THE FUTURE OF THE TMT WORKPLACE

How to Future Proof Your Workplace and Real Estate Strategy for the Age of Digital Disruption
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Foreword

This report is the second in a series of reports co-produced by Cushman & Wakefield and Unwork on the future of work, workplace and real estate strategies in different sectors. Our first report – The Future of the Financial Workplace – highlighted how a fragile global economy, changing regulations and the rise of new technologies were transforming the workstyles of banks and other financial institutions.

In preparing for our next report, we wanted to focus on a sector at the apex of even greater change. The Technology, Media and Telecoms (TMT) sector was the obvious choice. When the Federal Reserve last raised interest rates in June 2006, Twitter users were sending out the platform’s first Tweets. Just nine years later, half a billion Tweets are posted on the microblogging platform every single day.

What does this incredible pace of change mean for workplace and real estate? In this report we identify how workplace strategies are adjusting to the ever increasing threat of digital disruption; how leading players have structured their operations across different geographies; and how workplaces in the sector are adapting to accommodate greater convergence and overlap between technology, media and telecoms.

TMT companies led the way in creating some of the most innovative and creative workplaces in the world today. As the parameters of the sector and nature of work that TMT companies undertake changes, they continue to be at the forefront of workplace innovation.

It is our hope that this report – and subsequent reports in this series – give heads of corporate real estate a marker to navigate a fast moving and challenging world.

We hope you enjoy the Future of the TMT Workplace report.
Introduction

‘If you don’t like change,’ former US army chief of staff Eric Shinseki once quipped, ‘you’re going to like irrelevance even less.’

For players in the technology, media and telecoms (TMT) sector, these words couldn’t be any more appropriate.

Traditional ways of working are being disrupted at an unprecedented speed by the accelerating pace of technological change. New competitors from unfamiliar parts of the world are rapidly scaling and competing globally. Entire industries are being transformed by new applications and business models, devastating companies not agile enough to respond to a shifting competitive landscape.

For companies in the TMT sector – who are at the hard end of much of the disruption taking place – change is the only constant. The break-neck pace that technology is advancing at is making it harder for companies in the sector to forecast growth and develop strategies for the long term. The surge in the number of connected devices is shortening adoption curves – while Facebook took 42 months to reach 50 million registered users, just a few years later mobile game Angry Birds achieved 50 million downloads in 35 days. Falling costs of technology are leading to the commoditisation of existing products faster than ever before. The source of competitive advantage for a TMT firm is no longer derived from the size of its revenues or the number of people it employs, but from its ability to unlock new sources of growth by rapidly developing new products and services.

If you’re the director of property at a TMT firm, how can you align your workplaces and real estate to support this new source of competitive advantage? This report will show you how. We’ve been around the globe talking to people involved in the provision of work environments from across the TMT sector. We’ve conducted numerous interviews with directors of property at global Fortune 500 companies, workplace leads, world-renowned designers and architects, and founders of startups and high-growth businesses, identifying how leading companies have structured their workplaces and real estate to ensure that their businesses grow in the future.

This isn’t just a report for directors of property, however. It’s also a report for c-level executives who want to know how they can make their firms more disruptive and innovative. Key to creating a workplace for the future is aligning workplace strategy to business strategy. Through highlighting challenges, case studies and best practises, this report sets out how successful workplace and real estate strategies create successful businesses.

This report is the second in a series, commissioned by Cushman & Wakefield in 2015 and researched and written by UnWork.com in collaboration with Cushman & Wakefield.
Executive Summary

Not since the onset of the industrial revolution has technology been poised to play such a transformational role in the lives of consumers and operations of businesses.

The Internet of Things (IoT), smart cities, cloud computing, additive manufacturing and artificial intelligence – to name only a few examples – will fundamentally change the way people live and work. At the vanguard of this change is the technology, media and telecoms (TMT) sector, creating new products and services that are disrupting old business models and transforming industries beyond their own.

Companies in the TMT sector, however, must walk a tightrope. While technological advances present a raft of opportunities for TMT players to grow into, they’re also making the competitive landscape more perilous and volatile. The surge in the number of devices connected to the Internet and falling costs of computational power are accelerating adoption curves and shortening product lifecycles. Smartphones may be the fastest adopted technology in history, but the makers of these devices are seeing their revenues eroded by plucky upstart brands who are rapidly commoditising value chains. Emerging market firms are scaling at an unprecedented speed and established players are finding it harder to source the technical talent vital to the future of their companies.

The successful TMT firms of the future will be those that can identify new sources of growth and rapidly develop products and services to serve emerging or previously unmet needs.
TMT players also need to find novel applications for their existing technologies and expertise, leveraging these to give them an edge in growth areas like connected homes and big data. They need to be able to quickly augment their organisational capabilities and adopt agile, disruptive behaviours.

Here, workplace and real estate strategies will play a critical role. Workplaces are the operational level in which strategy succeeds or fails. Too often, workplaces and real estate are separate from the strategic level of business. This is a mistake. No business executive at a hardware company would say that the management of their supply chains was of secondary importance to the company’s operations. No executive at a TMT company should think that the environments in which work gets done are not of vital strategic importance.

As this report highlights, the companies that are leading the TMT sector are those creating new types of workplaces to expedite product development; basing their operations in the right locations to ensure a healthy supply of talent and access to growing markets; and building the flexibility into their portfolios that will enable them to scale their real estate commitments as required.

While technological advances present opportunities for TMT players to grow into, they’re making the competitive landscape more perilous and volatile.
The Future of the TMT Workplace

Executive Summary

1. Transformation

Accelerated adoption curves and shortening product lifecycles mean that competitive advantage in the TMT sector is increasingly derived from an organisation's ability to develop new products and services to unlock new sources of growth. Workplaces, location strategies and the composition of workforces at TMT players are all changing to accommodate the new products and services that companies in the sector are developing.

This report sets out how TMT players can use their workplaces to future-proof their businesses. It identifies five forces that are driving TMT players to fundamentally rethink their workplace and real estate strategies:
5. Talent

There’s a war going on for top technical talent. Demand for developers, data analysts and engineers already outstrips supply, and as technology is high up on the agenda of businesses beyond the TMT sector, the competition for talent is growing more intense. Furthermore, the generational divide between younger coders, who tend to be proficient in different programming languages, is leading to an impending skills gap for many companies. Attracting the right talent is driving decisions about location and workplace.

4. Emerging Markets

The shift in economic dynamism from the developed economies of the West to the emerging economies of the developing world is leading TMT companies to think more seriously about their emerging market strategies. These countries not only offer huge opportunities for growth, but also deep pools of talent. While this makes them attractive locations for TMT firms, they’re also home to ferocious local competition that developed market firms will have to tackle head on.

3. Cities

Concentrations of customers and talent in cities are drawing TMT players to base their operations inside urban locations, rather than in out of town ones. Cities can act as testbeds for new technologies for TMT companies, but heads of real estate need to be able to identify which cities have the deepest talent pools, best universities, most vibrant startup ecosystems and established networks of peer companies.

2. Disruption

New applications of technology, the falling costs of computational power and the availability of platforms to easily build, distribute and market new products is empowering the rise of disruptive new entrants to the sector. Young companies and new business units can scale rapidly, making it harder to develop strategies for the long term. In this context, forecasting workplace and real estate requirements is a significant challenge – as one corporate real estate professional for a large technology company told us, ‘technology moves quickly; property doesn’t.’ Increasing the flexibility of their portfolios is a key priority for the companies we spoke to.
How TMT Players are Responding

The way that TMT players respond to the five forces will determine their ability to create leading workplaces, maintain competitive advantage and be successful in the future. There are four areas in which leading TMT players are using their workplace and real estate strategies to future-proof their businesses.

