s I write this, droves of climate change activists are camping out on the M25, barricading airports and gluing themselves outside the Houses of Parliament—and the country is in uproar over the inconvenience. Instead of being outraged, we should all be analysing and questioning what the powers that be and the chief emitters in our sector are actually doing in terms of putting sustainability higher on the agenda. A brief period of frustration is far less painful than the chaos the climate crisis will cause. It's time for the property market to look at the bigger picture

There is a sense of reluctance in the air. When researching for this article, I received an overwhelming amount of feedback, commentary and opinion from a wide range of experts working in the built environment. Yet I do think it's telling on where we are in this uphill battle that many finance providers chose not to get involved. I hate to say it, but short-term lenders can also be guilty of short-term thinking.

To fight the climate emergency, as an industry, we must remove CO2, replace polluting products, and develop mitigations for being able to live with the changed weather. But are we on track?

Words by
BETH FISHER
Illustration by
VALF

The property market is part of the problem

The built environment contributes around 40% of the UK's total carbon footprint. While this has reduced since 1990, mainly due to insulation installation, the decarbonisation of grid electricity, and new-build homes being more energy efficient, our legacy housing stock is dragging us down. On top of this, annual embodied carbon through construction alone is currently higher than the UK Green Building Council's (GBC) target for *total* built environment emissions by 2050.

Last year, the residential sector accounted for 20.8% of all carbon dioxide emissions in the UK, not far behind transport (29.8%) and energy supply (24.2%). While greenhouse gas emissions famously fell by an estimated 10.7% in 2020 as a result of the pandemic's standstill (remember when the roads were empty and all we heard were birds and 8pm clapping?), the residential market was the only one to see a rise.

A new report by the National Engineering Policy Centre has urged the construction sector to decarbonise at a rapid pace. It brands the current linear economy of 'take, make and throw away' as unsustainable.

"The manufacture and installation of concrete is the second biggest polluter on Earth," states Iain Davidson, portfolio manager at Mint Property Finance. The production of timber, copper or plastic pipes, bricks, roof tiles and plasterboard all require heavy manufacturing, and their delivery to site is largely dependent on fossil fuels. "The UK construction industry hasn't changed for some 40 years, and we have finally realised just how harmful our outdated practices are to the environment," adds David Travers, CEO at Impact Lending.

According to a study by the Empty Homes Agency, '*New Tricks with Old Bricks*', a new home can give off 50 tonnes of embodied CO2, while a refurbished property will emit just 15. Despite this, the focus seems to be on building new.

There is a vast disparity between the advances being made in new-build technology and the solutions we have for bringing existing stock up to standards. "In the automotive sector, we saw initiatives where you were incentivised to trade in your old banger to get the most polluting vehicles off the road. That's not an option if you live in an old house or work in a listed property," says Nick Jones, sales director of bridging and development finance at West One.

Most people are probably unaware of how much our industry impacts climate change; the focus thus far has arguably been on the responsibility of individual owners when it comes to our homes (greener boilers, domestic recycling and solar energy—for those who can afford its installation). We rarely see protesters occupying new property development sites like they do airports. But with rising consciousness, the shift will be swifter than expected.

Aaron Noone, sales and operations director at Master Private Finance, is not afraid to admit that our sector is a capitalist one, but questions whether its current commercial form is working for the majority—and the planet. "Are we bleeding it dry with our eyes wide closed, thinking it's someone else's problem to fix? We blamed older generations for dragging us into war and ruling with empires. Will our children blame us for sleeping while the train derails?"

Stranded assets

The Bank of England has set out the threats that climate change poses to the stability of the financial system, namely physical, transition and liability risks—elements that also apply to property. Roxana Mohammadian-Molina, CSO at Blend Network, explains the differences: "The physical risks are probably the easiest to comprehend as they refer to the economic costs of natural disasters caused by climate change, such as floods, storms and extreme temperature damage to buildings. The transitional risks refer to what occurs in the move towards a cleaner, greener economy as businesses face major changes in asset values and business costs. The liability risks refer to who should be held responsible for climate change issues."

The industry has an arduous mission of ensuring buildings can withstand increasingly extreme climatic conditions. According to UK GBC, millions of homes are at risk of flooding or overheating. I am told that most of these dangers will affect property insurance and valuation.

