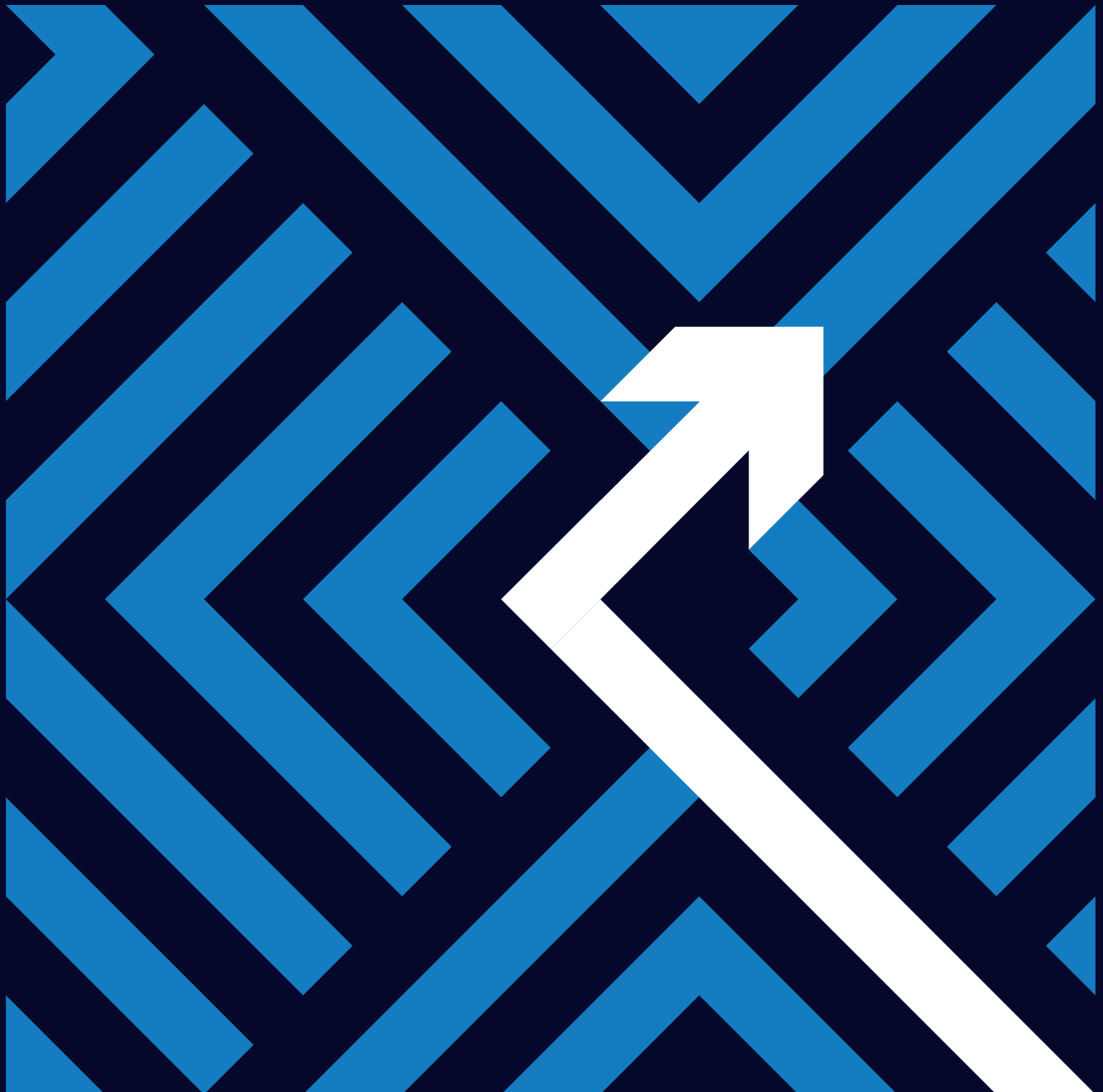


The Next Chapter

2021

knightfrank.com/M25-offices



*With the accelerated pace
of change comes opportunity.
Transformation always
follows dislocation.*

Foreword

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Some have called 2020 “the quickening”. The Covid-19 outbreak and subsequent containment measures have certainly served to intensify, amplify and accelerate trends. The reach of technology into the working day, for example, has leapt years ahead in a short space of time. Digital connectivity has offered a lifeline to many, with the switch to remote working meaning survival for countless businesses. The world of work has undoubtedly been profoundly altered by the experiences of the past 12 months, but with the accelerated pace of change comes opportunity. Transformation always follows dislocation.

SO, WHAT WILL DEFINE THE NEXT CHAPTER?

The response to the Covid-19 pandemic has shown that employers can adapt to flexible working arrangements. This largely successful transition has led some to announce the death of the office. This proclamation, though, fails to understand the benefits that offices provide, such as creativity, collaboration, culture and supporting staff wellbeing and development. After more than a year of limited office engagement, many firms are now understanding the deterioration of these intangible attributes, while also

conscious of the advantages that a flexible approach has afforded. Future choices will therefore be less binary. Not hybrid but tailored.

Moreover, an understated attribute of the office is its role in the creation of business communities, both within the immediate building envelope and as part of a wider cluster. This is particularly true of centres of high knowledge and research which thrive on innovation and a highly skilled labour force. Technology and life sciences have shown resilience to the considerable headwinds generated by the pandemic, and will underpin future growth in the region. Our Innovation Index takes a detailed look at how key south east centres perform in terms of supporting innovation. The drivers and sources of demand are changing. The importance of the property industry and workspace providers, gauging the mindset of occupiers using the space has never been greater.

Responsibility will form a large part of realignment with the end user. The time to address climate change is shortening and the obligations bestowed on organisations are building. The built environment holds a central role in net-zero realisation, with developers and investors targeting efficiencies through design, construction

and operation, and we have explored how the debt market also has a role to play. Organisations may take less space, but it will be best-in-class and align with strategic objectives such as environmental responsibility. Quality rather than quantity will therefore prevail in 2021.

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The time to address climate change is shortening and the obligations bestowed on organisations building.

Without question, Covid-19 has challenged businesses and society to an extent previously unimaginable. The full extent of the impact of the pandemic is yet to be understood, but it is clear that the consciousness of organisations and, crucially, the built environment has broadened. Climate, Connectivity and Community will be central themes that define onward action.

Perhaps the best descriptor of the past year is not the quickening, but “the awakening”.



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The road to net zero

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Interest in ESG (environmental, social and governance) has rocketed in the past 24 months. ESG processes and procedures focus on non-financial performance indicators. These address a company's approach towards responsible investment, sustainability, its impact on society and the environment, as well as other ethical and corporate governance considerations.

These interest levels will only grow in the lead up to the UK's hosting of the 26th UN Climate Change Conference of the Parties (COP26) in Glasgow on 1-12 November 2021. The COP26 summit will bring parties together to accelerate action towards the goals of the Paris Agreement and the UN

Framework Convention on Climate Change. Although the focus is on anthropogenic carbon emissions demanding global climate change mitigation and adaptation solutions, the themes of biodiversity loss, population growth, social injustice and global inequality are intrinsically linked to the climate emergency.

The real estate sector has responded by rapidly developing framework definitions, guidance literature and best practice guidelines. Definitions of what constitutes a net zero carbon building, both in terms of embodied emissions as a result of materials used in its construction, refurbishment and renovation, and operational emissions associated with day-to-day activities within the building itself, over the course of its lifespan have emerged.

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In order to be net zero carbon by 2050 there is a need to reduce the energy use intensity of buildings in operation by more than 60%.

Net Zero Carbon Buildings: A Framework Definition was published by the UK Green Building Council in 2019 and has evolved since that time. Net zero carbon is defined as a reduction in the demand for energy and materials to a level that can be met solely by sources that do not emit greenhouse gases. Current scientific consensus is that in order to be net zero carbon by 2050, there is a need to reduce the energy use intensity of buildings in operation by more than 60%. This will have major implications for both landlords and occupiers alike.

Lease clauses that facilitate the net zero pathway, together with frank discussions about investment in technologies, will undoubtedly exercise the sector going forwards. There is a renewed interest in the quantification of embodied carbon in the goods and services employed throughout the property life cycle. As operational energy efficiency improvements reduce this component of the whole life cycle carbon footprint, this interest in embodied carbon emissions will only grow.

The regulatory framework to decarbonise the sector is already tightening. A greater proportion of companies are being encouraged to assess and then disclose their carbon emissions through policy vehicles such as Streamlined Energy and Carbon Reporting (SECR), the Energy Savings Opportunity Scheme (ESOS) and the Task Force on Climate-related Financial Disclosures (TCFD), among others. At the time of writing, the reworking of energy efficiency regulations is likely to see the mandatory requirement for Energy Performance Certificates (irrespective of a trigger event) and the minimum level of performance rising to a B rating by 2030.

