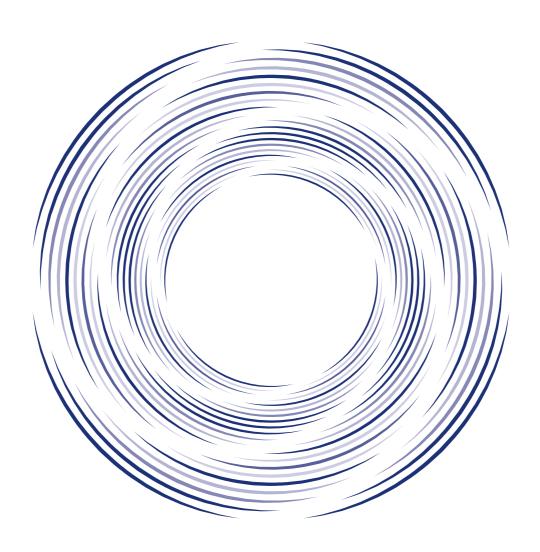
# **Deloitte.**



# **Fuelling growth through innovation**

Deloitte M&A Index

M&A

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"Increasingly companies are adopting inorganic growth strategies to create businesses of tomorrow' through M&A and corporate venturing."



The pace of technological advancements in recent years has been unprecedented. The disruptive potential of new technologies is being amplified by new business models such as crowdsourcing and other means of channeling an abundance of private capital into innovative ideas.

The confluence of these factors is making it possible for new innovative start-ups to disrupt traditional products, markets and industry incumbents. The dynamics of disruptive innovation are playing out in the following way:

#### Shifts in technology

Technological advances are providing breakthroughs in Artificial Intelligence (AI), cognitive computing, robotics and other fields. But it is the potent combination of the sustained drop in computing and storage costs and significant improvement in computing power and data bandwidth that is paving the way for the widespread adoption and mass functionality of new technologies.

#### Shifts in consumer behaviour

The digital consumer revolution allows not just for scale, but also diversity and a multiplicity of viewpoints. This in turn is inspiring new crowd-based business models. Three main types have emerged:

- **1 Consumers preferring peers over corporates** e.g. peer-to-peer rating sites such as TripAdvisor;
- **2 Consumers preferring access over ownership** e.g. ride-hailing apps such as Uber; and
- 3 Businesses preferring "collaboration over competition" e.g. Wikipedia.

#### **Convergence across sectors**

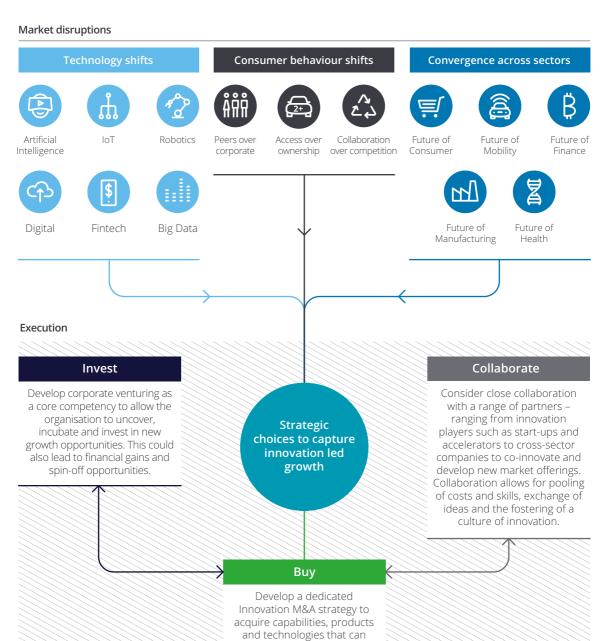
Advances in disruptive technologies, along with the increasing digitisation of business models, are lowering barriers to entry and allowing non-traditional competitors to enter the market. In turn this is blurring the gaps between product and market offerings across many sectors. This cross-sector convergence allows companies to innovate, collaborate and create new market offerings in areas such as Fintech, Healthtech and others.

This dynamic makes it imperative for companies to innovate to unlock new sources of revenue. Increasingly companies are adopting inorganic growth strategies to create these "businesses of tomorrow" through M&A and corporate venturing. Indeed innovation-led growth can provide companies with advantages well beyond revenue growth, allowing them to attract talent, increase customer loyalty and command premium margins.

