Europe's Renovation Wave

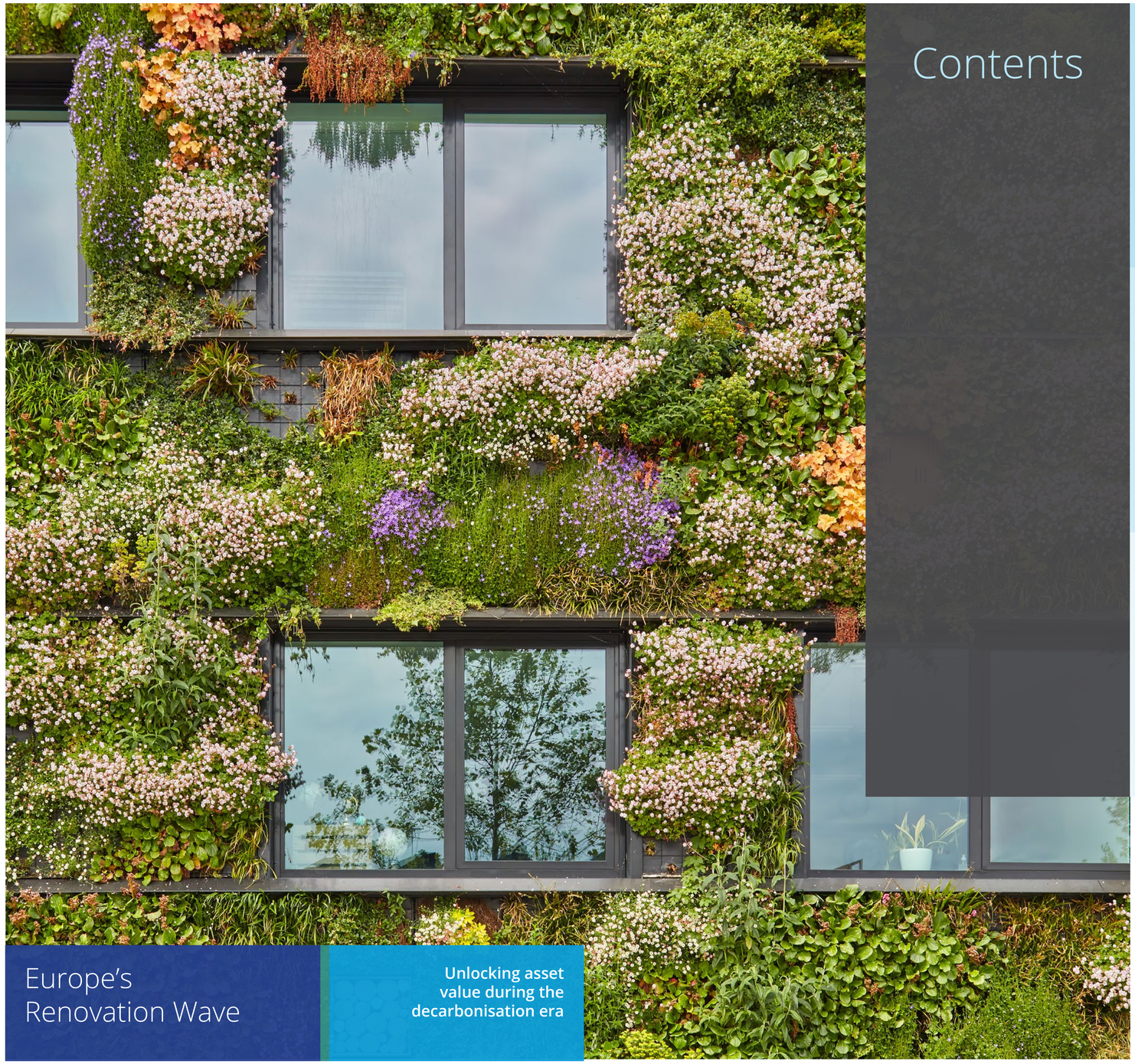
Unlocking asset value during the decarbonisation era

Colliers

Accelerating success.

Executive summary

The European real estate market has begun an era of asset renovation. Regulatory, societal and market pressure on commercial real estate (CRE) owners and occupiers is bringing energy efficiency and decarbonisation to the fore in asset renovation and investment strategies, as the rate of renovation must accelerate rapidly to meet national and EU-wide net zero energy targets by 2050. Our analysis indicates that upfront investments can yield long-term rent and capital-value accumulation. Supporting this analysis, we detail success stories that show owners and occupiers already reaping the benefits of proactive renovation strategies across their portfolios.



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Rising momentum

Europe's plans to decarbonise are becoming ever more ambitious in order to meet Paris-compliant targets. This is permeating across the European economy in multiple ways, driven by a renewed focus on policy and incentives to support the transition of the energy sector away from hydrocarbons.

When it comes to the real estate market, the EU believes that the rate of renovation needs to at least double. The Buildings Performance Institute Europe (BPIE), an independent European think tank on the energy performance of buildings, argues that the rate of renovation needs to increase by a factor of 15 – much higher than the EU rate of change.

