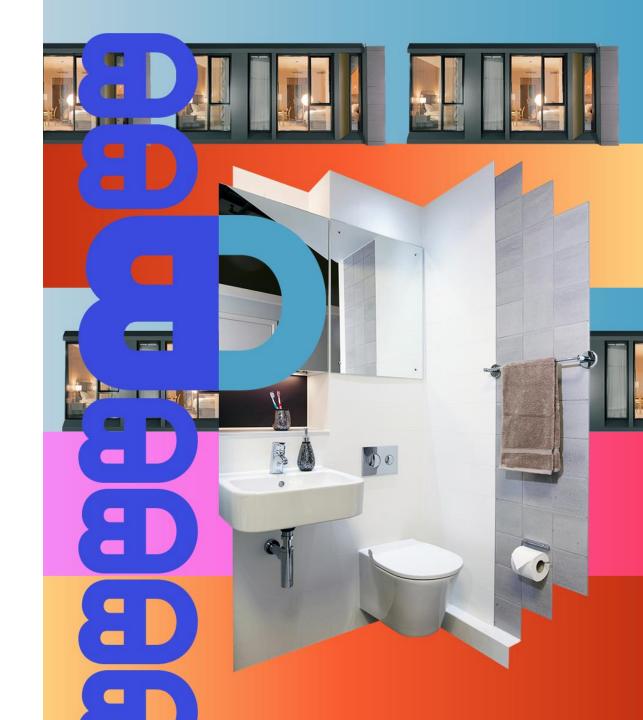
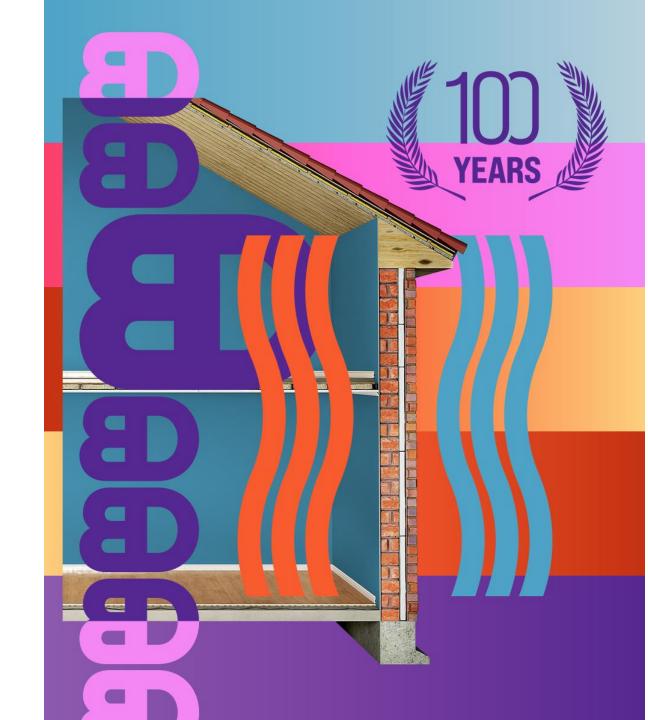


A specialist consultancy spanning the construction, manufacturing, design and technology sectors, our mission is:

"To enable our construction sector clients to become more efficient, effective and resilient in an ever-changing world."



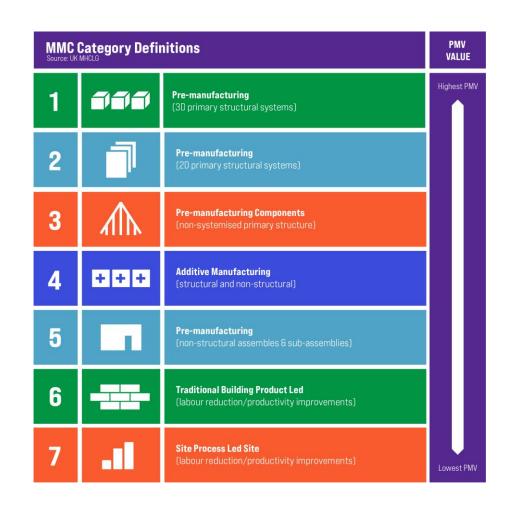
- Why hasn't 'Modern Methods of Construction (MMC)' been more widely adopted, and what might be happening now to change this?
- How can MMC enable us to meet our Low/Zero Carbon ambition?
- MMC Impact on Commercial outcomes and delivery models
- Example of where MMC has worked well





