Quantifying ESG in real estate:

Six lessons from the journey so far

ESG: A collective responsibility

Environmental, social and governance (ESG) factors are now a key consideration in almost all major commercial real estate decisions. The industry has embraced a collective responsibility to address ESG challenges, making it apparent to even the most cynical observer that there is a genuine desire to be a force for good

William Matthews
Partner, Head of UK Commercial Research

We have used rigorous techniques to quantify the impact of ESG considerations.

While there is broad consensus on the importance of addressing ESG issues, there's far less agreement, however, on how best to proceed or how certain actions will impact those in the industry. In part, this is because some of the ESG research to date has been little more than well-intentioned opinion. At best, it is difficult to make thoughtful decisions based on this kind of commentary, and at worst, it could result in poor choices.

In our research, we have attempted to avoid the pitfalls of ungrounded speculation. We have taken the need to address ESG challenges as a given, and have avoided simply reiterating that point. We have analysed questions impartially, temporarily suspending any personal or ethical judgement about right and wrong, to interpret results clearly and without bias. Most importantly, we have ensured that our research is rigorous and analytical. In some cases, we use complex statistical techniques to unpick and isolate particular effects while in others, our techniques are simpler, with validity coming from the use of deep proprietary datasets or collaborations with industry bodies. Common to all of our work, is the determination to ground our conclusions in data and analytics.

This research covers a selection of our recent analytical projects, as well as practical applications and considerations for clients. It offers clear messages that we hope will inform decision-makers as they make decisions against a rapidly evolving backdrop. We also hope the ideas will spark debate and unlock new areas of investigation. Our team is always ready to discuss the next difficult question.

Explore all our research and insights on the Knight Frank Intelligence Lab

How green buildings add value

Do 'green' buildings really produce either a rental or value uplift vs 'brown' buildings?

Victoria Ormond
Partner, Head of Capital Markets Research

It's a key question for investors and developers: can they expect monetary benefit from green-rated buildings and if so, how much? In ground-breaking research using one of the longest-established green ratings, BREEAM, our capital markets research team showed that yes, green-rated buildings do indeed offer both rental and sales value uplift compared with non-rated buildings. That premium can reach 12.3% with a significant step-up in prime Central London office rents for the very highest green rated buildings. The sales price premium is even higher with the based NABERS rated buildings in Australia reaching up to 18% higher on average than an equivalent 'brown' building.

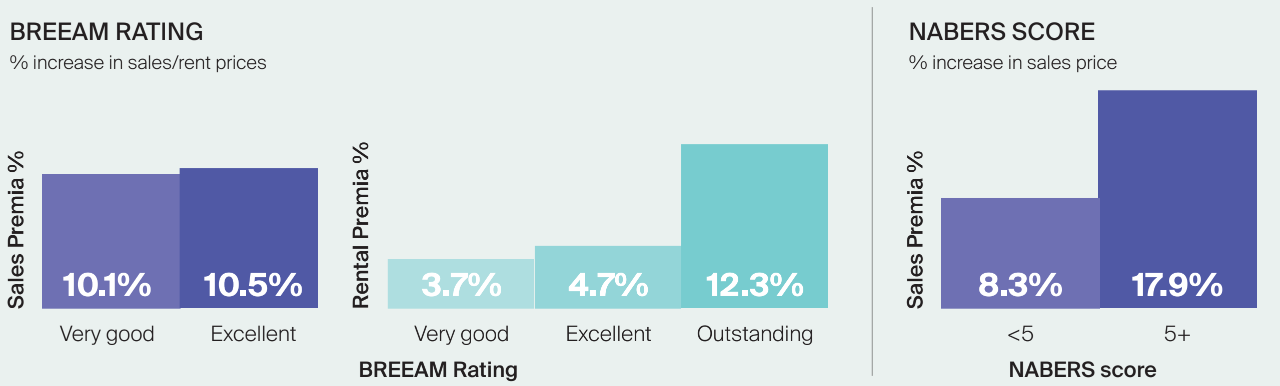
> *We used BRE data in combination with their own dataset to successfully isolate the effect of green certifications.*

Quantifying the link between green buildings and rental or sales value is complex as green-rated buildings are often newer, of a better quality construction or in a more premium location than a typical 'brown' building.