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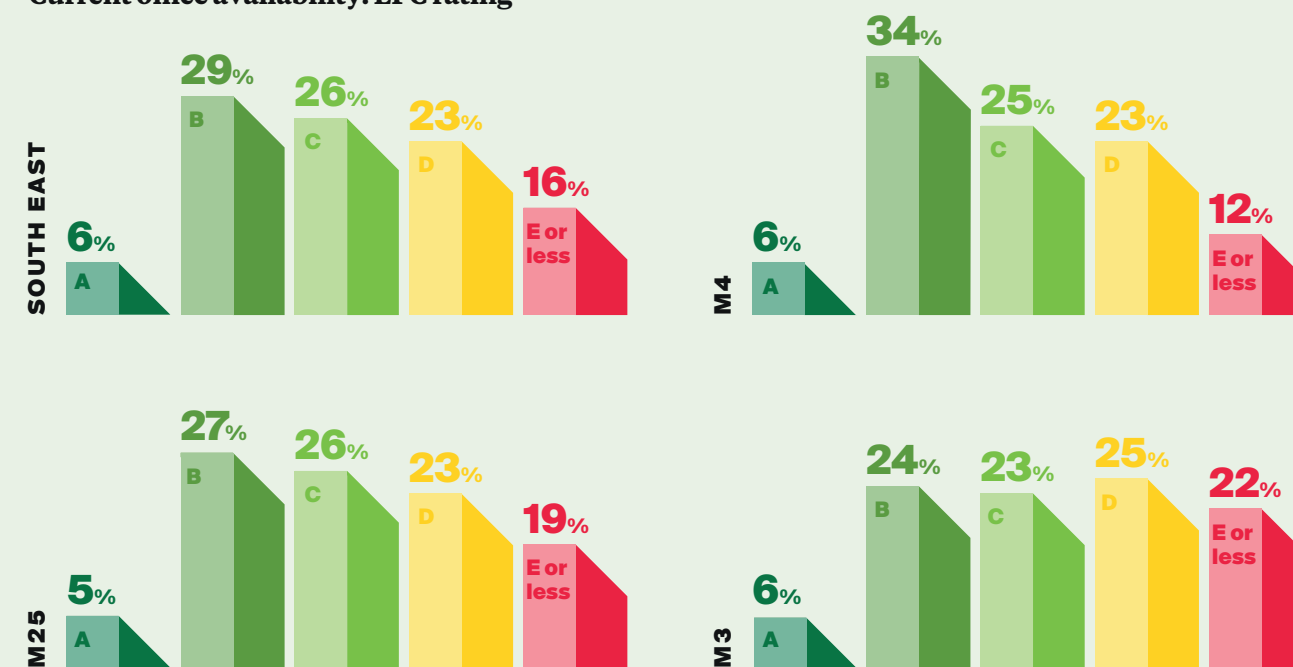
The stipulation of a minimum EPC rating could move the market from relative equilibrium to under supply.

The stipulation of a minimum EPC rating could dramatically alter the dynamics of the south east office market. If imposed today, market balance would shift from relative equilibrium to under supply. To contextualise, of the 11.3m sq ft of vacant space listed in the south east at the end of Q1 2021, only 6.4% had an EPC of A. If the B category were to be included, this reaches just 34.5%. With the remainder stripped out to align to the desired EPC categorisation, the market vacancy rate falls to just 2.3%, a level that has never been recorded.

All of these initiatives have the desired outcome to reduce the overall impact of the real estate sector. It is only by encouraging landlords and occupiers to make the measurement and management of this impact part of their core business activities that our national climate reduction aspirations will be met, and climate resilience will be embedded in the sector.

Hold on to your hats, it's going to be a rollercoaster ESG ride through 2021 and beyond.

Current office availability: EPC rating



Source: Knight Frank Research

The south east: *leading the charge in e-mobility*

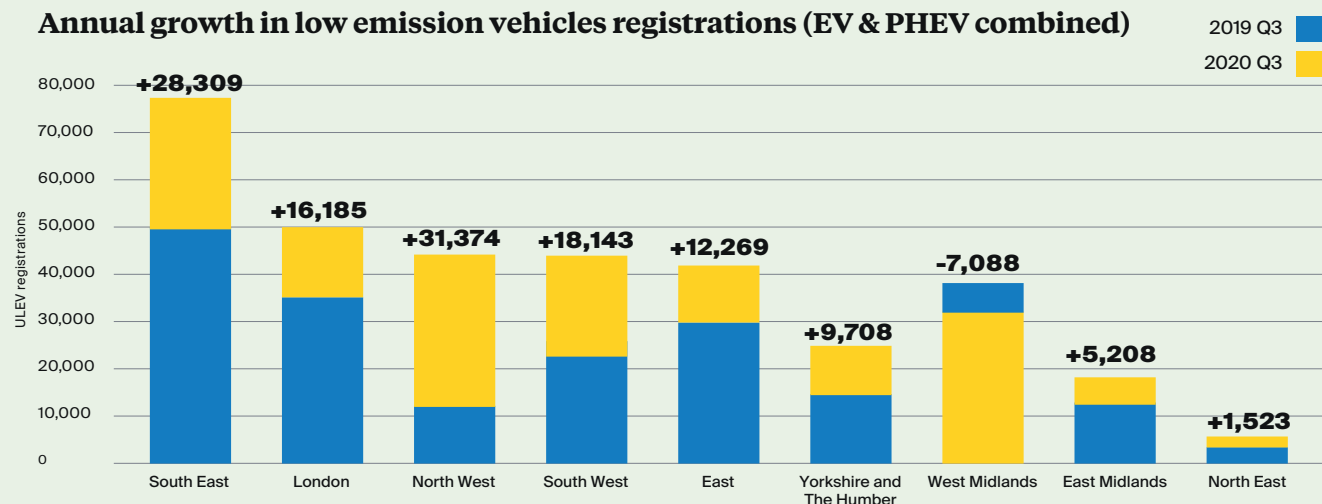
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Annual growth in low emission vehicles registrations (EV & PHEV combined)



Source: Department for Transport, 2020

*ULEV = Ultra-low emission vehicle: referred to as a low-emission vehicle, emits <75g of CO2 from the tailpipe for every km travelled and refers to battery electric, plug-in hybrid electric and fuel-cell electric vehicles.

*EV = Electric vehicle: subset of ULEV, commonly referred to as zero-emission, powered solely by batteries. *PHEV = Plug-in hybrid electric vehicle: subset of ULEV, vehicle with both battery and petrol/diesel engine.

The rise of e-mobility has accelerated significantly over the past year, presenting exciting opportunities for the south east office sector. The region currently leads in e-mobility uptake by a significant margin, boasting the highest number of ultra-low emission vehicles (ULEVs) registered in the UK (78,012 vehicles), yet suffers from a significant undersupply of accessible charge points. Improving charging provision within the workplace has been recognised as a significant element of the e-mobility revolution, with consumers viewing the workplace as the second most important location to top up, second only to the home.

According to the Department for Transport's (DfT) National Chargepoint Registry, just 2.2%

of charge points are located at workplaces in the south east, lagging behind locations such as retail and on-street. Given the extent of take-up among the population, the popularity of e-mobility within the region presents an opportunity for the sector to lead the charge in creating a market-leading electric vehicle (EV) amenity provision in the workplace.

Employees have sought smarter modes of transport over recent years as climate crisis awareness increases, but even more so following the global health crisis. This will only accelerate as people return to the workplace. With renewed focus on the environment and wellbeing, the popularity of solitary but sustainable electric cars, e-bikes and e-scooters has

spiked as individuals seek to minimise risk of infection through private travel. In 2020, appetite for lower-carbon alternatives saw exceptional YoY growth of ULEVs across the UK (+57%), with the most environmentally friendly EVs registering +102% uplift in the south east, with registrations rising from 18,934 vehicles to 38,174.

Milton Keynes (304%), Slough (296%) and Watford (293%) lead with exponential growth rates in EVs for personal and business use, although all locations experienced robust growth of at least a quarter, presenting a clear direction of travel for car use in the region. Buckinghamshire/ Wycombe, Hillingdon and Hammersmith possess the largest EV communities, registering >1,000 private and commercial vehicles respectively. Bromley, Richmond, Ealing and Croydon possess some of the largest number of privately registered low-emission vehicles. Overall, Buckinghamshire has the highest number of privately owned low-emission vehicles (3,168), significantly outweighing commercial usage (1,394).

