30bn valuation from investors including the SoftBank Vision Fund, Alibaba and its financial services affiliate Ant Financial, and private equity group Primavera Capital. The capital was provided to support the merger of Ele.me, the portfolio company Alibaba fully acquired at a $9.5bn valuation, and Koubei, the Alibaba spinoff that had secured $1.1bn from investors at an $8.8bn valuation. The merged company will provide mobile users with access to a wide range of local services including retail, food delivery, travel and accommodation.

China-based digital media company Bytedance raised $3bn from investors including SoftBank at a $75bn valuation. Growth equity firm General Atlantic and investment firms KKR and Primavera Capital Group also took part in the round. SoftBank had reportedly intended to invest $1.8bn in the round, depending on whether secondary shares were available. Bytedance's best known property is news aggregation app Toutiao, which had 120 million daily active users at the start of 2018, but it also runs short-form video platform TikTok, which has more than 500 million monthly active users, and photo modification app Faceu. The company has recently launched additional products, such as budget e-commerce platform Zhidian and social commerce app Xincao.

The SoftBank Vision Fund invested $3bn in one of its biggest portfolio companies, US-based workspace provider WeWork, which agreed to receive the first $1.5bn this month and the other half in April, in the form of warrants that give the Vision Fund the opportunity to buy WeWork stock at $110 a share or higher by September. Founded in 2010, WeWork oversees a network of flexible workspaces in more than 30 countries on five continents. They are leased from landlords

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Top 10 investments 2018

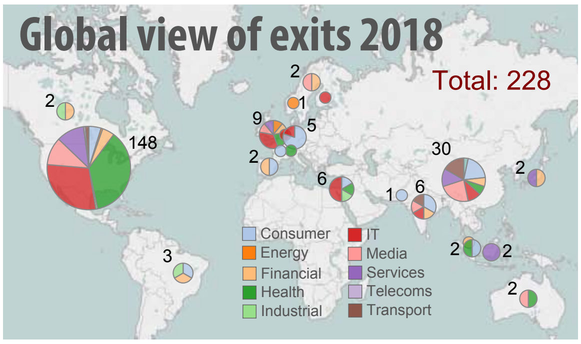
Company	Location	Sector	Round	Size	Investors
Juul Labs	US	Consumer	Stake purchase	$12.8bn	Altria Group
Ele.me-Koubei	China	Consumer	–	$4bn	Alibaba | Ant Financial | Primavera Capital | SoftBank
Bytedance	China	Media	–	$3bn	General Atlantic | KKR | Primavera Capital | SoftBank
WeWork	US	Services	Stake purchase	$3bn	SoftBank
Ofo	China	Transport	Stake purchase	$3bn	Alibaba
Pinduoduo	China	Consumer	–	$3bn	Sequoia Capital | Tencent
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
GM Cruise Holdings	US	Transport	–	$2.25bn	SoftBank
Beijing Easyhome Furnishing Chain Store Group	China	Consumer	–	$2bn	Alibaba | Harvest Capital Management | Taikang Life Insurance Company | Yunfeng Capital
Coupang	South Korea	Consumer	Stake purchase	$2bn	SoftBank

and rented out to businesses or individuals by the desk or office. It is also branching out into managing housing, leisure and educational spaces.

Alibaba bought $3bn of shares in China-based bicycle-rental platform Ofo from investor Allen Zhu. Alibaba reportedly 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 and of which Zhu is managing director. Founded in 2014, Ofo runs an app-based platform that had 200 million registered users worldwide at the end of 2017. It has 10 million bikes in service in 250 cities across 22 countries.

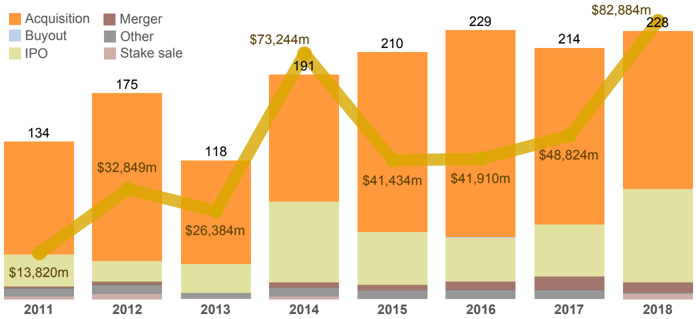
Exits

GCV Analytics tracked 228 exits involving corporate venturers and companies backed by corporates. This represents a 7% increase over the previous year's level (214). The US hosted nearly two-thirds (148) of these transactions, followed by China (30). The total estimated capital involved in the exits was $82.88bn, a 70% increase over the $48.82bn tracked in 2017. Most of the top exits for 2018 were acquisitions and stake sales.