1. The Changing Role of Workplaces
Recognising that developing new products and services requires a departure from ‘business as usual’, many TMT players are creating specialist workplaces where ideas can be developed faster. Accelerator and incubator spaces are becoming a key component of real estate strategies as companies attempt to work more closely with startups and high-growth companies to fast-track product development. Leading players are also designing workplaces which encourage interactions between different employees in the hope that new ideas will emerge from ‘bump’ moments between specialists from different business units.

2. Agile Workplaces and Flexible Real Estate
With the break-neck pace of technological change making it harder to accurately forecast workplace and real estate requirements, heads of real estate need to understand how they can increase the agility and flexibility of their portfolios. Moving from allocations of space that rely on ‘one person, one desk’ can unlock significant space savings by freeing up under-occupied space and allow growing businesses to scale without expanding their footprints. Flexible offices are also becoming a core part of property strategies in the sector as companies look to limit long-term lease liabilities and quickly ramp up their operations in new markets.

3. Location Strategies for the Future
With cities becoming the engine of growth for TMT companies, leading firms are increasing their footprints in urban locations in both the developed and emerging world. As a wave of new TMT hubs emerges in developing markets like China, India and sub-Saharan Africa, new locations for functions like research and product development are arising in unfamiliar places. TMT firms require detailed city-by-city metrics on growth projections, demographics, talent pools, local universities, infrastructure and competitors to make location decisions. They also need to think about how they can partner with universities and city governments, and distribute work across the operations of their various locations.

4. Workplaces and Talent
Winning the war for talent is driving decisions about where TMT players locate, what kinds of work environments they create and the range of amenities and services they build into their workplaces. In the near future, however, demand for talent will require companies in the sector to think about how they can tap talent from more diverse backgrounds and make the leadership of their organisations more representative of the generations they employ. With the supply of younger workers dwindling in most developed economies, programmes to attract and retrain older workers and increase levels of female participation are key to success.
What TMT Players Need to Do Next

The Future of the TMT Workplace

1. Scenario Plan
In an increasingly volatile competitive environment, it’s more important than ever that property teams spend more time planning for ‘what if’ scenarios – ‘what if we acquire a business of 2,000 people?’, ‘what if our new business unit exceeds growth expectations?’, ‘what if we need to streamline our portfolio?’ This will significantly speed up decision making when it’s needed most.

2. Build Flexibility
Change is the only constant in the TMT sector. To thrive in times of turbulence, directors of property need to focus on making their real estate portfolios as flexible as possible. Modular workplaces that can be easily refitted to new roles and workstyles are essential, as the products, services and composition of employees at TMT firms is set to change significantly over the course of the next few years.

3. Align Workplace Strategy with Corporate Strategy
Workplace and real estate strategy must be totally aligned with business strategy. Without frequent discussions between the property team and the business leadership, companies can’t create work environments to support the aims of the business. Heads of property must take a more active role in the leadership of the company, and the c-suite must take a more active interest in workplace and real estate.

Being a successful TMT company in the future will be far harder than it was in the past. Firms in the sector need to understand how their workplace and real estate requirements will change in the next few years, and what they can do to position themselves to grow in a more fast-paced world. This report breaks new ground in setting out a practical agenda for change.
The Future of the TMT Workplace

TMT – Totally Meaningless Term?

A few years ago the phrase ‘TMT’ was beginning to look slightly outmoded – a useful category to lump any business doing something vaguely IT-related into, but hardly a meaningful term that captured the diversity of the businesses it was used to refer to.

This is no longer the case. Powerful changes to the way consumers and enterprises interact with technology, consume media and communicate have focused the sector around providing the infrastructure, apps and content that we use or take advantage of every day. Broadly speaking, TMT sector companies are those that are involved in the provision of both the software and hardware consumers and enterprises use to access content, work and communicate; they provide the media, apps and content accessed on computers, smartphones and tablets; and power

The lines between technology, media and telecoms are, however, becoming increasingly blurred as players in the sector vie to keep pace with the changing demands of customers and identify similar opportunities for growth.
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Top 30 TMT Companies and Number of Employees

TMT – Totally Meaningless Term?
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TMT – Totally Meaningless Term?

Top 30 TMT Companies – HQ Location

The networks that enable the delivery of data and information to these devices. They are the companies at the frontier of the digital economy, making possible advances like self-driving cars, intelligent software and smart cities.

The lines between technology, media and telecoms are, however, becoming increasingly blurred as players in the sector vie to keep pace with the changing demands of customers and identify similar opportunities for growth. This is leading to a considerable degree of overlap between companies in the space. Facebook, a technology company, last year acquired smartphone messaging app WhatsApp for $22 billion, an app that telecoms companies had complained was dissuading users from sending text messages.1 AOL, a media company which operates online outlets including the Huffington Post, Techcrunch and Engadget, was recently acquired by American telecoms giant Verizon for $4.4 billion.2 Elsewhere, telecoms company BT announced in early 2015 that it will acquire mobile network EE, with reports that it intends to bundle mobile deals with its home broadband and TV packages, including access to the sports and film networks it operates.3

Over the course of the next ten years, not only will the distinctions between the different parts of the sector fade, but leading TMT companies will come to transform industries beyond their own. Google X, the secretive subsidiary of Alphabet, is working on drones and robotics technologies with applications in logistics and defence. Apple is rumoured to be working on an electric, semi-autonomous car that the firm will unveil in 2019.4

The pervasive nature of technology ensures that new opportunities will be

Facebook acquisition of WhatsApp

Verizon acquisition of AOL

Facebook acquisition of Oculus VR

Naspers

NTT DoCoMo

Microsoft

Oracle Corp

Alphabet

Apple

Cisco Systems

Walt Disney

America Movil

Intel Corp

Qualcomm

Verizon

IBM

Time Warner

Twenty-First Century Fox

Comcast

AT&T

Vodafone Group

Deutsche Telekom

SAP SE

Baidu

Tencent

Tata Consultancy Services

Nippon Telegraph & Telephone

KDDI Corporation

Softbank Group

China Mobile

Telefonica

TSMC

Naspers
As the nature of the sector changes, consolidation, a changing regulatory environment and the rapid emergence of new disruptive players are all impacting TMT firms with incredible force. In 2014, global M&A activity in the sector saw deals reached to the value of $296 billion, with slightly more than half coming from technology alone. Many of these deals were due to TMT companies hoping to consolidate their position and benefit from increased scale, which continues to be a big theme in 2015. Avago announced in May 2015 that it intends to buy rival chipmaker Broadcom for $37 billion. A few weeks later, Intel said that it would acquire Altera for $16.7 billion. Dell announced in October 2015 that it would acquire storage company EMC for $67 billion, the biggest ever deal in tech. Charter Communications agreed to buy Time Warner Cable in 2015 for $55 billion, after a rival offer by Comcast was blocked by regulators. In telecoms, the merger between Nokia and Alcatel-Lucent will create a European telecoms equipment group worth more than €40 billion.
Debates over ‘net neutrality’ in the United States and the publication of the Digital Single Market strategy by the European Commission highlight how regulation is also shaping the TMT sector. The decision by the Federal Communications Commission that Internet access in the United States should be regulated like a public utility prevents the cable companies from slowing down access to online video streaming services like Netflix, who not only deliver content through the cable companies’ Internet pipes, but also produce their own media that competes with the lucrative TV bundles that cable operators sell to households. Meanwhile in Europe, telecoms operators have been lobbying for more consistent regulation of the sector that would allow them to compete with the likes of Google and Facebook more effectively. Some of the regulatory changes currently being set forth by the European Commission, however, will adversely affect the telecoms sector – roaming charges for mobile phone users are set to be abolished by June 2017.10

The accelerating pace of technological change is also empowering new players to disrupt incumbents and reshape industry paradigms. Xiaomi, nicknamed ‘China’s Apple’ for its glitzy smartphones, recorded triple-digit growth towards the end of 2014 and is now valued at close to $50 billion.11 Despite being founded in 2010, Xiaomi is now second only to Samsung and Apple in the global smartphone shipment race and has poached former Google VP Hugo Barra to lead the brand’s international expansion.

