CUSHMAN & WAKEFIELD

the occupier edge

AUTUMN EDITION 2016

Insights and Trends

from Cushman & Wakefield's
Global Real Estate Experts

Contents

Editorial

It's been one year since we've become the new Cushman & Wakefield and it's been an exciting journey thus far. We've maintained a strong momentum in delivering exceptional results for our clients and continuously look to deliver and improve upon our service. At Cushman & Wakefield, our industry experts leverage their knowledge of cutting edge industry news and trending topics, which drive our firm's strategy. We are future thinking.

It's a good time to be in our industry and a great time to be a client of Cushman & Wakefield.

This edition of *The Occupier Edge* features articles on high-tech drones and how real estate professionals can utilise their functionalities to maximise business efficiency and profitability. We also feature best-practices on how you can keep your employees safe against a terrorist threat, and discuss the dynamic globalisation of e-commerce and how it is influencing real estate in a very big way.

Additional articles focus on the changing workforce at the regional and national level, the rise of solopreneurs, co-working and what these trends should mean to you. We also introduce you to the new concept of 'fintech' – the new buzzword for the banking and financial services industry.

We are excited to share our very own influential research with you and hope that it has a similar impact on you and your business.

Best,

Steve Quick

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Hurdles to Cross with "Eyes in the Sky"

MENTION THE WORDS "SMALL DRONE" AND WHAT MIGHT COME TO MIND ARE HOBBYISTS FLYING REMOTE-CONTROLLED (RC) OBJECTS RESEMBLING MINIATURE HELICOPTERS. THOUGH MANY OPERATE DRONES FOR FUN, THE TECHNOLOGY IS ALSO GAINING ACCEPTANCE ON THE COMMERCIAL SIDE.

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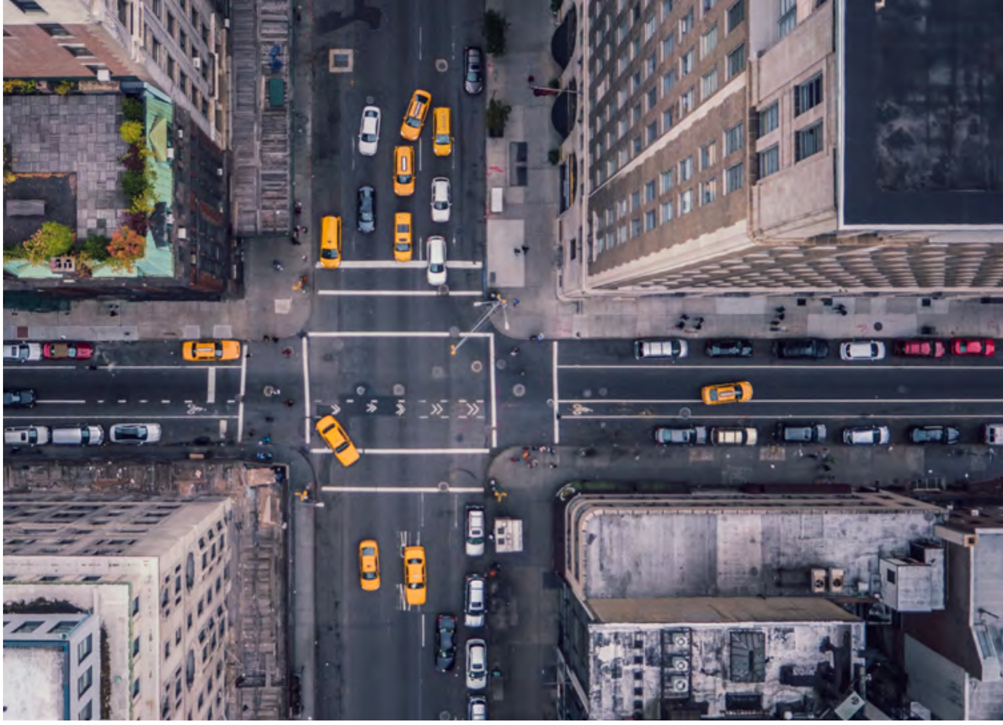


Armed with powerful video and/or photographic attributes, these small, flying objects are providing “eyes in the sky” for companies, allowing them to collect data, deliver goods and to check on the status of projects.

Wal-Mart Stores and Amazon are looking to drone usage for eCommerce, while some warehouse operators are pondering how drones and other technologies may aid inventory control. On the commercial real estate side, property developers and brokers are experimenting with the multi-propeller devices for purposes ranging from aerial photos to boost marketing efforts, to real-time safety observations on construction sites.

Still, the era of drones in the commercial economy is in its infancy, meaning more innovations are required to boost software and hardware capabilities. In addition, rules and regulations for drone flights need to be honed before the technology can be more acceptable, and widely adopted.

What Are Drones?

Drones are formally known as Unmanned Aircraft Systems (UAS) or Unmanned Aerial Vehicles (UAV). According to the Federal Aviation Administration (FAA) in the United States, a UAS is a small, unmanned aircraft weighing less than 55 pounds that typically operate via radio frequency. Drones also have their own innate intelligence; they can fly, hover, navigate and avoid obstacles without pilot input, which is part of their appeal.

Another advantage of drones is that they are easy to operate. Controls range from a gamepad/joystick combination to software on smart phones or tablets. Furthermore, prices have come down during the past couple of years. Though drones can cost as much as $15,000 and higher, a quality UAS can be purchased for less than $5,000.

Most drones are powered by a lithium ion polymer (LiPo) battery, allowing them to fly for about 40-50 minutes, with a maximum travel range of 1,500 feet to half a mile. Because temperature changes can impact battery durability, researchers are looking into hydrogen fuel cells and alternative energy sources to combat these challenges.

Regulatory Barriers

With the advancement of drone technology, aviation authorities are working hard to formulate appropriate regulations. In the United States, for example, drone operators no longer require pilot licenses. However, the operator must have a remote pilot airman certification with a small UAS rating to fly one.

In the United Kingdom, the Civil Aviation Authority (CAA) requires drone operators to have aerial work licenses; the CAA also has strict rules for flying in and around densely populated areas. Japan absolutely prohibits the flying of drones over roads or densely populated areas, though doesn’t require licensure of operators. And while the European Aviation Safety Agency (EASA) is developing sets of regulations for flying drones across the European Union, each nation has different, and specific rules for when it comes to operating the flying objects.

Another issue is that drones can collect large amounts of data. This aspect of UAS technology spills over into privacy and personal information concerns. It’s one thing to gather data about construction progress of a particular project. It’s another to position a drone outside an office to observe the activities of a rival CEO. As such, it’s important to define the parameters of personal data when it comes to what can and cannot be collected by the airborne technology.

Additionally, aircraft users are required to retain insurance in the case of an accident. Although the laws regarding drone operators continue to evolve, insurance is a major component to mitigate risk, especially when the airborne technology is acting as an autonomous robot.

To Be or Not to Be

While regulatory issues are being addressed and researched, drone operators continue honing their skills across industries to lower costs and increase accessibility outside of human reach. Though still fun for hobbyists, UAVs will fly faster, higher and longer, making them proactive tools in many industries, including commercial real estate.

But until specific regulations regarding UAV frequency, usage and purpose can be put into place, it’s up to private industry to regulate the amount of data collected and from where. As such, companies deciding on drone usage need to weigh convenience versus cost, while also ensuring that trustworthy human capital is behind the machine.

One Concept, Many Usages

When it comes to the commercial use of drones, one size doesn't fit all.
Each industry has different needs, requiring different drone functionalities.

REAL ESTATE AND CONSTRUCTION

Drones are useful for developers with projects under construction, especially when it comes to real-time accuracy and project status. Specifically, a UAS can help with quick site surveys, data-gathering for progress reports and monitoring construction areas for possible risk. Drones can also be used to market properties, providing a bird's eye view that would otherwise only be available at great expense.

SUPPLY CHAIN, WAREHOUSING AND LOGISTICS

Outside the warehouse, yard management drones can aid in tracking assets in a trailer yard ensuring all equipment and inventory is accounted for. Inside the warehouse, further technological advancements will be required for drones to have widespread utility. Many of the larger eCommerce companies are exploring the feasibility of using drones as part of their "last-mile" strategy to move goods more quickly to end users.

STRUCTURAL MAINTENANCE

Routine inspections of structures – such as cell phone towers, wind turbines and bridges – can be dangerous and costly. Drones are being used to gather information about structural performance, cutting costs by about 50% and deploying manpower to other areas.

LAND MANAGEMENT

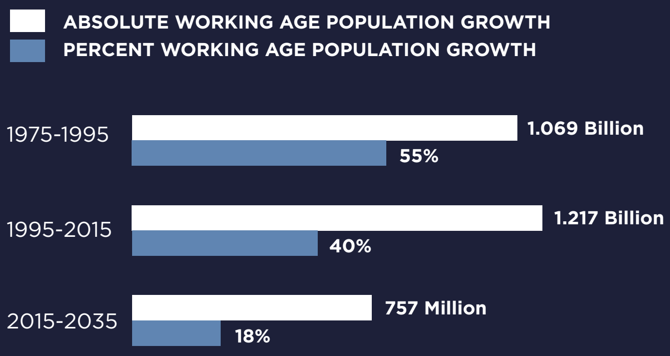
One of the early uses of drones was to dust pesticides on Japanese rice crops. These days, drones are used for soil and field analyses and crop health assessments, along with pesticide distribution. Drones are also being tested with open-cast mining, where they are replacing labour-intensive methods of inspection, mapping and surveying.

Our Changing Workforce

Demographic forces are exerting pressure on the world's future labour force. Population ageing is one of the most significant of these forces, which will affect not only the future size of the workforce but also its composition. Globally, while growth in the working age population will continue, the rate of growth is projected to slow. This will present opportunities and challenges at the regional and national level.

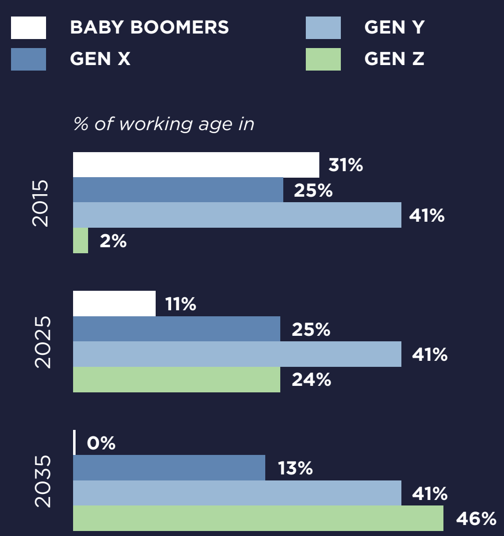
Growth in working age population to slow

Growth in the working age population will slow dramatically over the next 20 years – an increase of 18% compared to 40% 1995-2015.



Gen Y to dominate labour force composition

By 2035, Baby Boomers will no longer be part of the workforce in OECD countries, while Gen Z will exceed Gen Y in working age population size.



Aged dependency to increase

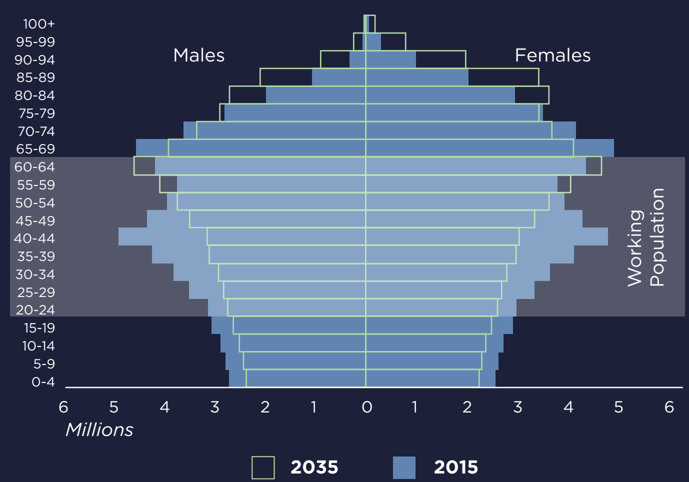
Aged dependency will increase. As populations age, a greater number of retirees will need to be supported by a shrinking labor force.

Global Rank (2015)	Global Rank (2035)		2015	2035
1	1	JAPAN	2.3	1.8
2	2	ITALY	2.9	1.8
5	3	GERMANY	3.1	1.8
42	4	HONG KONG SAR, CHINA	4.8	2.0
6	5	PORTUGAL	3.1	2.0
		EUROPEAN UNION	3.4	2.2
60	17	SINGAPORE	6.2	2.3
21	35	UNITED KINGDOM	3.6	2.6
		OECD MEMBERS	4.0	2.6
36	49	UNITED STATES	4.5	2.8
32	56	AUSTRALIA	4.4	3.1
		WORLD	7.9	4.9

Number of workers per retiree

Japan's sharp decline in labour force

Japan is forecast to experience a 15% decline in working age population between 2015 and 2035.



