

# THE CASE FOR SUSTAINABLE REFURBISHMENT

## FORM DESIGN CONSULTANTS



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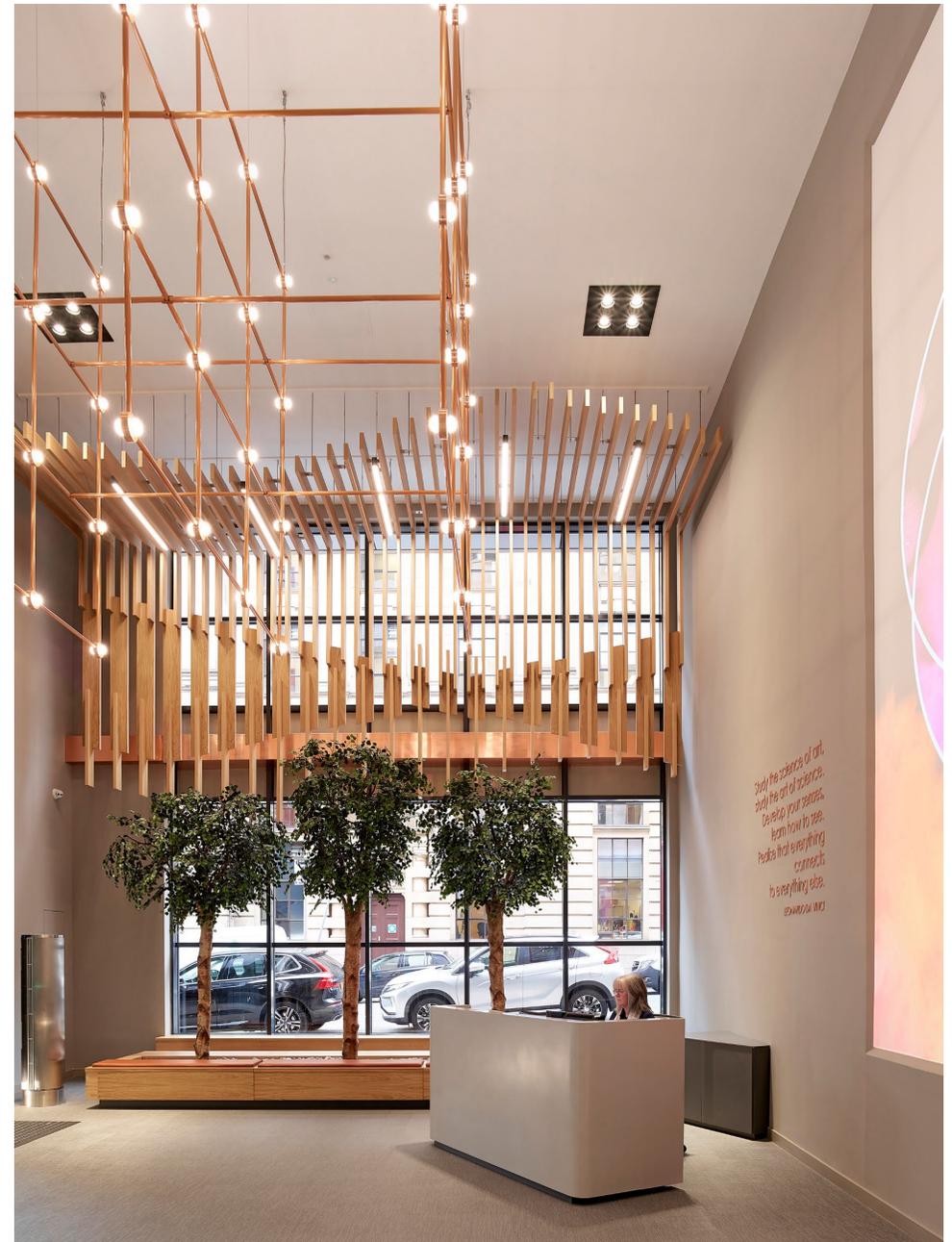
With the UK now flying solo after a protracted divorce from the EU, and mass vaccination programmes being implemented across the country, it is no longer wishful thinking to believe that we may be at the beginning of a comparatively stable political, economic and social period. Many predict that the huge economic contraction twelve months ago, caused by the global COVID-19 pandemic, may soon bounce back, and we will see many projects and strategies that have been put on hold for the past year being given new opportunity.

Over the last five years, the UK commercial construction market has seen investment of between £95m and £110m, month on month, until the pandemic hit in March 2020. Though the market has seen some recovery, it remains 26.6% below the five year peak in February 2017. Pre-COVID we saw a reduction in speculative office development due to rising construction costs and political uncertainty. The feasibility of new build schemes often hinges on the pre-let of significant parts of the building by large occupiers, but with the UK's office population working from home for the last year, will we ever see the same level of new office development? Will we see more investment in existing stock as businesses try to establish what their new Workplace Strategy will be?