Assets across the UK will bear the brunt of this, with cities such as Brighton, Cardiff and Belfast forecast to be most exposed, according to a study by emoov. It expects properties that are likely to become damaged will cause major uncertainty for lenders, resulting in higher mortgage deposits and lower LTVs.

An increase in rainfall, inland and coastal flooding, storms, severe temperatures and erosion pose some of the biggest physical risks to commercial and residential real estate. To put this into context, around 5.2 million (or one in six properties) in England are susceptible to flooding. The Environment Agency predicts that as the population grows, the number of buildings in the floodplain could almost double over the next 50 years. "It seems we're getting used to those awful scenes of people shipping water out of their front rooms every year," imparts Nick.

Building consultancy firm Sillence Hurn is witnessing the consequences of unpredictable weather first-hand. "We're currently project managing repair works due to coastal subsidence," managing director Alex Hurn tells me. "While we know that properties in coastal and low-lying areas tend to be more at risk, we're seeing extreme weather events occurring across the *whole* of the UK. These types of repairs are becoming more common."

The potential of rising water levels could also result in properties being deemed unmortgageable. "The impact of climate change is being regularly reviewed by the UK banks to assess the level of financial risk this could create in the years ahead," claims Chris Oatway, founder and director at LDNfinance. Going forward, larger areas of the country are expected to be affected, which will culminate in further risk metrics for lenders and an uptick in pricing.

Joe Flaherty, director at Beaufort Capital, senses that finance providers will look closely at flood risk assessments. "We're already seeing evidence that previous one-in-100-year flood events are becoming more common, so a prudent lender should be focusing on such things when making lending decisions."

Getting the drainage right on a project is vital, stresses Robert Dale, senior partner at Daniel Connal Partnership. "Recent events in New York and Germany have illustrated the potentially catastrophic consequences of very heavy or prolonged rainfall rapidly overwhelming urban drainage systems or natural water courses. For some time now, drainage has been a major consideration for any planning application." He can see the potential for further legislation, such as the introduction of flooding into the building regulations, making flood risk assessments mandatory for all planning applications, and commanding that changes to surfaces—such as patios, artificial grass and other impermeable exteriors, which are currently part of permitted development—are subject to statutes.

As floods intensify in frequency and severity, they will likely alter the existing flood zones, which will have implications on planning permissions by local authorities and the ability to insure houses within these areas. Rachel Norris, senior vice president of real estate and construction at insurance brokerage Lockton, believes we need to be learning lessons from other countries. "Historically, the US and Asia, in particular, have been significantly more exposed to weather-related risks than Europe. But an increasing incidence of weather-related catastrophes in Europe will drive up real estate insurance costs, leading to either under or no insurance." She claims that the threat is already widespread and may influence the creditworthiness of investors, as well as lead to default rates in highly vulnerable areas. These liability risks have added a new layer to the decision-making process, which is changing the very face of property investment.

While it may not be common practice right now, the financial underwriting of increased long-term risks around climate change will very quickly create a two-tier property market, with less-affected areas seeing prices soar. A study by tado found that UK homes are far more susceptible to the harm of heatwaves than those in Europe—and there is also a difference between North and South. Homes in Scotland, for example, are more likely to heat up during hot weather compared with those in southern England. "The UK housing system is already severely imbalanced; taking further stock out will make the problem worse," argues Louise Nadine, client growth manager at Totum Finance.

While the focus tends to be on the world heating up, Stuart Law, CEO at Assetz Capital, points out that the UK could end up being *colder* in years to come, due to the Gulf Stream slowing down. "While we rush to future-proof real estate against global warming, we also need to be thinking about how we deal with a situation where it may get colder here, which will exacerbate energy usage further, and may mean that the government targets for energy-efficient homes are still not enough."

Rachel Norris implores the industry to embrace buildings data, something that is far more advanced in Asia and Australia. "Through data analytics, an awareness of potential risks can alleviate the impact on investors and better inform decision-making, helping to examine how a portfolio might depreciate and how this can be avoided, as well as how to factor risks and costs into balance sheets, thereby reducing volatility."

