



Top trends in facilities management

How society, demographics and technology
are changing the world of FM

CBRE



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Foreword: a world of opportunity



Talking to clients I'm often struck by how fast the world of facilities management is changing. Global influences such as demographic and social changes are contributing to a shift in how the workplace is viewed and what people expect from it.

Increasingly people want to choose where and when they work and they look to the workplace – wherever that may be – to deliver much more in the way of services and amenities. Every day it seems technology is pushing the boundaries of what real estate can deliver for organisations.

All of which means that facilities management is transforming: from an asset, building and plant-centred activity to one which focuses on end-users and outcomes.

This report is intended to help FM professionals get a clearer picture of the latest developments. It examines ten key trends transforming the world of work and commercial real estate.

One such trend is the changing face of outsourcing. This model of facilities management delivery has come a long way since it was first introduced and is now capable of providing value far beyond simple cost savings.

A key role in supporting performance

We also look at how forward-thinking organisations are using the workplace to boost the performance of their people.

As many choose to work for longer, the workplace increasingly has to accommodate three generations. So a big question for FM professionals is how best to balance the needs of different age groups?

Wellness in the workplace is one response and is seen as a key way of attracting and keeping key talent.

In these days of disruption and disintermediation there's a constant pressure on organisations to innovate and here too, the workplace has an important role to play, supporting collaboration and boosting creativity.

CBRE's clients often tell us that key data on the performance of their operations is vital for their decision making. Accessing these insights is easier than it ever was thanks to smart technology. With such a wealth of data available the challenge for organisations is not how to get hold of information but to be clear about exactly what it is they want to measure and manage.

These are just some of the issues explored, but what they point to is an exciting future for FM. They represent a huge opportunity for the profession to step into the light and demonstrate its strategic relevance to the C-Suite as a driver of corporate performance.

I hope this report offers useful insights and context. If you'd like to discuss any of the topics covered, please get in touch.

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Top trends in FM: a summary

The new age of outsourcing

1.  **Outsourcing evolution**

By 2025 the global outsourced market in FM services will be worth \$1 trillion. Outsourcing is increasingly delivering more complex services.

Impact

Greater opportunity for in-house teams to focus on core activities and deliver strategic value.

- ◆ Ever more sophisticated services are available. But this won't be appropriate for all. It demands a level of maturity in the organisation and a recognition that there'll necessarily be more supplier involvement in the business.

2.  **Integrated services**

Progressive organisations are bringing advisory and transaction services, facilities management and project services under one supplier and point of control.

Impact

- ◆ Greater compliance, consistency and simplification of processes and decision-making.
- ◆ A more transparent view across the portfolio, leading to more effective risk management.

Benefits

- ◆ An FM 'partner' who can offer insights on how best to use CRE to support strategic goals.
- ◆ A potential boost in value to organisations of up to 45%.

The new workplace

3.  **The multi-generational workplace**

By 2020, Gen Y will make up half of the global workforce. People are also living and choosing to work for longer. Organisations will have to balance the needs of different generations of employees.

Recommendations

- ◆ Rather than focus on generational preferences, organisations should consider 'life-stage' when developing workplace strategies.
- ◆ Use leadership and change management to implement new workplace strategies.

4.  **Wellness**

80% of employees say a company's wellness offering will be crucial in recruiting and retaining them within the next 10 years.

Impact

- ◆ Growing pressure on FM professionals to provide wellness programmes that boost productivity, attract talent and reduce sickness and absenteeism.
- ◆ Greater collaboration needed between FM and RE, HR and IT to deliver successful programmes.

5.  **Collaboration**

Collaboration creates innovation. The number of occupiers who see better collaboration as a driver of workplace strategy has increased by 30%.

Recommendation

- ◆ A variety of approaches is available and should be considered when developing workplace strategy including:
 - ◆ building and workplace design that support 'collisions.'
 - ◆ innovative catering and food services to promote employee interaction
 - ◆ technology solutions that support collaboration across organisations.

Digital disruption and the portfolio

6. Managed workspace and co-working

Technology is fuelling the growth in interest in managed workspace and co-working, 60% of occupiers think serviced offices will play a role in meeting their accommodation needs over the next three years.

Recommendations

- ◆ Use serviced workplaces for 'swing space' and overflow whilst managing capital spend.
- ◆ Foster innovation by placing people in co-working or incubator space.

7. Personalisation

Technology is changing the way we shop and this will have an impact on the retail portfolio. Online channels will play an increasingly dominant role in the customer journey.

