

THE EDGE

MAGAZINE
Vol. 6

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**CUSHMAN &
WAKEFIELD**



With the vaccine distribution increasing in many parts of the world, and some economic bright spots on the horizon, we look to the future with a renewed sense of hope. But as we move forward, of course our collective question is, what will this future hold for our places of work and commerce and how will this moment in history shape our communities?

In this volume of The Edge Magazine, we continue to explore the nexus of disruption and opportunity. Learn how 5G will impact the office of the future, why the grocery store has changed forever and join the conversation on global sustainability. We also touch upon a new alternative to the traditional office and how companies can keep up with digital demand.

In order to provide you with the most up-to-date content, we'll be sharing content in real-time over the next several weeks. [Subscribe](#) to be notified as articles are released and added to The Edge Volume 6.

Best,

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Office pods popping up

Introducing a third space solution



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How will 5G impact the office of the future?



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The grocery store of the future

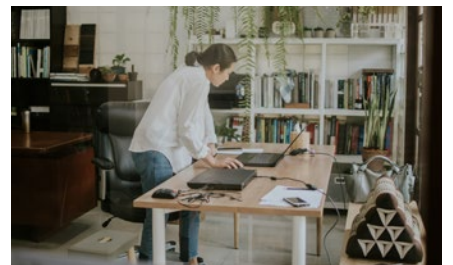
What might it look like?



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Keeping up with digital sales demand

Companies must accelerate their distribution & manufacturing models



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Sustainability: a global conversation

We sat down with sustainability experts from around the world to discuss their thoughts on this important topic

Why 5G is more important than ever

**WITH WORKING FROM HOME AT AN ALL-TIME HIGH,
5G COULDN'T HAVE COME AT A BETTER TIME**

As a follow up to the [Q&A we featured in The Edge Vol. 4](#) that discussed 5G and why it matters, this article explores how 5G is shaping up to be more important than ever as companies prepare to bring employees back into the 'office of the future' post-COVID-19. Since employees have proven they can work productively from the comfort of their own homes, they are looking for a reason to return. 5G can provide the immersive experience employees are not only craving, but will come to expect going forward. And landlords and investors will come to expect 5G to be an essential amenity for tenants.

The Edge Magazine sat down with 5G experts Andy Brady, Vice President, and Debika Bhattacharya, Senior Vice President, from Verizon and their partner Rob Franch, Chief Technology Officer from Cushman & Wakefield to explore a range of topics, including how 5G is performing a year into this pandemic, how 5G could impact the office of the future, and what's next for 5G.



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NOW THAT WE'RE A YEAR INTO THIS PANDEMIC, HOW IS 5G PERFORMING?

Andy Brady, Verizon: A lot of people expected that 5G deployment would slow down because of COVID-19, but the reverse actually happened. Fortunately, it has been much easier to get permits from municipalities due to a slowdown in overall activity, so we've been able to accelerate the rollout of installing fiber underground, which is a requirement for 5G. Since people haven't been on roads much, we've been working in the evenings and around the clock, doubling down on our efforts. We currently offer 5G Ultra Wideband (providing ultrafast speeds and reduced lag time) in parts of more than 60 cities and 5G Nationwide is available in 2,700+ cities. We are also excited about the launch of our first 5G iPhone in October 2020.

Debika Bhattacharya, Verizon: With working from home at an all-time high, 5G couldn't have come at a better time. A lot of people think 5G is just faster 4G, which it is, but it's so much richer and has so many more capabilities than 4G as well. The pandemic has shown the need to transform the way we work and collaborate, and 5G has the potential to be part of that transformation.

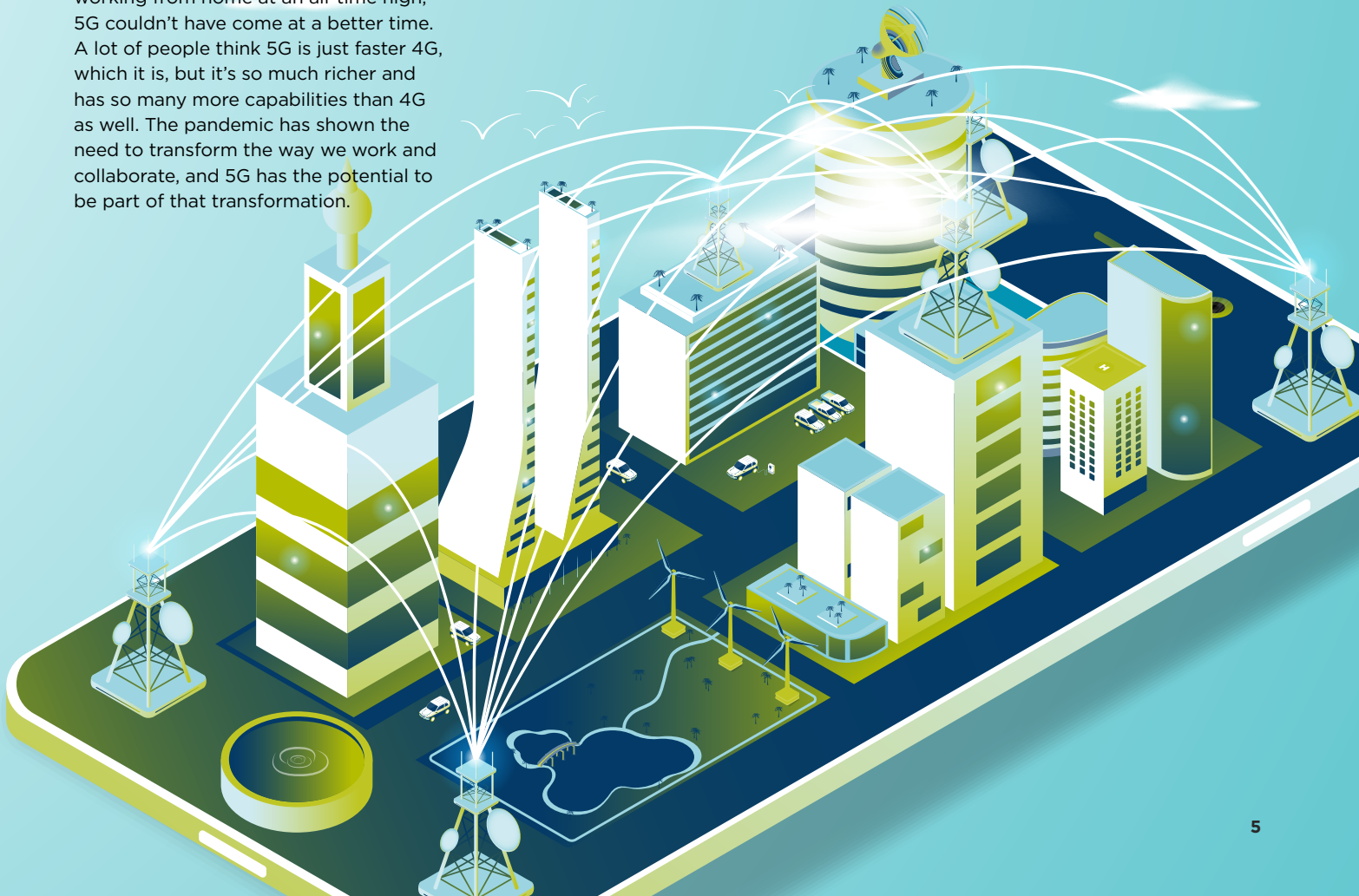
HOW WILL 5G IMPACT THE OFFICE OF THE FUTURE?