The likelihood of future regulations that could leave assets 'stranded' are also troubling lenders. This could result in them being warned off certain types of property but, in turn, it may free up capital for more socially conscious investments. "Banks will need to review and revise lending appetite for higher-risk assets and price accordingly. However, this may also create opportunities for specialist property lenders," comments Mike Hudson, chief risk officer at Cambridge & Counties Bank.

It's important to note that any measures from government or lenders will need to be implemented in a considered manner to avoid developers and consumers being burdened with staggering costs. Simon Das, managing director at 978 Finance, points to the cladding debacle as an example of a sudden shift in regulation, with some leaseholders in high-rise apartments facing bills of over £100,000 or stuck with an unsaleable and unmortgageable property. Ben Colling, director of portfolio management at Maslow Capital, warns that buildings that don't meet future criteria or government regulations will also be regarded as second-tier assets.

It will start to affect value

Sustainability is beginning to be factored into valuations. Since April 2018, new private rented tenancies have been legally required to have a minimum EPC rating of E; from 1st April 2023, this will apply to existing ones, too. For commercial, the government is proposing that all non-domestic rented properties meet a minimum B rating by 2030. "As sustainability and corporate social responsibility pressures increase, both landlords and occupiers are going to be including these matters as a main factor when deciding on occupation options," Alex predicts.

Assessing a property's energy performance rating is a core task for surveyors. In addition, they will be considering green features—such as rainwater harvesting, grey water recycling, ground or air source heat pumps, solar panels, smart building management systems, recycling systems, wind turbines, measures to prevent solar gain, a BREEAM rating, electrical vehicle charging points, bike stores and smart metering—all while noting environmental risks.

Insulation, renewables, double and triple glazing and solar shading, ventilation, energy-efficient LED lighting and landscaping/green screens are further elements surveyors will take into account.

When I ask what the biggest boosts to green value are, MEES compliance comes up the most. Improved EPC rating is slowly starting to become a key lending requirement as a result of regulatory

"While we rush to future-proof real estate against global warming, we also need to be thinking about how we deal with a situation where it may get colder here, which will exacerbate energy usage further"

changes, and this is expected to filter through to the consumer. "Green features that have a positive impact on valuation include solar installations, good double glazing, heat pumps and efficient boilers," notes Ana Bajri, senior technical manager of risk and compliance at Countrywide Surveying Services, adding that 'brown features', such as poor glazing, have a negative effect. "However, other aspects, such as house and garden size, number of bedrooms, general condition and location, remain major drivers of value."

David Cran, director at Bradley Hall, is beginning to see investors on the hunt for properties with higher EPC ratings and BREEAM rankings, but feels it's not yet clear if values are consistently commensurate with these. He explains that the lack of grade A office supply in our towns and cities has resulted in little distinguishable difference in price between those with sustainability considerations and those without. However, a purchaser of a building with a low rating would need to invest a significant amount to improve its efficiency to let it out. "As landlords and occupiers continue to seek such space and demand recedes on secondary, lower-rated stock, this will drive higher capital values on properties that are more energy efficient."

On the other hand, research by Aviva Investors highlights that green buildings can achieve a sales premium of between 5–35%, rental uplift from 2–24%, and a climbing brown discount of up to 10% where buildings aren't actively decarbonised. The commercial opportunity is clearly there. For example, the asset manager's real estate debt team has delivered over £600m in sustainability-linked loans in eight months, and its climate transition fund, which targets decarbonisation opportunities in real estate, has attracted £500m of seed funding.

Stuart expresses that valuers are not currently giving eco homes the premiums they deserve. "The knock-on impact of this is that housebuilders' appetite to build them is being suppressed by valuations that do not support the extra investment cost of that quality of build. The RICS has a responsibility to lead the way and encourage the inclusion of energy savings in the valuation of a house, something currently steadfastly refused by many valuers we encounter."

Nadav Albin, head of origination at Shojin Property Partners, points out that due to a scarcity of local comparables, it could be "slightly more difficult to obtain true values for net zero properties on a security basis".

Iain adds: "Valuation policies in Europe are already undergoing change and will see building owners who have high energy efficiency, low maintenance, sustainable recycling, rainwater retention, attenuation and recycling capabilities rewarded. It is hoped that this will drive real progress."

