

Future facade

This year's Aluminium in Building Conference focused on offsite construction and the circular economy. For both issues, there is a need for the construction industry to do something that does not normally come naturally: collaboration



CAB technical director, Dr Justin Furness with the speakers at the CAB Aluminium in Building conference 2017

In the opening keynote address, Chris Ashworth, Competitive Advantage, picked up from the recommendations of the Farmer Report, *Modernise or Die*, and explained that we are not primarily looking at whizzy ways to make products, but rather whizzy ways to use data from those products when installed, that could in turn lead to new products and services.

Ken Davie, head of offsite and modern methods of construction research at Carillion plc, developed the theme of design for manufacture and assembly (DfMA) and the need for product manufacturers and specialist contractors to develop an industrialisation as well as a collaboration mindset. Quoting from the government's *Digital Built Britain* (DBB) strategic plan, Davie noted that: "Fully computerised construction must become the norm so the benefits of these technologies are realised."

The opportunities for digitalisation were explored by Elizabeth Kavanagh, head of HR and head of research and innovation at Stride Treglown. She explained how DBB will deliver a digital economy for the built environment and described the 'servitization' of the industry, moving away from making products to delivering services. This will require a new skill set and more 'T-shaped' people – that is in-depth technical knowledge combined with a broad mix of creative and interpersonal skills.

Michael Swiszcowski, associate director, Chapman Taylor, introduced 'umbrellahaus', its offsite housing model that draws inspiration from other sectors as well as from their direct experience. Swiszcowski compared the automotive and construction sectors, with a car engineered from different modules to precision by robots in a factory, whereas a house is typically built in a muddy field. Concerning the interfaces between the different build elements related to the facade, he closed with a plea to all delegates: "We need your expertise."

Jane Thornback, Construction Products Association,

highlighted the role for the circular economy, given the massive changes taking place around the world and the need for us to better manage the finite 'stuff' on our planet. She went on to highlight market and system failures relating to construction. Businesses in the supply chain need to start asking themselves if they are resilient and innovative, able to respond to the economic and societal changes taking place.

Andrew Kinsey, operations director – sustainability, Mace Group started with some of the typical industry responses to this topic: "Circular economy, isn't that just a fancy way of saying recycling?" and: "Our clients don't ask for circular economy goods and services." As well as possible regulatory drivers for the circular economy, Kinsey identified green building assessment schemes, offsite construction (and possible deconstruction), BIM and material traceability as additional drivers.

The final presentation neatly joined together the themes of the day and provided a practical example for our industry. Juan Azcárate, a researcher at Delft University of Technology explored how facades could be delivered as a service, allowing a building owner to lease their facade in the future. By installing an integrated facade to replace an outdated unitised system at the university, it has been possible to carry out a study into the total cost of ownership for such a facade on a leased basis. This approach incentivises technical innovation to improve quality and reduce maintenance. Azcárate's closing remark highlighted that all stakeholders should have the same goal: to do more with less. □

Justin Furness

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