Changes to the landscape of consumer and enterprise technology have disproportionally
benefited technology firms over their media and telecoms counterparts, who have struggled to keep pace with the changing demands of their customers. Even within the technology space, however, profits have been largely concentrated in the hands of a few players – like Apple, Google and Facebook – who have built open yet proprietary ecosystems. These players are now expanding aggressively into new growth areas like artificial intelligence, wearables and the Internet of Things. Apple acquired Beats Electronics in May 2014 for $3 billion to expedite the development of a music streaming service.

The accelerating pace of technological change is also empowering new players to disrupt incumbents and reshape industry paradigms.
to compete with the likes of Spotify and Pandora. Facebook bought virtual reality headset maker Oculus VR in 2014 for $2 billion, with CEO Mark Zuckerberg announcing that VR was set to become ‘one of the next most important computing platforms’. Google, for its part, is hoping that the recent reorganisation into Alphabet will accelerate the growth of its ‘moon-shot’ projects like driverless cars.

Less profitable technology players facing commoditisation of their products and services are, rather than expanding into new areas, attempting to refocus their businesses and build the scale required to protect margins. This drive for focus has led many firms to split themselves in two: HP is splitting its computer and printer business from its enterprise hardware, software and services units; eBay has separated from PayPal, which it acquired in 2001, to allow the online auction site to focus on its e-commerce platform; and Symantec is becoming two companies, one focused on online security and the other on information management. These companies are all hoping that splitting their diverse business units into different companies will enable each to respond faster to shifting industry dynamics.

Enterprise software and hardware firms are under particularly intense pressure as the increasing demand for ‘software as a service’ and cloud computing disrupts revenue streams derived from selling customers newer versions of software on an annual basis. This is driving acquisitions and partnerships as tech players rethink their business models – IBM paid Globalfoundries $1.5 billion to take its microelectronics business off its hands in 2014 and is partnering with SAP to make SAP available via the cloud.

Similar forces are at play in the media industry as players like Gannett, Time Warner and News International split their old print assets from TV and other channels, and attempt to follow consumers into new forms of digital media. As part of its digital transformation, German media conglomerate Axel Springer sold off its regional newspapers and TV magazines in 2014 and has invested heavily in growing its paid content, digital advertising and online classified ads business. Its in-house venture fund, Axel Springer Ventures, has invested in price-comparison and loyalty shopping apps.

Media consumption habits are changing as consumers have more choice about both the kinds of media they engage with, and the way they consume it. Netflix was founded as an online DVD rental service in 1997; it now has over 60 million subscribers to its online
video streaming services and is available in over 50 countries. The shift to digital media has also benefited technology players like Google and Facebook, who control a disproportionate amount of the online advertising media space: Between them, Google, Facebook, Baidu and Alibaba control half of all digital advertising worldwide.

As with the media industry, telecoms companies have struggled to adapt to the changes being brought by new disruptive technologies. Despite the surge of global demand for data driven by the proliferation of smartphones and other devices, telecoms companies have seen profit margins squeezed and revenues from traditional streams like voice and texts decline. Competition from ‘over the top’ (OTT) apps like WhatsApp, WeChat and Facebook Messenger, which allow users to send messages and make calls free of charge, has expedited this trend and underscores the necessity for telecoms players of diversifying their offerings or risk seeing their services commoditised.

Attempting to bundle mobile contracts with fixed-line telephone, broadband and TV packages, in the way that BT is hoping to, has been a common strategy. Other players have focused on developing their own OTT apps: Spanish telecoms group Telefonica developed TU Go, a mobile app that lets users carry their mobile number across different devices and make calls over WiFi. Operators are also examining the potential of leveraging their infrastructure to give them an edge in emerging areas like the Internet of Things. AT&T is working with IBM on a smart cities programme; Thinking Things, Telefonica’s IoT offering, lets partners develop programmes to adjust climate and lighting in rooms, offices and buildings. NTT DoCoMo has partnered with Omron Healthcare to launch a new venture that lets consumers capture healthcare data on their smartphones and upload it to the cloud.

The increased convergence and overlap between TMT players is sharpening competition as technology, media and telecoms firms attempt to capitalise on the same growth opportunities. Competition will drive further consolidation as TMT companies look to adjoin their core businesses with others that are complementary. Twitter’s recent poor performance has made it more feasible that it could be acquired by Google to boost the search company’s online advertising revenues. Speculation was mounting in mid-2015 that Salesforce could be acquired by Oracle, whose technology Salesforce is built on.

As with the media industry, telecoms companies have struggled to adapt to the changes being brought by new disruptive technologies.
The changes taking place in the TMT sector are demanding a fundamental rethink of workplace and real estate strategies. In interviewing those involved in the provision of workplaces from across the sector, we identified five forces at the core of this shift.
The incredible pace of technological innovation means that TMT players must identify new sources of growth and transform how they create value for their customers.

Consequently, workplace and real estate requirements in the sector are changing to reflect the new products, services and organisational capabilities TMT players are developing.

Ferocious competition and accelerated adoption curves are shortening product lifecycles and powering innovation across the TMT sector. Smartphones – the fastest adopted technology ever – are rapidly being commoditised as upstart brands like Xiaomi and OnePlus release devices that utilise similar standardised components to those found in a flagship Apple iPhone or Samsung Galaxy, but that retail for a fraction of the price. Elsewhere, cloud companies are leveraging their scale to push down the price of servers, storage and network equipment, leading to declining revenue growth for hardware companies that build the physical technology that the cloud relies on.

With product lifecycles shortening and commoditisation occurring faster, competitive advantage for TMT companies is increasingly derived from their ability to identify new sources of growth and rapidly develop new products and services to serve emerging or previously unmet needs. Big data, additive manufacturing, cloud computing, virtual reality and a raft of other technological innovations are redefining industry parameters, creating new opportunities for TMT companies. ‘Software’, as Netscape co-founder and venture capitalist Marc Andreessen has said, ‘is eating the world’ – as technology comes to play an ever more pervasive role in the lives of consumers and the operation of enterprises, new markets are being created for novel applications and services.

As the products, services and organisational capabilities of TMT players change, so too are their workplace requirements – with future success closely linked with the development of new ideas, companies in the sector are increasingly designing spaces that can expedite the creation of new products and encourage the flow of information and ideas around an office. In addition to the physical space, the location of workplaces and the skills of the staff that work in them are changing too: In a bid to develop its ‘quad play’ offering of broadband, fixed line, mobile and TV, Vodafone is launching an Internet pay-TV service, the headquarters of which will be based in London’s TV triangle in Hammersmith. The talent pool the new service is drawing from is significantly different from
Dealing with the integration of acquired businesses is also a significant challenge for property teams as they look to bring new acquisitions into existing real estate portfolios and pull together diverse organisational cultures.

Splitting and Merging

The TMT sector is simultaneously breaking apart and consolidating. Those companies splitting in two are hoping that separating their different business units will allow them to focus their businesses more tightly and be more agile in the face of a changing competitive landscape. The drivers of the current frenzy of mergers and acquisitions are more varied – while some players are hoping to build scale in segments where margins are declining, others are looking to expand their product offering and capture new growth opportunities. Both splitting and merging are presenting corporate real estate professionals in the sector with powerful challenges.

At the very least, the splitting of business units into separate companies often requires the renegotiation of lease terms for the new businesses. For firms that are more integrated at the time of separation, the issues are more complicated – a global head of property at one such firm we spoke to told us that in some locations walls had to be put up in offices to physically divide the two companies.