Retail group Walmart closed its record-breaking $16bn acquisition of a 77% stake in India-based online marketplace Flipkart, enabling SoftBank and e-commerce company eBay to exit. The deal valued Flipkart at approximately $20.8bn. Although some investors, including SoftBank and eBay, exited entirely through the deal, others, such as Tencent, software provider Microsoft and investment firm Tiger Global Management retained their stakes. Tencent and Tiger Global also kept their board seats. Flipkart runs an e-commerce platform that lists more than 80 million products in about 80 categories including electronics, appliances, clothing and home goods. It also owns fashion e-commerce subsidiaries Myntra and Jabong, as well as payment app PhonePe.

Exits by year 2011-18



Global Corporate Venturing

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Top 10 exits 2018

Company	Location	Sector	Type	Acquirer	Size	Exiting investors
FlipKart	India	Consumer	Acquisition	Walmart	$16bn	Accel Partners | Baillie Gifford | Bennett Coleman & Company | DST Global | GIC | Greenoaks Capital | Iconiq Capital | International Data Group | Morgan Stanley | Naspers | Qatar Investment Authority | Sofina | SoftBank | Steadview Capital | T Rowe Price | Tencent | Tiger Global Management
Tencent	China	–	Stake sale	–	$9.8bn	Naspers
Xiaomi	China	Consumer	IPO	–	$4.72bn	All-Stars Investment | China Mobile | CICFH Entertainment | DST Global | GIC | Hopu Fund | International Data Group | Morningside | Nokia| Qiming Venture Partners | Qualcomm | SF Express | Temasek | Yunfeng Capital
Meituan-Dianping	China	Consumer	IPO	–	$4.2bn	Canada Pension Plan Investment Board | Capital Today | China Structural Reform Fund | China-UAE Investment Cooperation Fund | Coatue | Darsana Capital Partners | DST Global | GIC | Hillhouse Capital Management | International Data Group | Lansdowne Partners | Oppenheimer Funds | Priceline | Sequoia Capital | Tencent | Tiger Global Management | TrustBridge Partners
Ele.me	China	Consumer	Merger	Alibaba	$3bn	Alibaba | SoftBank
Mobike	China	Transport	Acquisition	Meituan-Dianping	$2.7bn	Bertelsmann | Bocom International | Ctrip.com | Farallon Capital Management | Hillhouse Capital Management | Hon Hai | Huazhu Hotels Group | ICBC International | Joy Capital | Panda Capital | private investors | Qiming Venture Partners | Sequoia Capital | Temasek | Tencent | TPG | Warburg Pincus
Duo Security	US	IT	Acquisition	Cisco Systems	$2.35bn	Alphabet | Benchmark | Geodesic Capital | Index Ventures | Lead Edge Capital | Meritech Capital | Radar Partners | Redpoint Ventures | Resonant | True Ventures | Workday
Izettle	Sweden	Financial services	Acquisition	PayPal	$2.2bn	American Express | Creandum | Dawn Capital | Fourth Swedish National Pension Fund | Greylock Partners | Hasso Plattner Ventures | Index Ventures | Intel | Mastercard | Northzone | Santander | SEB | Victory Park Capital | Zouk Capital | undisclosed investors
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
Pinduoduo	China	Consumer	IPO	–	$1.63bn	Cathay Capital | Gaorong Capital | International Data Group | Lightspeed Venture Partners | Sequoia Capital | Sky Royal Trading | Sun Vantage Investment | Tencent

Media and e-commerce firm Naspers sold HK$76.95bn ($9.8bn) of shares in Tencent, the China-based internet group in which it was an early investor since 2011. Naspers had acquired a 46.5% share of Tencent through its $32m investment three years before its IPO in Hong Kong. The company sold 190 million shares, a 2% stake in Tencent, at HK$405 each. The share price fell 4.5% in Hong Kong when the transaction took place. Though the price has since recovered, Naspers pledged not to sell more shares for the next three years. Tencent operates a large-scale online services offering centred on its messaging app, WeChat, which has more than 1 billion users. By the fourth quarter of 2017 it was the fifth most valuable company in the world, and it had a market capitalisation of about $505bn at the time of the transaction.

