

FUNDING AND DEVELOPMENT OF MODULAR HOUSING

A view from the public and private sectors



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Foreword

How far have we come in the adoption of modern methods of construction (MMC) in the provision of housing in the public and private sectors?

The Government's Construction Playbook highlights the use of MMC as key to improving quality in public sector construction. The approach is attracting significant levels of support from the public sector, for example, Homes England require their Strategic Partners to deliver 25% of homes using MMC and encourage the use of MMC on the Affordable Housing Programme and the Greater London Authority welcomes bids with an MMC pipeline.

But what impact is this having on the sector as a whole? Trowers & Hamlin's conducted a survey in August 2021 to gauge views on and experience with MMC within both the public and the private housing sectors; and in particular how close are we to making full use of the most advanced forms of MMC, so called "Categories 1 and 2" from MHCLG's MMC Definition Framework - 3D and 2D primary structural systems. .

As part of a deeper dive into the topic, Trowers & Hamlin's decided to follow-up its survey findings by conducting a series of roundtable discussions with representatives from across the industry, including registered housing providers, local authorities, private developers, house builders, manufacturers, funders, valuers, insurers and consultants.

The results of the survey and roundtables indicate a shift in thinking since Trowers & Hamlin's last modular housing report in 2019 which is perhaps unsurprising given that report preceded the global Covid-19 pandemic that prompted so much re-evaluation of the way businesses and society was functioning. The issues identified in our original report have not completely disappeared, but there has clearly been a significant shift in attitudes to the wider adoption of modular construction as an alternative to traditional building methods.

Motivations for using MMC

Build quality and costs are among the key drivers across the public and private sectors. The need for less labour when building with volumetric and panelised systems was also a motivator; a motivating factor thrown into even sharper relief given the skills and labour crisis that the construction industry has been facing for some time and has been exacerbated further by Brexit and social issues.

Similarly, the desire for sustainable development and energy-efficient homes was very high on the list as a driver for using MMC. This undoubtedly reflects the increasing move towards and pressure for funders and developers to transition to net-zero carbon.

Martin Williams, Portfolio Management & Risk at Maslow Capital, pointed out that over the last 6 to 12 months, there has been a marked shift in investor behaviour:

“There’s been a massive emphasis from those base investors into the funds to make sure that any key investments have got strong ESG credentials.”

Andrew Shepherd, Managing Director at TopHat said the institutional investors he was working with are starting to look at European Sustainable Financial Disclosure Regulations and Article 8 /Article 9 funds:

“They are asking what we can do to help deliver in that sphere and driving us to deliver them the most sustainable outcomes.”

Research is ongoing into the broader cost savings of using MMC (especially volumetric modular), including the whole lifecycle costs, which was also cited as a key motivator. Many property owners are still only at the start of the process of gathering useable data on their existing portfolios but most fully expect that data to reinforce the message that buildings built using MMC deliver cost savings in terms of long term running costs.

For Selina White, Chief Executive of Magna, using modular housing helps solve two key problems: quality and supply. She said:

“Quality of homes is coming right up the agenda now, and I guarantee it will overtake concerns about the supply of new homes. I think that the attractiveness of MMC and offsite construction is a very compelling argument for overcoming that crisis.”

For the private sector, there is an understandably different approach between homes for sale and rent. The use of volumetric modular and panelised systems can significantly reduce build time – Greystar knocked 18 months off the build time at its development in Ealing, West London, for example. This has greater advantages for build-to-rent and other purpose-built products such as student or affordable housing, where the quicker the finished product can be occupied, the better.