National and EU-wide goals for energy-efficient buildings are becoming transformational. Environmental, social and governance (ESG) regulations in relation to the built environment continue to tighten, impacting both occupiers and landlords/investors. The emphasis is on significantly increasing the rate at which the built environment is retrofitted to create energy-efficient buildings that generate much lower operational and embedded carbon emissions. Each country has its own set of targets. The UK and the Netherlands lead in terms of setting specific Energy Performance Certificate (EPC) rating standards to which the real estate community must conform. This is elevating the rate at which buildings are being retrofitted. Importantly, the language in more recent EU-wide Renovation Wave policy documentation is that the private sector will need to fund this upgrade in asset quality, leaving government funds for low-cost housing and public sector assets. This has significant implications for the industry.

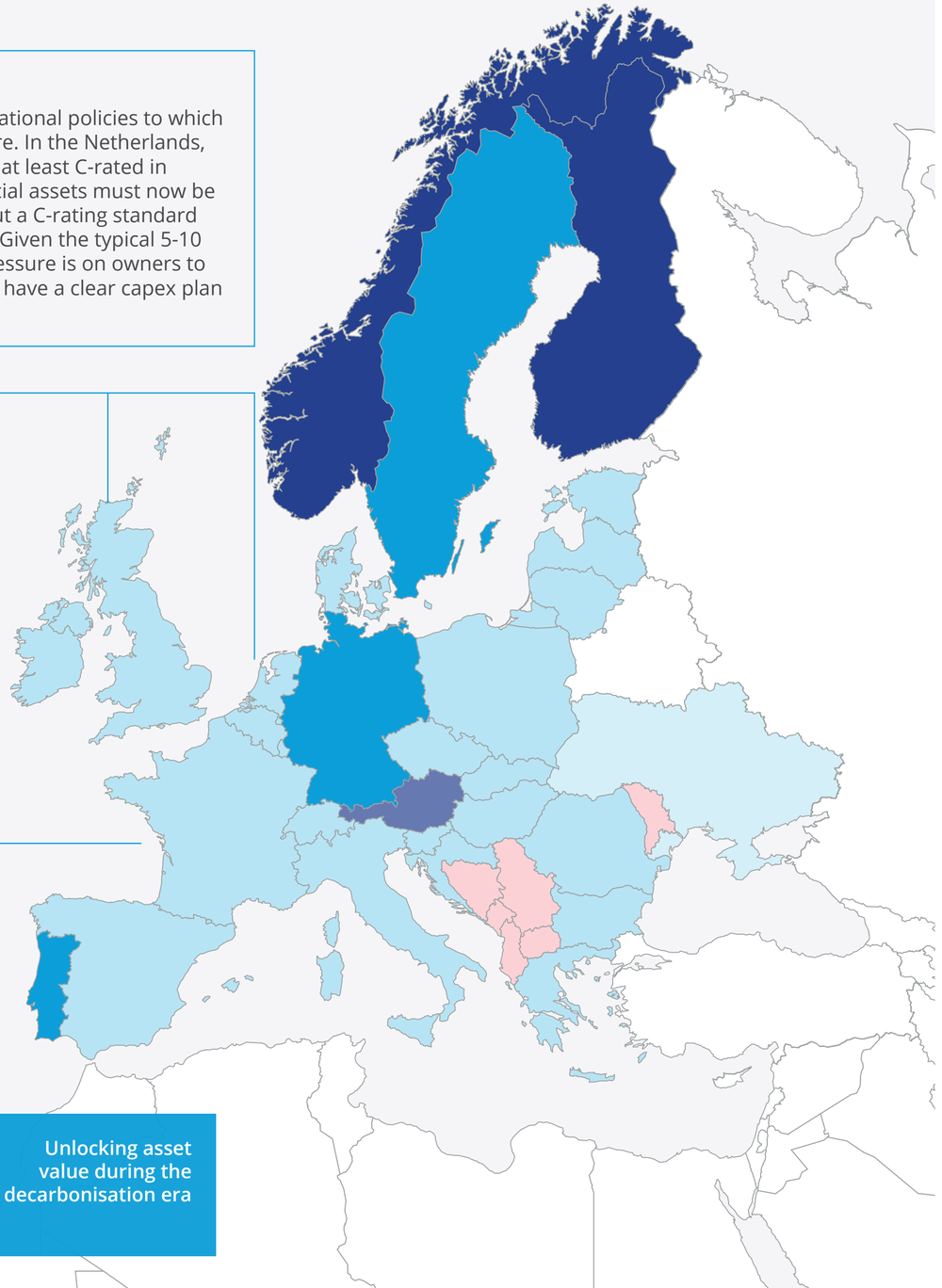
National ‘Net-zero’ Energy Targets

The UK and Netherlands have specific national policies to which the real estate industry must now adhere. In the Netherlands, commercial assets are now required be at least C-rated in terms of EPC rating. In the UK, commercial assets must now be E-rated. Consultations are ongoing about a C-rating standard by 2027, followed by a B-rating in 2030. Given the typical 5-10 year lease lengths in place in the UK, pressure is on owners to comply to B-rating standards now, or to have a clear capex plan in place to reach this standard by 2030.

Net-zero’ target date

- 2030-35
- 2040
- 2045
- 2050
- 2060
- Unknown

France has established the ‘Décret Tertiaire’, to reduce energy consumption in tertiary sector buildings by 60% (in three stages) by 2050.