We used BRE data in combination with their own dataset to successfully isolate the effect of green certifications on rentals and sales prices in the London office market. In *How Green Buildings Add Value*, we explain the forward-thinking, robust methodology employed, outlines the results and considers what they mean for investors and developers.

The research highlights the impact BREEAM has on prime central London rents and explains how sustainability adds value. A BREEAM rating is a way of differentiating a building from the rest of the market and for investors focused on income and risk mitigation, the research shows the value in aiming for best-in-class green ratings. For developers, the value of the research lies in understanding how targeting BREEAM rated buildings could lift their development value. As London seeks to be the centre for green finance and green-rated buildings, *How Green Buildings Add Value* predicts heightened future demand for green-rated buildings.

RENTAL AND SALES PREMIA BY BUILDING RATING



Source: Knight Frank Research

IN PRACTICE

One size does NOT fit all

With myriad certifications and ratings, how do you choose?

Gain market recognition for your asset

Engage proactively with occupiers

Unlock green premia

Get in touch with our ESG Consultancy team to learn more about the green building certification landscape.

www.knightfrank.co.uk/commercial/energy

How ESG influences private investment in real estate

Do the wealthy care about ESG when making investment decisions? Are those in some countries more interested than others?

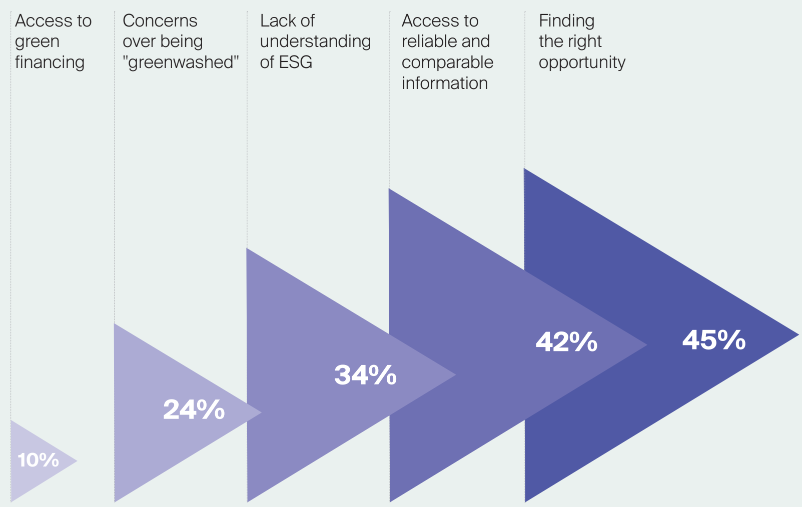
Antonia Haralambous
Associate, Capital Markets Research

The latest findings of our Attitudes Survey for The Wealth Report 2022 show that overwhelmingly, private investors do care about ESG when making commercial investment decisions. While this awareness does differ by geographical region, overall 80% of respondents viewed ESG as important. The findings, reported in *Four key drivers for ESG-related property investment,* were taken from our annual survey of 600 wealth advisers who collectively look after £3.5 trillion capital.

Private investors worldwide clearly care about ESG issues, yet they still face challenges.

The survey found that four out of five ultra-high-net-worth clients were interested in ESG-related property investment, with ESG perceived as an opportunity to create and preserve wealth by over half (52%) of respondents. This ties in with our Active Capital research which found that prime central London offices rated "excellent" by green-rating BREEAM enjoy a 10% premium on sales prices compared with equivalent unrated ones. Similarly, in the Australian cities of Sydney and Melbourne, buildings with a 5+ NABERS green-rating received a sales price premium close to 18%.

STUMBLING BLOCKS



Source: Knight Frank Research

The key driver for this focus on ESG-related property investments is investors' desire to future-proof their portfolio with 40% of respondents primarily concerned with protecting long term returns, especially those investors from the UK, Latin America and Russia and CIS. A desire for impact and the opportunity for greater returns were the second and third key drivers with only 16% of respondents citing external pressure as the main reason pushing ESG up their agenda.