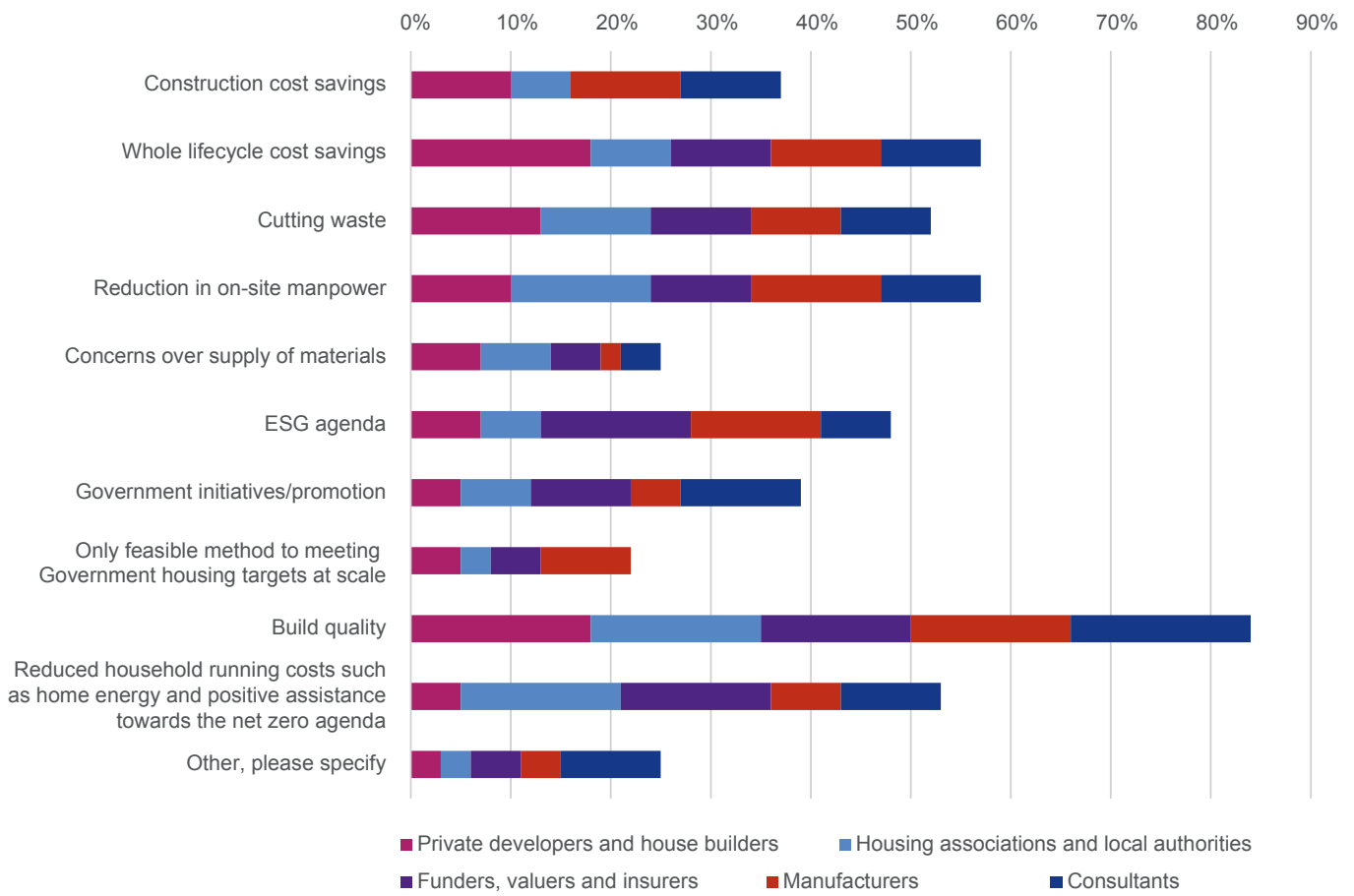
James Pargeter, Senior Advisor, Global Apartment Advisors, pointed out that:

“Even where MMC is slightly more expensive than traditional build, which is not always the case, the speed of delivery to occupation can mitigate the extra costs.”

Contrast this with homes for sale where there can be issues of oversupply affecting market value and speed of delivery is not always a motivating factor.



Figure1. What were your main motivations for using MMC?



Funding: A conundrum?

While there is a push from investors to put funds into projects which have good ESG credentials, rightly or wrongly modular housing construction is still viewed in the market as relatively new and untested, which makes some funders and insurers nervous.

Traditional build is what it says on the tin: familiar, understood and has an industry built around it with established warranty schemes and certification plus an established model for drawing down funds linked to the progression of works on site. This is backed by industry standard suites of guarantees and warranties plus, as works progress on site, the value of the site/development (over which funders will have security) will typically increase. In fact, the whole system of valuation is based on the traditional model; with very few surveyors able to build in the value of things like ESG credentials into their property valuations.

Modular housing, by comparison, is still in the process of developing certification, there are concerns about standardisation, and the flow of money versus progression of works on site is different; with advance payments being a key component of MMC delivery. The upfront costs are greater than a traditional build, and the majority of the work is undertaken in a factory before being transported to site. The words “advance payment” has always made funders particularly nervous given the risks of making payments with nothing immediately to show for it and the very real risk (especially in the current market) of manufacturers going insolvent before the offsite elements are complete.

But solutions are being found. For example, Maslow Capital has been able to de-risk the upfront costs. Ben Colling, Director Portfolio Management, explained:

“On the financing aspect, we were fortunate in that the parent company of the modular manufacturer obtained a Trade Finance Facility agreement to cover the cost of production.”