Impact and recommendations

- ◆ There will be a growing demand for warehouse logistics particularly larger, more complex environments.
- ◆ Property directors must look at their future portfolios and consider how the balance will shift between physical and virtual space.
- ◆ Different FM skill sets will be needed to support these new environments.

Smart technology and artificial intelligence

8. The smart workplace

25 billion connected things will be in use by 2020 up from 4.9 billion in 2015. Smart buildings with lights, sensors, windows, HVAC units, doors and CCTV integrated into a network will be increasingly common.

Impact on real estate and FM

- ◆ There is greater opportunity to enhance the end-user experience with convenient, tailored services.
- ◆ Gain more insights to drive efficiency manage costs – visitor numbers, meeting room use etc.
- ◆ Build smart buildings rather than trying to retro-fit.

9. Data driven decision-making

By 2025 data analytics will be critical for addressing costs and performance. 75% of occupiers cite data as key to achieving strategic real estate goals.

Benefits

- ◆ Measure performance – property and people – and the links between them.
- ◆ Combine data and benchmarks to drive improvements for example in energy usage.
- ◆ Gain a global picture of the portfolio and deliver real value.
- ◆ Be selective in the data you to choose to use.

10. The rise of the robots

The market for robotics is small but growing. Sales of robots for professional cleaning units more than doubled in 2015.

Benefits

- ◆ Manage labour costs on specific tasks and increase efficiency through automation.
- ◆ Perform jobs out-of-hours and dangerous tasks like working at height more safely.

The new age of outsourcing

Outsourcing evolution

Research and consulting organisation Frost & Sullivan predicts that by 2025 the global outsourced market in FM services will be worth \$1 trillion, with bundled and integrated services accounting for 35 per cent of global revenues.¹

While there's nothing new about outsourcing, it's evolving. A few years ago cost management would have been the main impetus behind outsourcing real estate services, these days it's as much about being able to free up in-house teams from the nuts and bolts of FM delivery, allowing them to deliver strategic value.

"For many organisations it's about making sure your business is lean and not having too many 'doers' in-house," explains Mark Rudkins, CBRE, FM Business Unit Director. In a fluid environment, where businesses can grow and shrink rapidly and often have a range of options when deciding where to locate, agility is important, he explains.

There are big advantages to outsourcing. Consider the number of areas the average facilities executive has to be across: from the cost of leased space, the lifetime of plant and equipment, energy consumption, technical maintenance, the user experience, business plans and HR. For in-house teams, it can be a challenge to be anything other than reactive.

For small businesses looking for FM expertise and support – but not the overheads and complexity of employing an in-house team – the right outsourcing 'partner' will deliver a local, highly tailored service backed by the expertise and resources of an expert service provider.

As John Maidment, CBRE Local Facilities Management, Group Services Director explains, the best providers of outsourced will act as an extension of your own team. "You get the very best hard service delivery and technology platforms, but with the personal, customised approach you need from a local partner. And with the best providers, you should be able to choose from dedicated on-site engineers or a more mobile, national team."

Control and efficiency

For larger organisations with complex property portfolios, outsourcing can offer rigour and new ways to drive efficiency. "Some of our more progressive clients are looking for us to help them deliver an internal competitive market place for their service offerings," explains Alex Bowen, CBRE, global project management office. "Their internal real estate functions want a simple, easily centralised operation that they can explain to their business. But they also want the evidence of cost competitiveness – for example consistent standards when work is put out to tender. It's about getting a stable service benchmarked at the best possible cost for the best possible outcome."

Increasingly too, outsourcing is moving up the value chain in terms of what it can deliver.



There is much more that service providers can now support in the way of total facilities management if clients are far-sighted, argues Theresa Bell, Director, FM, CBRE, EMEA.

Beyond the yellow line

A good outsourced service provider will have the expertise to take on all production maintenance within and outside the yellow line. So for example, in a manufacturing context the outsourced provider can not only look after the plant that generates compressed air – typically the responsibility of the service provider – it can also take care of hose and manufacturing equipment replacement, which has historically been seen as a 'core' activity.

This allows in-house teams to focus on what they're good at while the service provider delivers both critical maintenance as well as things like health and safety management, business and chauffeur services as well as field management. You could almost call it 'business function outsourcing,' Theresa Bell explains.

The evolution in outsourcing isn't limited to the manufacturing sector. For organisations with call centres, the outsourced FM provider can effectively run operations explains Nick Jones, CBRE, Executive Director, FM "they can provide the infrastructure, work place planning, desks and data... the only thing they won't do is answer the phone and make operational decisions."

But, he cautions, it takes a mature organisation to adopt this approach. There can be a true partnership between service provider and client, but there needs to be an understanding that the provider will necessarily have a more active role within the business.



