

## Sharing the secrets of net-zero

3 years ago



Most people in construction will have heard that about 38 per cent of global emissions can be attributed to the built environment. It's a staggering number and one that must force the industry to act. Instigating and adopting transformative changes in the way we work will be critical if we are to limit global warming to 1.5° Celsius above pre-industrial levels (a target endorsed by 106 countries as part of the 2015 Paris Agreement).

The challenge is simple to state: how can we, as an industry, decarbonise the built environment, both today and tomorrow? As an organisation, the Construction Leadership Council (CLC) has a critical role to play in this mission. Through the lens of our Construct Zero industry-change programme, we are bringing industry partners together, sharing innovative solutions, consolidating collective action and publishing quarterly updates on collective progress.

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The sector's achievements are assessed against the metrics set out in Construct Zero's Performance Framework. However, these targets can only be met if government and all parts of the industry work together in partnership. From architects to builders through to merchants and the entire supply chain, we all have a vital role to play to enable cultural and behavioural shifts, at both strategic and operational levels.

Three months ago, global attention turned to Glasgow and the COP26 climate-change summit. A CLC-hosted event at the summit demonstrated how companies across the sector are already leading the transition to net-zero. Construct Zero's Business Champions, including Keltbray, Mace, Costain and Atkins, illustrated the range of practical solutions they are already implementing to decarbonise the built

environment. From adopting innovative methods of construction to new, sustainable materials and a focus on whole-life value, the industry is already taking tangible steps to optimise how buildings are designed, built, used and refurbished.

For me, a stand-out speaker was Sarah Linnell, a young sustainability engineer at Cundall, who highlighted the importance of creating a culture capable of challenging 'business as usual' attitudes. Sarah highlighted how the curiosity that is so desperately needed for innovation in this industry is so often stunted by cost and time constraints. Young professionals like Linnell are the future of our industry, and their voices must be heard. The culture of confidence we must create, which will drive the changes needed to transform our industry, requires listening to the whole business, from the bottom to the top.

#### Much to do

The CLC's first quarterly progress update on Construct Zero, published during COP26, shows that there is still much for us to do as an industry. We will be working with government and industry partners – including the Green Construction Board and UK Green Building Council – to drive further progress ahead of our next public update in the spring.

We have already seen the [Transforming Construction challenge](#), run by UK Research & Innovation (UKRI), which has drawn £170m of public money and significant industry finance into decarbonisation projects, and the Value Toolkit, developed by the Construction Innovation Hub, which aims to establish a more holistic approach to defining value, driving better outcomes for society and the environment.

Another example is the work of Converge and Bam Nuttall, in which a government grant has helped spearhead a revolution for concrete. By applying artificial intelligence and internet-of-things techniques, the project gathers real-time data to improve concrete mixes – predicting the precise moment the concrete will reach the minimum required strength. At present, 210 UK construction sites are involved in the project, which could save the sector as much as £136m annually by 2025.

#### Collaborative effort

While it is encouraging to see so many innovative solutions being adopted by industry, we will still fall short of our emissions targets unless they are underpinned by a robust policy framework. Given that 80 per cent of today's buildings are expected to be around in 2050, we must decarbonise what is already built. It is likely this can only be achieved in partnership with, and under a mandate from, government.

Intervention and incentivisation will be vital to shift behaviours – particularly around embodied carbon. However, there is a lot we can do to instigate this change, as an industry, by working with our partners to develop solutions and build on what was achieved at COP26.

Signing up to collaborative schemes like the CLC's Construct Zero will help. By working on its recommendations, whether supporting the development of low-carbon materials and processes or optimising the use of modern methods of construction, we can not only have an enormous impact on our built environment, but also on our planet.