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The Renovation Wave is accelerating the risk that some CRE assets will be left stranded if they fail to adapt to the new regulatory and market requirements. Owners, occupiers and operators are evaluating the steps they need to take to align their assets and processes with EU regulations, long-term financial performance and their own stated commitments to ESG standards.

Colliers’ 2023 Global Investor Outlook (GIO) Survey illustrates just how significantly the needle has moved in the space of just one year:

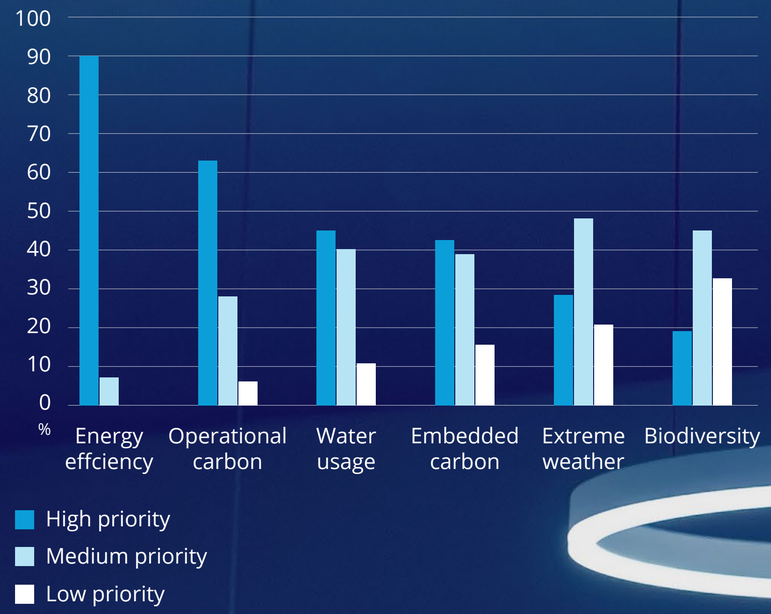
- The percentage of investors switching from a period of assessment to action (i.e. enacting capital programs and acquisitions/disposal plans) practically doubled in a year.
- 45% of investors surveyed said they intend to dispose of up to 20% of their portfolio in the next five years, where assets were deemed to be non-ESG compliant.
- 20% of investors said they will be switching out of locations that do not conform with their ESG strategies.

Investor retrofitting focus: *What to do*

The key focus areas for investors when it came to their asset retrofitting was also very clear from our GIO survey: energy efficiency and operational carbon reductions topped the agenda in terms of their highest priorities, followed by water usage and embedded carbon.

Given the rate at which energy prices have risen in the last five years, not least the last 18 months, the case and need for making assets more energy efficient comes with a more significant financial incentive - reducing total occupational costs and service charges.

Energy-specific asset focus



Source: Colliers Global Investor Outlook Survey 2023

Investor uncertainty: *How much it will cost/how to fund it*

The rapid evolution of the need to retrofit assets has created many question marks for the industry. Not least, what it will cost to make physical and operational improvements, who pays (and when) and how can this be funded?

What will it cost?

According to our GIO survey, 44% of investors said they were largely uncertain about what the cost of retrofitting would be. Of those providing some indication of the costs involved:

- The consensus (33%) view was that retrofitting would be equivalent to up to 10% of the value of assets under management (AUM).
- Some 19% think this will cost between 10-30% of AUM.
- A further 4% think it will cost more than 30% of AUM.

How to fund it?

When it came to funding these improvements, 50% of investors said they did not know what sources of funding they would need, but at least 30% would require project finance above a 50% loan-to-cost ratio. With the onset of ESG retrofitting requiring a potentially large range of operational and physical modifications, the range in figures quoted is completely understandable.

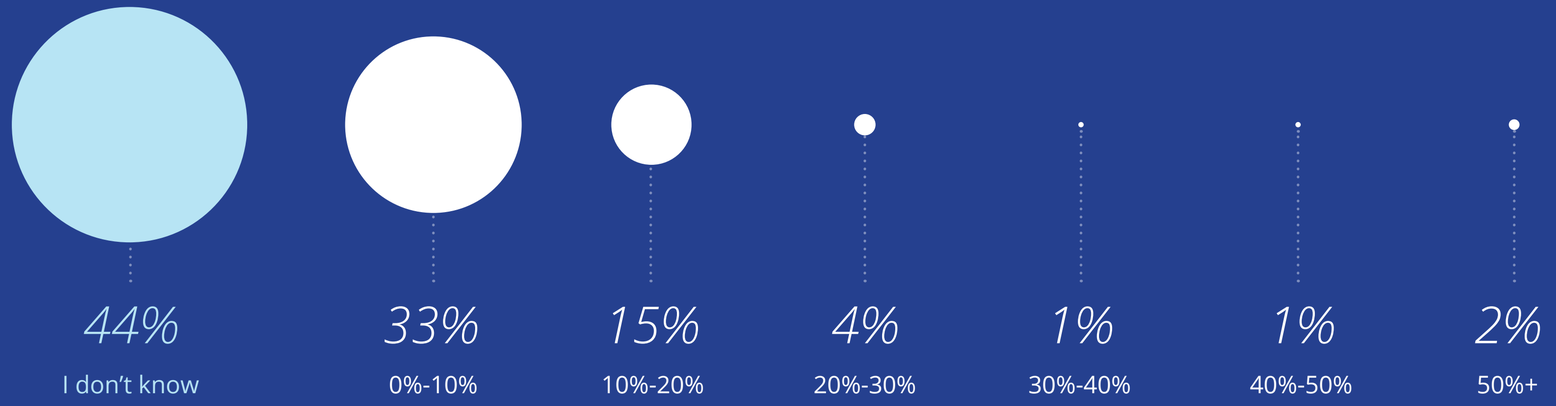
A big part of the equation is whether the costs of making these energy efficiency/carbon emission improvements can be offset by lower energy costs and service charges to the occupier/end-user, while assets are funded at lower costs of capital to the landlord/investor. This report sets out the new context, what some investors and occupiers are doing to adapt to it, and the potential business case for upgrading.

