

Net Zero Insights

Insights into retrofit vs redevelopment



Oli Pye Head of Sustainability Montagu Evans

Montagu Evans is an independent, market leading property consultancy. It is owned and run by a group of partners who are leaders in their respective fields and committed to leaving a legacy of quality work that benefits clients, the built environment and society as a whole.

Montagu Evans has supported numerous clients to reposition and repurpose buildings through retrofit or redevelopment. They have also committed to net zero carbon for their direct business operations by 2030 and supply chain by 2050. They are members of Business Declares, Race to Zero and the BPF Net Zero Pledge.

We asked Oli to share his insights into the current debate around retrofit versus redevelopment.

What do we mean by 'retrofit' and 'redevelopment'?

"Retrofit is the process of replacing and upgrading the fabric of a building, its mechanical, electrical and plumbing systems and/or its fit-out, whilst retaining the majority of the existing structure. You can have light retrofits and deep retrofits.

Redevelopment is the process of optimising landuse through demolition and rebuilding. Retrofit can involve some demolition and redevelopment can involve some retention. It's a minority/majority thing. In redevelopment, the majority of substructure and superstructure is demolished.

Both retrofit and redevelopment result in the repositioning of a building, but may or may not result in repurposing (ie change of use)."

So, what is the debate about?

"Essentially, it's about 'embodied carbon' the emissions that come from the production of building materials and from construction and demolition - and the fact that retrofit tends to result in fewer such emissions than redevelopment.

The broader context is the climate emergency and the fact that buildings are responsible for about 26% of UK greenhouse gas emissions. A significant chunk of this 26% is embodied carbon and the rest is 'operational carbon' from existing buildings. Currently, the larger contribution is from operational carbon. However, as buildings become more energy efficient and as the UK electricity grid decarbonises, embodied carbon is becoming an increasingly important fraction of the whole.

Whole life-cycle carbon (WLC) is the sum of the embodied and operational carbon over a building's lifespan, and although a newer redeveloped building will almost certainly be more efficient in operation, it can take a long time – often too long – for these savings to surpass the upfront embodied emissions.

As a result, investors, planning authorities, campaigners and the general public are increasingly scrutinising the embodied carbon impact of development."

And is the scrutiny increasing?

"There is definitely increasing scrutiny and awareness of embodied carbon, particularly in London and the Southeast.





Insights into retrofit vs redevelopment

Compounding the challenge is that – due to various macroeconomic (such as post-pandemic working practices and online shopping), social, technological and environmental factors (such as MEES) – property owners currently have a larger than usual number of assets requiring repositioning. Without retrofit or redevelopment, many buildings will struggle to maintain compliance, retain tenants, attract and borrow capital, and protect value and liquidity."

How is this playing out in the market?

"Increasingly we see that achieving planning permission for redevelopment proposals is becoming more challenging and complex, particularly in London. The highest profile recent example being the Secretary of State's decision to reject the proposed redevelopment of the M&S store on Oxford Street.

Currently, WLC analysis is required by the London Plan 2021 for referable schemes and in addition to assessment and comparison to benchmarks, the Plan requires demonstration of 'actions taking to reduce life-cycle carbon emissions'.

The City of London's recent Whole Life-Cycle Carbon Optioneering Planning Advice Note 2023 goes further, requiring early stage 'carbon optioneering' for major schemes and other developments that do not retain the majority of substructure and superstructure, 'in order to find the best balance in carbon emission terms, prior to adding other considerations into the planning balance'.

Additionally, the recent M&S decision referred to a 'strong presumption in favour of repurposing and reusing buildings, as reflected in paragraph 152 of the [National Planning Policy] Framework'.

As a result, the industry increasingly needs to consider 'retrofit first' when repositioning assets, and redevelopment only when required for commercial viability and where wider social and environmental benefits outweigh the carbon impact.

We are seeing forward-thinking property companies and investors committing to retrofit first across their portfolios."

What sort of considerations go into making these decisions?

"For property owners or developers, the predominant considerations when weighing up retrofit versus redevelopment include: location, occupier market, alternative use value, EPC/MEES compliance, net zero ambition and potential, social value opportunity, heritage considerations, access to materials, cost of delivery, delivery timescales, physical constraints, building condition and planning risk.

And planners, on behalf of society, are seeking to balance: strategic development priorities, the climate emergency, economic vibrancy, employment, housing delivery, heritage, regeneration, social value, urban densification, health and wellbeing, and biodiversity net gain."

How clear cut are these decisions?

"To an extent, it will always be site specific and involve trade-offs, which has been true for development and planning since time immemorial.

However, I think we can presume the carbon case will generally favour retrofit and the commercial case will regularly favour redevelopment, but there will be an overall case for redevelopment where it also delivers sufficient additional benefit to those other key societal priorities. It's about retrofit first, not retrofit only.

I'd also add that in those instances where redevelopment is preferable/selected, the carbon story does not end there. That's where maximal retention, recycling, reuse, design for flexibility and disassembly, low carbon materials (e.g. timber), and long term removal-based carbon offsets come in.

Somewhat complicating the situation is the fact that the inputs to decision-making are imperfect





Insights into retrofit vs redevelopment

and changing. For example, the way we assess WLC is evolving and needs further standardisation.

We are also learning what is structurally and economically viable from a retrofit perspective and are getting better at circularity – disassembling and reusing rather than demolishing."

So, what's next? Do we need regulation?

"Absolutely. The planning system needs to adopt a retrofit first, not retrofit only policy environment across the UK.

Requiring WLC assessments and early-stage carbon optioneering for major schemes would also help bring transparency and consistency to decision making and enable planning officers to weigh WLC impacts against other planning and societal priorities.

We also need to provide specialist planning officers with the training and skills required to engage with and challenge WLC analyses and arguments. This training would come at a time when the planning system is already significantly under resourced, so we see an opportunity for the private sector to work collaboratively to raise the knowledge base across the industry.

We should define/update mandatory net zero carbon performance standards and targets for embodied and operational carbon. The Net Zero Carbon Buildings Standard currently being

What is Part Z?

Part Z is an industry-proposed amendment to building regulations.

It focuses on embodied carbon and proposes that all major projects will have to produce carbon assessments which consider the construction process and not just operational energy and carbon.

It also proposes that embodied carbon emissions are capped on all major construction projects. However, this would be a staggered process. Initially this would be capped through limits on upfront embodied carbon, and then eventually cover all aspects of embodied carbon.

developed by industry and the industry-proposed Part Z amendment to building regulations offer good starting points for developing these policies.

We also need confirmation of the Government's intentions regarding Energy Performance Certificates (EPCs) and Minimum Energy Efficiency Standards (MEES) and the introduction of a genuinely performance-based operational energy rating system."

What is the BPF Net Zero Pledge?

The BPF Net Zero Pledge commits BPF members to be net zero carbon by 2050 at the very latest.

Becoming a signatory to the pledge requires three actions:

To sign up to net zero targets and plans To commit to sharing research, knowledge and insights on an open-source basis

To support other signatories and the wider real estate sector to speed the transition to net zero