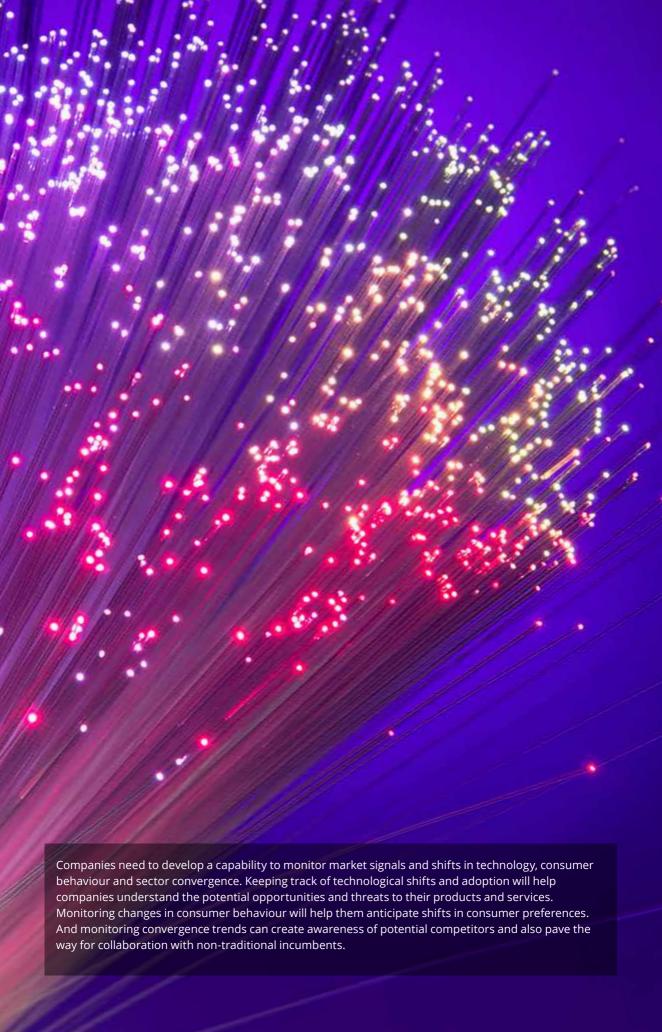
"Advances in disruptive technologies, along with the increasing digitisation of business models, are lowering barriers to entry and allowing non-traditional competitors to enter the market."



# Role of M&A and venture investments to capture innovation opportunities



unlock new sources of growth and revenues. Cultural adoption will be a key driver for the successful integration of such deals.





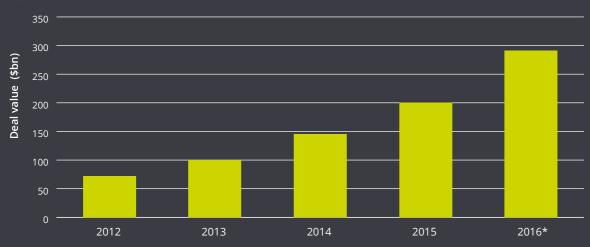
# Rise of innovation M&A

Deloitte analysis shows companies are using M&A as a strategic expedient to capture disruptive innovation growth opportunities. There has been a sharp and continuing increase in M&A deals done with the primary purpose of acquiring capabilities or technologies across key disruptive innovation categories such as Fintech, AI, Robotics and others.

While technology companies often lead the way, many other sectors, such as consumer businesses, telecoms, financial services and the service sector, have also become active deal-makers.

Globally, companies spent \$291 billion in 2016 on disruptive innovation-related M&A deals, a fourfold increase over the \$72 billion spent in 2012. The main segments were IoT, Digital and Social. In the IoT segment \$86 billion worth of deals were announced and in the Digital and Social segment around \$46 billion worth were announced.

"Globally, companies spent \$291 billion in 2016 on disruptive innovationrelated M&A deals."























Cleantech

Healthtech & Cognitive **Analytics** 

**Robotics** Wearables

Artificial Intelligence

Digital

<sup>\*</sup> As of 22nd November 2016. Source: Deloitte Analysis

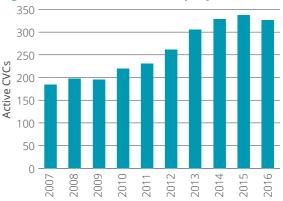


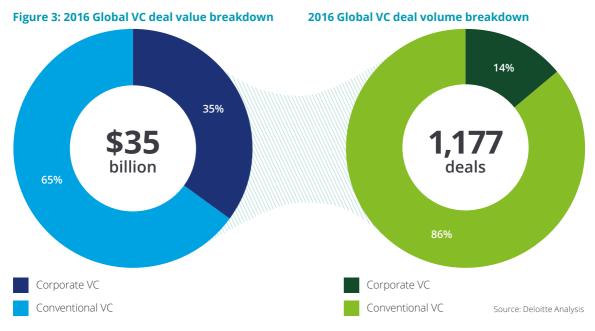
Corporate venturing has emerged as a fundamental part of the corporate innovation strategy, providing companies with an important conduit into the external innovation ecosystem. It is no longer the prerogative of technology companies as companies across all sectors ranging from agriculture to transportation have launched venture funds. Beyond financial returns, these investments provide invaluable access to new technologies, business models and talent, all crucial to growth through innovation.

Corporate venturing itself is undergoing a steep change. Funds are exploring new models, such as co-investing with both traditional competitors and adjacent sector companies, with the aim of pooling resources and creating consumer and market offerings.

In 2016 corporate venture capital (CVC) funds made \$35 billion in investments, which is around 35 per cent of the total investments made by venture capital funds. The majority of the investments were in Series A to C funding rounds and, as some of these start-ups scaled up, the corporate sector often acquired these companies.

Figure 2: Number of active CVCs per year



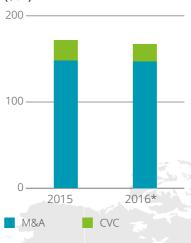




# Innovation Hotspots

The trends in M&A and CVC point towards the emergence of global innovation hotspots – US, Israel, UK, France, Germany, India, China and Japan – that account for the lion's share of corporate investments in innovation.

