



# TechWorld

February 2018



## About TechWorld

PwC's Technology practice is pleased to share its monthly newsletter—TechWorld. This newsletter aims to share with its readers exciting new developments in the following sub-segments within the technology sector: a) IT & ITeS, b) hardware and electronics, and c) eCommerce and Internet businesses. Every month, we will be highlighting key market indices that will provide readers with a real understanding of the sector's performance. The second part of the newsletter will underline the key trends shaping the sector, along with our insights into how leading global technology companies are envisioning transformation in their businesses in the near future. At PwC, we are constantly on the lookout for new innovations and opportunities arising for our technology clients, especially since they are at the forefront of the on-going technological revolution. Our objective is to bring to the fore important performance metrics, sector performance, 'value drivers' shaping the technology sector today, key challenges ahead of technology sector companies, future growth drivers and PwC's global thought leadership on these and more issues.

For suggestions or feedback, do write to us at [sandeep.ladda@pwc.com](mailto:sandeep.ladda@pwc.com)

## From the Technology Leader's desk

This month, we have analysed how the digital businesses of IT/ITeS companies are witnessing increasing traction and how their market share is being challenged by non-traditional players having strong credentials in new-age technologies such as the cloud, artificial intelligence (AI) and advanced analytics. Similarly, disruptive technologies are also powering the consumer electronics industry, which has been witnessing disruptive innovations, rising consumer expectations and a reduced shelf life of products. With the rising adoption of newer technologies, consumer electronics manufacturers are realising that to win in the marketplace, they must have knowledge about how customers interact with technology. Our 'spotlight' section talks about how consumer demand is picking up for smart devices and what the manufacturers of these devices need to do to stay ahead in the game. We have attempted to offer both fact-based analysis and experience-based perspectives, originating from active collaboration among our professionals working in and with the technology industry. This month, we have a special section on Budget 2018 and how it will impact the business climate for technology sector companies. I hope you find this edition interesting and welcome your feedback.



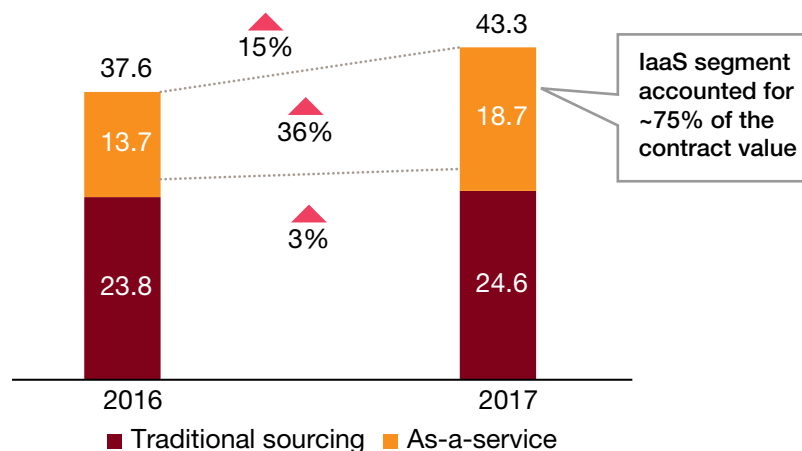
**Sandeep Ladda**

Partner, Global TMT Tax Leader | India Technology Sector Leader





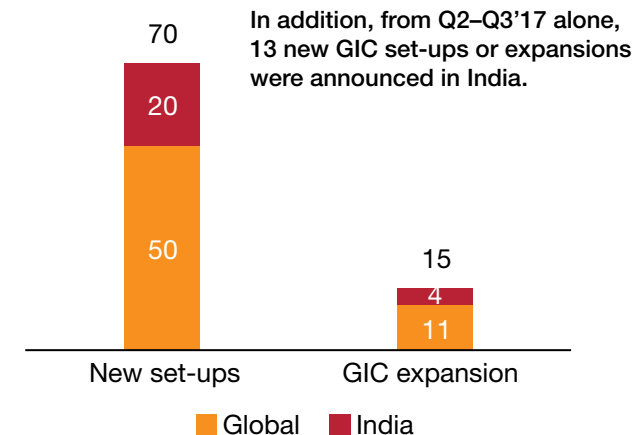
### Global commercial market – contracting trends (ACV\* in billion USD)