Consumers in the south east are clearly able to overcome many of the regularly cited obstacles to EV ownership, such as their high cost and lack of public charging infrastructure, to alleviate range anxiety. Research has found consumer segments most likely to purchase an EV include those who consider themselves "tech savvy"; have on average 30% higher disposable income; long commute times and access to off-street parking. It is evident many of the demographics of the south east align, with consumers possessing the right resources to act on their environmental conscience.

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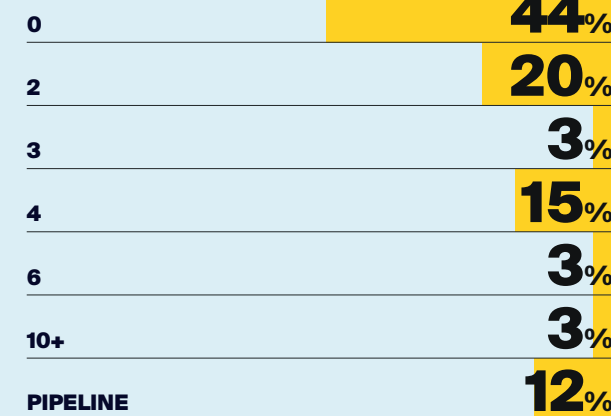
Just 2.2% of electric vehicle charge points are located at workplaces in the south east.

Offices are uniquely positioned to become market leaders within this space by rising to consumer demand and delivering the environmentally focused convenience amenities expected by the workforce. Incorporating EV charging is one of the simplest ways to improve buildings' environmental credentials and encourage lease renewal. Providing the amenity also provides a clear signal of a landlord's commitment to the preferences of tenants' employees and ESG focused strategy. Catering to enhanced travel choices will become an essential component for businesses in attracting and retaining talent, no matter what sector they operate in, as e-mobility becomes widespread and working practices become increasingly flexible.

With the pandemic highlighting widespread dissatisfaction with the daily commute and an expected increase in dynamic and agile working practices, employers will feel empowered to demand more flexible and networked mobility that seamlessly connects with their home and work lives. Offices will be a core beneficiary of e-mobility's evolution beyond the product (i.e. the car) to provision of e-mobility services. Some of the top EV models already offer superb digital connectivity capabilities, offering Netflix, YouTube and Spotify services via 4G. Given recent exploration of "over the air" technologies by Microsoft and Apple with various car manufacturers, it's not difficult to imagine the integration of EVs with smart-enabled office buildings, allowing the user to pre-order their morning coffee, check desk capacity, book meeting rooms and join virtual conferences on the road.

Current chargepoint provision for M25 business parks

No. of EV Chargepoints



Source: Knight Frank, Zap Map, Pod Point, InstaVolt

Business parks must be the most active in future-proofing their assets in this way, given that the car is central to their proposition and in light of the current regulatory squeeze on petrol and diesel vehicles. Knight Frank analysis shows a significant proportion (44%) of business parks within the M25 region have no charge point provision and so are vulnerable to obsolescence, vs 56% that currently provide the amenity or have indicated provision in their pipeline. Where the amenity exists, it is often small, with 38% of parks providing between two and four chargers. Just two business parks stand out for their volume of EV provision – Chiswick Park with twelve charge points, and Chineham Park in Basingstoke with ten.

Providing office space with enhanced e-mobility connectivity presents an opportunity to the south east market, given current uptake and sentiment toward EV vehicles. Landlords must harness the growing interest to continue attracting tenants.

Green is the new black: *the rise of sustainability in debt*

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The built environment is responsible for 40% of carbon emissions. Against this backdrop, initiatives such as the Paris Agreement and the Task Force on Climate-related Financial Disclosures (TCFD) have created a huge remit for considering green finance.

The Bank of England, for example, is set to carry out its first climate stress test this year, creating a further incentive for the UK financial system to focus on green finance and sustainability-linked loans.



GREEN FINANCE VS SUSTAINABILITY-LINKED LOANS

Green finance focuses on lending against green property or enabling retrofit projects that will lower a building's carbon emissions.

Sustainability-linked loans, on the other hand, are all about incentivising borrowers to become more environmental, social and governance (ESG)-focused.



A CRUCIAL PIECE OF THE PUZZLE

On its own, green financing might not be enough to incentivise someone to build a green asset, but there are far stronger economic incentives already in place. Increasingly, evidence points towards occupiers prioritising the need for a sustainable workplace in base build and operational life cycle.

Likewise, investors are becoming more focused on sustainability when screening for acquisition, which will clearly drive yields. Green financing is just another piece in what is becoming an increasingly compelling story around returns.



MARGIN DISCOUNTS FOR BORROWERS

Since the onset of Covid-19, there has been a marked increase in new lenders offering ESG-linked real estate finance. These lenders, including a number of debt funds, are following the lead of the clearing banks and some global insurance companies, who have been the pioneers of new ESG-linked products.

In an attempt to drive positive change in buildings, many ESG-linked loans now offer economic incentives to borrowers if the asset or borrowing entity in question satisfies a set of pre-defined sustainability KPIs. These financial incentives, often in the form of margin discounts, vary according to the scale and cost of the green initiative.

For example, if a borrower invests heavily in decarbonising the heat provision in a building, taking one or two basis points off a loan margin may not be a sufficient incentive. The more ambitious the measures – and the more they increase over time – the higher the discount on the headline margin.

Measurability of the KPI is a key requirement. KPIs are mapped against a timeframe and assessed on a quarterly basis, often by an independent third party appointed by the lender.

The framework doesn't just apply to shiny new buildings in central London, either. It also applies to older buildings in strong markets such as Cambridge and St Albans, that would benefit from retrofits.



THE BIGGER PICTURE

Sustainability makes up just a third of the growing corporate focus on ESG; the social and governance aspects are influencing the debt market, too.

For example, the Knight Frank Debt Advisory team arranged finance for the development of a purpose-built student accommodation asset. Once the scheme had reached practical completion, the lender introduced KPIs to ensure the mental health and wellbeing of end users was aligned to the strategy of the university nearby.

We've also spoken to clients whose entire ethos is around developing products that are focused on the community around them. As time goes by, we believe that borrowers will increasingly concentrate on this social angle.

But if one thing is clear, the debt market is paving the way for a more responsible future.

Locations of least resistance

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Chiswick Park

Covid-19 has forced organisations across the spectrum to re-evaluate both near and long-term business strategy. Central to the debate has been, and continues to be, the role of the workplace. Leveraging digital services during the pandemic protected the workforce and maintained business continuity. As greater freedoms are realised though, firms are understanding the shortcomings of a wholesale digital model, operating remotely from the workplace. The loss of the personable aspects of office working for example, has led to the deterioration of social capital. That loss sustained over the long term could have lasting implications on business culture and productivity.

The sharp rise in employees working, learning and socialising online during the pandemic offers first hand evidence of how vital digital connectivity is to business survival. People are now connected to real time information every minute of every day and equally require immediate service. The objective moving forward will undoubtedly be to achieve a frictionless interrelationship between people and technology to improve service delivery and ultimately bolster operational resilience to shock.

SO WHAT WILL FUTURE BUSINESS STRATEGY ENTAIL?

It is clear that reversion to a pre Covid structure in a post pandemic business arena is unlikely. While every business is different, organisations will seek to reinvent and redefine working practices by utilising the positive aspects of hybrid models. The way firms consider spaces, meetings, travel, events and importantly, the work/life balance of employees will be foremost. Flexibility and inclusivity will be primary.

This shifting dynamic brings greater consideration of the connectivity attributes of specific locations, both physical and digital.

Our unique research explores the connectivity attributes, both digitally and physically, across the key markets in the greater London and SE region. In its creation, we examined 17 metrics across 48 locations, generating over 800 data points which were equally weighted to assess the digital and physical strengths of each location. These include:

DIGITAL

Fibre availability, capacity and performance. Mobile network capabilities and proximity to data centre services. Whilst the importance of each component will be weighted differently according to organisation, each play a key role creating a resilient digital platform and therefore shaping future business strategy.

PHYSICAL

Access to labour. The accessibility of a location remains vital to fully leveraging the availability of skilled staff and also tapping into the next wave of new talent. We have explored the demography of each location using defined travel times.