Increasingly too, outsourcing is moving up the value chain in terms of what it can deliver.



Integrated services

The conventional wisdom has been that organisations get the most competitive solutions by spreading the sourcing of their real estate, facilities management and project services across their in-house team and a range of outsourced service providers.

Now more forward-thinking organisations are taking it a step further by bringing services together under one supplier. “Decades of outsourcing in incremental functional and geographic silos have led to fragmentation in service providers and technology,” explains CBRE Director, Christopher Allen. “Now the C-Suite and corporate real estate executives are demanding more integrated processes, analytics and innovation.”

However, importantly it’s about much more than just reducing the number of your suppliers. It involves one single point of accountability and control – one team, connecting advisory and transaction services, facilities management, project management and management contracting across the real estate lifecycle, Christopher Allen explains.

Full visibility of the portfolio

At a basic level the benefits of this approach include greater consistency in the quality of services as well as simplification because key decisions are made by fewer people with ‘knowledge of all the pieces of the puzzle.’

At a strategic level the single real estate service integrator acts as a partner, with full visibility of corporate goals and operations and can make a significant organisation-wide impact. “In this scenario your real estate partner will have full visibility across the life cycle of the portfolio and can make properly informed recommendations,” he explains. This can involve anything from advising on lease re-gears and renewals, to guidance on the right locations for sourcing specific skills, to the workplace strategy and services needed to drive performance.

// Decades of outsourcing in incremental functional and geographic silos have led to fragmentation in service providers and technology. //

Christopher Allen, CBRE Director

And in this situation it’s argued, organisations are on the front foot when it comes to risk. “You have a team in place that can look across your portfolio, identify risk and put in place measures to help you manage it and avoid the potential costs that could arise from it.”

Transferring risk

If the relationship is a true partnership the service provider is in a better position to transfer some of the risk argues Christopher Allen. “Our research and benchmarking has shown that in this way, an integrated approach can deliver as much as up to 45 per cent more value for organisations.”

For those real-estate professionals considering a move towards integrated services but who are nervous of taking the leap, it needn’t be embarked upon all at once, argues Christopher Allen. A good service provider he argues would act as a partner helping clients negotiate the process: leading clients through change, helping them address key issues rather than allowing them to impact their businesses. “It doesn’t matter if this comes bead-by-bead or as a big-bang; any path is a good path,” he argues.



The new workplace



The multi-generational workplace

Generation Y, born between 1981 and 2000 will make up half of the global workforce by 2020. Tech-savvy, connected, urban and educated, millennials are already disrupting the world of business and the race is on to recruit and keep them. What do they look for from work and the workplace?

There's been lots of noise about the tastes and preferences of this group. Often Gen Y is portrayed as non-hierarchical in outlook, with a preference for working where and when it wants. And to a certain extent, those expectations are reflected in recent workplace design with features like increased social space – for a lot of millennials, their work colleagues are also their friends and their social life revolves around work – as well as aspects that create a playful experience at work.

Indeed CBRE's own research on millennials would seem to support the importance of the working environment for the millennial workforce, confirming

that 78 per cent of CBRE's own millennials see workplace quality as important when choosing an employer.²

What do millennials look for?

The CBRE survey looked at the workplace features millennials prefer. Contrary to what's generally assumed, it's not all about beanbags and pool tables. It suggests that when it comes to preferred working environments millennials are actually often influenced by what they already experience. Perhaps surprisingly only a third of respondents expressed a preference for collaborative working environments, whereas two

thirds aspire to their own or a shared office. And this was particularly strong in North America where a personal office is already more common amongst millennials and is associated with status and progression.

In terms of the most commonly provided workplace facility versus the most popular, the cafeteria ranked highest for both, followed by coffee bars. Only 20 per cent felt that amenities like games rooms and dry cleaning are game changers for them – so assuming that more is better could lead to overkill when it comes to providing services and facilities.



Managing different generational needs

But while millennial talent is a hot commodity, it's also true that people are living longer and continuing to work whether by choice or necessity. The workplace will be accommodating baby boomers, Generation X and Millennials for some time to come. Older employees are likely to be different to those of other age groups. From a survey of CBRE's own employees, we know that people over the age of 55 are 50 per cent more likely to want their own office than millennials.

An AON/AARP study³ on workers aged 50 plus found they put a higher value on non-financial factors such as flexible work or working from home than on money or titles. And in a 2011 joint survey with CoreNet Global⁴, CBRE recommended employers put in place stay-at-work programmes involving greater flexibility to support a range of non-conventional working patterns.

“Life stage’ is a more important driver of demand for things like flexibility. Leading employers are recognising the need to take a holistic approach to when, where and how their employees work.”