#### North America deal value (\$bn)



The US is the biggest market for innovation investments. M&A deals amounted to \$147 billion and CVC investments amounted to \$20 billion in 2016, just about keeping level with 2015.

#### South America deal value (\$bn)



0.0 -2015 2016\* M&A CVC

Brazil attracted the highest amount of M&A and CVC investments in South America, but the regional market is a small one.

### Europe deal value (\$bn)

200 —



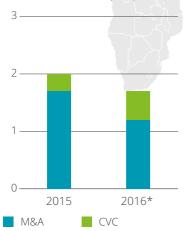
In Europe innovation-related M&A activities are significantly higher than CVC investments. The UK received the most M&A investments, followed by France and Germany.

### Asia Pacific deal value (\$bn)



Asia is emerging as a powerhouse in both M&A and CVC investments. India and China lead the way. The Indian market was the strongest performer in 2016, attracting investments from the US, Japan and China.

#### Israel deal value (\$bn)



Israel is one of the major innovation investment hotspots and offers plenty of M&A targets. In 2016 M&A deals were worth \$1.2 billion and the majority of the acquirers were US companies.



\* As of 22nd November 2016. Source: Deloitte Analysis



# Internet of Things

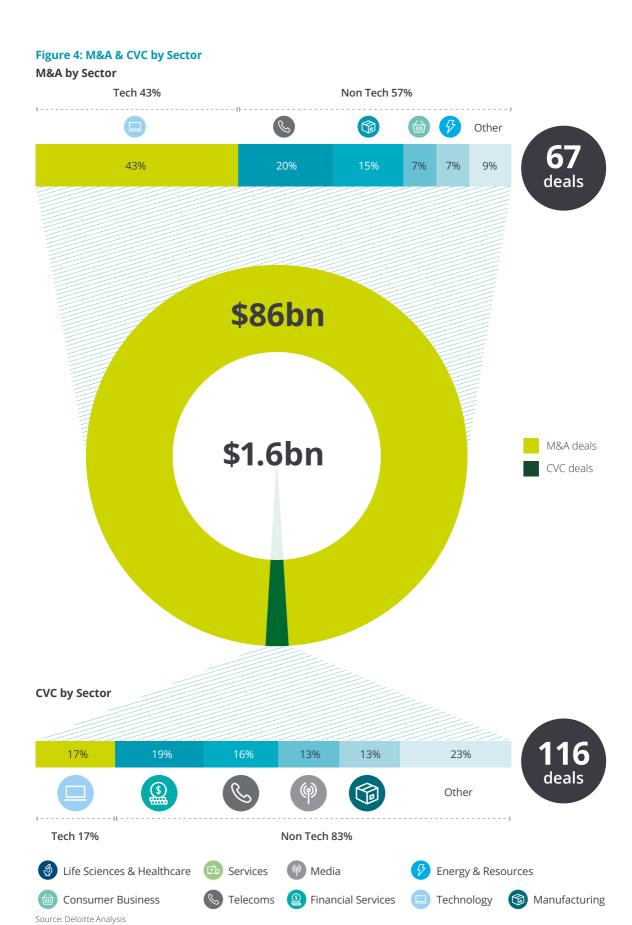
The Internet of Things (IoT) is about making intelligent digitally-enabled and connected products. The falling costs of key infrastructure and the proliferation of consumer and enterprise user applications have proven a catalyst.

In 2015-16, companies announced \$86 billion worth of M&A deals in this segment. This includes major investments such as Softbank's acquisition of ARM Holdings<sup>14</sup> as a core part of its IoT growth strategy. There was also a surge in deals from the non-tech sector, such as telecoms, manufacturing and consumer business. For instance, Honeywell acquired Elster<sup>15</sup> and notably since then has launched its industrial IoT-ready gas measurement and data management solutions.

IoT also attracted \$1.6 billion in CVC investments, spread across all the major sectors. Such investments point towards a burgeoning IoT ecosystem that includes wearables, sensors, infrastructure and smart products across many sectors, including smart utilities, connected home, industrial IoT, connected health and automobiles.

For instance, Thalmic Labs, the wearable technology company, raised \$120 million in funding from Amazon, Intel and others.<sup>16</sup>

"In 2015-16, companies announced \$86 billion worth of M&A deals in this segment."