Dealing with the integration of acquired businesses is also a significant challenge for property teams as they look to bring new acquisitions into existing real estate portfolios and pull together diverse organisational cultures. TMT firms who base their development teams in a select few locations frequently have to deal with the complications of relocating acquisitions from one country to another. One TMT firm we spoke to who carries out a large volume of acquisitions per year told us they had to ‘mothball’ a number of the offices they had inherited as part of acquisitions while they waited for leases to expire.

A telecoms company we spoke to said that following a merger with a competitor, they were bound to certain facilities where legacy infrastructure was located. The complexity of moving this infrastructure made the costs of relocation prohibitive.

Winners and Losers

Building 20, the latest addition to Facebook’s sprawling Menlo Park campus, is topped with a nine-acre rooftop garden which, claims the tech company’s head of HR and recruiting, gives employees “space to think”. About 20 miles away at Cupertino, Apple is building a new flying saucer-shaped headquarters that, when completed, will be about two thirds the size of the Pentagon and house more than 12,000 employees. Not to be outdone, Google is using miles of glass for its new Mountain View headquarters that can be reshaped by cranes according to the company’s workplace needs.

Beyond Silicon Valley, Tencent – China’s largest Internet portal and the world’s fourth largest Internet company – is building an 886,000 square-foot office space in Shenzhen. The new HQ, which will quadruple the size of the company’s workplace portfolio when it’s completed, comprises two glass towers connected by three huge horizontal bridge structures large enough to accommodate basketball courts and swimming pools. Alipay, a payment subsidiary of Chinese Internet behemoth Alibaba, is building a colossal new HQ in Hangzhou adjacent to Zhejiang University National Science Plaza.

These are not, however, the TMT workplaces of the future. While a select group of technology firms have accumulated large cash reserves and are investing heavily in creating world-class workplaces, the majority of TMT companies won’t be able to match the likes of Apple and Google in terms of spend and will have to find less grandiose ways to create successful workplaces, communicate brand and attract talent.
2. Disruption

The accelerating pace of technological change is empowering the rise of disruptive new entrants to the TMT sector and making it increasingly difficult to develop strategies for the long term.
The Future of the TMT Workplace

The accelerating pace of technological change is empowering the rise of disruptive new entrants to the TMT sector and making it increasingly difficult to develop strategies for the long term. New applications of technology, the falling costs of computational power and the availability of platforms to easily build, distribute and market new products has led to a surge in the number of startup businesses in the TMT sector, threatening to upend the dominance of incumbent players. Moreover, forecasting the growth of a young company or the new business unit of an industry incumbent is harder when adoption curves are shortening and technology allows TMT players to easily reach customers all around the world.

In this context, forecasting workplace and real estate requirements is a significant challenge – as one corporate real estate professional for a large technology company told us, ‘technology moves quickly; property doesn’t.’ Recognising that being locked into long leases limits the flexibility of a company in a fast-moving industry, lease terms have generally shortened. A senior corporate real estate manager at an established technology firm we interviewed as part of this research said that the company used to sign 25-year leases; it now predominately signs five-year leases with a break after year three.

Forecasting workplace and real estate requirements is a significant challenge – as one corporate real estate professional for a large technology company told us, ‘technology moves quickly; property doesn’t.’

Heads of real estate we spoke to as part of this research told us that they were looking to increase the flexibility of their portfolios to enable them to easily scale their real estate commitments according to business needs. However, achieving this will require investments in flexible workplace technology, skills in change management and experimentation with new models of tenancy.
3. Cities

For many of the more mature technology firms and telecoms companies, sprawling out of town campuses have long been fashionable locations. While the media sector and younger tech firms have usually opted for locations inside towns and cities, a number of pull factors are drawing players from across the TMT spectrum into central urban locations.

**Customers, Partners and Talent**

TMT companies’ customers, partners and talent are predominately concentrated in urban areas. Giving clients ‘face time’ – even in a world where more and more business can be done virtually – is still important in areas such as enterprise IT, making locations with easy access to clients more desirable. Likewise, in media and advertising, companies and their clients often spend time collaboratively creating content and campaigns. Having workplaces conveniently located near to clients – and highly designed to reflect brand and capabilities – is an important part of client experience.

The TMT sector’s top talent is generally much younger than in other industries (see below), and gravitate to the lifestyle and amenities offered by city living. John Schoettler, the director of global real estate at Amazon, explains that the company’s decision to build its new headquarters in the heart of Seattle will enable them to ‘attract the type of employee that wants to be urban and live in an urban environment’.15 Moreover, as cities provide amenities like gyms, restaurants and other facilities, TMT players don’t need to dedicate space to providing them in their offices, as they do in out of town locations.
The concentration of more of the world’s population in urban areas is driving profound business model innovation, especially in the TMT sector – the phenomenal growth of ride-hailing app Uber is only possible because of the existence of a critical mass of users within cities. Cities also enable companies to test and experiment with new technologies before rolling them out more generally. In Vienna, Telekom Austria has trialled converting disused phone booths into electric-car charging stations. In Barcelona, Cisco are opening a new smart cities campus and research facility. Barcelona City Council has engaged in numerous pilots of smart cities technologies, and being based in the city will enable Cisco to further test and refine these technologies. With cities acting as testbeds for innovation, it makes more sense for TMT players to base their operations in urban areas.

**Essential Locations**

Not all cities are equal. The depth of talent pools, the quality of local universities and the presence of a network of peer companies makes some cities vastly more attractive than others. Concentrations of talent are one of the primary factors in location decisions for TMT companies. Frank Slootman, CEO of cloud company ServiceNow, says that ‘talent doesn’t move that much anymore, and employers need to set up shop where the concentrations of talent are’.¹⁶

Locations with excellent universities that churn out large numbers of technical graduates are equally attractive. Creative partnership models between universities and TMT players are starting to emerge – the establishment of the Collaborative Innovation Centre by Carnegie-Mellon University in Pittsburgh has attracted the likes of Apple, Google and Intel to establish research and development facilities on campus.

Network effects also apply in locations where talent and universities are located, helping to attract further investment. Innovation districts, like London’s TechCity, Silicon Allee in Berlin and 22@ in Barcelona, are emerging in many large cities where concentrations of talent, startups and high-growth companies are all located. Tapping into the potential of these districts will soon be a key priority for TMT players in their location decisions. Directors of property will, therefore, need to know where innovation districts are springing up and how they source suitable space in these areas.

While the media sector and younger tech firms have usually opted for locations inside towns and cities, a number of pull factors are drawing players from across the TMT spectrum into central urban locations.
Five Forces Driving Change

Economic dynamism is moving from the developed economies of the West to emerging economies in the developing world, forcing TMT players to think more seriously about their emerging market strategies. The need to develop products and services that appeal to emerging market customers, along with the deep pools of talent that developing countries offer, is leading TMT firms to expand their physical presence in emerging markets.

New Poles of Growth
With economic growth flattening in developed markets, unlocking new sources of growth in emerging markets will be key to the success of TMT sector businesses. A third of Vodafone’s revenues now comes from Asia and Africa, and the company expects to expand its presence in these markets over the next few years. Elsewhere, Facebook and Google have both separately launched efforts to connect more emerging market consumers to the Internet, with the hope that they will use the Internet giants’ services.
As emerging markets become more important sources of revenue for TMT companies, their physical presence in these markets will expand too. Many TMT players currently structure their real estate around developed markets and a few key emerging market megacities, such as Shanghai, Mumbai and Sao Paulo. While this currently gives them access to a large pool of customers and talent, it will not be enough to grow their businesses in the future – the McKinsey Global Institute estimates that developed markets and emerging market megacities will generate only a third of global economic growth by 2025. Many of the heads of real estate we interviewed, especially those involved in enterprise software, identified a strong demand for office space in sub-Saharan Africa over the next few years, principally directed towards sales operations in these fast-growing markets.