**By 2020, the number of Internet of things (IoT) devices in India is expected to increase tenfold to 200 crore.**

Source: MeitY

### Number of GIC set-ups – Q2–Q3'17

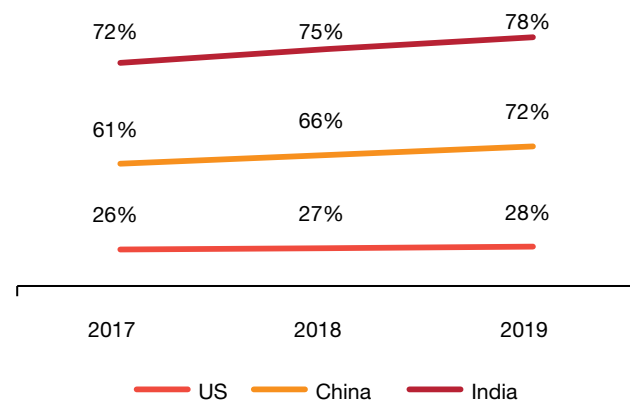


**Today, digital accounts for 14% of the IT-BPM industry revenue. By 2020, it will account for 20% and by 2025, it will reach 60%.**



Source: Nasscom

### M-commerce % share of total retail eCommerce sales



India differs from most developed markets; consumers are making the shift from desktop to mobile for online shopping. Mobile's share of eCommerce to reach **80.0%** by 2020.



Source: eMarketer, August 2016

The mobile industry in India is expected to contribute **8.2%** to the country's GDP from the current **6.5%**.



Source: GSMA

**Note: \*Excludes public sector outsourcing contracts. ACV – Annual contract value. Contracts with ACV > \$5Mn from the ISG Contracts Knowledgebase**



## Are smart devices the next growth engine for the consumer electronics industry?

The Internet of things (IoT) is transforming the everyday lives of people as it increasingly brings more things into the digital fold. As a result of the growing popularity of smartphones and tablets, some of the first sensors to hit the consumer market were touchscreens and proximity sensors. Today, companies across industries are investing not only in motion and image sensing but also in a variety of 'smart' consumer applications by combining IoT with advanced AI technologies to simulate intelligent behaviour and make informed decisions with little to no human intervention.

While still in their infancy, these smart devices are increasingly being used in homes around the world. PwC research indicates that **productivity, safety, convenience and control** are the main motivators for the purchase of smart devices in the US. However, these devices are too expensive and are difficult to use and maintain.<sup>1</sup> Over the past few years, there has been a spurt in the number of 'smart' electronic devices emerging across verticals such as utilities, healthcare, energy and automotive. Beyond the consumer front, enterprises have been advancing their digitisation efforts and adopting IoT for better predictability, efficiency and agility across the supply chain. A study conducted by MIT Sloan suggests that IoT and AI have the potential to reduce facilities' maintenance spend by as much as 20–25%.<sup>2</sup> These factors are expected to spur the demand for electronic devices over the next five years.