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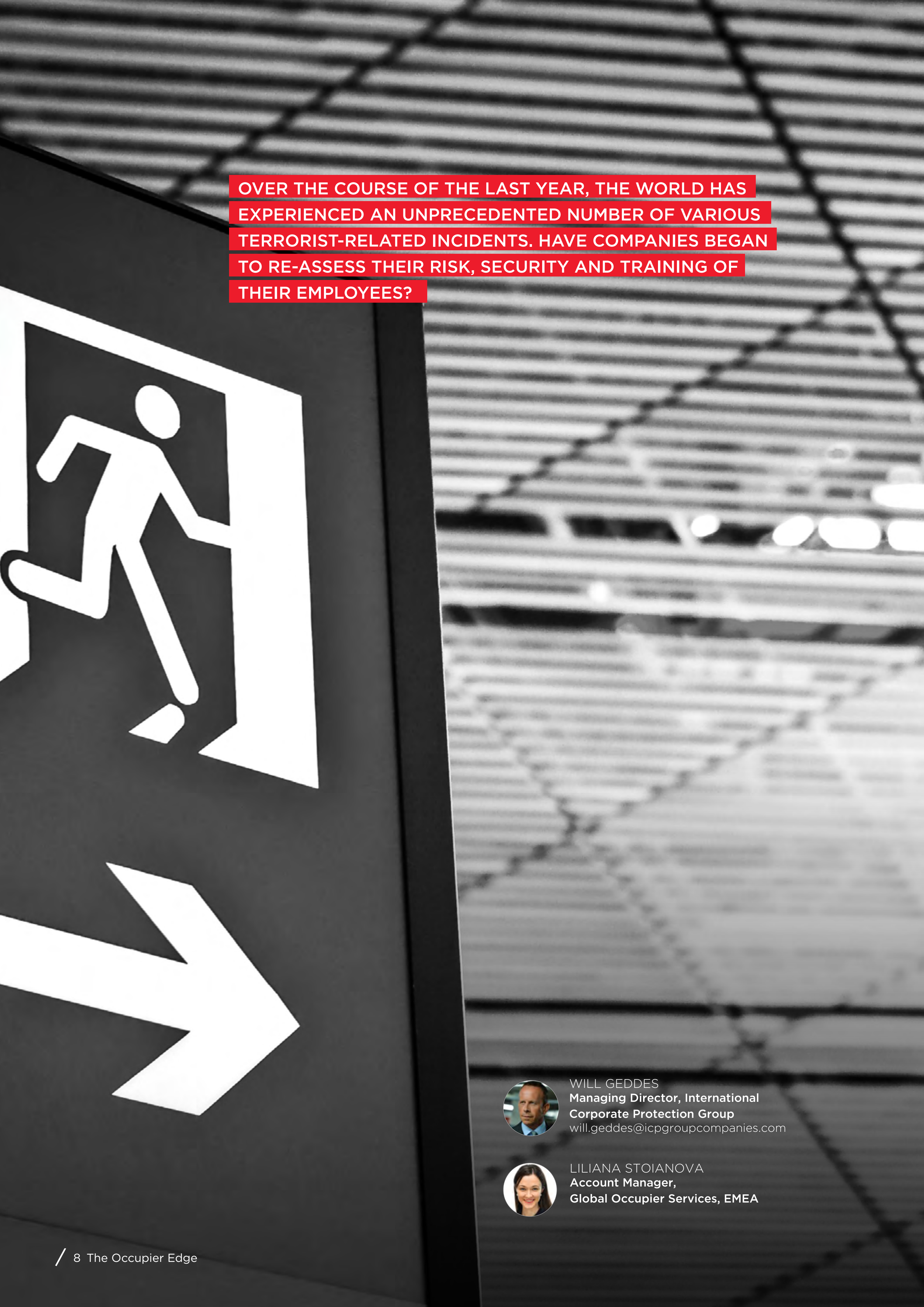

OVER THE COURSE OF THE LAST YEAR, THE WORLD HAS EXPERIENCED AN UNPRECEDENTED NUMBER OF VARIOUS TERRORIST-RELATED INCIDENTS. HAVE COMPANIES BEGAN TO RE-ASSESS THEIR RISK, SECURITY AND TRAINING OF THEIR EMPLOYEES?

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Travelling Employees and the Terrorist Threat: Is your Company Prepared?

At one time, the focus of journey management involved how to handle delayed flights, missing reservations and luggage. Journey management still includes those, but now it also involves ensuring employee safety in the face of terrorism. Will Geddes, Managing Director of the International Corporate Practice Group, offers insights on how to plan and train employees in the instance that an employee finds himself or herself in danger's way.

Over the course of the last year, the world has experienced an unprecedented number of various terrorist-related incidents. During the past two years, more than 70 attacks throughout the world have been attributed to the Islamic state and this number doesn't account for domestic terrorism. Have companies began to re-assess their risk, security and training of their employees?

Historically, following terrorist incidents and attacks, the majority of companies would only address and revise security measures for the specific city or region affected. As a result, we've had a significant increase in demand for the delivery of executive and training, both generic safety and crisis response practices. International Corporate Protection (ICP) Group is experiencing a significant increase in demand for training in safe journey management, situational awareness and, most telling, terrorism and political/civil instability risks.

What safety and security challenges of international travel and routine travel in metropolitan cities have you noticed recently?

The biggest challenge for companies, in regards to both international and domestic travel, is maintaining employees' safety when outside of their secure office environments. For example, with the increasingly spontaneous nature of today's terrorism, a major priority is locating staff quickly and determining their well-being. The good news is that technology, such as mobile phones, and apps such as Tactics ON (www.tacticson.com), are helping companies improve the ability to quickly determine staff's whereabouts and also more effectively coordinate them during crises.

What would be the best way for employees to prepare for a potential terrorist attack?

A complete plan should be in place and travelling employees should be trained in what to do during, and immediately after, a terrorist attack. Such training can help save lives.

Ultimately what are the most common mistakes that are made during a crisis situation?

The biggest threat in a crisis situation can often be your own curiosity. We have to override that inherently needs and desires to investigate, so if you hear something suspicious (explosion, gunfire, etc.), head in the opposite direction as quickly as possible.

Dealing with a Terrorist Situation

Even with the best preparation, a travelling employee might find himself or herself involved in a dangerous situation. As such, the following general tips should be shared with travelling employees, so they can be prepared.

TIP #1. Know Your Surroundings

It's not an old cliché that CIA/Special Operations types always check exits when entering a room or environment. This is actually a very good practice. If you're in a shopping mall, hotel, restaurant or a café, consider where you might escape if your original entry point is blocked. Familiarising yourself with exits is also a good rule of thumb for all situations, not just potential terrorism.

TIP #3. Run Away

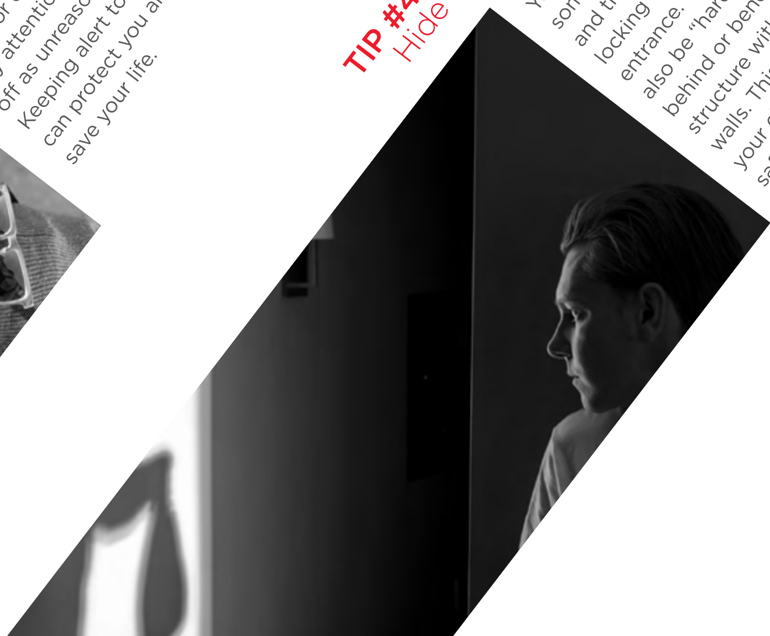
This might seem obvious, but it isn't. People are curious, and when they hear or see things that are out of the ordinary, they gravitate toward, rather than move away from what's happening. Head in the opposite direction of any suspicious noise or visual until you feel far enough away to be safe. The more distance you create, the safer you will be.

TIP #2. Trust Your Instincts

Humans have instincts for very good reasons; to forewarn and alert to potential dangers. A threat always won't be so clear-cut, but if something seems out of place, or causes discomfort, pay attention. Don't brush it off as unreasonable worry. Keeping alert to your feelings can protect you and even save your life.

TIP #4. Hide

If running or escaping puts you into harm's way and there is no other option, hide. Your hiding place should be ideally somewhere with more than one exit and that can be secured either by locking a door or barricading an entrance. The hiding place should also be "hard cover," meaning behind or beneath a solid structure with concrete walls. This will improve your chances of staying safe in the event of gunfire or a bomb.



TIP #5: Silence is Golden

If you need to hide, keeping quiet is essential. Turn all your electronic devices to silent, and make sure the family, friends or anyone else with you are kept silent as well. Terrorist gunmen could be looking for hostages or victims. Don't make it easy for them to find you. Be silent.

TIP #6: Seek Out a Safe Haven

A safe haven is where you can take refuge for an extended period of time. Safe havens can include hotels, restaurants, cafés or shops. Once inside, keep away from the main entrance, windows and any large glass walls or panels. More serious injuries can occur from broken glass, metal and masonry than from an initial bomb explosion.

TIP #7: Regroup with Your Group

Part of a proactive journey management plan should focus on a pre-arranged destination for a group to meet in the event of an emergency. That plan should also have a second pre-arranged location, in the event the first location might prove too dangerous. Agree on a timeframe and cut-off limit for when to meet at the first location, before moving to the second one (which should be further away from the danger zone). A good rule of thumb for wait time is one hour. It's also important you contact your home office as soon as possible.

The above suggestions are general, but represent a good starting point toward proactive planning. Companies are highly encouraged to develop specific risk assessments to help ensure employee safety through journey management. Once those assessments are evaluated, it's important to ensure plans are in place to mitigate the risk and danger of terrorism.

FINTECH: BOON OR BANE? IT DEPENDS.

JUST AS UBER AND AIRBNB ARE SHAKING UP THE MAINSTREAM TAXI AND HOSPITALITY SERVICE MODELS, FINTECH PROMISES HAVE A SIZEABLE IMPACT ON THE FINANCIAL AND BANKING LANDSCAPE.

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Banks are trying to stay ahead of the curve by migrating some offline services to online to enhance the customer experience.

Additional space in the form of co-working environments will be carved out from their existing premises to cater to the change.

The successful fintechs will generate long-term gains in efficiency and productivity. Transportation, communication and trade costs will decline.

Around 30% of the total banking headcount is forecast to be replaced by automation over the next decade.

These trends could drive a substantial downsizing in the banking sector's office occupancy over the medium- to long-term.

Fintech is the new buzzword for the banking and financial services industry.

Financial technology, or "fintech," firms are using technology and innovation to disrupt the traditional ways that banks and financial institutions (FIs) do business to better meet consumers' evolving financial services needs. While many banks and FIs view the rise of the fintech sector with concern, the more agile institutions are embracing fintech firms to make them partners in their business growth. With supportive government policies in Singapore and significant venture-capital backing, fintech is poised to disrupt more than just the banking industry. The emergence of these firms is generating demand for startup hub space and, going forward, will likely have a major impact on the office footprints of traditional banks.

Powering the fintech boom

So far, the financial sector has been spared from major shakeups brought by technological innovation, but the good times may not last for long. Fintech has strong venture-capital backing due to its huge potential to disrupt the lucrative banking industry. According to KPMG, investment in fintech startups and scaleups boomed in 2015, hitting new heights of U.S. $19 billion (S$26 billion). With so much funding available, the threat to the banking industry is real and could materialise sooner than expected. In the latest PwC survey published in March 2016, two-thirds of global financial services companies ranked pressure on profit margins as the top fintech-related threat, followed by loss of market share at 59%. Closer to home, 73% of traditional financial institutions in Singapore believe they are at risk of losing business to fintechs, while the global anxiety average is even higher at 83%.

Government policy also tends to support the rising fintech industry. The Monetary Authority of Singapore (MAS) has created a Smart Financial Centre, in line with Singapore's Smart Nation plan – one that embraces innovation and harnesses info-communications technology to increase productivity and improve the welfare of Singaporeans.

Traditional banks are taking note. Since late last year, major banks HSBC, United Overseas Bank (UOB), Oversea-Chinese Banking Corporation (OCBC) and Standard Chartered Bank have geared up for technological innovation by setting up in-house fintech labs in Singapore. These labs are dedicated spaces at a bank's office where startups collaborate with banks to develop innovative technology in key areas such as wealth management, payments and collections, trade and supply chain, insurance, cybersecurity and artificial intelligence. These initiatives mark a significant breakthrough in the collaboration between two major sectors, banking and technology.

Though some fintech firms have found a home in the offices of traditional banks, fintechs worldwide are most likely to congregate around hubs that provide a solid startup ecosystem. Singapore is a fertile ground for such firms. The country clinched the top spot in Asia Pacific in the 2015 Start-up Ecosystem Ranking conducted by Compass, offering a business-friendly environment that hosts 2,400-3,600 tech start-ups. The Singapore government has also been heavily involved in the startup ecosystem to push for innovation with the establishment of JTC LaunchPad at one-north.

Affordable rents, along with an established, vibrant startup community and ease of access to support services and networking opportunities has led to the LaunchPad being the favoured choice for budding entrepreneurs. The hub's current capacity is approximately 430,000 SF houses – some 40 incubators and 600 startups – and it aims to grow its capacity to house 750 start-ups by 2017.

What does this mean for real estate?

Banks are trying to stay ahead of the curve by migrating some offline services to online to enhance the customer experience. While a necessary step, this shows that financial institutions are embracing technologies to make their businesses more cost-effective. The real paradigm shift will happen when financial institutions rethink their traditional business models as they are forced to compete with innovations such as mobile wallets, crowdfunding, and robo-advisers, which may prove to be game-changers for the industry through 2016 and beyond.

So what does this mean for real estate? As more banks rush to tie up with fintechs to make them collaborators rather than competitors, additional space in the form of co-working environments will be carved out from their existing premises to cater to the change. Headcounts in the various IT departments within the banks and FIs will also be boosted as a result of these collaborations, which will underpin further demand in the office sector over the near term given the additional space required to run such partnerships.

Additionally, successful fintechs will also generate long-term gains in efficiency and productivity. Transportation, communication and trade costs will decline. The lowered barriers to entry will allow more competitive players to enter the market and could bode well for real estate by opening up new markets and driving growth in markets where such growth was not possible previously.

Finally, the substitution of automation for labour across the entire banking and financial services sector will potentially disrupt the labour market with more low- to medium-skilled jobs being displaced by machines. Venture capitalists have poured billions into two key areas of fintech, lending and payments, which could possibly curb banking headcount mainly at the mid- to back-end offices by 30% over the next decade as automated systems are deployed. Around 30% of the total banking headcount is forecast to be replaced by automation over the next decade. According to the latest fintech report by PwC, 83% of the financial institutions surveyed believe that part of their business is at risk of being lost to standalone fintech companies. In addition, more than 50% of respondents are unsure about and unlikely to be able to respond adequately to cryptocurrencies such as Bitcoin.

These trends could drive a substantial downsizing in the banking sector's office occupancy over the medium- to long-term. Based on the total banking footprint of 10.0 million sf in the CBD Grade A buildings in Singapore and the current employee-to-office-space ratio of one employee per 80-90 sf, the potential downsizing due to fintech could translate to a reduction of 904,000 SF of office space in the CBD.[1] Despite this challenge to banking sector headcount, the more complex and personal aspects of the banking functions are unlikely to be fully replaced by technology.

