Comment

Rethinking housing delivery means rethinking procurement models

Michelle Hannah is a director at property and construction consultant Cast

Over the last 25 years, the adoption of modern methods of construction has popped up as a recurring theme in our industry. Yet, at this present moment, it feels like the debate has reached a different level of significance, driven by clear government support. Parts of the industry are also seeing the undeniable opportunity of technology-led delivery and the increasing danger of marginalisation through business as usual.

Within the public and non-profit sectors, offsite construction lends itself to helping achieve many current aims, including to build high-quality homes fast and on sites once considered difficult to build on. There are early adopter housing associations that have decided to embrace modular, either setting up their own integrated offsite factories or partnering with existing manufacturers. Many local authorities are also looking at design rationalisation and standardisation to better enable design for manufacture and assembly (DfMA), from a range of providers.

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But with any disruption to existing delivery models, there are knock-on effects for both processes and organisational norms. Offsite is no different, especially when it comes to procurement.

The existing procurement model for delivering residential housing within the public sector tends to be a single point of ownership and risk transfer using a main contractor. The contractual framework will therefore generally tend towards a design and build (D&B) approach. Despite the question mark hanging over the public sector's use of competitive D&B in the light of the Grenfell disaster, there seems no apparent move away from this approach. Familiarity and lack of alternatives that procurers and industry readily understand is preventing the wider reform of procurement that our industry desperately needs to reintegrate itself.

This problem is magnified when the organisations that want to use full volumetric modular have 60%-70% of the entire budget in one premanufactured package. Where the manufacturer is not vertically integrated into the supply chain, procuring a traditional main contractor to deliver these developments is proving untenable. It is unaffordable because the factory overhead is duplicated by the contractor site overhead.

To get offsite manufactured schemes stacking up in the public sector and beyond, there needs to be a shift in the procurement model. The most successful manufacture-led models will be ones where manufacturers are vertically integrated with a site assembly and completion capability. The contractual arrangement needs to be adjusted accordingly, allowing for earlier engagement between the client and a core manufacturer under a fee-based arrangement.

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THOUGHT FOR TOMORROW

Logistics

We ask readers to share their visions of the construction industry in 25 years' time. Here, Gerald Morgan emphasises the centrality of logistics

Building YOUR FUTURE

It is possible that some construction professionals reading this will not like the reality of what I am about to say. But it is a fact that while technologies continue to make us more productive, the world can only change as fast as logistics will allow it.

So, when we think about how the construction industry might look 25 years from now, we would be foolish not to consider logistics. There is much talk of AI and the "internet of things", but these advancements require vast amounts of data to allow them to make informed decisions—data that (even if it is being captured) is often too fragmented to provide a usable dataset. So let us instead focus on another aspect of the current trajectory of logistics.

Modern methods of construction are not new but those methods continue to drive efficiency through process – and there is so much more that can be done.

Imagine this future: BIM designed buildings generating components fabricated simultaneously in factories,

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shipped and tracked to local preassembly facilities, consolidated and prepared for installation on site where large modular components are transported to the workface by skilled modern logistics teams wearing exoskeletons giving them the strength and stamina to hold components in place for final connections performed by professional assembly technicians.

Safe, efficient, manageable and simple to sequence. This technology already exists, and the only barrier to implementation is that it requires a change of mentality – the same change the automotive industry experienced 50 years ago.

Gerald Morgan is preconstruction director at Wilson James

Do you have a Thought for Tomorrow? Just send your name, job title and company, and 250 words to building@building.co.uk, with the heading "Building Your Future", answering these questions: ■ What would you like the construction industry to look like in 25 years' time? ■ And what needs to change to make that happen?