China-based consumer electronics producer Xiaomi, which counts mobile semiconductor maker Qualcomm as an investor, raised $4.72bn in its IPO, pricing about 2.18 billion shares at the low end of the HK$17 to HK$22 range it had previously set. The price valued Xiaomi at about $54bn. The offering was originally intended to be a dual offering that would have raised up to $10bn, but Xiaomi was forced to drop the Shanghai portion, reportedly after failing to answer several questions from Chinese regulators. Founded in 2010, Xiaomi designs and manufactures smartphones as well as other electronic devices such as smart home products, tablets and televisions which are connected through its MIUI operating system. It made a RMB43.8bn net loss in 2017 from revenues of RMB115bn.

China-based local services platform Meituan Dianping raised $4.22bn in an IPO that included a $400m investment by Tencent. Meituan Dianping issued 480 million primary shares on the Hong Kong Stock Exchange at HK$69 each, near the top of the IPO's HK$60 to HK$72 range. The offering valued the company at about $52bn. Tencent was joined as a cornerstone investor in the IPO by asset manager Oppenheimer, which bought $500m of shares. Established in 2015 through a merger of group buying platform Meituan and restaurant listings service Dianping, Meituan Dianping now operates an online portal that links to a range of services including food delivery, travel booking and event ticketing.

Alibaba merged online food delivery subsidiary Ele.me with its local services spinoff Koubei with funding from SoftBank. The corporate had previously joined SoftBank to provide about $3bn of funding for the new but still unnamed entity to compete with Meituan Dianping. Alibaba had already invested $1bn in Ele.me when it acquired the rest of the company, which was valued at $9.5bn. It had also launched Koubei in tandem with its financial services affiliate Ant Financial three years previously. The newly-merged company will cover about 3.5 million merchants in more than 670 Chinese cities and use Alibaba's expertise in areas such as new retail technology, membership, marketing, logistics and finance.

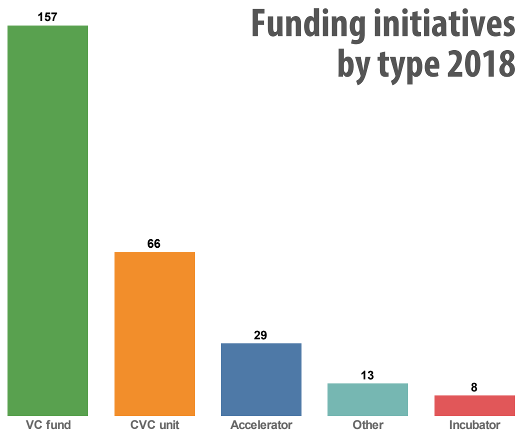
Its rival Meituan-Dianping agreed to acquire China-based bike rental service Mobike for $2.7bn. The transaction was reportedly being brokered by Pony Ma, chief executive of Tencent, which also owns a stake in Meituan-Dianping. Founded in 2015, Mobike operates an app-based dockless bike-sharing service that has attracted hundreds of millions of registered users. The company entered its 200th market in January 2018 when it launched its service in Paris. Mobike had attempted unsuccessfully to merge with its rival Ofo.

Funding initiatives

GCV tracked 273 funding initiatives that received corporate backing in 2018, including 157 venture funds, 66 new venturing units, 29 corporate-backed accelerators, eight incubators and 13 other initiatives. Most were set up in North America (111), Asia (88) and Europe (50). The countries that hosted the largest number of such initiatives were the US (101), China (38), Japan (16), France (16) and Singapore (13).

The overall number of initiatives was 7% lower than the 293 we reported in 2017. The total estimated value of the initiatives at $75.19bn was significantly higher than 2017's $43.82bn, though this was largely due to the unusually large second Softbank Vision Fund, which is currently being raised and for which large commitments were announced in the second half of last year.