Geographical variations exist: in Asia for example, only 10% of respondents said ESG was unimportant against a global average of 20%. Overall, private investors worldwide clearly care about ESG issues, yet they still face challenges, including accessing accurate information and sage advice to identify the best opportunities for investment and sourcing green financing.

IN PRACTICE

Portfolio stranding, or obsolescence: how to assess the risks

What are stranded assets?

The potential for a property asset, with high CO2 emissions to lose value to a point where it becomes unsaleable.

Assessing stranded asset risk

We use the CRREM (The Carbon Risk Real Estate Monitor) Stranding Risk Tool, to help ensure that your assets are not at risk of becoming stranded.

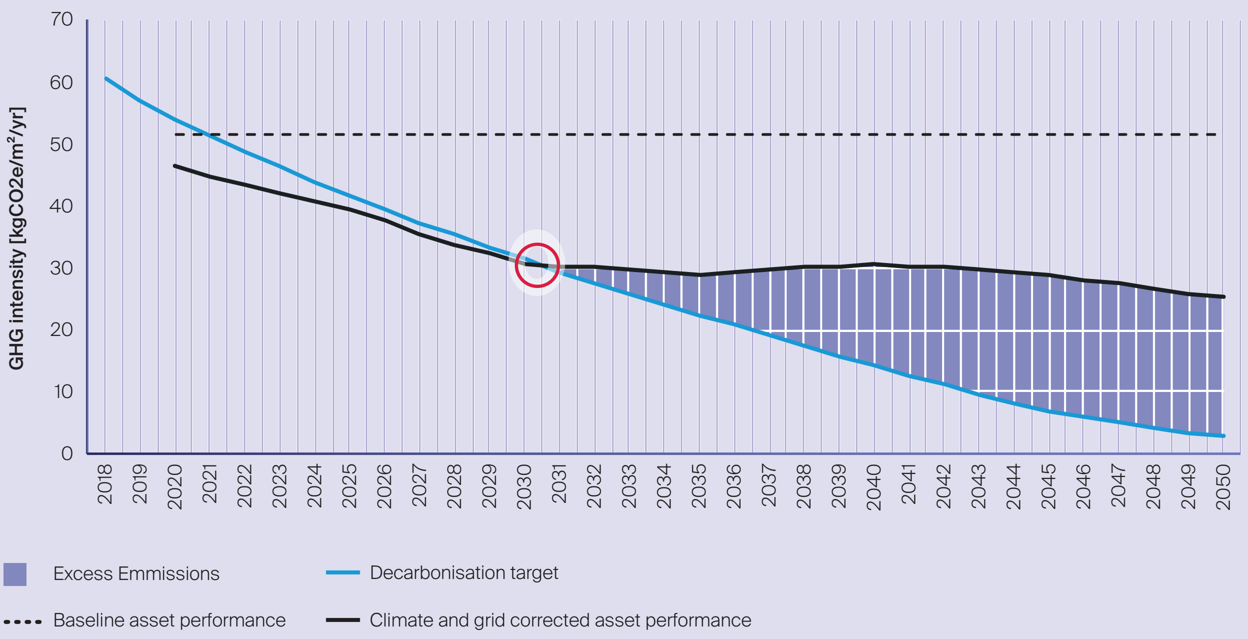
This tool is designed to translate long-term political policies into clear science-based targets. The tool establishes the greenhouse gas intensity of an asset or portfolio over a 12-month period and plots this against the real estate sector's decarbonisation target for two scenarios:

1. The 1.5 degrees Celsius global warming and;

2. The 2.0 degrees Celsius global warming above pre-industrial levels.

The Paris Agreement established a greenhouse gas emissions budget per country, sector and asset class. Assets or portfolios must follow the path of decarbonisation to fit within their allotted greenhouse gas budget and at the point of budget exceedance, the asset or portfolio is deemed stranded. The graph below is an asset built in 2016 with a stranding risk of 2030. The stranding risk date identifies that prior to 2030, retrofit action is essential in order for this building to fit within our greenhouse gas emissions budget.