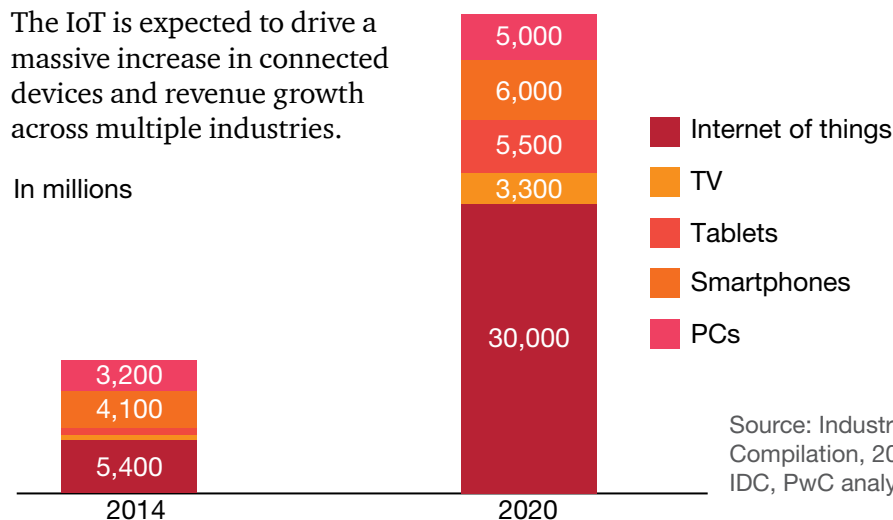
1 PwC. (2017). Smart home, seamless life. Unlocking a culture of convenience. Retrieved from <https://www.pwc.com/us/en/industry/entertainment-media/publications/consumer-intelligence-series/assets/pwc-consumer-intelligence-series-iot-connected-home.pdf> (last accessed on 20 January 2018)

2 Buiocchi, T. (5 December 2017). Driving operational cost savings with the Internet of things. MIT Sloan. Retrieved from <https://sloanreview.mit.edu/article/driving-operational-cost-savings-with-the-internet-of-things/> (last accessed on 22 January 2018)

### Connected devices by 2020

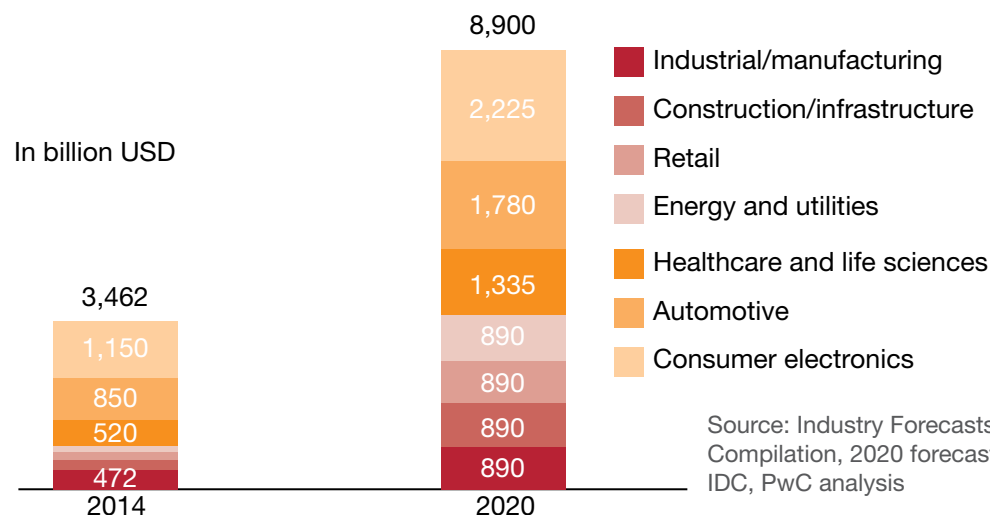
The IoT is expected to drive a massive increase in connected devices and revenue growth across multiple industries.

In millions



Source: Industry Forecasts  
Compilation, 2020 forecast from  
IDC, PwC analysis

In billion USD



Source: Industry Forecasts  
Compilation, 2020 forecast from  
IDC, PwC analysis



While there are varying estimates and forecasts regarding the number of smart devices, our study indicates a growth anywhere between 30 to 50 billion and a potential market worth 8.9 trillion USD by 2020. Consumer electronics is expected to become the largest segment by size with an estimated worth of 2.2 trillion USD.<sup>3</sup>

Consumer IoT is slowly finding its way into the living room through smart TVs, smart speakers, smart lighting and their digital assistants. Driving this demand are factors such as high disposable incomes, easy consumer finance and the government's push for a Digital India, which is expected to help create demand for premium products going forward. As a result, the electronics industry stands to gain the most from this 'IoT-ification', especially in the consumer appliances space.