> While many banks and FIs view the rise of the fintech sector with concern, the more agile institutions are embracing fintech firms to make them partners in their business growth.

Just as Uber and Airbnb are shaking up the mainstream taxi and hospitality service models, fintech promises have a sizeable impact on the financial and banking landscape. Judging by the scale and complexity of the major disruptors such as social, mobile, data analytics and cloud computing, the changes are likely to be unprecedented, and commercial property markets will feel them too. A rising fintech industry will fuel demand for startup space and foster new models of collaboration with traditional banks, which will cause the latter to rethink their office occupancy needs. The spread of automation within the sector is also poised to render large numbers of human workers redundant, which could ultimately curb demand for CBD office space from traditional banking and financial tenants.

[1] Out of the 30% reduction of the total banking headcount, we assumed that the bulk of the headcounts eliminated – approximately 70% – came from the back-end offices such as Business Parks or outsourcing destinations outside Singapore (such as call centres), while the rest came from the front and mid-end offices in Grade A CBD buildings. The banking and financial services currently occupy 40% of the total Grade A CBD stock.

Building Blocks of the Future

Some of the world's largest banks, central banks, governments, universities and technology companies are now working with the blockchain as a future technology. The first application has been in the Bitcoin digital currency, but a host of possibilities are on the horizon – including for real estate.

"Blockchain should be taken as seriously as the development of the Internet in the 1990s."
- Blythe Masters, CEO, Digital Asset

HOW IT WORKS

A blockchain is a type of data storage – commonly transaction data.

Data is stored in 'blocks,' like pages in a book, which are linked to the previous block in a chain.

Identical copies of the blockchain data are held over a peer-to-peer network in almost real-time.

Cryptography and digital signatures prove identity and authenticity.

Blockchains are set-up with specific rules – i.e., who can read or edit the data.

HOW IT BENEFITS

It is open source and decentralised – reducing risk and increasing transparency.

Tampering with data in the blockchain is considered almost impossible.

It is low-cost – or even free – to record and verify blockchain transactions.

Blockchain removes the need for 'trusted' intermediaries.

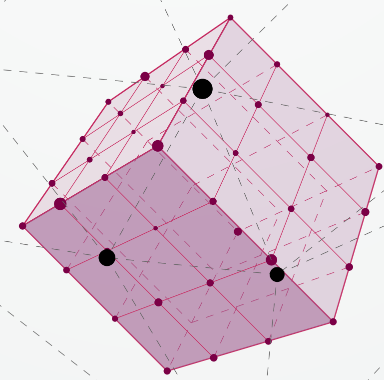
SMART CONTRACTS

Lease terms are codified in a "**smart contract**" which can operate automatically. Smart contracts could replace leases, being digitally signed and then set-up to function autonomously according to pre-defined rules, i.e., on rent payments.

Rent payments can be automated, so the right amount is paid on time every time and is fully traceable for audit. This reduces errors and the cost of human involvement.

Service charges can automatically be calculated, charged and paid, based on data fed in a blockchain from Internet of Things devices that record energy, utilities, and more, in a transparent way.

Deposit payments could also be held on blockchain, with protocols in place for making deductions or returning it to the tenant at the lease end.



TITLE REGISTRATION & CONVEYANCING

In Sweden, the government land registry is already testing all land titles and transfers on blockchain. It aims to make property purchases quicker, cheaper and more secure by holding all title information digitally and enabling virtual transactions.

When trading international property, exchange rates, taxes and regulations all cause friction. Using blockchain, funds can be transferred to anyone anywhere securely and quickly.

Verification of ownership titles can be one of the most time consuming and labour intensive parts of a transaction. Transparent data on blockchain would enable parties to easily transfer titles.

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E-COMMERCE
RETAIL
LOGISTICS
MOBILE

The Globalisation of E-commerce

It's thrilling, and perhaps intimidating, to think how fast our daily lives are changing in regards to how we work, shop and live. Because of online shopping, mobile commerce, urbanisation, and SEO/social media marketing – these activities are more dynamic and fluid than ever before. These trends are not only a part of our everyday lives, but they're influencing logistics and industrial real estate in a very big way.

The proliferation of mobile technology will help drive the globalisation of e-commerce. Smartphones have become the fastest-selling technology device in history, and the World Bank estimates that close to three-quarters of the world's population – including much of the developing world – now has access to a mobile phone. Smartphones and other mobile technologies have penetrated every aspect of daily life, including how global consumers shop.

Given the growth in the amount of time consumers spend on mobile devices, companies who provide customers with a seamless and engaging mobile platform are likely to have more sales than companies who don't. In the United States, activity on smartphones and tablets account for more than one in four e-commerce transactions (28% in 2015), and analysts agree that with improvements in mobile payments and a growing propensity to purchase on mobile devices by younger consumers, this tally will rise. In China, 73% of internet giant Alibaba's first-quarter 2016 sales came from mobile devices. Widening 4G coverage in China and the growing purchasing power of younger generations will undoubtedly result in more mobile-driven e-commerce sales in China in the future. Similarly, roughly 65% to 70% of European online sales come from mobile devices.

The globalisation of e-commerce and the proliferation of multi-market, multi-channel shopping, has been and will continue to be transformational for the retail and logistics industries. E-commerce sales are expected to reach $1.6 trillion globally in 2016, and forecasters, such as Goldman Sachs, expect global online sales to continue to grow 20% annually, driven by strength in China and India, low-teens growth in North America, and double-digit growth in Western Europe and the rest of Asia. In China – where internet sales are growing at 2.5 times total retail sales – forecasts are robust but vary from 21% to 37% growth. Indian e-commerce has grown at a rapid pace over the past several years, driven by rising internet connectivity and the expansion of electronic payment systems. Analysts expect e-commerce, in that market, to continue to grow 30% to 40% annually.

Percentage of sales from mobile devices

UNITED STATES
28%
of e-commerce transactions in 2015

CHINA
73%
of Alibaba's 2016 Q1 sales

EUROPE
65%
of online sales

In Japan, where e-commerce's maturation has been slower and online sales represent less than 5% of total retail sales, forecasts call for gradual growth of 11% annually. In the U.S., analysts predict online sales will grow 14% annually from 9.2% of overall retail sales to 12.2% by 2018. In Latin America, growth has been hindered by limited connectivity and infrastructure-related barriers to logistics. However, increasing access to broadband and mobile 3G and continued investment in transportation networks should result in 20% annual growth in that market. In Eastern Europe, e-commerce is expected to grow by 13% annually, with online sales rising from the current 4.5% of total retail sales to 6.3% by 2018. Similarly, in Western Europe, forecasts call for annual growth rates of 11%, with online sale rising to 10.4% of total retail sales by 2018.

New Driver of Logistics Demand

E-commerce growth is an important driver of demand for logistics real estate, because fulfillment centres that deliver product directly to consumers are surpassing the number of traditional retail distribution to stores. This phenomenon has contributed to shrinking footprints for certain retail formats and increased the demand for logistics-related real estate. The vast majority of all retail sales still occur in stores, and more than 90% of worldwide retail sales are captured by retailers with a brick-and-mortar presence. Savvy retailers understand how each customer touch point supports sales and are developing omni-channel strategies that maximise customer satisfaction by seamlessly improving the experience from "bricks-to-clicks." Clearly, inherent in this strategy is the need for additional logistics real estate.

E-commerce-related occupiers have consolidated into logistics facilities many activities related to fulfillment that were once carried out within storerooms resulting in the need for more space for electronic fulfillment than for traditional distribution activities. One reason for this is that as e-commerce shifts the point of sale from the retail store to the logistics facility, greater stock keeping units (SKUs) must be carried within the facility, which, in turn, requires larger buildings. Both the number of SKUs and how they are stored matter: individual order picking, packing, and shipping direct to consumers require more space than palletising for store distribution. Another reason is that some e-commerce logistics facilities accept product returns, which necessitates floor space for both processing and restocking.

One Size Does Not Fit All

In the world of e-commerce, one size does not fit all. E-commerce business models vary in many ways, including the size of the operation, product focus and retailer model. These dimensions affect the size, location and building strategies of logistics facilities. In the near term, e-commerce real estate requirements in the U.S. and portions of Europe should continue to move toward four distinct categories:

- Large fulfillment centres located outside major metropolitan areas
- Mid-sized distribution/fulfillment centres seeking to locate proximate to the population
- Medium to large sortation centres located within major urban centres to accelerate delivery and mitigate risks
- Small depots dispersed throughout the urban core serving as "last-mile terminals" to satisfy customer service expectations for instant delivery.

The final leg of delivering packages to consumers also encompasses options for in-store pickup of items ordered online. Globally, we see the growing popularity of package delivery kiosks. Regardless of the strategy, the key to successful last-mile delivery will be the presence of an extensive facilities network that provides timely and cost-effective service. Traditional retailers with existing physical assets are well positioned to compete if they can optimise the inventory management system. Ultimately, whoever utilises the most efficient and cost-effective last-mile methodology will win.

Growth Lies Ahead

E-commerce fulfillment is still in its infancy, but it has already had a transformative impact on global supply chains. Changing customer expectations that require the presence of products where they want them, when they want them, require more capacity and flexibility from supply chains. The continued evolution of service expectations, the rapid growth in mobile technology and connectivity, and further development of infrastructure in emerging markets will continue to drive demand for logistics facilities and affect occupier requirements for their industrial real estate.

It's early; growth lies ahead, in a connected fashion, for both e-commerce and logistics.

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Human Capital: A Cost and Commodity

TALENT MANAGEMENT REMAINS HIGH ON CORPORATE AGENDAS, AS ORGANISATIONS ACROSS DIFFERENT GEOGRAPHIES AND BUSINESS SECTORS ATTEMPT TO MORE EFFECTIVELY MANAGE GLOBAL TALENT POOLS IN CHANGING AND OFTEN UNPREDICTABLE BUSINESS ENVIRONMENTS.

All for One

It is of little surprise that occupiers from differing business sectors and geographies have discrepancies in opinion when it comes to the most suited strategy surrounding talent attraction and retention. Despite this, a number of common core themes exist:

- The right working environment can prove critical in helping to foster innovation through the attraction and retention of appropriately skilled talent within todays knowledge economy. Many organisations are choosing to locate within close proximity of industry clusters helping corporates source skilled labour.
- Managing talent agendas effectively can carry the potential for a more productive operation while also reducing the costs associated with human capital turnover. Higher density ratios and collaborative working strategies are becoming key parts of occupiers' real estate strategies. Technology improvements also continue to disrupt operations and are a key consideration during office space renovation. The right corporate culture also appears to be a key pull factor for securing the right talent to gain the competitive advantage.
- Occupiers are actively seeking out new markets, as well as diversifying into new geographies as the war for talent intensifies and global integration continues to reveal new marketplaces for doing business.

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Dichotomy Between C-Suite and Cost-Conscious Occupiers

With the workplace continuing to evolve another commonality among occupiers is the notable void between CEOs aspirations and strategic challenges faced when implementing real estate strategies. While CEOs and other top executives believe that sourcing the right talent is critical to an operation, cost remains the core CRE driver. Despite this, talent attraction and retention, along with real estate, are of course key contributors to underlying costs, and so finding the correct balance is critical as these costs continue to increase squeezing operating margins in many business sectors. As such, occupier strategies tend to focus on:

- Future proofing - Reinventing occupational design and workplace flexibility plans now to meet the needs of future employees.
- Ensuring a workforce of skilled workers, innovators and next-generation leaders by building and maintaining a reliable and sustainable pipeline of trained workers often aided by successful corporate branding
- Re-energising employee attitudes through engagement, efficiency and sense of purpose
- Devising an adaptable and agile employee base that bolsters an organisation's ability to cope with sudden changes and volatilities in internal and external environments, something we are becoming more and more familiar with.

Further occupier trends will be analysed in more detail in our forthcoming report What Occupiers Want.

POLLING OCCUPIERS

The poll conducted by Cushman & Wakefield and CoreNet was divided into four sections, and assessed:

1. The cost and value of talent to an organisation.
2. Challenges of embracing talent management strategies.
3. How workspaces and locations are a talent pull factor both today and the future.
4. Whether occupiers were reviewing workplace strategies and, if so, how such strategies would help build sustainable labour sources.

LONDON

DATE OF SURVEY: **SEPTEMBER 2015**	NUMBER OF PARTICIPANTS: **250**

OVERVIEW

95% Indicated collaborative and innovative working environments help attract and retain staff, as do company culture and flexible working practices.

85% Indicated human capital as the highest cost to their organisations.

91% Indicated talent assembly as essential to the operation of their organisation.

88% Are actively investing in improvements to their workplace, 95% of which are addressing technology.

CHALLENGES

- Physical access to appropriately skilled labour and compensation expectations remain significant across all who were surveyed. End users are feeling the pinch more than service providers when it comes to talent supply. Talent carries a significant cost, access to labour is becoming more difficult and businesses are acting now to secure future talent pools.
- The financial sector and manufacturers are challenged mostly by skills gaps; financial services is also addressing staff retention issues.
- Manufacturers are hit hard by a tightening labour market.
- The technology sector meanwhile is having to address the salary gap through compensation expectations; the physical environment is also important.

REAL ESTATE

Occupier Density
74% believed employee-to desk ratios are critical to a successful working environment. As a result, 70% changed their occupancy ratio already, 81% of which are relying on co-working and flexible workplace strategies for more efficient space occupancy.

Occupancy Issues
40% indicated they would address occupancy issues in the next three years.

Proximity
76% indicated they anticipate diversification into new markets. Proximity to key markets also remains important.

Talent Assembly
71% indicated talent assembly as a crucial factor.

LOS ANGELES

DATE OF SURVEY: **OCTOBER 2015** | NUMBER OF PARTICIPANTS: **630**

OVERVIEW

96% Indicated talent assembly as important to the organisation; most indicated that sourcing skilled talent was at the top of the list.

63% Indicated that the working environment is crucial to talent attraction.

93% Noted that collaborative spaces in the right spaces is key to success.

82% Said they were investing in improving the work environment, targeting technology upgrades and innovation.

76% Believed a successful environment can help facilitate strong working connections.

64% Said the right workplace help share company values.

60% Said the workplace can actually act as a non-cash reward for employees.

CHALLENGES

- Human capital was far and away the highest cost to organisations, with nearly 78% considering it the highest cost, followed by real estate at 11%. Innovation came in just behind at 9%.
- Almost half (45%) of respondents indicated accessibility of appropriately skilled labour to be their number-one challenge, while 17% indicated that managing compensation expectations is very important.