CRREM STRANDING RISK UNDER 2-DEGREES CELSIUS SCENARIO



Source: Knight Frank Research

The changing nature of occupier interest in ESG

Do corporates really view their real estate as playing a strong part in their carbon reduction strategies?

Lee Elliott
Partner, Global Head of Occupier Research

With 40% of global carbon commissions coming from real estate, business leaders acknowledge that addressing the challenge of sustainability makes strong business sense as well as offering a branding opportunity. Against this backdrop, we set out to discover the views and actions of office occupiers on sustainability and ESG, conducting a survey of almost 400 global corporate occupiers for *(Y)OUR SPACE*.

The results showed there was not a universal appreciation of the role real estate can play in carbon reduction strategies. Crucially, among businesses who did espouse a positive ESG focus, there was a clear gap between ambition and action.

Of those corporates surveyed, 40% had a net-zero carbon target in place and 77% of

> *Among businesses who did espouse a positive ESG focus, there was a clear gap between ambition and action.*

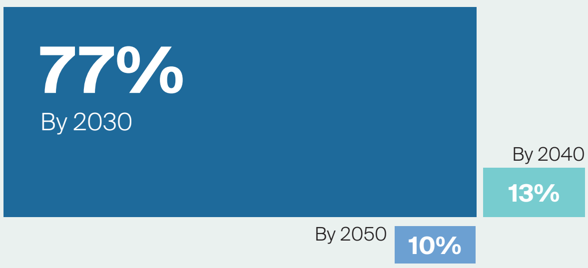
that number had set an ambitious target date of 2030 – less than one real estate cycle from now. However only 16% of those surveyed believed their commitment to net-zero carbon fundamentally changed the way they make real estate decisions, while close to 60% had less than 10% of their global portfolios in accredited buildings.

The *(Y)OUR SPACE* survey confirmed that the office retained an important role in corporate life post pandemic and that occupiers acknowledged the need to control carbon emissions. Yet despite the desire to make a difference, the push for action was not materialising. There is some evidence that occupiers are now bringing requirements to market with minimum sustainability requirements and that searches are being led by sustainability leaders but these are the exception rather than the rule presently.

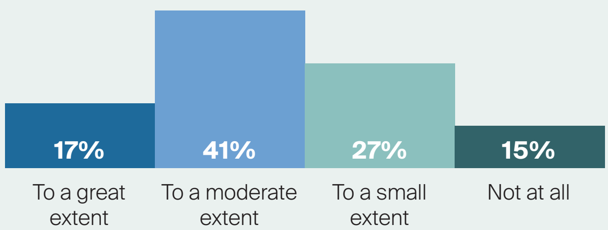
The continuing disconnect between wider corporate sustainability concerns and future real estate strategy highlights how occupiers lag behind investors in their appreciation of the importance of the ESG challenge. To build back better and play an appropriate part in fighting climate change, there needs to be improved education and a raised awareness among corporates along with a focus on bringing sustainable real estate into their portfolios.

SUSTAINABILITY

Q: Does your company have a net zero carbon target?



Q: To what extent do you believe your companies commitment to net zero carbon targets will change your real estate choices?



Source: Knight Frank Research

IN PRACTICE

How occupiers are facing increasing pressure to report on carbon emissions

Streamlined Energy and Carbon Reporting (SECR):

SECR policy outlines that companies must report their energy and carbon information in their directors' reports for current and previous reporting periods. In addition, companies must comment on energy efficiency measures and energy intensity reduction methodologies.

SECR applies to

- Quoted companies of any size.
- Large unquoted companies incorporated in the UK.
- Large LLPs (Limited Liability Partnerships).

Public bodies do not fall under the new regulations but are subject to other legislation.

The Energy Savings Opportunity Scheme (ESOS):

ESOS is a mandatory energy assessment scheme introduced by the UK government from an EU directive to ensure large UK enterprises are energy efficient. Under the scheme, large organisations must assess their energy usage every four years and find new ways to save energy.

