

What do Modern Methods of Construction mean for Housing Retrofit Jobs and Working Conditions?

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Challenge Statement

Increasing attention is being paid to implications of decarbonisation for economic activity, labour markets and worker experiences. In this project, we drew attention to the work involved in foundational activities that underpin the green transition. Retrofit has been promoted as a stimulus for creating quality green jobs¹, and the demand for labour to meet retrofit targets has been well documented^{2,3,4}. In the UK alone, 66,000 additional tradespeople per year are required to deliver retrofit at the pace and scale needed to meet decarbonisation goals⁵. If made attractive, these new jobs could create an opportunity for previously excluded groups such as women to

enter the sector^{6,7,8}). However, little attention has been paid to the conditions and quality of such work.

There is a growing interest in ‘good work’ as a mechanism for increasing productivity, creating positive social outcomes and increasing innovation. A focus on the nature and quality of work is also central to those concerned with a just transition, in which communities previously excluded have new opportunities in a ‘green economy’⁹. There is no single definition of good work, but many definitions include six key dimensions of job quality: pay and other rewards; intrinsic characteristics of work; terms of employment; health and safety; work–life balance;

representation and voice¹⁰.

The construction sector is below average in terms of quality work indicators due to lack of permanent contracts, long working hours¹¹, and a high rate of false self-employment¹². There is a lack of societal prestige in retrofit and the construction sector¹³, as well as a lack of diversity. Less than 10% of workers in construction are female, and only 6% Black and minority ethnic (BME)¹⁴. There is a need to diversify the workforce to drive innovation, create more welcoming work environments and boost productivity in retrofit (Jenkinson and Palmer, 2025).

Modern methods of construction (MMC) have been proposed to increase pace, scale, and quality of retrofit delivery through increased

digitisation, automation and offsite manufacture. These include digital tools and techniques, offsite manufacturing and design approaches (e.g. platform approaches), and improved processes that improve the precision, predictability and efficiency of construction.

Similar to retrofit, it is framed as a response to the productivity and skills crisis in the construction industry, promising to bridge the skills gap and provide better quality jobs. While concerns have been raised about MMC removing regulatory barriers in construction, and ‘uberizing’ workers¹⁵, alongside high profile exits and insolvencies of large MMC firms¹⁶, the MMC literature has tended to be pro-innovation, lacking interrogation of implications for work¹⁷.

1 Brown, D. et al. (2020), [A Green Stimulus for Housing: The macroeconomic impacts of a UK whole house retrofit programme](#). New Economics Foundation, p. 35.

2 CITB and Eunomia (2021), [Building Skills for Net Zero. Industry insights and analysis](#). CITB, p. 193.

3 PwC (2022) [Green skills as an enabler of UK retrofit. Deep dive research report](#). PwC, p. 15.

4 Jenkinson, C. and Palmer, P. (2025), [Policy Recommendations for a National Workforce Strategy](#). Bognor Regis: National Retrofit Hub, p. 71.

5 PwC (2022) [Green skills as an enabler of UK retrofit. Deep dive research report](#). PwC, p. 15.

6 Macrorie, R. et al. (2024), [‘Support Place-Based and Inclusive Supply Chain, Employment and Skills Strategies for Housing-Energy Retrofit’](#), in A. Crowther et al. (eds) *Strengthening European Energy Policy*. Cham: Springer Nature Switzerland, pp. 73–85.

7 Littig, B. (2017), ‘Good Green Jobs for Whom?’, in S. MacGregor (ed.) *Routledge handbook of gender and environment*. London New York: Routledge (Routledge international handbooks), pp. 318–330.

8 CITB and Eunomia (2021), [Building Skills for Net Zero. Industry insights and analysis](#). CITB, p. 193.

9 Atkins, E. (2023) *A just energy transition: getting decarbonisation right in a time of crisis*. Bristol: Bristol University Press.

10 Warhurst, C., Wright, S. and Lyonette, C. (2017), [Understanding and measuring job quality. Research report. Part 1 – thematic literature review](#). London: CIPD, p. 42.

11 PwC (2022) [Green skills as an enabler of UK retrofit. Deep dive research report](#). PwC, p. 15.

12 Taylor, M. et al. (2017) [Good Work: The Taylor review of modern working practices](#).

13 PwC (2022) [Green skills as an enabler of UK retrofit. Deep dive research report](#). PwC, p. 15.

14 Macrorie, R. et al. (2024), [‘Support Place-Based and Inclusive Supply Chain, Employment and Skills Strategies for Housing-Energy Retrofit’](#), in A. Crowther et al. (eds) *Strengthening European Energy Policy*. Cham: Springer Nature Switzerland, pp. 73–85.