REAL ESTATE

Occupier Density
Occupier densities can have a high impact on talent attraction, according to almost two-thirds of the respondents. Higher density ratios to promote efficiencies are in place among 86% of those surveyed.

Company Culture
While real estate was considered important, company culture was believed critical to securing talent; more than half of all respondents indicated company culture as their number-one talent magnet.

Geographic Diversification
72% of those surveyed indicated geographic diversification over the next two years, with 68% indicating talent assembly as important to the expansion. Additionally, 70% indicated that knowledge clusters support the diversification moves.

Workplace
The majority of corporates are not moving to new premises purely to attract talent; rather, they said they are renovating existing premises.

ASIA PACIFIC

DATE OF SURVEY: **MARCH 2016** | NUMBER OF PARTICIPANTS: **140**

OVERVIEW

96% Thought that working environment is important to talent attraction. The same number indicated that innovative and collaborative spaces can help attract and retain staff.

77% Of corporates are investing in their working environments to support their talent agenda, while 87% are improving technology.

15% Company culture is extremely important to finding and keeping the right talent. Training and development was important to 15% of respondents.

76% Indicated that a good or excellent workplace can help employees develop connections at work and improve an organisation's structure.

CHALLENGES

- 42% indicated that accessibility of the right labour as the largest challenge to their business, and 15% stated that retaining the right talent was extremely important.
- 79% of respondents indicated human capital to be the highest cost to their business, with almost 100% indicating talent assembly as important to their business.

REAL ESTATE

Occupier Density
69% said densities have an impact on the working environment, with 70% changing their densities over the past three years, and 77% operating more efficiently on a higher densification, as work strategies are revised and become more flexible.

New Markets
71% indicated their businesses will be diversifying into new markets in the future; 60% said talent is driving this strategy, and 65% noted that knowledge clusters have a positive impact on securing talent.

Workplace
63% reported that the right workplace can actually act as a non-cash reward for employees; 68% noted that the right workplace helps employees share their values with one another and 71% pointed out that the workplace embodies the values of their businesses.

The Rise of Solopreneurs

By 2020, 40% of the global workforce will be solopreneurs. This will have a significant impact on the way corporate offices operate, as well as the make-up of the workforce, thereby triggering the need for flexible office environments.

What is a Solopreneur?

Solopreneurs, or solo entrepreneurs, are the individuals who are setting-up on their own – both in the conventional sense of launching a new business based on an idea or product, or alternatively, taking their professional skills freelance, in an effort to establish a better work-life balance and maximise their earning potential.

Casting off many of the negative connotations previously associated with temporary work, the growth of individuals working as solopreneurs is now triggering a fundamental and economic shift in the workforce. Whether setting up an entirely new venture, becoming an independent contractor or a traditional freelancer, the numbers of those breaking away from conventional full-time jobs are increasing. It's evidenced by the fact that 60% of solopreneurs state that working independently is an individual choice, not a necessity.

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With a growing cohort of freelance professionals, compounded by companies with fluctuating business requirements, both the nature of work and the real estate required for such work are beginning anew.

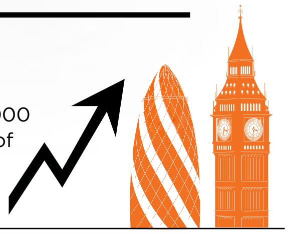
Signals of Change

Global shifts in technology and patterns of production have resulted in significant growth of self-employment and the creation of new, small businesses globally.

40%
WORKED AS AN INDEPENDENT

Research by MBO Partners has already identified that 40% of the U.S. workforce works or has worked as an independent at some point in their lives and predicts that within five years, this number will reach almost 50%.

In the UK, new business start-ups are at their highest level in recent years – reaching more than 600,000 during 2015. This follows a trend of consistent increases throughout the last five years.



In Singapore, total early-stage entrepreneurial activity (measured as the percentage of working age population starting or having recently started an entrepreneurial activity) is now at 11%, up from 4.9% in 2006.

11%
ENTREPRENEURIAL ACTIVITY

The Rivers Behind the Trend

The ubiquitous availability of technology has made solo businesses both accessible and scalable. The internet now enables customers, clients and collaborators from around the world to work together, creating a marketplace far larger than was traditionally achievable. The new solopreneurs are booming as a result of the "project" or "gig" economy – whereby assignments from clients both large and small are providing an accessible and consistent stream of work to their freelancers.

In the early 20th Century, economist Ronald Coase established that reduced transaction costs led to the establishment of firms, resulting in a more efficient method of production. However, this trend is changing as it becomes easier to employ short-term staff and create a more flexible business model. Research by McKinsey Global Institute suggests that ad-hoc teams – formed of internal staff and/or freelancers – could now be the most efficient organisational design.

Additionally, many major corporate organisations now view the pool of on-demand labour as a key tool for managing fluctuating workloads and obtaining specialised skills. Upon launching their own flexible resourcing scheme, Wim Dejonghe (Managing Partner of Law firm Allen & Overy) reflected on the benefits to employers in saying "peaks in client demand are far more variable, so we need greater flexibility."

HUMAN CAPITAL IS NOW CONSIDERED A TOP FIVE PRIORITY FOR CEOs ACROSS THE WORLD AND AS ORGANISATIONS FIGHT IN THE WAR FOR TALENT.

What is the Workplace Impact?

Workspace no longer means a private office for most employees, and for many, it does not even mean a permanent desk. Work can be in a coffee shop, a break-out pod or even while travelling on the train.

As increasing numbers of solopreneurs – individuals, micro-businesses and self-employed consultants – demand a ‘workspace’ of their own, they are creating such spaces outside of the conventional office. For example, the capacity of co-working space in London is growing at around 10% per annum, while cafes, hotels and even the homes of strangers are being repurposed and rented out as workspace. Cost arbitrage is now distinguishable, as a dedicated desk at a co-working centre in the City of London can be as little as 50% of the total occupancy costs of a workstation space in a conventional leased office.

Many solopreneur roles are ‘remote,’ whereby the individual contractor provides their own workspace outside of the offices of their short-term employer. This results in an expansion of the organisation’s effective headcount, but without any corresponding increase in the necessary seating capacity or real estate requirement. Depending on the agreement with the freelancer, their workplace cost may even be included as part of their freelancer fees. This results in all associated real estate costs of their employment being attributed to the project or department employing them – a direct cost-for-space model that many real estate managers have tried to implement across traditional office environments.

However, many corporate organisations prefer to bring contracted workers into their existing offices for better collaboration, enhanced understanding of corporate culture, and the ability to manage security, both technically and personally. Those in corporate real estate and facilities need to be aware of the need for more regular on-boarding and induction, ‘bring your own device’ connectivity and closely controlled building access management systems. Equally, the changing ratio between permanent and flexible labour – as contractors form a greater percentage of the organisation’s headcount – will radically change the way headcount predictions are made. With this fact, corporate real estate managers will have to adjust how they plan the future

58%

McKinsey has identified that 58% of US companies planned to use more temporary labour at all hierarchy levels in the future.

6.8
MILLION

In the US, Millennials working as full-time independents now total 6.8 million, more than tripling in number over the last five years.

A Look Ahead

McKinsey has identified that 58% of US companies planned to use more temporary labour at all hierarchy levels in the future, which represents a number that is three times greater than those employed overseas.

This number is likely to grow as solopreneurship is being led by the next generation of workers. In the US, Millennials working as full-time independents now total 6.8 million, more than tripling in number over the last five years, and accounting for 40% of the total independent workforce.

Looking ahead, corporations could have a much smaller permanent workforce as they leverage the flexibility, savings and opportunities of employing or working with the growing cohort of solopreneurs. As companies adopt working practices that accurately reflect the scale of business operations at any given time, corporate real estate will adjust to utilise flexible workspaces, such as co-working space, which reflects a more agile and nimble organisation.

Co-working + Free Addressing = The Office Game Changer

It used to be that an employee working for a company was required to show up at a physical office from nine-to-five, five days a week (pending any kind of vacation or illness). The idea of off-site work was considered ludicrous; employees had to be at the office to complete job tasks.

Technology and increasing operating costs have softened the corporate mindset when it comes to remote work. Co-working and free addressing are, in many cases, replacing the nine-to-five, five-days-a-week mindset of many companies. In fact, in an effort to reduce their real estate footprints, many companies actively encourage their employees to work remotely and come in a couple of days a week.

And when those employees do show up at the office, there are no more assigned workplaces. Instead, the employees will find empty desks where they can plug in their devices - laptops, tablets and smart phones - and get to work. This concept is known as free addressing (or hot-desking, in some locations), in that the employees take the space on a temporary basis.

Then there is co-working, which provides a work space, Wi-Fi and outlets for individuals without a permanent office, such as freelancers or the self-employed. Co-working also provides an alternative for companies that require short-term space, and, therefore, don't want a long-term lease.

The Future Office Trend

Co-working and free addressing can work together to benefit organisations of all sizes. Take a 15-story building; the top five floors are occupied by an international corporation. The bottom floors are taken by small- and medium-sized companies. The middle five floors are run by a co-working business.

The smaller businesses can use the co-working space to expand, eliminating the need for a long-term lease. And, if the need for space goes away, the smaller businesses can depart the co-working space. The co-working space gives the smaller businesses time and space to work out expansion decisions and strategies.

Meanwhile, the multinational has done away with assigned workstations (except for employees who must be on-site) and is embracing free addressing. The workforce operates remotely and comes in only for meetings. But a short-term project is requiring more employees to be onsite. The co-working space is ideal in this situation. And when foreign employees travel to the multinational for visits, they can be set up in the co-working space.

This scenario is not so far off. Corporations continue shrinking their real estate footprint to save costs, and are turning to free addressing. Smaller businesses find co-working space, with its monthly payments, less restricting than a long-term lease.

Co-working and free addressing are trends that office brokers and facility managers need to watch. As organisations continuously change the way in which they operate, their space needs change as well. The way things are going now, those needs are headed to smaller footprints, remote activities, and space on demand.

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DIGITAL DISRUPTION AT THE WORKPLACE

When you hear "digital" most people think about Google, Facebook or other technology companies, but now all companies across multiple sectors are transforming into a digital company.

We see digitisation as the driving strategy for many global businesses; GE's strategy is to become the first digital industrial company and is moving its headquarters to Boston to be closer to MIT (Massachusetts Institute of Technology). Deutsche Bank wants to transform into a digital bank, and Sephora is digitising the world of beauty. The transformation is not just how these companies manage clients and deliver services through the web and smart phone apps, but back office processes, enhancing organisational agility, speeding up supply chains and recreating whole service offerings to make life easier or better for clients.

In reality, the evolution of technology and the consumer and business related trends is creating a world of digital disruption which has far reaching impacts for traditional business models for every company in every sector. Many companies are now trying to understand how they can become digital businesses. If the Chief Executive Officer is not personally driving the agenda, we are seeing Chief Digital Officers being appointed at banks and financial services companies, legal and professional services firms, life sciences and FMCG companies. They all want to develop digital processes, cultures and workplaces. Around 50% of financial services employees are now engaged in IT and technology related roles, and so these companies are competing with the likes of Google and Microsoft for the top talent as employees are switching between sectors for the best opportunities.* Without developing digital cultures to meet the expectations and workstyles of these key individuals, these traditional organisations risk being left behind.

* *"Future Financial Workplace"* Report, Cushman & Wakefield

WHAT IS A DIGITAL BUSINESS?

"Digital business is the creation of new business designs by blurring the digital and physical worlds."

GARTNER

BUT WHAT DOES DIGITAL MEAN?

It is no longer about just technology but a whole state of mind – more open and transparent, more agile and dynamic, more informal and creative and with a strong focus on community and experience. As businesses try to burst the corporate bubble, the workplace is a major catalyst for such a transformation. To become truly digital means starting from inside out and leaving the corporate baggage behind.

This briefing note explores the characteristics of digital businesses, the drivers for change which are speeding the transition, and the impacts upon the workplace of a more open, informal and collaborative business culture.

RADICAL OPENNESS
THE FOUNDATION FOR DIGITAL

Society is now far more open than it ever was. We use Facebook, Instagram and Twitter amongst many other social media tools to openly share to the world our lives, our views and our experiences. We are entertained through videos we share and we learn through collaboration and sharing knowledge online. Society has become radically open.

This trend is not only transforming the way we think about business but also how we organise it and develop it. Organisations need to engage customers, partners and employees into a productive, trust-based relationship in which intimate business information is shared; successes and failures, strategies and innovations. The openness is breaking down traditional organisational boundaries as organisations 'crowdsource' knowledge and funding, and clients/consumers are directly driving innovation or even becoming producers. Collaboration and co-creation with clients, suppliers, partners and academia is driving strategy in directions that are not planned or programmed.

"It is the long history of humankind (and animal kind, too) those who learned to collaborate and improvise most effectively have prevailed."

CHARLES DARWIN

It is this encouragement to think and act differently which allows digital businesses to innovate and disrupt so successfully. Some of the biggest success stories in recent times change the rules for competition, crowdsourcing content so that consumers become collaborators. Airbnb is the world's largest accommodation provider, yet owns no real estate. Facebook is the world's largest media owner, yet owns no content. Uber is the largest taxi company yet owns no taxis.

But it is not just new market entrants who are adopting this radically open approach. Large and established names are transforming their business models. Many Microsoft offices have opened up their ground floors to the community to hang out with them. KPMG has just acquired 40,000 sq ft of space in the West End of London just for clients. Co-working spaces across the world are increasingly attracting the big corporations as well as the start-ups and medium sized enterprises.

THE PRINCIPLES OF RADICAL OPENNESS

Collaboration anytime and across multiple channels

Transparency of business processes and physical space

Sharing of ideas and of space

Interconnectivity and ease of movement between all roles in the organisation

DIGITAL IS REPOSITIONING CORPORATE

Radical openness presents a challenge for corporations; it turns many of the traditional assumptions and indeed the ecosystem of corporate business, on its head.

Historically, knowledge has always meant power. Whoever has had the means of developing and preserving knowledge within the business and at a corporate level, within the market has been rewarded with success – a sharp contrast to the world in which knowledge is collaboratively created and openly shared. Within the corporation, it was the longer serving, more experienced staff who were the custodians of the knowledge base, whereas in the digital world it is more often than not the younger new talent that bring ideas and innovation, that drives the digital strategy. Whereas in the past, the expectations would be for this talent to stay within the company for many years, whilst they work their way up the hierarchy, the new mind-set for the millennial generation is to move not only from one company to another, but even from one sector or industry to another, as the disruptive nature of digital facilitates knowledge and people transfer. One option that is attractive not only to the young talent, but many of the middle managers in business, is to leave the corporate world behind and set up or join a new start-up disrupter business. It is not just the entrepreneurial nature of such businesses that are attractive, but the culture and style of these organisations, as the traditional world of 'corporation' is no longer appealing to many.