Does ESOS impact your organisation?

- You have over 250 employees, or
- A turnover of over 50m Euros (£44.1m) or an annual balance sheet of over €43m Euros (£37.9m).
- You are an overseas organisation with over 250 employees in the UK.
- Your company is part of a larger organisation, which falls into any of the above.

We can help you develop your net zero strategy and ensure that you are adhering to regulations, like ESOS and SECR.

www.knightfrank.co.uk/commercial/energy

How tighter regulation will impact office markets

Sustainability will be a principal objective for organisations in 2022 and beyond, with tighter regulations and reporting meaning more measurement, more management and a shift in real estate focus. But what will be the impact on office markets across UK cities?

Darren Mansfield
Partner, Commercial Research

The regulatory framework to decarbonise real estate is tightening across the UK, with a review of buildings Minimum Energy Efficiency Standards (MEES) targeting a minimum EPC rating of B for offices in England and Wales. We investigated how many office buildings across the major regional UK cities would be affected if that minimum requirement was enforced today and the findings are outlined in *Clean Healthy and Green*.

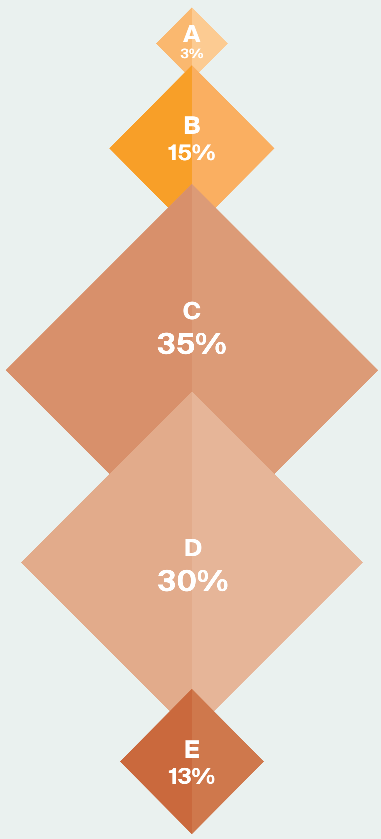
Unless there is a substantial change in current EPC ratings across office buildings, the market implications of these tighter regulations combined with the growing demand for top-rated office space will be significant. The research found that 82% of office stock being marketed in the major UK regional cities in December 2021 would fail to meet the proposed minimum rating. This means that refurbishment activity is sure to rise in the lead up to 2030, with offices where works are deemed economically unviable, subject to a change in use.

Further analysis also discovered that 80% of office space currently occupied by leading listed UK companies fell short of an EPC listing of A or B. Consequently, a rise in corporate office moves is sure to follow compounding the pressure of supply, as businesses increasingly target the best rated buildings to fulfil corporate ESG ambitions.

The built environment and cities have a key role in helping achieve net zero.

The built environment and cities have a key role in helping achieve net-zero. Cities account for 70% of global emissions and currently four in every five Britons live within a city region. The rent inflation already seen in London as businesses compete for best-in-class assets looks likely to be mirrored countrywide as the supply of available office space falls and demand increases. Investing in ESG will differentiate landlords' buildings and offer a more attractive investment proposition.

AVAILABLE OFFICE STOCK ACROSS THE MAJOR REGIONAL UK CITIES BY EPC RATING*



Source: Knight Frank Research, HM Government
* England and Wales

IN PRACTICE

Future proofing your portfolio against regulation change

80% of regional offices occupied by the UK's leading listed companies will fall below the EPC standards required by 2030, with just 18% of available stock EPC 'A' or 'B'.

The revised Minimum Energy Efficiency Standards (MEES) set out by the government last summer confirmed that a minimum required EPC rating of 'B' will become mandatory for all commercial premises by 2030. Additionally, the 2020 Energy White Paper suggests there will be a phased approach, with EPC 'C' required by 2027.