This meant that instead of funds being released on day one of manufacture they were instead released as works progressed on site.

Adam Penney, Financial Planning and Strategy Director, EcoWorld, said getting funders comfortable with the change in cash flow was important: “But the benefit was having a faster construction period and not having the loan out for longer.”

Communication and collaboration is helping funders and insurers get comfortable with Bouygues UK MMC projects, said Jo Flaherty, Operational Improvement and Innovation Director. She said: “If MMC is going to work, we need to standardise, industrialise and step away from the transactional, contractual relationships of traditional construction. We need to become a lot more collaborative.” From the roundtable discussions, those who had a track record with modular/panelised systems found the path to securing funding easier. EcoWorld’s Kew Bridge development is a case in point, their funder (incidentally a non-UK investor) had previously financed modular/panelised works for other projects. Elsewhere, developers and funders are taking a gradual approach to MMC procurement, starting with more familiar individual modular elements (such as bathroom and kitchen pods) to build confidence and learning about the process before embarking on full-scale modular.

Since our 2019 report, we have seen a shift in funding models in the private sector; with greater use of equity and development finance to build using modular construction. However, it is a slightly different story for local authorities and housing associations which have access to GLA/Homes England grants. This makes up their biggest source of funding.

This undoubtedly influenced the survey results, with 67% of public sector respondents stating that securing funding for MMC was no more difficult than for traditional build.

With the requirement to use MMC as a proportion of an overall development, there is an element of certainty and a step-change in attitudes. However, there was some concern in the public sector about the acceptability of modular properties as security for funding.

Whilst there was a sizeable proportion of respondents reporting it is still either harder or much harder to secure funding, in the private sector, 45% of respondents reported that securing funding was no harder for modular schemes than for traditional build, again suggesting a trend that the market is becoming more comfortable with MMC as compared with our 2019 report.

One contributing factor is likely to be changing regulations, prompting an increasing interest from investors looking for sustainable investments. Helen Fysh, Partner, Trowers & Hamlin said: “Is this a product that fits the sustainable finance bill? I think the answer’s got to be yes. Provided that you can capture the data to feed back to the lenders to demonstrate how this is more energy efficient and delivering on the social agenda compared to conventional construction.”

Figure 2. How have your projects been funded?