**Home to the Competition**

In 2004, then-eBay CEO Meg Whiteman declared that ‘ten to fifteen years from now, I think China can be eBay’s largest market on a global basis’. The online retailing platform had launched into China and captured the lion’s share of the country’s nascent e-commerce market. Concerned that eBay might encroach on its core business-to-business market, local upstart Alibaba launched its own consumer auction platform to compete with eBay in 2003. While eBay merely transplanted its business model from the United States and put the venture into the hands of two non-Chinese speaking expatriate managers, Alibaba leveraged its greater understanding of Chinese consumers. EBay was forced into retreat; in late 2014, Alibaba floated on the New York stock exchange with the largest IPO in history, trading at a market capitalisation that was quadruple eBay’s. Emerging market firms like Alibaba are scaling rapidly and competing globally. According to estimates by the McKinsey Global Institute, almost half of the Fortune Global 500 will be

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**2025 Global Economic Growth from Developed Markets and Emerging Market Megacities**

- **Global economic growth 2025**
  - Developed markets and emerging market megacities

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**Alibaba’s 2014 Market Capitalisation Compared to eBay**

- Alibaba
- eBay
The Future of the TMT Workplace

Five Forces Driving Change

emerging market firms by 2025. Many of these emerging market firms are leveraging the scale they’ve achieved in their home markets to give them an edge when expanding abroad – Bharti Airtel, India’s largest telecoms group, has more than twice the number of customers of America’s AT&T and has expanded across South Asia and Africa.

Competing with these players will require taking them on in their home territories and building organisations that are agile enough to adapt to local dynamics. This entails not just establishing a physical presence in these emerging markets, but also locating high value functions like product development in these markets. Twitter, which has pegged much of its future growth ambitions on increasing user numbers in emerging markets, is set to open its first research and development centre outside of the US in Indian tech-hub Bangalore. The facility will be specifically aimed at developing products for emerging market consumers. Xiaomi, who only launched its smartphones in India in 2014, is opening a development facility in Bangalore, focused on creating software and mobile apps for Indian smartphone users. Moreover, TMT players will need to create workplaces and offer career opportunities that can attract the best local talent.

Moving up the Value Chain

Many TMT players have looked at emerging markets as locations for production, outsourcing and low-skilled work. This will change in the near future as strong talent surpluses arise in the developing world, drawing TMT players to base more advanced business functions like research and product development in emerging markets.

Positive demographics, rapid urbanisation and improved access to high-quality education are fuelling the rise of large numbers of university-educated talent in countries like India, Indonesia, South Africa and China. At the same time, slowing population growth in developed regions is leading to an acute shortage of talent, particularly those with the technical skills demanded by the TMT sector. China will soon overtake the US as the country with the largest pool of graduates - just under half of which have degrees in science, technology, engineering or mathematics fields.

In the next few years, India’s talent surplus will grow to be so large that the economy will struggle to create enough jobs, suppressing wage growth and ensuring that the country remains cost competitive for TMT businesses in the long term.
Demand for talent is already impacting the choice of location for companies in the TMT sector. Facing a shortage of talent and onerous immigration regimes in developed markets, some companies are aggressively opening overseas offices so they can import top talent through overseas transfers. Eastern Europe is becoming a key location for technical development because of its talent pools and cost competitiveness. Wroclaw in Poland is home to HP, Microsoft, IBM and a number of other tech companies. HP now employs more than 2,300 workers at its facilities, more than twice the number it had originally anticipated. A leading enterprise IT company we spoke to had its second largest EMEA development hub in Romania.

Demographic factors will soon enable centres of innovation and product development to emerge in places not on the radar of heads of property in the TMT sector. Making the correct choices about location will require detailed, city-level data on talent pools, universities and up-and-coming competitors.
TMT sector businesses are in large part drawing from the same talent pool as convergence and overlap between them increases. The skills possessed by developers, data analysts and engineers are not only vital to the success of TMT businesses, they’re in short supply. Further, as technology is high on the agenda of businesses beyond the sector, the competition for talent is particularly intense: In our previous report, the Future of the Financial Workplace, we found that up to 50% of employees in some banks were employed in technology roles. Attracting the right talent is driving decisions about location and workplace.

World War Talent
The pervasiveness of technology is driving demand for technical talent in every sector of the global economy. Within TMT, new applications of software engineering and data analytics are essential to unlocking new sources of growth. Online video streaming platform cum hit TV station Netflix decided to produce its hugely popular House of Cards series because of insights its data analysts gleaned from looking at its customer database that suggested that a political thriller starring Kevin Spacey and directed by David Fincher would appeal to a large slice of Netflix’s customers. Being able to compete successfully for the right talent, therefore, is a significant source of competitive advantage.

Unsurprisingly, demand for technical talent is soaring. In the US, demand is expected to grow at more than 20 per cent per annum until 2022. Skills gaps have already started to
billion active users on Facebook per day

emerge: In 2012, demand for software engineers in the US outpaced supply by 35,000 positions. This is pushing up the costs of talent significantly – graduate software developers in the UK can command starting salaries of £40,000, up from £25,000 in 2008. Technical project leads can easily earn six figure salaries.

Demands for talent are driving decisions about location and workplace amenities. In addition to locating more of their operations in cities, there is more pressure on TMT players to create exciting workplaces that offer employees a sense of community. This extends well beyond providing ping-pong tables and sleeping pods – top talent expects free or heavily subsided food, the likes of yoga and language classes, the best devices to work on and a stunning work environment.

Talent Acquisitions

Many incumbent TMT firms are finding that highly-skilled talent is increasingly more interested in joining a startup or founding their own companies than joining an established firm. This has led some players to simply ‘buy in’ top talent – acquiring companies and integrating them into existing products and teams. Since July 2012, when Marissa Mayer took the role of CEO, Yahoo has acquired a plethora of companies, including Jybe, Rondee and Summly, whose products were subsequently shut down and talent integrated into Yahoo’s existing teams.

Baby Boomers and Generations x, y and z

For the first time ever, four generations – baby boomers, generation x, y and z – will soon be working together. These generations’ attitudes to work, along with their proficiencies with different types of technology, vary considerably. Generation y, encompassing those born between 1980 and 1995, are set to be the driving force behind challenging traditional approaches to work and workplace as this group is over-represented within the TMT sector – the average age of a Googler, for instance, is 30.

In addition to their greater familiarity with technology, gen y-ers are generally more individualistic and expect to advance in their careers quickly. They’re also ‘generation rent’ – more inclined to want to come to an office to work because they’re living in smaller rented accommodation.

The generational divide within TMT is more pronounced than in other industries because younger talent is likely to be proficient in different programming languages than their older counterparts. Many members of gen y grew up as ‘bedroom coders’ who started programming in their childhood, and are more likely to be proficient in younger programming languages like Objective-C and Apache Hadoop. Finding developers proficient enough in these languages who also have sufficient management experience for senior positons can be very challenging. At the other end of the age scale, older developers proficient in programming stalwarts COBAL and FORTRAN are reaching retirement age – about a third to one half of COBAL and FORTRAN programmers are aged 50 or over. This generational divide will intensify the impending skills gap for TMT sector businesses and drive the costs of talent up.

The skills possessed by developers, data analysts and engineers are not only vital to the success of TMT businesses, they’re in short supply.
CONSEQUENCES: HOW TMT PLAYERS ARE RESPONDING

The way that TMT players respond to the five forces will determine their ability to create leading workplaces, maintain competitive advantage and be successful in the future. There are four areas in which leading TMT players are using their workplace and real estate strategies to future-proof their businesses.
The Future of the TMT Workplace

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The Changing Role of Workplaces

When Mervin J. Kelly became president of Bell Labs in 1951, he transformed the physical design of the company’s research facility in Murray Hill, New Jersey.