We are already witnessing a rise in the usage of smart refrigerators, air conditioners and washing machines which are equipped with features that enable

consumers to remotely operate them using their smartphones. The now ubiquitous availability of in-home Wi-Fi, smartphone penetration and reducing 4G data prices will further develop an ecosystem which enables devices to constantly transmit, analyse and action upon operational, warranty and service-related data.

The concept of smart homes, just like that of smart cities, is steadily gaining ground in India. Reports suggest that spending on home automation products constitutes about 1–3% of the cost of homes.<sup>4</sup> This could translate into a market opportunity worth 8,000–10,000 crore INR, with the residential segment accounting for nearly 60% of the overall market.<sup>5</sup> At present, security and surveillance products are the most desired in India's home automation market. As smart technology becomes increasingly affordable, there could be newer avenues for companies to engage with and sell directly to consumers, within their homes.

3 PwC. (2015). The Internet of things: The next growth engine for the semiconductor industry. Retrieved from <https://www.pwc.de/de/technologie-medien-und-telekommunikation/assets/pwc-studie-prognostiziert-boom-in-der-halbleiterbranche.pdf> (last accessed on 19 January 2018)

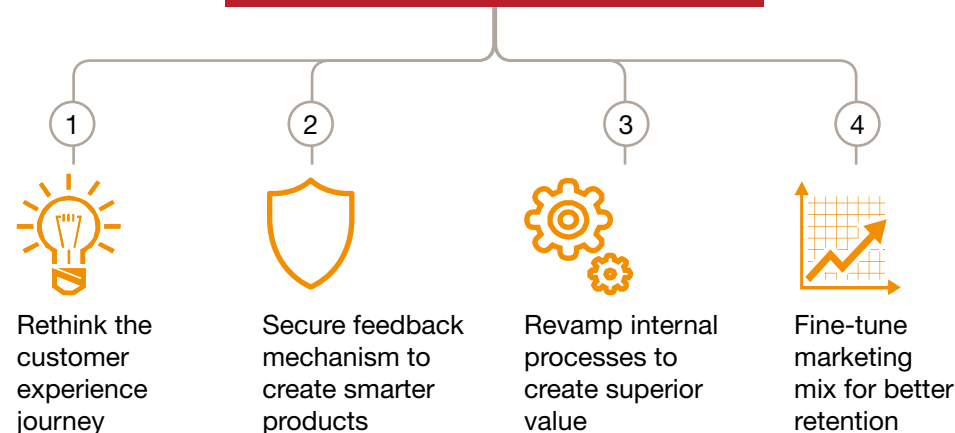
4 Schneider Electric. The smart home market in India. Retrieved from [https://www.schneider-electric.co.in/documents/buildings/Smart\\_Homes\\_in\\_India\\_White\\_Paper.pdf](https://www.schneider-electric.co.in/documents/buildings/Smart_Homes_in_India_White_Paper.pdf) (last accessed on 18 January 2018)

5 Deshmukh, A. (n.d.) Smart home solution market analysis, trends and current engagements. Retrieved from <https://www.sterilitetech.com/brain-share/smart-homes/smart-home-solution-market-analysis-trends-current-engagements> (last accessed on 20 January 2018)

6 PwC. (2017). 8th Digital IQ Survey – the India Story. Retrieved from <https://www.pwc.in/assets/pdfs/publications/2017/8th-digital-iq-survey-the-india-story.pdf> (last accessed on 19 January 2018)

7 PwC. (2017). Changing the game: The new rules of customer experience in the 'intelligent experience economy'. Retrieved from <https://www.pwc.com.au/consulting/assets/changing-the-game-report.pdf> (last accessed on 21 January 2018)