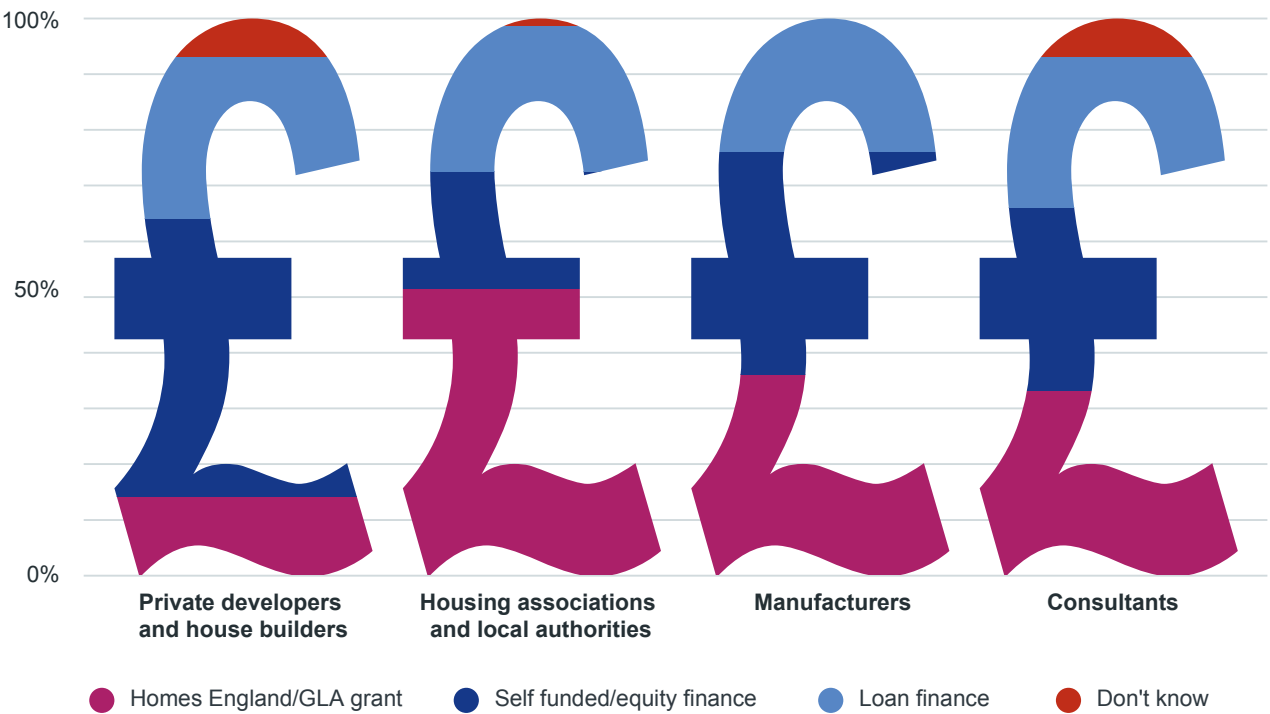
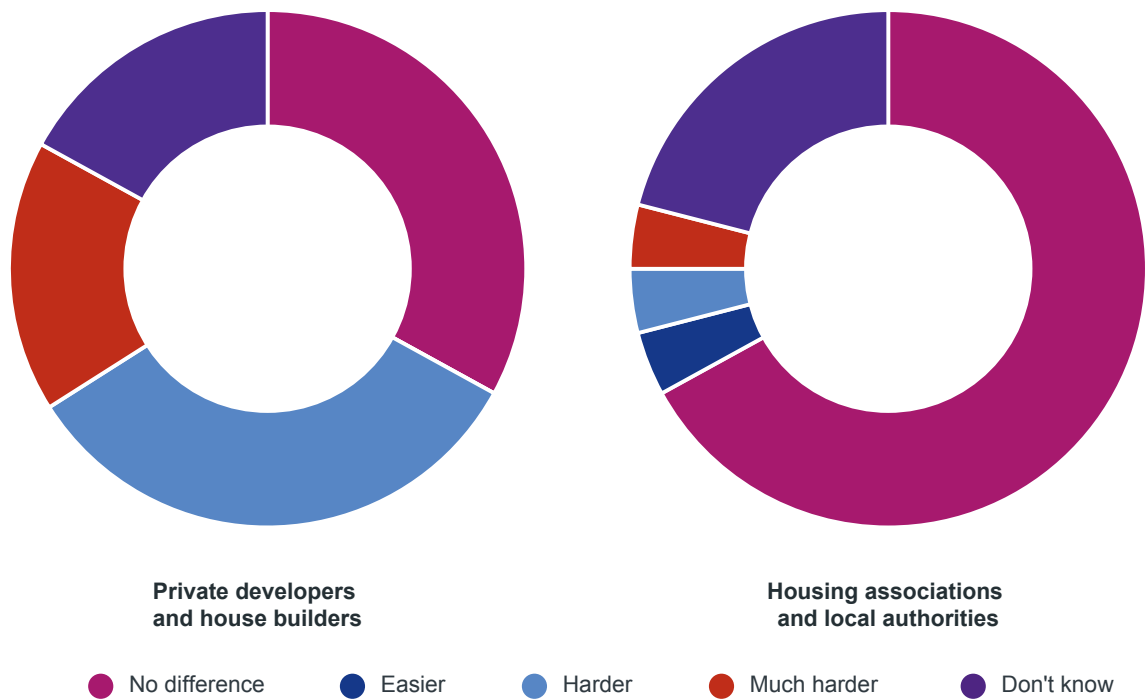


Figure 3. How much harder was it to obtain funding for the project compared to obtaining funding for a traditional scheme?



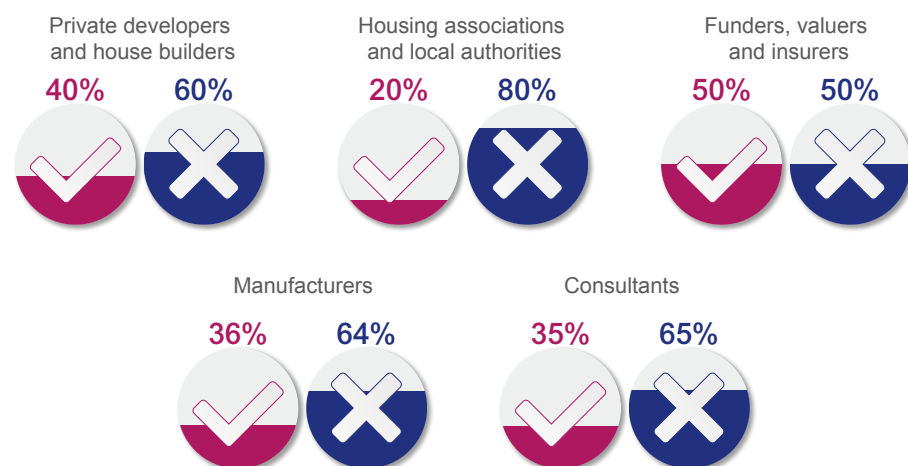
The Government's role in funding

As the survey results show, public funds are already playing an important role in supporting the adoption of volumetric modular for the public housing sector. Notwithstanding this, there is a view from some quarters, particularly manufacturers, developers and housing associations, that more could be done particularly around supporting SME manufacturers.