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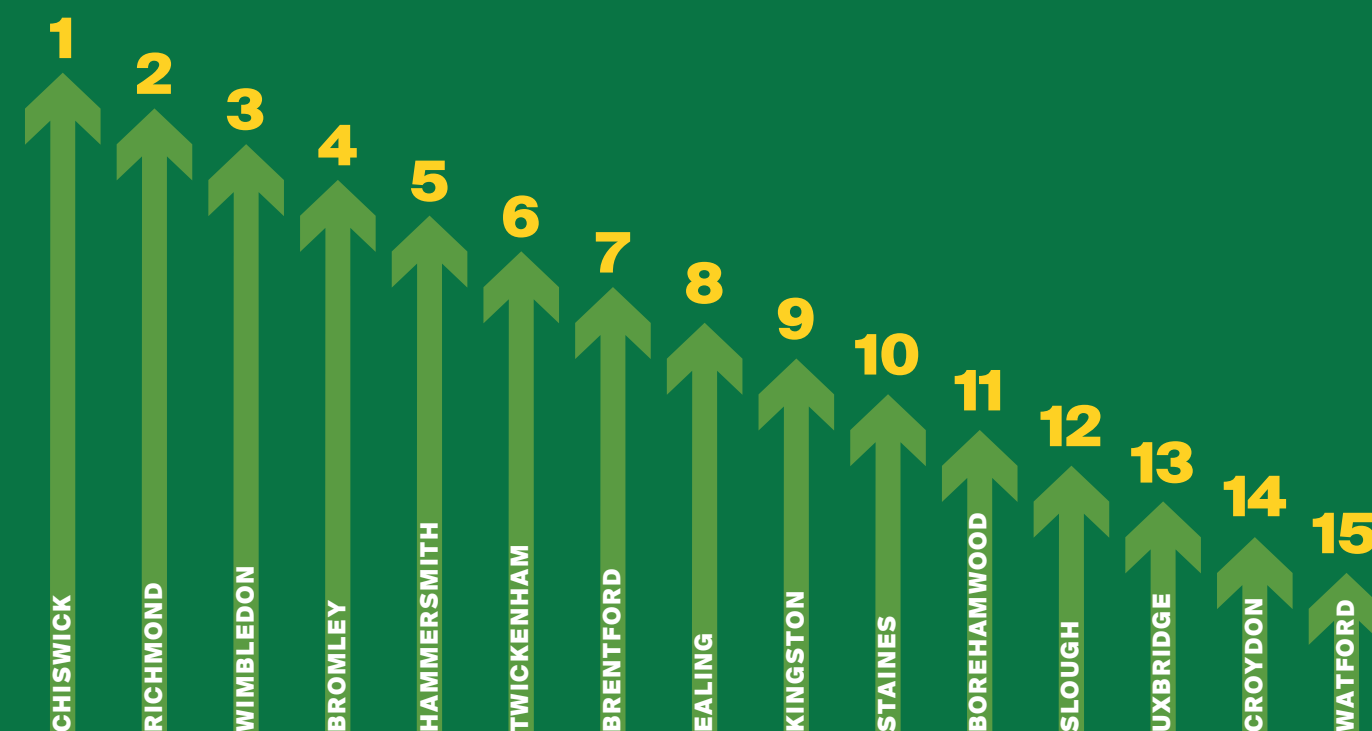
THE FINDINGS?

Boroughs within Greater London head our combined index, with Chiswick ranking highest. It is little surprise therefore to find that Chiswick Park was the first business park in Europe to be fully accredited with a WiredScore of Gold or Platinum for all 12 buildings. Slough, renowned for its high concentration of data centres, also scores highly from a digital perspective as does Uxbridge and Heathrow. In fact, 10 of the top 15 ranked locations are included within the Thames Valley. Locations with strong innovation qualities such as Oxford, Cambridge and Brighton register mid-table. This means, improvement in some of the metrics included in the connectivity index would undoubtedly enhance the already attractive offer in those cities.

THE FINAL WORD

Without doubt, the world of work is changing. Next wave technologies are emerging each day and are quickly initiating organisational and process re-engineering. This will not only change the future form, function and location of the workplace it will alter how we interact, move around and do business. Combining both physical and digital components provides a rounded assessment of the connectivity attributes of locations within the south east. Understanding and harnessing these two important components of the changing business landscape, will increasingly be seen as a significant area of differentiation in optimum location choice.

M25 connectivity index: top 15 centres



Source: Ofcom, ONS, Signal Checker, DC Byte, CACI as analysed by Knight Frank Research

Cultural connections

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Top 10 strategic agenda items supported by the office



Source: Knight Frank Research (Your Space 2021)

The views of almost 400 global occupiers confirm that the office continues to matter, but its form, function, quantum and qualities are set for transformation. Central to this transformation will be the use of the office as a device to galvanise corporate culture and generate stronger connections between employees.

The challenges of the last 15 months have produced record levels of introspection in relation to the role offices will play in our post-pandemic working lives. Much of this forward-looking commentary has been revolutionary in tone. Yet, so little of it derives from the thoughts and opinions of real businesses or real estate decision-makers. Knight Frank's recently launched second edition of (Y)OURSPACE addresses this analytical imbalance. Drawing on a survey of almost 400 global occupiers, with a combined global headcount of in excess of 10 million people, the research highlights the thinking that will shape the future form and function of the workplace.

From the perspective of the south east office market, the results provide an antidote to the sensationalism and, more importantly, a guide as to how offices will be perceived, utilised and configured over the next cycle.

THE OFFICE STILL MATTERS

When it comes to offices, the narrative of need has strengthened as the pandemic has progressed. As the honeymoon period for remote working drew to a close for many last autumn, and concerns about productivity and staff wellbeing increased, so too have calls from business leaders restating the case for the office.

Although there is recognition that the office may not be a fixed, five-days-a-week requirement, it has been firmly positioned as a valuable contributor to organisational culture, client interaction, staff development, recruitment and on-boarding, collaboration and socialisation. This tone is supported by our survey results. A total 90% of respondents regard the office as an

important device that supports, facilitates or portrays business strategy – an increase on the 85% subscribing to this point of view in our original survey, back in 2018.

The office continues to matter to business. It matters because it supports a wide array of corporate agenda items. Indeed, our survey respondents identified ten specific business agenda items that real estate positively influences. Chief among these were corporate brand and image, cost optimisation and employee wellbeing.

The elevation of corporate brand and image and employee wellbeing as strategic items are particularly interesting barometers for the future function of the office. In a world of more flexible working styles, the office will take on greater prominence in promoting and galvanising the values and culture of the occupying business to their customers, clients and staff (both existing and prospective) – something that is undoubtedly difficult to achieve in a fully remote world with a highly dispersed workforce.

The office provides an identity and profile that is therefore invaluable commercially. It forges an interaction between people and property that serves to support and galvanise the culture, crucial to an authentic and cohesive brand position.

FROM COLLABORATION TO COMMUNITY

Greater interaction and collaboration is a key attribute of the office in a world where there will be greater flexibility and dispersal in where people work. The positioning of the office as a place where people come together is critical. On this basis, the office will need to be ever more compelling to its users. It will need to provide a reason for people to invest in their commute, both financially and psychologically. Consequently, we fully anticipate a further flight of occupiers towards high-quality, amenity-rich office environments.

Importantly, 47% of the occupiers we surveyed for (Y)OUR SPACE anticipate a further increase in the quality of the office space they occupy over the next three years. The same proportion expect an increased demand for building amenities that add to the allure of the office but also perform an important underlying function in supporting human connections and the creation of community within the workplace.

It is unlikely that any office building is capable of meeting the broad wish list of amenities sought by occupiers in response to the growing demands of employees. As a result, we believe there will be even greater attention paid to the locational choices made by occupiers. They will want to gravitate towards those locations that offer a richness of amenity outside of their immediate setting. In this regard, the recent regeneration of many south east centres will be attractive – creating a vibrancy, cohesion and connectivity that will be appealing to businesses both at this practical level but also in respect of wider corporate environmental, social and governance (ESG) ambitions – and particularly in relation to the “S” of social impact. Similarly, in business parks these same attributes of vibrancy, cohesion and connectivity will be in demand, and there is an opportunity here for owners to really address this through a thoughtful, active and customer-centric management regime that treats the park holistically rather than on a building-by-building basis.

The drive towards collaboration will also serve to reconfigure office design. A total 55% of respondents to the (Y)OUR SPACE survey anticipate an increase in the proportion of their office space that is given over to collaborative workplace settings over the next three years. Simultaneously, 31% are also expecting to decrease the amount of private or personal space their future offices provide. This again endorses the view of the office as a device to bring people together to interact, collaborate and, yes, to socialise. It makes the office a place founded on the principles of culture, connection and innovation rather than a place of isolation, individualism or administration.