### Drive transformation across four key areas using IoT potential:



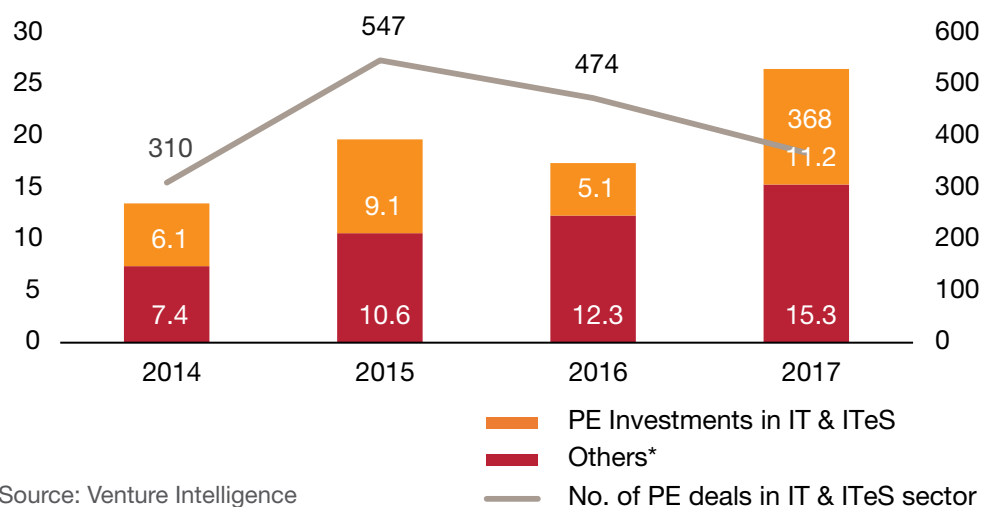
We expect this market to take off within the next 2–3 years as the prices of IoT devices drop and the general public becomes more aware about their benefits. While tapping into the IoT potential is only part of the story, to realise the full potential of this enablement, the government would need to build an ecosystem of supportive regulations around cyber security, privacy, data protection and the standardisation of equipment. This will help further promote the adoption of IoT across industries. PwC's 8th Digital IQ Survey, 'The India story', revealed that 64% of organisations are already making significant investments in IoT.<sup>6</sup>

With the commoditisation of IoT, boundaries between consumers, organisations and stakeholders across the value chain continue to disappear. Further, to achieve a high return on investment (RoI), companies must design an integrated programme around IoT, closely integrating their IoT strategies with an overall roadmap that includes:<sup>7</sup> a) new technologies in consumer experience, artificial intelligence (AI) and machine learning, augmented reality and blockchain; b) cyber security and c) overall digital transformation. This will help them gain further operational agility and efficiency while providing a differentiated experience for today's digitally connected customer.



In 2017, private equity (PE) investments were at a new high in India. PE witnessed a record high of 26.5 billion USD in investments across 679 deals, marking the year with some large ticket deals across industries. India's recent jump in rank from 130 to 100 in the World Bank's Ease of Doing Business index highlights the government's consistent efforts to position the country as an attractive destination for investors to do business—a trend that is expected to continue even in 2018.