Currently, there is limited evidence that wider sustainability considerations are having an effect on residential property valuations. Ana imparts that red book reports presently make no more than "a passing reference" to these.

Although not seeing a consistent improvement in values where green investment has taken place, David Cran observes that some low-cost measures being carried out by landlords are providing a better return on initial investment. These include replacement of lighting with LEDs, various renewable heat sources and, where appropriate, solar panels and biomass boilers.

Dale notes that while people might be prepared to pay more to live in an eco-friendly home at a basic level (eg one that has double/triple glazing and high quality insulation), there is a ceiling. "When people are house hunting, most will be driven by available budget and the number of bedrooms/proximity to a good school/transport links, rather than sustainable features."

Sabinder Sandhu, head of operations and marketing at Avamore Capital, believes the biggest risk is that the homes being built today may not meet the requirements of tomorrow. "With no set rules for developers, few will be incentivised to spend more money making their properties green. While there is likely to be a grace period for new homes to be sold without complying to any new regulation which may come, buyers will probably be wary of purchasing properties which could plummet in value later on or incur additional expenses in making them more sustainable."

“It’s time the banks that have been around hundreds of years, and those that want a similar legacy, recognise that their very survival depends on their ability to adapt to something other than interest rate changes”

2050 isn’t that far away

Considering how much the property sector has evolved over the past 18 months, it is more than feasible that a vast transformation will be seen during the next three decades. “Technology, procurement and building methods, as well as materials, regulations and working practices will, in my opinion, all change dramatically during this time,” forecasts Iain.

However, there seems to be a serious lack of direction when it comes to green thinking from both finance providers and borrowers, with short- to medium-term priorities favoured on capital returns. “Where property is being purchased to be refurbished or redeveloped, the focus is often on cost as opposed to energy efficiency, meaning that second-hand buildings are not seeing a substantial improvement in green credentials,” claims David Cran.

Aaron is also seeing very little change or engagement from lenders in particular, with the majority treating eco homes and new building technologies as specialist or non-standard construction, limiting LTVs and client types. “The banks and lending institutions have no appetite to change and are missing a business opportunity to market ecological progress as a USP, driving change and supporting in the crisis. To this date, the people who make decisions are still fiddling while Rome burns (literally).” He divulges that while placing clients with suitable products, an ecological element to a loan, even if it was priced higher, would be a motivating factor for a number of them.

If sustainable products don’t exist, intermediaries have nothing to offer, Aaron adds. “Lenders are dismissive of anything made from anything other than bricks and mortar; it’s time the banks that have been around hundreds of years, and those that want a similar legacy, recognise that their very survival depends on their ability to adapt to something other than interest rate changes.”

Dale also questions whether borrowers and lenders are putting the emphasis on sustainability. While he believes that most have good intentions, the majority of developers and their funders will always look at profits. “While we can recommend more green options, I’ve lost count of the number of projects I’ve seen that originally included sustainable features which, if not sacrificed, were ultimately pared back to ensure the bottom line was met.”

Rachel Borlace, director and head of agriculture and renewables at MAF Finance Group, stresses that finance is “not a bystander” during this crisis. Peter Miles, CEO at sustainability company eHempHouse, underlines the power that financiers have. “Builders will go where they lead. They should, for example, prioritise projects that are environmentally friendly and refuse to fund those that are paying no attention to emissions. Developers would soon make the necessary changes.”

Pivot, for example, is actively looking at how it can offer green loans that reward developers based on how well they score on its ESG scale. “The measurables for this include how much renewable energy is used, the reuse of grey water, investment in green technologies and many other factors,” shares head of commercial operations and marketing Brian West. It is also looking to partner with an ESG fund that will score its borrowers’ schemes and provide them with additional leverage on top of its senior facilities, commensurate with their green credentials.

John Carter, managing director of commercial real estate at Aldermore, believes green securitisations will impel lenders to be more conscious about the properties they put on their books. “If the BEIS consultation comes through as proposed, then lenders will be required to ensure the average EPC of their back book hits designated thresholds and lenders’ performances could be shared in league tables,” he explains. The consultation will inevitably impact which properties finance providers will be willing to fund.