Rob Franch, Cushman & Wakefield:

If you look at the post-pandemic expectations of the workplace, it's so much more than just working from your desk. Since people can do that at home, expectations have evolved. So, when people do return to the office, they aren't going in to just do typical work from their desks. The experience has to be different. Historically, for example, conference rooms were where big client meetings would take place in the office, leveraging the latest virtual platforms and technology. But now, with 5G, employees can collaborate, leveraging these virtual platforms, from almost anywhere in the office—from small huddle rooms to individual offices to large meeting rooms. Having essentially unlimited access to bandwidth and data could lead to much more interactive

client meetings as well, which should ultimately improve the overall customer experience while cutting down on travel requirements.

Debika Bhattacharya: We are continuing to see more workers being untethered from desks. They're not just on their phones, but working on more complex problems on their tablets in conference or huddle rooms, without having to be at their desks or on their computers. They can do that now because of 5G's bandwidth and speed. Phone and tablet apps are only going to become more powerful and interactive and with 5G's promise of faster speeds and higher bandwidths, the opportunity exists for people to do their work on the go.



In simple terms, edge computing is the practice of capturing, processing, and analyzing data near where it is created.



HOW ARE MOBILE EDGE COMPUTING (MEC) AND 5G WORKING TOGETHER TO IMPROVE THE END-USER EXPERIENCE?

Andy Brady: In simple terms, edge computing is the practice of capturing, processing, and analyzing data near where it is created. It's all around us—from your smart watch to streaming video to drone-enabled deliveries. And these applications are only becoming more prevalent. Today, less than 10 percent of data is created and processed at the edge. As the adoption of edge computing grows, we will likely see a significant increase in data being created and processed at the edge. When you make decisions on the edge in the office place, they are in real time, which enhances the user experience. For example, if you are looking at a 3D holographic schematic on a device connected to the 5G network, you could have the ability to make changes that will take effect immediately. Making this decision on the edge of the network as opposed to having to go to the cloud and back can make a real difference in timing. When you can offer a solution that changes the way the work gets done, people will come into the office for that.

HOW DO OFFICE BUILDINGS FACTOR INTO THE FUTURE OF 5G? WHY SHOULD CRE INVESTORS CARE?

Rob Franch: Landlords and investors are increasingly viewing 5G as a 'must have' versus a 'nice to have' amenity. After all, the technology is key to marketing space effectively—especially in a post-COVID-19 era when employees will need a reason to return to work. We've been advising our clients to make sure they have the technology infrastructure in place to be able to enable 5G and recently we've gone a step further, helping tenants optimize their space for 5G as well.

Andy Brady: Another 5G product we're excited to launch in the second half of 2021 is Private 5G. Certain industries, such as manufacturing, banking and logistics, want all-inclusive capabilities and top security within their own private environment or ecosystem. We can build them a completely enclosed secure network, enabling faster responses to issues. With tighter security measures in place, network owners have the ability to determine which users connect and what data is contained within the site,

mitigating overall risk. In addition, part of the attraction of a Private 5G network is that it keeps your data local and, because of the low latency, it can be real time and interactive.

Rob Franch: To add to this, within the office space, we've been trying to eliminate excess core cabling and infrastructure for years. If we can employ Private 5G over time, no Wi-Fi network or infrastructure would be required, just one Private 5G network. This would allow us to reduce the amount of cabling—and not having to run cabling to desks, phones and conference rooms saves a lot of time and money. It would ultimately open up a lot of possibilities for the way we design our floorplans and flexible workspace going forward. In addition, Private 5G would also enhance the end user experience. As employees come into the office, they will automatically join the building's private network, which provides more secure and faster content delivery.

WHAT'S NEXT FOR 5G?

Andy Brady: We know that it will take some time to fully build out the 5G network, but we also know that the fastest network doesn't happen overnight. Our 5G Ultra Wideband network is currently in 64 cities and growing and we find ourselves in a strong position with a solid LTE base

to work from. We anticipate 2021 to be the year when 5G really makes its move. Coverage will get better and speeds will get faster. The sheer number of 5G smartphones is expected to more than double to 600 million in 2021, according to Strategy Analytics, and nearly half of all phones will have 5G by 2022.

Debika Bhattacharya: 2019 was all about introducing 5G phones and faster speeds. 2020 was all about making the technology real. And in 2021, we will witness that speed and performance

everywhere, while applying the technology to so much more beyond phones. Whether through robots, cars, health devices or retail, 5G will undoubtedly transform not only how we operate, but how we work, live and play going forward.

10 WAYS 5G AND MOBILE EDGE COMPUTING (MEC) COULD CHANGE YOUR LIFE

1

Streaming

With numbers expected to increase as consumers stream more content, 5G and MEC should help reduce latency, increase video resolution and enable subscribed viewers to watch virtually anything on the go.

2

Content creation

With mobile phones evolving to enable professional quality video, and more content creators choosing them for simplicity and flexibility, MEC should help increase upload speeds and data throughput while ensuring a rich media experience for audiences.

3

Remote work

With MEC, both organizations and employees can take collaboration to a new level. From delivery and ride-sharing to the industrial sector, where real-time monitoring of assets at the edge could reduce operating costs and downtime, MEC can enable new pathways for productivity.

