Deloitte.

Sustainable momentum
London Office Crane Survey

Winter 2021

25 YEARS OF THE CRANE SURVEY

Contents

Foreword

Welcome to Deloitte's *Winter 2021 London Office Crane Survey* – a barometer of business and developer sentiment for 25 years.

2021 marks 25 years since the launch of the Crane Survey - then covering just the West End. In this anniversary edition we analyse the past six months of activity and the results from our Developer and Construction Market surveys as well as looking to the future pipeline. To celebrate this landmark, we asked industry leaders to reflect on the past quarter-century and to take out their crystal balls for the next. We have even answered the question, often asked, "Do you actually count cranes?"

During this survey period, the government lifted its "work from home" guidance. Underground numbers show a gradual return to the office, with September weekday ridership at 65% of pre-pandemic levels.

Deloitte's latest CFO survey highlighted a slowing in growth in Q3, with finance leaders navigating labour and supply shortages. Despite various headwinds, they are focused on investment and growth and at how reducing carbon emissions can be incorporated into corporate strategy.

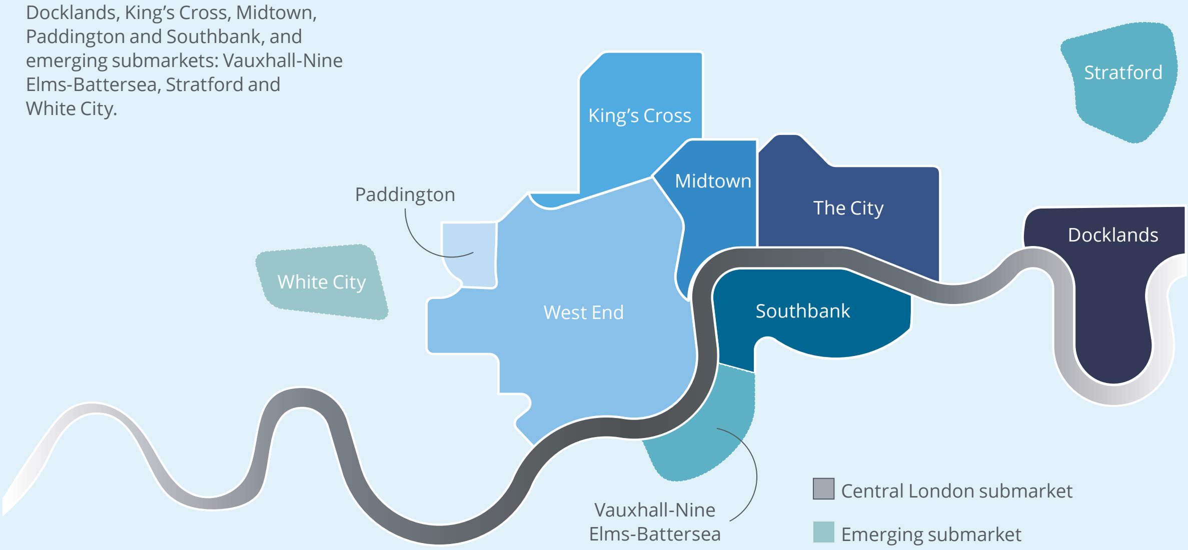
What?
A report that measures the volume of office development taking place across central London and emerging London submarkets.

Where?
London, covering the central office markets: The City, West End, Docklands, King's Cross, Midtown, Paddington and Southbank, and emerging submarkets: Vauxhall-Nine Elms-Battersea, Stratford and White City.

Who?
Developers building new offices or undertaking significant office refurbishment of 10,000 sq ft +.

When?
The survey covers the period from April 2021 to September 2021.

How?
Our team of researchers have walked the streets of central London and emerging London submarkets to monitor office construction. Our field research is then verified with direct industry links and in-house property experts.



The office market must respond to a complex and evolving business environment, with uncertainties around hybrid working, and the net zero imperative. This is not easy with an asset that takes years to plan and build. Developers are keen to avoid the obsolescence of second-hand stock we now see.

Alastair Moss, who chairs the City of London's Planning Committee, told us that the City has an evolving presumption against demolition and re-development, such is their concern about embodied carbon.

Our survey provides you with detailed insight. What impact do the latest office construction figures have on supply levels? How concerned are developers about leasing demand? Are rising environmental standards accelerating the obsolescence of secondary stock?

We would like to thank contributors, developers, and contractors, especially industry leaders who shared their reflections on the past and predictions for the future.

This edition is accompanied with our interactive microsite for the London Office Crane Survey. It will allow you to navigate to the content you find most useful, including submarket snapshots and a development map. We look forward to discussing it with you.

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Key Findings

The London Office Crane Survey Winter 2021 reveals dramatically improved confidence about London in the developments that are being undertaken in the office market:

- The volume of new starts has increased from 3.1 million to 3.4 million sq ft, above the long-term average of 2.4 million sq ft.
- The number of new starts has fallen: this means that the average scheme size has increased by 28% to 122,339 sq ft, arguably a sign of greater risk appetite.
- The proportion of new builds, vs refurbishments, while still below 50% of the total new start volume, has increased to 46% of the total, from 33% in the Winter 2020 Crane Survey.
- The uptick in new builds over the past three surveys has not disrupted the emerging trend towards refurbishments, which we believe to be a structural shift that is happening for sustainability reasons.
- The rise in new builds over the past three surveys may reflect a recovery in confidence after the initial shock of the COVID-19 pandemic, or decisions by developers to act on permissions already granted, given the increasing reluctance of planners to sanction demolition due to concerns around embodied carbon.
- The volume under construction has dropped to 13 million sq ft, above the long-term average of 10.7 million sq ft. The construction volumes have dropped in two consecutive surveys, despite rising new start volume due to the completions exceeding new starts in the Summer and Winter 2021 surveys.
- The proportion of volume under construction that is pre-let has fallen from 45% in the Winter 2020 Crane Survey to 31% in Winter 2021. This is well below the long-term average of 44%, and suggests a willingness by developers and investors to 'look through' current low physical occupancy rates due to the pandemic.
- The legal sector's share of lettings has jumped to 16%, against a five-year average of 9%, reflecting one-off office moves. By contrast, the technology, media and telecom (TMT) sector's dominance of lettings has fallen to 28%, from 40% in the Summer 2021 survey.
- Some developers are cautious about the market: we found three schemes where work has been delayed.

Volume under construction (million sq ft): **13.0m**

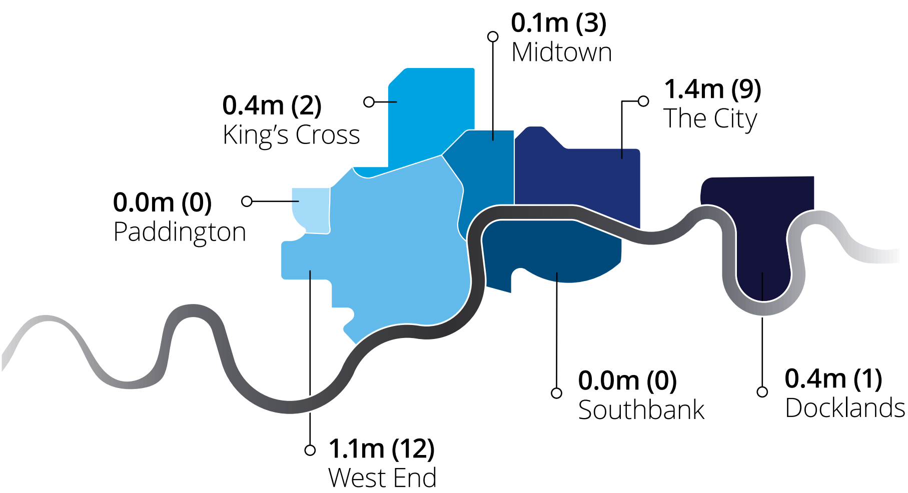
95 schemes under construction

Outlook

The confidence of developers is growing with regard to the future of work agenda, based on an increasing body of research and experience about the evolving impact of hybrid working on the demand for offices. Collaboration in the real estate sector to address climate change issues is also helping to alter approaches to development, refurbishment and asset management. Nonetheless, responding to the risks associated with 'stranded assets' through obsolescence is less well-advanced:

- Developers are now much more sanguine about the impact of home working on demand for office space than they were at the onset of the pandemic in 2020. In the Winter 2021 Survey, more than a third (37%) now expect home working to have no impact on leasing demand, three times the proportion (12%) in Winter 2020.
- Most developers (90%) now perceive the leasing market to be in better shape than six months ago, with more than a third (35%) finding it 'much better' and 55% 'a little better'. The comparable figures in Summer 2021 were that 14% found it much better and 43% a little better.
- No developer sees the leasing market as worse than six months ago; in Winter 2020, 36% thought it 'a little worse', and 7% 'much worse' than six months previously.
- Reflecting this optimism about leasing demand, almost two-thirds (65%) of developers expect their pipeline to increase and none expect it to fall. In Winter 2020 just 7% expected their pipeline to increase and 29% expected it to shrink.
- Also reflecting healthy demand, developers now consider that three of the four main challenges come from supply constraints (construction costs, lack of sites and planning), with just one – 'lack of confidence in the leasing market' – reflecting concerns about demand.
- Three-fifths of developers say that they have made "a lot of progress...towards achieving net zero from [their] new developments"; and just 5% say that they haven't started. All developers in the survey said that they have introduced "measures to quantify carbon emissions".
- A quarter of developers expect all their new developments to be net zero by 2024, and 45% expect to achieve this between 2025 and 2029.
- Developers do not feel that there is a lack of funding for the climate change transition: just 5% felt that the industry needs to "attract new sources of capital to fund net zero".
- Similarly, less than a third (30%) feel that legislation is needed to make net zero more commercially attractive.
- Instead, the industry is looking for support and guidance to deal with a challenge that all agree is an imperative: just over a third (35%) saying that government and industry need to "develop a greater understanding of what net zero means, and a further quarter said they need to understand "the measures to achieve net zero".