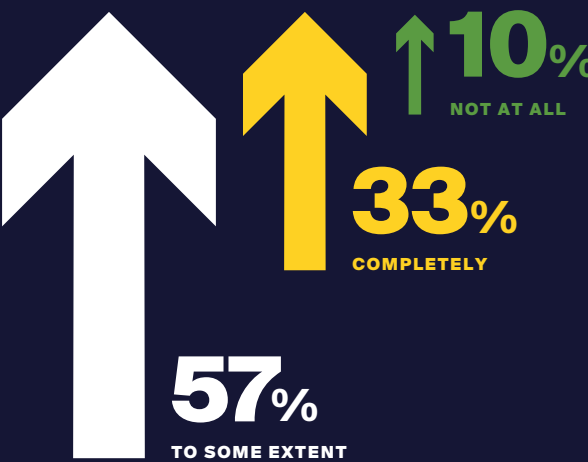
CREATING CONNECTIONS IN A FLEXIBLE, HYBRID WORLD

One of the failings of the debate about the future office over the last 12 months has been the inability to move beyond a binary view of the workplace, whereby the office and home are viewed as a simple either/or choice. The realities have always been more complex and will be even more so after the experiences of the past year, which have proven that remote working is a valid approach for some people, for some tasks and for some of the time. The reality is that as we emerge from the pandemic, our relationship with the office (and hence our face-to-face interaction with colleagues) will be more fluid and flexible.

Workforces will be more dispersed as hybrid work styles take effect and hub-and-spoke occupational models potentially take hold. This will bring new challenges for occupiers. How do business leaders galvanise culture and create collaborative workplace communities in a world of greater dispersal? The risk of the inadvertent exclusion of those working remotely is high.

The experiences of the last 15 months have been telling. When enforced lockdown, and hence Teams and Zoom calls, was a reality for everyone, digital connection proved effective and robust. When those lockdown measures loosened, offices were partially reoccupied and, as a result, workforces become more dispersed between formal offices and remote workplace settings, so both the technological resilience and the effectiveness and inclusivity of such interactions became much more variable. This cannot be the experience going forward. As a result, we fully expect a greater demand for, and investment in, an important amenity – the high-end video-conferencing suite. This, together with strong and resilient digital connectivity, will enable the seamless interaction of those working in the office with those working remotely. Without it, the creation of coherent cultures and workplace communities, and the strategic business benefits they accrue, will become difficult to sustain.

To what extent is real estate regarded as a strategic device within our business?



Source: Knight Frank Research (Y)our Space 2021

Identifying the next innovation-led locations

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Innovation has long been regarded as an essential driver of long-term economic growth, and is the aspiration of many national or local authority. Innovation is really quite simple: knowledge drives innovation, innovation drives productivity, and productivity drives economic growth.

Increasingly, the influence of innovation on real estate markets is being better understood, with innovation generative of the new activity and wealth required for a well-functioning market. Innovation frequently underpins healthy tenant demand, and maintains robust rental and capital value levels even during periods of economic uncertainty.

Cambridge offers clear evidence of this in action. Globally renowned for its university and extensive research foundation, the city has registered stable yields and rental growth, both during the global financial crisis and, latterly, amid the Covid-19 pandemic.

WHERE SHOULD INVESTORS TARGET?

Innovation-led ecosystems have typically spawned from large urban centres with universities such as London, Cambridge, Oxford, Brighton, Reading and Guildford. Locations such as these benefit from the agglomeration and clustering of economies and a magnetism that attracts young, creative and entrepreneurial populations.

Many innovation indices focus on scale as a consequence, taking a global view. Very few adopt a regional approach to consider characteristics beyond clustering – such as the level of private/ public sector collaboration and access to “knowledge spill-overs” (i.e. integration with a neighbouring locations’ innovation labour pool).

QUANTIFYING INNOVATION IN THE SOUTH EAST

Expanding on our Active Capital research, the Knight Frank M25 Innovation Index examines key factors to identify innovation-led locations in the south east, that offer the greatest prospects for resilience. The index combines 34 variables and 1,500 innovation data points across 43 locations to identify innovation-led locations creating the south east’s first innovation index. Using principle component analysis, 11 metrics were identified as statistically significant drivers of innovation. These were then clustered into three core factors: a) “Innovation infrastructure” b) “Motivation to innovate”; and c) “Start-up community”, generating an overall innovation score and rank.

Innovation – core factors

A. INNOVATION INFRASTRUCTURE:

Universities, research institutions, start-up-accelerators, and funding bodies are fundamental to innovation success. Factors such as the number of UN Sustainable Development Benchmark 9 universities, and respective industry income scores have been factored into this component; assessing how well academia collaborates with industry to monetise research and create spill-overs in the community.

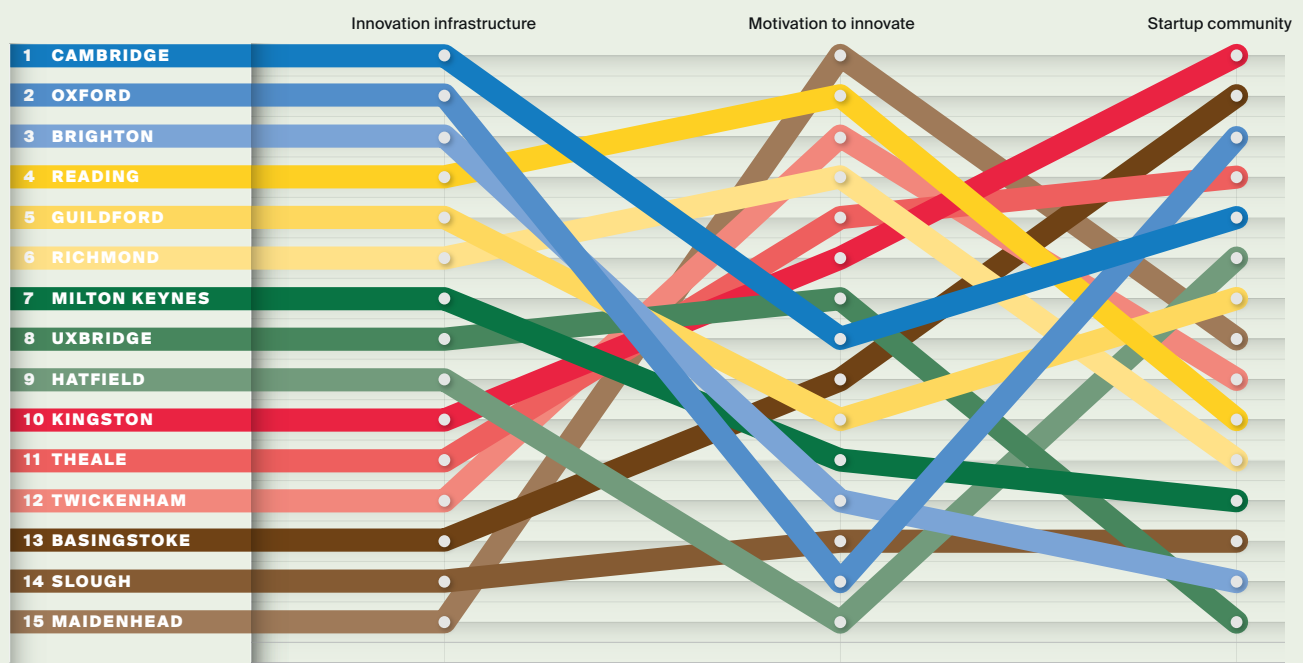
B. MOTIVATION TO INNOVATE:

Quality of life factors (e.g. happiness), which contribute to the retention of a highly skilled, talented, and motivated labour force.

C. START-UP COMMUNITY:

Analyses the strength of grassroots, entrepreneurial community and its activities.

M25 innovation index: top 15 centres



Up-and-coming centres

16. ST ALBANS 17. BROMLEY 18. BRENTFORD 19. FARNBOROUGH 20. HIGH WYCOMBE

Sources: Knight Frank, Times Higher Education, CFE Business Startup Index, World Report, Oxford Economics, grid.ac, ONS, Meetups

THE RESULTS – CAMBRIDGE, OXFORD, BRIGHTON... NEXT STOP?

It is little surprise that Cambridge, Oxford and Brighton top our index. Innovation is well-embedded in these locations, with superior innovation infrastructure alongside well-established, entrepreneurial populations.

The next layer of our top 15 are all able to demonstrate excellent innovation assets, ensuring global prominence. Reading, Uxbridge, Milton Keynes, Guildford, Hatfield, Kingston and Richmond all have at least one university benchmarked against UN Sustainable Development Goal 9, relating to industry, innovation and infrastructure. This indicates strong patent generation, spin-off company formation, and high research income from industry. Additionally, all have above-average life-satisfaction scores, which forms a solid bedrock for start-up communities to survive and thrive.