Richard Holberton CBRE Senior Director, EMEA Research

So how should FM professionals balance the preferences of different generations? Richard Holberton CBRE's Senior Director, EMEA Research, argues that when it comes to developing and implementing a workplace strategy, a purely generational analysis is potentially misleading. “Life stage’ is a more important driver of demand for things like flexibility. Leading employers are recognising the need to take a holistic

approach to when, where and how their employees work.”

“And whatever the generation, when it comes to delivering a new workplace strategy you need to do it well if you want it to succeed; and even then, leadership and change management is critical.”

For more, read CBRE's report *‘Live, Work Play: Millennials, Myths and Realities.’*



Wellness

One key aspect of the workplace which is growing in importance is wellness. Some 74 per cent of European occupiers have a health and wellness programme in place⁵ and a recent CoreNet survey found that 80 per cent of employees agree that a company's wellness offering will be crucial in recruiting and retaining them within the next 10 years.⁶ CBRE has applied wellness-led features and services in its offices in LA, Amsterdam, Warsaw and Madrid which follow the principles of the WELL Building Standard⁷ for air, water, nourishment, light, fitness, comfort and mind.

Wellness is one area that's close to the hearts of millennials who have a particularly high commitment to health and wellbeing. As Goldman Sachs reports, millennials define 'healthy' as more than just 'not sick' — it's a daily commitment to eating well and exercising.⁸

So with nearly three quarters of European Occupiers implementing health and wellness services – what do these programmes comprise? Over half contain health and wellbeing awareness sessions, 44 per cent organised exercise and 39 per cent on-site health care.⁹ Programmes which support psychological health are less common but are growing in number.

Bottom line benefits

It's not hard to see why these programmes are growing in popularity. Apart from supporting the wellness of employees, they bring benefits for business. FM professionals that introduce health and wellness services are helping to attract and keep talent and reduce the cost of absenteeism. CBRE's latest Healthy Offices research suggests that there is a direct relationship between wellness measures and the bottom line as they can improve employee productivity by an average of 10 per cent.¹⁰

So where should corporate real estate start when it comes to supporting the wellness agenda? In the short term, there

are some low cost, quick wins that can boost wellness, like using a meeting room to run lunchtime yoga sessions, offering healthy options in the cafeteria and vending machines as well as subsidised gym membership.

But in the long term, for wellness programmes to succeed, they have to be supported across the organisation. Key functions like facilities management, human resources, IT and the real estate have to work together to make it a comprehensive, lasting approach.

For more read CBRE's report: *'Wellness in the Workplace – Unlocking Future Performance.'*

Collaboration

Collaboration is not just a buzzword; CBRE's research shows that it's a priority for workplace strategy. 2016's CBRE EMEA Occupier Survey noted a 30 per cent rise in respondents who saw 'better collaboration with customers, colleagues and co-workers' as a main driver of workplace strategy – up from 37 per cent to 67 per cent.

Looking ahead to 2025, it's predicted that office interiors will support three levels of collaboration: 'formal', with virtual collaboration technology capabilities and holographic capabilities, 'informal' with a mix of spaces designed for multiple privacy needs and 'serendipitous' to facilitate cross-pollination of ideas.¹¹

Sparking innovation

But why is collaboration so important? It boils down to innovation which is seen as a precious source of competitive advantage. In today's connected, fast-moving business environment, organisations have to constantly strive to stay ahead of the competition. The goal is to bring employees together and combine skills and disciplines to spark creativity and cross-fertilisation.

"A lot of the big tech companies are designing their buildings to support what they call 'serendipitous collisions' of people from different parts of this business," explains Alex Bowen. "This is born out of the fear of a disruptor like a tech start-up which, with one simple idea, could destroy their entire business model."

And it explains why, organisations are embracing agile workspaces which create environments for different types of working including collaboration with features like team tables and 'touch down' benches as well as the more traditional meeting rooms.¹²

Food for thought

The growing demand for collaborative environments is also influencing soft services: food is seen as a great enabler.

Tech firms like Google are renowned for the healthy, delicious free food they offer employees. It is said that Google co-founder Sergey Brin once told his

architects and office designers that "no one should be more than 200 feet away from food." Most food sources it is said are strategically placed between two separate teams to nudge people to interact.¹³

Compass Group, the market leader in contract catering and FM support services is now shaping its offer to drive those much sought-after 'collisions'.

"We're no longer just focused on supplying catering. Our focus is on creating collaborative environments which just happen to be based on great food. Food is the 'how', collaborative environments are the 'why,'" explains Oliver Ringsby-Burgess, Strategic Partnership Director at Compass Group. Many tech and media companies he explains have come from being smaller, creative, nimble organisations and as they've grown it's become harder to keep that creativity alive.