The introduction of a two-tier interest market, where environmentally harmful projects or buildings would be slapped with higher interest rates, is an appealing suggestion. “The extra funds raised could be used to offset the impact. Environmentally sound deals would, overnight, become more profitable,” expects Steven Smith, client growth director at Totum Finance.

Michael Stratton, managing director at MS Lending Group, says that while short-term lenders aren’t involved in the build process, they still need to focus on what they can do to make a difference. “That is why we are supportive of the process. For example, we help our clients understand that sustainable material costs may rise and therefore the LTV may need to be more flexible."

There is also a surge in sub-contractors using locally produced steel to reduce the carbon footprint of developments. "Thermal insulation and low U-values for external walls, glazing, roof and floors are prominent, too," notes Ben. "From a lender's perspective, we also support the use of MMC where the carbon footprint can be reduced by manufacturing certain elements of the build in a controlled factory setting." With extreme weather conditions set to further impact, or even halt, construction site activities, this is yet another incentive to build offsite.

Max Abbott, assistant surveyor at CrowdProperty, reveals that while sustainable practices are being adopted, less sustainable and more cost-effective measures are still a developer's preferred choice. "Nonetheless, we anticipate the next five to 10 years will see a rapid increase in take-up of sustainable practices and technologies."

When asked whether companies in the property market look at the eco credentials of businesses they work with, it was clear for some that it was quite far down the list. "It certainly helps when we see common values but, ultimately, we need to do what's right for our clients, so favouring partners with green credentials is not always possible," states Simon. Adam Tovey, valuations director at MSP Capital, adds that most companies are not yet advanced enough to have such a strategy in place, and therefore feels it is "too premature to discount a company which is not green".

Behind the slow take-up

For as long as I've been writing about the property market, the UK's housing crisis has dwarfed any progressive talk of sustainability. Having enough homes for the growing population trumps its importance, and this is especially prominent as a result of the pandemic, which has shone a light on the broad spectrum of living conditions. Tiba Raja, executive director at Market Financial Solutions, points to the dearth of affordable housing continuing to dominate the news, "while the environmental impact of traditional construction and maintenance methods recedes into the shadows".

Another factor making it difficult to achieve sustainability is the general lack of awareness around the true impact of real estate on the environment and the carbon footprint behind the products and techniques used. "The property market, and specifically the construction industry, is very traditional and has strong roots in tried-and-tested methods dating back decades," remarks Nadav. Unfortunately, there isn't one simple fix; the materials and supply chains in this sector are enormous. The industry needs the bigger players to get on board in order for sustainability to become the norm.

Jonathan Rhodes, head of commercial valuations at Cluttons, feels that the measurement of carbon emissions is hugely flawed. "Until we start to include embodied carbon from the build, demolition and fit-out process, we cannot tackle the issue properly."

A lack of government policy and guidance from other stakeholders, such as the Bank of England, is also hindering the industry's ability to go green. Nadav believes there needs to be incentives for sustainable solutions, such as financial relief, exemption of a Community Infrastructure Levy, or expediting planning permission for sustainable developments. "There are also issues relating to regulations, calculation of U-values, and the ability to mortgage alternative houses which do not fit the norm," he adds. "Unless there's a holistic, centralised approach supported by those at the top, adoption will be slow and will require a consumer-led revolution."

However, government intervention has clearly been tempered by the impact of Covid. "Construction is such an important part of the market now to drive employment and growth. Placing further restrictions could be seen as an effective tax on the market," cautions Ellen McCarthy, associate at Totum Finance. "We need a more radical approach."

While the government is currently implementing its Green Industrial Revolution, with strategies such as the 10-point Green Recovery Plan, David Travers feels that sector pick-up still seems lethargic. "This comes down to the fact that we are looking at guidelines and incentives, rather than rule reinforcements."

It is suggested that penalties or surcharges should be levied against those that lag behind. We've already seen calls from the Environmental Industries Commission for a greenfield surcharge to help meet the government's housing ambitions, so something similar to encourage climate-conscious building could be envisaged.