Beyond the top 15 is arguably the most interesting layer. This is indicative of the

next-up-and-coming locations, where innovation, while embryonic, is being fostered. High Wycombe is one such location ranking 20th overall, it has a standout number of research institutions (13 including Wycombe Hospital, Buckinghamshire New University, Altera, FIRA International, Monodraught and Janssen) when compared with its peers. Such a strong research focus has attracted a significant amount of investment. Weybridge similarly boasts an impressive number of research institutions (ten), with major names including Sony, Procter & Gamble and Toshiba.

THE LAST WORD

Innovation thrives on disruption and change. Gaining exposure to locations that support innovation growth helps shield the investor from some of the disruptive effects that large-scale innovations can have. This is because the locations creating disruptive innovation are the ones monetising it. Knowing that innovation often arises out of economic dislocation, and that innovation is a key driver of growth, means that identifying innovation-led locations becomes ever more important for real estate investors.

Our M25 Innovation Index provides unparalleled insight and recognises that innovation usually starts on a smaller scale before the full benefits are realised and diffused.

“ Tim Cooke, Apple CEO (2021)

2020 was our biggest year of innovation. There is no single formula for innovation. We have a culture of creativity and collaboration. These two things together, when they cross, create a huge innovation.

Life sciences in the south east: identifying and creating clusters

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The south east is a globally renowned centre for research and innovation and an acknowledged leader in life sciences. It is the top UK region for life sciences employment, accounting for over 70% of UK life sciences equity investment in Q1 2021.

It is no surprise, therefore, that this market is attracting substantial investment and development interest as well as accelerated occupier demand for life sciences real estate.

Whether you are a real estate investor/ developer or occupier, finding the right location is always paramount and the key to finding the right location is to have a detailed understanding of the ecosystem that defines and supports it. With this in mind we've taken a closer look at the top life sciences clusters in the south east.

OXFORD

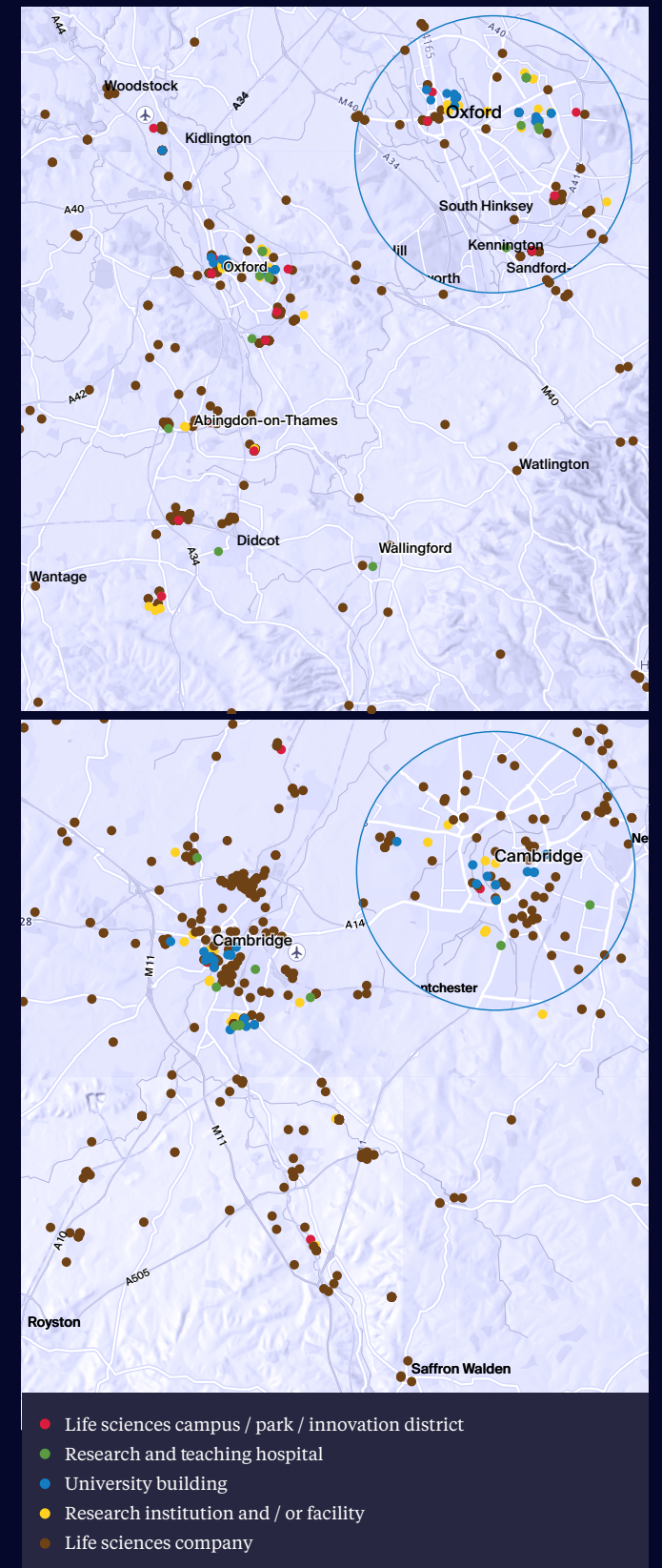
Oxford is well known for its two universities, Oxford and Oxford Brookes. The University of Oxford is the number one University in the world and holds a number three position globally specifically in life sciences. Unique national assets and institutions located in Oxford include the Wellcome Trust Centre for Human Genetics and the Diamond Light Source and STFC's Central Laser Facility at Harwell Campus. Furthermore, Oxford University Hospitals NHS Foundation Trust is one of the largest NHS teaching trusts in the UK and ranked number two nationally on the basis of clinical trials, conducting 534 clinical research studies during 2018/2019.

Life sciences occupiers include 4 Unicorns emanating from the university including Oxford Nanopore, Immunocore and Oxford Biomedica. These players sit alongside a growing number of SMEs, with spin-outs from the University of Oxford raising the most equity investment in 2020 when compared to all other UK universities.

CAMBRIDGE

Anchored by the University of Cambridge, which is ranked number two globally in life sciences, and the Anglia Ruskin MedTech campus, the area is also home to leading research and teaching hospitals, notably Addenbrooke's, as well as unique research facilities such as The Wellcome Sanger Institute.

There are almost 450 life sciences companies operating in the Cambridge area. Perhaps the most significant example is AstraZeneca, but other large players include Amgen and Illumina. There is also a thriving life sciences SME scene, in part driven by the Universities dynamic commercialisation arm that has produced over 135 spin-out companies since 2000.



THE BEST OF THE REST

Whilst acknowledging that there are multiple factors that make a great life sciences cluster, we have also assessed trackable indicators related to funding, critical mass and research intensity to highlight two locations outside of Oxford and Cambridge that have a strong life sciences ecosystem and therefore present opportunities to investors, developers and occupiers alike.

WEST LONDON: CLUSTER ATTRIBUTES

LIFE SCIENCES EQUITY INVESTMENT	2020/2021: £83.5m
KNOWLEDGE AND RESEARCH INSTITUTES	Imperial College is ranked 17 th globally for life sciences. It is home to a number of research institutes including the UK Dementia Research Institute.
SPECIALIST FACILITIES	Specialist facilities are largely linked to Imperial College and Hammersmith Hospital. Imperial College offers flexible and scalable space for start-ups as well as access to scientific equipment.
NHS TRUST CLINICAL TRIALS	Imperial College Healthcare NHS Trust: 409 supported clinical research studies during 2018/2019. Ranked 13 th by number of clinical research studies.
CRITICAL MASS	32 high-growth life science companies. Larger occupiers include Novartis.

STEVENAGE: CLUSTER ATTRIBUTES

LIFE SCIENCES EQUITY INVESTMENT	2020/2021: £160m
KNOWLEDGE AND RESEARCH INSTITUTES	LifeArc Stevenage, Institute of Engineering and Technology.
SPECIALIST FACILITIES	The Stevenage Bioscience Catalyst is also a Life Science Opportunity Zone. Stevenage is the third largest global cell and gene therapy cluster, driven by its supportive infrastructure that includes manufacturing facilities.
NHS TRUST CLINICAL TRIALS	East and North Hertfordshire NHS Trust: 141 supported clinical research studies during 2018/2019. Ranked 39 th by number of clinical research studies.
CRITICAL MASS	22 high-growth life science companies. Larger occupiers include GSK.

Sources: Equity investment: Beahurst, using their sector definitions, tracking equity investment into high-growth companies. Spin-outs: Beahurst, academic spin-outs incorporated since 2011, or before that if they hit one of Beahurst's high-growth triggers. High-growth life science companies: Beahurst. Number of clinical trials: NIHR.

