



Oifig um Sholáthar Rialtais
Office of Government Procurement

Modern Methods of Construction

Identifying the barriers to adoption



Context

- Government policy supports the adoption of off-site manufactured solutions to:
 - improve productivity and efficiency;
 - improve safety and welfare;
 - improve quality;
 - develop innovative solutions;
 - reduce the carbon footprint of construction – waste reduction;
 - promote a more diverse and inclusive workforce;
 - accelerate delivery
- Housing for All contains a number of specific MMC-related actions

Obstacles

- Where is source demand for MMC? Clients/Designers/Contractors
- Market maturity
- When is the optimum stage to consider MMC
- How is MMC best integrated – procurement strategies
- Drafting and meeting technical specifications
- Liability & Insurance
- Payment provisions

Potential Barrier 1 – Demand for MMC

- Starts with the client and their advisers
- Often chosen to speed up delivery
- Should also have quality and sustainability benefits
- Government interest is broader – overall productivity benefits
- UK experience suggests that without steady demand problems arise
- Awareness of benefits and risks
- Routes to disinterested advice on available options
- Clear case for building projects but not so clear for civil engineering

Potential Barrier 2 – Market maturity

- Nascent sector in Ireland - with some notable exceptions
- High level of off-site production in some sectors
- Certification of modular systems
- Procurement routes
- Financing for MMC manufacturers
- Capacity to scale up
- How do we create a steady workflow to attract investment for growth

Potential Barrier 3 – Integration of off-site solutions

- Optimum point in the project lifecycle to consider off-site options.
- Risk of developing design too far to integrate.
- Capacity to determine off-site options.
- How best to co-ordinate design.
- Implications where solution fails to meet technical or programme requirements – pre and post installation – delay and disruption – who carries the risk?
- Procurement and contract strategy – best options.

Potential Barrier 4 – Drafting & Meeting Technical Specifications

- Systems manufactured to standards?
- Capacity to draft technical specification to the required standard?
- Capacity to determine whether solutions meet the specification?
- How is quality assured?
- Are manufacturing facilities open to inspection?
- The expertise to carry out inspections?
- How frequently should inspections be undertaken?

Potential Barrier 5 – Liability & Insurance

- Design and workmanship are the two areas that give rise to defects.
- Challenging to determine liability where there are several areas of overlap.
- What level of liability does a design team member have for specialist items such as facades, lifts, pre-cast beams?
- Responsibility for interfaces.
- What warranties are available for off-site manufactured items?
- What financial remedies are available for MMC failure?
- Insurance for project and completed asset.

Potential Barrier 6 - Payment Provisions, Public Works Contract

- Clause 11.2 (2) deals with payment for Works Items not delivered to site.
- 6 conditions to be met before payment up to the % specified can be made.
- 2 are of particular interest.
 - Works Items must be completed and substantially ready to be incorporated into the works
 - A bond for the amount to be paid
- What alternative payment mechanisms might be considered to balance cashflow for MMC manufacturers whilst affording protection to the taxpayer?



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