4

Gaming

In 2019 WIRED reported there were more than 2.5 billion active gamers and e-sports professionals around the world, with a majority playing from an active mobile device. That's where MEC should be a game changer. Matching mobility with performance, gamers can experience high quality, whether they are hosting or playing.

5

Healthcare

Thanks to a myriad of connected technologies, many things could be accurately measured and monitored at home. With processing done at the edge, data could be analyzed instantly, triggering devices to either automatically adjust or alert healthcare professionals, both of which could improve the quality of care and reduce healthcare costs dramatically.

6

Smart cities

Cities across the globe are increasingly deploying millions of sensors that collect and monitor traffic, infrastructure, crime and environmental data to improve the quality of life for residents and visitors. With MEC, all that information could be sent to a nearby data center rather than a large centralized one, enabling near real-time insights that can drive better, more cost-effective decision making.

7

Smart homes

With more homes using connected devices, centralized servers that process data collected from these devices increase privacy risk and latency. MEC could address those challenges by enabling mobile or IoT devices to process data within the periphery of the home network rather than the cloud, which should enhance privacy and security while reducing latency.

8

Vehicles

With MEC and the proliferation of sensors that collect and share data in near real-time, certain vehicles should have the capability to do things like alert another vehicle if it is too close, activate the brakes to avoid a collision and detect if a driver is impaired and temporarily assist the driver with the wheel, all of which help to improve the driving experience and safety.

9

Public safety

From body cameras to aerial surveillance, data processed at the edge could enable real-time intelligence for reporting and critical updates, which could empower first responders and emergency crews to take decisive and quick action that could dramatically improve public safety.

10

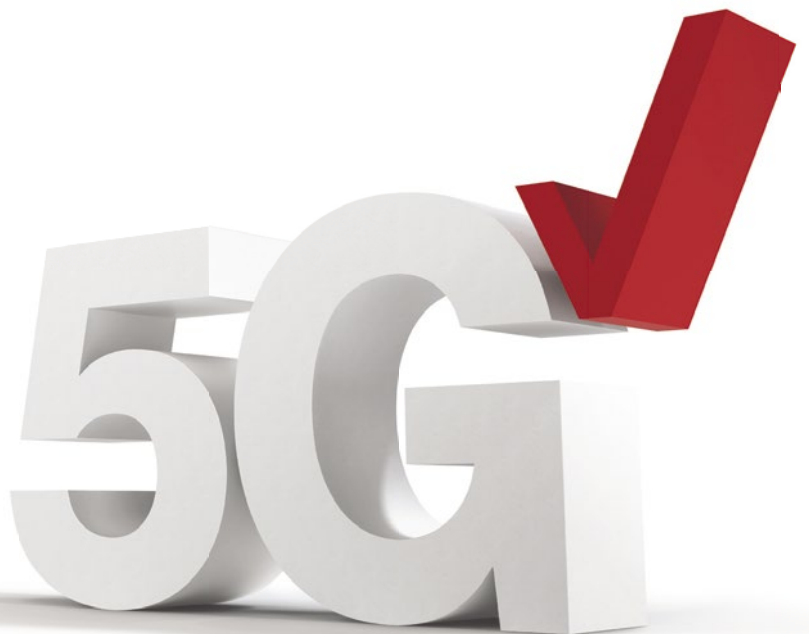
Entertainment

With MEC and 5G, virtual engagement opportunities could include not only live stream but also holograms that may bring the game, the music, the play and the performers all within arm's reach, right from your sofa.

This is 5G built right for business.

Verizon 5G is here and it's bringing new possibilities to businesses of all sizes. It's the coverage of 5G Nationwide for over 230 million people in more than 2,700 cities and the unprecedented performance of 5G Ultra Wideband—the fastest 5G in the world—in more and more cities.

This is 5G from the network businesses rely on.
Learn more at verizon.com/5g/business



verizon^v

5G Ultra Wideband available only in part of select cities. "Fastest 5G in the world" claim from May 2020, based on Opensignal independent analysis of mobile measurements recorded during the period January 31 – April 30, 2020 © 2020 Opensignal Limited. © 2021 Verizon.



Keeping up with digital sales demand

Digital sales, also known as e-commerce, have been growing steadily over the past several years. According to Internet Retailer, consumers worldwide spent nearly \$3.46 trillion online in 2019, up from \$2.93 trillion in 2018. In 2020, this number grew to an impressive \$3.914 trillion, according to Business Insider, due to the global pandemic where a growing number of people shopped from home.

This uptick in sales has upped the ante for these companies to deliver faster, cheaper and better products—especially when customers are used to getting what they want, when they want it.

After all, a shipping delay of even a day could result in the customer buying elsewhere online.



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For companies to stay competitive while still giving customers what they want, they are going to have to rethink and accelerate their distribution and manufacturing models. What may have been in their five- or seven-year plan has become more immediate. Digital sales are all about customer interaction; service was the priority pre-pandemic and it remains so today. In addition to offering an omni-channel strategy, which provides a fully integrated and seamless shopping experience where customers can buy online and return in store or vice versa, the following are other tried and true strategies companies are adopting now for long-term success.