"Corporate doesn't sell."

HR SENIOR MANAGER AT A GLOBAL BANK

WHAT IS THE IMPACT ON THE WORKPLACE?

Competition for talent, retaining key people and organising resources in the most effective way is recognised across sectors as a critical success factor. Indeed human capital is the number one strategic imperative as cited by CEOs of the Top 500 Companies. Real estate and the workplace has a significant role to play. In regards to location and how to create a workplace experience that enhances collaboration and provides a compelling experience to retain the best people. CRE executives report that this is more important to them now than managing cost.

This focus on the workplace from a digital business lens creates a very different perspective than just cost. Indeed, Duncan Painter, CEO of Top Right Groups, the media, insight and events conglomerate, considers real estate part of his marketing budget, as it facilitates the collaboration and co-creates with his customer base.


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KEY CONSIDERATIONS

1

Demographic trends: There is no doubt that those now entering the workforce grew up in a world more connected than ever before and learnt in a very different way than generations before, far more collaboratively and openly, through blogs and engaging with people and views far beyond the classroom. The speed of communication and ease of access to information they have experienced for most of their lives is at odds with the enclosed and individualistic nature of a traditional corporate environment. Sharing is second nature, and is expected in their working lives. With the recent definition of the "Centennial" generation, following millennials with an even greater awareness of technology capability, the pressure to embrace a digital culture will only increase.*

* *"They eat vegan, 'curate' their online 'aesthetic' and can't remember a time before iPads: meet the Centennials"*
Luckhurst, The Evening Standard, 2016

FOR THE WORKPLACE NOW INCLUDE:

2

Workforce expectations: The most talented young candidates want to work for digital companies in the digital economy. Whether this is a new start-up or an established business transforming itself, the candidate's expectations include flexibility, formal and informal collaboration, learning, choice, work-life balance and the opportunity to "make their mark." They will gravitate towards organisations whose workspace, culture and technology provision align to these expectations. A survey amongst graduates that investigated not only why they joined companies but also why they turned down other companies discovered:

- The most important attributes of an organisation according to graduate talent globally were:
  a) Professional training and development
  b) Creative and dynamic working environment
  c) Leaders who support my development
- Millennials want to match their career choice with their lives and values and so are:
  a) Looking to make a difference
  b) Expecting to be able to contribute their ideas
  c) Want to enjoy themselves
- A significant degree of transition between sectors; switching between technology, the big four consultancies and investment banking.

3

Workplace perception: The traditional workplace no longer appeals, with research in Paris amongst business school graduates indicating that 93% of graduates don't want to work in such a space. Home working or public spaces would be their preferred working environment, again indicating a drive towards choice and flexibility over corporate culture. However the pull of the city centre is still strong, with 87% wanting to work in urban cores, as is the desire for collaboration and hunger for quick learning from others in the organisation. For this reason a physical workspace is still key, but one which acts as a hub for interaction, designed accordingly, and used in combination with more flexible work and location options. Within these spaces businesses should look to provide non-traditional yet well-connected workspace, supported with high quality and intuitive technology, to accommodate the range of workstyles that their future workforce aspires to. Now we see even highly traditional occupiers such as legal firms recognising that their inflexible single-office models inhibit knowledge sharing, and that more collaborative hybrid spaces would meet the demands of their incoming hires and their clients' expectations of innovation.

4

Engagement and wellbeing: Mounting research shows that providing employees with choice over when, where and how they work is the most important factor in driving satisfaction and engagement of staff when it comes down to the workplace. With recent research showing 1/3 of the average workforce is disengaged*, the recognition that the workplace can make a significant impact on this is now influencing the way in which space is viewed as a business tool. Organisations are asking how to encourage staff back into the office to take advantage of ad-hoc meetings and unscheduled collaboration. Wellbeing; covering physical and emotional fitness and work life balance should recognise and provide spaces for all work styles and personality types, in a balanced distribution of facilities. This can transform the workplace culture, improve performance, innovation and accelerate productivity, as well as benefitting the bottom line.

*"*Engagement and the Global Workplace*" report, Steelcase, 2016

Corporate Real Estate Outsourcing in Asia:
Game Changer or Game Over

The recent appointment of Cushman & Wakefield by Chinese telecommunication giant Huawei Technologies (Huawei) for global transaction management signalled a distinctive shift in the way companies headquartered in Asia are addressing their corporate real estate (CRE) operations.

What is significant about this appointment is the changing dynamics with empowered Asian companies like Huawei and Alibaba not simply willing to adopt a global approach to outsourcing, but are pro-actively setting out to redefine the landscape.

So what's changed and why now? We set out to try and answer some of the big questions facing Asian companies and provide insight on the trends we think could radically challenge the current global CRE outsourcing model.

Do Asian companies view CRE differently?

The short answer is yes. Asian companies represent a third of the Forbes 2000 global list and this is likely to increase as the region continues to its realise it's full potential.

Although many rapidly expanding entrants like Alibaba and Huawei already have a presence in most major global markets, they operate as a conglomerate with separate and diverse trading companies, making them locally agile, but less consistent or centralised regionally.

For example one Japanese MNC has more than 300 separately run trading entities in more than 100 countries.

The focus is often more on the product output and less on the working environment or market presence.

The potential to disrupt the established balance is immense - signalling Asia as a game changer.

As a result, many Asian global headquarter offices are significantly understated by global comparison.

Another point of difference in the way Asian companies view CRE in management structures. "General Affairs" or other administrative groups (if they exist at all) are usually responsible for central or regional real estate.

It's common for country businesses to run their own real estate function in isolation with Headquarters approving large strategic projects.

Where there is a CRE team, it is often at a developing stage, which requires a lots of support. A good example is India where CRE has traditionally been led by ex-armed forces officers operating in military style. Chinese and Japanese corporates historically have large in-house teams in the home country with limited representation "internationally".

Local businesses typically have an ad hoc local broker relationship, or use the home country team for negotiation which may not deliver an optimal outcome.

One explanation for this structure could be what Professor Michael Witt, INSEAD Affiliated Professor of Asian Business and Comparative Management calls "liability of foreignness" - a lack of perceived understanding of how business is really done locally.

At Cushman and Wakefield, we think that doing business the 'Asia' way requires an intuitive understanding that each Asian country has its own set of business practices (and in some cases like China, multiple business systems), ranging from top down, highly centralised management, to collaborative decision making.

Asian economies therefore cannot be viewed as one, and businesses should focus on getting to know how Executives view the role of the firm in their own economy.

Trust is the biggest "social capital" influencing many business decisions and this "liability of foreignness" must be overcome if relationships are to develop into true strategic partnerships.

Is there an Asian CRE Talent Pool?

Absolutely. Increasingly, global multi-nationals are staffing regional management roles with local talent. Regional CRE lead roles are now held by leading talent like Ana Allado, recently appointed Head of CRES, APAC at Diageo. Furthermore, Asian CRE business leaders are taking on global roles, like Chua Ming Lee at Unilever and Lee Ying Shin at GE Digital.

This crossover of culture is influencing the evolution of CRE itself in global multi-national companies with professionals like Barbara Liu taking their real estate expertise into companies like Huawei that are adopting global real estate strategies and management models.

There is also much more of an overlap between Client and Supplier in Asia than in EMEA or the Americas. This means the focus is on in-house technical and market expertise, more local self-delivery on strategy or transactions like lease renewals which are more frequent (three years or less) and much more administration.

Do Asian companies see value in CRE and as an outsourcing opportunity?

The answer requires an understanding of the complex issues around defining value.

There is a common CFO myth that real estate in Asia is a fixed cost and not that “everything is negotiable”.

Asian companies often don't capitalise on value creation in terms of rent cost and more flexible lease terms, believing that this is necessary to maintain a good relationship with Landlords.

There is rarely a mechanism to measure performance or value from the CRE function and in many cases, there isn't even a business case to instigate one.

However, this will be more rapid in Asia with CRE professionals transferring from global MNCs leading the change, bringing a fresh perspective and creating confidence that global outsourcing benefits are worth pursuing.

Some other factors affecting this change include:

- Scale of global operations – 200+ sites in 50+ countries as one of the top three global costs cannot afford to be run by generalists with limited strategic real estate background.
- Governance and risk – moving up to the top of the corporate agenda, notably in China.
- New accounting regulations – taking real estate onto the balance sheet and directly into CFO focus.
- Competition for talent – affected by comparative workplace environments, for example competing TMT companies in Bangalore where workers have greater choice.
- Economic pressures – creating the need for new initiatives on cost efficiencies.

Are there pull factors against global CRE outsourcing in Asian companies?

Without value measurement or costs benchmarked to market, real estate is in danger of being overlooked or considered a lower priority.

Outsourcing costs are also seen as a barrier to entry but this is often perception rather than commercial reality. In many global markets the Landlord pays the transaction fee without affecting Supplier conflict of interest and this can offset overall costs, even creating a net profit contribution to further delight the CFO.

> CRE professionals transferring from global MNCs are bringing a fresh perspective and creating confidence that global outsourcing benefits are worth pursuing.

One solution is a twin track approach between domestic and international markets, protecting the CRE team in the home market while developing partnerships globally. This was a structure adopted by many US Bay Area companies more than a decade ago and which have since been globally consolidated.

Resistance to global initiatives can also come from the other regions where in-house CRE teams have been established and have developed their own approach to regional partnerships, notably in North America.

Is there an emerging CRE trend across Asian companies?

It's too early to prove statistically but there are many ongoing discussions with Asian corporates undertaking strategic corporate reviews.

Huawei's decision to appoint Cushman & Wakefield for a global role has already elicited much interest in China and is similar to the current outsourcing initiative by Takeda from Japan.

The relentless pace of growth and change, together with a talent shortage in Asia, means existing CRE teams cannot keep up with demand and requires expertise to connect with the needs of the core business.

There is an increasing awareness about the impact of realising CRE value and not just in terms of cost reduction, however this journey is still some way behind many global MNC perspectives.

In parallel, Asian CRE teams within global MNCs are bucking the trend towards full service partnerships, preferring small panels of advisers with in-house teams working on routine admin and less-complex transactions. Two good examples of this are GE and Pfizer, with the latter moving away from a single regional partner in 2015.

How are Asian service providers responding?

Service provider platforms in Asia are set up to work collaboratively and provide integrated service for global MNCs. They can offer the same to Asian companies but there is no current track record, simply because there hasn't been a market.

The market condition is now ripe for increased collaboration between Suppliers and Asian companies, who are prepared to invest in long term relationships and move towards true partnership.

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Summary

In researching and preparing this article, I was struck by three themes:

1

Many Asian companies are now assimilating the benefits of global CRE delivery models and its outsourcing opportunities. If the trend picks up it could become the new global CRE industry phenomenon.

2

Adopting new approaches can be easier in Asia than in Europe, such as agile offices and co-working space. There are parallels in the wider business context like WeChat which originally took its inspiration from WhatsApp and is now more widely used.

3

A distinctly Asian approach is increasingly being added to the global CRE system and I predict that it won't be long until we have an Asian led CoreNet Global. Equally what works in the West isn't necessarily going to apply in the East – like Uber's experience in China.

There's a real sense of change happening right now in CRE in Asia. The potential to disrupt the established balance is immense signalling Asia as a game changer. The new players will challenge the global CRE establishment and what will emerge is the next wave of outsourcing that is fit for the future. Are you ready?

Secondment: Not Second Best

SECONDMENT IS GAINING TRACTION WITHIN THE PERSONNEL, HUMAN RESOURCES – AND MORE RECENTLY, THE CORPORATE REAL ESTATE INDUSTRY.

Legal and accounting professions, just to name two, rely on secondment strategies to strengthen client relationships and build employee skills. Similarly, clients rely on the flexible nature of a secondment to meet talent needs.

Secondment :

[si-kond-muh nt]
noun

Secondment is when a service provider "host" company lends or sends an employee to another organisation, called the client firm.

Cushman & Wakefield is using this invaluable personnel tool which has produced great results. For example, a secondment helped fulfill an integrator role for United Technologies Corp. (UTC) in Singapore. Similar secondment strategies supported a global bank's CRE team and provided short-term project support for Ericsson in China. Given the benefits, it's anticipated that secondment usage will grow within the CRE sector, not just in Asia Pacific, but through other Cushman & Wakefield global offices as well.

What, exactly, is a Secondment?

According to the Chartered Institute of Personnel and Development (a leading global authority), secondment is a "temporary movement or loan of an employee to another part of an organisation, or to a separate organisation."

The host company employee has a workspace within the seconding client's location until the assignment ends. Secondment arrangements can range from a few days to a year or longer. Regardless, the main facets of a secondment are "temporary" and "separate organisation."

Through a secondment assignment, an employee becomes immersed in the client firm's organisational culture, and is in a unique position to share that knowledge and skill set with his or her CRE host company. Secondment also provides the client firm with access to unique skill sets from the CRE host company, which can be more cost-effective than hiring in-house.

The Three Party Agreement

There is more to a successful secondment than sending talent to a client firm and assuming everything will work out. A successful secondment requires cohesiveness and preparation between three parties. The CRE host company must be willing to loan an employee, for a specific set time, to a client firm. The client firm, in turn, must provide the employee with an adequate workspace, as well as access to corporate culture and knowledge.

Finally, the employee must be willing to work with the client firm, and remain open to different tasks and organisational structures. Without cooperation, alignment and understanding of expectations between these three secondment "pillars," the arrangement won't be effective.

The Benefits

A successful secondment can provide huge benefits for all participants. For the client firm, secondment brings qualified talent which, in turn, helps meet resourcing needs in a time- and cost-effective way. For example, in the case of Ericsson in China, Cushman & Wakefield resource was brought in to help establish governance and processes for the leasing administration and document management for transactions, clearing a backlog of outstanding items in a cost effective way. When the project is completed, as with any secondement, the employee can return to his or her CRE host company, in this case Cushman & Wakefield Beijing.

Meanwhile, the CRE host company, obtains unique knowledge about the operations and culture of that firm. As an example, let's say the client firm's executive group makes the final decisions concerning the acquisition or disposition of an industrial property. Armed with this inside information on decision makers as individuals, the CRE host company can develop proposals directed to the executive group, thereby saving time and ensuring information gets to the right people.