Kelly – a maverick whose explosive temper had led him to resign (and re-join) Bell Labs twice before becoming president – knew that encouraging interactions between different researchers would lead to the development of novel ideas. At Murray Hill, offices were spread along far-reaching corridors that ensured staff would bump into each other as they moved through the labs. Physicists, engineers and manufacturing specialists were put together to work side-by-side on the same projects. By the time Kelly stepped down in 1959, Bell Labs had invented lasers and solar cells, laid the first transatlantic phone cable, developed the technologies which enabled the rise of the microchip and created the foundation for information theory through its pioneering work on binary code systems.

Kelly’s work at Bell Labs remains relevant to TMT sector businesses today: At Murray Hill, Kelly created a workplace where new products and innovations could be developed faster, helping Bell Labs to unlock new sources of growth. With the pace of technological change accelerating and new sources of competition emerging faster than ever before, the successful TMT players of tomorrow are those that can rapidly develop entirely new products and services. Workplaces will here play a fundamental role.

New Spaces for New Ideas

Recognising that developing new products and services requires a departure from ‘business as usual’, many TMT players are creating specialist workplaces where ideas can be developed faster, often alongside customers and partners. AT&T, for instance, has four centres, known as AT&T Foundry Innovation Centres, where its engineers work with outside experts to develop consumer and enterprise products. Projects at these centres are completed...
The Future of the TMT Workplace

By creating spaces for the development of new ideas alongside partners and customers, TMT players can position themselves to accelerate their growth into new areas.

three times faster than anywhere else within the company. In Detroit, where the telecoms company has its Drive Studio, it works with systems integrator Accenture and car manufacturers GM, Tesla and Audi on ‘connected car’ solutions. Elsewhere, IBM has opened its Accelerated Discovery Labs in San Jose, where IBM employees and customers jointly work on big data problems. Working with Baylor College of Medicine at the labs, data scientists from IBM took just a few months to identify previously overlooked chemicals that could be used to treat tumours – a process that usually takes several years.

SAP have opened the AppHaus in Heidelberg, where its engineers co-create products with clients. The space was designed by SAP engineers to be as flexible as possible, allowing the workplace to function as a location for app development, workshops with clients and an event space. Working with the National Centre for Tumour Diseases, the company developed a new SAP application to help doctors devise treatment plans for individual patients.

Cisco has opened nine Internet of Everything Innovation Centres, where the company and its partners develop proof of concepts for new Internet of Things applications. At the recently opened Berlin innovation centre, Cisco and its partner Azeti Networks created a new IoT device management platform within six months of the centre opening its doors.

The future of many TMT firms rests on their ability to rapidly develop new products and find novel ways to leverage their existing technology and capabilities. Leading TMT companies are at the frontier of the digital transformation of industries beyond their own: health care, retail and automotive – to name only a few examples – are poised to be reshaped by new applications of technology. By creating spaces for the development of new ideas alongside partners and customers, TMT players can position themselves to accelerate their growth into new areas.

Accelerators

Accelerator and incubator spaces are becoming increasingly important for TMT players, who recognise that the next big thing is more likely to come from a plucky startup business than...
In the next few years, accelerator space will become a core feature of the TMT workplace, either through space managed by TMT players themselves or through partnerships with established accelerators.

businesses in their own right, accelerator spaces offer TMT players the opportunity to find innovation at the source and become disruptors themselves. In the next few years, accelerator space will become a core feature of the TMT workplace, either through space managed by TMT players themselves or through partnerships with established accelerators.

From the Playpen to the Classroom

High-growth companies and startups are reshaping industry paradigms at an incredible rate, but how much are these companies reshaping approaches to work and workplace?

Visually stunning offices kitted out with bean bags, slides and ping-pong tables are one of the hallmarks of well-funded TMT startups and high-growth companies. These workplaces are not only intended to signal the culture of the firm, they’re designed to appeal to a class of young, individualistic employee who would rather opt to work in a smaller firm set to disrupt an industry than an established firm.

Mature TMT firms are starting to design their environments in this style in an effort to compete for top talent and to ignite a culture change whereby they can adopt more startup-like behaviours. Following its acquisition of fast-growing wireless systems company Meraki, for instance, Cisco integrated Meraki’s workplace design standards into Cisco Corporate.

Changing the interior design of an office is only, however, a small step to becoming a more innovative company. TMT companies looking to become more disruptive should focus on creating new kinds of space for product development and restructuring their workplaces to better facilitate the flow of ideas.

Back to the Office – The Decline of Remote Working and the Connected Workplace of the Future

In February 2013, Yahoo CEO Marissa Mayer caused controversy by mandating all Yahoo employees back to the company’s offices. ‘People are more productive when they work alone,’ Mayer told a conference shortly after the decision, ‘but they’re more collaborative and innovative when they’re together.’ Ideas for new products and
services often emerge from interactions that take place when people are co-located. With future success in the TMT sector dependent on the development of new products and services, it makes more sense for employees to be together in the same space.

The pull to co-locate employees is even stronger in businesses with varied business units who would benefit from more cross-business fertilisation. WPP, for instance, is consolidating more of its brands and agencies into large urban campuses to encourage more cooperation between them. In Madrid, the company has recently signed a lease for a 36,000 square metre building that will be home to 2,500 people and 40 WPP companies. In Shanghai, WPP are consolidating ten locations into a single 41,000 square metre campus in the city’s central business district.²⁷

Just as Mervin J. Kelly lined offices along the long corridors at Bell Labs to force interactions, TMT players are designing their workplace to encourage ‘bump’ moments between colleagues. Food spaces, lounges and carefully constructed circulation routes are key components of workspaces that successfully engineer serendipitous interactions. For its new North American HQ in San Jose, Samsung worked with architect NBBJ to create a workplace that would increase collaboration between employees. Applying insights from neuroscience, psychology and anthropology, NBBJ modelled how different designs would maximise the number of interactions employees would experience over a typical working day. The end result was a glass donut-shaped building in which anyone based on one floor can see others up to two floors away.

New applications of sensors and consumer technology in the next few years will allow organisations to closely monitor interactions and measure what effect this has on bottom line or the number of new product launches. Sociometric badges that capture interactions and location information can inform workplace design by revealing the impact of densities on collaboration or the workstyles of different teams. Smartphone applications that help employees track down colleagues in the office can also be used by facilities teams to manage circulation routes. Workplaces that pull in data from social networks will be able to engineer serendipity – sending one employee working in machine learning a message that a hitherto unknown specialist is sitting on the third floor working on a similar problem.

The TMT companies focused on applications around IoT and big data will be the first to apply these technologies, using their own workplaces as testbeds. These interactions are only possible when people come together in the same work environment. As approaches to design and workplace technology becomes more advanced, the benefits of co-locating employees will become even stronger. Remote working will, therefore, decline as more organisations mandate their employees back to the office.
For businesses going through a period of high growth, developing relationships with landlords and building owners with large portfolios, so that options on further space can be exercised when needed, is key. Many TMT players continue to take more space than they need in the anticipation of future growth, with the option to sublease space if growth doesn’t materialise.

**Activity Based Working**

Even in a sector as forward-thinking as TMT, allocations of space at many companies continue to rely on notions of ‘one person, one desk’. Dealing with head count growth while keeping a check on real estate costs, collaborative and breakout spaces are often replaced with rows of tightly packed desks in an effort to make workplaces as spatially efficient as possible. When space is allocated on a one-to-one basis, however, it’s rarely well utilised: Occupancy studies show that in a typical office up to half all desks will be empty for most of the day.28

With the break-neck pace of technological change making it harder to accurately forecast workplace and real estate requirements, heads of property need to understand how they can increase the agility and flexibility of their portfolios.

Scaling up businesses and accommodating head count growth within existing portfolios can be achieved without compromising the quality of the space. **Activity Based Working (ABW)** – a workplace model based on shared ownership of work settings – can unlock significant space savings by freeing up under-occupied space. This doesn’t mean simply moving to ‘hot-desking’ – setting up successful ABW environments requires first constructing models of the work employees undertake, and then providing work settings which closely match these tasks. In its Workplace Advantage programme, a company-wide policy to implement ABW across its global portfolio, Microsoft groups its employees into different workstyles based on how mobile they are and the responsibilities of their role. It then designs its workplaces around these profiles.