[1] https://www.colliers.com/en-gb/research/202110-esg-at-a-tipping-point

The rapid evolution of the need to retrofit assets has created many question marks for the industry. Not least, what will it cost to make these physical improvements, who pays (and when) and how can this be funded?

Anticipated retrofitting cost: as % of AUM

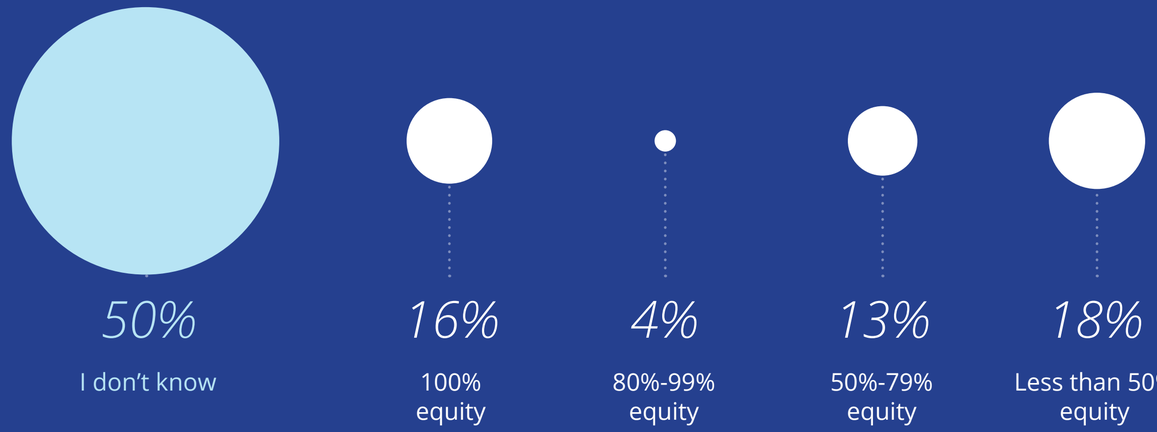
Investor responses to the question: What will it cost to retrofit to ESG standards relative to the value of assets under management?'



Source: Colliers Global Investor Outlook Survey 2023

Use of equity in retrofitting

Responses highlight how investors would finance the retrofiting of assets: although half of respondents didn't know, one-third said they would use 50-100% equity.



Source: Colliers Global Investors Outlook Survey 2023

Untangling the policy puzzle

The Energy Performance of Buildings Directive (EPBD) is the European Commission's (EC) main policy instrument to achieve more energy efficient buildings.

A critical part of this framework is the use of EPC ratings to deliver policy goals. In March 2023, the EU Parliament adopted draft measures that will modify the EPBD, requiring that all new buildings be zero-emission from 2028. Existing non-residential and public buildings will have to achieve a minimum "E" grade EPC rating by 2027, and "D" by 2030. Residential assets will be given an extra three years to reach the same standards. Overall, revisions to the EPBD aim to make the building sector climate neutral by 2050.

The final shape of the bill will only emerge from negotiations between the EU Parliament and national governments, and the modifications required to national energy and climate plans (NECPs) to meet these targets. Divergence in national plans in scope and ambition will impact this process. Consistent with this approach, the UK government has sought views on their revised NECP, during a consultation period that ran from March to June 2023.

Aligning finance to policy

Another core component of the Renovation Wave is aligning the financial sector to the strategy. The EU's Climate Target Plan 2030 (CTP30) cites the sustainable finance initiative, the EU taxonomy, the EU Green Bond Standard and its climate benchmarks as "essential tools to bring finance closer to the needs of the real economy," while conceding that it will need to increase its own investments between 2021-30 by €350 billion in order to achieve current 2030 climate and energy targets.

It is clear that direct EU grants will be aimed at the residential sector, particularly at low-income householders. The commercial real estate sector will be expected to arrange its own finance for the Renovation Wave. In part, the 'traditional' debt market has already started to move in favour of sustainable, rated assets - many low EPC rated assets simply cannot acquire debt. For highly rated assets the overall cost of debt is lower (a combination of zero/low fees and/or overall cost of capital).