Finally, secondments allow employees to gain new skills and industry experience. An employee on loan to a client firm will implicitly understand the firm's unique nuances, the language and terminology used, demands of specific individual stakeholders, and be able to effectively share that information with the CRE host company.

Success through Experience

Secondments can fail more often than they succeed. Why? Lack of preparation or focus on proposed outcomes. As such, a best practices guide, and preparation, are important for successful secondment experiences.

Everything must be transparent and approved by all three parties.

There are many things to consider when it comes to such an arrangement, not the least of which is how long the secondment will last, and how it will come to an end. Additional factors for consideration include, but are not limited to:

- Determining how performance management reviews will take place.
- Solidifying to whom the employee reports.
- Paying overtime, bonuses, expenses and training.
- Covering long-term, or persistent short-term, absences.
- Deciding what will happen should organisational changes take place at the CRE host company or the client firm.

Perform due diligence on secondment employees.

A secondment assignment means entering another company's culture and way of doing things.

Not all employees are flexible enough, or even willing to be, embedded in a client firm. To ensure positive secondment experiences, the CRE host company should consider employees who are curious, outgoing, who want to advance and are open enough to accept different organisational cultures.

Make sure the employee maintains frequent contact with the CRE host firm.

This is important, not only for the employee to share information with the CRE host firm, but also to let the employee know that he or she is still an important part of the CRE host firm. For example, a global bank secondee continued attending Cushman & Wakefield weekly transaction management team meetings to ensure continued connection with the host company.

Develop a plan for re-integrating the employee to the CRE host company on the secondment's conclusion.

Much like an expatriate worker needs to be eased back into his or her host company upon return from a foreign country, the secondment employee will also need to be integrated into his/her role at the CRE host company. Re-acclimation and debriefing are important here.

Connect with the client firm at the secondment's conclusion to determine what went right and what could use improvement.

Certainly, the CRE host company will be in regular touch with the client firm throughout the secondment. But, a post-mortem following the secondment can be enormously helpful for all three parties involved to help ensure the success of other secondment experiences.

Can Secondments Work?

A secondment arrangement is not for every firm. It requires flexibility and a willingness to receive new knowledge, not to mention time and preparation. Still, a company that has completed a successful secondment is in a unique position to provide better services to clients, while demonstrating full commitment. Finally, secondments provide fabulous learning opportunities for employees.

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Reliability vs. Innovation: INTRODUCING EMERGING TECHNOLOGY

Facilities teams are going above and beyond just being responsible for function and appearance, they are also the brains behind strategic operations of a building.

This means proactively researching and recommending new equipment or technology to reduce costs and improve performance. Early adoption of innovative practices can pose risks if the technology has not been fully proven. Finding the right balance between the status quo and emerging technologies is particularly important for mission critical facilities. So, how should facilities teams decide when to innovate and when to stick with the tried and true?

Myriad new technologies have been introduced to data centres and other critical facilities, with positive effects. On such innovative technology, Variable Refrigerant Flow (VRF) technology, allows for expandability and heat transfer within the system with reduced compressor load and energy efficiency. As an added bonus, this technology has become more affordable, boosting its ROI.

VRF systems were introduced in Japan nearly 30 years ago, and have gained popularity in Europe and elsewhere while still being relatively new in the United States. In 2012, it was estimated that VRF had 35% market share in China, India, the European Union and Eastern Europe, but only single-digit market penetration in the United States.

One reason that United States has only modestly adopted VRF technology is because there are still risks associated with it. In order to mitigate these risks, new users should proceed with caution and keep the ultimate end-goal—reliability—in mind.

In one installation of a VRF system, the owner need to phase out an existing supply air raised floor cooling system within an occupied building, without the use of hot work permits. Several months after start up, the new VRF unit began to leak at multiple connection points in its metal piping. The system used compression fitting and metals that were lighter and less expensive than traditional copper piping for refrigerant systems, but the metals were susceptible to thermal stress and fatigue failures.

The solution was to change all the piping to similar metals (copper in this case) and specify that all joints be silver soldered. This was chosen over brazing due to lower temperatures thus reducing the risk of damage to the control boards. The client is very happy with final system reliability and reduction in building energy cost.

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Finding the Rewards, Without the Risks

While 20-20 foresight is impossible, there are measures to mitigate the risk of change. Before jumping into a new technology, your facilities partner should help ensure the decision will be effective and not compromise reliability. Before you embrace the big "I" – Innovation – consider three additional "i's" as a litmus test for evaluating and mitigating risk.

INVESTIGATE

Thoroughly research the manufacturer's references, determine where the new technology has been used. Then speak to the end user on the positive and negative results they've seen.

- If feasible, do a site visit to review the installation.
- Ask the manufacturer for a list of failures and warranty repairs they have done for the last year.

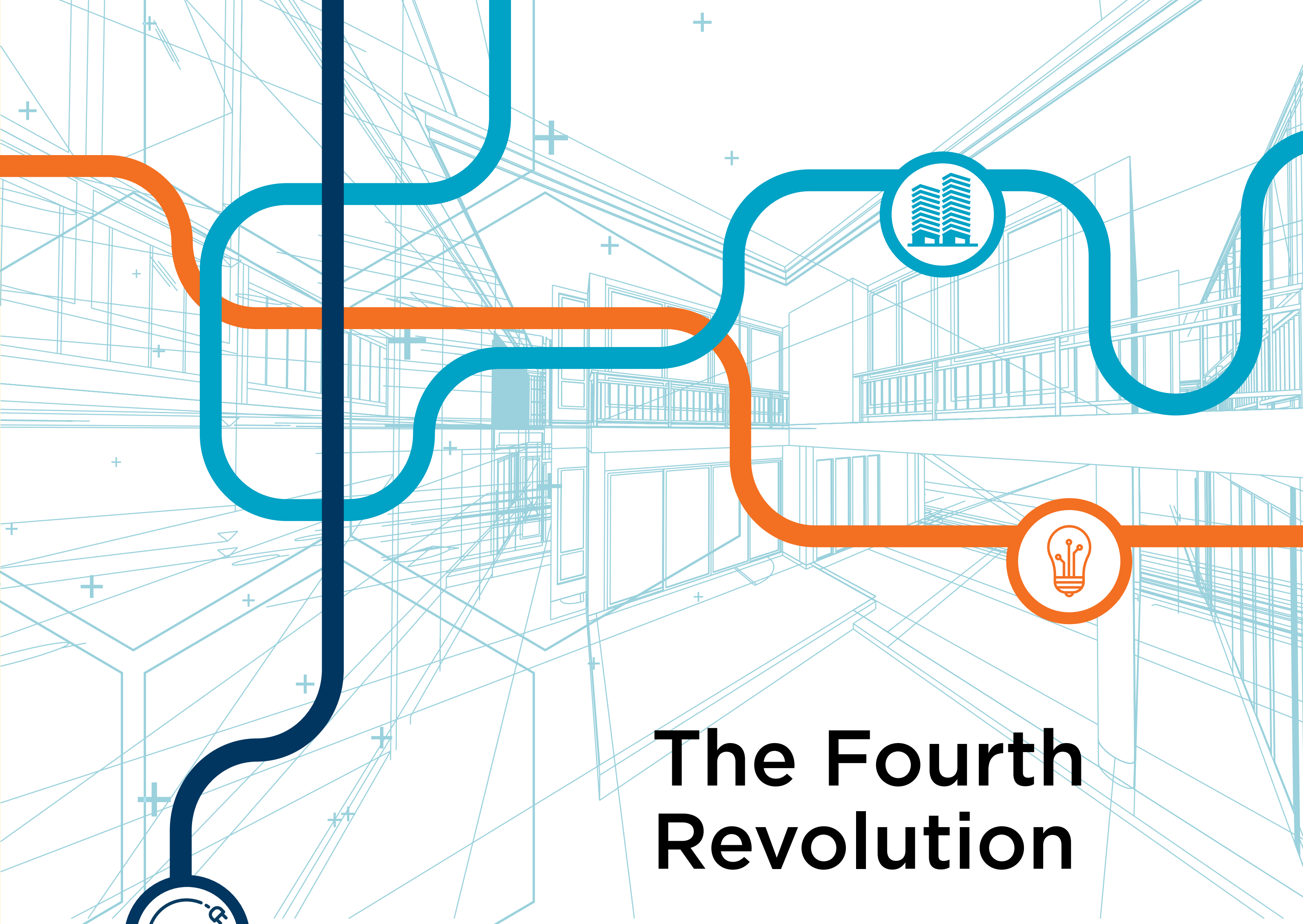
INSTALLATION

- Be sure that everyone installing the system is factory and field trained. It is not enough to have one expert in a crew of 10 technicians.

INSURANCE

- Run mathematical test models to understand the mechanics before installation.
- Confirm the spec sheet for the purchase includes a full parts and labour warranty for at least five years.

New technology provides a number of benefits, but additional groundwork is necessary to decide if the application is right for you. Investing in rigorous due diligence will help ensure your technology innovations yield years of trouble-free service.



The Fourth Revolution

We are on the cusp of a Fourth Industrial Revolution. Developments in previously disjointed fields such as artificial intelligence (AI), robotics and 3D printing are all building on one another. These technological advancements will interact with broader socio-economic, geopolitical and demographic developments to change the future of business and work. Here we set out three high-impact changes and what they mean for corporate real estate.

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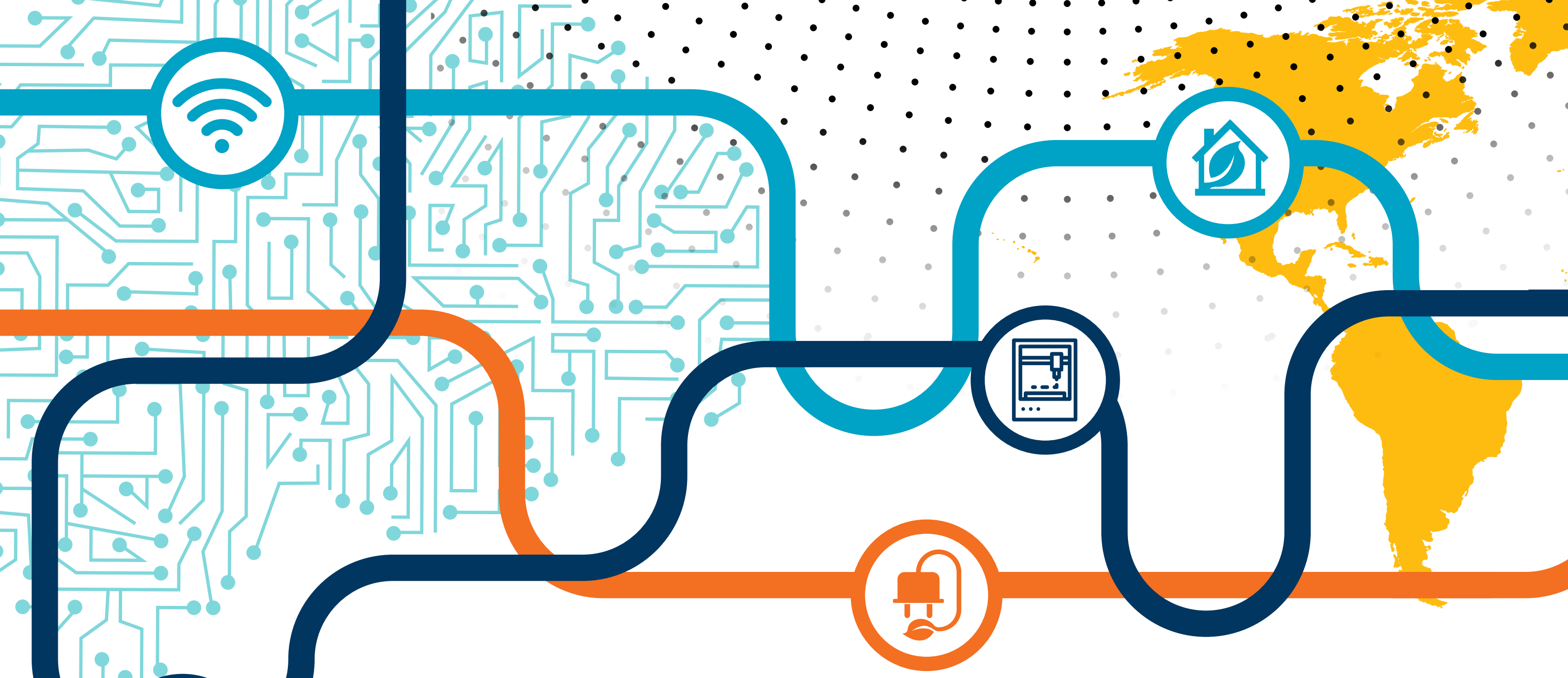

1 Technological Trends

Growth in cheap computing power and the ubiquity of the mobile internet have already had widespread impact on existing business models. Technological trends whose potentially far-ranging implications have not yet fully materialised — such as 3D printing, artificial intelligence (AI) and the Internet of Things (IoT) — are expected to be well underway in certain industries in the next few years.

> The likes of Cisco are already investing heavily in Innovation Centres such as open Berlin, an ecosystem for research and technological development, and plan to launch their Global IoE Innovation Centre in Barcelona this year.

User-centric and on-demand offices

The IoT and smarter building systems will lead to a user-centric approach to the workplace, with highly adaptive settings and seamless mobility allowing customisation by individuals and teams. Connectivity will be key, and good connectivity 'ratings' for buildings will become essential. The on-demand, user-centric ethos will mean the rise of workspace-on-demand platforms, which will lead to occupiers sharing third-party properties.

Real estate to support innovation

As traditional industries embrace their digital transformation, a race to innovation will ensue. This will lead to an increase in corporate-sponsored tech accelerators, which will likely co-locate with clients. As AI takes over parts of their workload, many professionals will shift to high-value work enriched through data from multiple sources. This will result in fee-earning talent being deployed to client sites. Both of these trends will contribute to the use of the office as an anchor, rather than a permanent workspace.

> Very popular with some business is "Liquid Space" which lets you book rooms and resources live on an app. This brings the self-service, sharing economy into buildings as part of experience expected by people in the future.

> AT&T's foundry "where ideas are made" and SAP's App Haus-pushing digital creation are already pushing things forward, bringing colleagues and clients together in innovation surroundings.

Technologies to accelerate the green agenda

The advance and commoditisation of technologies will accelerate the greening of buildings. As the cost of improving the environmental performance of real estate falls in line with the lower costs of technological innovations (such as efficient heating systems, or solar panels) occupiers will demand greener buildings, and be willing to pay a premium for them to achieve longer term operating benefits and tax/levy avoidance.