# Robotics

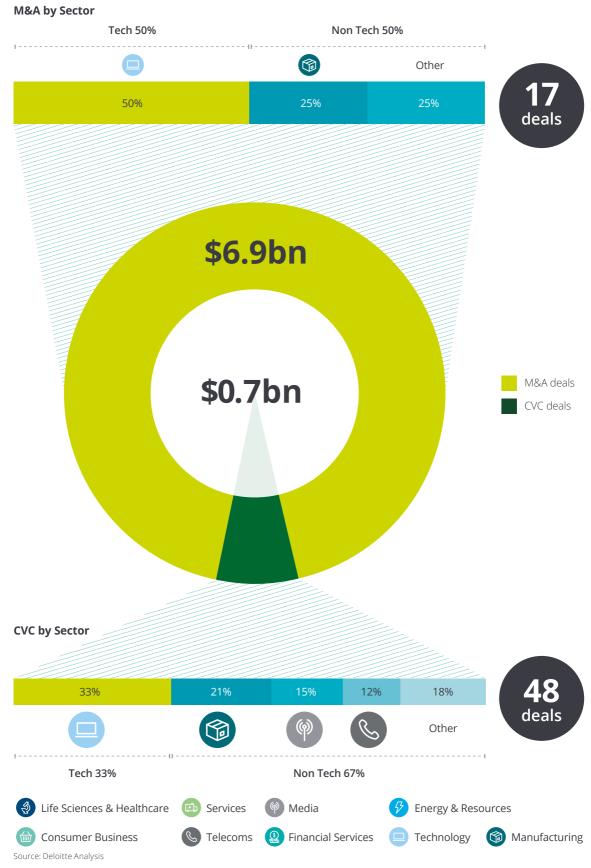
Significant advances in new materials, computing and battery power as well as the rapid growth in both industrial and consumer applications is stimulating investment in robotics. These investments range from industrial automation and drones to service process automation.

The robotics segment received nearly \$7 billion worth of M&A investments, ten times more than the \$700 million corporate venture investments in this segment. M&A was dominated by technology and industrials. Major deals included General Motor's acquisition of Cruise Automation<sup>17</sup> to accelerate the development of autonomous vehicle technology.

Corporate venture investments in this segment came from a range of non-tech sectors, such as industrials, media and telecoms. For instance, Clearpath Robotics, which builds autonomous mobile robotic solutions, raised \$30 million from venture capital funds that included Caterpillar and GE.<sup>18</sup>

"The robotics segment received nearly \$7 billion worth of M&A investments, ten times more than the \$700 million corporate venture investments in this segment."

Figure 5: M&A & CVC by Sector



# Artificial Intelligence and cognitive technologies

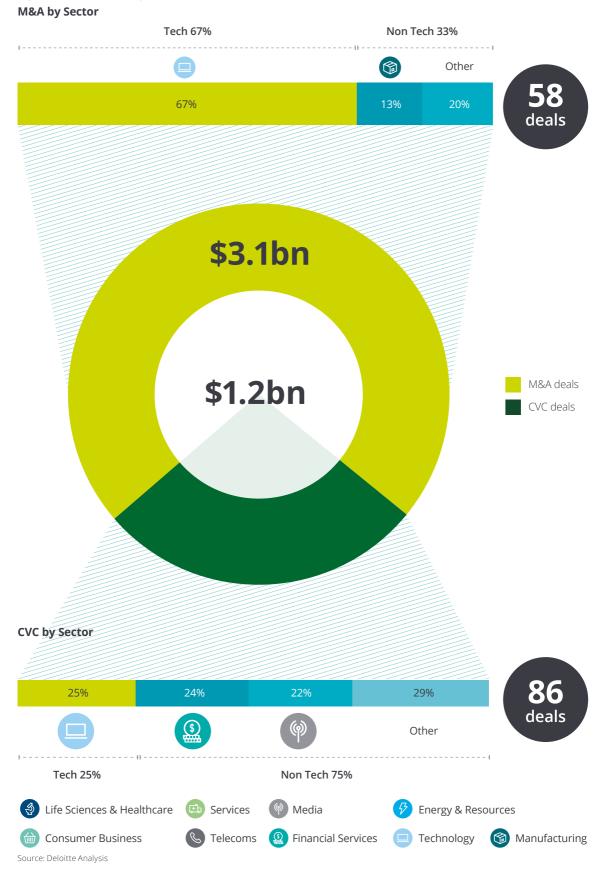
The confluence of advances in deep-learning algorithms, chip manufacturing technologies and cognitive computing have spurred investments in AI which is on the cusp of a revolution in applications in both the consumer and enterprise segments. Investment in AI and cognitive technologies includes machine learning, recognition technologies, advanced chip manufacturing and cognitive computing.

There were \$3.1 billion worth of M&A deals in 2015-2016 in this segment, dominated by acquisitions from the technology sector. These included deals such as Twitter's acquisition of Magic Pony<sup>19</sup> to bolster its machine-learning capabilities for visual processing.

Corporate venture investments have started to accelerate and \$1.2 billion worth were made, with most from non-tech sectors such as financial services and media. For instance, Sensetime, a start-up focusing on recognition technologies, secured venture investment from Dalian Wanda<sup>20</sup>, the Chinese retail and media conglomerate.

"Corporate venture investments have started to accelerate and \$1.2 billion worth were made, with most from non-tech sectors such as financial services and media."