Green bonds

Green bonds now represent 5% of the global bond market - $487 billion of green bonds were issued in 2022 alone. Most green bonds to date have been issued under the ICMA (International Capital Market Association) rules. However, the EU is basing the standards of its European Green Bond Standard (EUGBS) on CBI (Climate Bond Initiative) criteria as this is gaining momentum and credibility - over 25% of green bonds currently issued.

As of end-February 2023, the EC had obtained political consensus on the EUGBS, with the plan to be introduced in 2024. A key requirement of this standard is that at least 85% of the bond proceeds are used for economic activities that align with the EU Taxonomy Regulation. Details have yet to be released, but the original 2021 template had four cornerstones.

There are 4 core requirements for green bond issuances.

1
Use of Proceeds

2
Process for Project Evaluation and Selection

3
Management of Proceeds

4
Reporting

Use of proceeds is perhaps the most critical element, and the retrofitting of assets falls under several categories:

- Energy efficiency (such as in new and refurbished buildings, energy storage, district heating, smart grids, appliances and products);
- Renewable energy (including production, transmission, appliances and products);
- Clean transportation (such as electric, hybrid, public, rail, non-motorised, multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions);
- Circular economy adapted products, production technologies and processes (such as the design and introduction of reusable, recyclable and refurbished materials, components and products; circular tools and services); and/or certified eco-efficient products;
- Green buildings that meet regional, national or internationally recognised standards or certifications for environmental performance;
- Climate change adaptation (including efforts to make infrastructure more resilient to impacts of climate change, as well as information support systems, such as climate observation and early warning systems);
- How EUGBS correlates/links to the Sustainable Finance Disclosure Regulation (SFDR) remains to be seen.

The renovation premium: *unlocking value in energy*

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CTP30 acknowledges that the Renovation Wave will incur significant upfront investments, but it predicts that the associated energy savings over time offset the cost of those initial outlays.

The EU also believes that the Renovation Wave will have broader economic benefits, for instance by establishing the EU as a global leader in clean technologies and know-how relating to buildings.

The EC refers not merely to buildings' direct emissions but also to the usage of the buildings, which means that consideration may also be given to elements such as charging points for electric vehicles, e-bikes and scooters, and by improving the ways buildings are utilised and operated – such as reducing reliance on air conditioning, in line with CTP30's plans to decarbonise both supply and demand. Calculating the value of fuel savings to be made is a complex challenge. Much is contingent on future movements in energy prices, inflation and baseline valuation and rent levels, as well as the varying national rates of decarbonisation and thus upside within the EU membership. Nevertheless, Colliers' analysis does indicate that rentalising the fuel savings from energy renovations generates a potentially high premium in terms of additional rent and increased capital value.

The chart overleaf highlights the capital value premiums achievable for office and industrial/logistics assets, where significant energy saving modifications are introduced. On average, a 10% uplift in value is possible via the capitalisation of an additional 'energy rent' at no additional total occupational cost to the tenant.

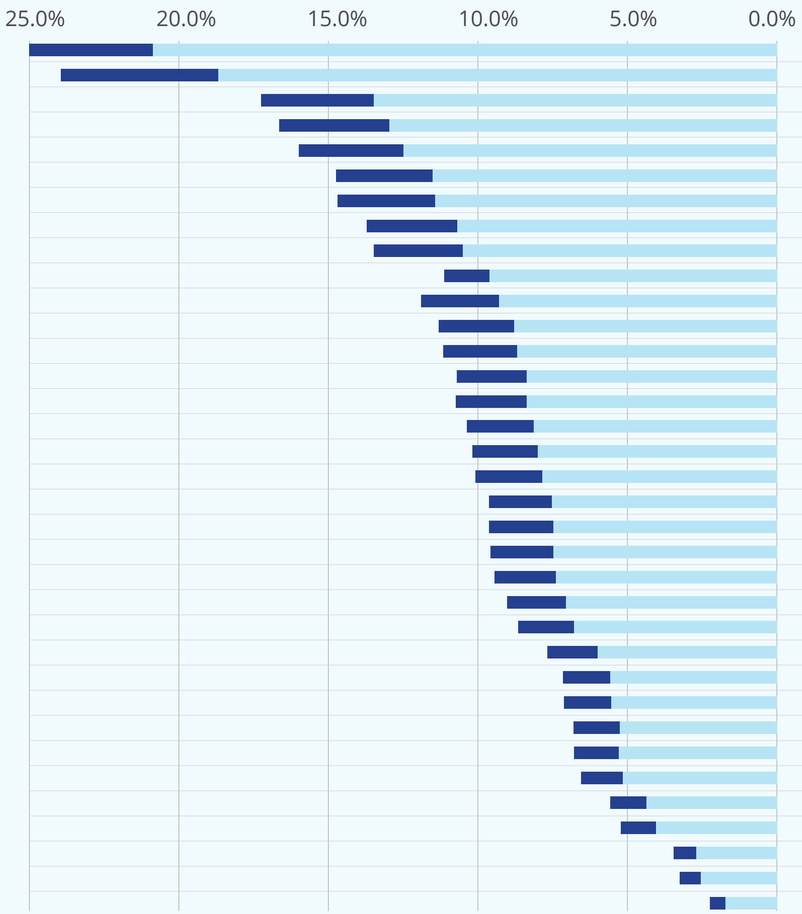
The largest potential gains are in central and southern European markets, where energy costs are highest relative to rents. At the other end of the scale, the upside in major urban markets such as London and Paris is much smaller. Additionally, in locations where energy costs are relatively low, and buildings are traditionally more energy efficient - notably in the Nordics - there is less of a premium. In Germany's top 7 cities there is much more in the way of upside, in line with the average for Europe as a whole.