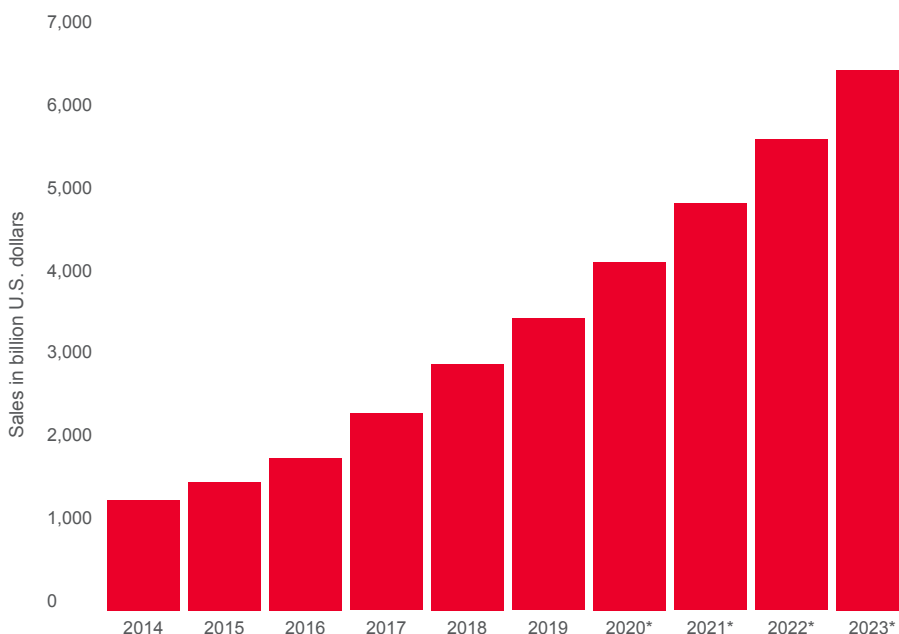


SHIFTING FULFILLMENT TACTICS

With an uptick in digital sales, companies have gotten more

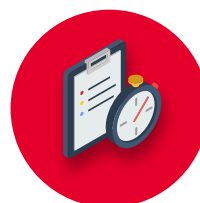
strategic about how they are fulfilling orders online resulting in many stores shipping products directly from stores instead of using distribution centers. So, for instance, if a company has a national footprint of retail stores, it can ship directly from those stores, ultimately saving money. Levi's, for example, traditionally has sold its jeans through distributors like Nordstrom or Walmart. This past year, it sold 30 percent of its products from its own retail stores in Q2 alone. This was a massive and profitable shift for the company. Apple will also start shipping in-stock products directly to consumers from its retail stores rather than its warehouses. And Best Buy has been testing limited SKUs on its store floor to make space for more fulfillment. The retailer added 90 ship-from-store hubs during the holiday season, supplementing the 250 ship-from-store locations it piloted last September. In addition, companies that had been using third-party sellers were starting to leave too much margin on the table

Retail e-commerce sales worldwide from 2014 to 2023 (in billion U.S. dollars)



Source: Statista

as digital sales increased. By fulfilling orders themselves and shipping directly from stores, companies could make more money. Nike is a good example of a company that left a third-party seller in order to sell directly to its customers.



FOCUSING ON CORE PRODUCTS AND EXISTING INVENTORY

As a result of the pandemic, more

companies have begun to ruthlessly look at their existing inventory, cutting SKUs where possible and focusing on core products instead. Companies have largely welcomed this practice, acknowledging that it leads to more profitable and leaner operations. Coca-Cola provides a good example of a company that decided to focus on fewer, bigger, better and stronger brands in its portfolio to free up resources and provide more organizational focus in the wake of COVID-19. The soft drink manufacturer is reevaluating its entire brand portfolio, carefully assessing 400 international, local and regional brands; more than half of the 400 brands have been deemed not scalable.

When a company clearly understands its SKU demand, order profile and customer profile, micro fulfillment is another option some companies are shifting to for efficiency and profitability. These micro fulfillment centers are typically smaller spaces located within a distribution center, warehouse or even existing store. When companies know exactly who they're shipping to and what they want, they can yield a much better margin.



REGIONALIZING OPERATIONS

Pre-pandemic, many companies had already realized the flaw in dependency on one country or location for

their supply chain. Shifting to [manufacturing](#) and sourcing from multiple locations allows for more agility and flexibility in their operations. And then the pandemic hit, and the need for regionalization accelerated. With countries in and out of lockdown, having the ability to rely on different parts of the world at different times has been key. Regionalization helps a company's supply chain stay up and running, while avoiding risk on a global scale.

Ford is a good example of a company focused on both core products and regionalizing its operations. According to the Wall Street Journal, the auto maker will close all three of its factories in Brazil and reconfigure its supply chain in South America by expanding what CEO Jim Farley calls an "asset-light" strategy to boost profit margins. Ford will continue to sell vehicles in Brazil and other South American markets with cars made at its remaining factories in Argentina and Uruguay, as well as other regions. Ford's moves in South America follow some of the same steps it took in Europe, where it plans to sell or close factories and shrink its vehicle lineup.

Although digital sales saw a major uptick during this pandemic, they are here to stay and will likely only become more prevalent in the years to come.



AUTOMATING SOLUTIONS

Automation is certainly not a new idea, but rather, the pandemic is simply accelerating plans that had already been in place. [Labor](#) had already been and continues to be scarce and expensive, and the pandemic has added a level of risk to in-person duties as well. Fortunately, automation reduces costs, saves time, improves business

processes and has empowered employees during this crisis because it has freed them up to focus on other tasks. Although drones and robots aren't the solution just yet—and won't be until well after the pandemic—[cobots](#), [or collaborative robots](#), are playing an important role when it comes to automation solutions. Home Depot and Walmart provide good examples of stores whose revenues have gone up during this pandemic, but costs have gone up even more to account for labor, transportation, shipping, etc.

There are multiple strategies companies can take—and may already be taking—during this pandemic and beyond to stay competitive while giving customers the quality service they demand and expect. Whether it's shifting fulfillment tactics or automating solutions, companies should pick a strategy and stick with it if they want to be successful. Although digital sales saw a major uptick during this pandemic, they are here to stay and will likely only become more prevalent in the years to come.

MICRO-FULFILLMENT: A strategy that retailers use to make the fulfillment process more efficient—from receiving an online order to packing it and in some cases offering last-mile delivery. The approach aims to take the speed of localized, in-store pick-up and combine it with the efficiency of large, automated warehouses.

MICRO-FULFILLMENT CENTER (MFC): MFCs are automated fulfillment centers with footprints typically ranging from 10,000 to 20,000 square feet, with some as small as 5,000 square feet. They can be cohoused inside an existing store or placed in a smaller warehouse space in an urban location.

OMNI-CHANNEL: Omni-channel retail (or omni-channel commerce) is a multichannel approach to sales that focuses on providing seamless customer experience whether the client is shopping online from a mobile device, a laptop or in a brick-and-mortar store.

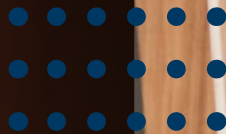
REGIONALIZATION: The explosive growth of domestic and international digital sales has driven retailers to create more regionalized distribution networks in order to stock products closer to the end customer and simplify the process of product returns.

COBOTS: [Cobots](#), or collaborative robots, are robots intended for direct human robot interaction within a shared space, or where humans and robots are in close proximity. Cobot applications contrast with traditional industrial robot applications in which robots are isolated from human contact.