As the market adjusts to this new approach to construction, Government funds can help de-risk and build confidence in the sector. The stipulation of 25% of MMC for Homes England Strategic Partners is an important driver from which the industry can learn and refine working with modular.

It can also provide security of pipeline for manufacturers (see Overcoming the hurdles).

Figure 4. Is Government providing enough support for MMC housing?



Valuations

Are modular homes valued differently to traditional build? The research showed that housebuilder in both the private and public sectors feel that modular and traditional should be treated the same however that view seemed to be disconnected with the approach of funders, valuers and insurers who unanimously suggested that MMC homes were valued differently. Whilst housebuilders are clearly keen that each development and mode of construction would be considered on its own merits, regardless of which method of construction is used, the approach of those providing and lending on the valuations creates a risk of a two-tier market which Andrew Smith, Director, Savills said could “kill the market”.

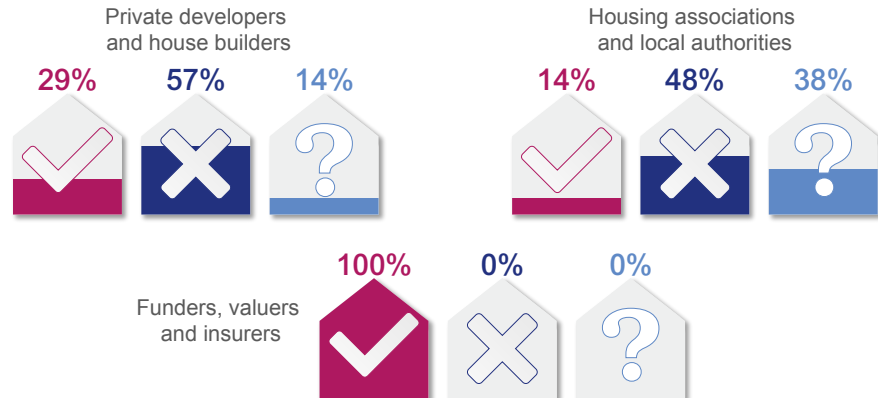
He added: “It is an asset that produces an income that you can independently trade. Our starting point is to value it identically unless there is a significant factor that makes us discount it but mostly, we are treating it the same at day one.”

Savills has put together an MMC test case loan security report, which shows the additional checks, balances and advice for lenders.

Richard Houghton, Director - Valuation Advisory - Affordable Housing at JLL, said:

“From a valuation perspective, we approach it similarly to the rest of the stock in the marketplace. There is more work to do on the due diligence side and assuring ourselves we can value this type of product robustly.”

Figure 5: Are MMC homes valued differently to traditionally built homes?



Overcoming the hurdles

Naturally, there are still concerns around using some forms of MMC, in particular full-scale volumetric modular, but what was evident in the roundtable discussions undertaken so far, is that there is confidence within the industry that all hurdles can be overcome.

Fear of the unknown is understandable, particularly when construction has operated the same way for such a long time. Funding structures, valuations and security are based on tried and tested traditional build models.

Lack of familiarity also feeds into risk concerns around replication of defects, how long modular products last, how they are maintained and the impact that has on their value long-term.