During the pandemic, Form Design Consultants worked with several large occupiers to reimagine how their workplaces will function when they return to the office. Our experience has shown that informed businesses and organisations want to know,

*How can we re-design our offices to make them safe, resilient to change, and able to support our people, now and into the future?*

A “COVID-secure” office that provides a supportive, healthy and safe environment, capable of future adaptability, enabling organisations to blend home and office (hybrid) working is the correct approach. To achieve this there will need to be investment by the tenant in their workspace, to foster greater collaboration, improved connectivity and better social settings. But, importantly, the base buildings they lease will need to enable these changes by providing amenity space to encourage “active commuting”, common spaces that support tenants’ wellbeing, and sustainability strategies that promote healthier workplaces with lower carbon footprints.



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Before the pandemic, it is estimated that, in Europe, annual new build construction, not including housing projects, represented less than 1.5% of the building stock available. Other than the financial investment opportunity, the reasons for developing new build offices on brown and green-field sites is the perceived ease of starting from scratch, the creation of better quality environments for people with more efficient floor plates, opportunities for better servicing, and better use of natural light. With new build construction we have opportunities to make our buildings more energy efficient through sustainable architecture and design.

Organisations that provide construction assessment methodologies, such as BREEAM and SKA, have helped to drive more sustainable design solutions and practices, while others such as WELL, have highlighted the importance of healthier environments for occupiers. Achieving certification for a building through these organisations generates higher value for landlords and developers, but it also creates “cultural capital” by providing real estate that aligns with the Corporate Social Responsibility manifestoes of tenant organisations, their employees and their clients.

If we recognise the benefit of this sustainable approach to architecture and design from the perspective of investing for profit, people and the planet, to only invest in new building stock is, in itself, unsustainable. Sustainable refurbishment, therefore, presents building owners with a significant opportunity to invest in existing stock, as we emerge from the pandemic, and adopt a new way of working.

In a research report prepared by the University of Oxford’s Environmental Change Institute in 2008, it was estimated that 87% of the UK’s current building stock will still be around in the year 2050. And, given the UK Government’s commitment to reducing carbon emissions by 80% by 2050, and indeed many large UK organisations’ even more ambitious plans, it is clear that the refurbishment of existing real estate, to create sustainable and healthy buildings, is essential.

If we accept the anticipated changes in how we use our workplaces, and we learn to live with COVID-19, surely this is the time to implement sustainable design strategies to our most suitable existing building stock. So, what are the challenges?