So, in addition to designing spaces which provide a 'fulcrum where ideas come to life,' the Compass Group food service is designed to foster idea generation.

As people queue for their lunch, they chat. "Clients want a good service but they don't necessarily want a quick service, they're looking for an ideal dwell time of around two minutes to allow people to talk, engage as well as collaborate and for ideas to flow."

Holograms

Technology which supports collaboration is increasingly part of the landscape too. It includes social platforms tools like Yammer and Jive as well as employee crowdsourcing tools like AnswerHub.

Telepresence continues to improve. As long ago as 2007, Cisco first demonstrated its 'holographic teleconferencing' – the ability to project realistic, full-motion, real-time 3D images of people and objects into a room with audio. While the concept may seem to belong to the realm of sci-fi,¹⁴ it's predicted that this form of communication will be more widely available at least in the hotel and events sectors within the next five years.



Digital disruption and the portfolio

Managed workspace and co-working

So collaboration is a big driver of workplace strategy. Another priority for corporate real estate executives includes agility – cited by nearly half of EMEA Occupier Survey respondents – and flexible working, viewed by employees as an important component of the workplace.

With such an appetite for collaboration, agility and flexibility, what potential solutions are there? The evidence is that technology is driving a growing appetite for co-working and managed workspace. Some 60 per cent of CBRE survey respondents thought that serviced offices would play a moderate or substantial role in meeting their accommodation needs over the next three years.

In Central London alone serviced offices contributed somewhere between 2 – 3 per cent of total office take-up in the period 2006 – 13. Last year however the sector took over 1.2million square feet or 9.5 per cent of take-up.¹⁵



While it's tempting to think this trend is restricted to start-ups or SMEs, that's not the case. Richard Holberton explains. "We're also seeing adoption of serviced workspaces by a much broader range of occupier types – banks, professional services firms, financial analytics companies among others. And it's for a wide range of reasons."

A typical scenario for a larger occupier with operations across a few sites might be that it finds itself in a situation where the lease on one of its locations is about to expire, leaving it in need of 'swing space' in which to put people for 18 months to two years until its other leases mature and it can move all its people at one time.

CBRE works with the independent global flexible workspace specialist Instant Group – which counts Deloitte, PwC and HSBC amongst its clients – to source serviced workspace. As Simon Calvert, Senior Director in CBRE's advisory and transactions business explains, there are clear benefits for corporates. "The occupier pays a slightly higher quarterly rate, but all other costs are taken care of.

It's classified as operational versus capital spend and when the occupier has finished with the space it just hands back the lease."

Co-working

As with managed workspace, where space and amenities are provided by a third party, co-working will involve several different organisations, businesses and individuals sharing space. The co-working movement, as it has been identified, speaks to the growing desire amongst professionals and creatives for autonomy and a lack of hierarchy as well as for flexibility and community – witness provider WeWork's stated mission 'to create a world where people work to make a life, not just a living.'

There's some evidence that corporates want to tap into this. "Placing people in a co-working environment helps them access the knowledge in the building. Rather than spending time and money recruiting people, if you're working in an incubator you'll find people with whom you can 'co-create,'" explains Simon Calvert.

/// The occupier pays a slightly higher quarterly rate, but all other costs are taken care of. It's classified as operational versus capital spend and when the occupier has finished with the space it just hands back the lease. ///

Simon Calvert, Senior Director, CBRE





Personalisation

We have seen that technology presents a wealth of options for people in terms of where and how they work. It's also changing the way we shop.

The speed, convenience and reliability of digital platforms like smartphones have led people to trust them more, and in some cases, apps are the preferred way to conduct transactions. Adoption of the 'App' has opened a two way portal that allows everything from people's music tastes to their personal finances to be known as well as their internet searches and 'likes' on social media; and in turn for those preferences to be 'fed' by relevant, tailored content.

As a result, the evidence suggests that people want to browse and shop anywhere, at any time and they increasingly expect a highly specific experience, where recommendations, choice of products, product features and even delivery options are tuned to their personal preference.

The ability to understand consumers and react to trends and changing demands has never been so analytically precise. In response, brands are investing in the capability to interpret it, to promote products based on that intelligence and even to offer the tailored products people increasingly expect.

Traditional retailers, operating from the high street, have found this period of disruption a challenge. Asset heavy, inventory laden brands have been slow to react. In contrast, the 'e-Tail model' is less burdened by infrastructure and it enjoys all the advantages of high-speed global connection with customers. As a result its growth has been rapid.