Ultimately, the property corporate organisations require will be smarter, greener and more flexible.


2 Demographic and Socio-Economic Shifts

The centre of economic gravity is shifting, and along with it the production of knowledge. Corporate organisations will benefit from new customers and new talent. But to do this, they will have to become even more global.

Changing centre of economic gravity

For 2014-2030, projected growth rates for major players such as China (+5.9%), and India (+6.7%), as well as fast-developing regions such as Sub-Saharan Africa (+5.8%) and the Middle East and North Africa (+4.9%) will continue tipping the world's centre of economic gravity toward the East and South. The projected population of Delhi by 2030 will be 36 million, which is the same total population of the 20 largest U.S. cities combined. These rapid-growth markets will become increasingly important venues for conducting global business.

Shifting knowledge base

A shift in 'knowledge production' has already seen China overtake the US in the number of doctorates awarded in science and engineering and China is soon expected to overtake the US as the largest global spender on research and development. While major developed regions will continue to have educational and research capabilities going forward, momentum is shifting. This will result in greater outsourcing of services to the richest rapid-growth markets.

A more diverse consumer base

By 2022, McKinsey estimates the upper middle class will account for 54% of urban households, up from 14% in 2012.

The rapid expansion of middle income populations, particularly in the Asia Pacific region, will be matched by an increase in consumer spending. As a result, the East will cement its place as a prime market for global companies. Marketplaces will become highly competitive and crowded and companies will have to position their brands and portfolios to meet the needs of a diverse consumer base.

For all companies with global ambitions, global shifts will force major adjustments in strategy.

3 Jobs Transformation

Technological, socio-economic, geopolitical and demographic developments and the interactions between them will generate new categories of jobs and occupations while partly or wholly displacing others.

The transformation of jobs

Calculations from the World Economic Forum indicate a net employment impact of more than 5.1 million jobs lost to disruptive labour market changes over the next five years. The biggest employment decline will be in office and administrative roles, with technological trends expected to make many of them redundant. Science, Tech, Engineering and Mathematics (STEM) jobs, on the other hand, are expected to grow.

An acceleration in the War for Talent

The worldwide competition for qualified talent is already at its highest level since the pre-recession period. As firms spread their operations globally and tap into local talent pools they will create highly diverse, multicultural and multi-generational workforces. Increasing worker mobility and technological advances will allow for cross-border collaboration and bring workers from many different backgrounds together.

> No longer is it the case that one industry only recruits from one talent pool – companies are competing with each other to recruit the best talent. Banks are now one of the biggest employers of software engineers: one global investment bank employs more than 5000 software coders.

A decrease in space

The decline in administrative jobs means demand for office space could fall. The growth in telecommuting, acceptance of video-conferencing, and preference for digital over paper – combined with a geographically spread workforce - means people will spend more time working from satellite offices anywhere. Retailers will be further disrupted by digital which will make certain types of retail real estate uneconomic and the focus shifts to the experience centres and flagship stores. Certain sectors such as banking will continue to move to a more virtual world, making some physical branches unnecessary.

The office of the future will have much more to do: It will be smarter, better connected and greener. It will attract and retain an increasingly diverse and mobile workforce. It will help carefully position brands in new and competitive marketplaces. And it will foster innovation and knowledge creation. The future will require a concerted effort for adjustment by corporate organisations and their real estate advisors, and it starts now.

Getting Law in Order:

FROM LEGAL ADVISERS TO LEGAL TECHNOLOGISTS

Music companies, taxi drivers and travel agents; many industries have been disrupted by mobile phone apps, the internet, and the resulting ability for people to freely find information they used to pay for. Many traditional industries have been challenged to find new business models as their revenues have fallen, but lawyers have not yet been disrupted in such a striking way.


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Rising Legal Costs

The legal sector continues to provide high-cost customised advice. In the most advanced legal markets, the UK and U.S., we have seen lawyers increase what they charge. Partners at top London firms charged between £150 and £175 an hour in the mid-eighties and by mid-2015 this had risen to £775-£850 an hour. The figure this year is expected to reach more than £1000[1]. In the U.S., 74 firms made profits of more than $1 million per partner in 2014, and the highest earners - Wachtell, Lipton, Rosen & Katz – made profits of $5.5 million per partner[2].

On the surface, there is not much incentive for change. Partners at the top of the biggest law firms do not have a burning platform from which to jump; after working for many years to attain their positions, partners distribute large profits between themselves while teams of junior lawyers do the more dreary work of searching for precedents and drawing up contracts.

What's more, corporate clients rely on their services; the Global Financial Crisis meant the onset of increased regulation, and businesses - who were frightened of getting things wrong - continued to spend.

A Case for Disruption

The widening gap between legal fees and what most clients are willing to pay is becoming a catalyst for change. In-house legal departments are a perfect example. They are under increasing pressure to reduce in-house staff and cut external spending on legal services, which has resulted in a movement to control cost.

Altman Weil's 2015 Chief Legal Officer survey showed 40% of in-house legal departments were planning to reduce their spend on outside counsel in the next 12 months. Vodafone is one example – the telecoms provider is reported to have negotiated fixed fee arrangements with its lawyers, rather than accepting billing by the hour, and has reduced the number of firms it uses from 70 to 10.

Corporate clients are becoming more discerning and cost-conscious users of legal services.

Many businesses seek to reduce their legal costs by up to

50%

OUTSOURCING LAWYERS

- project based
- at clients' premises or from home

In-house legal departments are under increasing pressure to reduce in-house staff and cut external spending on legal services.

The movement to cut costs makes this very traditional industry ripe for disruption, and provides an incentive for it to invest in and develop cost-cutting and time-saving technologies.

The Role of Technology

Lawyers and in-house legal departments have relatively little information about their work, from how long it is taking to how much it is costing. They lack some of the real data retailers and other business collect and base decisions on. Technology provides a solution: the UK-based Riverview Law, for example, is launching virtual assistants which can be used by corporate in-house lawyers to identify - on a digital dashboard - the units where problems have occurred, the risk profile of any case, the team working on it, and how long it is taking.

If a legal advisor believes there are historic cases that will help their client win a case, they will search through precedents. Again, technology can provide a solution: Palo Alto-based firm

Ross Intelligence uses the IBM Watson artificial intelligence system to do research expected of junior lawyers, searching through thousands of documents to find exactly what a company is looking for.

At the moment, many lawyers craft individual advice for clients. But Axiom Law - a technology-based provider of legal services with customers that include half of both the FTSE 100 and Fortune 100 companies - is looking towards industrialising much of that process. One service involves using technology to run clients' contracts, which they claim has led to 30-40% falls in contracting costs.

Axiom, along with legal process outsourcing companies DTI and Consilio, also offer cheaper legal services to companies by having lawyers work on a project-by-project basis at clients' premises, from home or from their own warehouse-like offices. Over the years, as they improve and increase their use of technology, it is possible they will compete more with large global law firms.

For those questioning the cost of legal advice, technology will offer some hope.

TECHNOLOGY

to run clients' contracts

RESULT:

30-40%

falls in contracting costs

VIRTUAL ASSISTANTS

to be used by corporate in-house lawyers

ARTIFICIAL INTELLIGENCE

to do research expected of junior lawyers

Although at a relatively primitive stage, when developed further, these ideas and technologies have the potential to significantly disrupt the legal profession.

A Verdict on the Future

Corporate clients are becoming more discerning and cost-conscious users of legal services, and they demonstrably want change. The least extreme view of the future goes like this: lawyers have long played an important role and there will probably always be a need for eminent advisers, particularly to companies. But for those questioning the cost of legal advice, technology will offer some hope. It has a long way to go, but if new applications can be made to succeed, they will bring big rewards to the sector.

A view which is more threatening for the legal sector goes like this: technology will go far beyond digitising everyday routine processes into doing the kind of complex work only lawyers can do.

Artificial intelligence will move forward at such a pace in the coming years that systems will be able to diagnose and respond to clients' legal problems and lawyers will no longer be face-to-face advisers, but people putting in place systems and processes.

In both views, if the legal sector does not find a way to disrupt itself, it is possible another company will do it or them. Legal professionals can wait for the technology industry to innovate their sector in a way that increases efficiency and transparency and cuts cost, or move to become part of the technology industry itself.

[1] Centre for Policy Studies
[2] American Lawyer

WELL Certification: The Next Frontier

CREATING AN OFFICE ENVIRONMENT THAT ATTRACTS TOP TALENT AND FOSTERS INNOVATION INVOLVES *MORE THAN* IMPLEMENTING THE LATEST TRENDS IN DESIGN

When GoPro hired Cushman & Wakefield to develop the first-ever sustainability program at its San Mateo campus, the focus was on much more than saving energy. A primary motivator was to create a workplace that embodies GoPro's culture while enhancing the health and well-being of all employees.

For GoPro, along with a growing number of our clients, the work environment is much more than a place to plug in a laptop for the day; it represents a key differentiator in the ongoing competition for talent. Nowhere is the talent war more pronounced perhaps than in GoPro's backyard of Silicon Valley, the heart of technology and innovation.

Beyond the tech sector and extending across the United States, millennials now account for more than half of the workforce.

This growing demographic is increasingly drawn to organisations that create workplaces that reflect their values.

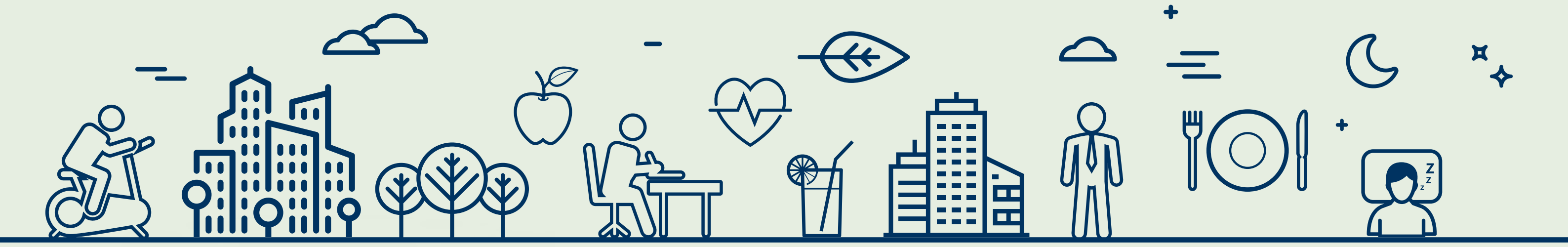
As Alex Spilger, Senior Vice President and Cushman & Wakefield's first WELL AP, notes, "Creating an office environment that attracts top talent and fosters innovation involves more than implementing the latest trends in design. Increasingly, companies are recognising that the most effective workplace is one which puts sustainability, and in particular, the health and wellbeing of their employees at the forefront."

Until recently, guidelines and benchmarks for wellness strategies did not exist, leaving companies such as GoPro to chart their own path without the benefit of a third-party, industry driven rating system.

From Protecting the Environment to Enhancing Human Health

While LEED Certification set the benchmark for developing environmentally friendly buildings and responsibly sourcing materials, more companies are now directing their efforts toward the human-side of sustainability. The relatively new WELL Building Standard was born from the demand for an independent rating system that focuses exclusively on the health and wellbeing of occupants.

The WELL Building Standard is administered by the International WELL Building Institute (IWBI), a public benefit corporation formed in 2013. The standard takes into account seven categories called 'Concepts': air, water, nutrition, light, fitness, comfort and mind – all of which are based on medical research concerning how environments affect human health.



Unlike LEED, WELL extends beyond the realm of buildings; it incorporates elements such as:

- Minimum paid family leave
- Policies around healthier sleep patterns (i.e. limiting red-eye flights)
- Access to fitness monitoring devices
- Stocking healthier food options – limiting sugars and banning all artificial ingredients
- Providing adjustable height workstations
- Incorporating biophilia, a sustainable design strategy that aims to reconnect people with the natural environment.

Within the seven 'Concepts' of WELL are over 100 wellness 'Features', each designed to improve the overall health, mood, sleep and performance of a building's occupants.

Healthier = More Productive

In addition to attracting top talent, studies have shown that these healthier, WELL Certified workplaces lead to more productive and better performing employees. With health care costs on the rise, companies are facing higher insurance costs while individuals are required to cover higher deductibles and co-payments. Small changes to increase everyday wellness can significantly reduce sick time, increase employee satisfaction and have a big impact on a company's bottom line. WELL Certification may ultimately lead to lower insurance premiums for companies, providing quantifiable returns on investment.

Allison Kim, Northwest Sustainability Lead at Cushman & Wakefield explains, "The interest in wellness in the workplace has been around for quite some time. WELL Certification provides the industry with a comprehensive and well-organised framework for evaluating all aspects of wellness within the built environment – mental, emotional and physical."

This is Just the Beginning

While the wellness movement has gained international attention within the building industry, the WELL Building Standard is still in its infancy and the number of projects that have achieved WELL Certification is relatively small. Several of Cushman & Wakefield's more forward-thinking clients are at various stages of the WELL Certification process – led in part by our growing sustainability team. Internally, Cushman & Wakefield is also evaluating WELL Certification for several of our own offices.

> Evaluating WELL Certification for our future offices demonstrates that we aim to 'walk our talk' with respect to sustainability and provides Cushman & Wakefield an opportunity to align with our client's values while taking a leading role in the wellness movement.
>
> - Eric Duchon, Director of Sustainability

The wellness movement has made big strides in the short time since Cushman & Wakefield developed GoPro's sustainability platform. Most recently, Cushman & Wakefield is proud to be managing both the LEED and WELL Certification process for a confidential technology client in Silicon Valley in hopes of achieving one of first dual-certified projects in the world. Wellness strategies in the space include providing operable windows throughout, encouraging healthier food options such as fruits and vegetables in their cafeteria, providing treadmill desks, offering a fully-equipped bike repair station, building out a state of the art fitness facility onsite and providing access to nature via a vegetated roof.

"While technology firms may be leading the charge with WELL Certification," notes Spilger, "more and more of our clients across the globe are recognising the value of investing in the health and wellbeing of their workforce. There may be upfront costs involved, but the long-term benefits to both the individual and the company can far out weigh the initial investment."

Now that WELL Certification has provided a third party benchmark for the industry to leverage, the time is ripe for the commercial real estate sector to play a leading role in the growing health and wellness movement.

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Ground to Sky: Leasing with Aerospace and Defense Tenants

WITH 6% OF THE U.S. BUDGET, OR $602 BILLION, FUNNELLED INTO DEFENSE INDUSTRY SPENDING THIS YEAR[1], SUPPLIERS OF THE GOVERNMENT'S DEFENSE AND AEROSPACE EFFORTS REQUIRE THE RIGHT SPACE FOR PEAK OPTIMAL FUNCTIONING.

