THE MMC LEXICON: 100+ TERMS FOR THE MODERN METHODS OF CONSTRUCTION

Purpose of the Publication

The Local Government Association (LGA) National Construction Strategy encourages local authorities to embed Modern Methods of Construction (MMC) into their procurement activities. However, the language and terminology related to MMC can be confusing and adds a barrier to adoption. Even for construction professionals there is not always a common understanding of MMC, and this situation can be worse for other professions linked to construction such as procurement officers, planning officers, asset managers etc. The purpose of this document is to provide an easy to use, source of reference which captures essential terminology related to non-traditional construction methods. By developing this resource, we aim to support MMC decision makers in local government and their supply chains by clarifying commonly encountered terms and concepts.

MMC present significant opportunities to deliver improvements to the construction industry. It remains a key priority for Government to use MMC to deliver future programmes due to the many advantages associated with the non-traditional construction methodology. Notably, there is a fairly substantial research effort to link MMC with such improvements; however, pieces of evidence also exist to inform on the possible confusions associated with the use of terms when referring to MMC, against the various practices it covers. This led us to explore the modest problem of 'word formation', and attempt to define to the informed reader the contexts of which they are assumed, and how the existing notions are interpreted.

The term 'Lexicon' originates from the Greek term λεξικόν, which refers to a 'dictionary' or 'sources of words'. Herewith, the MMC Lexicon can bring forward deep insights into the nature of extant industry language used only if these terms reach a collective consensus from those directly involved in the use of this terminology. Hence, this publication aims to become a 'living' document that is primarily concerned with the reduction of uncommon terms that often lead to differentiations in meaning with less regard to their actual interpretations and implications.

The MMC Lexicon is an academic led collaboration between Loughborough University and the LGA Digital Construction Working Group to develop a living one-stop document for terms falling under the umbrella of MMC. In its revisable form, the Lexicon aspires to become a terminological reference point for local authorities making MMC-related decisions. The iterative approach means that the document is continuously updated to include the latest terms and expressions used in planning and local government, with an opportunity for inputs from those directly involved. It aims to become a useful tool, promoting a common language, for those interacting with MMC in the public sector. In this Lexicon:

MMC is defined as an umbrella term encompassing a variety of methodologies and materials primarily focused on driving greater efficiency in construction, which can be measured by the extent of which onsite activities are reduced.

Terms can be grouped under the below subsets:

- Commonly Generalised Acronyms
- Construction Methods and Systems
- Manufacturing and Automation
- Materials and Components
- Digital and Technological Integration
- Quality, Standards and Certification
- Process Management and Strategy
- Environmental and Sustainable Practices
- Supportive and Collaborative Tools

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Ongoing debates focus on enabling broader use of Modern Methods of Construction, not least because of the need for a different way to delivering construction that is unlike the disrepute traditional methods. Per contra, a terminological confusion has manifested to a level where MMC is no longer standing as a measurable meaning, but the meaning has instead expanded to become very distinctive. Drafting the MMC Lexicon creates no limits to the terms used in the sector, but instead aspires to one day become an exhaustive living reference that depicts the morphology of the used language.

Dr. Ali M. Saad,
Programme Leader, Construction Engineering Management,
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The use of MMC offers many advantages to construction projects including faster on-site construction, better quality control, improved health and safety, less waste, reduced carbon footprint, and it can drive down costs. To gain the full advantages of MMC it should be considered at project inception and not added later as an extra. Disappointingly the media has focused on some MMC failures rather than its many successes. Part of the work of the group going forward is compiling local authority best practice case studies to highlight the advantages of its adoption.

Steve Baker
Chair of the LGA Digital Construction Working Group
Head of Construction Services & YORhub, East Riding of Yorkshire Council

ACRONYM	DETAILS
AAE – Advanced Automation Equipment	Equipment that is tailored to provide additional capabilities in automated systems for enhanced and consistent results.
ACM – Advanced Construction Manufacturing	The use of technological advances to deliver specialised manufacturing outputs to support construction projects.
ACert – Agrément certification	A certification that allows manufacturers to prove that their product's fitness-for-purpose.
AEfC – Advanced Equipment for Construction	Equipment that is tailored to provide additional capabilities to enable improved tasks in construction processes.
AIMC – Advanced Industrialised Methods for Construction	Application of new manufacturing methods for the purpose of mass production in controlled conditions.
ALM – Assembly-Line Manufacturing	The process of performing tasks in a specified sequence resulting in mass production of products in a linear manner.
AM – Additive Manufacturing	A layer-by-layer process of creating three-dimensional building objects.
AMM – Additive Material Manufacturing	The process of preparing raw materials in various types and forms of additive manufacturing.
APDOL – Automated Parametric Design and Object Libraries	Automated and predefined conditions to simplify the design, manufacturing, and assembly of building components.
APQP – Advanced Product Quality Planning	A systematic method for planning and outlining activities needed to create products fit customers' requirements.
BDC – Building Delivery Capability	The capacity of a factory or offsite facility to deliver building modules from their production to their final destination.
BOPAS – Building Offsite Property Assurance Scheme	An accreditation to prove the durability of non-traditional offsite homes.
BSM – Pre-manufactured Building Services Modules	Offsite production of common building services with ease of site installation for productivity and commercial gains.
CAMT – Computer-Aided Manufacturing Technique	Use of software to control and support the information systems involved in manufacturing and producing physical objects.
CCA – Componentised Construction Advances	New techniques to effective designing, manufacturing, transportation and assembly of prefabricated components.
CCCI – Construction Cross-Curricular Interaction	Integration of knowledge from academic and professional fields to improve the effectiveness of construction practices.