New construction starts: volume (million sq ft) and number



Total number of new starts
27

High (Q1 2016)
51

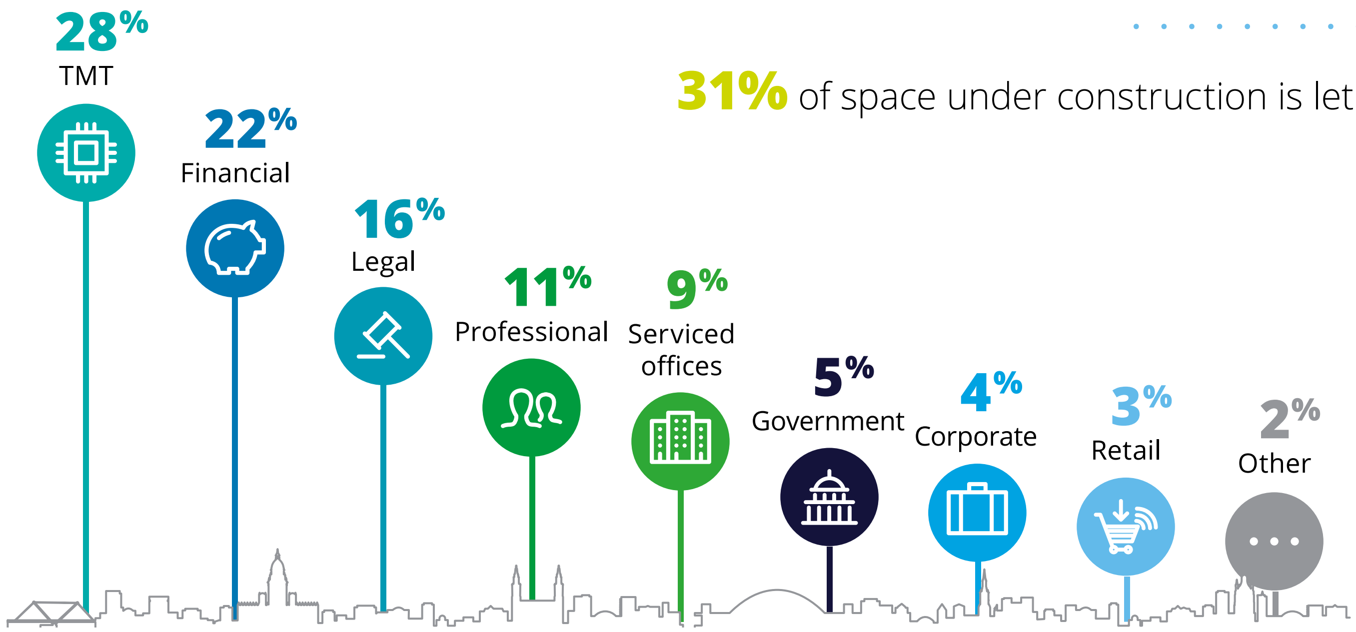
Average
30

Low (Q3 2010)
4

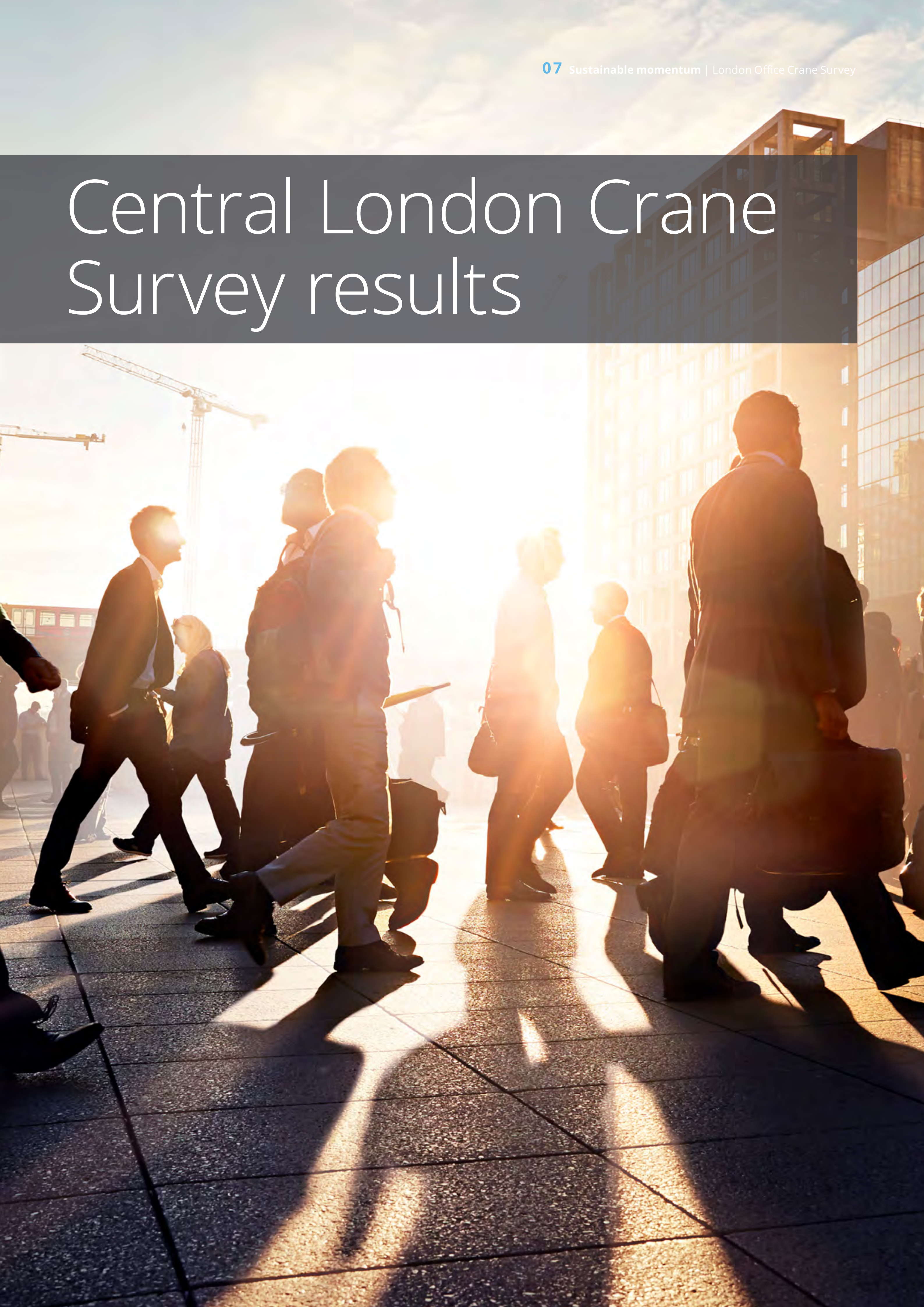
3.4m sq ft in new construction starts

Percentage of pre-completion space let by sector

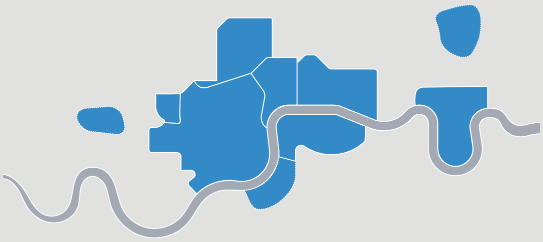
31% of space under construction is let

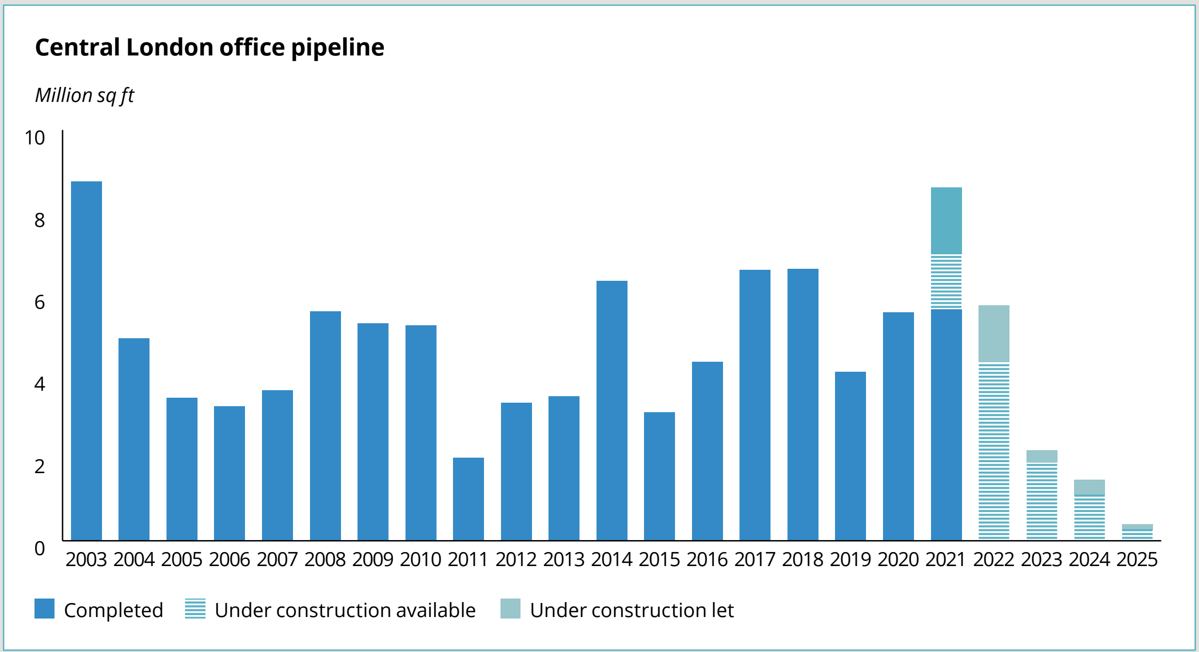


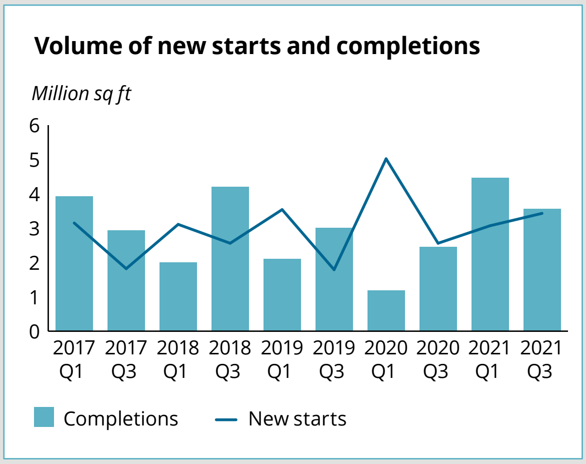
Central London Crane Survey results

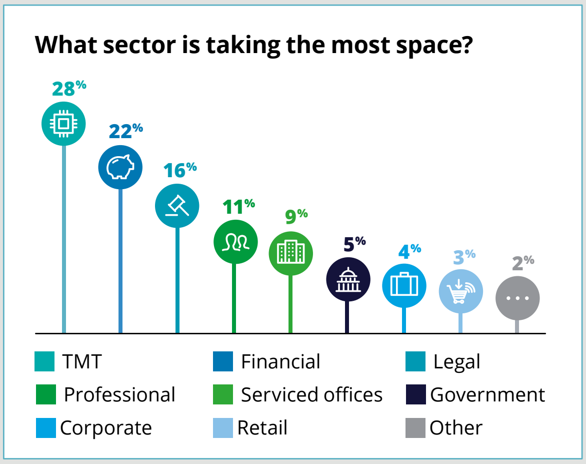


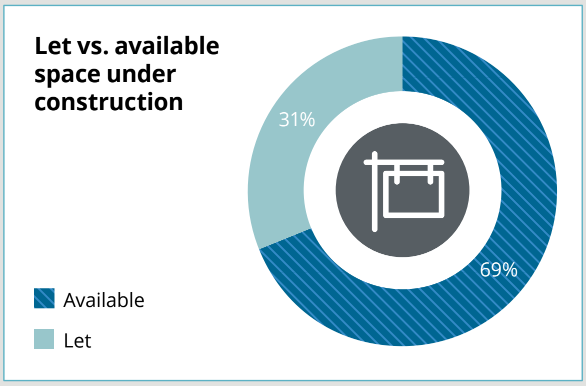
Submarket snapshots
Central London

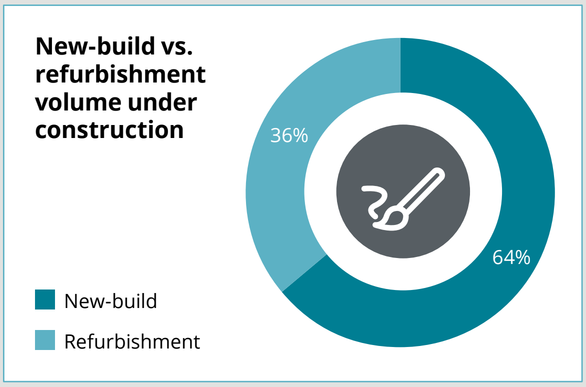












Source: Deloitte

Winter 2021 London Office Crane Survey Findings

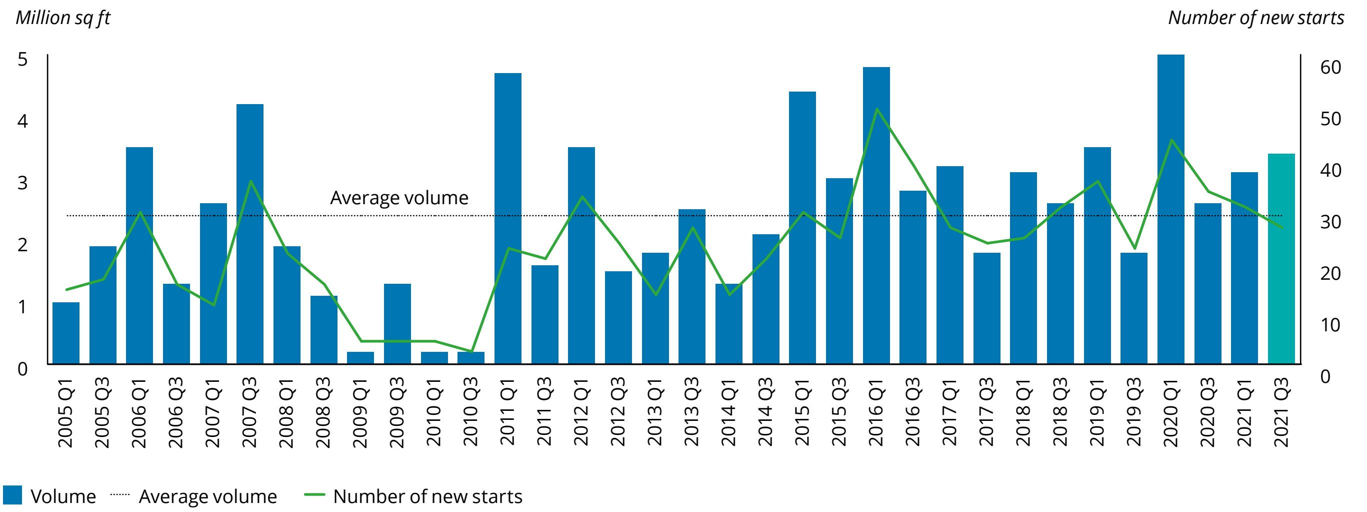
In our Summer 2021 survey we described increased volumes of new starts, an emphasis toward refurbishment and an increase in speculative development, as while leasing continued to pick-up, new starts were again above the long-term average. In this Winter survey we see these themes continue reflecting the responses in Deloitte's recent Q3 CFO survey where the emphasis on increasing capital expenditure was similarly strong.

Leasing levels have continued to rise over the survey period but still remain below pre-pandemic levels. Availability in newly completed developments has increased, not a surprise as we reported significant volumes of completions in Q1 2021 with more to follow. The market seems to be unperturbed by this, evidenced by the volume of new starts in this latest survey. Perhaps more of a concern is the volume of availability in the second-hand market which has doubled as compared to before the pandemic from around 10m sq ft to around 20m sq ft.

In our findings section we consider the impact of new starts and completion on overall construction volumes as well as the responses to our Developer survey on leasing and the Future of Work.

New starts continue to rise

Central London: Volume and number of new starts per survey



Source: Deloitte

The Winter 2021 edition of the London Office Crane Survey sees developer confidence and speculative interest in the UK capital in rude health. The volume of new starts and speculative appetite – as reflected in scheme size, the proportion not pre-let, pipelines, and leasing expectations – are all on the up. This is a strong signal that the sector is evolving its approach in tune with the climate risk decarbonisation agenda.

These trends speak to a reassuring faith of investors in the resilience of demand for offices as an asset class, in spite of the dramatic shift in working practices in response to the pandemic and months of enforced home working.

The volume of new starts, which increased by 10% to 3.4m sq ft between April and September 2021, remains above the long-term average of 2.4m sq ft. The number of new schemes fell by four to 27 thus falling below the long-term average of 30. The average scheme size has risen by 28 per cent, demonstrating a greater appetite to take on risk on individual schemes.

The risk of exposure to accelerating rates of obsolescence may incentivise developers to push ahead with projects. We therefore expect the long-term average of new starts to rise, weighted increasingly towards refurbishments.

This uptick in development, which by its nature is long term, seems consistent with the intentions of many finance leaders, as revealed by Deloitte's Q3 2021 CFO Survey to place greater emphasis on increasing capital expenditure than at any other time in the past decade or more.

The leasing market is improving but has not yet recovered to pre-pandemic levels, and occupancy rates remain lower than pre-pandemic. With many employers now adopting hybrid working and giving employees a choice about where to work, and when, new working patterns are emerging. There is a sustained increase in office presence on Tuesdays, Wednesdays and Thursdays. Offices need to accommodate these peaks in demand for space, rather than just an average level of attendance.

Some occupiers are releasing space as leases allow, but mainly secondary/grade B stock: demand for prime/grade A is proving resilient and is growing.

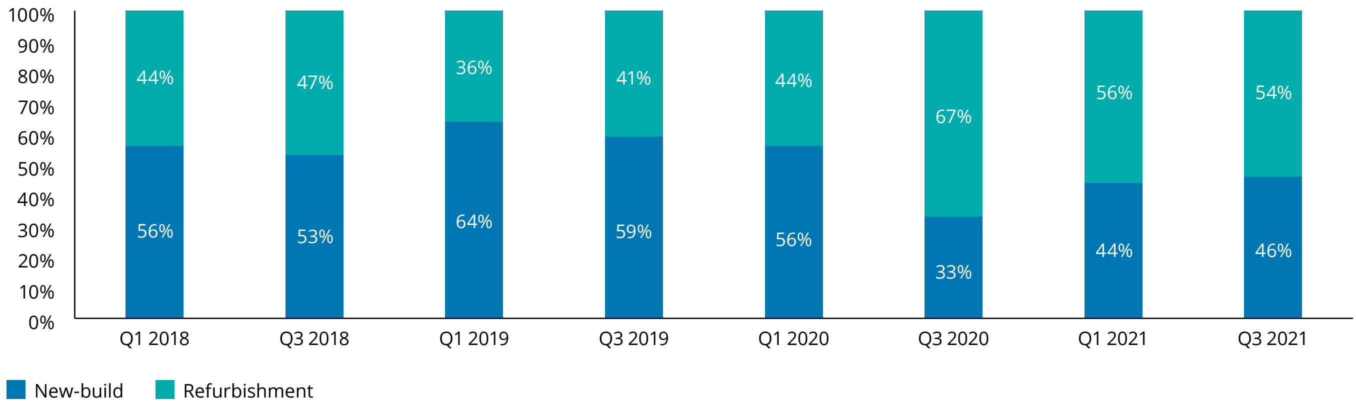
Just 19% of new construction starts have been pre-let. This is much lower than the 39% pre-let in Winter 2020. There is a greater propensity for refurbishments to attract tenants, while redevelopment is more likely to be triggered only when a tenant has been secured.

The very high proportion (85%) of new starts that is speculative reflects developers' ability to 'look through' the short-term effects of the pandemic to a future where occupancy and demand will rebound, even if working patterns and office configurations also change.

Two notable new starts are speculative projects in areas that in the past would not have started without a pre-let are at Canary Wharf and King's Cross. One of these, YY London, is a redevelopment of 30 South Colonnade, formerly the European headquarters of Thomson Reuters. The other, S3 is a nine-storey mixed-use building and one of the final pieces of the King's Cross Central masterplan.

Overall trend towards the prevalence of refurbishments

Central London: New starts – new build vs. refurbished (%)



Source: Deloitte

In addition to the cyclical attraction of refurbishments in uncertain times, concerns over embodied carbon has also prompted an aversion to demolitions. Refurbishments reduce waste by reusing and retaining existing materials.

The data points to a fall in the proportion of refurbishments over the past three survey periods, but it seems that the overall trend is towards a greater prevalence of refurbishments than in previous cycles. Refurbishments now account for 54% of new start volume in this survey, compared to just 44% as recently as the summer 2018 survey.

The major refurbishments are upgrades to three large buildings: HUB Victoria at 123 Buckingham Palace Road; Canary Wharf's YY London; and Warwick Court, close to St Paul's Cathedral in the heart of the City.

The remodelling of 123 Buckingham Place Road is the biggest project, with 487m sq ft set over six floors. This Grade A development, which is scheduled for completion in Q1 2023, includes a wider range of facilities, such as concierge, café, and event space.

YY London will extend the existing 11-storey 30 South Colonnade with three additional floors, providing 408,000 sq ft of office space. Joint developers Quadrant and Oaktree say they are incorporating sustainability and wellbeing into the design, with an all-electric energy strategy, including smart metering, reduced water consumption and highly-efficient lighting and control.

YY London aims to achieve net zero carbon in operation. Reflecting the reality that employees have to be tempted back to the office, YY's slogan is that it is "A new icon for a new kind of work day...feel good, work great". Once completed in December 2022, its amenities will include "two new restaurants, juice bar, rooftop terrace and sweeping views across water and skyscrapers".

Developers Stanhope say that the upgrade of Warwick Court, built in 2002, has flexibility, sustainability, and wellbeing considerations at the centre of the redesign. On completion, 6,000 sq ft of external space will be added, designed to enhance the wellbeing of occupiers. Developers will transform the building from a single occupier office to a space that can be adapted to meet the needs of multiple occupiers from different sectors. The project aims to achieve an 'Excellent' BREEAM certification, with plans to reduce carbon emissions and waste, and retain and reuse existing finishes.