It is also worth noting that these capital value 'premiums' only take into account energy savings. Lower costs of capital, both via traditional forms of debt and the use of green bonds, will likely add further upside to this premium.

ESG Essentials: 5yr energy cost saving capital value premiums by location: office vs industrial & logistics

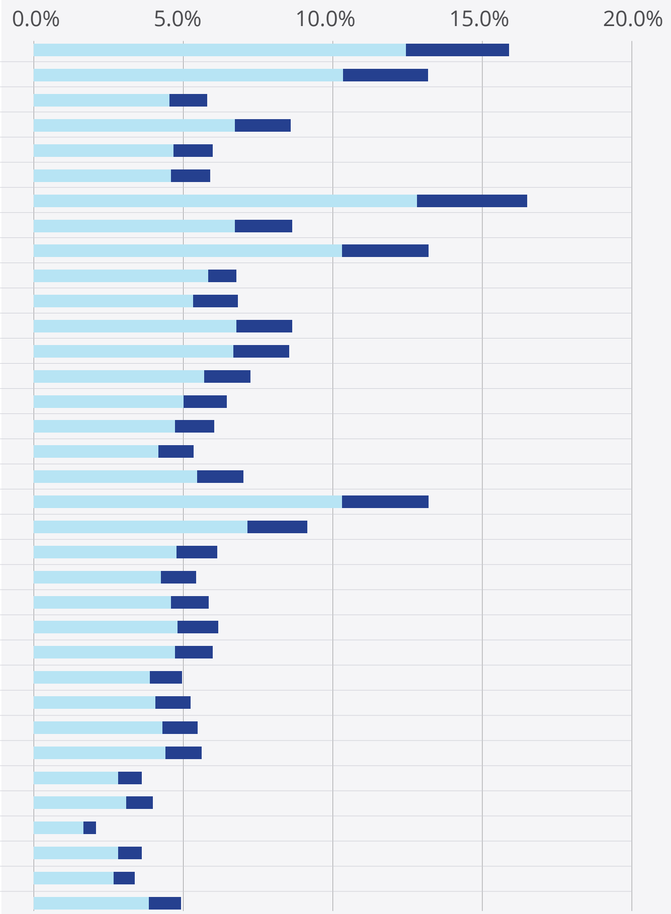
2023-2027 (rising prices) 2023-2027 (stable prices)

Offices (220KWh/m² > 70KWh/m²)



The left-hand side of the chart illustrates the potential increase in capital values for an office asset by location, via a capitalised 'energy rent.' The savings in energy costs are calculated on the basis of reducing energy consumption from 220 KWh/m² to 70 KWh/m². If this energy saving is rentalised, and then capitalised by current market yields, the capital value upside is illustrated here. Markets where energy prices are highest relative to rents stand to generate the biggest upside in value.

Industrial & Logistics (20KWh/m² > 0KWh/m²)



The right-hand side of the chart illustrates the potential increase in capital values for an industrial / logistics asset by location, where energy consumption is cut to zero from 20 KWh/m². If this energy saving is rentalised, and then capitalised by current market yields, the capital value upside is illustrated here. It is notable that in the past 18 months, more I&L assets are being considered strong contenders for on-site renewable energy, primarily via solar panels. This on-site energy is enabling assets to operate on a neutral energy cost basis.

Implementing change: office case study

Given the strong demand for sustainable office space, Colliers is working closely with landlords and occupiers to help them understand the opportunities to retrofit their assets. Particular focus is being placed on office assets, which are of high value and more energy intensive. They are high on the agenda when it comes to competing in a future Net Zero Carbon (NZC) environment.

