



THE UK
STRIVES FOR
68%
REDUCTION
OF ANNUAL
CARBON
EMISSIONS
BY 2030

built environment sector is considered. The transition to implementing sustainable behaviours across the sector needs to pick up pace if the industry is to become more ecologically sound.

For a start, encouraging sustainable working practices, including life-cycle costing and post-occupancy evaluation, as part of the initial scope of work can help to achieve more sustainable construction projects. What's more, encouraging greater collaboration across the supply chain, from architects and engineers to contractors and developers, will also help to significantly reduce construction waste. Digital tools should be utilised to seamlessly facilitate collaboration.

Covering old ground

Globally, the construction industry uses about three billion metric tons of natural resources to manufacture building materials each year. However, up to 30% of this is wasted through reworking projects, overestimates and inaccurate details.

Construction project management software is one of the best tools that a company can invest in to tackle issues regarding ineffective organisation and miscommunication. Combined with cloud-based digital documentation and communication software, digital blueprints can be accessed by all parties and enable the supply chain to talk seamlessly. Technology can lower miscommunication errors, reduce construction waste and eliminate rework – all of which will help to drive the green recovery.

Technological advances that focus on data capture and complex modelling – for example, building information modelling (BIM) systems – can now generate algorithms that optimise a building's performance. Engineers will be able to stress-test different options on a digital twin, including lighting, heating and ventilation, which will allow the long-term environmental impacts of a structure to be assessed and amended. This will not only help to realise greater efficiencies but will also lower operating costs.

In December 2020, the government published a *New construction playbook*, which sets out the role of the construction industry in the green recovery to ensure that the sector becomes greener and more innovative. This includes measures such as the use of carbon assessments and embedding digital technologies, including the BIM framework.

Making considerations for the entire project life-cycle and embracing digital tools should result in fewer carbon-intensive construction processes and provide clear pathways for sustainable structure management. As the UK strives to reduce annual carbon emissions by 68% by 2030, it's crucial that the construction industry works to close the gap from modelling to implementation, for the UK's green recovery to really gain momentum. 

➤ For more, visit planradar.com/gb

Read *New construction playbook*
bit.ly/ConstructionPlaybook

Build back greener

Ibrahim Imam, co-founder of PlanRadar, says the UK's green recovery hinges on construction embracing technology

In June 2020, Boris Johnson announced a £5bn injection to accelerate construction across the country in an effort to boost economic growth. Using the slogan, "Build back better, build back greener, build back faster", investment in green infrastructure was placed at the core of the Prime Minister's pledge.

Although the government wants to pursue a green recovery, the Green Alliance says an additional £14bn is needed for the UK to achieve its target of net zero emissions by 2050. As the climate change debate continues, policy rhetoric must be matched with action and investment.

Despite several UK construction industry leaders making climate and biodiversity declarations, approximately 10% of the UK's CO₂ emissions derive from construction activities – rising to 45% if the entire