



Working together to tackle the UK housing crisis

Encouraging UK governments and construction companies to scale modern methods of construction can help address concerns over diminishing housing as well as prepare the emerging workforce to manage it.



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The UK housing crisis is well documented—especially in the most unaffordable areas—and it is rightly considered the country’s top domestic priority. In 2018, housebuilding reached its highest level in more than 20 years, but this still falls significantly short of the numbers required to solve the fundamental supply-side challenge. To address the issue, the UK government has set a target of 300,000 homes constructed per year by the mid-2020s.

Reaching this goal will require a 40 percent increase in the current construction workforce headcount—that is, if the industry continues to rely on traditional construction methods.¹ In addition, to reach that housing target, construction needs to be one of the most productive sectors in the United Kingdom. However, UK construction productivity has stagnated since 2008.² In short, the government can’t reach its target if the industry continues to operate the way it has for decades.

Modern methods of construction (MMC)—a broad term encompassing a range of volume-manufacturing and technology-enabled techniques—has the potential to be significantly more productive than traditional site-based construction processes. Because of its ability to create round-the-clock off-site production, MMC can be carried out with a notably reduced (and alternatively skilled) workforce, providing a much-needed productivity boost amid the industry’s existing skilled labor shortage. Furthermore, MMC creates the chance to improve the quality and energy efficiency of homes, as well as increase the safety of building sites.

One of Homes England’s strategic priorities as the government’s housing accelerator is to improve construction productivity, encourage developers to use MMC, and increase the capacity of the off-site manufacturing industry. While MMC is relatively nascent today, we believe it is the future of housebuilding in England.

Unequivocally, no group can achieve the changes needed to build the homes the country needs alone. For MMC to help create the seismic shift the industry needs, construction leaders must collaborate within and outside the industry to demonstrate the potential of MMC. Only then can the country’s affordable-housing needs be met, necessary skills developed, and adoption hastened.

How collaboration can scale modern methods of construction

The UK housing crisis has burgeoned over decades, but the solution needs to be realized much faster. There are two fundamental requirements for increasing penetration and reach of MMC and thus improving the sector’s productivity.

Quantify the opportunity

The construction industry is taking notice of MMC and starting to ramp up production: Goldman Sachs’s £75 million investment into TopHat is testament to this. Innovators such as Vision Modular are creating a new way to build vertically at pace—ideal for the emerging build-to-rent sector, with companies such as Greystar and Tipi using the system. Major housebuilders, including Berkeley Modular and Countryside, have also recognized that their ambitions cannot be met through traditional methods alone. Both are vertically integrating MMC factories into their supply chains.

But as some are beginning to explore MMC, the scale of the opportunity is yet largely unknown. The United Kingdom has a long way to go compared with the MMC pioneers in Germany, Japan, and Scandinavia. In part, this lag is because of first-mover resistance as well as the lack of clear research about how new building methods perform against their traditional counterparts. Thus, one of the industry’s first efforts is proving that MMC could solve the country’s needs.

Homes England is in a unique position of both supporting an industry with a massively shrunken

supplier base and disrupting it through MMC. Striking balance between the two requires careful partnering and planning.

Gateshead Innovation Village, a research initiative by Home Group, analyzes the benefits of different types of MMC versus traditional build techniques. This demonstrator project—which Homes England supports through our Shared Ownership and Affordable Homes Programme—tests various innovative building methods to understand how they work and where they can be used. This is a starting point for giving the industry confidence in new construction methods.

Building on the work at Gateshead Innovation Village, and as part of our objective to improve construction productivity, Homes England will be launching an MMC pilot site-research program. It will monitor and report on up to 25 sites, all of which are using ambitious forms of MMC to build new housing. We will then benchmark these sites against traditional build approaches to provide the industry with the data to make informed decisions about emerging technologies.

Develop new skills

The current lack of traditional construction skills provides the backdrop for transitioning to increased dependency on MMC in the industry. In addition to traditional construction skills such as carpentry, stonemasonry, and roofing, the skills needed for MMC to reach scale include digital manufacturing, engineering, and design. As the next generation of built-environment professionals seeks out creative, tech-enabled careers, this rising reliance on innovative tools and high-quality design could help construction gain renewed appeal.

Still, the construction industry needs to proactively ensure it creates such a pipeline of workers. For example, Berkeley Modular is working with a local college to create apprenticeships that develop skills specifically

for MMC.³ The modular manufacturer has committed to recruiting ten apprentices from the college annually, with the goal of building construction experience among young graduates and exposing them to new methods of manufacturing-style construction.



To scale modular construction, it is clear that collaboration will be key.

In May 2019, Japan's biggest housebuilder and MMC expert, Sekisui House, announced its move into the UK housing market after striking a £90 million deal. The deal will see it work with Homes England and Urban Splash to deliver thousands of new homes across the country. As part of the deal, Sekisui House has invested £22 million of new equity; through the Home Building Fund, Homes England is investing another £30 million of equity and debt funding.

The plan now is for Sekisui House and Urban Splash's "House" development business to partner to build thousands of homes in the United Kingdom using the latest modular construction techniques. This investment is a clear statement of intent from a global housebuilder and a disruptive entrant to the UK market.

When Homes England launched in 2018, we set out to disrupt the housing market to accelerate the pace of construction. By helping bring one of the world's largest and most innovative housebuilders to UK shores, we're doing just that. However, at their current rate, the strides being made in MMC will not solve the housing crisis—even as such innovation, investment, and change emerge.

Local governments, builders, and manufacturers need to openly and willingly engage to discuss the basic issues through roundtables and

conferences. They can then look at specific sectors to learn best practices and share experiences. The industry must start working toward these goals now to increase construction productivity and meet the growing housing need in the United Kingdom and beyond. ■

¹ *The impact of modern methods of construction on skills requirements for housing*, Construction Industry Training Board and Whole Life Consultants, April 2019, citb.co.uk.

² Productivity dropped 2.5 percent annually; Statistics on trade and productivity of particular industries, 2008 to 2016, March 1, 2019, Office of National Statistics, ons.gov.uk.

³ "North Kent College and Berkeley Modular to create unique apprenticeship opportunity," Berkeley Group, September 3, 2018, berkeleygroup.co.uk.

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