Most of the 17 new refurbishments are expected to be completed in 2022, which suggests that more office space is coming on to the market at a faster rate. As demand for high quality office space grows, developers are responding by upgrading more.

Refurbishing heritage properties

Refurbishments of heritage properties are likely to face greater challenges. In particular, there are strict guidelines on the retrofit of listed buildings, which typically requires consultation with organisations such as Historic England. There may also be difficulties changing the layout to suit modern needs. Historic buildings require specialist materials and non-conventional approaches in order to make them carbon neutral, and this may extend the completion time and add to the cost of these refurbishments. These challenges may prompt owners to change use, e.g. the Centre Point tower at the junction of New Oxford Street and Tottenham Court Road was converted to residential use. Although there are challenges, there are also real benefits in terms of the extended use of embodied carbon and the 'social value' that comes from re-using what are typically well-loved buildings.

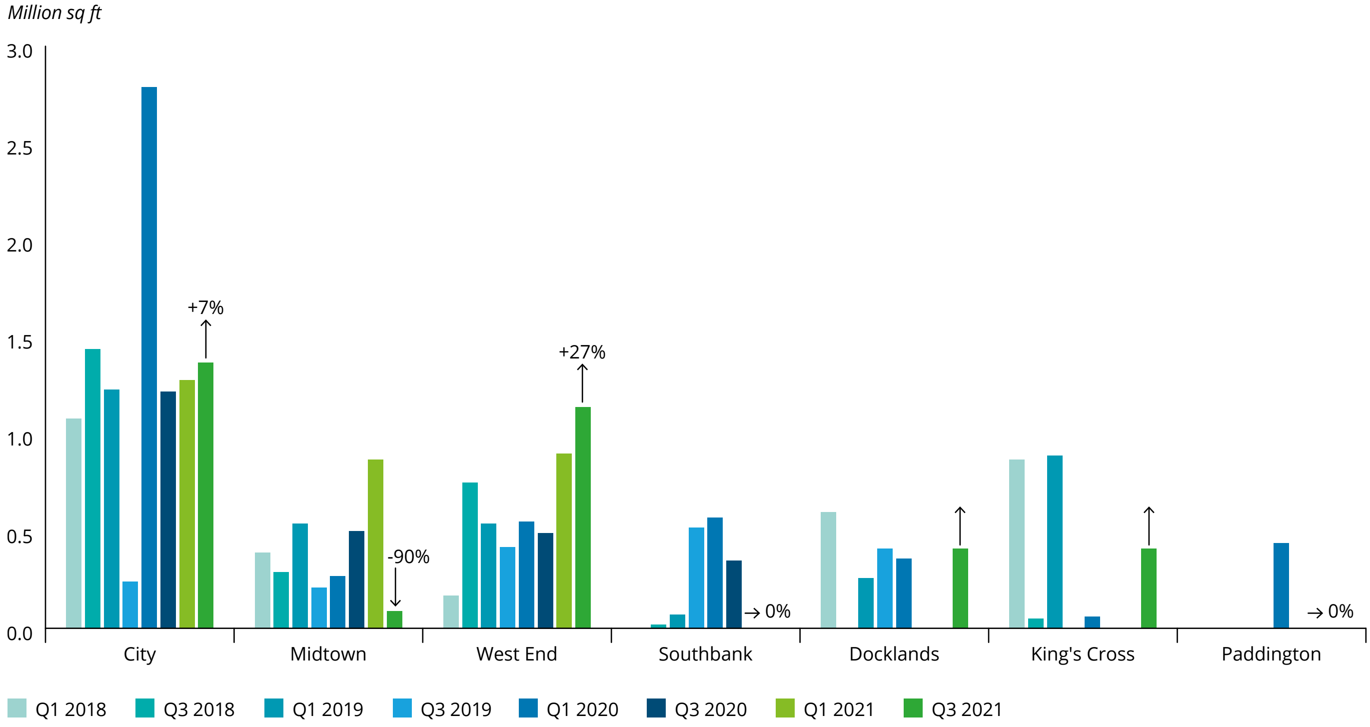
Changing perspectives on the workplace

The pandemic accelerated the adoption of technology that facilitates digital ways of working. Deloitte's *Reconstructing the Workplace* report finds that the way we think about work has changed. Rather than attaching work – in its widest sense – to a physical location, a hybrid approach that considers 'function' enables certain activities to be undertaken from anywhere, enabled by technology, whilst other activities benefit from the facilitation of in-person collaboration. There is also the option to combine digital and physical space as both have their strengths and disadvantages.

The report describes the 'unbundling of the workplace', where the tasks and workers determine how space is used. Employees are empowered to decide what needs to be done and where to do it. There will be a differentiation between work that needs to be done somewhere and work that can be done *anywhere*. Offices still have a role, since not all tasks can be done digitally, and face-to-face contact helps to build teamwork and trust which in turn makes employees more productive. The office accommodates different uses – meeting rooms for collaboration, private offices for focused work, and lounges and kitchens for social interaction – and all are still needed.

Location of new starts (submarkets)

Central London: Volume of new starts per survey



Source: Deloitte

In previous surveys, new starts were concentrated in three main markets: the City, Midtown, and the West End. The City and the West End maintain their dominance in this Winter 2021 survey, but Midtown new starts are at their lowest since Q3 2019. In contrast, there has been an upturn in the volume of new construction in King's Cross and Docklands. There were no new starts at Southbank or Paddington.

In the **West End**, the volume of new starts rose for the third consecutive survey by about one-quarter from 0.9m sq ft to 1.1m sq ft. Of the 12 new starts, three-quarters were refurbishment, the largest at 123 Buckingham Palace Road in Victoria covering 486,927 sq ft. This building is also the largest development in this survey. The largest of the three new-build developments is the 85,000 sq ft office development at 38 Berkeley Square, scheduled for completion in March 2024. Our pipeline shows no new developments will be delivered in 2024 and 2025 in the West End. New build projects tend to take two to three years to be completed. This may change if new refurbishments start in the next few months as these projects typically take one to two years to complete.

Midtown recorded its lowest volume of new developments since 2019. There were only three new developments, providing 100,000 sq ft of office space. Of the three schemes, two are refurbishments. The largest new start is a 35,000 sq ft new build development at 68-86 Farringdon Road, which is a mixed-use development combining hotel, retail and office space. Although a strict interpretation of the survey's sub-market boundaries points to a low volume of new starts in Midtown, there were recent significant schemes on the area's borders, for example at Warwick Court, Charlotte Street and Regent's Place.

In the **City**, there was a modest increase in the volume of new starts, from 1.3 to 1.4m sq ft. This gradual increase repeats a pattern from the previous two surveys. There were ten new schemes, with an equal split between refurbishments and new builds. The largest refurbishment (300,000 sq ft) is by Stanhope/Mitsubishi at Warwick Court, which is expected to complete in 2022. There were two sizable new builds in this survey. The 35-storey tower 1 Leadenhall will provide 435,000 sq ft of office space when it is completed in Q2 2025. The other notable new build (400,000 sq ft) is 1-2 Broadgate, which is part of the 10-year plan to redevelop the Broadgate Estate in Liverpool Street.

New activity in **King's Cross** is the commencement of two new builds, S3 and R8, by the same developer and part of the King's Cross Central masterplan. The larger of these, the nine-storey S3 (245,000 sq ft) on York Way, is a speculative project. Historically, speculative builds in King's Cross have been unusual, but S3 is one of the final projects in the King's Cross Central master plan and illustrates the maturity of the location. The R8 development has 170,000 sq ft of office space: it has been completely pre-let and completion is expected in Q1 2024.

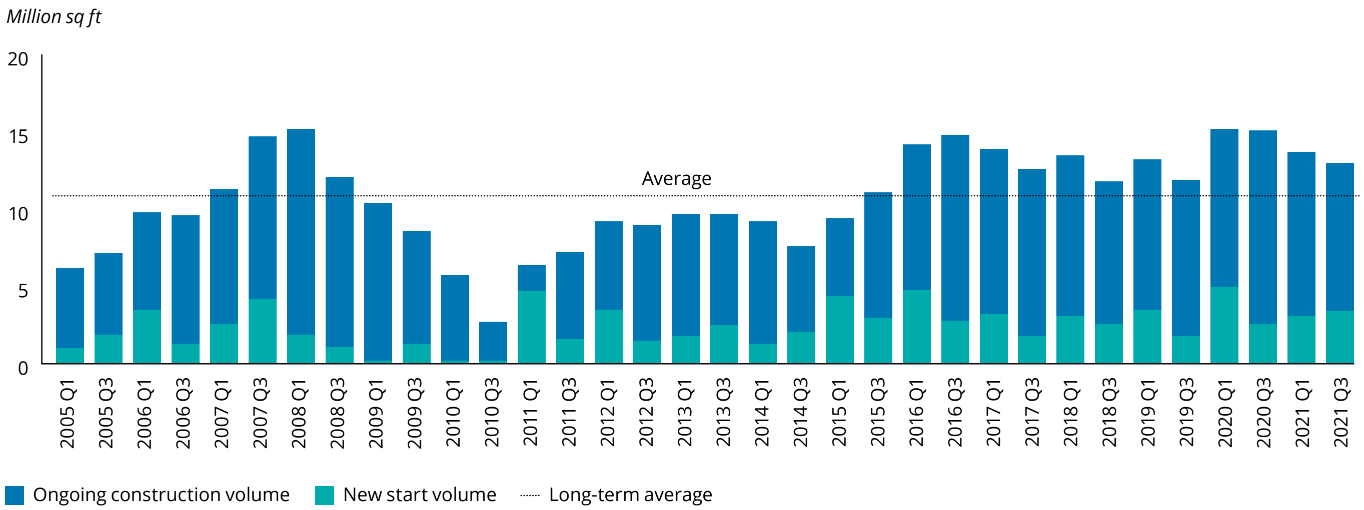
Docklands was quiet in the previous two surveys, but this changed with the work starting on YY London. This refurbishment of the former Thomson Reuters European Headquarters close to Canary Wharf Tube station comprises 408,000 sq ft of office space.

Delayed

In this survey, we found three buildings, with a combined volume of 530,000 sq ft, where work has been delayed. For two of these buildings, pre-lets have not been achieved and the developer is considering whether to proceed speculatively.

Modest fall in the volume under construction

Central London: Total volume under construction per survey



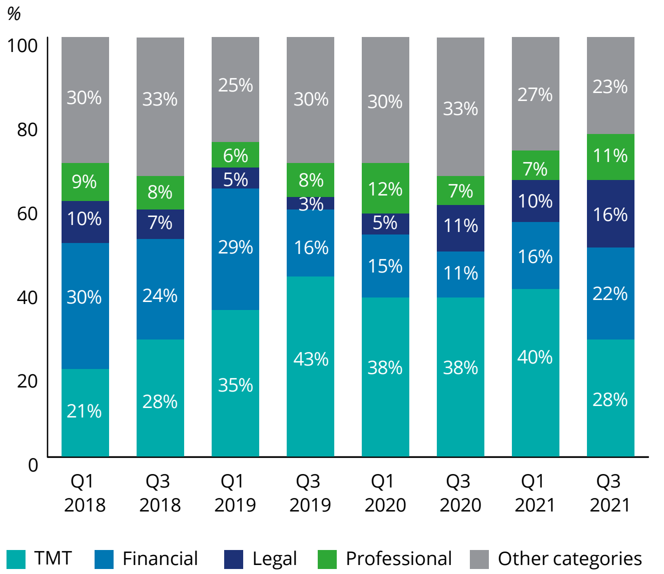
Source: Deloitte

The total volume of office space under construction is 13m sq ft, of which just over a third (35%) comprises new starts over the past six months. The total volume of construction decreased by 5% when compared with Q1 2021, the third consecutive – albeit modest – fall.

It should be recognised that as the volume under construction is increasingly made up of refurbishment schemes, which are typically faster, we would expect the overall volume to reduce – ie schemes span over less survey periods.

Share of TMT occupiers in pre-lets falls as other sectors rise

Central London: Percentage of pre-completion lettings by sector



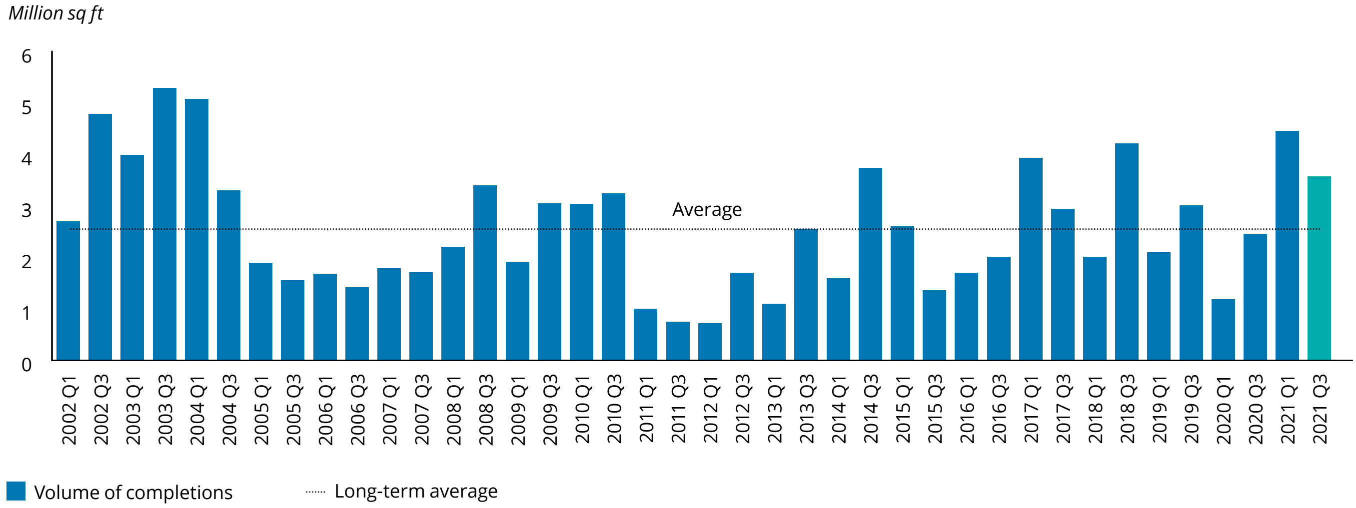
Source: Deloitte

In central London, 31% of under-construction offices are pre-let, which is consistent with the Summer 2021 survey results (32%). However, this is a marked decrease compared to Winter 2020 when pre-let activity on under-construction sites was at 45%. Similarly there has been a decline in the proportion of pre-lets of completed offices, down to 44% compared with 59% six months previously.

Interestingly, the uptake of pre-completion office space among key sectors in central London has changed. Between Q1 2019 and Q1 2021, TMT firms took 39% of new office lettings in Q1 2021. This fell to 28% in Q3 2021. In contrast, there has been an uptick in letting activity in the financial, legal, and professional sectors – particularly among several of the large legal firms.

Completions

Central London: Total volume of space completed per survey



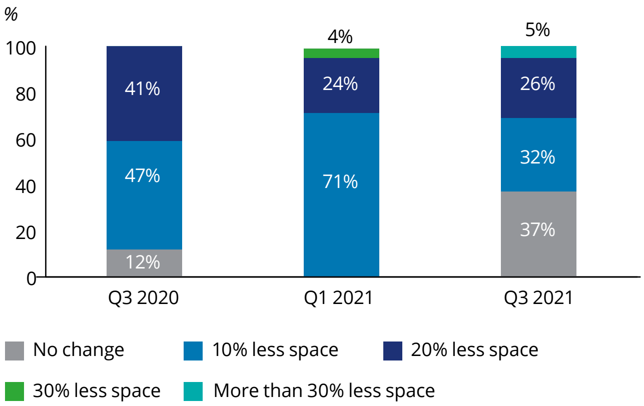
Source: Deloitte

In the six months to September 2021, 3.6m sq ft of office space was completed. In the previous survey, a record volume of office space came on to the market, largely a consequence of COVID-19 driven delays. Nonetheless, the level of completion is higher than the long-term average. By completion, 44% of office space had been let.

43 schemes were completed in the current survey, of which most were in the City and West End. There were two large completions of similar size. In Docklands, the Cargo building opened with 340,000 sq ft, of which 60% was pre-let. This refurbishment of the Financial Conduct Authority's former headquarters at 25 North Colonnade is close to Canary Wharf's new Crossrail station. The other large completion was the 330,000 sq ft Hylo (formerly Finsbury Tower) in Finsbury Square.