What does this mean for real estate?

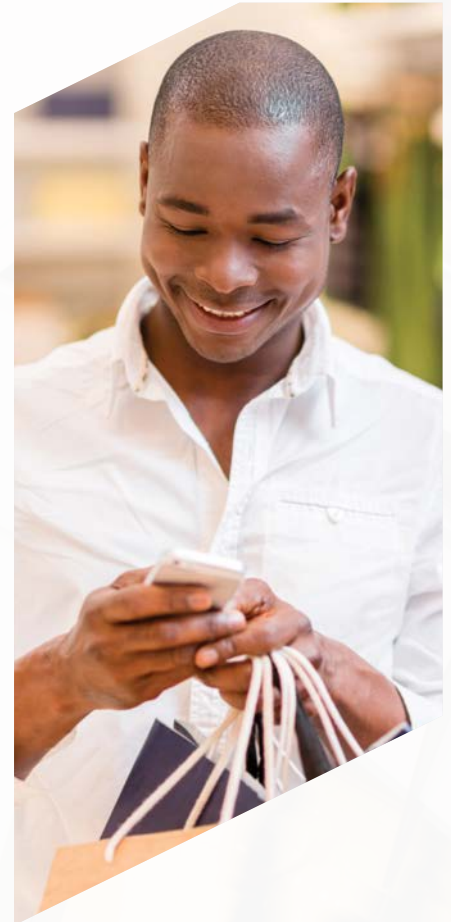
While the consensus is that online channels will not replace stores they'll definitely play a more dominant role as digital services grow and feed consumer expectations.

This is triggering a review of the location, size and function of their physical facilities. Retailers may not need as many stores, or might opt for a smaller footprint. "What's clear is that the trend of personalisation is also driving the increasing need for warehousing logistics," observes James Withey, Managing Director, CBRE. These spaces are larger, more sophisticated environments, which are equally as complex and as critical environments as the data centres that drive them.

In view of this, he argues, property directors of retail organisations must look ahead and think about the balance between physical and virtual space. At the very least, virtual and physical channels need to work together and planning for this inevitable shift is necessary.

"Start with your customer, sales channels and business model and think about how you make sure your space reflects the future need. If you're re-negotiating leases, think about what your portfolio should look like in five years' time and how you'll service it," he recommends.

When it comes to FM, he argues that different skill sets will take centre-stage. In the retail sector a 'hub and spoke model' where mobile teams would have served retail outlets across several locations has, until recently prevailed. "You'd have a mobile workforce covering every store – a huge investment and commitment, if self-managed. In future, you may be looking more at teams based permanently on-site with highly specialist skills, co-located with warehouse personnel because of the complex business-critical nature of the environment."



Smart technology and artificial intelligence

The smart workplace

Imagine arriving at a building for a meeting where the electronic security system automatically recognises you, scanning your iris or fingerprint and allowing you through the barriers. You take the lift, which already knows which floor you need and when you emerge; your phone shows you the most direct route to your meeting room. As you arrive, the temperature and lighting adjusts to take into account the fact that there will be two people in the room and the telecom system automatically dials you into your conference call.

Much of the technology already exists to make this happen – the ‘Internet of Things’ (IoT) as it’s known, relates to the ability to connect devices over the Internet and allow them to talk to us, to applications, and to each other. Gartner forecasts that 25 billion connected things will be in use by 2020 up from 4.9 billion in 2015.¹⁶

Only a few companies have truly brought the concept of the smart building to life yet. But it’s predicted that intelligent buildings will be commonplace by 2020. Every asset or device within the building – such as lights, sensors, windows, HVAC units, doors and CCTV – having a unique identity and all fully integrated into a network.¹⁷

One company that is pursuing the concept of the smart building is Deloitte. Its HQ in the Netherlands – The Edge – is managed by CBRE. Everything is connected, from the drinks machines that know how you like your coffee to the towel dispensers which tell you when they need to be refilled. Real-time information on locker usage is available through an app which means lockers can be assigned daily to employees and visitors. Employees control settings (lighting/heating) through a building user app and the ‘SportEdge’ app enables them to reserve gym sessions and plan their workout time efficiently.

Improving user experience

CBRE is talking to a number of organisations about how they can create smart buildings. Energy efficiency, sustainability and the ability to support a mobile workforce are big drivers for them. A lot of it is to do with attracting and retaining the best staff – making life as comfortable and as easy as possible for people.

Clients see smart buildings as a means of enhancing the ‘customer experience’ for employees. They offer corporate real estate professionals the kind of detailed data-driven insights into the customer experience they’re actively seeking.