Patrick Chauvin, executive director of assets and homes at Stonewater, thinks measures could be more ambitious to build to higher standards quicker. "Other incentives could be introduced to influence the property market, such as stamp duty reductions for homes that are more efficient or for homebuyers who commit to making improvements."

978 Bridging has forged partnerships with companies involved in the government's ECO and Green Homes Grants schemes and has been referring developers to them. However, Simon alleges that these initiatives have layers of bureaucracy, complex distribution channels, and regularly change, restricting the flow of money into the marketplace. "We hear from a number of our developer clients that these funds were unobtainable or added so much complication to the build process that actually implementing the measures and accessing the funds became completely unviable."

Nick argues that successive governments for the next 30 years will need to go against their instincts and look beyond

“If the government mandated that all developments be zero carbon by an earlier date—say 2030—it would be achieved. The industry would find a way”

the next election to develop a meaningful long-term strategy when it comes to property. However, Daniel Austin, CEO and co-founder of ASK, asserts that “it will be hard for the government to prioritise and financially incentivise environmental factors” while we have a housing crisis and a steep economic recovery to make.

Edward Dixon, head of ESG for real assets at Aviva Investors, highlights that the real estate industry is a critical component of retirement savings and a major provider to the global economy. “The market has failed to account for its contribution to the climate crisis, and that failure will gradually need to be corrected.”

Without grants or subsidies, building sustainably will likely come down to a cost-benefit analysis, according to Joe. “Take a new-build office development in the heart of a major city, for example. It will be much easier to justify the cost of achieving an ‘Excellent’ or ‘Outstanding’ BREEAM rating, because the rents and values will justify the additional costs. The challenge will be in the conversion or repurposing of existing stock, which may have been built over 100 years ago, or developments in lower-value locations, where the end values will simply not justify the costs of meeting those sustainability targets.”

Charlie Armstrong, co-founder of LEXI Finance, agrees that the industry needs more government incentives to tilt the playing field further in the direction of sustainable development. “There’s little point having a swathe of environmentally minded developers struggling in the market because they’re less competitive than their non-sustainable rivals.”

Another challenge the industry faces is higher building costs. “More often than not, sustainability means an increased construction cost due to the materials being more expensive,” states Nadav. “Unless you are opting to charge a premium, which can be justified although it carries a risk, the margins could be squeezed.”

Procurement issues created by Covid and compounded by Brexit has pushed the prices of materials to an all-time high. “Simply remaining afloat and making a profit is challenging enough right now,” Simon says.

Daniel adds that UK land is in high demand and short supply, which makes it incredibly hard to make money if build costs are also climbing, resulting in eco decisions being “sidelined”.

Analysis by Savills shows an increasing desire for energy-efficient homes, with 49% of buyers stating green credentials have become more important. However, the company believes a green premium is typically found only on larger new homes, often achieved as part of a wider package of high quality features; furthermore, homebuyers are only willing to fork out an extra £2,800 for this.

Adam agrees that increased construction and sustainable materials costs are not yet being reflected in sales values. “Investment is needed in further new, cost-efficient building technologies which can be implemented across the property sector without the need for specialist contractors.”

While many developers feel that customers won’t pay a premium, Sean O’Leary, founder of Mackenzie Byrne, believes this is simply a perception. “If the government mandated that all developments be zero carbon by an earlier date—say 2030—it would be achieved. The industry would find a way.”

Although the market will be the deciding factor in whether a scheme succeeds or not, regardless of its green credentials, Joe expects end-purchasers and users to become more discerning when it comes to sustainability in their home or workspace. “While the short-term costs can seem off-putting, provided that it will not result in an end product that is wildly out of step with the local market, it should be seen as money well spent.”

While the costs are higher in the short-term, Rachel Norris believes that the long-term benefits of building smarter properties in terms of climate risk and resilience “massively outweigh” this. In time, these technologies will also become more competitive.

If developers can’t secure funding for these more expensive projects, they can’t be built. “While there is a clear appetite to drive the green agenda from all parties involved, there is still a very significant logjam in the system—namely the lack of available funding,” says Brian. “Development lenders are all too often governed by restrictive covenants that have been designed around houses being built in situ over several months, as opposed to being delivered off the back of a lorry and erected in days.”