#### PE investments (billion USD)



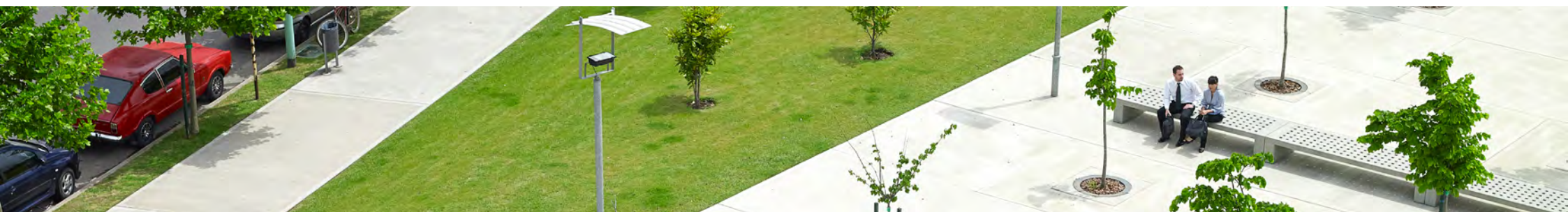
#### Top PE deals in 2017 – IT & ITeS

Company	Investors	Amount (million USD)
Flipkart	SoftBank Corp	2,500
Flipkart	Tencent, others	1,400
One97 Communications (Paytm)	SoftBank Corp	1,400
GlobalLogic	CPPIB	720

The technology sector (including IT & ITeS, eCommerce, software, hardware, electronics and the Internet) retained its dominant position with investments worth 11 billion USD across 368 deals, accounting for 43% of the investment value this year.

2017 was also a landmark year for PE exits. The year recorded 280 exits valued at 13.5 billion USD, which exceeded the previous best year for exits—2015—by nearly 36% in terms of value. The technology sector witnessed the highest exit activity, with 65 exits aggregating 6 billion USD.

Note: \*Includes BFSI, telecom, energy, manufacturing, healthcare, food and beverages, agri-business, engineering and construction, FMCG, media and entertainment, education, shipping and logistics, travel, retail and other services.



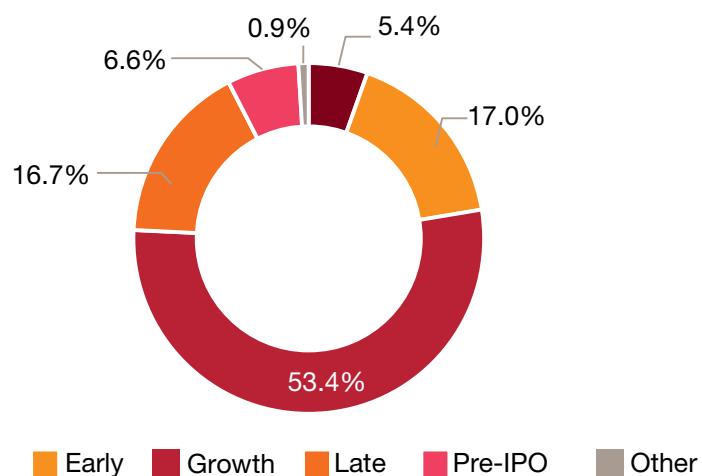


## IT & ITeS highlights – Q4 2017

In Q4 '17, the IT & ITeS sector attracted PE investments worth around 1.2 billion USD in 94 deals.