Office pods popping up



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The concept of ‘working from home (WFH)’ took on a whole new meaning in 2020. Due to the global pandemic, WFH was no longer just about flexibility and convenience, it was about necessity. Hundreds of millions were forced to WFH to mitigate exposure to the virus.

While many initially welcomed WFH as it created new opportunities for work-life balance, it also presented productivity challenges as time went on. Millennials and Generation Z professionals living with parents, and those generations with children at home were especially impacted by space constraints. What’s more, the smaller the residence, the harder it’s been to come by dedicated home office space.

In response to these constraints, two markets known for their modest domestic space availability, Singapore and Shanghai, have introduced a third space solution—office pods. Office pods are easily accessible rentable spaces structured around a pay-as-you-go or subscription basis. By establishing pods through both urban and suburban areas, professionals are given the flexibility to choose where they work—whether that’s closer to home or closer to where clients and colleagues may be located.

Switch, a Singapore firm, has been leading the creation of these office pods, which they call the “world’s first workplace on-demand platform.” With more than 30 locations established, their office pods and related rentable spaces include locations from retail malls and hotels to offices and co-working spaces. Property development firm Shui On in Shanghai has also developed an office pod concept within their managed spaces. Shui On is already seeing positive signs of adoption, with pods being occupied for an average of 4.3 hours per day, including significant weekend usage.

For an innovative model like this to have found a home in traditionally-minded China speaks to a remarkable shift in attitudes towards flexible working practices, supported by a recent survey¹ which found that 71 percent of Chinese employers would consider adopting a WFH home platform. It also speaks to the advantages that third space options like office pods offer to three distinct groups:



INVESTORS & LANDLORDS



EMPLOYERS



USERS

¹Source: Cushman & Wakefield Office Agency, Cushman & Wakefield Research



THE INVESTORS & LANDLORDS



Investors and landlords across the commercial real estate (CRE) spectrum have had an out-of-the-ordinary last 12 months, with the COVID-19 pandemic causing unprecedented disruption, as well as accelerating existing trends for markets such as brick-and-mortar retail. The opportunity to introduce a solution that could both occupy and monetize vacant space, as well as drive significant footfall from affluent clientele, is worth close attention.

With commercial space increasingly competing for customers and tenants alike, investors and landlords could benefit from adding the office pod solution to their properties. A hotel, for example, could replace its business center with office pods, making them available only to loyalty-program tiered members or at a discounted rate for guests. Installing these office pods provides the bonus of helping the hotel improve the health and wellness of its business solutions users, a factor that will surely be front of mind as we emerge from the pandemic.

There are several considerations that investors and landlords should bear in mind. The first of these is the cost vs. pricing model, especially for those looking at office pods as primarily a revenue-generating opportunity. In China, the cost to build a pod is around RMB 2,000-3,000 per sqm (roughly USD \$309-464 per sqm). When it comes to revenue generation, office pods could be rented for around RMB 1,000-1,500 per sqm/month (roughly USD \$154-232 per sqm/month). This estimation is based on the rental charges that karaoke boxes currently incur in shopping malls in Shanghai, which at around 2.2 sqm are of a similar size to office pods.

The ability to secure such return relies on asset type and location, putting the onus on investors and landlords to understand footfall volumes and local demographics to fully define the potential market size per office pod location. Beyond priority locations already mentioned, office pods could also find a home in high traffic transport hubs including train stations and airports, providing business travelers with a dedicated office environment while on the move.

EFFECTIVE DESIGN AND ENVIRONMENTAL FACTORS ARE CRITICAL TO MAKING OFFICE PODS A SUCCESS. THIRD SPACES NEED TO PROVIDE OPTIMAL WORKING CONDITIONS FOR THEIR USERS. REQUIREMENTS INCLUDE:

01

SOUNDPROOFING TO REMOVE DISTRACTION

Especially important in high traffic areas, office pods are almost entirely self-contained booths that shield the work from the clamor of the public or shared spaces where pods may be located.

02

CLEAN, TEMPERATURE-CONTROLLED AIR

Since office pods contain ventilation fans, workers are protected from infectious microbes to a degree.

03

ERGONOMIC DESIGN OF BOTH SPACE AND FURNITURE

If you're leaving the comfort of your own home to work in an office pod, they need to be comfortable and promote wellness as well.

04

LIGHTING TO BOOST FOCUS AND WELLBEING

Lighting has the power to transform a space from energetic to cozy to natural, with the flick of a switch. It can set the mood for your pod and your day.

05

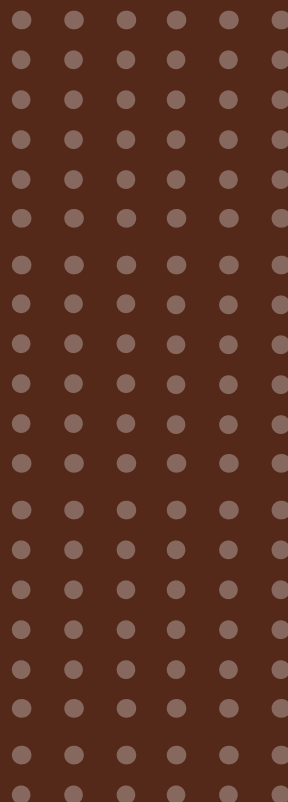
APPROPRIATE COLOR CHOICES TO PROMOTE PRODUCTIVITY

In an office pod, skillful use of colors can boost productivity, health, job satisfaction and even overall happiness.

06

HIGH-QUALITY TECHNOLOGY

All current and future technology needs should be considered including fast Wi-Fi, USB + standard charging stations, and hardwiring and data capabilities.





THE EMPLOYERS

With 2020 behind us, but the pandemic still very much a factor, employers all around the world are trying to gauge how the current WFH dynamic will impact their long-term portfolio strategies. Since employees are proving they can do their jobs effectively while working remotely, some of the traditional arguments for clock-in, clock-out work culture are becoming less relevant. Enabling employees to work from convenient and optimized third spaces could very well become an increasingly popular option for employers, especially as companies look to reassess their total office space requirements.

Employers should also consider office pod membership or subscriptions as part of their strategy to attract and retain talent. By using office pods as an employee benefit, employers can offer an alternative space for those employees who aren't productive at home or don't want to commute to a central office, further expanding the talent pool beyond the immediate metro area.