Figure 6: M&A & CVC by Sector





# Digital and Social

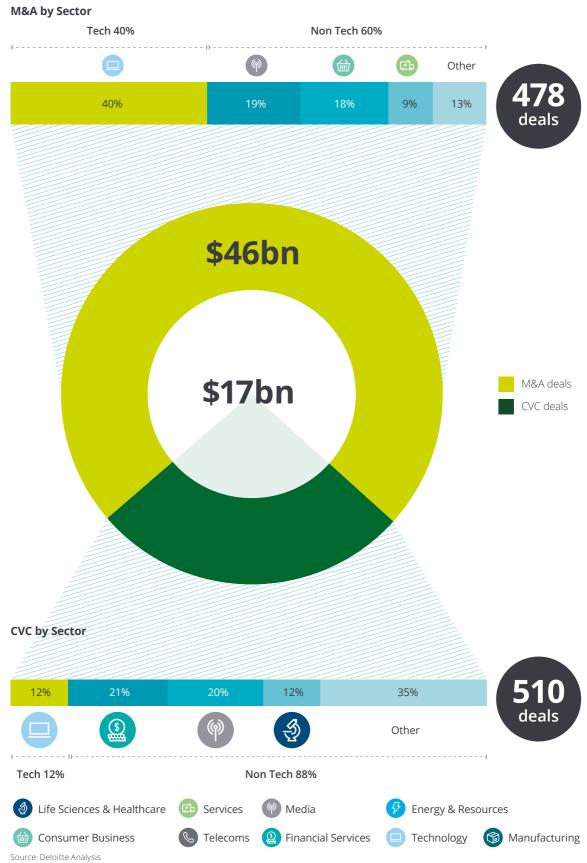
The digitisation of industries is leading to the development of crosschannel digital and social business models and investments in new segments such as Ad-tech, agri-tech and user-generated content business models.

In the last two years nearly 500 M&A deals were done and \$46 billion invested in this segment, primarily by the technology, media, consumer business and services sectors. Deals included CNN's acquisition of Beme<sup>21</sup>, a social app that delivers user-generated content, and Telenor's acquisition of Tapad<sup>22</sup>, a US-based advertising and marketing technology start-up.

Corporate venture investments in the digital and social segments have risen to \$17 billion since 2015 and are dominated by the media and financial services sectors. For instance, Singtel has invested in ShopSpot, a mobile commerce platform, based in Asia<sup>23</sup>.

"Corporate venture investments in the digital and social segments have risen to \$17 billion since 2015 and are dominated by the media and financial services sectors."

Figure 7: M&A & CVC by Sector



# Big Data and Cognitive Analytics

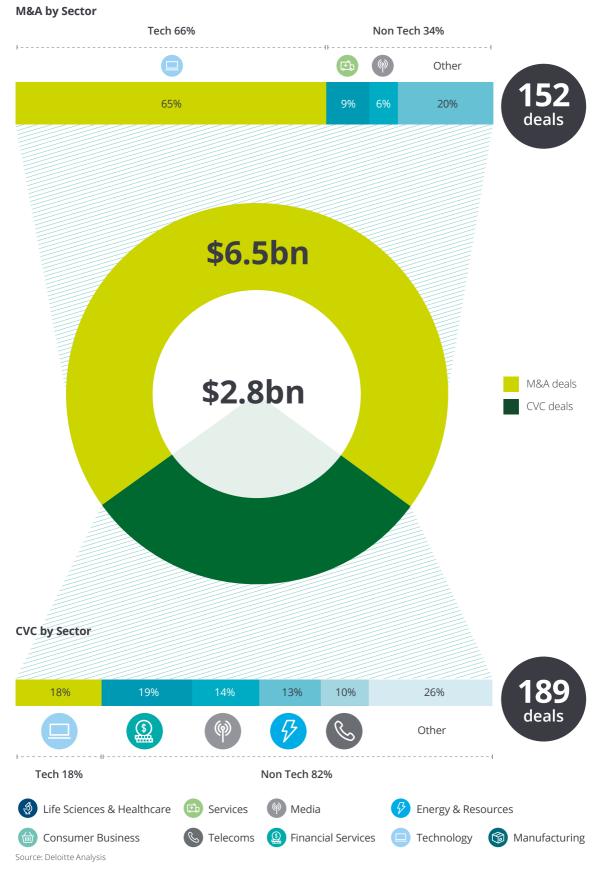
Companies have been investing heavily to harness the potential of Big Data analytics and recently, cognitive analytics, as vast big data processing capabilities and advances in sensing applications provide practical business insights and applications.

Since 2015 around \$6.5 billion worth of M&A deals have been done in this segment, dominated by the technology sector. These include deals such as eBay's acquisition of SalesPredict<sup>24</sup>, an Israeli start-up that uses cognitive analytics and big data to predict customer buying behaviour and sales conversion.

CVC investment is much more fragmented and companies across all major sectors are investing in this segment. Collectively they have made \$2.8 billion worth of investments. For instance, Acacia Research Corporation led the venture investment round into Veritone<sup>25</sup>, a start-up that is developing a cognitive media platform.

"Since 2015 around \$6.5 billion worth of M&A deals have been done in this segment, dominated by the technology sector."

Figure 8: M&A & CVC by Sector





The wide range of opportunities presented by Fintech means there has been significant growth in investment from non-financial service sectors such as telecoms, software and retail.