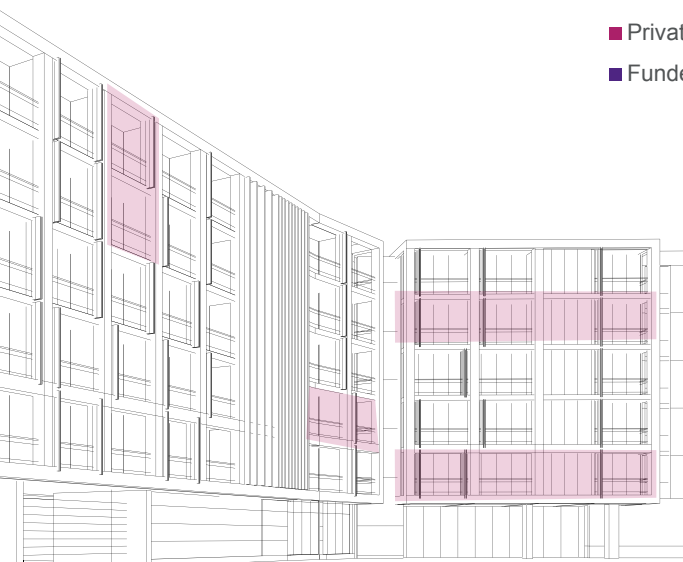
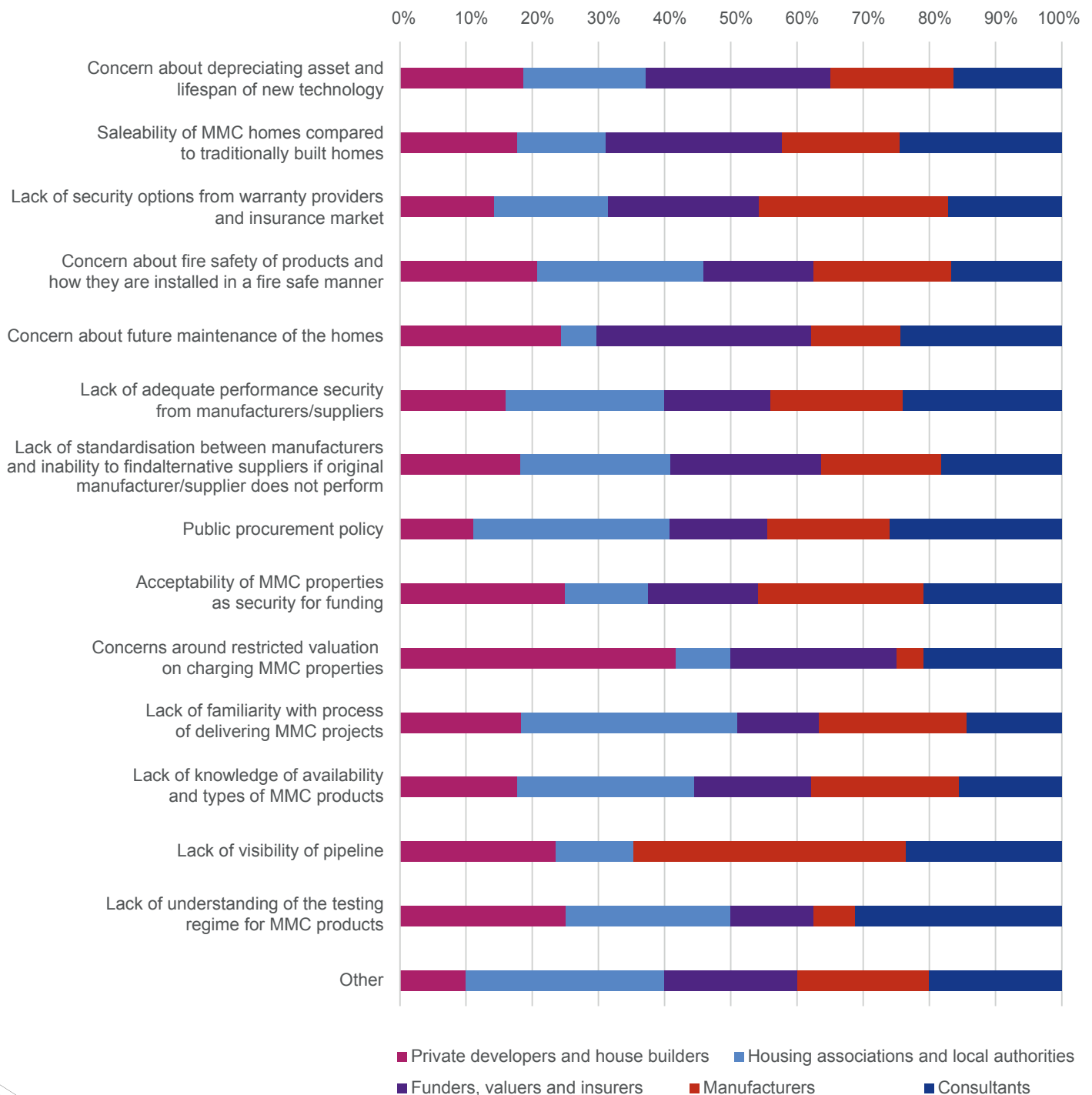
What will help, and is already helping, is having more modular schemes coming forward coupled with the development of standardised warranties and questions for valuers. NHBC, LABC and Build Offsite Property Assurance Scheme (BOPAS) both offer accreditation, but there is a misalignment between what they assess and offer security for, which needs to be understood. For example, BOPAS provides assurance regarding the lifespan of the product whereas the NHBC and LABC schemes provide insurance-backed cover for defects.