### What do we mean by MMC?

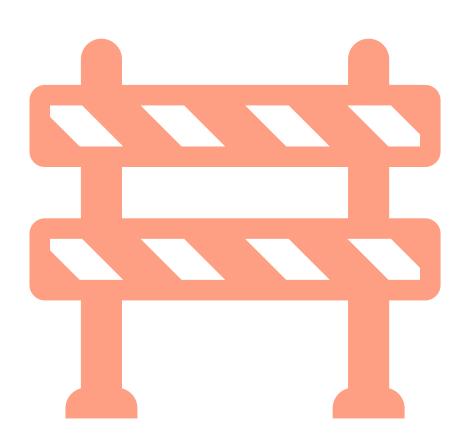
Modern Methods of Construction (MMC) has become the accepted industry terminology used to describe contemporary innovation in the construction sector, including new technologies, such as digital tools, offsite manufacture and use of efficient processes to deliver productive, sustainable and better outcomes.'





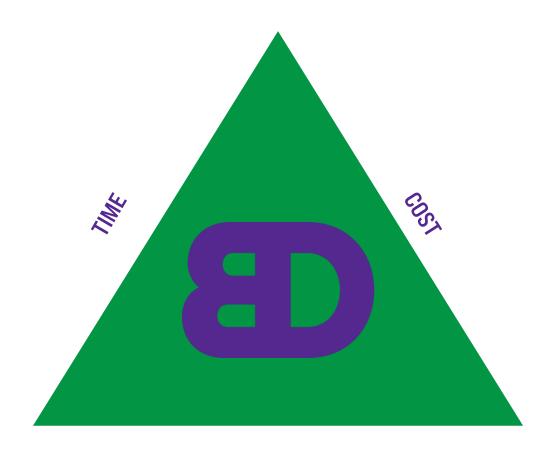
### Why haven't 'Modern Methods' been more widely adopted?...

- Perception
- Procurement
- Understanding of optimal commercial & delivery models
- Availability of Data
- Focus on Product over Process!
- Limited supply chain options
- Construction Contract Securities/Covenant Strength



# How can MMC <u>enable</u> us to meet our Low Carbon / Zero Carbon ambition?

- Early Design Optimisation & DfMA embedding efficiency in layouts and shape and form
- Improved building performance through precision manufactured and standardised nature of products
- Opportunity to utilise low embodied carbon materials
- Commodity Product, Fixed and measurable quantities
- Reduction in waste and deliveries to site
- Products can be prototyped, tested and improved before being deployed
- Easier to consolidate EPD/Supply chain Product Metadata



QUALITY/ CARBON



## MMC Impact on Commercial outcomes and delivery models

- Greater cost Certainty against traditional alternatives
- Certain MMC solutions may reach peak debt earlier
- Construction delivery model important and has considerable impact depending on MMC solution(s) deployed
- Programmes are typically reduced during delivery, but be mindful of upfront design to 'develop' solution particularly on first scheme
- Whole life cycle cost benefits CAPEX often (not always)
  higher, but positive impact on OPEX cost over time
- Programme of works mindset optimal, re use the solution, learn, improve repeat, reduce CAPEX





### **Example of where MMC has worked well**

**Project:** Canterbury Riverside

Project Value: £115 million

No of Rooms: 491

Model: Vertically Integrated

Develop / Build / Operate

Provider: Link City / Bouygues / Uliving





### **Takeaways**

- MMC should be viewed as an enabler and not the automatic answer think 'optimised construction' what works for one project may not work for another.
- Early Engagement and experienced design team required to gain optimal benefit
- Zero Carbon requires high-performance building fabric, making MMC a favourable option as part of the wider solution.
- Technological advancements are closing the gaps, digital tools will further close the gaps
- The industry as whole need DATA to prove 'it's better'
- This isn't going away, expect commercial models to shift towards incentivising and rewarding measurable carbon reductions.