Mixed views on the impact of homeworking on office space

Developers Survey: 'What impact will homeworking have on the amount of office space tenants will be taking long term?'

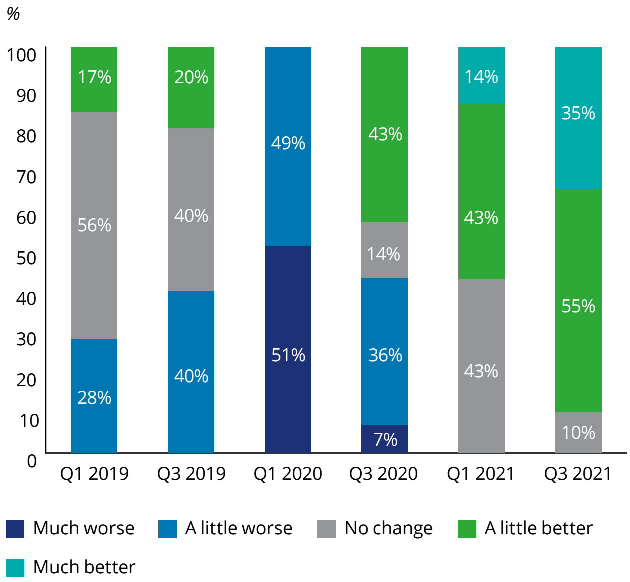


Source: Deloitte

Opinions about the impact of homeworking on office demand have shifted. In our Summer 2021 survey, all developers expected a reduction in demand with a majority (71%) expecting a drop of 10%. In our most recent survey, 37% of developers believe that there will be no change, with the remainder expecting demand to fall – but by a much lower amount than anticipated in previous surveys. Around a quarter (26%) expected office demand to fall by 10% and a 20% decrease is expected by 32% of developers. A small minority (5%) anticipated a decrease of more than 30%. Data from the three surveys is not conclusive but the trend suggests that developers are now far less concerned about a reduction in the demand for office space.

Feedback from our clients indicates a roughly 50:50 split between those who have not seen any discernible change in occupiers' space requirements compared with those who have seen occupiers reduce their desired footprint. Even so, the summer months were a busy period in the leasing market with a number of notably large transactions completing and further large-scale occupier requirements launched. In terms of rental values, whilst there is undoubtedly lower demand in the Grade B/secondary market (at both a headline level and within the leasing incentives on offer), demand in the Grade A/prime market is proving resilient.

Developers Survey: 'Compared to six months ago, how do you currently perceive the leasing market?'



Source: Deloitte

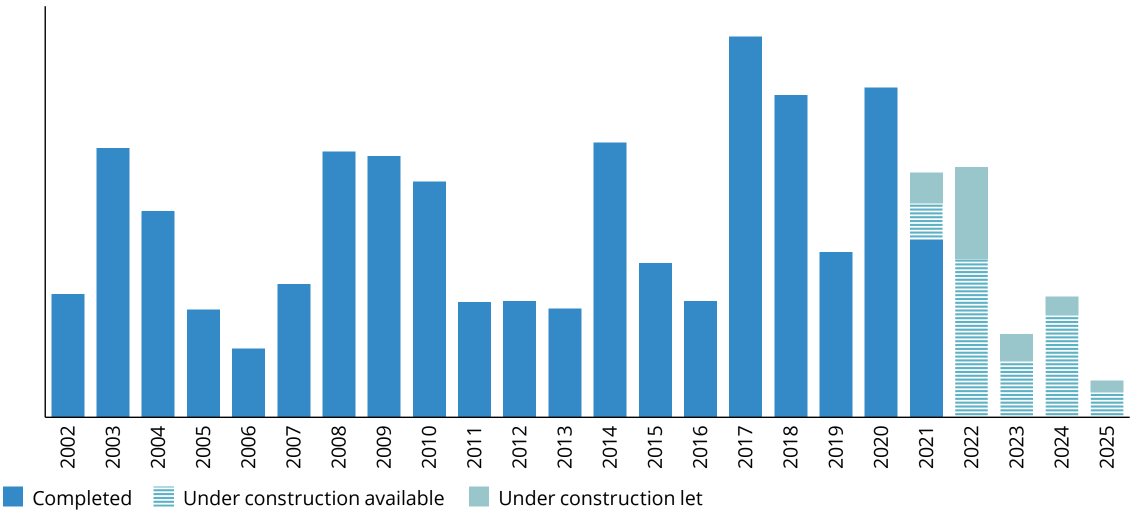
With the transition out of lockdown, our Winter 2021 results show higher levels of optimism compared with Summer 2021. Confidence in the leasing market is evidenced by trends that continue to show increasing optimism for the third consecutive survey. The easing of restrictions and the accompanying return to the office have had a positive impact on developers' perceptions. Our survey asked developers to compare the period between March 2021 and September 2021, and 35% responded that the leasing market was 'much better'. A further 55% believed it had got 'better'. One in ten (10%) believe that the market had stayed the same – a much lower proportion than in the previous survey (when this was 43%).

Central London submarket snapshots

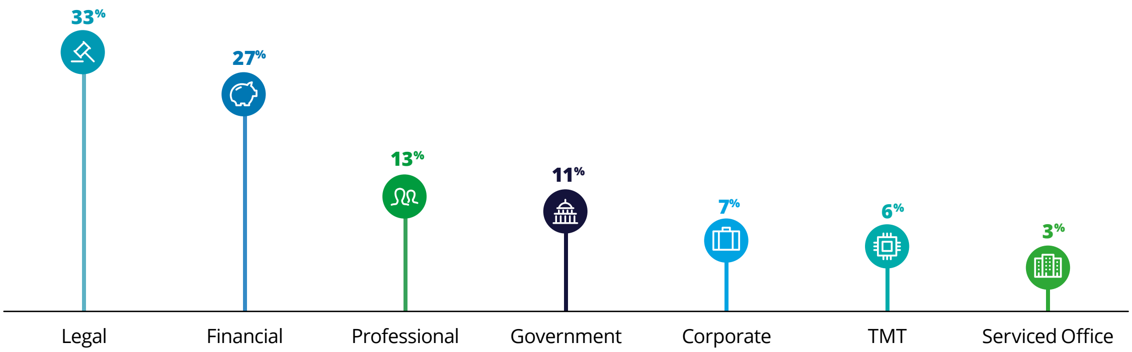
Submarket snapshots
The City

The City office pipeline

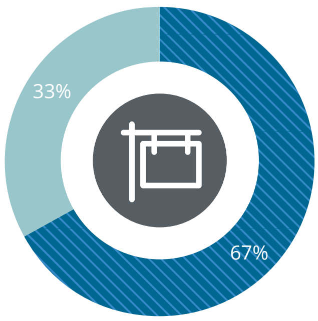
Million sq ft



What sector is taking the most space?

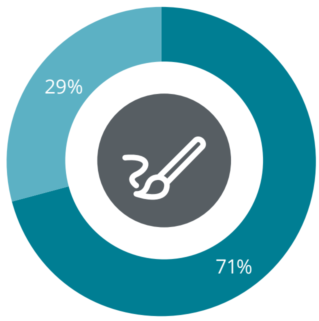


Let vs. available space under construction



Available
Let

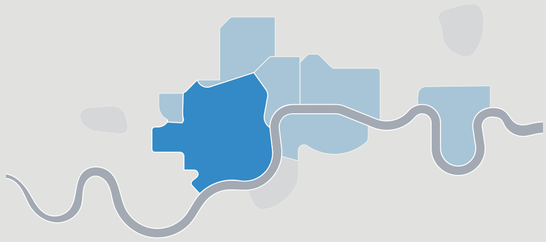
New-build vs. refurbishment volume under construction