What does a successful life sciences development look like?

It is well documented that a successful life sciences development requires the right “anchor or anchors” such as a leading knowledge and research institution but what else is required? Technical requirements will vary depending on the location and type of science being conducted, however an audit of existing life sciences developments across the south east market reveal some common attributes:



ESG

Building design and management is becoming more focused on sustainability and promoting health, wellbeing and productivity. Investments are being made in the public realm to connect with the local community.

Example, 1000 Discovery Drive in Cambridge is going to be a building grounded in a public realm that will flow to the front door. Visitors will be greeted by a unique entrance feature, public café and shared workspaces.



COLLABORATION SPACES, AMENITIES AND SERVICES

Provision of an array of amenities, services and expanding food and beverage offerings. Strategically located collaboration zones.

Example, White City Place Gateway Central includes 350 cycle spaces and 35 showers along with a number of terraces.



TECHNOLOGY

WiredScore certification, immersive and augmented reality zones, virtual labs, smart buildings and living labs.

Example, The 2040 vision for Milton Park in Oxfordshire plans to harness real-time data that tracks how businesses are interacting with the park.



FLEXIBLE AND ADAPTABLE BUILDINGS

Spaces for every stage of a life science company's growth journey, lab space that can easily flex to changing scientific and tech requirements.

Example, The Refinery in Hammersmith will deliver flexible lab-enabled space, with 100% of each floor capable of being fitted out specifically for lab use.

At your service

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As business planning horizons have shortened and organisational restructuring has become faster and more frequent, space as a service has grown as a feature of the greater london and south east market. Occupiers, from start-ups to large corporates, have embraced the use of a third party real estate provider, primarily to gain quick access to services, amenities and flexibility in terms of space, leasing models and location. Serviced office providers account for 2.8m sq ft in the current market and, prior to Covid 19, represented 15% of market demand.

But what is the future potential of the sector?

SERVICED OPERATORS – LANDLORD’S FRIEND OR FOE?

The shift toward flexible working goes beyond simply outsourcing to a third-party provider. Working practices are changing, with the role of the workplace evolving to meet future and post pandemic needs. Flexibility is foremost, and the presence of a third-party flexible office provider as a tenant integrated in a multi-let building could act as a catalyst and an additional tool for landlords to attract new tenants.

The combination of flexible, amenity rich real estate and tailored services creating a connected, collaborative and community-based environment is therefore becoming a common element of the traditional landlord offer and more than just an opportunity to fill space which is hard to let. But not all Landlords are ready to relinquish this level of control, take a flexible managed solution versus a conventional lease or allow a serviced provider compete for occupiers of scale.

IS COVID IGNITING THE NEXT PHASE OF GROWTH?

The Covid-19 pandemic has underlined the need for future operational flexibility and contingency planning. “Hub and spoke” has entered the occupier narrative, a model that may elevate growth projections. Co-working and serviced office providers would be the obvious candidates for creating such a network, as businesses are unlikely to want to agree full lease terms on satellite offices and continue to hold core liabilities. However, occupiers may become resistant to sharing office space with other firms in a typical co-working model, meaning enterprise solutions are likely to evolve and be favoured.

INVESTORS - APPROACH WITH CAUTION?

While occupiers have been quick to embrace the changing work environment and the concept of space as a service, investors have shown more caution to the presence of serviced office providers in assets. The mismatch between operators long-term lease liabilities and short-term

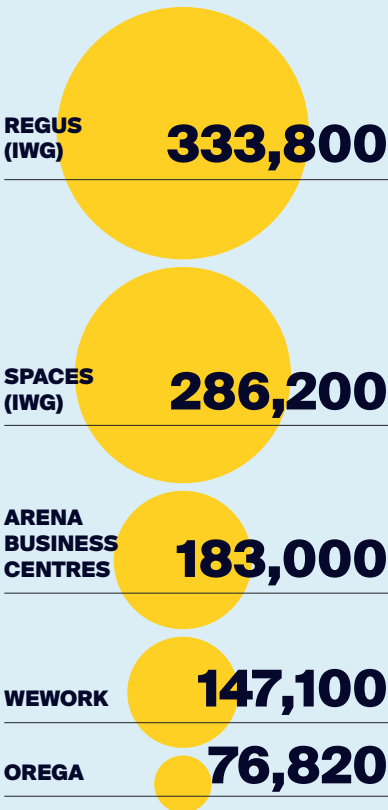
revenues has been exacerbated during the pandemic as occupier businesses have taken advantage of the flexibility and ended contracts, leading to a reduction in operator top line revenues. Lease renegotiation or even surrender has subsequently ensued in some cases, which has raised investor negativity towards owning or investing in assets leased to serviced operators.

Nonetheless, with flexibility central to occupational strategy moving forward, demand for third-party solutions will continue to be fuelled. Landlords are increasingly exploring management agreements and partnerships with a third-party operator. This model realises a premium income to traditional leases, when occupancy is stabilised, but, acknowledging that the income is variable and at risk of falling, with any recessions or shocks to an individual centre. It may take investors and valuation advisers time to understand the valuation impact. However, the structure will evolve and could mutually benefit both parties from a broader perspective.

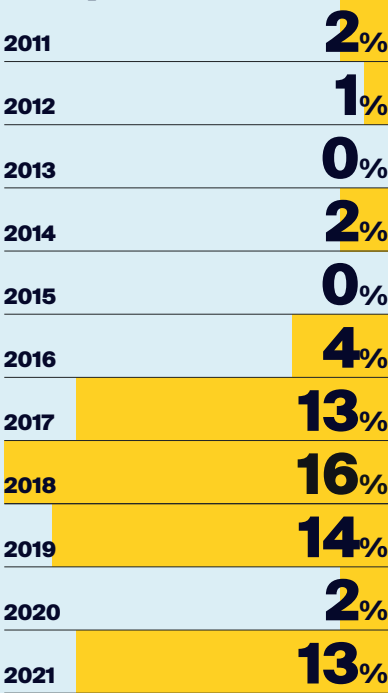
CONCLUSION

Whether pursuing a landlord white label or third party operator led approach, adaptation to a new supply side dynamic will continue to escalate. Occupier demands are changing in the traditional office and potentially in the serviced lab sector. Businesses want more choice and flex in their workspace and more services and amenities for their staff; individuals want collaborations, clubs and networks and an alternative ‘home office’. This trend is already disrupting the market but is also opening up new opportunities to add value. Fundamentally, flexible offices are aligned to the changing needs of business and how companies operate. Investment into the sector will continue to rise, supported particularly through private equity. Although the greater flexibility for tenants at first glance appears to be to the detriment of landlords, the model allows landlords to both reinvent difficult space and in some cases, receive rent at a premium.