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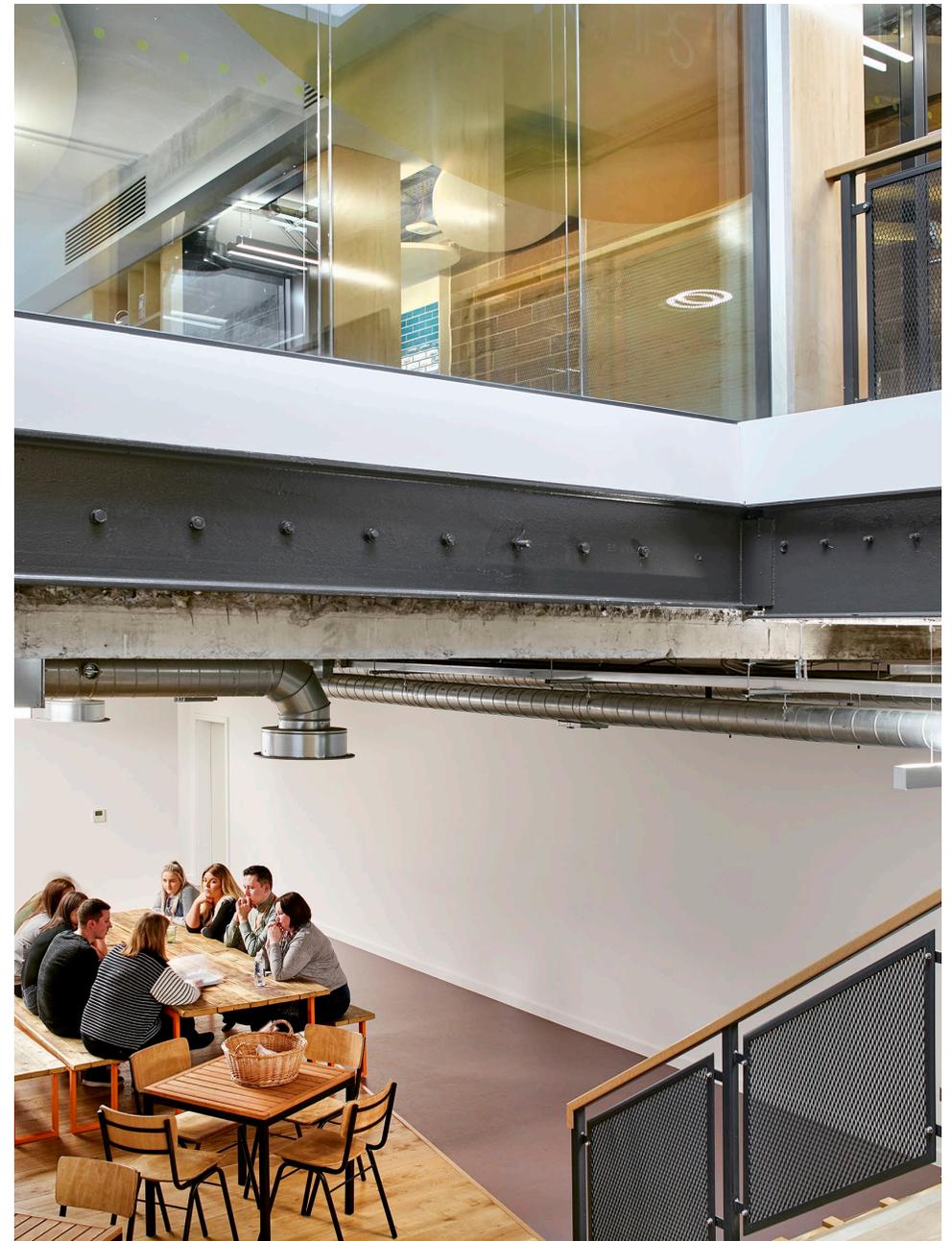
Older buildings typically consume larger amounts of energy and often don't provide the open plan and flexible workspace preferred by most occupiers. They have inefficient heating systems, poor ventilation, and poor lighting, both natural and artificial. They will require financial and creative investment to become more relevant to the high-end office market, historically only attracted to shiny new builds and West-end locations.

However, attitudes towards how a building looks and feels, the corporate embrace of "de-furbished" workspace, and a permanent "dress-down Friday" culture for many organisations have caused a shift in how a refurbished building is perceived by the market. The refurbished building is now often compared to new builds by occupiers looking for a new office.

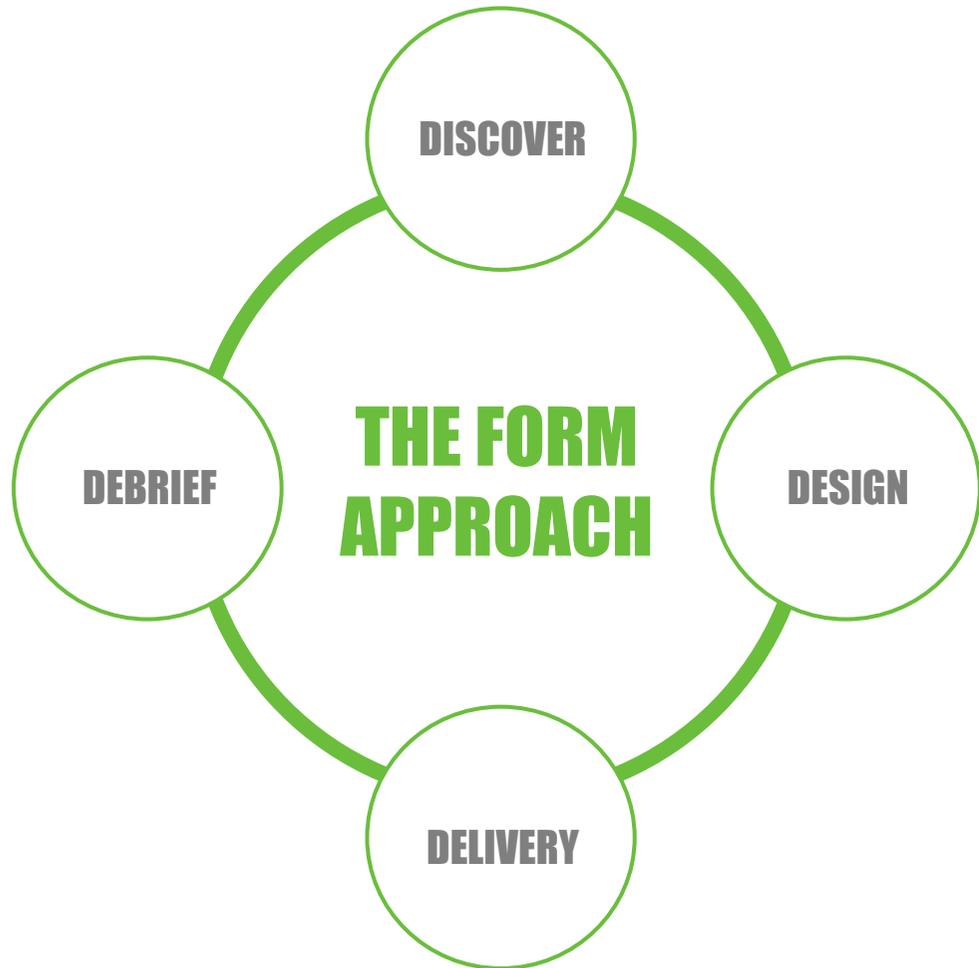
A well executed refurbishment can demand similar rents to new builds with considerably less investment. Refurbishment also offers massive cost savings by being quicker to deliver, with shorter design and implementation periods. But, importantly, it is a clear understanding of sustainability that gives this route the most credence.