ABW also doesn’t necessitate that all work is done in open plan environments – areas for concentration and individual work are key. A high-growth technology firm we interviewed as part of this research said they’re employing a growing number of highly-specialised researchers from academic backgrounds, who need enclosed working areas to allow them to concentrate for long periods of time.
Moving towards ABW was seen by many of the heads of real estate we spoke to as critical because of the potential space – and therefore cost – savings that can be achieved. As ABW environments can accommodate more people than conventional fixed desk workplaces, companies that adopt ABW will be able to scale up faster than their counterparts and without taking on additional space. The challenge that many heads of CRE we spoke to identified, however, was in devising effective change management plans that ensured employees bought into the idea of trading off their ownership of a desk or office for shared access to all the work settings.

Key investments in workplace technologies that allow staff to be more mobile are also critical to the success of ABW. Supporting staff who want to work on their own devices and replacing desk phones with softphone applications is a start. Moving to become an entirely cloud-based company, in which there’s no requirement for servers to be stored onsite, can not only free up valuable floor space, but also give companies greater flexibility by making the process of moving into new locations quicker. As achieving ABW will require a joined-up real estate and technology strategy, facilities management and IT roles are likely to become much more integrated in the near future.

Flexible Offices
Flexible and serviced offices are becoming an increasingly important part of property strategies in the TMT sector. The ability to scale up quickly and minimise long-term lease liabilities in a highly volatile environment is a source of considerable competitive advantage. Wolfgang Gollub, a senior manager at Toshiba, says that his firm’s use of a serviced office provider is ‘simple, cost effective and does not require a long-term commitment that either hinders growth or wastes money on unnecessary space’.29 This is particularly relevant for TMT companies expanding their presence in emerging markets, in which finding suitable space can be a significant challenge. The companies we spoke to who are growing in Asia and Africa said that serviced offices were typically their first step into a new market, allowing them to concentrate on growing their presence before acquiring their own space.

average occupancy of offices where desks are assigned on a one-to-one basis
Location Strategies for the Future

With cities becoming the engine of growth of TMT companies, heads of property need to know which cities to locate in and understand how the costs of occupying in urban environments can be managed. Growth in emerging markets will make hitherto unknown cities attractive locations for a range of business functions. The TMT players who can identify these cities and integrate them into their portfolios will have an advantage over their competitors.

Winning Cities
TMT players are increasing their footprints in cities in both developing and emerging markets. On the west coast of the United States, out of town campuses have long been the staple of tech companies. Yet even here, the last few years have seen a surge in demand for space inside San Francisco. In July 2014, Google bought an eight-storey building in downtown San Francisco and signed a lease for 250,000 square feet at Spear Tower, complementing the cluster of offices the company has near the city’s waterfront. Twitter chose to locate their HQ in San Francisco’s Tenderloin district, while Pinterest and Airbnb have their HQs in neighbouring SoMa. LinkedIn has recently signed a lease for the whole of 222 Second Street, a 26-storey, 450,000 square foot tower where the company will base 2,500 employees.

In New York, demand for space by TMT companies has spilled out beyond Manhattan’s Silicon Alley and into Brooklyn’s Tech Triangle. Google now has 900,000 square feet of office space across the city, after signing a lease for 180,000 square feet at 85 10th Avenue in Chelsea.

Towards the end of 2014, Amazon announced that they would be taking 470,000 square feet on Manhattan’s 34th Street, opposite the Empire State Building. Digital media firm Buzzfeed have signed a deal for 200,000 square feet on Park Avenue. Elsewhere, retail technology platform Etsy is set to become an anchor tenant of the Dumbo Heights development in Brooklyn.

Enterprise technology firm Salesforce has made a strong commitment to cities in its global real estate portfolio – it abandoned plans to build a corporate campus in out of town Mission Bay, despite having already acquired a fourteen acre site. In San Francisco, where the company is headquartered, Salesforce will have two million square feet of office space by 2017 – including Salesforce Tower, a 61-storey tower in which the company is an anchor tenant. Salesforce’s London office is similarly central, located in the city’s financial district alongside many of the company’s clients. Its Paris office is adjacent to the Eiffel Tower.

Facebook – whose only out of town location is their Menlo Park HQ – has recently announced a huge expansion to their footprint in London.
signing a lease for 227,000 square feet at the new Rathbone Square development near Tottenham Court Road. Elsewhere, Google is building its own £1 billion London HQ in Kings Cross to accommodate 5,000 Googlers. Uber will be taking 40,000 square feet in Aldgate Tower, in close proximity to both London’s financial district and TechCity.

The demand for space in cities is, however, presenting challenges for TMT players both in terms of cost and work environments. Having a presence in key cities where universities and talent are located is already leading to fierce competition for space and rising real estate costs. Creating sprawling horizontal campuses is also impossible in cities, so TMT players need to carefully plan how they can create spaces which encourage interactions between teams spread vertically across a building. Punching staircases through adjacent floors has become a common feature of many urban TMT workplaces.

### The End of Out of Town?

While more TMT players basing their operations in urban environments, what role will out of town locations play in the future?

Some non-urban locations, such as Cambridge in the UK, are also home to leading universities, making them attractive locations for TMT companies to tap into talent pools. This is, however, an exclusively developed economy phenomenon – leading universities in the emerging world are almost always located in cities.

Out of town locations will, therefore, remain part of the footprint of many TMT companies for the foreseeable future. They will, however, play a smaller role as urban locations come to dominate.

**In Town vs Out of Town**

<table>
<thead>
<tr>
<th>Company</th>
<th>Size of Recent Property Acquisitions in sq. ft.</th>
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</thead>
<tbody>
<tr>
<td>Google</td>
<td>New York 180K</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>San Francisco 250K</td>
</tr>
<tr>
<td>Amazon</td>
<td>New York 470K</td>
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<tr>
<td>Buzzfeed</td>
<td>San Francisco 450K</td>
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<tr>
<td>Reddit</td>
<td>San Francisco 200K</td>
</tr>
<tr>
<td>Disney</td>
<td>San Francisco 250K</td>
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While some out of town locations will simply be abandoned by TMT companies for inner-city ones, others will remain important parts of real estate portfolios in the sector.
The Future of the TMT Workplace

The shift in economic dynamism to the emerging world and growth of talent pools in developing countries will see a significant uptake of space in hitherto unheard-of locations. The geography of work and workplace will shift significantly as more developed world firms locate more functions like product development and R&D in emerging market countries to help them develop offerings relevant to consumers and enterprises in these locations. The number of sales offices will also grow to address burgeoning demand in unfamiliar parts of the world.

In the next ten years, the likes of San Francisco, New York and London will be joined by Lagos, Istanbul and Jakarta as world-leading TMT locations, home to both international players and ambitious local firms. Positive demographic factors and buoyant economic growth will see Mumbai and Delhi join Bengaluru as leading TMT hubs. The number of Internet users in Africa is likely to quadruple between now and 2025, helping to propel two of the continents largest cities – Lagos and Johannesburg – into ranks of world leading TMT cities. Five hubs will be located in China alone – more than in the US. Beyond Beijing, Shanghai and Hong Kong, less familiar locations like Tianjin and Shenzhen will be key locations for companies in the TMT sector.