Cushman & Wakefield's expert Aerospace and Defense group provides significant assistance to clients in this area by finding and securing the most efficient space in the right locations.

In one situation, the Cushman & Wakefield team represented a defense manufacturing company in leasing a 90,000-square-foot facility in Oak Ridge, TN. The result? A one-year contract, with six one-year extensions — definitely not a standard industrial lease.

But then again, this wasn't a standard industrial tenant. The company's contract with the U.S. Department of Defense involved uranium processing. Given the nature of the business, and fluidity of government contracts, the short-term lease and extensions represented a successful deal.

In short, tenant requirements in aerospace and defense vary from those in other industries. "The clients we deal with need everything from traditional office space, to high-bay warehouses for wing manufacturing, to land to be used as testing ranges for missiles or jet engines," said Craig Estey, Executive Managing Director and a member of the Aerospace & Defense group. "We're buying, selling and leasing for these clients all over the world and especially in the key second and third tier government contractor concentrated markets, such as El Segundo, CA, Colorado Springs, CO and Norfolk, VA."

In addition to Estey, the group consists of Mike Christian, Josh Feldman, Dan Fisk, Scott Goldman, Greg Millwater, and Mary Catherine Washo, all of whom are involved with traditional CRE transactions, as well as those of the aerospace and defense industries. Furthermore, the team frequently engages other Cushman & Wakefield services lines such as Workplace Strategies, Lease Administration & Project & Development Services to support the client base.

The Challenge: Talent and Flexibility

One difference between defense and aerospace tenants, compared to those in other industries, is money. Because revenue comes primarily from government contracts, leases must reflect when these contracts begin, end, and the possibility of extensions. "In some cases, we're looking at short-term leases because of contract duration," Estey explained. "Landlords can have a problem accepting that we might need a lease in one-year increments for an entire building."

Such lease agreements can be less problematic to draw up in locations such as Oak Ridge; Huntsville, AL; Dayton, OH and, of course, the Washington, DC metro area. CRE landlords in these geographies are accustomed to catering

> In addition to the basic 'blocking and tackling' of lease and sales transactions, we provide industry benchmarking data, portfolio strategy and M&A services for our clients.
>
> - Craig Estey, Executive Managing Director

to military and defense companies. The challenge comes when defense tenants want space or buildings in core markets, such as Los Angeles or Northern Virginia, where traditional tenants are competing for the same space. For example, Joe Box wanting a ten-year traditional industrial lease in a 100,000-square-foot industrial building will likely beat out ABC Jets, which might require a more flexible lease and extensive tenant improvements.

Then, why are these core markets targeted? One word: Employees.

"The driver behind a lot of these deals is talent availability in addition to proximity to a particular client or commercial partner," Estey said. "These companies aren't always clustered around military bases as they once were. If they want a highly skilled workforce, they're more likely to consider markets where engineering talent can be cultivated from other industries, and often in non-unionised states in the cases of manufacturing."

The Solution: Strategic Timelines and Added Value

Estey and the team have been working with defense and aerospace tenants for more than a decade, so they know how to negotiate both original contracts and renewals.

The group will begin work on renewals years ahead of a lease expiration. For example, the Cushman & Wakefield team restructured a 140,000-square-foot lease renewal three years ahead of the expiration date for an aerospace client in El Segundo, CA. The group studied market trends, then produced a deal that shaved a considerable amount off the rent; specifically, $20.40 per square foot versus the current market rate of $30.25 per square foot. Also part of the agreement: a $1.2-million improvement allowance.

"If the clients have been in the facility for a while," Estey explained. "They don't want to move, can't move, and we don't want to be outbid. So we start as early as possible to maximise our leverage."

A similar "early bird" philosophy applies to tenants requiring new space. It's also helpful if the tenants are well known, with exemplary credit ratings. And many times, the companies leave the buildings in better shape than when they were first leased. Said Estey: "If we're leasing a 100,000-square-foot warehouse or flex building in San Diego, and convert it into manufacturing space, the building's value can exceed what it was before."

These factors mean landlords might be more willing to cooperate with the defense and aerospace tenants, even in areas with competing tenants. In another example, the team structured a deal that helped an aerospace client take down a 651,000-square-foot industrial facility in Clearfield, UT. In addition to agreeing to low-cost termination rights at the end of the 8th and 10th years, the landlord kicked in $1.8 million in capital and TIs. The deal also gave the tenant the right of first refusal to purchase if the landlord decided to sell.

[1] Centre on Budget and Policy Priorities

28%
of the U.S. budget is funnelled into defence industry

Unique Needs and Accountability

It is critical to recognise that most existing and new contracts are competitively bid and that often occupancy costs, and sometimes even the exact locations, need to be identified considerably prior to contract award. More often than not, the work put into developing a real estate solution will go unused when the award goes to competitor; however, this is necessary in order to provide accurate information to support clients' bids. Understanding that time is of the essence during a contractual bid is critical to securing the space.

Being well-versed in acquiring and building SCIF (Secure Compartmented Information Facility) for clients, in addition to understanding how the specific communication networks, accrediting authority and technical construction specifications tie in with the need of our clients' contracts.

A defined and documented process for acquiring and disposing of space and developing a strategic portfolio cost reduction plan supports the due diligence and auditing process required by the government. Having a documented transaction process and an actionable strategic plan will serve clients well in answering Defense Contract Audit Agency (DCAA) information requests. Additionally, excellent providers should support clients in helping answer ongoing audit requests as an added bonus.

The Aerospace and Defense Economic Cycle

The aerospace and defense industries' cycles might not always be in sync with the overall economy. The industries took a hit during the 2007-2009 downturn. Aerospace and defense were also negatively impacted in 2013, when government sequestration kicked in. On the opposite end, war increases government funding and contracts.

Recently, the push into cybersecurity has boosted the need for different types of CRE space. But Estey also noted that larger companies are selling off divisions to focus on core competencies which, in turn, means a reduced footprint.

As such, working with these clients isn't an average, or short-term, experience for this Cushman & Wakefield team. "We're engaged for the long-term with the client," Estey said. "Whether the industry is growing or contracting, we provide expert advice and services to support our clients during changing business climates."

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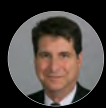

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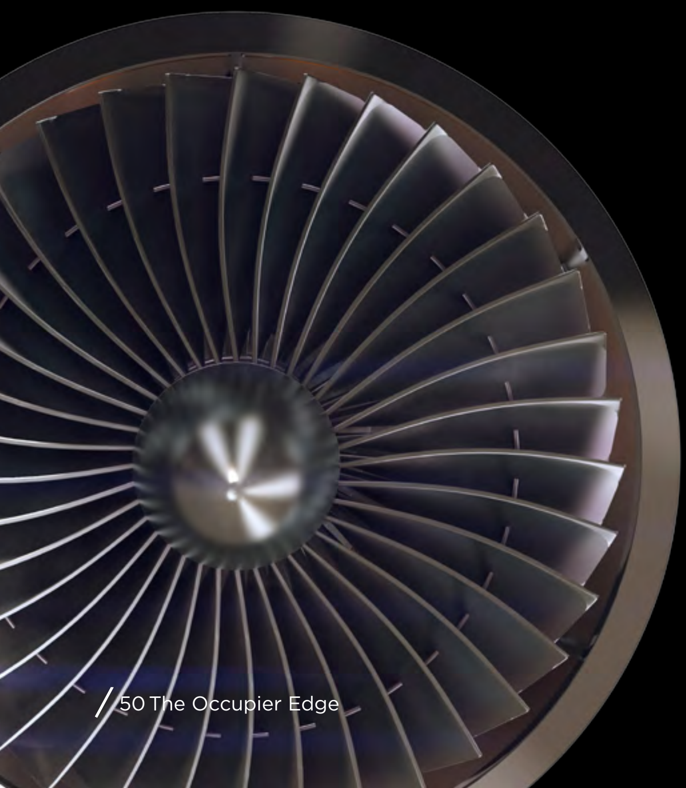

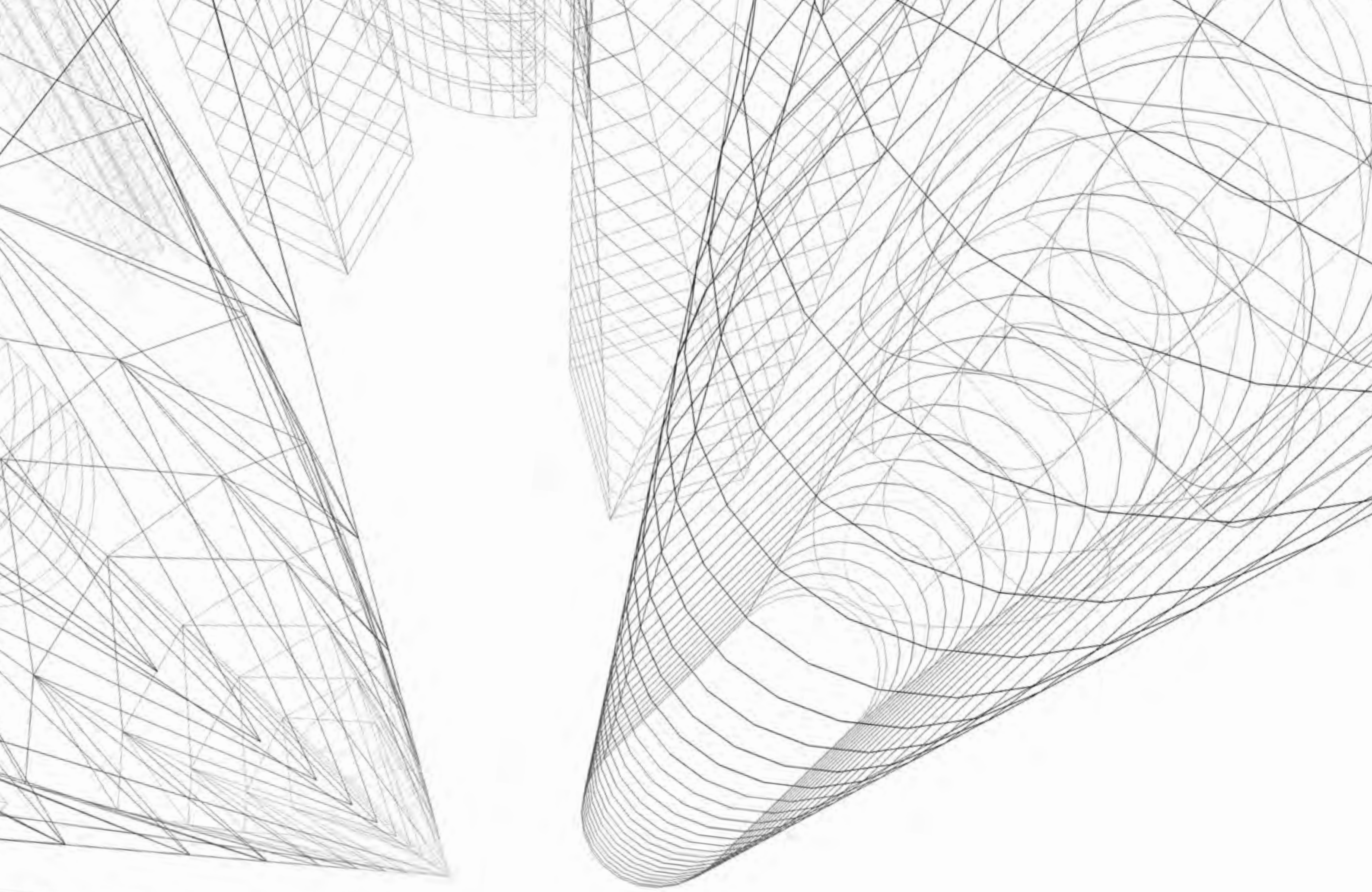

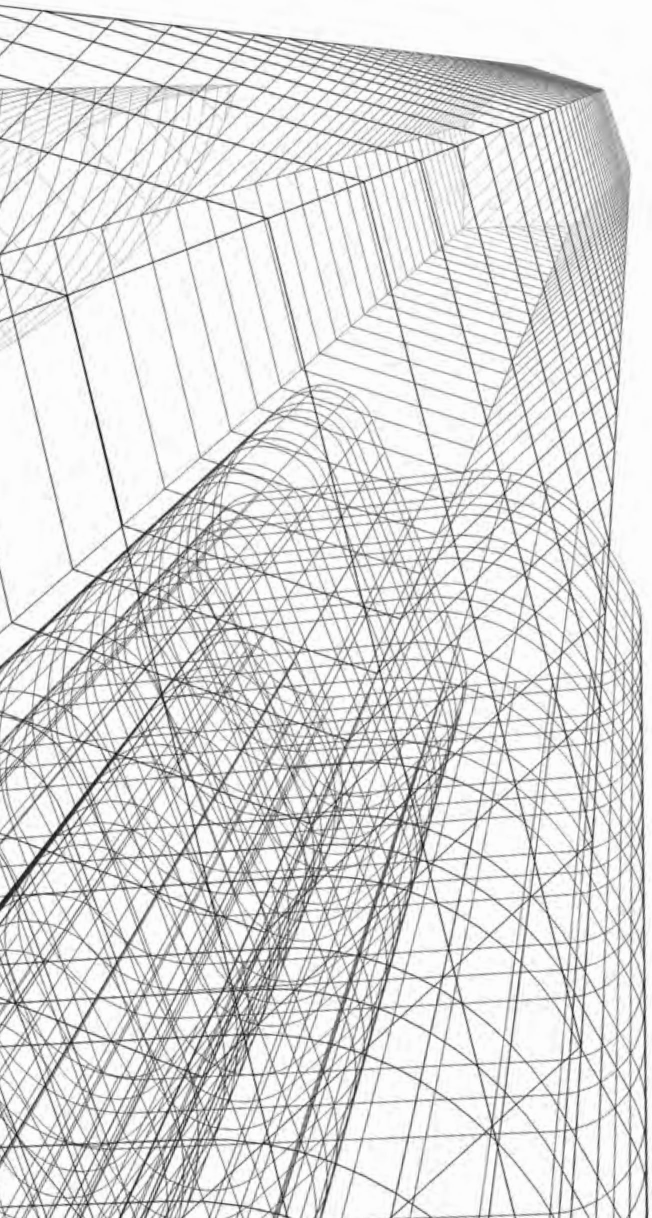

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About Cushman & Wakefield

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