Mike Ormesher, Director & General Manager of Ottersbrook Consulting and Project Director of The Offsite Homes Alliance (OSHA) says there are far too many companies and organisations working in silos where transparent and consistent standards are required:

“What we need to get to is common agreement across DfMA procedures and processes and what is acceptable in terms of compliance for the MMC sector to gain real traction.”



Figure 6. What in your opinion is the biggest barrier to the wide spread adoption of MMC?



More established warranties and product guarantees backed by reputable insurers would also help give confidence to funders. The prevailing view is that it is a learning curve for everyone involved but sharing knowledge and experience is important in de-mystifying the process and demonstrating that a lot of what is involved is already more familiar than might be imagined.

Robin Goodlet, Deputy Managing Director at Eco World Management & Advisory Services said: "Modern method of construction doesn't mean it's re-inventing the wheel. It's using traditional materials and putting them together in a much more efficient sustainable and safe manner."

Educating the market on MMC is something TopHat is approaching by having an open-door policy at its factories. Shepherd said: "We will walk anyone around and show them how it works. And it is essential that we do so because stakeholder engagement is massively important."

Capacity is a separate issue but can be divided into two key areas. Firstly, are there enough factories to deliver modular homes at scale? Secondly, what are the alternatives if a manufacturer happens to go bust?

The problem of capacity is something that requires consistent demand. Manufacturers need pipeline consistency, something which the mandate on MMC as a proportion of affordable housing builds will help with but more needs to be done.

Some registered providers have already formed consortia to give manufacturers certainty of pipeline. This also enables manufacturers to standardise their products for the consortium.

For example, Pete Bojar Executive Director Sustainable Assets & Repairs at Great Places Housing Group and member of OSHA consortium explains:

"We don't want to do MMC just for the sake of it, we know what the benefits are and we know how it will protect our development programme and supply chains."

Jake Snell Head of Partnerships and Innovation at Abri Group and member of the Building Better Consortium confirms that creation of long-term strategic partnerships is key to delivering more homes.

Further lobbying of the Government from the industry to generate a concrete pipeline of affordable housing projects may be needed to give manufacturers confidence.

The consortium route (and the aim to standardise products as part of the consortium) could also help solve the problem of insolvency risk. There is concern about what happens if a manufacturer gets into financial difficulties during a project. Could another manufacturer pick up the project and continue to manufacture the same or a similar product?

Due diligence to check on the shape of the manufacturer's finances has to be the first port of call. But getting manufacturers to come together to improve standardisation in their offerings could help de-risk projects.

David Horne, Director of Housing Finance at RBS and David Stokes Credit Risk Director at The Housing Finance Corporation have witnessed the momentum building within the modular housing sector and consider that the next 12 to 24 months will be critical as lenders refine



their policies and procedures to maximise the number of modular homes that are put forward for charge within a registered providers portfolio.

Insurance could provide one of the solutions. Maslow Capital have worked closely with an insurance broker to develop an insurance wrapper for a development facility.