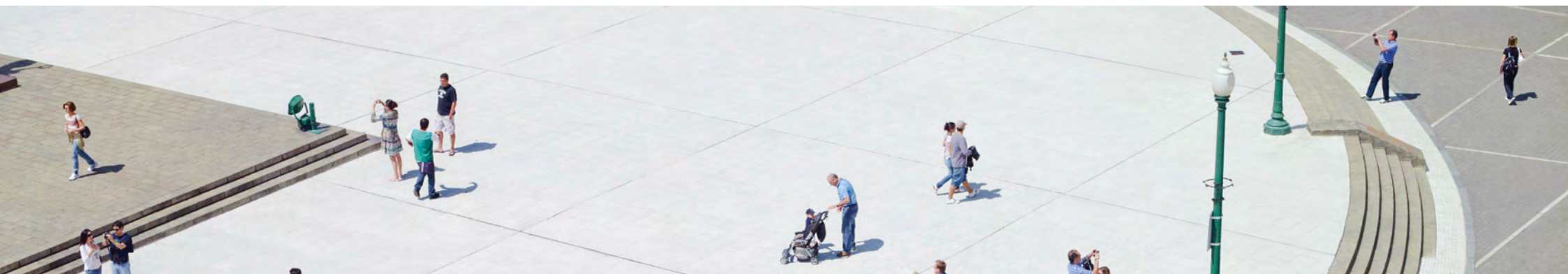
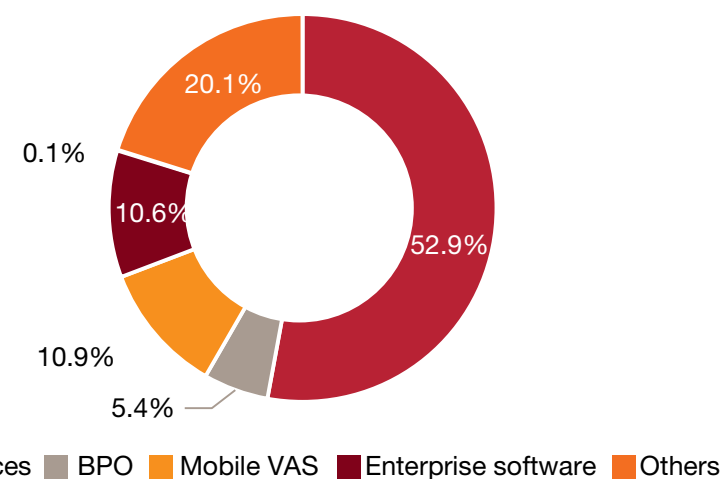
**By stage:** Growth-stage deals were the preferred route for PE investments in the IT & ITeS sector in this quarter, with 23 deals worth around 640 million USD. Early-stage deals and late-stage deals came in second and third with around 203 million USD in 64 deals and around 200 million USD in 1 deal, respectively.

PE investments by stage – Q4 2017



Source: Venture Intelligence

PE investments by sub-segment – Q4 2017

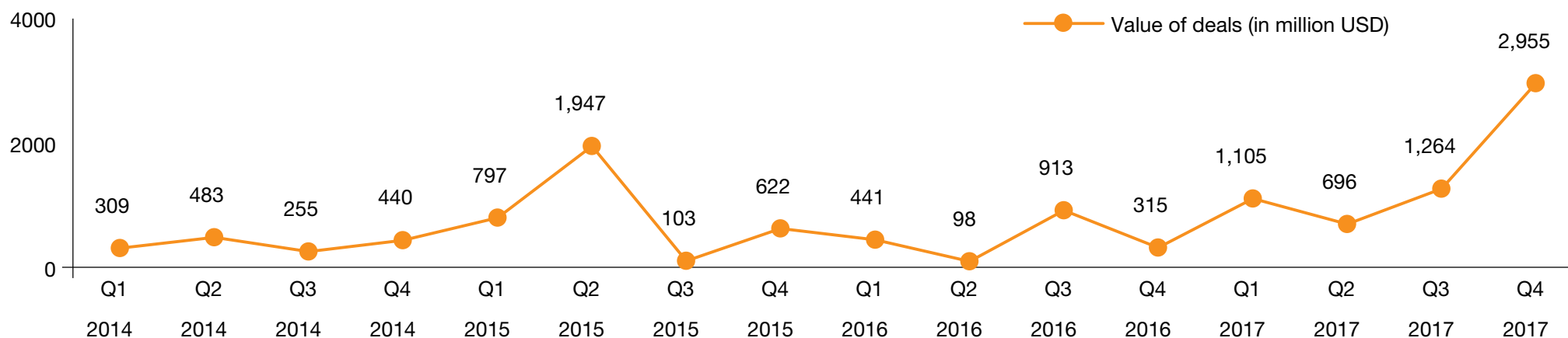




**By sub-segment:** Online services overtook the other sub-segments, recording around 634 million USD in 39 deals. Further, mobile VAS witnessed a major decline in investments—from around 486 million USD in Q3 '17 to 130 million USD in Q4 '17.