Rethinking and acting

Ways to help decarbonise the built environment include utilising MMC and reusable or recyclable units, intelligent design to reduce offcuts and wastage, selecting sustainable materials, and installing smart technology monitors and controls. Biodiversity improvements through living walls, green roofs and biomass boilers can also help.

"Although humans have learned to build magnificent structures, many techniques and materials used today are centuries, if not millennia, old and at odds with the current global predicament," says Edward. He points out that the boom in capitalism and urbanisation since the 1950s has developed a "taste for newness" by demolishing and starting again. The challenge, he outlines, is to decouple the growth for new housing from carbon, which he believes can only be done by making more with what we already have.

Dr Finian McCann, senior lecturer in structural engineering at LSBU, is a co-investigator for SCRAM—a project that aims to define a new model of circular manufacturing by 3D printing with recycled plastics. If scaled up across the construction sector to replace 20% of structural concrete, the proposed innovation could offset approximately two million tonnes of concrete in the UK each year. "The big issue is always about risk. A contractor knows how to use concrete and steel—they don't know how to use 3D-printed recycled plastic. I think that the onus is always on the researchers to de-risk these projects."

The finance industry will need to support smaller players in the market—which are often the biggest innovators—by offering higher LTCs for sustainable loan products. "Perhaps because of the greater need to drive commercial efficiencies, SMEs tend to be much better at making clever use of brownfield sites and existing infrastructure, rather than creating new facilities, which has an increased carbon output and is wasteful of materials," imparts Stuart.

Daniel agrees that the trend for converting distressed retail and outdated offices into residential accommodation is a far more environmental approach than demolition, and something that will be encouraged by new permitted development rights. "It also keeps costs lower, which allows budget for retrofitting lower carbon improvements."

Iain suggests the industry needs a full review so that we can conceive a supply chain that is as environmentally friendly as possible—from energy-efficient products that are delivered to sites by electric vehicles and fitted by workers who drive to work in electric cars and vans, to homebuilders that incorporate sustainability into every possible element of the design, from the recycling of water and disposal of domestic rubbish to gardens that produce carbon-capturing plants. However, unless the energy market reforms (gas is currently cheaper than electricity, for example), there is no incentive for electrification and the use of innovations such as heat pumps.

Partnering with green-building experts can also free up time for businesses to do what they know best and maximise returns. Last year, sustainable design and engineering company Phioneers worked with a developer that had a large amount of land allocated to it for a residential housing estate. On reviewing the plans, Phioneers discovered there was wildlife on the site, and was able to change the layout to maintain the area as a mini nature reserve. "We also influenced the inclusion of lots of trees and plants, plus rain harvesting and solar systems," says CEO Ousman Touray, adding that these saved the client a significant amount of money. "A key element of sustainability is the economic aspect. In most cases, the most sustainable solution also reduces OPEX costs in the long run."

The changing appetite of investors

Nedgroup Investments Global Property Fund warns that listed real estate businesses and REITs will be left behind by shareholders if they fail to hit net zero by 2030. It claims that environmentally compliant real estate assets benefit from greater tenant demand; energy, water and waste efficiencies, reducing operating expenses and making buildings more profitable to run; higher occupancy rates; and large sales, appealing to a wider pool of buyers.

Research by Global Palladium Fund found that UK retail investors are progressively more supportive of sustainable initiatives, with 47% planning to devote more cash to companies and funds at the forefront of the green revolution.

A RICS report found that 55% more respondents pointed to an increase in occupier and investor appetite for green and sustainable buildings in the past year, and half believe green buildings can charge higher rents. For properties that aren't sustainable, 30% cited that they are given a 'brown discount'.

With investors increasingly refusing to put their money into projects that are harmful to the environment, the building sector is urged to get its house in order if it's to continue attracting investment from broad capital pools. "We are seeing individual investors focusing much more on sustainable projects that have strong environmental credentials," says Stuart. "It also means that issues like flooding and other environmental considerations factor much more heavily in the due diligence process for institutional investors than they ever have before."

"Get learning as soon as possible and develop your expertise. Create small goals, establish milestones, and celebrate change"

Driving the green agenda forward

Aaron believes that the lenders and firms who have significantly benefited financially over the years owe it to Earth to put back some of their gains for future generations. "Dinosaurs inhabited the planet for 450 million years and died as a result of an asteroid strike. We have lasted about 100,000 years and killed ourselves."