ENERGY PERFORMANCE ASSET RATING

A+	
A	0-25
B	26-50
C	51-75
D	76-100
E	101-125
F	126-150
G	Over 150

50

B

We can support with you to prepare an EPC Plus Report. This will present the most cost effective analysis to guide your investment decisions to comply with the minimum energy standards regulations.

www.knightfrank.co.uk/commercial/energy

Exploring retail's greenest assets

How green is retail property? What types of stores have the best green credentials? And which operators and geographies are leading the green charge?

Emma Barnstable
Senior Retail Research Analyst

Less than 1% of retail properties currently hold or are pursuing a sustainability rating.

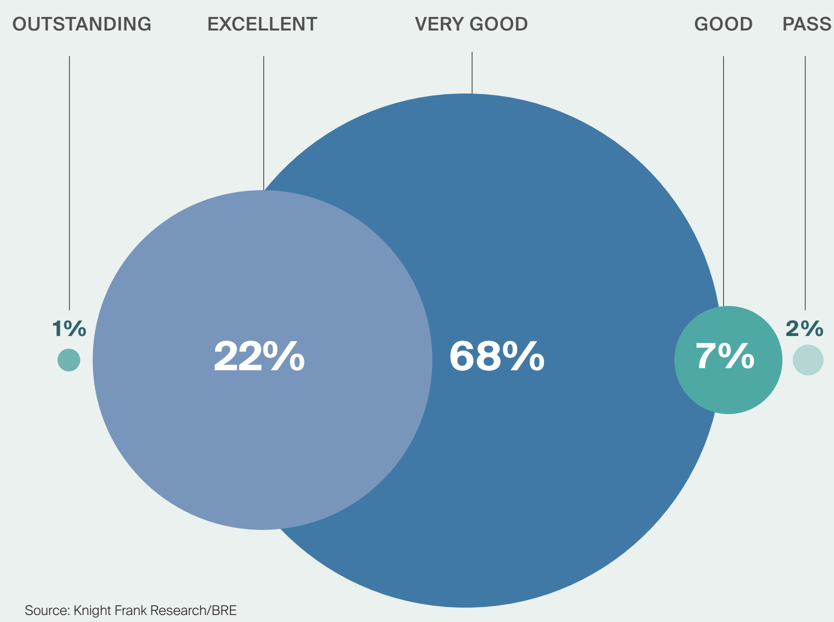
In *ESG & Retail: exploring retail's greenest assets*, we consider the sustainability credentials of the UK's retail sector. Using the globally acknowledged BREEAM green rating, the data reveals that less than 1% of retail properties currently hold or are pursuing a sustainability rating. The sustainability standards of the small number of retail spaces that do conform however, were found to be outstanding, serving as an exemplar to all sectors across the market.

The UK's ageing retail stock plays a significant role in these findings: 97% of stores with sustainability credentials were new-builds. Retro-fitting ESG credentials into old buildings is far more challenging and costly than introducing them during design and construction. This explains why modern shopping centres, retail parks and supermarkets dominate the findings. Less than 1% of green credentials were achieved by refurbishment or occupier fit out yet this will be an essential part of reinvigorating the retail landscape.

Geographically, the largest concentration of green stores, 34%, are in London, but around the UK stand-out successes include MK1 Shopping and Leisure Park in Milton Keynes which achieved an "Excellent" BREEAM rating. Retailers leading the way include The John Lewis Partnership who head the table for the highest number of green stores – 7.3% – followed by the 'Big Four' grocers, Tesco, Asda, Sainsburys and Morrisons. Aldi, Lidl and IKEA also featured with all these companies demonstrating a synergy between their ethical brand values and their focus on sustainable buildings.

Our research makes thoughtful reading for investors focused on high-quality, future-proofed assets while for occupiers, the green credentials of their building will help them attain their own sustainable targets. To avoid claims of green-washing, retailers who espouse green marketing strategies and branding must look ever-more critically at the space they occupy.