**PE exits:** In comparison to Q3 '17, Q4 '17 saw a 134% increase in exit value in the IT & ITeS sector, with 18 deals worth approximately 2.9 billion USD. This was also an 839% rise in exit value in comparison to the year-ago period, which saw 17 deals worth 315 million USD. Strategic sales were the preferred exit route in this quarter, with exits worth 2.1 billion USD in 10 deals.

#### Total IT/ITeS exits



Source: Venture Intelligence

**By region:** Bengaluru retained its grip on the top spot in this quarter, with investments worth approximately 517 million USD in 38 deals. NCR and Mumbai came in second and third with investments worth 313 million USD in 21 deals and 125 million USD in 14 deals, respectively.





***‘I see technology as a means to empower and as a tool that bridges the distance between hope and opportunity.’***

– Prime Minister Narendra Modi



In keeping with the above theme, the Finance Minister presented a

budget which included significant steps towards not only achieving the Digital India vision but also building an ecosystem around the latest technologies like AI for the development of the nation.

The government has doubled its allocation to the Digital India programme to 480 million USD (3,073 crore INR) in 2018–19. Along similar lines, it will also be investing in R&D and skill development in robotics, AI, blockchain and IoT, among other technologies.

We are pleased to share our insights into some of the Budget-related updates that are expected to significantly affect the business climate for different technology sector companies across segments—namely a) IT & ITeS, b) hardware and electronics, and c) eCommerce and Internet businesses.

## Description

### Taxation of digital economy

In line with OCED BEPS Action Plan 1 recommendations and with a view to bringing into the tax net the overseas digital companies that did not have a physical presence in India but were drawing income from India, the definition of ‘business connection’ under the Act has been expanded to bring in a new nexus rule that includes ‘significant economic presence’ based on thresholds in relation to ‘revenue’ and ‘users’ in India. It is clarified that these provisions will not have an impact unless the corresponding PE provisions in treaties are amended.

### Tax framework for start-ups in India

Presently, deduction of 100% of the profits earned by start-ups in India is eligible for 3 years in a block of 7 years provided that the company is incorporated after 1 April 2016 but before 1 April 2019 and the total turnover of the company is less than 25 crore INR for financial years beginning 1 April 2016 and ending 31 March 2021.

In order to improve the effectiveness of the scheme for promoting start-ups in India, it is proposed to extend the sunset period for incorporating a start-up from 1 April 2019 to 1 April 2021. Additionally, the definition of ‘eligible business’ has been expanded to include any scalable business model with the potential for employment generation or wealth creation. Further, the number of years for testing the turnover criteria has been increased to 7 years.

### Boost to domestic electronics and hardware manufacturing

Basic customs duty (BCD) on certain electronic products like mobile phones, televisions (LCD/LED/OLED) and other accessories and parts thereof has increased (mobile phones from 15% to 20%, televisions from 7.5%/10% to 15%).

The Social Welfare Surcharge will be levied @ 10% on BCD except in the case of certain specified products. Such surcharge shall be levied @ 3% and will be non-creditable. With the introduction of the Social Welfare Surcharge, the Education Cess and Secondary and Higher Education Cess currently levied on the import of goods (@ 3 %) have been abolished.

## Implication of the change

The clarification that profits will continue to be taxed as per the existing treaty rules will avoid undue litigation. There could be a need to analyse any potential overlap with Equalisation Levy related provisions in certain situations. Also, those digital businesses that had no presence in India are likely to be under the scanner, unless treaty protection is available and the MLI provisions do not alter the treaty provisions.

The increase in the sunset period for claiming deduction, along with the widening of the definition of benefit under this section, would motivate the start-up community and lead to increased innovation, employment and growth for the economy. The extension of the sunset period for claiming deduction under section 80-IAC would enable more start-ups to prosper in the digital segment, with the government investing heavily in promoting its Digital India and Make in India initiatives and boosting employment in the country.

The increase in customs duty on certain electronic products and levy of Social Welfare Surcharge would lead to an increase in the cost of goods imported into India. This will boost the government’s Make in India programme and domestic electronics and hardware manufacturers are likely to benefit from this change.



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