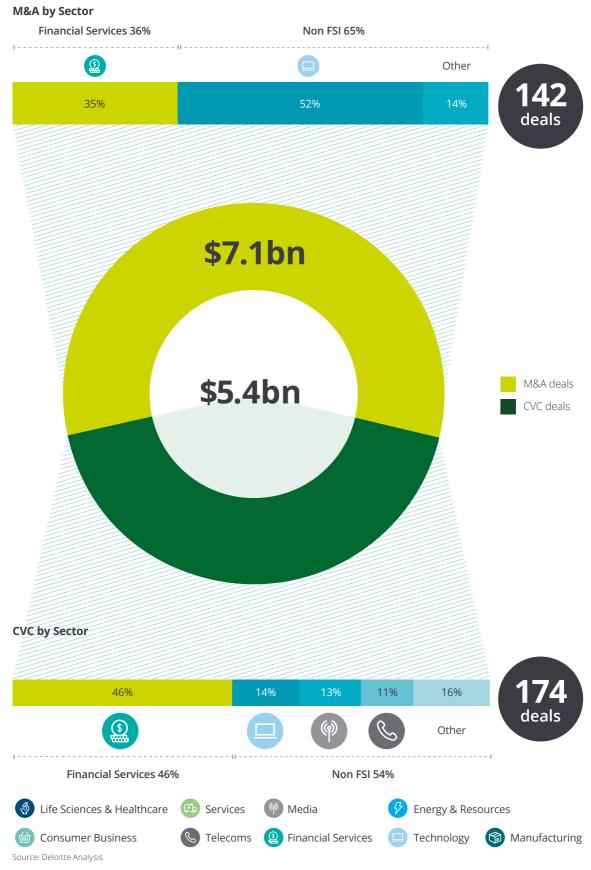
Since 2015 around \$7.1 billion worth of M&A deals have been done in this segment. These include Amazon's acquisition of Emvantage Payments<sup>26</sup>, which offers payment solutions across a range of digital channels.

Over the same period around \$5.4 billion worth of CVC investments were made, led by financial services but also from software, telecoms and retail. Investments in blockchain and bitcoin technologies started to take off in 2016. There were also investments in predictive analytics, quantitative trading analytics, credit scoring and payments.

For instance, the Chinese internet giant Baidu was one of the main venture capital investors in ZestFinance<sup>27</sup>, which uses big data and analytics to improve underwriting quality for lenders. Baidu also invested in Circle<sup>27</sup>, a peer-to-peer start-up that uses open standards like blockchain to develop a payment platform.

"\$5.4 billion worth of CVC investments were made, led by financial services but also from software, telecoms and retail."

#### Figure 9: M&A & CVC by Sector





# How M&A and CVC investments are shaping convergence across sectors

The confluence of technological change, changing customer preferences and an evolving regulatory landscape are reshaping how products and services are developed, delivered and consumed. This is blurring the lines between sectors, creating opportunities for non-traditional competitors to enter with new consumer offerings.

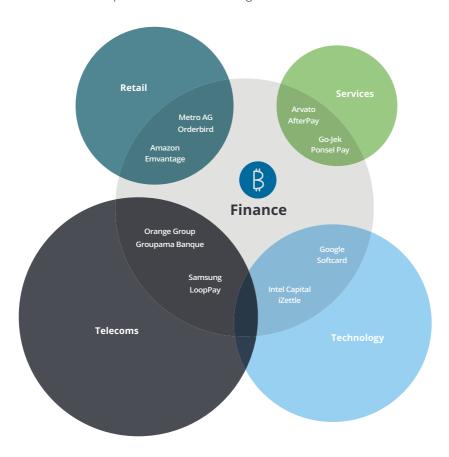
Companies are actively using M&A and venture capital to invest in innovative startups in order to develop these new consumer offerings. We expect that in the coming months small, strategic deals will create new market offerings, reshape competition and lead to convergence across sectors such as technology, finance, health, consumer and manufacturing.

"We expect that in the coming months small, strategic deals will create new market offerings."



# Future of Finance

Disruptive innovation technologies from crypto-currencies to predictive analytics and robotics, are transforming financial services. This is creating opportunities for other sectors, such as retail, telecoms, technology and services, to acquire and invest in Fintech start-ups and develop new cross-sector offerings.



#### Retail

**Metro AG**, the German retailer recently invested in **Orderbird**, an iPad-based point of sale system for restaurants in order to boost digital engagement with customers<sup>28</sup>.

Amazon recently entered the Indian marketplace and acquired Emvantage to develop its own payment platform<sup>26</sup>. •

#### Telecoms

**Orange Group** recently acquired a majority stake in **Groupama Banque** and renamed it Orange Bank to offer mobile banking solutions to customers<sup>29</sup>.

Samsung acquired LoopPay, a pioneer of contactless payments and mobile wallets, in order to develop and launch SamsungPay<sup>30</sup>. 

●

#### **Technology**

**Google** acquired intellectual property assets from **Softcard**, a payments start-up, in order to integrate it into GooglePay service<sup>31</sup>. **⑤** 

**Intel Capital** is one of the investors behind **iZettle**, a fintech start-up that develops digital point of sale (POS) products for small businesses<sup>32</sup>. •

#### Services

**Arvato**, the BPO provider, acquired **AfterPay**, a payment-after-delivery solutions start-up to bolster its post-payment process service<sup>33</sup>. **3** 

**Go-Jek**, the Indonesian ride-hailing service provider that is backed by KKR, recently acquired **PonselPay**, a mobile payment start-up<sup>34</sup>. •

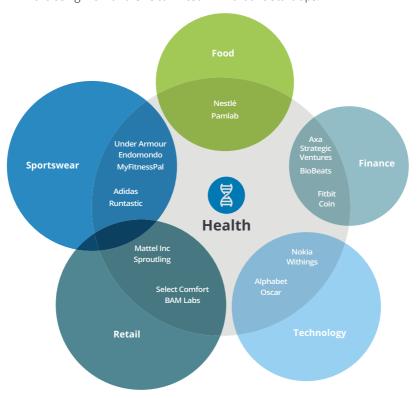
#### Key

AnalyticsAlDigitalFintechIoTSocial



# Future of Health

Digital technologies are set to revolutionise future healthcare and in the process allow for new business models and marketplaces to emerge at the intersection of technology, health and consumers. As a result sectors such as consumer products, retail, insurance and others are using M&A and CVC to invest in innovative start-ups.