The embodied carbon within an existing building, the shell and core, structure and frame, usually presents a more sustainable option to demolish and start again. In addition to the building materials that are retained, the carbon footprint of the transportation and manufacture of construction materials, and the construction process itself are greatly reduced. A carefully considered refurbishment can aid future evolutions of the buildings, an approach often referred to as "long life – loose fit".

The other central issue to consider when implementing a sustainable refurbishment is the operational carbon footprint. This focuses primarily on the reduction of energy consumption and carbon dioxide emissions through a better services strategy, something that would be implemented for a new build. It also looks at reducing the release of pollutants into the atmosphere and drainage systems, maximising the use of reclaimed, recycled and recyclable materials, and promoting sustainable travel choices, such as active commuting, by providing good building amenities such as bike storage and showers for occupiers.



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So, what are the key issues to consider, and how best to implement a sustainable building refurbishment? Form Design's approach focuses on the pre-fit out stage as much as the design and implementation stages. It aligns with our over-arching approach to Workplace Design Consultancy, "4D" – **Discovery, Design, Delivery and Debrief**.

In the **Discovery** phase, we advocate establishing a clear understanding of the embedded carbon within a building and agreeing the sustainability criteria to be incorporated into a Design phase. This allows a building's environmental performance to become an objective that can be balanced against other project objectives. It also informs the strip out of the building and minimises building waste. Through an early assessment of the existing building's materials and components, we aim to prevent materials going to landfill by re-using, re-cycling or re-purposing (Avoid, Reduce, Recycle, Recover, Dispose). Form embraces the principles of the Circular Economy.

The **Design** phase, with re-use in mind, and with knowledge of sustainable material specification and best practice workplace design, provides opportunity. Concepts, such as Material Economics, where products can be designed to be relocated and reused, ensures buildings with excellent environmental credentials are developed. We work with engineers to understand the best sustainable services strategies are developed for the building. And we recommend technologies within our designs, such as biometric readers to analyse space usage, supporting healthier and energy efficient environments and creating smarter buildings for our future.

The **Delivery** phase begins when the refurbishment commences on site. This is a crucial part of our sustainable approach to refurbishment and one that is often overlooked. A Site Waste Management Plan (SWMP) needs to be established to ensure material waste is recycled appropriately. This process dovetails with the environmental strategy agreed in the Discovery Phase, where existing materials identified for reuse or re-purposing will be retained to minimize waste. Form has extensive knowledge of, and have built strong relationships with, manufacturers that align with our approach and will recycle construction materials, which would otherwise end up in landfill.

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And, finally, through [Debrief](#), we don't rest on our laurels. We review and aim to improve our approach, our processes and our knowledge, because sustainable refurbishment will be one of the most important ways to achieve a net zero carbon future.

As we emerge from the COVID-19 pandemic, we will be faced with tremendous opportunities to improve the way we live and work. It is clear that the majority of office occupiers will accept that working from home, at least some of the time, is here to stay. But it is also clear that we are not always as efficient when working from home, and we need the social interaction that the workplace provides. Therefore, we can say, with some confidence, that most organisations will adopt a hybrid model when we are finally allowed to return to the office.

This change in how we live and work, coupled with the importance of creating healthy workplaces, will drive a new cycle of office refurbishments which will need to be sustainable to meet carbon reduction targets. Landlords and Property Funds know the importance of cyclical investment in their buildings to keep them attractive to the occupier market. Many have already begun to invest in greener, healthier buildings, in the knowledge that they will be able to attract the best tenants for the longer term. Surely, now is the time to embrace this move towards sustainable refurbishment, collectively, and design our buildings and workplaces with the wellbeing of the users at the heart, with more sustainable services strategies, amenities and technologies that focus on health, and environmentally sound product specification.

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