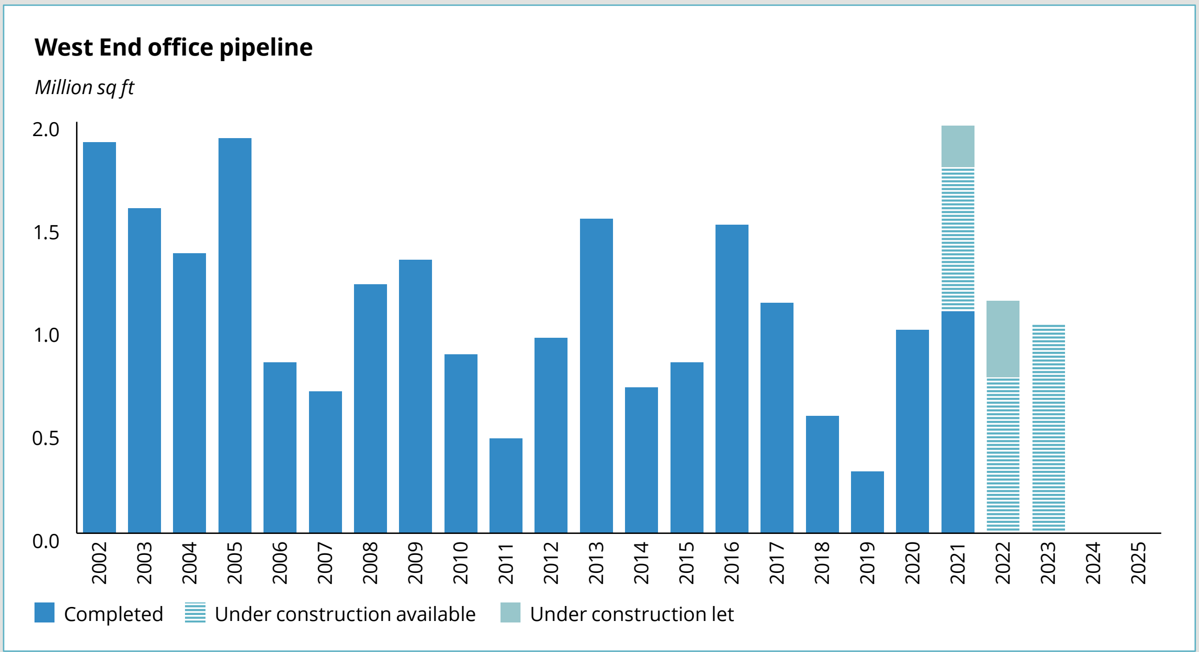


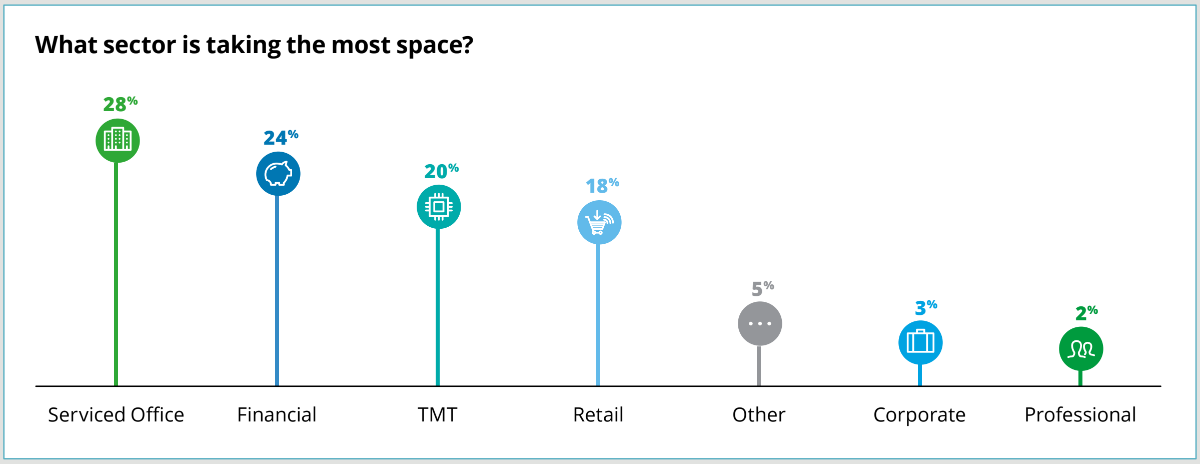
New-build
Refurbishment

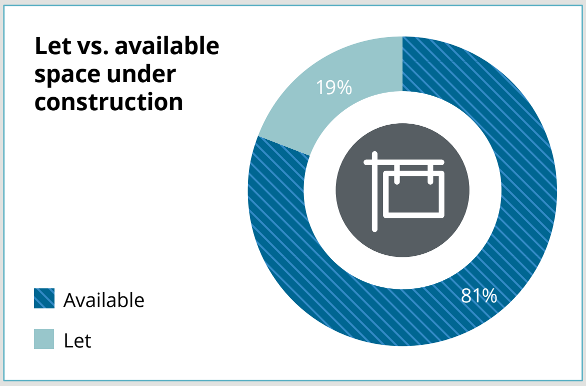
Source: Deloitte

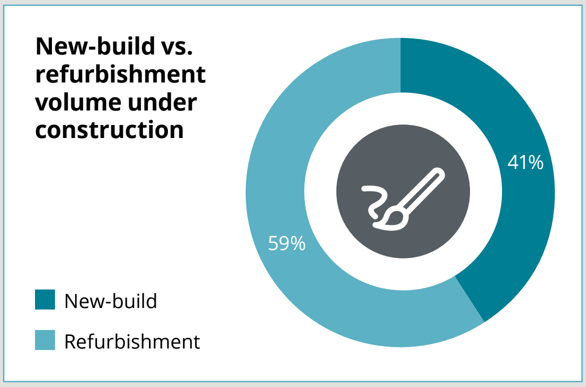
Submarket snapshots
West End





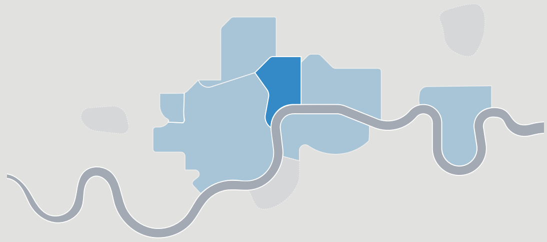


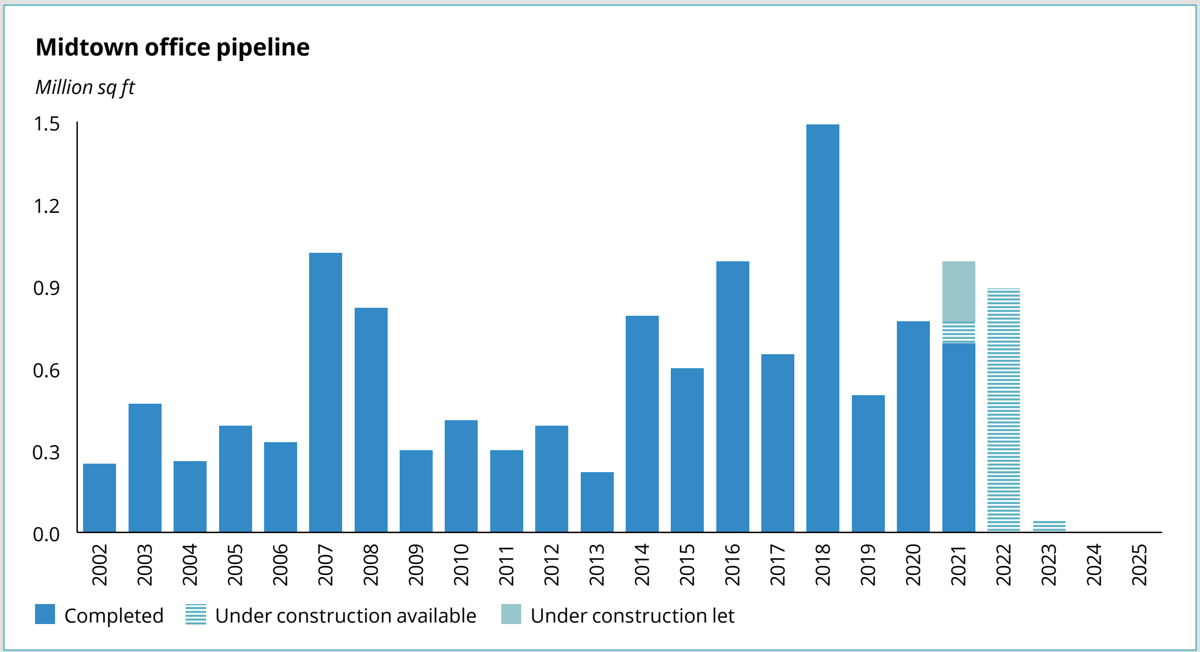


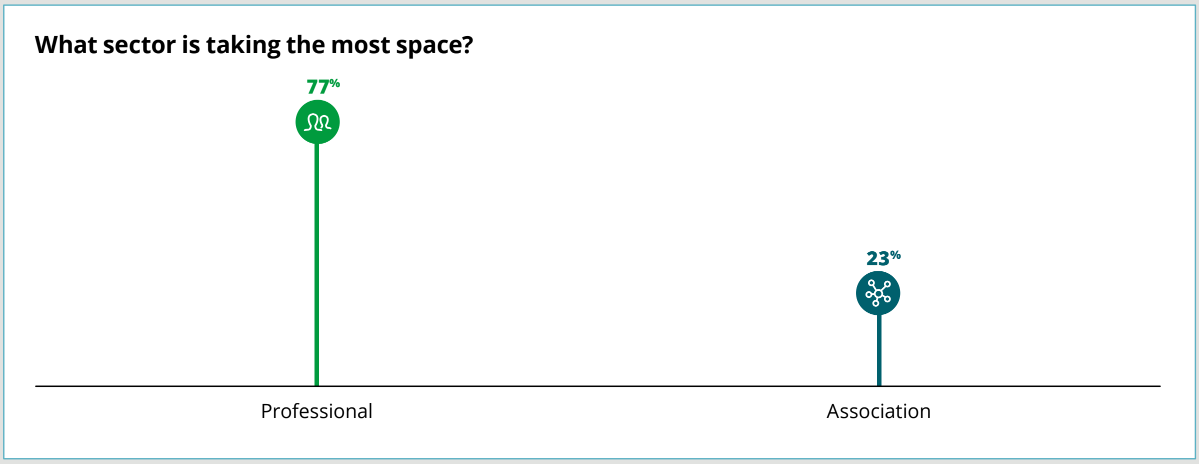


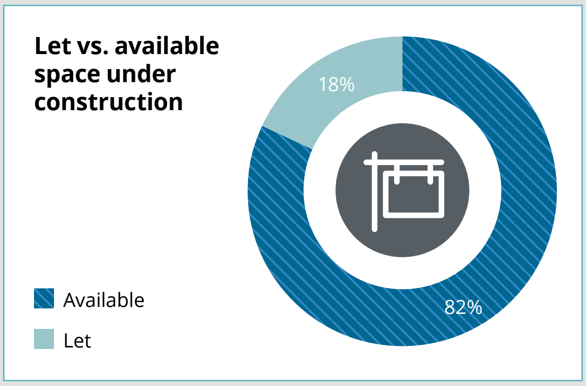
Source: Deloitte

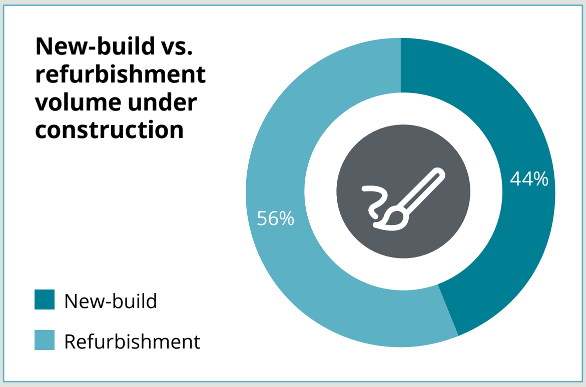
Submarket snapshots
Midtown





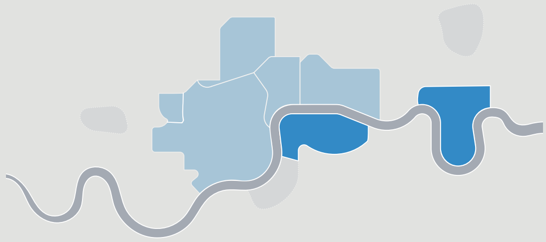






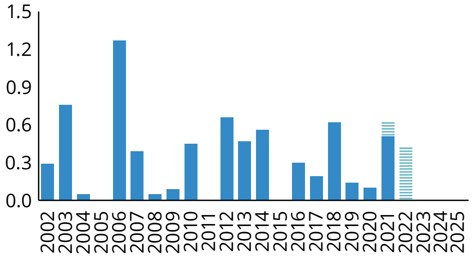
Source: Deloitte

Submarket snapshots
Southbank and Docklands



Southbank office pipeline

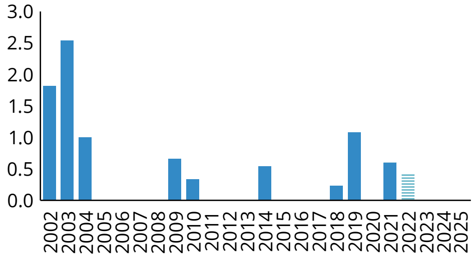
Million sq ft



Completed, Under construction available, Under construction let

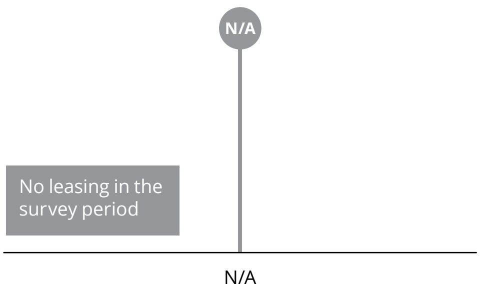
Docklands office pipeline

Million sq ft

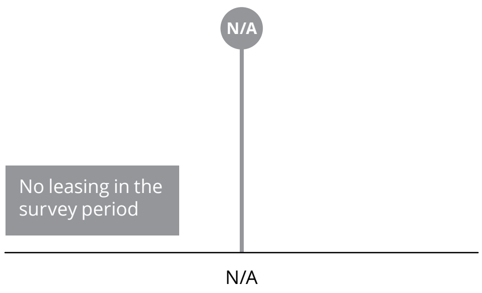


Completed, Under construction available, Under construction let

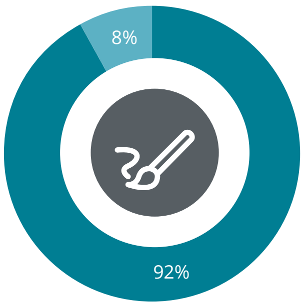
What sector is taking the most space?



What sector is taking the most space?

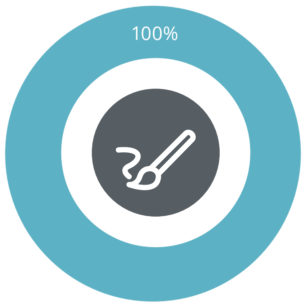


New-build vs. refurbishment volume under construction



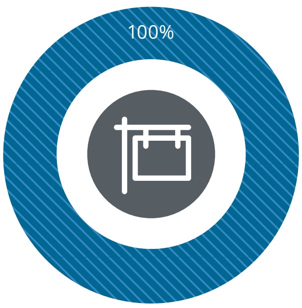
New-build
Refurbishment

New-build vs. refurbishment volume under construction



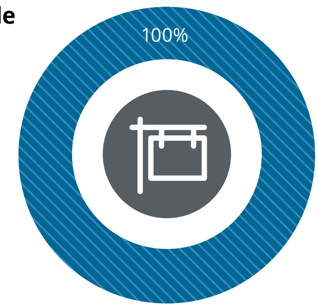
New-build
Refurbishment

Let vs. available space under construction



Available
Let

Let vs. available space under construction

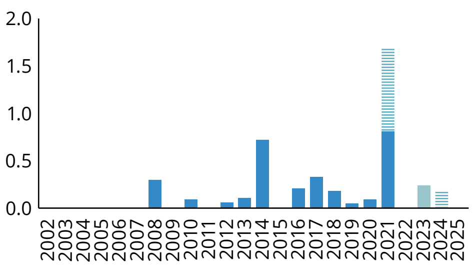


Available
Let

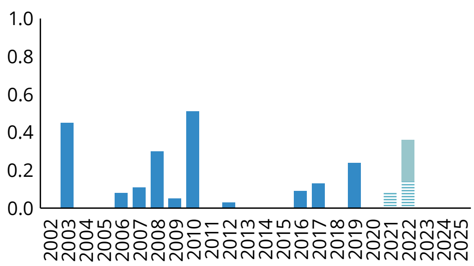
Source: Deloitte

Submarket snapshots
King's Cross and Paddington

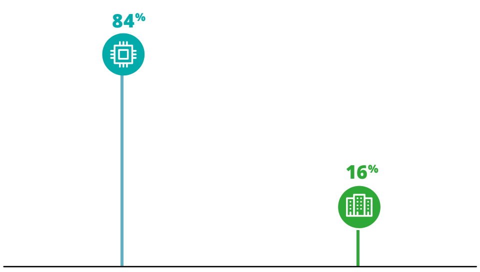
King's Cross office pipeline



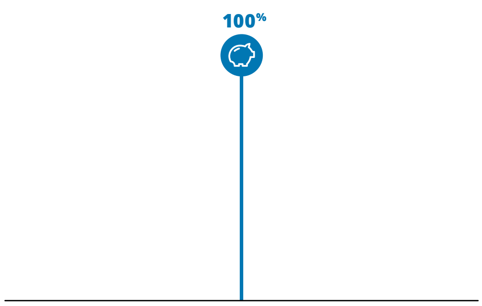
Paddington office pipeline



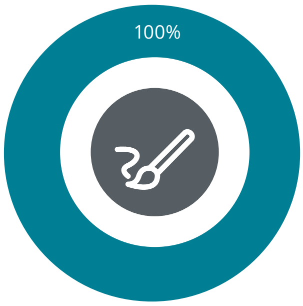
What sector is taking the most space?



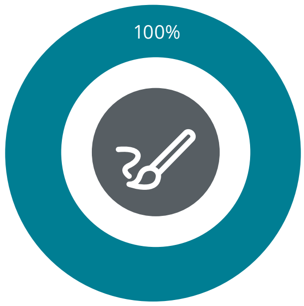
What sector is taking the most space?



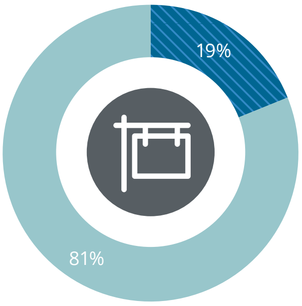
New-build vs. refurbishment volume under construction



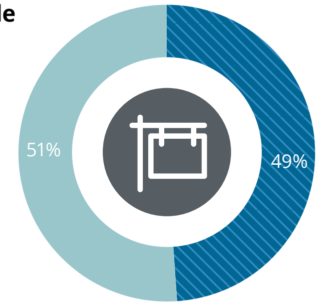
New-build vs. refurbishment volume under construction



Let vs. available space under construction



Let vs. available space under construction



Source: Deloitte

Emerging submarkets Crane Survey results

Emerging submarkets results

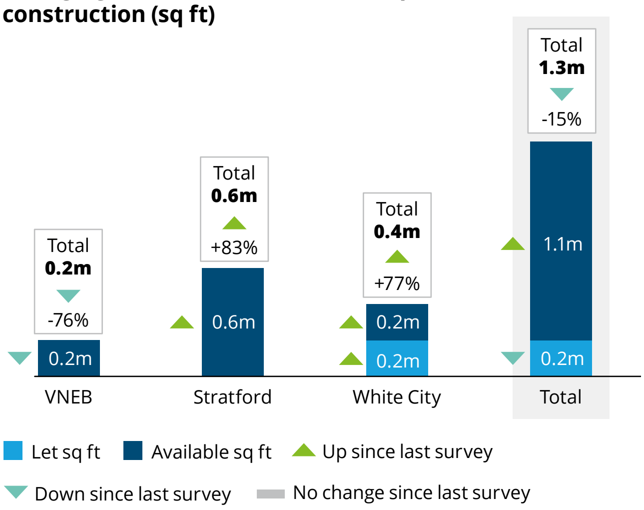
Emerging markets: New construction in emerging sub-markets

In the emerging sub-markets, there were four new starts between April and September 2021, one each in Stratford and Vauxhall-Nine Elms and two in White City. All three markets have good transport links to other areas of London. Growth in these areas will offer competition to the more traditional office markets.

The largest new construction in the emerging sub-markets is in **Stratford**. The MU2 (Sugar House Island) building will add 290,000 sq ft to the area, and work started speculatively. This new-build development is scheduled for completion in Q2 2023.

Construction also began on 1 Wood Crescent, a new build Grade A development in **White City**. This will deliver 115,000 sq ft of space on the west side of the former BBC Television Centre campus. At the time of our survey, 43% of the space had been pre-let to PVH, owner of fashion brands Calvin Klein, Van Heusen and Tommy Hilfiger. The other White City development is Gateway West, a speculative 24,700 sq ft new build.

Emerging submarkets: Total office space under construction (sq ft)



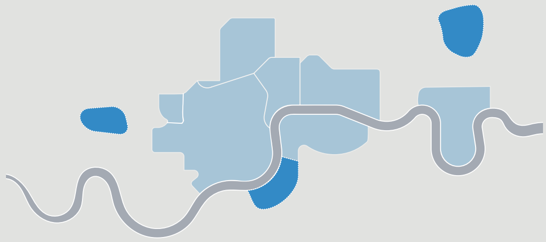
Source: Deloitte

In **Vauxhall - Nine Elms - Battersea**, construction started on 92-98 Vauxhall Walk. This is a 28,500 sq ft new-build development and is expected to be completed in November 2022.

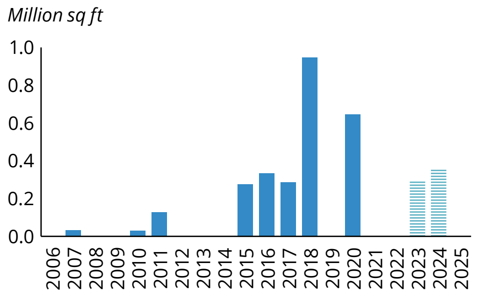
Transport links in this area improved considerably with the extension of the Northern Line. Nine Elms and Battersea tube stations opened in September 2021, providing faster connections to the City and West End and to the wider London transport network.

The largest completion was the 520,000 sq ft Battersea Power Station in Nine Elms. This new-build office was fully pre-let to Apple and serviced office provider IWG.

Emerging submarket snapshots
Stratford, VNEB and White City

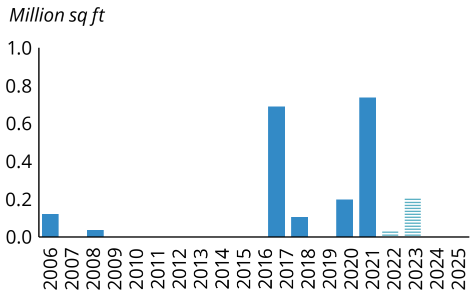


Stratford office pipeline



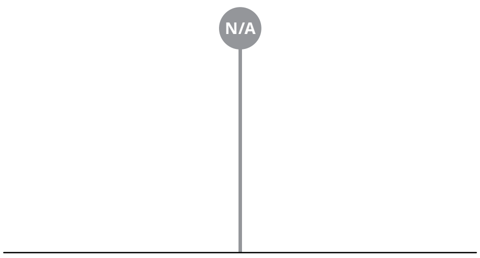
Completed
Under construction available
Under construction let

VNEB office pipeline



Completed
Under construction available
Under construction let

What sector is taking the most space?