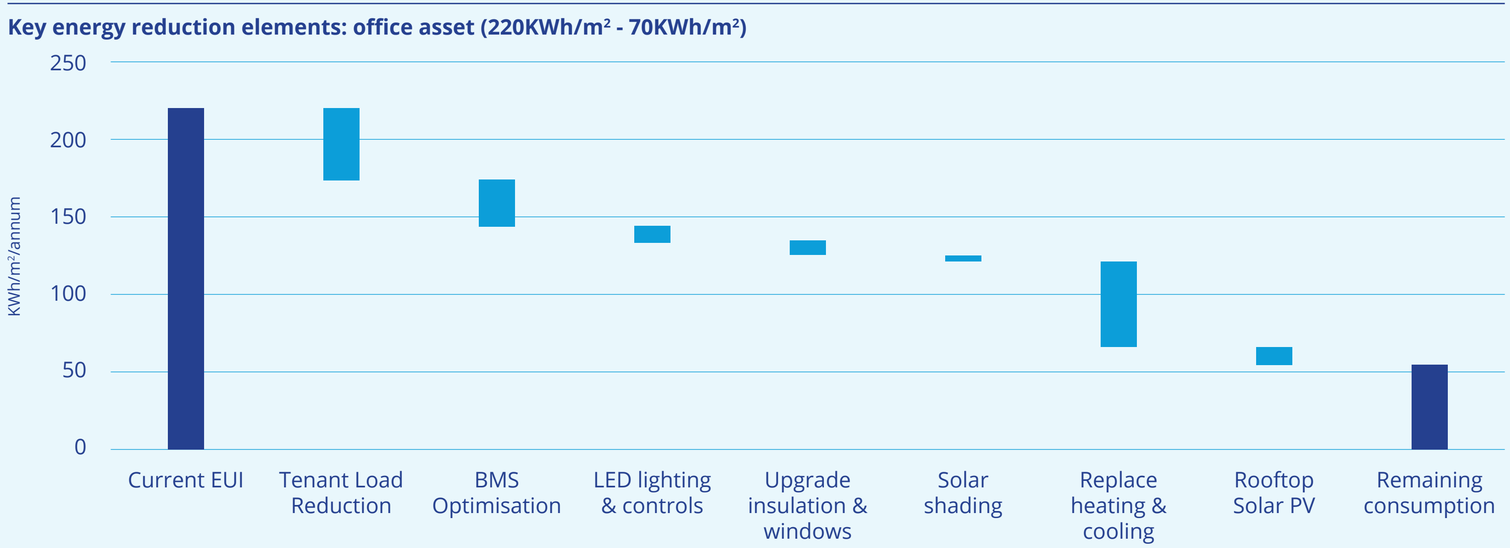
Occupiers are increasingly setting out decarbonisation plans, driving demand for retrofitting services for their owned assets. For landlords, the NZC journey is critical in retaining existing tenants and attracting new ones.

When contracted to set out full NZC scoping studies we investigate the potential for any buildings to achieve net zero and provide a detailed report covering the following:

- A review of the remaining economic life and operation of existing equipment
- Analysis of gas and electricity usage against industry benchmarks and future NZC standards
- Innovative heating, ventilation and air conditioning (HVAC) modelling to identify carbon reduction retrofit strategies
- NZC transition scenarios with investment costs and savings/benefits for each scenario
- Future Energy Performance Certificate (EPC) assessment
- Analysis and assessment of opportunities for renewable energy
- Identification of fabric improvements to improve energy efficiency

The chart highlights the various interventions that can be taken by any landlord or occupier per asset, using the example of energy savings per factor if reducing energy use from 220KWh/m^2 to 70KWh/m^2.

When consulting on such projects we typically provide three transition scenarios involving different interventions and investment potential. All scenarios target energy-reduction initiatives such as tenant load reduction, LED lighting, new air handling units, new chillers, and air source heat pumps. However, each have distinct approaches to conditioning systems and façade replacement. We will always determine the efficiency of a building's existing heating and cooling systems and the extent to which they can be retained amid a net-zero pursuit.



Ultimately, we often recommend the 'middle-case' scenario, which would bring the building's equivalent EPC rating to an 'A' standard, with modest transition costs and best-balanced energy usage, highlighting annual operational cost savings. Our assessment of the remaining economic life and embodied carbon in the main boilers and chillers of an asset will strongly impact recommendations on the timing of the retrofit commencement. This is often later in the decade in the UK - after the assets have been fully depreciated, but before tighter EPC requirements kick in.

Through NZC scoping studies, our clients understand the requirements to retrofit an asset to achieve close to net zero operations, the cost budget, and the likely future energy performance and EPC ratings. These plans will help retain and attract corporate tenants who increasingly prioritize ESG factors in their occupancy strategies.

Success stories

Collaboration-based sustainability in the Netherlands

Organisation/Company

ManpowerGroup

Location

Netherlands

Challenge

Manpower wanted to bring its Diemen office near Amsterdam closer to net zero, through features such as charging for its fleet of electric vehicles, fitting rooftop PV panels to source power, upgrading windows and installing LED lighting to reduce the building's electricity consumption.

How Colliers helped

Our sustainability team tapped the Colliers' network of expert subcontractors to undertake a detailed assessment of the building and parking lot's major power systems. Our sustainability team drew the findings together into a feasibility study, and the design and development team was then commissioned by the client to upgrade the office along the lines suggested, using primarily sustainable materials and solutions. The landlord meanwhile agreed to address changes to the exterior of the building, such as repairs to window frames and new sustainable exterior lighting.

Significant savings from shifting to heat pump technology

Organisation/Company

United Bankers

Location

Finland

Challenge

To promote energy efficiency and the use of renewable energy by implementing air-to-water heat pumps in a shopping centre building.

How Colliers helped

Our sustainability experts studied the feasibility of replacing traditional chillers with air-to-water heat pumps and recommended this retrofitting based on detailed energy and cost projections. The net result is energy cost savings of up to €18,700 annually for the client. This means the investments in retrofitting will be returned in 10 years or less, despite the initial cost outlay being higher with an air-to-water pump system than replacing the old water chillers with new ones. In fact, the additional investment in an air-to-water pump system will be returned in less than three years. Other benefits include substantially reduced carbon emissions as nearly 400 MWh of energy is captured from outdoor air and the heat pumps can be used all year round, as opposed to just a few months of the year.