Decisions on where to locate will require that heads of real estate have access to detailed, city-by-city metrics on growth projections, demographics, talent pools, local universities, infrastructure and competitors. Property professionals at developed market firms should not also assume that they have an advantage when it comes to creating high quality workplaces. Indonesian telecoms operator Indosat has recently completed a transformation of its Jakarta HQ to Activity Based Working, which has helped it cut down time to market for new products by two thirds. Its senior managers now all sit out in the open with their teams, challenging the myth that emerging market firms are more hierarchical and inflexible than their developed economy counterparts. Just as China’s Internet giants aim to take on global players, they are creating workplaces as ambitious in scale as their counterparts in Silicon Valley. In the near future, it’s possible that these firms will set the trend in workplace as players like Google and Facebook have in the past.
In the next ten years, the likes of San Francisco, New York and London will be joined by Lagos, Istanbul and Jakarta as world-leading TMT locations, home to both international players and ambitious local firms.
Where to Locate

In addition to identifying the individual cities to locate in, TMT players must also understand where within cities to locate. The presence of an ecosystem of peer companies and startups makes some areas highly attractive. The establishment of Level 39 at Canary Wharf in London has been pivotal to drawing firms like IBM and Alibaba. When Wood Wharf, a 1.9 million square feet development adjacent to Canary Wharf opens in 2018, it will support a vibrant ecosystem of established TMT firms and technology startups.

Finding new ways to partner with universities and open facilities on campus – as Apple and Google have done with Carnegie Mellon University – is a solid strategy for ensuring a supply of talent and access to new ideas. IDEALondon is a co-working accelerator for startups in the heart of London’s TechCity which was founded through a partnership between Cisco and University College London. In emerging markets, identifying leading universities will make it easier for heads of property to decide where to locate. Zhongguancun in Beijing’s northeast Haidian district is located close to Peking and Tsinghua universities and is commonly referred to as ‘China’s silicon valley’. It is home to leading Chinese TMT companies such as Lenovo, Xiaomi and Baidu, and international players like Intel and Ericsson.
With the uptake of real estate expected to increase as TMT players expand into new markets and locations, companies will have to work out how to distribute knowledge work and integrate their different locations, building on the comparative advantage of different geographies.

Partnerships with cities, whose local authorities tend to have greater license for experimentation, can also make locations more desirable. Digital Media City in Seoul is a government-backed cluster for TMT companies, with some of the fastest Internet connectivity in the world. Tax breaks and discounts on land from the Seoul Metropolitan Government has helped to attract leading firms such as LG and Samsung.

**The Globally Integrated Enterprise**

Sam Palmisano, the former CEO of IBM, coined the term ‘globally integrated enterprise’ in 2006 to describe a company that aims for ‘the integration of production and value delivery worldwide’. Technology firms have long been used to integrating different locations with regards to managing their supply chains. Apple, for instance, sources many of the parts and components that go into its iPhones from around East Asia, before assembling the devices in facilities in China and (more recently) Brazil. With the uptake of real estate expected to increase as TMT players expand into new markets and locations, companies will have to work out how to distribute knowledge work and integrate their different locations, building on the comparative advantage of different geographies. For its operations in Japan, IBM runs human resources from Manila, accounting from Kuala Lumpur, procurement from Shenzhen and customer services from Brisbane.
Workplace and Talent

Winning the war for talent is driving decisions about where TMT players locate, what kinds of work environments they create, and the range of amenities and services they build into their workplaces. In the longer term, companies need to consider how they can tap talent from more diverse backgrounds.

University-Style Offices for Bright Young Things

The composition of workforces at some of the biggest TMT firms is unusually young. The average age of an employee at Facebook is 28; at Google it’s 30; and 31 at Apple. As digital natives who grew up alongside the Internet, gen y have robustly contributed to the growth of TMT talent and are in high demand from the big TMT companies. In addition to locating more of their operations into cities to appeal to this demographic, firms have also begun to design offices around the preferences of gen y.

Offices that resemble universities, with a mix of work settings, café areas and lounges are becoming increasingly common in the TMT sector. This not only makes the transition from university to the world of work easier for the top graduates and younger talent that TMT players employ, the freedom and flexibility that these sorts of environments provide is a major draw for the entrepreneurial talent that companies in the sector want to attract. As the competition for technical talent intensifies, TMT players are finding themselves compelled to provide staff with the best technology and expansive wellness programmes, and to build workspaces equipped with the likes of climbing walls and dance studios.

This entails a big capital expenditure for TMT players, but it also gives employees a reason to stay at work for longer. Workplaces that create a sense of community through the provision of food, classes and training programmes also inspire greater loyalty from employees, making it easier to retain top talent. These sorts of employee benefits will, therefore, become industry standards in the next few years.

Diversity and Intergenerational Working

While much of the attention of TMT players is today on how they can attract digital natives, they will soon have to confront the challenge of an ageing workforce and a dwindling supply of younger workers in most developed economies. The world’s working-age demographic will grow between 2015 and 2030 at only half the
Top level management will need to include not just older workers who’ve climbed the career ladder, but younger ones too.

rate it did between 2001 and 2015. Over a quarter of the workforce in advanced economies will be above the age of 55 by 2030. With more greying workers in the economy, TMT players will need to think how they can retrain and redeploy staff throughout their careers. They will also need to create organisations where the leadership is representative of the generations it employees – top-level management will need to include not just older workers who’ve climbed the career ladder, but younger ones too.

Encouraging greater levels of female participation in the TMT sector was identified by many of the companies we spoke to as critical to ensuring a steady supply of talent in the next few years. The success of IBM’s Meg Whitman, Yahoo’s Marissa Mayer and Facebook’s Sheryl Sandberg has done much to raise the profile of women in the sector, but redressing the gender imbalance will require a cultural change to a sector that has traditionally been male-dominated.
The pace of change in the TMT sector will only increase in the next few years, underscoring the urgency for companies to transform their workplaces and realign real estate strategies. Everyone involved in the development of workplace strategies, from facilities managers to CEOs, needs to understand the forces shaping the TMT workplace of the future and how these will impact their organisation. Heads of property at TMT companies can set in motion a number of processes to begin to future-proof their workplaces and their companies.
1. Scenario Plan

Scenario planning is increasingly important in a more volatile competitive environment. The sources of disruption are increasing and M&A activity is at a record high. Property teams should spend more time planning for ‘what if’ scenarios – ‘what if we acquire a business of 2,000 people?’, ‘what if our new business unit exceeds growth expectations?’, ‘what if we need to streamline our portfolio?’ The implications of a major acquisition, exponential growth of a new business unit or a decision to invest heavily in a new market for corporate real estate are complex. Scenario planning will significantly speed up decision making when it’s needed most. This planning should take place in cooperation with different levels of the organisation and across different geographies to ensure strong alignment throughout the company.

2. Build Flexibility

The economic, demographic and technological drivers of change identified in this report are not passing trends – they have profound implications for workplaces and real estate. The only constant in the TMT sector is change. To survive in this turbulent environment, directors of property need to focus on making their real estate portfolios as flexible as possible. Modular workplaces that can be easily refitted to new roles and workstyles are essential, as the products, services and composition of employees at TMT firms is set to change significantly over the course of the next few years.

3. Align Workplace Strategy with Corporate Strategy

Workplace and real estate strategy must be totally aligned with business strategy. Too often property is siloed from the rest of the business and directors of property are not aware of strategic decisions the business makes until after they have been made. The workplace is the operational level in which strategy is brought to life and should be part of any strategic decision from the beginning. Without frequent discussions between the property team and the business leadership, companies can’t create work environments to support the aims of the business, and strategy consequently fails. Heads of property must take a more active role in the leadership of the company, and the c-suite must take a more active interest in workplace and real estate.

Being a successful company in the technology, media and telecoms sector in the future will be far more challenging than it was in the past. The world is becoming a more complicated and perilous place for big corporates, and while huge opportunities for TMT players are rapidly emerging, new sources of competition are arising thick and fast from unfamiliar locations. The successful TMT companies of tomorrow are those with a clear understanding of the forces driving the change, with the vision and resolve to take bold steps to future-proof their workplaces, and who are able to begin taking these steps today.
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