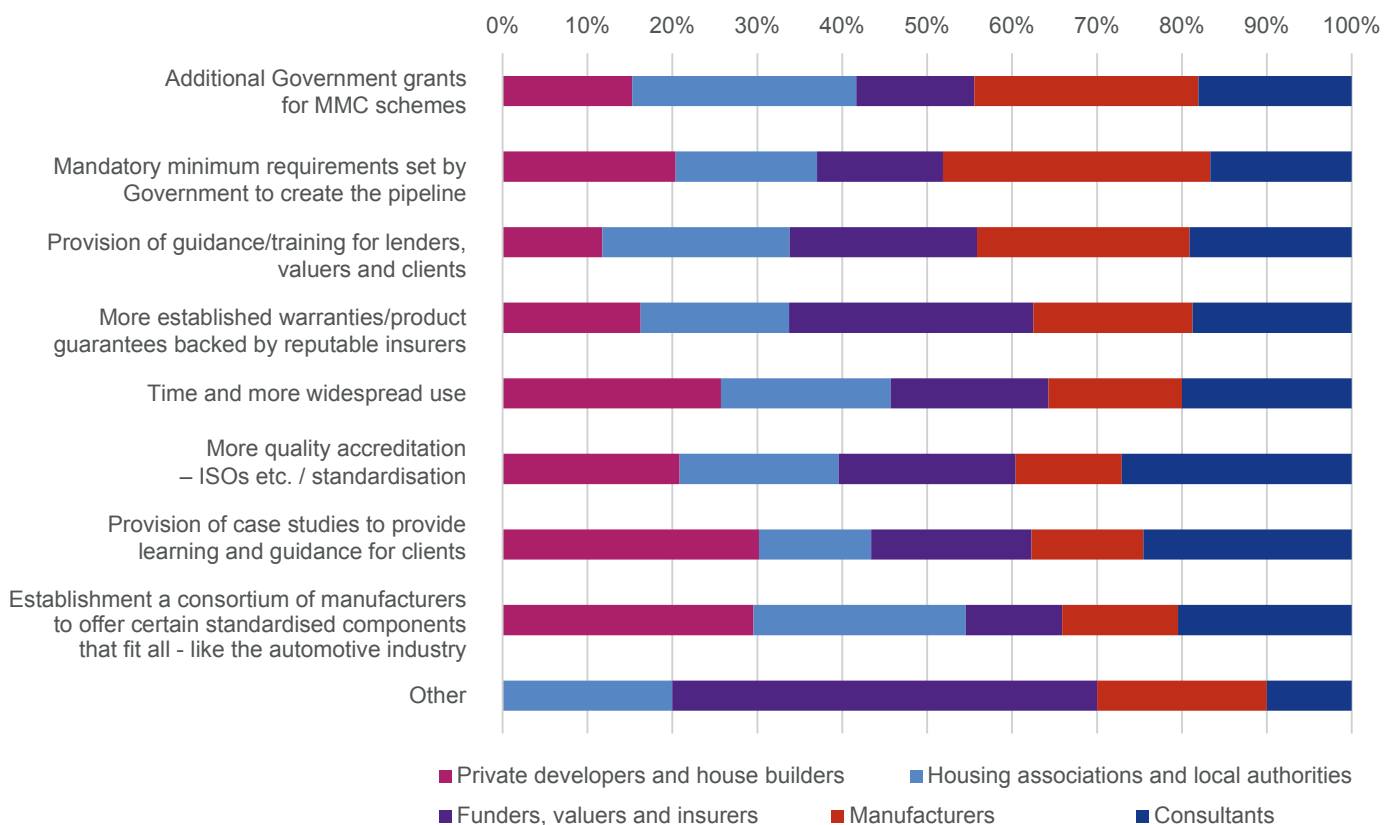
The insurance wrapper would cover liability for work carried out on-site and liability for products created in the factory, effectively mitigating against the issues associated with risk allocation between contractors and manufacturers. Martin Williams at Maslow explained that the insurance wrapper could also be used alongside a working capital facility, where a lender could provide a working capital funding line directly to a manufacturer and the development facility is used to pay for works on site. Together, these go a long way to overcoming one of the key risks with offsite manufacturing.

One of the perceived insurance risks is that a fault, could be replicated across the product in the manufacturing process. Working with different manufacturers spreads the risk but MMC is no different to any other manufactured item. And some believe the process makes MMC less risky than traditional construction methods. Building up data around MMC can help. Flaherty said: "In my experience of working on MMC projects, there haven't been any claims owing to multiple manufacturing failures."

Disruption to supply chain and lack of flexibility is also a potential risk. If materials don't arrive in time it is difficult to switch production to something else. Colling said: "so that we don't have to rely on collateral warranties and vesting agreements, key members in the supply chain need to be able to demonstrate resilience in this volatile market through their purchasing arrangements or direct trade finance facilities with the lender supporting their cost of production, all of which Maslow can assist with under an insurance wrapper programme. Standardisation is crucial in all facets of MMC to ensure its scalability and minimise disruptions at the design, fabrication, on-site phases and final accreditations". Marsh's insurance wrap up ties in the modular manufacturer, modular subcontractor, main contractor and alleviates any design and performance gaps. It is backed by BOPAS and traditional collateral warranties.

David Cordery, Partner, Trowers & Hamlin said the process of allocating risk is exactly the same: "The fundamental principle of the law is that you place the risk with the person who's best placed to manage it and that is where conversations within the industry are important."

Figure 7. How could these barriers be overcome?



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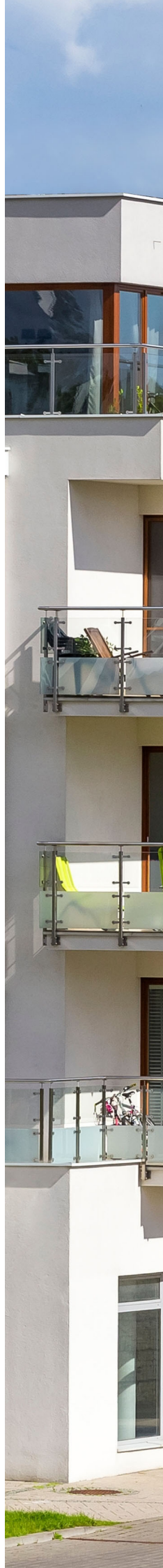
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