Programme of net zero audits to future-proof Bupa's UK portfolio

Organisation/Company

Bupa

Location

12 real estate assets across the UK

Challenge

Our Occupier Services team have been working with Bupa across their UK portfolio for the past three years, delivering projects such as the 150,000 sq ft head office in Manchester, Bupa Village in Aston on Trent, workplaces in London and Staines, and their portfolio of high street clinics. Sustainability and well-being are at the core of Bupa's future, and they tasked our sustainability experts to future-proof their portfolios in order to meet their environmental aspirations.

How Colliers helped

Ensuring that costs were kept within a very strict budget, our sustainability experts delivered a programme of net zero audits for 12 of Bupa's UK buildings. This included decarbonising plans of work required per building, associated timelines, and cost plans. Our guidance included an ongoing audit report that sets out the financial and carbon savings calculations available after completing the works. Bupa now has a net zero pathway for these 12 buildings, enabling them to plan their capex and resources in the most effective way to deliver on their sustainability targets.

ESG scorecard drives climate neutrality by 2030

Organisation/Company

Electrolux

Location

Europe

Challenge

Electrolux has an objective of producing and shipping all their household appliances in a climate-neutral way by 2030. This led their Corporate Real Estate team to consider the following challenge: no more real estate investments without a sustainability check.

How Colliers helped

Our Enterprise Project Management team collaborated with Electrolux and engineering consultants Cundall to create 'GreenCRE', a tool that provides both sustainability due diligence reviews and a baseline assessment of their portfolio.

The tool incorporates Electrolux's Science-Based Targets as part of its corporate strategy. Data inputs are assessed on accuracy, completeness, and against best practice benchmarks aligned to a pathway to net zero. This has enabled the Electrolux team to address the following common challenges:

- Navigating the 'fog' of sustainability certificates
- Considering both embodied and operational carbon
- Being agile enough to accommodate fast transaction processes

As a result, the Electrolux team is making informed investment decisions on their portfolio.

The path forward

There is clear momentum in market activity concerning the retrofitting of assets. Notwithstanding the continued work by the EU and national governments across Europe and broader societal pressure, this momentum is increasingly being driven by market forces. At the heart of this momentum shift is a push to lower energy/occupational costs.

The overwhelming majority of the commercial world will need to undertake a cost-benefit analysis for the retrofitting and development of new assets, including the sources of funding available to underpin their capex program.

One third of investors surveyed in our GIO report thought the cost of retrofitting would fit in the 0-10% of AUM range. A further 19% believe the cost will be 10-30% of AUM. Half of investors were unsure how they would fund this, but one third stated they would use up to 50% equity.

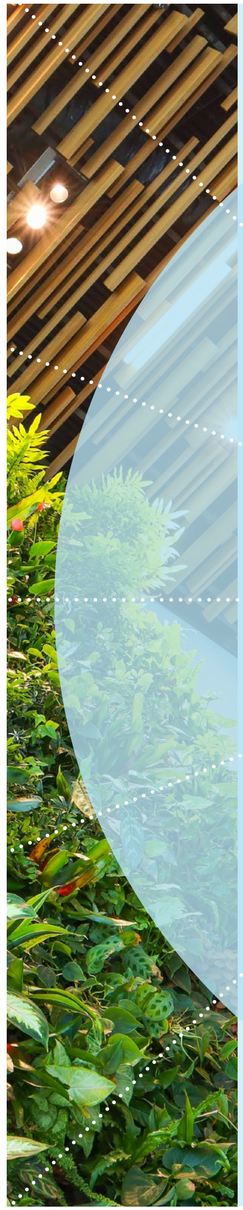
We can offer support and analysis in terms of the investments involved to bring assets in line with regulatory conditions, make the business case to financial counterparties and unlock the longer term upside we perceive in reaching policy and market alignment.

Our analysis of energy cost savings, and the capitalisation of these savings, point to the potential for a significant capital value uplift via retrofitting. However, the nascent stage of the transformation of the market means it remains unclear if this value upside will simply defray costs (cost neutral), or generate an additional value premium.

Our view is that there are, anecdotally, the circumstances for a brown discount/green premium to take place, but the heterogeneous nature of real estate assets means it will take time to gather consistent evidence.

From a policy perspective, it seems increasingly clear that the commercial real estate sector will be left to resolve the cost. Low-income households and government bodies will be the main recipients of any available direct grant funding to retrofit assets to more energy efficient standards.

Firstly, the group the EU has most in mind are residential homeowners and landlords, whose building stock is older than the average. This is where the biggest gains will be found in terms of both energy conservation and living standards. These groups will also be prioritised in terms of direct grant support.



For **CRE owners and investors**, we recommend the following:

Audit the existing portfolio to identify areas of clear opportunity for energy renovation, as well as assets for which renovation may not be viable and requires repurposing or disposal.

Consider partnerships to achieve decarbonisation. Partnering with organisations with dedicated and specialist ESG expertise, like Colliers, will accelerate progress and results.

Assess and identify green financial instruments (like green bonds) to underwrite the required renovations to meet tightening regulatory requirements.

Factor all CAPEX outlays into ROI calculations, including both the cost of retrofitting, certification and funding.

Tailor your investment strategy based on your key decarbonisation learnings.

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