ACCREDICTED RETAIL PROPERTY BY LEVEL OF BREEAM SUSTAINABILITY STANDARD



Source: Knight Frank Research/BRE

Walkability: quantifying the 15-minute city

The idea of the 15-minute city has generated a huge buzz across property and politics amid a wider rethink of how we build and manage cities post-pandemic

Oliver Knight
Partner, Head of Residential Development Research

Building on this concept, we developed an Urban Walkability Tool, allowing different markets or buildings to be benchmarked and scored based on their existing access to amenities. For real estate investors, the value of this research lies in gaining a better understanding of what people want from their surroundings in order to develop desirable offices and homes of the future.

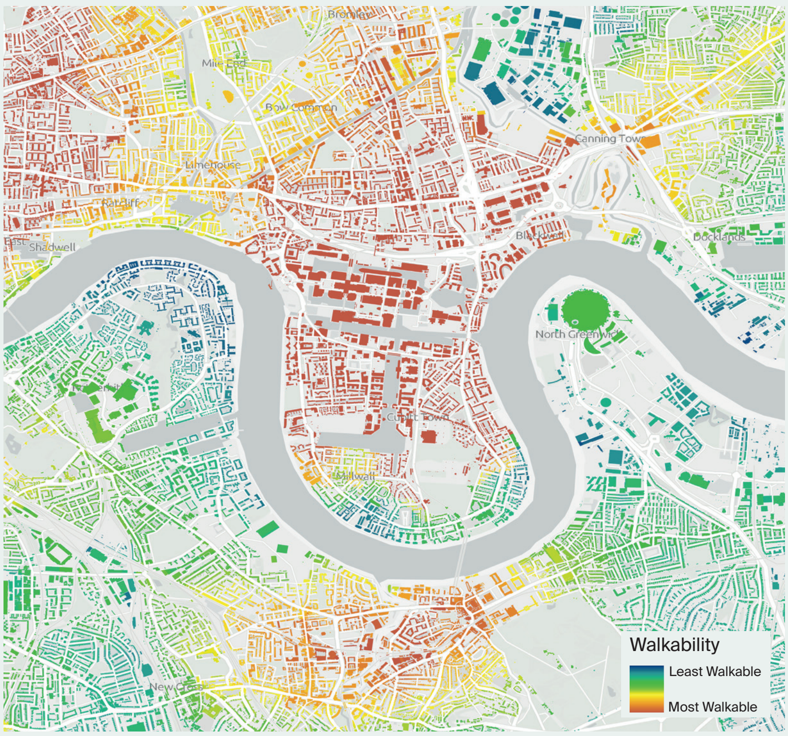
The two CBDs with a good mix of office and residential properties that score well for walkability, South Bank and Kings Cross/Euston, have registered office rental growth at twice the average of the overall London market.

We discussed the growing popularity of the 15-minute city in our *London Report 2022* applying the Walkability tool to seven central London sub-markets. By analysing more than 140,000 Ordnance Survey AddressBase points, and identifying 9,000 amenities of interest for walkability, ranging from culture to education and retail space, the research concluded that those markets with a good balance of office, retail and residential space also drive value – adding weight to the argument that successful places of the future will be mixed-use, mixed-income, walkable places that create strong communities.

Indeed, the two Central Business Districts (CBDs) with a good mix of office and residential properties that score well for walkability, South Bank and Kings Cross/Euston, have registered office rental growth at twice the average of the overall London market. Both markets also maintain below average levels of availability, with substantial gains in property values.

Additionally, walkable neighbourhoods promote healthy and sociable lifestyles, build communities and can help developers and investors meet their ESG targets, an increasingly urgent criteria as the UK faces up to a decarbonised future.

CANARY WHARF ESTATE SCORES WELL FOR WALKABILITY RELATIVE TO ITS SURROUNDINGS



Source: Knight Frank Research

We work with our clients to deliver a broad range of ESG, Sustainability, Energy and Net Zero Carbon advice and support.

At the heart of this advice is our specialist team, who offer ESG & NZC strategy, specialist valuations, transaction & project advice, and management & compliance solutions.

Complementing this team, we have a broad network of more than 100 ESG Ambassadors, who are embedded across our business and who advise and support clients on their ESG strategies across the real asset lifecycle.

Get in touch with a member of our team today

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