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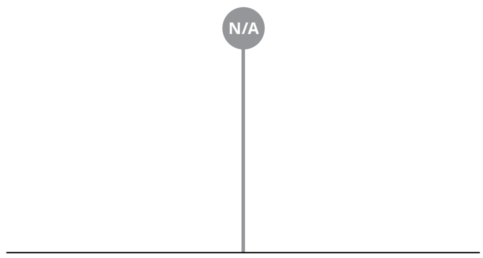
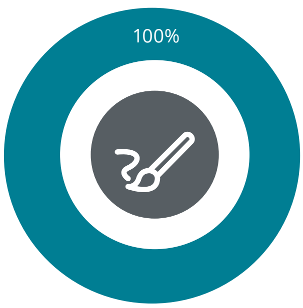
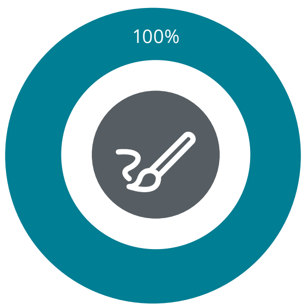


New-build vs. refurbishment volume under construction



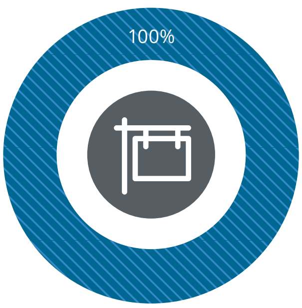
New-build
Refurbishment

New-build vs. refurbishment volume under construction



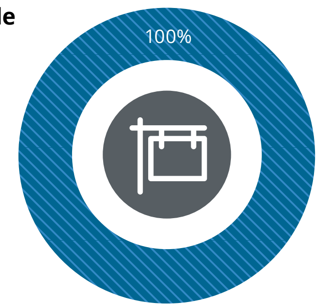
New-build
Refurbishment

Let vs. available space under construction



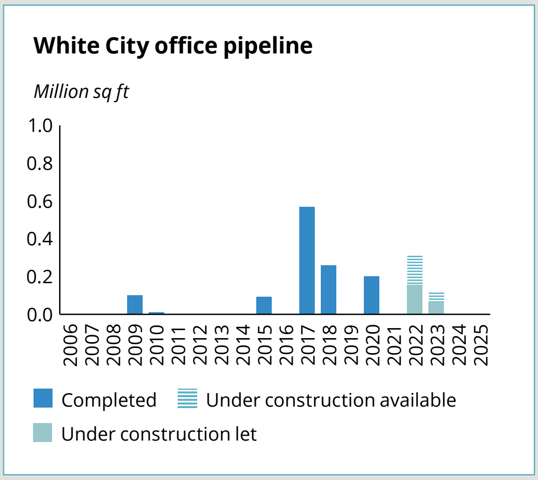
Available
Let

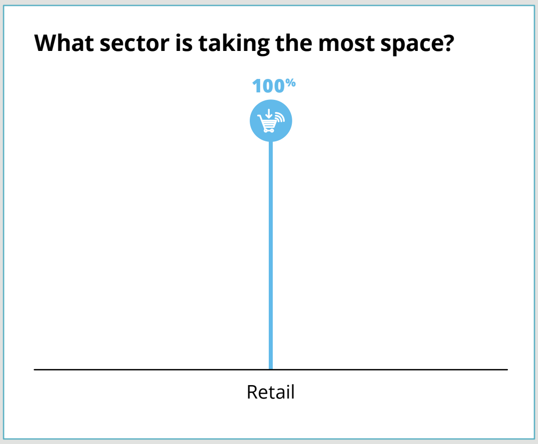
Let vs. available space under construction

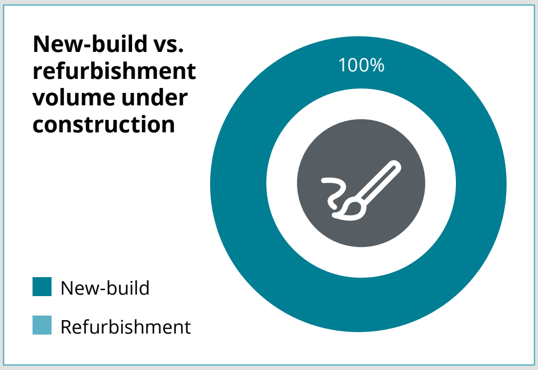


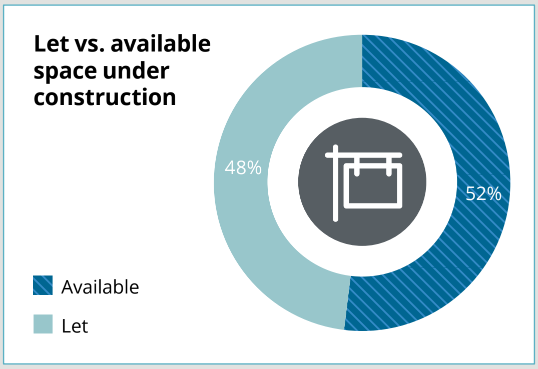
Available
Let

Source: Deloitte









Source: Deloitte

"There were four new starts between April and September 2021, one in each Stratford, VNEB and two in White City. Growth in these areas will offer competition to the more traditional office markets."

Key themes and outlook

Key themes and outlook

Hybrid working influences space calculations

As more employees return to the office, hybrid working patterns have been adopted across many sectors. It remains uncertain whether the shift to hybrid working is a permanent change and if so, how it will affect different sectors.

Occupiers' approach to hybrid working depends on the size of the organisation, its existing office footprint, and its thinking about the future of work. Even prior to the pandemic, the future of the office was high on the agenda as more employers introduced working from home, hot-desking and technology to facilitate remote working. Larger organisations with an office portfolio – rather than a single building – are likely to need more time to review their space requirements and lease arrangements as a result of their experience during lockdowns. It is clear that one size does not fit all, and occupiers' needs are varied and complex. Assessing the volume of space required has moved away from simply considering headcount to taking into account ways of working too.

Uncertainty about the implementation of hybrid working means flexibility becomes a higher priority for occupiers. Occupiers need the flexibility to up-scale or down-scale their use of office space. Achieving flexibility is generally achieved with shorter term office leases, and opting for space within a multi-let office often meets requirements more readily than taking a building on a sole occupier basis. However, there is a trade-off, as some benefits associated with conventional longer leases are not typically available with shorter leases, for example office branding and having one's own 'front door'.

Developers are responding with a wider choice of products tailored to meet the needs of different types of organisations. For example, Landsec offers three products with varying lease terms and services, which are designed to appeal to different segments of the occupier market. The longest lease is for a minimum of ten years on the 'Blank Canvas' product which also gives occupiers the benefit of a personalised workspace. This is suitable for occupiers looking for 100 or more desks.

The second option is the 'Customised' product which is a managed service for 50 to 150 desk spaces. This gives occupiers a self-contained space with their own reception and branding on a minimum five-year lease. The third product is under a separate brand, 'Myo', which offers flexible workspaces and an onsite concierge team. This is targeted at occupiers requiring 10 to 100 desks and is offered on short-term leases ranging from one to three years.

British Land's flexible product is Storey, which offers a managed service for occupiers with 20 or more employees for a lease period of one to three years and includes the option to brand. Although these products were launched prior to the pandemic, the widespread adoption of hybrid working and uncertainty about whether this pattern of working will remain are likely to broaden their appeal.

Specialist flexible workspace providers like WeWork and International Workspace Group (IWG) are also evolving with the times. Their product ranges include co-working spaces (dedicated or hot-desking), private offices and office suites. Services are offered on a variety of payment terms – prepay, pay-as-you-go, monthly, annual and longer term.

The appeal of co-working is evolving. Co-working is an open office with desk spaces and communal areas shared by multiple occupiers. Depending on the product, organisations may have dedicated desks in the open office space. Co-working space has tended to appeal to start-ups, freelancers, the gig economy and smaller companies. The option to pay only for the days that employees are in the office makes co-working spaces efficient for smaller occupiers. Co-working spaces also give access to Grade A office space at a lower cost than conventional leasing.

Providers of co-working space are broadening the appeal of the product by letting full floors. This will appeal to corporate occupiers that have greater preference for control over who else sits in their space, whether for operational or security reasons, or to implement more personalised COVID security measures.

The 'evolution of the office product', where the co-worker sector has generated the 'hotel' end of the spectrum with central facilities, is now appealing to a wider range of occupiers. Developers are recognising that the traditional no-frills long-term lease solution may not work for all, and have added managed service solutions to their offer.

Increased office amenities

A wide range of office amenities was typically available at buildings occupied by large single employers and flexible workspace providers. The expectations of other occupiers have increased, and developers are keen to respond, in order to help differentiate their products.

With the impact of lockdown on the physical and mental health of employees, there has been greater focus on improving health and wellbeing at work. This is shaping employee expectations about office amenities and, given the tight labour market, the demands of occupiers. Developers need to go − and are going − beyond providing bicycle parking and showers. Office amenities include outdoor terraces, coffee bars, restaurants, mindful space, and interiors that promote wellbeing. Some developers are expanding the services they offer to include concierge and central conference and event spaces. Internal retail and catering space gives developers and occupiers more control of the ground floor environment. But offices with internal cafes that are available only to occupiers, and not to passing public, are likely to reduce footfall in surrounding high streets.

One of the consequences of the pandemic is that developers need to address concerns that occupiers and staff may have about the risks of spreading a virus in enclosed spaces. Developers are improving ventilation, and increasing the use of low- and no-touch fixtures, to create COVID-19 secure workspaces. Other design trends include improving light and acoustics. This will not only facilitate wellbeing but will also enhance participation in hybrid meetings –a mixture of in-person and virtual attendees – that are now an essential part of office life.

Working in the office is competing increasingly with working from home and the provision of additional amenities also helps to entice employees to work in the office more often. Currently attendance is high on Tuesdays, Wednesdays and Thursdays, with much lower occupation on Mondays and Fridays.

As more amenities become an important differentiator, demand will grow for amenity-rich office buildings. The success of differentiation by amenities will continue to accelerate the rate of obsolescence of secondary stock.

Delayed economic recovery and rising costs lead to greater uncertainty in the property market

Economic growth has been slower than expected as businesses and consumers adjust to changes brought on by the pandemic.

The Deloitte CFO Survey for Q3 2021 reports concerns among most finance leaders (93%) about rising costs and lower operating margins over the next 12 months. The two key risks are persistent labour shortages and the effects of the COVID-19. The September 2021 edition of the IHS Markit/ CIPS UK Construction Purchasing Managers' Index (PMI) also found that recovery in construction is being hampered by a lack of materials, staff shortages, spiralling costs, and softening demand.

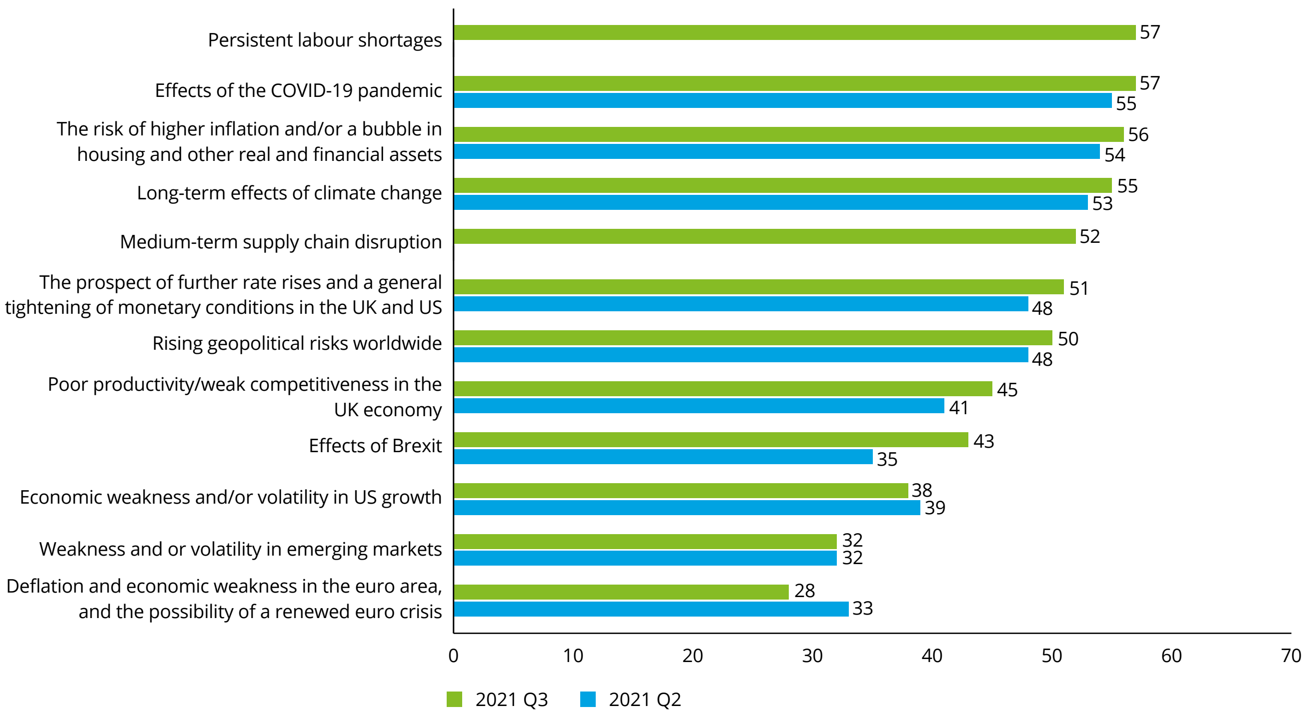
Material and labour shortage are a significant issue for businesses in general and particularly for construction companies. In our Developers' Survey, 75% of respondents mentioned construction cost as a major obstacle to starting new projects.

Despite these concerns, the UK's largest businesses are planning to expand. According to the CFO Survey, the top three corporate priorities are to introduce new products/ services or expand into new markets, increase cash flow and reduce costs.

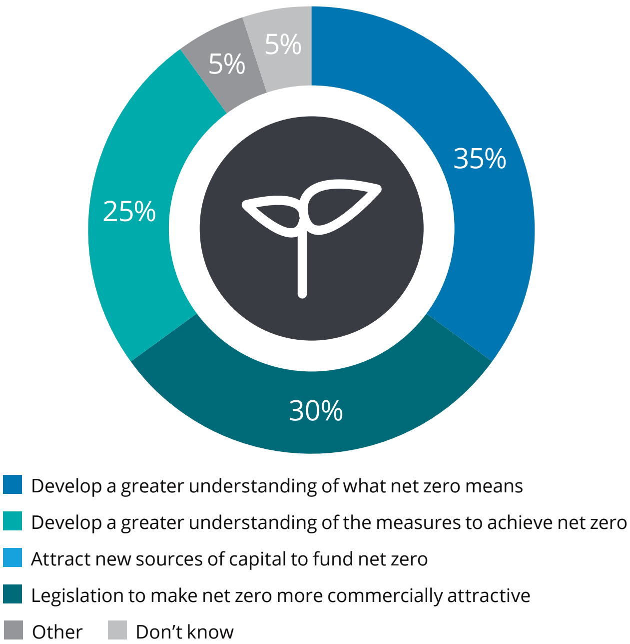
ESG – A topic of today, tomorrow, and beyond

Developers are responding to the challenge of climate change at pace, driven through a combination of: collaboration with peers and initiatives (such as the Better Buildings Partnership's Climate Commitment); the escalating trajectory of regulatory standards such as Minimum Energy Efficiency Standards; heightened reporting requirements (both voluntary and, increasingly, statutory); and market expectation. In our survey, all developers reported taking practical measures to achieve net zero, including strategies to quantify, reduce and offset carbon emissions.

Risk to business posed by the following factors: Weighted average ratings on a scale of 0-100 where 0 stands for no risk and 100 stands for the highest possible risk



ESG: What changes do you think the government and/or the wider industry need to make to achieve net zero developments?



Source: Deloitte Developers Survey

Almost half (45%) of the developers in our survey expect that all their new developments will be net zero at some time between 2025 and 2029, and 25% aim to achieve this target between now and 2024. Whilst such stated ambitions are encouraging, the exact definition of 'net zero' remains open to interpretation, and the true test will be the extent and pace at which developers are committed and able to 'design out'/reduce their carbon footprint across Scope 1, 2 and 3 emissions before turning to offset initiatives.

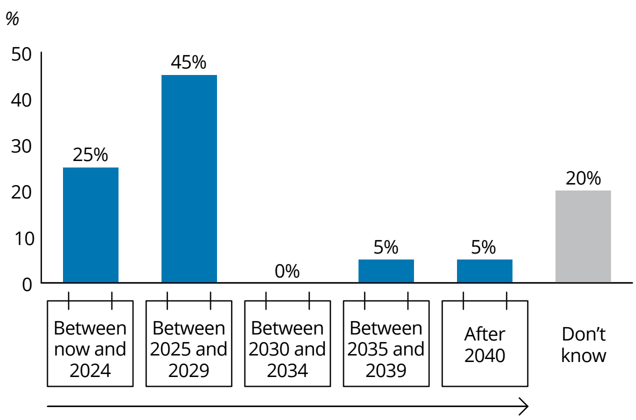
Notwithstanding the overall commitment to deliver net zero, 35% of respondents to our survey consider that a greater understanding is required of exactly what net zero means.