15 Green, S.D. (2022), [‘Modern methods of construction: reflections on the current research agenda’](#), *Buildings and Cities*, 3(1), pp. 653–662.

16 Wallace, A. et al. (2025), [Prefabs sprouting: Modern Methods of Construction and the English housing crisis, p. 42](#).

17 Ibid



South Yorkshire has a strong array of MMC providers, 28 within 50 miles of Sheffield City region¹⁸. There are existing commitments within the region to become leaders in MMC¹⁹, and MMC forms a part of Sheffield's Housing Growth delivery plan (2025-2030). Barnsley College has opened the first dedicated MMC training centre in the UK²⁰.

Research Response

Retrofitting highlights particular challenges for MMC given the unpredictability and varied conditions of buildings, with consequent implications for work that might differ from new-build MMC. It is therefore a useful context to examine the claims of MMC and outcomes for work. Using a political economy lens, we examine implications of MMC-retrofit for work through a framework of three interlinked factors: context, conditions and experience of work. Our investigation is guided by three questions:

1. How does MMC change the context for work (e.g. workplaces and job location)?
2. What are the working conditions of MMC, and to what extent can MMC be used to create good quality retrofit jobs?
3. How do these aspects come together to shape experiences of work, including skills, intrinsic characteristics of work and workplace inclusivity?

Evidence and Outputs

Initial findings of qualitative research with MMC providers and stakeholders including trade unions, local authorities and combined authorities include a range of implications for MMC retrofit pathways on the quality and conditions of work:

Working indoors: MMC approaches to retrofit allowed a greater proportion of work to be conducted indoors. This not only enabled more work to be delivered (as there were less pauses due to inclement weather, and the ability to take on work all year round) but also created more pleasant and safe working environments.

More inclusive workplace cultures: Respondents noted that their workplace culture was less masculine, allowing them to attract and retain women in the business. More inclusive working environments were understood as beneficial for all employees.

Diverse career pathways drawing on a range of skills: Many employees came from careers outside of construction, including catering and animation. This included people retraining from a wide range of industries who were attracted by the mission and quality of jobs in MMC retrofit.

Focus on generalist skills, soft skills and 'deskilling': Respondents emphasised the role of soft skills, particularly problem solving, in MMC retrofit. They valued generalist skills in their

employees. They described MMC as 'deskilling' retrofit, by simplifying the process and reducing reliance on skilled trades. However, the workflows developed were product-specific and could not be directly applied in other MMC businesses.

Relationship between good work and good retrofit: Respondents saw a link between good working conditions and good quality retrofit installation.

Limitations to being able to apply good work practices: One of the organisations had experimented with flexible working arrangements as a way of improving their offer to employees. However, it raised health and safety concerns for lone working; presenting challenges for clearing up at the end of each day, and there were limits to what work could be completed with one person. The specifics of retrofit installation therefore acted as a barrier to applying some good work practices.

This small sample size and focus on SMEs clearly does not paint a full picture of MMC retrofit working conditions. Through the project, we will investigate larger MMC companies, alongside the three additional retrofit pathways, to analyse the implications of different pathways on good work, aiming to produce a paper specifically on MMCs, retrofit and good work.

What does this mean for the region?

Using MMC to meet retrofit targets has significant implications for working conditions, and thus for the region.

- **Location of work:** MMC takes place in different work locations to traditional construction work. This includes a large focus on factory work. This has positive implications, such as

making commutes consistent, and working environments safe and controlled. However, it can mean that jobs are not located locally, with factory locations being based on transport links, such as the M1.

- **Training provision and career pathways:** MMC requires different skills (and training) to traditional retrofit approaches. This can include the elimination of wet trades (such as plastering) and a focus on more general joinery skills. This means that current approaches to upskilling the construction sector and promoting construction career pathways may be inappropriate for MMC pathways.
- **Just transition:** MMC has the potential to create more inclusive workplace cultures. The opportunity for flexible working, predictable work patterns and consistent work locations can make the retrofit industry attractive for groups currently excluded from construction. However, MMC can also be repetitive and low-skilled, replacing the varied work that currently exists in some parts of the construction sector. Ensuring that existing construction workers are not excluded from MMC retrofit pathways whilst making it inclusive is a key concern for just transition in South Yorkshire.

Next Steps

We are carrying out additional research with MMC providers and key stakeholders in the region, including training providers. This could then be compared to the implications for work in other retrofit pathways, for example, retrofit delivered by large incumbent organisations such as energy companies, community-led retrofit and SME led retrofit.



¹⁸ Arcadis et al. (2020), [Sheffield City Region: Modern Methods of Construction \(MMC\) Audit: Eco System and Opportunity in the City-Region](#), p. 32.

¹⁹ Ibid.

²⁰ Barnsley College (2025), [UK's First MMC Training Facility. Barnsley College](#).



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