“We’re talking to a technology company that’s looking to construct two new buildings incorporating smart technology,” explains Steve Poole, CBRE Sales Director for EMEA services. It wants to recognise when people come into the building, track meeting room use, toilet and washroom consumables – so they know when they need to be replenished – as well as what employees are buying in the restaurant so that they can target people with healthy eating options”.

Build rather than retro fit

However for those organisations considering embarking on this, plenty of thought is needed. “Smart buildings demand a huge amount of planning,” warns Simon Browne, Divisional Sales Director within CBRE’s Critical Environments Business. “Although wireless technology is readily available there are still significant cabling and infrastructure requirements which make retrofitting the technology prohibitively expensive not to mention very disruptive. The most efficient way to use this technology is in new builds.”

/// Only a few companies have yet brought the concept of the truly smart building to life. But it's predicted that intelligent buildings will be commonplace by 2020. ///





Data driven decision-making

Smart workplaces equal smart insights. The benefits of Internet-enabled building management systems are compelling. You have the ability to put all of your systems on a common reporting platform which will generate easily accessible information and identify faults, performance issues and cause-and-effect scenarios. It also gives you the ability to manage your space now and forecast what you'll need in the future.

Frost & Sullivan predicts that by 2025 data analytics will be critical for addressing issues such as energy savings, reduction of total life cycle costs, business efficiency and sustainability.

Respondents to CBRE's 2016 EMEA Occupier Survey acknowledged that data was critical – 75 per cent citing better data quality and accuracy as key to achieving strategic real estate goals. They want to measure the key drivers of performance – property and people – and the links between them. In most cases they recognise that the technology tools exist to allow them to do this and that there is no shortage of information per se, but harnessing it to address strategic challenges is still a major task.

A window into your world

"Most FM providers have an obligation to manage energy consumption and often it's a struggle to make an impact beyond individual plant upgrades," explains Matthew Eastwood, CBRE's EMEA Head of Projects. But if organisations invest in technology it can give them a better window into their world, enabling them to make more informed decisions.

"For example, if you measure your energy consumption, compare it with weather data and benchmark it against your peers – you then have a clear idea about whether there's a return on investment to be had from changing plant or operating systems," he argues.

/// Most FM providers have an obligation to manage energy consumption and often it's a struggle to make significant impact beyond individual plant upgrades. ///

Matthew Eastwood, CBRE EMEA Head of Projects

It's all about getting a clear picture of the issues, so that you put the right plan and solution in place. When you add to your insight by integrating your heating, ventilation and air conditioning with security so that it automatically shuts down overnight, you can start to make a real impact he adds.

The successful companies will be those that are selective in the data they use, recognising that to stay flexible it may not be possible to measure the impact of every single indicator. The key, Matthew Eastwood explains, is to focus on smart insights rather than more insights. "You can measure a million different things – but focus on what you want to control and do differently."

Strategic insights

Data doesn't just make a difference when it comes to individual assets. You can apply the same principle to all aspects of the portfolio and drive significant value.

"If I'm responsible for a care home, I'm going to want to know much more than just the number of planned preventative maintenance visits that have been conducted. I'll want to understand how best to invest my capital – and what I need to do to drive value for both the residents and owners," explains Mark Rudkins.

"I'll want an overall picture of energy consumption, whether my portfolio is safe, compliant and legal. What do I need to do to improve it so that it's competitive: a gentle refurb or do I need to knock through rooms? And if I'm renting my property, am I doing so at the most competitive rate? What are my lease obligations?" he explains.

"Once you connect the data dots you start to make a real difference to your clients and end-users."

The rise of the robots

Japan and many European countries have rapidly aging societies and it's predicted that either technological innovation or immigration will be needed to supplement the workforce by 2025.¹⁸

Robots are already entering specific environments like hospitals where Automatic Guided Vehicles transport food, linen and hospital stores in a safe, hygienic and efficient way.

According to the International Federation of Robotics (IFR) the market for professional cleaning robots is small but growing. The total number of professional service robots (covering use in logistics, defence, medical and field sectors) sold globally in 2015 rose by 25 per cent to 41,060 units, up from 32,939 in 2014. Of this, sales of robots for professional cleaning units more than doubled in 2015.¹⁹

As sensor technologies open up new robot applications, the total number in facilities maintenance could be much larger.²⁰

Kirsten Bradbury, CBRE's managing director facilities management sees robots as a means of responding to a key challenge in the industry. "Traditionally FM is about labour and man hours and therefore by its very nature it's challenging to make it efficient because the cost of labour goes up every year – so the more stretching end of the industry is looking at what changes it can make in order to keep up with other industries. Robotics fits that category."