Viewed as a form of risk, the ESG – or more specifically, the Climate Change/Net Zero – agenda presents clear concerns with regard to accelerating rates of obsolescence among standing portfolios. Whether through reduced occupational appeal affecting achievable rental levels, extended void periods and the 'quality' of tenant (and therefore covenant strength), through to increased exposure to rising levels of capital expenditure and reduced financial appeal, there are clear market pricing and valuation challenges.

Notwithstanding the existence of a body of academic research, the reflection of ESG issues within property valuations is in its relative infancy, with limited transactional evidence available to valuers to aid analysis and inform judgements. At the time of writing this Crane Survey report, the Royal Institution of Chartered Surveyors (RICS) is currently consulting on a new Guidance Note on the subject of Valuation and Sustainability, which will be mandatory for valuers.

Whilst there is some market commentary that points to the potential to secure 'green premiums' for assets with strong sustainability credentials, there is a danger that such terminology ignores the problem of assets whose credentials are less well aligned. Ultimately, 'the market' has a capacity to pay a price and will do so for assets where credentials are robust. Equally, it will discount the price if those credentials, which now typically include sustainability as synonymous with 'best in class', are in any way inferior. It may sound less appealing, but the 'brown discount' is more pertinent terminology! This is of particular relevance from our Crane Survey perspective, given the increased likelihood that 'stranded assets' will emerge – which could possibly stimulate increased development activity, albeit focused on refurbishment rather than redevelopment, as carbon accounting, including embodied carbon, and the drive to 'net zero' continue to gather momentum.

ESG: By when do you think all your new developments will be net zero?



Source: Deloitte Developers Survey

The future office pipeline

Central London: Office pipeline forecast

Source: Deloitte

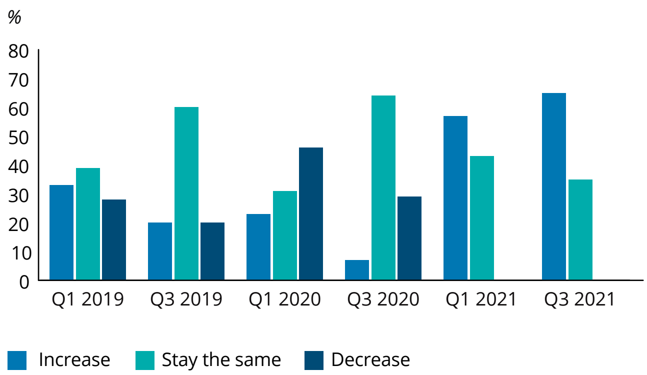
In this graph the future office pipeline data is presented on an annual basis rather than survey by survey. The volume of completions in 2021 is set to reach a high point and compares to peak volumes as far back as 2003. The high volumes in 2021 are a consequence of new starts in 2018, 2019 and 2020, increased by the construction delays we reported on previously, through 2020 in particular. – hence some buildings originally due for completion in 2020 did not complete until 2021.

Based on developer data, the volume of completions in 2022 will be similar to 2021 at around 8 million sq ft, which again reflects the significant number of new starts in 2019 and 2020 in particular.

By comparison 2023 looks quieter with only around 4 million sq ft of space due to be completed. We have reported previously that the developer market seems to have become better at regulating supply to match demand in the last 10 - 15 years, so it perhaps not surprising following the bumper years of 2021 and 2022 that 2023 should be lower. It is also important to recognise that hesitation by developers in starting new schemes in 2019 and 2020 at the height of COVID-19-related lockdowns is likely to affect delivery volumes in 2023. Some refurbishment schemes not yet announced may be able to complete in 2023 to swell the volumes, but it is now looking unlikely for new-build projects to do the same.

By 2024 developers believe that occupiers will have decided what hybrid working means, reaching a view that the reduction in office space requirements may be limited. With increased amenities and ESG credentials on offer, developers anticipate that occupiers will be happier to commit to new space at this stage. However, to deliver new-build office developments in 2024 will probably require procurement in the next few months, and ongoing concerns about rising construction costs may be a barrier to committing to projects and may yet put a brake on currently-expressed intentions.

Developers Survey: 'Compared to six months ago, how do you expect your pipeline'



Source: Deloitte

Construction cost and workload sentiment survey

Construction cost and workload sentiment survey

To complement the London Office Crane Survey, Deloitte's cost consultancy team carries out a bi-annual construction market survey, capturing market sentiment on workload and price. The construction industry is busy. But our developer survey has highlighted construction prices as a major issue for developers. The combined impact of COVID-19, Brexit and a lack of heavy goods vehicle (HGV) drivers is a perfect storm, raising prices significantly. Will these inflationary pressures continue?

Trades in general predict a rise in workload over the next 12 months

Workload – Change in sentiment over the next 12 months (%)

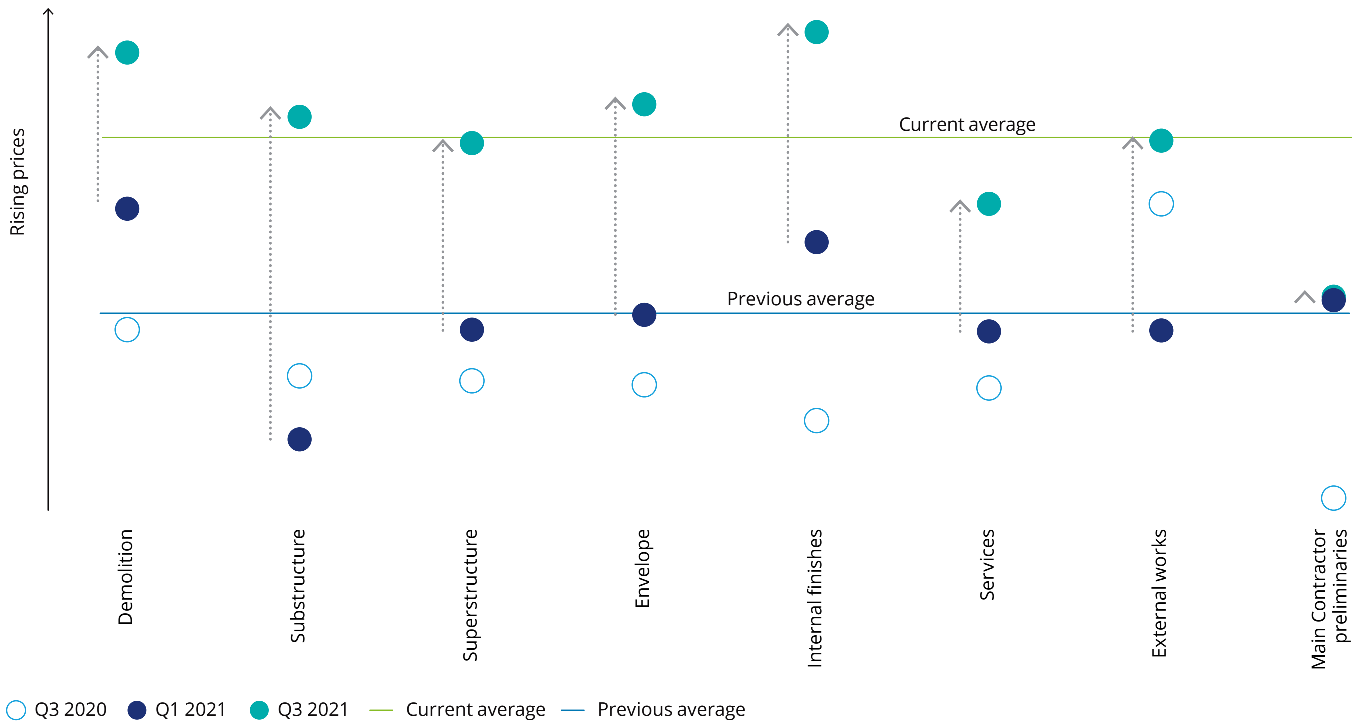
Source: Deloitte

Data from the trades completing our Construction Market survey in general expect an increase in workload over the next year. This is consistent with similar findings by the Office for National Statistics, the Construction Products Association, (CPA) and IHS Markit, which all suggest significant growth in UK construction workload and output in 2021. However the CPA suggests that growth may slow down in 2022.

Our London Office Crane Survey highlights significant completions in new and refurbished schemes in the past six months. Encouragingly, construction levels continue to remain above the long-term average and we see a surprising level of new starts. Less encouraging is fitout activity, which in the view of respondents to our Construction Market Survey still remains subdued as a consequence of reduced leasing.

In the workload results graphic above the arrows indicate the change over the past six months in expectations about/predictions of the future level of workload. All trades predict a rise in workload (all the blue dots are positive) and most predict that the rate of increase will accelerate. The exceptions to this view are the Envelope (facades and roofing) and the Services trades, both of which anticipate that growth will continue but slow down. The reasons for this divergence of opinion are not entirely clear, since there is a large amount of infrastructure work across the UK. However the amount of refurbishment versus new build in the commercial sector, where Envelope work in particular is perhaps less relevant may provide some explanation.

Price change sentiment for the next 12 months

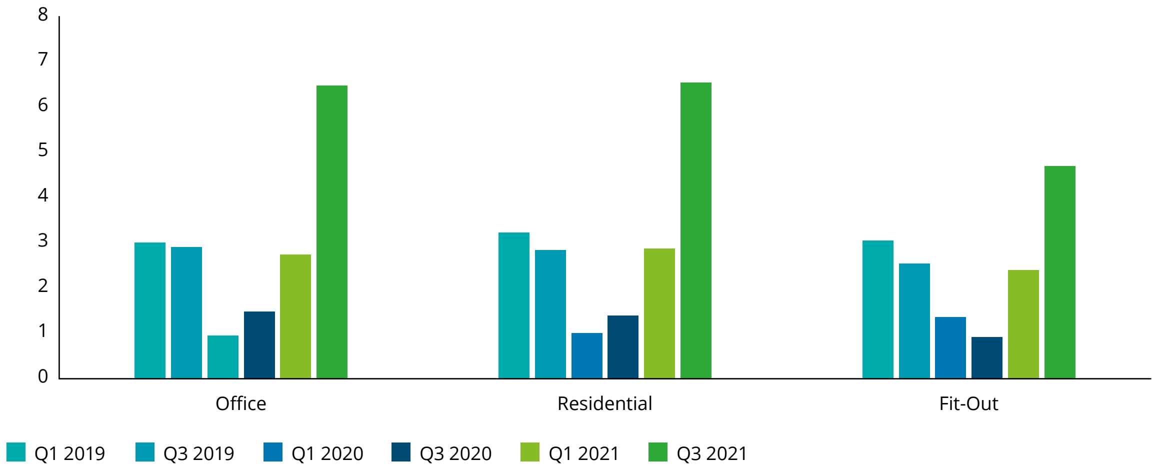


Source: Deloitte

Trades are clear that prices are only going one way – up!

Sentiment around both costs and prices is very clearly upwards, and significantly. Six months ago, trades were predicting an average rise over the following 12 months of around 3.6 per cent for commercial office projects, while projected cost inflation for fitout projects was slightly lower, at 3.0 per cent. It is clear from our latest survey results that these were under-estimates, with many trades already seeing significant increases. Trades now predict that prices over the next 12 months for commercial office projects will be 8.3 per cent higher, and 6.4 per cent higher for fitout projects. These are average prices, with some trades reporting much higher increases in their costs.

Price expectations over next 12 months; inside M25 (%)

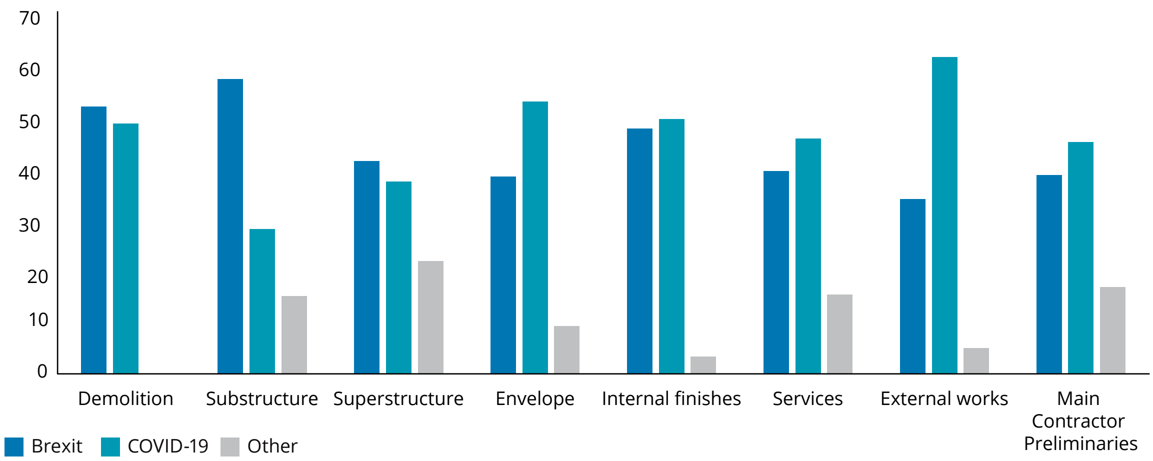


Source: Deloitte

The graph above, which shows results from the past six surveys, makes clear the exceptional nature of the latest responses.

Price drivers across the trade sectors

Prices: What is driving the anticipated price changes?



Source: Deloitte

So, what is driving the price increases? The graph above and the responses from trades make it clear that COVID-19 and Brexit are the key reasons. Trades also mention transportation issues – specifically a shortage of HGV drivers (which is in part due to Brexit) as a further factor exacerbating cost inflation.

COVID-19 and the associated lockdowns meant that many factories stopped production. Restarting for some was reasonably straightforward, but heavy industry can take months to get back to full production. Stocks have therefore often been severely depleted or exhausted. Trades describe manufacturers producing for live projects rather than for stock, and as a result supply lines currently are not smooth and are generally much longer than trades are used to.

Where materials need to be imported, the implementation of new rules and procedures following Brexit means that trades are less certain about delivery times. Bulk deliveries controlled by a single organisation are slower, but more predictable. Smaller deliveries that are amalgamated into combined loads rely on compliant paperwork from all the suppliers on the combined load to ensure that there are no unpredicted delays.

High demand and delays mean that those that can do so have bought up available stocks of construction materials. This stockpiling may have exacerbated shortages, as we have seen in consumer markets with purchases of toilet paper and, more recently, petrol. High demand and limited stocks mean that prices move in only one direction – up. The ONS reported price increases from August 2020 to August 2021 as follows :

- Steel reinforcement +68%
- Structural steelwork +75%
- Sawn timber +74%
- Plywood +78%

Many hope that the recent big rises will be temporary and somewhat tempered during 2022, as production and demand become more balanced. This would be good news, but inflation remains a problem for those trades working on fixed price contracts that may have been priced 12 or 18 months ago, and it also creates a challenge for developers seeking to agree prices for new projects.

25th year anniversary

Reflections and future-gazing

To celebrate the 25th anniversary of the London Crane Survey, we invited a cross-section of industry leaders to share their thoughts on working in the city by reflecting on the past quarter of a century and sharing their thoughts about the future.

London is first and foremost a resilient city. It's demonstrated that time and again over the centuries, and I have no doubt that it will bounce back strongly again as we recover and find a way of living with COVID.

I don't agree with those who are quick to write the obituary of the London office.

Yes, businesses and their employees adapted quickly to remote working – with the proportion of people working from home in the UK more than doubling last year according to the Office for National Statistics – and the benefits have been recognised.

We've missed out on a lot, though. Zoom and Teams just don't cut it when trying to build relationships and foster a culture of collaboration.

New employees have been inducted without having ever met their colleagues or visited their workplace.

The soft learning and development that we possibly took for granted, that comes from being around more experienced colleagues and listening to the office at work, has been closed to them.

But the future of work is likely to be hybrid, and our sector will need to respond and adapt along with its customers. Long before COVID, the leaders in our sector had already been reimagining the workplace and creating flexible spaces that catered to the needs of a wide range of different customers – from individual entrepreneurs to those looking to unlock creativity by breaking out of conventional office models.