The top funding initiatives last year ranged in scope of their targeted sectors from logistics and consumer through



Top 10 funding initiatives 2018

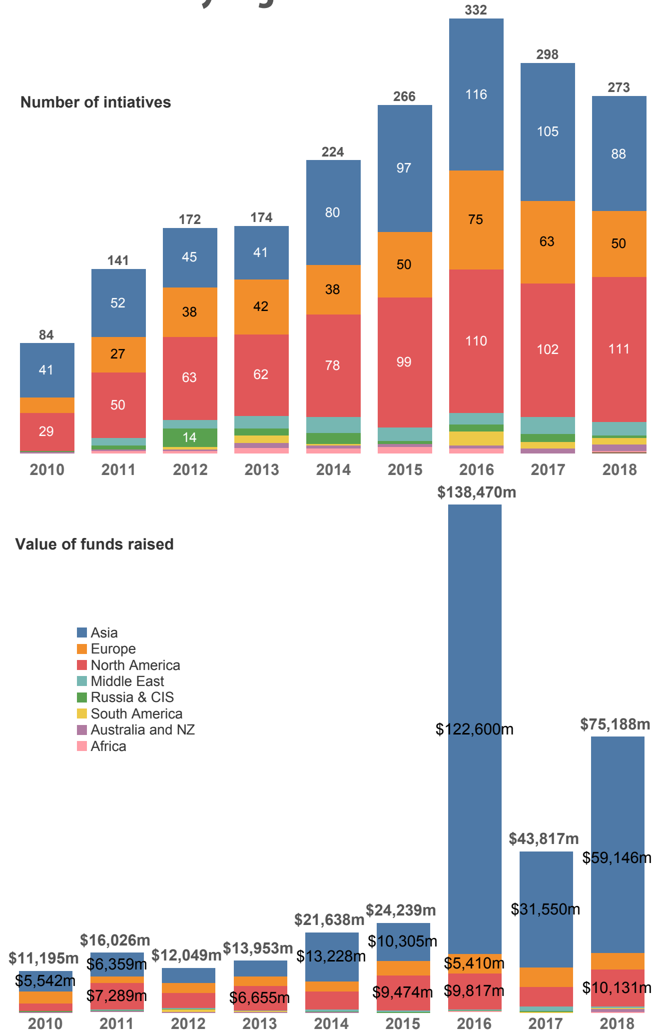
Fund	Country	Sector	Type	Size	Investors
SoftBank Vision Fund II	Japan	Sector-agnostic	VC fund	$45bn	Public Investment Fund | SoftBank
Hidden Hill Modern Logistics Private Equity Fund	China	Transport, services	VC fund	$1.6bn	Hidden Hill Capital | Global Logistics Providers | China Post Capital
Sinopec Capital	China	Energy, IT, industrial, services	CVC unit	$1.48bn	Sinopec Engineering Group
Starquest Capital	China	Sector-agnostic	CVC unit	$1.45bn	China Reform Holding | Sequoia Capital | Capital Venture Investment Fund | JD.com
Community Influence	China	Financial services	VC fund	$1bn	Binance
Alliance Ventures	France	Transport	CVC unit	$1bn	Renault | Nissan | Mitsubishi
Qiming Venture USD Fund VI	China	Sector-agnostic	VC fund	$935m	Qiming Venture Partners | Mayo Clinic | Princeton University | Massachusetts Institute of Technology | Duke University
Pfizer Ventures	US	Health	CVC unit	$600m	Pfizer
EWTP Technology and Innovation Fund	China	Sector-agnostic	VC fund	$600m	Electronic World Trade Platform | Alibaba | Ant Financial
Schneider Electric Ventures	France	Energy	CVC unit	$565m	Schneider Electric

energy and autotech to blockchain and cryptocurrencies. Asia accounted for $59.19bn or about 79% of the total capital raised in such initiatives in 2018.

The relative weight of Asia, however, was attributable to one new large fund. Saudi Arabia's state-owned Public Investment Fund (PIF) agreed to commit $45bn to the second SoftBank Vision Fund, replicating the contribution it made to the first, which had secured $97.7bn of its $100bn target by the end of 2017. SoftBank was reported to have begun talks with prospective limited partners for a second fund. Its first fund included contributions from Apple, Foxconn, Sharp and Qualcomm, and Abu Dhabi's Mubadala Investment Company.