Drones

The benefits of using robots go beyond savings on headcount. Tasks can be performed 'out of hours' when buildings and grounds are empty. It's also possible to save on light, heating or cooling, because when robots need to 'see' they can carry their own lights and sensors.

What's more they can perform difficult or dangerous jobs like working on the outside of tall buildings – the use of camera-equipped drones to inspect roofs is just one example.

Cleaning, security and visitor management are just some of the functions that lend themselves to this technology and CBRE has been demonstrating the Robo 2 with customers. Produced by UK provider of industrial cleaning machines ICE, it uses its own patented navigation system to detect its surroundings and automatically clean entire floors.

Some large companies are even using robots to patrol their buildings at night.

According to CBRE's Global Practice Leader Employee Services, Beth Powell, automated receptionists are already a reality. "We're seeing some instances of companies using robots to meet and greet, taking visitors to rooms and helping them with travel information." There are no technological constraints to what's possible, she explains, just what's appropriate for the culture and brand-image of your organisation.

For more on technology in the workplace read CBRE's report: *'Digitization – the Key to Maintaining Competitive Advantage in Enterprise Facilities Management.'*



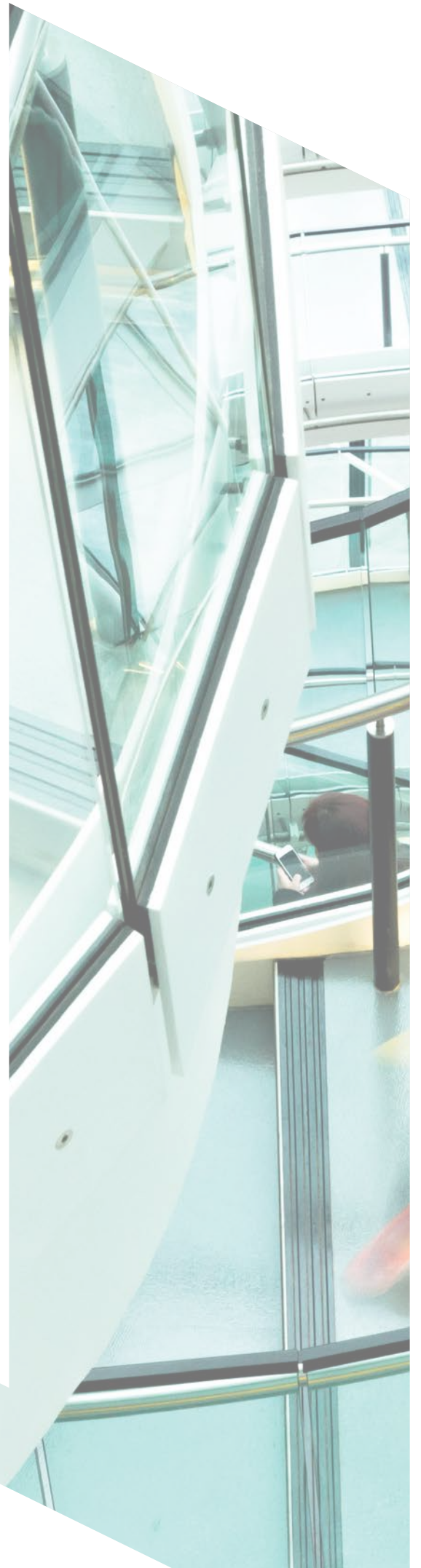


Conclusion

FM is coming of age

This report has touched upon some of the key trends currently influencing FM – there are many others. What’s clear is that technology and changing attitudes to the workplace are driving a transformation of corporate real estate and with it, the traditional image of the real estate professional.

Gone are the days when the real estate function was seen as an overhead and its professionals solely as engineers. FM is coming of age and the next generation of real estate professionals will more closely resemble business managers and leaders who combine empathy, strategic thinking, commercial expertise and an eye for innovation and continuous improvement. This will more accurately reflect the role of the function as an enabler of change and agility as well as a key driver of performance.



Footnotes

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About Global Workplace Solutions

Global Workplace Solutions (GWS) is redefining ‘workplace’ because we believe every place of work can become a competitive advantage for our clients.

Productivity, reliability, engagement, quality, brand - the workplace contributes to business results, whether it's an office, a retail outlet, a laboratory, a data centre, a manufacturing environment or a virtual location.

GWS is a division of CBRE which provides integrated solutions across large multi-discipline property portfolios for occupiers, helping them turn their real estate into real advantage.

We support predominantly corporate clients who buy services on a contracted basis all across Europe, the Middle East and Africa – even globally depending on their portfolio.

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