Of course, there are cost implications for these types of memberships or subscriptions. Switch typically charges users around SGD 3.60 (USD \$2.73) per hour for office pod rental. Although this is currently a business-to-consumer solution, it is not clear how this would be reflected in enterprise agreements. Considering this expense alongside existing or future space commitments is important, as is establishing how traditional office space would evolve should more employees opt to make use of office pod solutions.

Currency conversion:
USD 1 = RMB 6.46
USD 1 = SGD 1.31

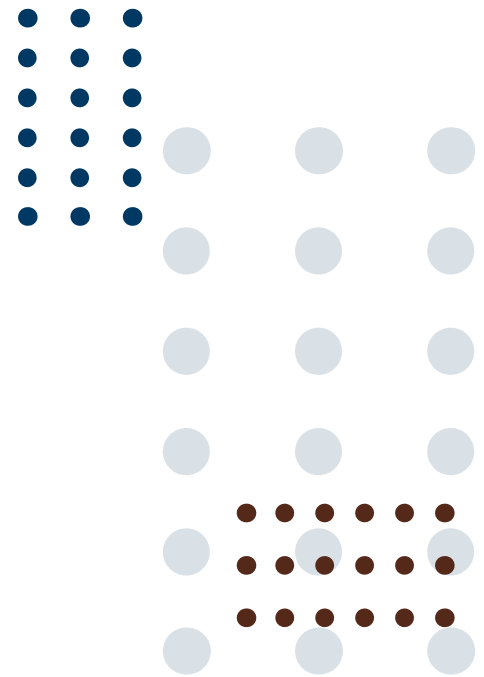


THE USERS

For those professionals looking for alternatives to home or office workspaces, the idea of an on-demand conveniently located office pod seems like a compelling opportunity. It offers optimal conditions for productivity, as well as the mental and physical health benefits of getting out of the home environment when working remotely. Users can also benefit from simple reservation and pod access through a mobile application, ensuring a frictionless experience.

While pricing could become a consideration if utilizing space regularly, the advent of businesses offering membership as an employee benefit could assuage that concern down the road. Location and accessibility too could be a limiting factor, especially if there is a post-pandemic decentralization of talent into the suburbs and beyond. However, with return on investment seemingly sound for investors and landlords, we could expect to see a rapid expansion of coverage to meet local demand wherever that may fall.

Ultimately, office pods are a solution to several trends that have been accelerated by the COVID-19 outbreak, notably remote working, mobile technology, and the co-working office sector. Workers and employers have had a generally positive first flexible work experience, opening the doors for a fundamental shift in where work takes place. At the same time, landlords have been faced with challenging footfall statistics, especially in office, retail and hospitality sectors. Going forward, expect to see more office pods popping up as they provide significant opportunities to all sides of this market.



One of the few positive byproducts of COVID-19 has been the acceleration of technology to enable us to be more productive from virtually anywhere, affording us some new options. For instance, now that we know what we can do from home, the future of the office looks different. Most companies are considering a hybrid model post-COVID-19, with employees splitting their week between remote and office. Similar to the office, the grocery store of the future looks different as well. Although people know they can shop online from the comfort and safety of their own homes, they want options. One day, they may want to have their groceries delivered, but the next they may want to go in person. Or they might want to visit in person to select their own produce, but then pick up the products they bought online on their way out. Thanks to digital disruption, the grocery store of the future is heading towards a hybrid model, providing limitless options to its customers.

CUSTOMERS WANT TO GO TO STORES STILL -

JUST DIFFERENTLY

According to more than 2,100 consumers surveyed in retail and food service experts WD Partners' recent study, buy online, pick up in-store (BOPIS) approval is at an all-time high and is here to stay post-vaccine; grocery delivery is so high in the minds of the public that its approval rating is near 100 percent; and dark stores (no shopping, pick-up and delivery only) are being well received. But even though consumers can forego in-person shopping through these offerings, 72 percent of consumers still consider excellent in-store experience extremely important. Offering an in-store experience is important to create brand engagement, highlight unique features and benefits, and grow the transactional value of the consumer. A talented baker, knowledgeable butcher or having an incredible choice of fresh fish will drive footsteps to a store. Today, it is about finding the right balance for the consumer and understanding how they want to engage with their favorite grocery store, and then blending the right technology to optimize the experience. Taking this information into consideration, WD Partners developed the "Grocery Store of the Future" model (see example rendering on following page), which is not only a store, but is BOPIS, delivery and experience all tied together by technology and operations.

This model could work as a standalone, and it could also work well within a mall. In fact, 62 percent of consumers surveyed by WD Partners last year stated they wanted to see more grocery stores replace vacant department stores in malls. The experiential nature of this new store format would perfectly complement the mall environment—order groceries, hit the mall to shop and then pick up your order on the way out. Auchan in Luxembourg and Eroski in Spain are two examples of grocery stores that have opened locations inside malls.



