

Executive summary

Modern methods of construction (MMC) are here to stay, and there's a 'collective passion within the industry to see MMC flourish'. However, there are still many barriers to overcome if MMC is to deliver the full range of economic, social and economic benefits.

Despite enthusiasm within some sections of the construction industry, there is still a lack of understanding about what MMC actually is. This has an impact on the ability of the supply chain to satisfy demand, on cost-planning models to support decision-making, and on funders and investors to support the sector.

For MMC to be more widely adopted, better education and dialogue is required, along with greater support from government and regulators, and more collective initiatives from architects, contractors, manufacturers, funders, clients and other stakeholders.

THE FUTURE OF MMC

About Box Architects

Box Architects create spaces for people to work, live and play. They provide a client-centric service from studios in London and Leeds that's driven by a focus on commercial and creative balance.

About Box Talks

Box Talks provide a forum for news, client dialogue, research and team learning. The MMC round-table discussion, which was attended by industry partners (including funders, manufacturers, insurers and clients) was held in London's RAC Club and was supported by United Trust Bank.



Introduction

Modern methods of construction offer a range of benefits – faster build programme, reduced costs, less waste, and improved health and safety on construction sites. As a result, MMC (and modular construction in particular) has a significant role to play in meeting the industry's economic, social and environmental targets. This important role for MMC was discussed at the latest in a series of Box Talks, when delegates agreed that they don't need to spend as much time convincing the industry that MMC is the right way to go. Instead, there is now 'a collective enthusiasm to see MMC flourish'. Why then, is there still relatively low demand for MMC within new projects?



The barriers to MMC adoption

1. **Better clarity of what MMC is**
2. **Education around standardisation and flexibility**
3. **Extend CPD to strategic decision-makers**
4. **Align MMC terminology**
5. **Develop cost-planning systems for MMC model**
6. **Improve reliability of MMC supply chain**
7. **Encourage support from funders and institutional investors**
8. **Translate government support into action**
9. **Highlight MMC role in achieving ESG targets**

“Spread the word that MMC is not cheap or less sound than conventional construction – it’s actually the future if we care about climate change.”

Box Talks delegate

“There is a collective passion to see MMC flourish.”

Box Talks delegate

How to improve MMC adoption

1. Better clarity of what MMC is

Although architects and builders know what MMC is, there is still a lack of understanding among non-technical stakeholders and policymakers within the construction and development sectors. Some of the confusion surrounds the differences between panelised and volumetric systems. Both are important (along with other innovative systems) but more education and opportunities for knowledge-sharing is required.

Panelised systems

This method of construction involves the manufacture of flat panels under factory conditions. The panels are then assembled on site or incorporated into existing structures. With ‘open’ panels, features such as windows and insulation are fitted on site, while ‘closed panels’ have features factory-fitted before transportation.

Volumetric construction

Often called modular construction, the system involves the off-site design and manufacture of 3D units. Units are assembled in factory conditions – increasing speed and reducing cost – and transported to site with all internal fixtures and fittings intact. Once on site, the units are stacked on pre-cast concrete foundations.

2. Education around standardisation and flexibility

Modern methods of construction can deliver projects that are as bespoke or standardised as necessary. There is no conflict. Greater efforts need to be made to educate stakeholders that the level of standardisation should be addressed on a project-by-project basis, based on the requirements of the project and the budget – not by the limitations (or otherwise) of MMC.

3. Extend CPD to strategic decision-makers

Most of the CPD-style education programmes around MMC are aimed at architects, designers and builders – and even then, only at a technical level. Those responsible for commercial and strategic decisions need to be part of education process.

4. Align MMC terminology

The supply chain may actually be further along the road to MMC than architects and principal contractors think. However, efforts need to be made to align the terminology of MMC to prevent different parts of the industry talking at cross-purposes.

5. Develop cost-planning systems for MMC model

How do we demonstrate cost effectiveness for Type 2 MMC with traditional cost-planning systems? No two sites are the same and build costs are unpredictable. Is it time to align modern methods of construction with modern methods of estimating (say, the Building Cost Information Service)? The sector may also need to work together to develop a tool that helps compare costs between traditional construction and MMC, and supports decision-making?

6. Improve reliability of MMC supply chain

The benefits of MMC could be lost completely if the supply chain as a whole cannot deliver reliably. To avoid risk, a key action is to encourage collaboration and open-book work to allow greater interoperability between systems. For MMC, modern methods of procurement are also being called for.

“It’s great to hear so many perspectives on the challenges and opportunities presented by MMC – and also to see the collective desire to find solutions that will lead to wider adoption across a market we’re all clearly so passionate about.”

Adam Bovingdon, Head of Property Development,
United Trust Bank

How to improve MMC adoption

7. Encourage support from funders and institutional investors

Funders want to know how manufacturers are seeking surety for their product and how will they limit depreciation, and are concerned about effective transfer and management of risk. A more robust strategy to encourage funders and institutional investors to support MMC is required. For example, if the industry can address insurance and mortgage-ability issues, more clients will be interested in developing MMC projects.

8. Translate government support into action

While government and regulators outwardly recognise the value of MMC, there is still a lack of support to deliver it effectively. More government input is required to encourage MMC across the board, rather than in geographical pockets. For example, more ‘green’ incentives for MMC R&D and favourable finance rates.








9. Highlight MMC role in achieving ESG targets

Offsite manufacture can help ‘design in’ efficiencies, reduce waste, improve the environmental impact on communities and provide better (and safer) working environments. But there’s a need to define more clearly what ESG means to the MMC sector – and to communicate the benefits more effectively.



Summing up

MMC is perfectly placed to deliver the full range of economic, social and economic benefits. However, there are challenges as well as opportunities. For MMC to be more widely adopted, better education and dialogue is required, along with greater support from government and regulators, and more collective initiatives from architects, contractors, manufacturers, funders, clients and other stakeholders.

-  More education and opportunities for knowledge-sharing
-  Align MMC terminology across different parts of the industry
-  Develop better, more MMC-focused estimating and cost-comparison tools
-  Work more closely with the supply chain to reduce risk
-  Address insurance and mortgage issues to encourage more investment
-  Encourage greater government action to support MMC
-  Communicate the economic, social and economic benefits of MMC

What next?

To find out more about Box Talks, or to secure your place in the next one, contact graham.place@boxarchitects.co.uk