#### Food

**Nestlé** acquired **Pamlab**, a specialist medical food product company to develop new personalised healthcare solutions<sup>35</sup>

#### **Sportswear**

**Under Armour**, the apparel manufacturer, acquired **Endomondo**, a social fitness network and **MyFitnessPal**, a digital fitness training platform, to establish the world's largest digital health and fitness social community<sup>26</sup>.

Adidas acquired the digital fitness platform, Runtastic, to develop opportunities resulting from convergence of health & fitness, lifestyle and digital communities<sup>37</sup>.

#### Retai

Mattel Inc recently acquired Sproutling, a baby health sensing and wearable device manufacturer<sup>38</sup>. ●

Select Comfort, the Bedding manufacturing and retailer, acquired BAM Labs for its connected biometric solutions that improve sleep and wellness³9. 

●

#### Finance

**Axa Strategic Ventures** invested in **BioBeats**, an AI health platform that provide insights into individuals' health and well-being, by tracking data from wearables and smartphone sensors<sup>40</sup>. **(4)** 

**Fitbit**, the connected health device manufacturer, acquired **Coin**, a fintech start-up that has developed a wearable payment platform<sup>41</sup>. **●** 

#### **Technology**

**Nokia** acquired **Withings**, a connected health company that has a range of consumer health monitoring devices and digital health services<sup>42</sup>. •

Alphabet's growth equity fund invested in Oscar, a health insurance start-up<sup>43</sup>.

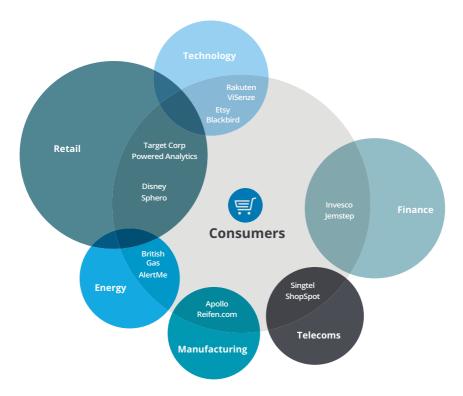
#### Key

AnalyticsAlDigitalFintechIoTRoboticsSocial



# **Future of Consumers**

The confluence of innovations in cognitive technologies, digital, data analytics and social media-oriented business models is redefining companies' engagement with consumers. This is creating new opportunities for sectors such as technology, health, finance and others. Companies are using M&A and venturing to explore and commercialise these opportunities.



#### Retail

Target Corp acquired Powered Analytics to use its iBeacon technology and data analytics to improve the in-store shopping experience<sup>44</sup>.

**Disney's** Accelerator is incubating **Sphero**, a connected play start-up that fuses digital and robotic play through connected toys and immersive experiences<sup>45</sup>.

#### **Energy**

**British Gas** acquired **AlertMe**, a start-up that has built an interoperable platform to connect an ecosystem of home devices and domestic appliances<sup>46</sup>. •

#### Manufacturing

**Apollo**, the India based tyre manufacturer, acquired **Reifen.com**, the second largest online retailer of tyres in Europe<sup>47</sup>. •

#### **Telecoms**

**Singtel** has invested in **ShopSpot**, a mobile commerce platform based in Asia<sup>23</sup>. **⑤** 

#### **Technology**

**Rakuten**, the e-commerce platform, has invested in Singapore-based Al start-up **ViSenze** which specialises in image recognition<sup>49</sup>. **2** 

Etsy, the ecommerce platform, acquired **Blackbird**, an Al start-up that uses machine learning for consumer recommendations<sup>50</sup>.

#### Finance

Invesco acquired Jemstep, a fintech start-up that developed an automated platform for investment advisors and combined it with its investment management capabilities to offer a comprehensive digital investment advisory solution<sup>48</sup>.

#### Key



# Future of Manufacturing

Technological breakthroughs such as additive manufacturing and advanced materials, in combination with changes in consumer demand and the economics of supply chains, are enabling the manufacturing sector to undergo a transformation not seen since the days of the industrial revolution. Companies are using M&A and venturing strategically to transform themselves and capture new opportunities.



#### **Crowd Models**

Airbus Ventures has invested in Local Motors, a start-up that uses a crowdsourcing model to design and develop Cargo Drone. Local Motors have previously used this crowd-based collaboration model to build the world's first 3D-printed car<sup>51</sup>.

#### Retail

In an example of a digital retailer buying a 'bricks and mortar' business, **Harry's**, an online retailer start-up for men's grooming products, acquired **Feintechnik** razor factory in Germany to achieve end-to-end ownership of its production and supply chain systems<sup>52</sup>.