**72 PERCENT
OF CONSUMERS STILL
CONSIDER EXCELLENT
IN-STORE EXPERIENCE
EXTREMELY IMPORTANT**

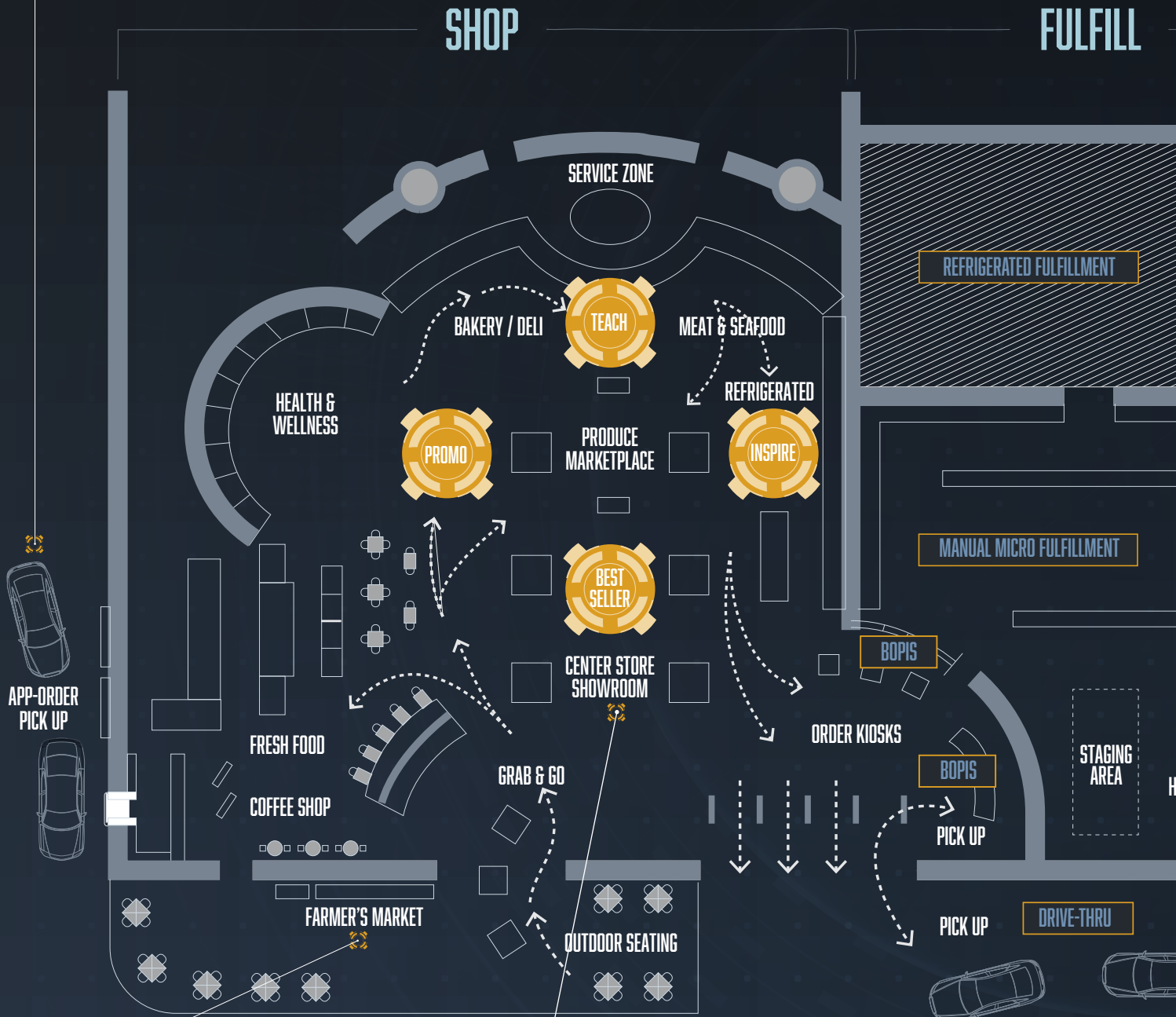
THE FUTURE OF THE GROCERY STORE IS NOW

According to Coresight Research, nearly 50 percent of shoppers are buying more groceries online due to COVID-19—this still leaves 50 percent of shoppers who are reliant on in-store only. Assets will be vital in serving customers in a familiar but evolved way, but they will need to offer something more interesting to the customer to justify the trip to a store. Those grocers who optimize their supermarkets into part store with engaging social elements and part fulfillment center, are providing both the retail and logistics value, all the while providing more options to its consumers—which is what they really want.

GRAB AND GO

Shoppers can order meals to go on an app; grab breakfast on way to work, eat lunch out in front, or pick up dinner on way home.

WHAT MIGHT THE GROCERY STORE OF THE FUTURE LOOK LIKE?



FARMER'S MARKET

Local items are available in a farmer's market section, supporting community farms while lowering the carbon footprint.

CENTER STORE SHOWROOM

In this experiential showroom area, shoppers can attend a class, explore new foods or even shop via scan and go, scanning items by phone and then picking them up at the BOPIS counter on right. This area includes fresh produce, bakery, deli and meat/seafood counter—all the items that many consumers like to pick out themselves.

BIG THINGS IN GROCERY TECH

FULLFILLMENT CENTER

Split into refrigerated and non-refrigerated foods, the fulfillment center houses items ordered online and then picked up by delivery drivers or BOPIS orders. So many options for ways to shop.

PICK UP

MICRO-FULLFILLMENT

Some stores may even have an automated micro-fulfillment center that can pick and pack dry goods and other items that can easily be retrieved by an automated system. (see sidebar)

DELIVERY

CURBSIDE PICKUP

The drive-thru is for shoppers who order items online and want to do curbside pickup.

Micro-fulfillment centers (MFCs) allow for small fulfillment centers to exist in heavily populated areas, including inside grocery store stock rooms. These automated systems make it possible to pick and pack a grocery order for delivery or pick-up in a few minutes.

Automated online supermarkets are another recent innovation. British company Ocado is an online-only supermarket that utilizes cutting-edge automation and robotics that can assemble an order of 50 items in a matter of minutes.

Third-party final mile fulfillment such as Instacart in the U.S., Deliveroo in the UK and FlipKart in India have become heavily relied upon by grocery stores and customers. Utilizing a third-party logistics provider pushes the costly final mile component to another party with scale, dropping density network effects for the grocery stores themselves.

Intelligent inventory management, such as Walmart's Intelligent Retail Lab (IRL) in New York, is a futuristic shopping environment designed to explore the possibilities of automated intelligence (AI) through sensors, cameras and processors. The technologies being utilized at the IRL store may eventually become mainstream for grocery stores.

Source: [WD Partners](#)

SUSTAINABILITY: A GLOBAL CONVERSATION

We sat down with sustainability experts from around the world to discuss their thoughts on this important topic

Global companies are increasingly considering corporate sustainability as a critical initiative in this “new world” following COVID-19. The pandemic has provided an opportunity for companies to see how they can address an expanding range of environmental, social and corporate governance (ESG) challenges and embed sustainability practices into their business going forward.

Sustainability has become an international conversation.

The Edge Magazine sat down with female sustainability experts from Cushman & Wakefield to discuss their approach to corporate sustainability across the globe.



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How do you approach sustainability and what has informed your perspective?

TEREZA JELÍNKOVÁ: The Czech word for ‘sustainable’ figuratively means, ‘long lasting.’ When it comes to CRE, the most sustainable building is the one that lasts and remains competitive over a long time period. To make this happen we must expand our thinking beyond ‘environmental friendliness.’

GERDA STELPSTRA: My training as an anthropologist uniquely informs how I think about sustainability. As humans, we are naturally individualistic and focus on our own gains. That has been a challenge in environmental sustainability—it’s difficult to make lasting change in an individualistic world. Therefore, I see sustainability and wellbeing as inherently intertwined. You can’t separate them from each other.