Acquisitions - 2017 to 2021

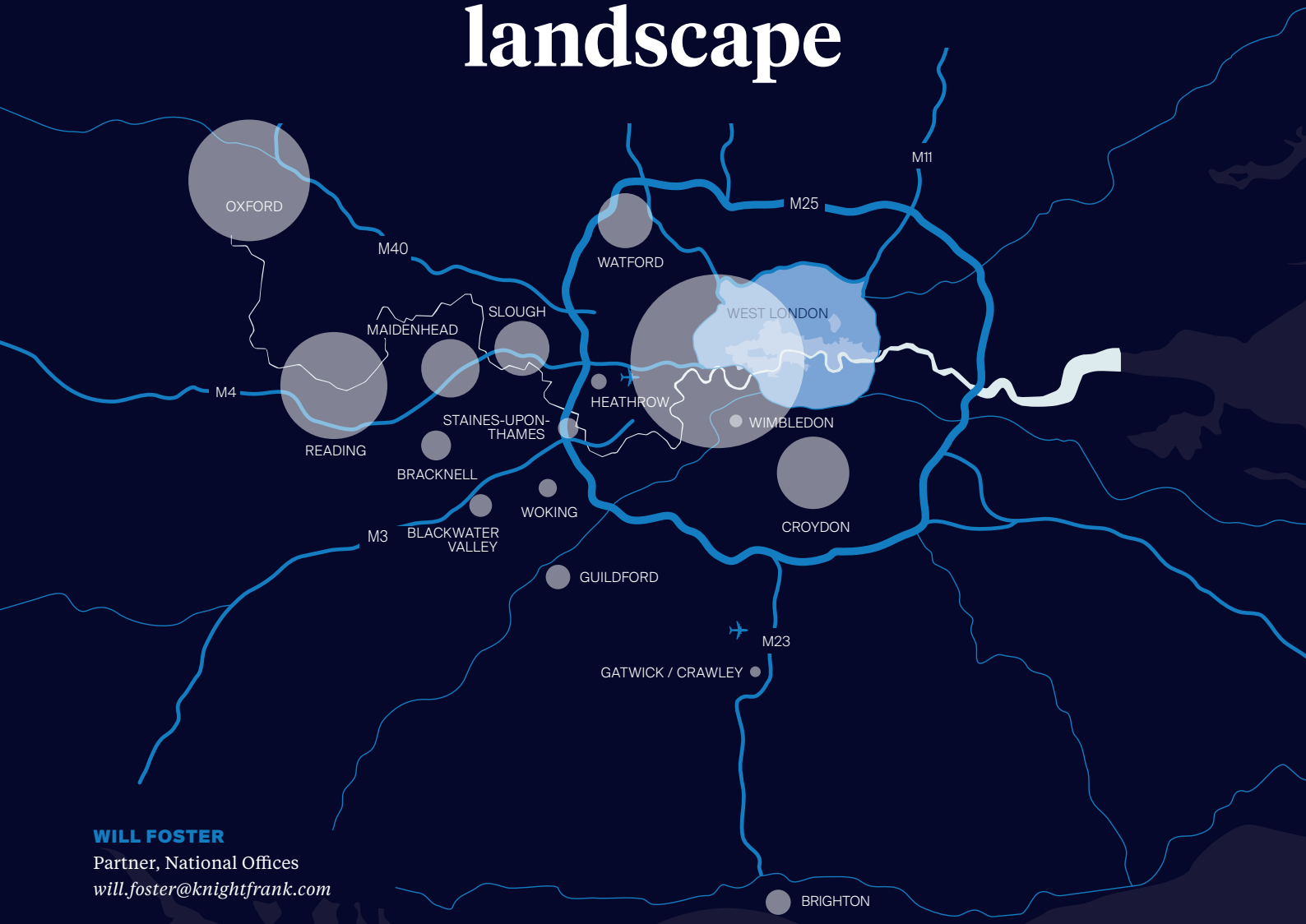


Percentage of south east take-up 2011 - 2021



Source: Knight Frank Research 2021

The development landscape



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Since the peak of the development cycle in 2017, development activity across the south east in subsequent years has proved thin. In the 40 months from the beginning of 2018 to Q1 2021, 2.3 million sq ft of speculative space has come to market. This total is less than the 2.5 million sq ft completed in 2017 alone. Consequently, the proportion represented by new space to total availability has followed a downward trajectory. At the end of Q1 2021, new space represented 8% of total market availability, the lowest level for 15 years.

The impact of the office development pipeline on future supply will be important. At the time of writing, vacancy has begun to edge up, primarily due to the release of second hand space. The

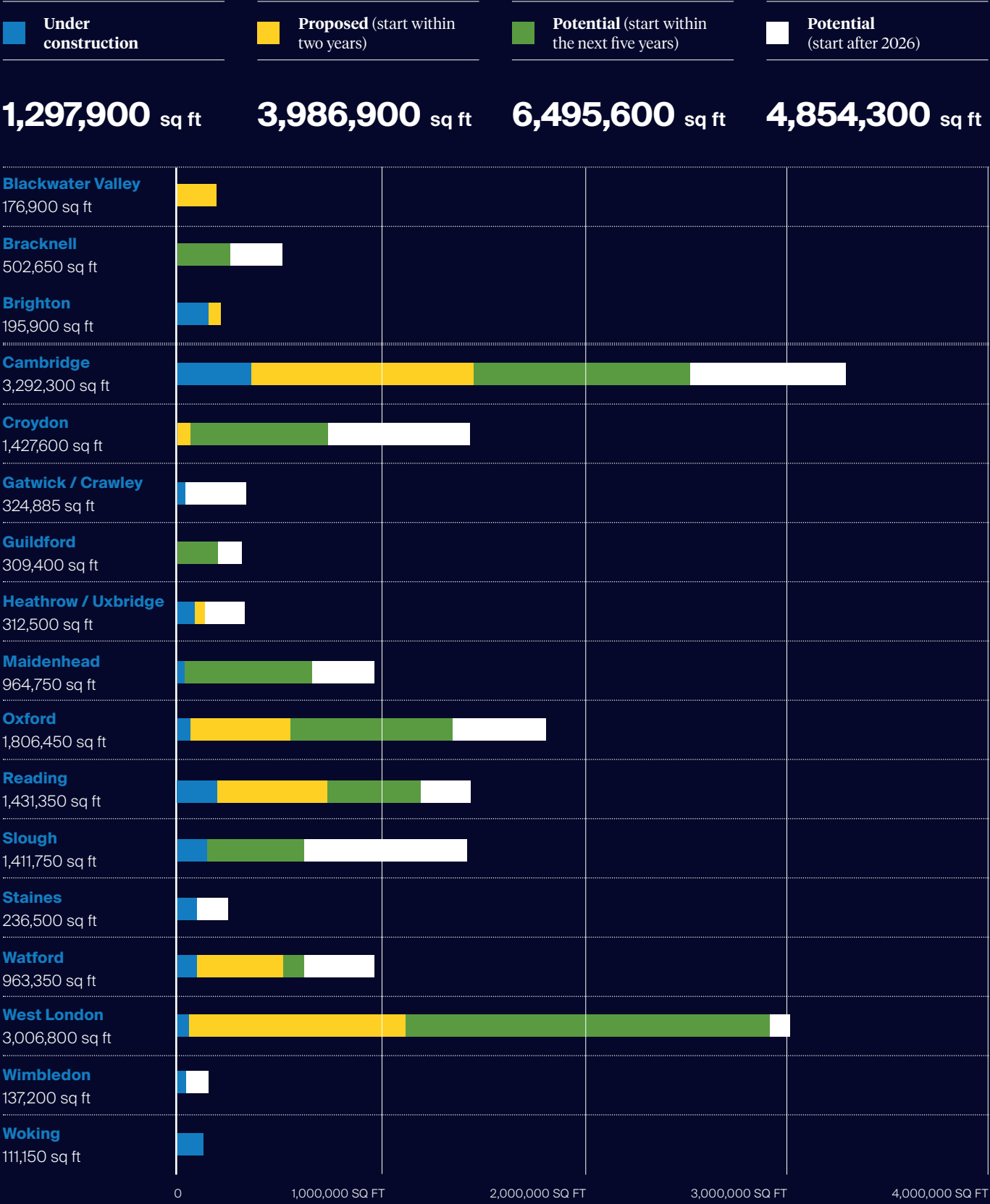
The circles in the above map are a proportional representation of the development pipeline inclusive of speculative schemes under construction; proposed with a start date within the next 24 months; and those schemes that have the potential to start within the next five years.

amount of space under construction across the south east market* stood at 1.6 million sq ft at the end of March 2021. Of this, 0.7 million sq ft (47%) had already been leased.

Analysis of the development pipeline excluding schemes that are already underway, reveals a picture of continued tight supply. Close to 2.4 million sq ft of speculative development has proposed start dates within the next 24 months. Taking into account average build times and assuming no space is let during construction, speculative completions therefore could total a maximum of 3.3 million sq ft over the next four years. A shortage of new best-in class offices is therefore going to be a market factor at least until 2025.

Note: *The south east market is defined as M25, M4, M3 and excludes Cambridge, Oxford and Brighton.

Development pipeline - 18 key markets



Note: Figures relate to speculative development and are exclusive of pre-let

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“Some people don’t like change,
but you need to embrace change
if the alternative is disaster.”
Elon Musk

The M25 & South East Office Market Report



TECHNICAL NOTE

- The south east market is defined as the M25, M3 and M4 submarkets.
- All floorspace figures are given on a net internal area basis (as defined by the RICS).
- Development - an aggregate total combining schemes that are either under construction, proposed and expected to start within the stated time frame. The statistics include both new and comprehensive refurbishment projects.
- Innovation Index - analysed 34 variables across 43 locations within the south east market using principle component analysis. Due to nature of data collection, several immediate London sub-markets (e.g. Wimbledon, Hammersmith, Chiswick) are subsumed as part of the London core and excluded from the index. London is the #1 global city for innovation in Knight Frank's Active Capital Report.
- Connectivity Index - integrated 17 metrics to analyse 48 locations within the south east market. Deterministic matching was utilised to aggregate the data to each geographical location.
- Where third-party data or information has been used, sources are stated within the relevant article.
- Data was correct at time of collection (March 2021).

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In place of the breakfast we usually serve at the launch event,
we are proud to be donating to five regional charities within the south east region.