Others now need to catch up fast – the successful office owner of the future will need to be much more proactive in managing an asset that meets both high environmental standards and also customer expectations for flexibility, health and wellbeing, and excellent service.

> "The successful office owner of the future will need to be much more proactive in managing an asset that meets both high environmental standards and also customer expectations for flexibility, health and wellbeing, and excellent service."

Melanie Leech,
Chief Executive
British Property Federation

Workplaces have experienced a great evolution over the past 25 years. The trends towards spaces that encourage greater collaboration and a more flexible way of working, and office designs that have a greater emphasis on health and wellbeing, have been around for a while.

But now, following experiences during the pandemic, we're seeing the demand for high quality, healthy and amenity-rich office space play out in real time.

Businesses are looking more than ever to create workplaces that help to build their culture, connect their people, and contribute positively towards their wellbeing. And this focus will only intensify as younger, tech-savvy and more mental-health-conscious generations move through the workforce.

The transition to more remote working during the pandemic has highlighted the important role that offices play for businesses to motivate their people, nurture talent, and create a place where people genuinely want to be.

Technology has enabled people to work from any place, at any time, but there's inherent value in face-to-face interactions to develop deeper and trusted relationships.

So we shall see more offices designed with the end-user in mind, and employees will have a greater voice in shaping what their workspace looks like and what it delivers.

In the long term, the much documented 'flight to quality' will start to translate into a 'flight from carbon', with sustainability increasingly driving decisions about the kind of space that businesses want to occupy. Now that climate change is firmly on the boardroom agenda, demand for low- or no-carbon office space is only set to soar over the next 25 years.

Awareness of indoor environmental quality and its impact on productivity is also growing, and the government's ambition to upgrade the National Grid to fully renewable energy means that we'll see a rapid shift to eliminate fossil fuel-powered buildings.

Looking back over the last quarter century, London has always been at the forefront of innovation. The diversity of experiences on offer and London's position as a global city mean that the capital has been able to attract the best talent and capture investment, both of which are crucial for a city to flourish

Oliver Knight
Head of Offices and Myo
Landsec

> "In the long term, the much documented 'flight to quality' will start to translate into a 'flight from carbon', with sustainability increasingly driving decisions about the kind of space that businesses want to occupy."

Property is all about people. As people's lifestyles evolve, so must property. We need to create relevant and sustainable spaces.

In 25 years' time, we may need to create spaces that are supported by flexible use– spaces that can change and evolve as their use changes and evolves.

It is possible that we will build structures that have greater average floor to ceiling height, that have mechanical and electrical plant capacity to support anything from residential to life sciences and that are 'priced' in a three-dimensional way, reflecting the time/ use demanded of the accommodation.

Densities could drop, but allocated spaces within buildings could allow for social gathering and therefore higher density pockets. Residential meets offices meets retail meets hospitality.

Michael R Hussey
Chief Executive
Almacantar Limited

> "In 25 years' time we may need to create spaces that are supported by flexible use - spaces that are can change and evolve as their use changes and evolved.

> The increasingly fast pace of change supports the creation of more generous adaptable long-life spaces that provide lasting environmental and financial gains.

The one thing you can be sure of is that offices will be different. Technological advances and the need to create inspiring, inclusive and healthy workspaces will be important drivers, in addition to the imperatives of managing population growth and climate change.

The increasingly fast pace of change supports the creation of more generous adaptable long-life spaces that provide lasting environmental and financial gains. Landlord and occupier collaboration will also come increasingly to the fore in the drive to provide relevant sustainable space with longevity.

London has benefited from its variety and the ability for different users to live cheek-by-jowl. It is this flexibility, allowing the capital to support the wide range of activities and people, that has made it such a vibrant global city.

Richard Baldwin
Director of Development
Derwent London

Over the past quarter century, Allies and Morrison's ambition in London and beyond has been to deliver finer-grain, context-led projects that deliver not just better workplaces, but more friendlier places for people.

We have always been interested in how any new building can contribute to its surroundings and be enriched by them. Establishing the constraints, they need to work within often leads us to discover opportunities they may offer. And I believe that going forward, this kind of context-led analysis will be more vital than ever, underpinning how we can create more resilient places for everyone in the next 25 years and beyond.

The London Plan now requires boroughs to robustly assess character and quality so there is an increasing need, indeed a duty, to cooperate, learn from and engage with neighbourhoods as well as to have designs peer reviewed by appropriately experienced and skilled professionals. Community consultation, co-design and professionally design-led review will be very much part of the future of success as the built environment sector will need to listen and learn from our diverse communities.

While technology may seem to have liberated work to be time- and location-independent, work will now be done in a multitude of places. Ironically this means somewhat that location will matter more than ever before.

What we need now to is create places where people positively choose to go to work.

The best workplaces will be environmentally responsible and readily connected to active and reactive flexible places with a range of activities, good food, sports options, pop-up opportunities, culturally rich places to daydream and to dance the night away, all within walking distance of whatever desk you may choose.

Tenants and occupiers will go to smarter, more effective buildings – those with more progressive sustainability credentials but also those that offer opportunities to engage with the city and provide the social interaction that makes us happy.

How does this translate spatially? I think it means more flexible offices with more spaces dedicated to interactivity and teamwork rather than individual workstations. Buildings will be more porous, with more opportunities for public access and also seemingly 'non work' uses (retail, arts, education, entertainment). Ultimately, the future workplace will be more attractive, a place where people want to be, not just have to be.

Joanna Bacon
Partner
Allies and Morrison

> “What we need now is to create places where people positively choose to go to work. The best workplaces will be environmentally responsible and readily connected to active and reactive flexible places with a range of activities.”

Even before the pandemic what we now know as WfH was affecting London travel patterns and widening the London travel-to-work (TTW) area. As we all worked from home, employers who had never contemplated the idea began to appreciate its potential merits and demerits.

Responses from employers have ranged from 100% WfH to some employers insisting that all employees should return to the office.

But for the vast majority, some homeworking is the new normal, and those who assume that the office market will somehow be unaffected are living in cloud cuckoo land.

Good developers/landlords will respond by becoming active landlords who offer bespoke space, with more space per person, a single inclusive cost per month, shorter leases starting from six months, refreshment facilities, and no dilapidations.

There is the potential to increase net rental over local competitors when this is done well. The days of landlords throwing the keys at a tenant and demanding quarterly rent are over. So is the 20-year lease, other than in exceptional circumstances, and we may well have seen the demise of the upward-only rent review.

> “London will continue to be the leading provider of commercial space in the UK and to be competitive with the rest of the world’s great cities.”

London will continue to be the leading provider of commercial space in the UK and to be competitive with the rest of the world’s great cities.

A big question is how investors will value commercial office space without a long lease from a blue-chip tenant. Developers may have to demonstrate that they are capable of keeping their premises occupied and profitable without long leases and fall-back tenants. Valuation will be a lot more sophisticated, and potentially even dangerous.

Although we complain about it, London boasts an extraordinary public transport network which is more user-friendly and accessible than almost any other system in the Western world.

Our rail network is already heavily focused on commuter access to the capital. Train operators are already offering 28-day season tickets with 8 or 12 return journeys, to reflect the change in working patterns.

Steve Norris
Chair Soho Estates
The Sanctuary

As we emerge from the immediacy of the pandemic, London's business community is shaping the 'new normal'. One in which the workplace, physical and virtual, is reimagined to accommodate previously unseen elements of work-life balance and an ever-growing expectation of *sustainable* economic growth. The purpose of the office, and how we commute there, lie at the heart of this evolution.

Our fractured and disrupted working patterns, driven by increased homeworking, have revealed many of the strains on the pillars of the 'old normal'. Packed trains at inevitable peak periods, the inherent expectation of presenteeism in the office, and the claustrophobic nature of living in central London.

As these norms are slowly under challenge, in the interests of liveability. Businesses are finding themselves briefly as pace-setters, with first movers establishing norms across sectors with first movers setting standards across sectors.

The message from employees across London is to seize this moment, and to redesign your company culture, purpose, and image. Whether that means flexible working policies, staggered start or finish times, greater mental health support or the right to 'switch off' – firms have tools at their disposal.

But what about the *death* of the office then, many will ask. Early indications suggest that this will not happen, especially within renowned hubs like the City, Canary Wharf, Victoria, and the West End. In fact, many firms with major footprints are leaning towards redesigning rather than relinquishing. Whether you're a global law firm, a broadcaster or a bank, London is *still* the place you don't want to miss out on.

Moreover, our capital is beginning an exciting evolution. From micromobility trials and enhanced streetspace (just look at modern day Soho!) to the advent of Crossrail and airport expansion. Our global city is on a journey to cement its position as cleaner, greener, and more economically accessible for *all* Londoners.

> "But what about the death of the office then, many will ask. Early indications suggest that this will not happen, especially within renowned hubs like the City, Canary Wharf, Victoria, and the West End."

Jordan Cummins
Head of Policy, London
CBI

On developer confidence

Development in the City is growing and only paused for one or two months during the early days of the pandemic. Real Estate Investment Trusts (Reits) and Sovereign Wealth Funds (SWFs) have been investing throughout. There is still a lot of appetite for investing in London and other major UK cities like Birmingham, Manchester and Liverpool. The buildings may have been empty, but they still have brilliant covenants to provide income.

Most planning consents are going ahead to construction. Firms are very much interested in space in the City. One developer secured tenants for two-thirds of a building before demolition. Some towers are purely speculative builds, demonstrating this strong confidence.

On the future of the office

Through the City's Recovery Taskforce, we are actively engaging with a group of 250+ senior leaders and almost 5000 survey respondents. We believe the City has and can continue to re-engage with people as they come back to the office.

People will be thinking about where they work and will be asking 'Why do I need to be in here?' But the office is far from dead. Working from home has limits because no-one wants to miss out. If you want to be in the game, it is important to be in the office, to be present and fully engaged. Not everything can be done from a screen. The return to the office is happening, and the real estate industry has stepped up to the plate to meet the challenge of what new space should be.

> "Don't come to the City with a 'greedy' building, that is, one that does not adhere to ESG principles in an authentic manner, because we will not let you through the door."

On ESG

On the City Planning Committee, we expect all buildings as a matter of course to have an 'Excellent' or 'Outstanding' BREEAM rating. In our experience, developers just don't talk about BREEAM, but NABERS – the National Australian Built Environment rating system and a whole host of other metrics. It is a race to be unique!

The flight to quality office space is real. Developers need to be authentic about Environmental Social and Governance (ESG) commitments. The City won't tolerate a 'greedy' building, that is, one that does not adhere to ESG principles for real, because we will not let you through the door. Agents tell us that on a non-sustainable building, the rent is lower; while exemplar buildings command a rental premium, so there is a win-win for developers to get this right.

Our emerging policy is that we have a presumption against development, because we are looking at embodied carbon and the whole life carbon cycle. Don't come to us with a report saying "We can't let a building out as it is", without having considered every option.

Everyone will have to up their game. Everything is in play, at a very exciting time of renaissance.

Alastair Moss
Deputy Chair, Planning and Transportation Committee
City of London

So, do you actually count cranes?

The London Office Crane Survey – and our similar reports for Manchester, Birmingham, Leeds, Belfast, Dublin and Paris – use the metaphor of the Crane, an enlightened idea that has stuck and become a well-respected brand over the past 25 years. To such an extent that in 2021 we were asked to contribute to a report on the UK Crane industry.

The crane on a construction site is a clear symbol on the skyline that activity is happening beneath, so counting cranes is a logical idea for investigating construction activity. Looking acoss the London skyline and noting both the number—and if you understand the twisting nature of the River Thames—the location of the temporary beasts is a good way of getting a broad understanding of the level of construction activity. Think of Canary Wharf in the 1990s, the more recent activity at Kings Cross Central, and the current work in Battersea and Nine Elms, although the last of these is as much to do with the boom in London residential development as in London offices.

The City remains London's key commercial centre, and the number of cranes at any time among the increasing number of towers in the Square Mile is a sign of the health of development.

To pay homage to our titular crane, as part of our 25th Anniversary edition, and in keeping with our future focus, we are taking a look at what the next 25 years might bring for crane technology. Some of the industry's biggest suppliers tell us about innovations that may become commonplace on future construction sites, and explain the key drivers behind them − such as concern about environmental impact, or the growing focus on labour wellbeing.

The introduction of 'Flybrid' power technologies

With Environmental, Social and Governance (ESG) criteria becoming increasingly important, suppliers are developing ways of reducing the carbon footprint of construction, without compromising quality. These changes are occurring across the supply chain, including among crane providers.

Sir Robert McAlpine, a UK engineering group, and Select Plant Hire are undertaking case studies on how to limit power requirements by reviewing the ability of cranes to operate with lower demand for power through energy recovery technologies. They have conducted tests using carbon-saving 'Flybrid' technologies – like those used in Formula 1. These use a flywheel generator before traditional power supply kicks in.

Flybrid technology allows cranes to run for up to six hours on battery power, as opposed to drawing energy from the grid or a generator. Using a single flywheel on a single tower crane reduces emissions by the equivalent of more than 17 cars driving around a city centre.

Energy harvesting: Another step towards green

Sir Robert McAlpine has also reviewed harvesting (i.e. recycling) energy as another means of improving the environmental performance of cranes. Energy is stored, recycled, and used across the site in other capacities (such as assisting with the lever-arm mechanism), or fed back to the site's microgrid or to the main grid.

It is likely that this technology will be developed and adopted more widely in future.

Cranes: Does size matter?

Eagle-eyed City workers may have noticed the growing presence of much larger tower cranes on the City skyline. Suppliers tell us that we will see these more often than cranes with a smaller capacity.

The primary benefit of using a crane with a larger lifting capacity is faster programme delivery. Larger cranes enable contractors to use so-called Modern Methods of Construction (MMC), whereby larger components are assembled off-site, and then the larger crane(s) used to install on site. Consequently, transport operations across sites and assembly operations are larger, and this all costs more. Crane suppliers have told us that developers are willing to pay higher construction costs in exchange for faster completion.

Crane suppliers say that they are successfully using larger cranes on projects across the country, including city-centre operations in London, Manchester and Edinburgh. For example, McAlpine has used the Phase 3 Battersea Power station project to introduce eleven new cranes capable of lifting 24- and 32-tonne loads – a step change up from their typical 12-tonne to 16-tonne capacity cranes. Other industry experts say they are increasing their crane load capacity up to almost 70 tonnes.

The biggest crane in the world happens to be in the United Kingdom. 'Big Carl' has been a staple at the Hinkley Point, Somerset nuclear power station site since 2019. Standing at 250m (820ft) tall, 'Big Carl' is capable of lifting 5,000 tonnes in a single lift (compared to the average crane, which lifts ten to 60 tonnes).

To put this into context, 'Big Carl' can lift at one time the equivalent of 32 single-storey houses, or 1,600 cars, or 50 blue whales. Due to the size and capacity of this Sarens Giant Crane (SGC)-250 crane, 52 individual 100-tonne counterweight containers are required to maintain balance during its operation.

Will we ever see driverless cranes?

There are industry rumours of driverless technology emerging soon, but many believe it is still a fair way off.

Comparable technology that already exists in the industry includes cranes that can be operated from the ground, as opposed to an operator climbing up into the cabin. With the right skill set, an operator controlling the crane from the ground may also act as a banksman at ground level, to oversee the loading of the crane, thereby halving the labour required for the crane operation.

The focus on a healthier work force

As driverless cranes are still a thing of the future, crane operators are still predominantly used across the sector. Their wellbeing along with the broader labor force is a key priority in the industry.

Crane cabins are being improved to ensure workers are comfortable and in good health, and remain confident in their duties. For instance, some cabins include air conditioning (AC) installations and ergonomic seating. These should reduce both operator injuries and equipment damage.

Video and audio recording, similar to dashcams in cars, is also being used increasingly, to monitor health and safety incidents on cranes.

So, do we actually count cranes?

Sadly not. Our research is based on data taken from a variety of sources and individuals then check every single construction site that we track to ensure we deliver robust and realiable data and insights.

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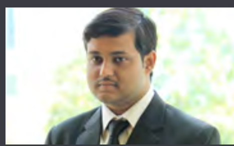

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Further information

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