ENVIRONMENTAL, SOCIAL, AND CORPORATE GOVERNANCE (ESG) REFERS TO THE THREE CENTRAL FACTORS IN MEASURING THE SUSTAINABILITY AND SOCIETAL IMPACT OF AN INVESTMENT IN A COMPANY OR BUSINESS.

CORRINE CHEN: Our team in China recently won a sustainability project with a major toy production company and they asked us this exact question. Of course, our answer includes ESG strategies, but we also need to connect sustainability to the economy. Making an economic case can shift sustainability from just governance and policies to corporate motivation.

In the sustainability field, how are you seeing women make unique and vital contributions?

RACHEL SCHIFTAN: The challenge of sustainability has opened up fields that have been historically male-dominated—engineering, energy and CRE. Attracting and supporting more women for these roles benefits everyone because it increases the potential to develop inclusive, innovative environments that we need to solve the complex, global problem we’re facing.

CORRINE CHEN: In Shanghai, the three top sustainability leaders are women. While they are my competitors from a professional standpoint, I also consider them friends. Something we all have in common is wanting to make a long-term positive impact on the industry and we care about doing the right things more than just focusing on the business.

GERDA STELPSTRA: Many women have experienced resistance to be where they’re at now. I believe to be in the sustainability field, you must be resilient and inclusive. Our experience as women makes us both these things.

How is sustainability interconnected with diversity, equity and inclusion (DEI) practices?

RACHEL SCHIFTAN: DEI doesn’t just happen—it has to be intentional, and it has to be embedded—and I believe, without it, we won’t be able to solve our sustainability challenges. An integral piece of sustainability is the ability to embrace diverse communities and that comes with embracing the challenges they face like climate change, resource scarcity and population growth. I believe sustainability experts must partner with DEI experts to build a more sustainable world.

GERDA STELPSTRA: The people piece of sustainability is interconnected with DEI. If we believe people are a limited resource, then we need people of diverse backgrounds. We talk about creating a safe place to return to the office, and that means both a physically and mentally safe space for our people. Creating a mentally safe space is one of belonging and inclusivity. Creating an inclusive environment is all about creating choice, where people have the same opportunities.

SUSTAINABILITY EXPERTS MUST PARTNER WITH DEI EXPERTS TO BUILD A MORE SUSTAINABLE WORLD.

MELISSA GUTIERREZ-SULLIVAN: Sustainability and DEI are inherently related. From a macro-level, sustainability impacts our most disenfranchised communities disproportionately – whether they are single mothers, lower-income communities or people of color. Sustainability, or the lack thereof, has real repercussions on our most vulnerable communities.

SUSTAINABILITY AND DEI ARE INTERTWINED BECAUSE OUR COMPANIES ARE THRIVING IF OUR COMMUNITIES ARE THRIVING.

What does the future of sustainability look like for CRE?

RACHEL SCHIFTAN: Sustainability has been a business concern for more than a decade, but back then it was more of a nice-to-have. Today, increasingly more sustainability efforts are incorporated through the ESG framework and stakeholders now expect companies to disclose their performance in all three areas.

A company's ESG will soon determine their business health, and in the next five years, we should expect to see new technology and software that allows stakeholders to collaboratively track all the ESG measurements that are important to them.

TEREZA JELÍNKOVÁ: Within the last five years in middle-eastern Europe, we've seen a huge development in CRE sustainability. We will continue to see a higher focus on the indoor environment, people and circular economics. Meaning that instead of buying products, we'll think more about buying services. For example, right now we buy lightbulbs and throw them out when they are old. In the future, we'll buy a service from a lightbulb provider, who distributes lightbulbs, installs lightbulbs, changes lightbulbs and recycles old lightbulbs. This will allow us to reduce waste in new ways.

A CIRCULAR ECONOMY IS AN ECONOMIC SYSTEM AIMED AT ELIMINATING WASTE AND THE CONTINUAL USE OF RESOURCES.

More specifically, what are sustainability trends you're seeing and experiencing coming out of the pandemic?

RACHEL SCHIFTAN: The pandemic has created much more stress and instability, which sheds new light on the duty of care between companies and their employees, especially related to mental health. And we aren't just thinking about individual health, but also the health of our workplaces.

GERDA STELPSTRA: From a people perspective, because much of the corporate workforce is working remotely, we now have flexibility in where we work—we call this digital equity. I'm excited to see new groups of people enter the workforce in the next couple of years because of this.

REBECCA DAVIS-JINKS: The pandemic, especially the work from home (WFH) model, has had two huge impacts on sustainability practices. From a people perspective, we are seeing a bigger emphasis on wellbeing and companies supporting their employees. From an environmental and planet perspective, there is a significant change in the boundaries of sustainability accounting. Pre-pandemic, companies were thinking about their building and travel emissions. Now, we are forced to reimagine our reporting boundaries because employees have moved from the office to home. Previously, we had ruled out the home because 'it's too complicated,' but we can't get away from it now because so many more people are working from their homes. Our Australia teams are working with clients to start accounting for what is happening in this new larger boundary.

MELISSA GUTIERREZ-SULLIVAN: Coming out of COVID-19, my clients are focused on two things – carbon and wellness. In terms of wellness, clients are focused on clean air flow and cleaning protocols. The conundrum is that increased air flow can increase energy consumption, and therefore negatively affect the planet. In terms of cleaning protocols – one common misconception is that you must use bleach to clean your space, which is actually more harmful to occupants' health. We must find a balance between the health of our workforce, the cleanliness of our workspace, and the safety of the chemicals in our cleaning products. In terms of carbon, we have seen a large spike in interest from clients wanting to achieve carbon neutrality. Companies have not taken their feet off the brakes when addressing environmentally focused initiatives – if anything, they're stepping on the gas.

TO BE IN THE SUSTAINABILITY FIELD, YOU MUST BE RESILIENT AND INCLUSIVE. OUR EXPERIENCE AS WOMEN MAKES US BOTH THESE THINGS.



About Cushman & Wakefield

Cushman & Wakefield (NYSE: CWK) is a leading global real estate services firm that delivers exceptional value for real estate occupiers and owners. Cushman & Wakefield is among the largest real estate services firms with approximately 50,000 employees in 400 offices and 60 countries. In 2020, the firm had revenue of \$7.8 billion across core services of property, facilities and project management, leasing, capital markets, valuation and other services. To learn more, visit www.cushmanwakefield.com or follow @CushWake on Twitter.