Singapore-based logistics provider GLP launched a $1.6bn investment fund to target the logistics ecosystem in China. The fund will be managed by Hidden Hill Capital, the private equity arm of the corporate's local subsidiary, GLP China. Limited partners include unnamed insurance providers and long-term institutional investors, such as investment firm China Post Capital. Hidden Hill Modern Logistics Private Equity Fund will be the only fund in China dedicated entirely to the logistics sector, according to GLP. The company currently has $50bn of assets under management, much of which is concentrated in real estate and expects to attract additional funds in future.

Corporate-backed funding initiatives by region 2010-18



China-based oil, gas and chemicals supplier Sinopec formed investment firm Sinopec Capital equipped with RMB10bn. It will invest in emerging areas such as new energy, advanced materials, artificial intelligence and smart manufacturing and supply chain technologies. Although Sinopec did not state directly that the vehicle would invest in startups, it said its activities would cover equity investments and management as well as project investments and asset management. The fund will get 49% of its capital from oil and gas refiner Sinopec Corp and the remaining 51% from parent company Sinopec Group.

JD.com joined a range of partners to raise up to RMB40bn for venture capital fund Starquest Capital, which is also known as Xingjie Capital. It will be run by private equity firm China Reform Holdings, which already oversees the $30bn Chinese state-owned Capital Venture Investment Fund. VC firm Sequoia Capital China is also a limited partner in the vehicle. The renminbi-denominated fund will target later-stage investments in technology companies and it has secured 25% – about $1.45bn – of its target, reportedly raising capital from domestic backers.

China-based cryptocurrency exchange Binance announced a $1bn fund to invest in blockchain and cryptocurrency startups. The Community Influence fund will be denominated in Binance's own cryptocurrency, BNB, and will invest both directly and through other funds. Binance will seek experienced fund managers – defined by the company as those that have managed at least $100m in assets – to create new funds. The company also hopes to launch a Binance Ecosystem Fund with 20 as-yet-unnamed partners.

Automotive manufacturing partnership Renault-Nissan-Mitsubishi took the wraps off corporate venturing vehicle Alliance Ventures, through which it intends to invest up to $1bn. The unit plans to provide up to $200m to startups and open innovation projects during its first year of operation. It intends to commit the full $1bn over a five-year period. The alliance, initially formed when France-based automaker 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. The unit will be co-located in Paris,

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Yokohama and Beijing. Renault and Nissan will each provide 40% of the capital, while Mitsubishi will supply the remaining 20%.

Co-investor analysis 2018

	Intel	Alphabet	International Data Group	Qualcomm	SoftBank	Tencent	Salesforce	Goldman Sachs	Johnson & Johnson	Fidelity	General Electric	Sequoia Capital	Kleiner Perkins	New Enterprise Associates
Intel		10	3	9		1	3	8		5	8	11	18	8
Alphabet	10		5	10	11	9	10	13	2	11	7	36	73	24
International Data Group	3	5		5	1	10		2		2		26		4
Qualcomm	9	10	5		10	1		8		7	5	19	5	13
SoftBank		11	1	10		7		4		3	1	18		6
Tencent	1	9	10	1	7			6	1	2		35	1	
Salesforce	3	10						3		4	1	8	9	10
Goldman Sachs	8	13	2	8	4	6	3			5	4	5	7	10
Johnson & Johnson		2				1				1	1	1	7	8
Fidelity	5	11	2	7	3	2	4	5	1		3	7	3	11
General Electric	8	7		5	1		1	4	1	3		5	11	4
Wells Fargo (NVP)	12	13	6	6	2	1	2	9		2	5	9	7	9