#### Technology

**Midea**, the Chinese consumer electronics company, bought **Kuka**, the German robotics and automation systems manufacturer<sup>53</sup>. •

**Autodesk** acquired **Netfabb**, a German start-up focused on software solutions for industrial additive design and manufacturing<sup>54</sup>. **(a)** 

#### Advanced Materials

**Ikea** has invested in **DyeCoo**, a supplier of dyeing systems for the textile finishing industry which are based on superior CO2 technology<sup>55</sup>.

**GE** and **BMW** have invested in **Carbon**, a 3D printing company that uses a photochemical process to eliminate the shortcomings of conventional 3D printing by harnessing light and oxygen to produce objects from a pool of resin<sup>56</sup>. **⊕** 

#### **Energy**

**Tesla** acquired **SolarCity**, a specialist in solar energy products and services, to develop a vertically integrated sustainable energy market offering<sup>57</sup>. **●** 

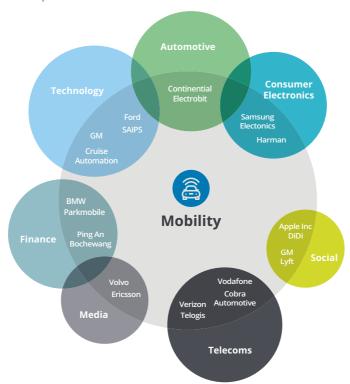
#### Key

♠ Analytics
♠ Al
♠ Digital
♠ Social
♠ Fintech
♠ IoT
♠ Robotics



# Future of Mobility

Technological advances are transforming the global auto industry. Personal mobility is being redefined. This has implications for telecoms, insurers, health, energy companies, payment providers and more. A new ecosystem is developing at the cusp of automotive and other sectors. Companies are using M&A and CVC to develop new market offerings and tap into the full potential of these shifts.



#### Automotive

**Continental** acquired Finland-based **Elektrobit**, a specialist in automotive software solutions, to boost its development of automated driving systems<sup>58</sup>.

#### Technology

Ford acquired SAIPS, an Israeli start-up that focuses on machine learning and computer vision for driverless car systems<sup>59</sup>.

**GM** acquired **Cruise Automation** to accelerate the development of its autonomous vehicle technology<sup>60</sup>. **3** 

#### Finance

**BMW** has invested in **Parkmobile**, a start-up that is a leading provider of on-demand mobile payment solutions for public on-street parking<sup>61</sup>. **A D** 

Ping An Insurance's venture capital fund has invested in **Bochewang**, a used and restored car sales marketplace<sup>62</sup>. **●** 

#### Media

**Volvo** has entered into partnership with **Ericsson** to develop intelligent media streaming capabilities for autonomous vehicles<sup>63</sup>. • •

#### **Telecoms**

Vodafone acquired Cobra Automotive to develop telematics and M2M connectivity solutions for Automotive and Insurance sectors<sup>64</sup>. 

●

Verizon acquired Telogis, a mobile enterprise management platform, to enhance its connected vehicle business solutions<sup>65</sup>. ♠

#### Social

**Apple Inc.** has invested \$1 billion in **DiDi**, China's largest ride-hailing platform<sup>66</sup>. **●** 

**GM** has invested in **Lyft** to develop new social business models for the autonomous vehicles market<sup>67</sup>. **●** 

#### **Consumer Electronics**

Samsung Electronics recently acquired Harman, the auto technology group, to accelerate its growth in automotive and connected technologies<sup>68</sup>. 

●

#### Key

AnalyticsAlDigital FintechSocialFintechIoTRobotics



# Harnessing convergence opportunities through M&A and venturing

#### 1 Align strategies to maximise impact

It is crucial companies develop clarity on the role that external innovation can play in helping them achieve their strategic ambitions. Innovation M&A and corporate venture strategies should closely mirror the long-term strategic goals, so that there is clarity of purpose and sharing of objectives on both sides.

#### 2 Demonstrate commitment

Once companies choose a course of action, it is important they remain committed for a period of time to signal their intent to current and future targets and partners.

#### 3 Develop a competency to monitor signals and shifts

As part of their M&A and venturing strategies, it is crucial that companies develop a competency to monitor signals in not just technology shifts, but also shifts in consumer behavior and market activities in adjacent sectors.

#### 4 Use collaboration as a business model

Companies should consider collaboration, not just with innovation ecosystem players, but also with other industries with a view to harnessing convergence opportunities. Convergence should also provide incentives for non-traditional competitors to co-invest in emerging technologies. Such investments minimise the risks and capital outlay while at the same time allowing for sharing of skills and expertise. In turn, this could create new consumer offerings and reshape existing markets.

## 5 Use these smaller acquisitions and investments to drive cultural change

Assimilating external innovation into company culture is perhaps the most challenging aspect of innovating for growth. Change starts at the top and leaders need to be fully committed to this strategy. M&A and CVC teams need to act as change agents to encourage adoption and inspire a culture of innovation within the corporate.

"Assimilating external innovation into company culture is perhaps the most challenging aspect of innovating for growth. Change starts at the top and leaders need to be fully committed to this strategy."



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