With the UK soon to be hosting the COP26 summit in Glasgow, all eyes will be on world leaders' commitments in the hope of accelerating change. As the climate crisis is brought into sharper focus, the role of the built environment will become more defined. But where do we start?

Roselle Allsop, group head of marketing (lending, digital and design) at OSB Group, tells me that, as a marketer, she is responsible for helping to inform and educate in an engaging way so that the messages land well and with impact. "Tackling an issue of this scale can only be achieved by embedding the values and principles within an organisation, and communicating these messages internally as well as externally." She emphasises that we're not limited to one solution and, if businesses don't take the time to form a strategy, they're in danger of appearing insincere. "We've already seen early signs of greenwashing where a company may offer to plant a tree for every transaction while, at the same time, insists on a paper-heavy application process. This doesn't come across as a genuine effort and is something the consumer can see right through."

Aleksandra Njagulj, global head of ESG for real estate at DWS, feels it requires a wholesale change in the way of working. "The current preferred approach we see in the field is to establish an ESG team or engage a consultant to offshore all of the sustainability work. This is a short-term patch," she states, adding that the only future-proof route is to integrate ESG in every aspect of a business and make it part of everyone's daily work.

John believes the best way to make progress will be through collaborations with lenders and third parties who either support the property supply chain or represent it, such as professional bodies and member associations. "Collective initiatives, such as the Coalition for the Energy Efficiency of Buildings, the Net-Zero Banking Alliance, Bankers for NetZero and the PCAF UK Coalition, allow parties to share learnings or barriers encountered, provide guidance for firms that are setting commitments and taking action, and allow for financial institutions to set clear signals of their intent." He urges the industry to recognise that we're all in the same boat. "Nobody knows everything, but by all of us taking steps in the right direction, we will learn and improve together."

Iain notes that there are no quick wins or easy solutions when it comes to the climate crisis, but thinks companies should start the awareness journey swiftly. "Get learning as soon as possible and develop your expertise. Create small goals, establish milestones, and celebrate change."

Key advice is to start with the things you can achieve. "That could be introducing a bike to work scheme to promote cycling (making sure there are showering facilities!) and getting an energy assessment for your office to see where you can improve efficiencies in things like lighting and heating," proposes Nick.

Another way companies can make a change is by engaging with the carbon offsetting markets. "The industry is going to take time to become carbon neutral, time that the climate doesn't have, so it's not enough to become as environmentally friendly as you can—you also need to help remove CO_2 from the atmosphere," Peter explains.

Rob Beacroft, director at Lateral Investment Management, says companies should look to reducing waste and investing in longer lasting, quality and flexible materials that will "stand the test of time and will not end up in landfill in a few years".

There are also huge commercial upsides for early adopters. "At some point in the very near future, strong eco-credentials will be the deciding factor in which companies thrive and which don't," comments Stuart. Louise points out that generations Y and Z—the future talent and consumers of the industry—are "watching and judging us based not only on performance, but how we contribute and what standards we set".

Roxana exhorts businesses to act now. "If you think it's costly to introduce change today, wait until everyone's done it and you find yourself funding stranded assets and buildings that don't meet the desired criteria or government regulations."

It seems the main danger is property finance businesses becoming overwhelmed and ending up doing nothing. "The answer to this is perhaps to make small positive steps," suggests Brian. "Set two or three achievable goals and, when you've succeeded with these, move on and set some new ones."

David Travers encourages businesses to explore products that are already in the market and examine their criteria. "The movement towards enabling a carbon net zero future needs to be a collective one; there is no harm in using existing products to inspire new and alternative options."

While there's no excuse for businesses in our industry not to have already implemented simple changes (such as going paperless and having good recycling systems), the focus now needs to be on the next step. "Try to put a small amount of time aside each month to look into green initiatives," advises Simon. He also recommends opening up the discussion among peers. "It doesn't take much to start an industry-wide conversation—and the more people are talking about this, the more likely we are to see developments that really make sustainable housebuilding the priority it needs to be." ■