Columns include non-CVCs and CVCs; rows are only CVCs

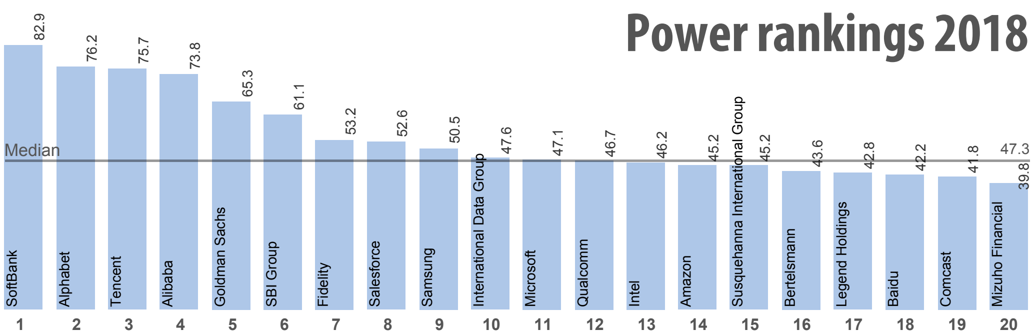
China-based venture capital firm Qiming Venture Partners closed a $935m fund, securing capital from limited partners including medical practice and research group Mayo Clinic. Qiming Venture USD Fund VI's LPs also included Princeton University, Massachusetts Institute of Technology and Duke University as well as superannuation fund NGS Super, Commonfund, Hall Capital Partners and the Dietrich Foundation. The vehicle was announced alongside two other funds – the Chinese yuan-denominated Qiming Venture RMB Fund V (Qiming RMB V), which has attracted RMB2.1bn in commitments, and Qiming US Healthcare Fund I, which has secured $120m. Both Qiming VI and Qiming RMB V will target Chinese companies in the internet and consumer healthcare, IT and cleantech sectors, while the Healthcare Fund will invest in early-stage healthcare startups in the US.

Pharmaceutical firm Pfizer is planning to invest $600m in biotech and other emerging technologies through new corporate venturing division Pfizer Ventures. Early-stage neuroscience companies will be a key focus, with about $150m allocated to such startups. Initial areas of interest will include neuro-degeneration, neuro-inflammation and neuro-metabolic disorders. The $600m comes as part of a restructuring effort that combines Pfizer Venture Investments, the company's existing corporate venturing arm, with research and development equity investment vehicle R&D Innovate. The unit will continue to invest in areas of strategic interest to its parent, including oncology, inflammation, immunology, rare disease, internal medicine and vaccines, as well as in companies working on novel approaches to drug discovery, development and manufacturing.

Trade organisation Electronic World Trade Platform (EWTP) launched a $600m investment fund featuring Alibaba and Ant Financial as anchor investors. EWTP was first proposed by Alibaba co-founder and chairman Jack Ma in 2016 to help lower trade barriers and support the expansion of small and medium-sized enterprises' international activities by helping them operate online. The EWTP Technology and Innovation Fund will invest in companies expanding internationally and will support technology startups across the world. Alibaba will provide expertise on logistics, payment and e-commerce. The fund will also identify projects closely related to the Belt and Road Initiative, a Chinese government policy that seeks to strengthen economic ties throughout Eurasia.

France-based energy management and automation technology producer Schneider Electric launched a dedicated corporate venturing unit to invest between €300m ($340m) and €500m in startups. Schneider Electric Ventures will target energy efficiency and sustainability, in areas such as energy use and industrial management, and will invest in startups directly, and in dedicated strategic funds, incubation initiatives and partnerships with entrepreneurs. In addition to external deals, Schneider Electric Ventures has incubated solar technology installer Clipsal Solar and electric vehicle fleet services provider EIQ Mobility, and has formed the Greentown Labs Bold Ideas Challenge in partnership with hardware incubator Greentown Labs. ◆

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



Turning Raw Data into Meaningful Insights

Global Corporate Venturing **Analytics**

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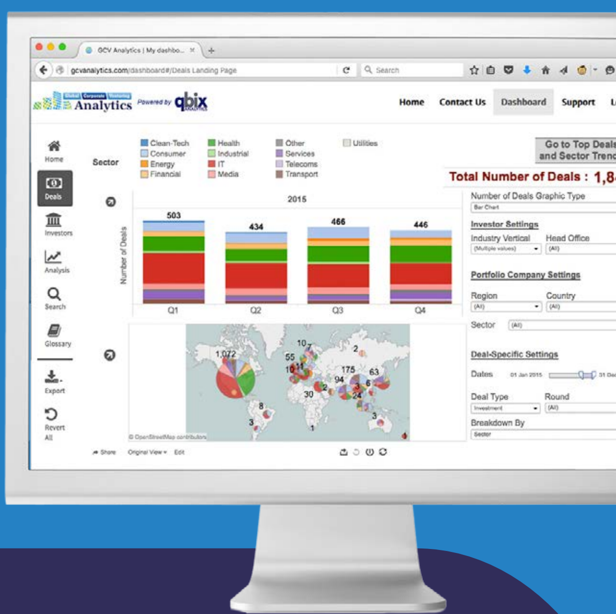

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