ACRONYM	DETAILS
CFC – Controlled Factory Conditions	The environment where building components or modules are produced in a factory, allowing an enhanced level of control.
CLT – Cross-Laminated Timber	A sustainable mass timber product designed to substitute concrete and steel in large-scale contemporary construction.
CPTF – Closed Panel Timber Frame	A type of prefabricated construction system where a ready-insulated timber frame is pre-assembled into panels.
CSTM – Cassette Manufacture	A prefabrication technique to produce building objects with structural components, insulation, and other essential elements.
CWCT – Centre for Window and Cladding Technology Standard	Industry information provider and trainer that sets standards for building envelope systems, such as windows and cladding.
DDCS – Digital Driven Construction Systems	Employing digital tools and platforms to streamline construction activities, with improved efficiency and accuracy.
DDDM – Data-Driven Decision Making	Using data metrics and patterns to inform strategic decisions that can enhance the delivery of projects' goals and objectives.
DDMB – Digitally Designed and Manufactured Buildings	Processes are guided by digital technologies to streamline building creation, such as visualisation and simulation.
DfVP – Design for Variety Principles	Dividing components into standard and variant objects to address various needs using a unified product architecture.
DfMA – Design for Manufacture and Assembly	Approach that considers implications of manufacturing and linking it to assembly during the early design stages.
DMT – Digital and Manufacturing Technologies	The incorporation of technologies into the production processes to enhance plants' operations, such as robotics.
DPP – Digitisation of Products and Processes	The process of transforming physical products and their related information into digital formats.
EIRS – External Insulated Render Systems	A term that refers to modern multi-layered insulation systems that provide thermal performance gains with less labour costs.
ELWM – Emerging Lighter-Weight Materials	A category of innovative materials designed to decrease the weight of construction elements to improve workability.
EtEDS – End-to-End Development Solution	An all-stages turnkey solution from the concept to handover, aiming to deliver projects with one-point responsibility.
EtESP – End-to-End Software Platforms	A centralised digital hub that combines various functions and processes into one system.

ACRONYM	DETAILS
ET – Engineered Timber	Wood products specifically designed and manufactured to provide specific improved performance and stability.
FAEFW – Factory-Applied External Façade and Windows	External façade and windows are pre-fabricated and assembled in a factory before being installed on-site.
FHS – Future Homes Standard	A set of guidelines introduced to ensure that all new homes' demands should be met through low-carbon sources.
GRAA – Gantry Robot Assisted Assembly	A manufacturing technique where gantry robots aid in assembling components or modules for productivity gains.
HPPM – High-Precision Prefabricated Modules	A refined construction approach that utilises technologies to produce accurately manufactured building components.
IAPS – Integrated Automated Production Systems	Continuous production systems that are automated to achieve minimal human involvement.
IASHP – Integrated Air Source Heat Pump	A air source heat pump is incorporated into a single unit for sustainable and financial long-term gains.
IC – Industrialised Construction	A term used to describe the methodology of constructing standardised outputs through reliance on manufacturing.
IDCP – Industrial Decarbonisation of Construction Processes	The level of which construction projects' carbon footprint is minimised by the manufacturing of components or modules.
IGSHP – Integrated Ground Source Heat Pump	An eco-friendly solution that leverages the solar energy stored in the ground for sustainable and financial long-term gains.
IVQ – Industrial Visible Quality	A surface quality that is suitable for leaving the components exposed without having demanding visual requirements.
KoP – Kit of Parts	A building or structure that can be assembled from a pre-defined and varied set of modular components.
LGSF – Light-Gauge Steel Frames	Structural framing that employs cold-formed galvanised steel sections, used as a main structural framework or as cladding.
LifF – Lead-in for Fabrication	The preparatory process in the manufacturing workflow that establishes the foundation for fabrication of components.
MLA – Manufacture-Led Approach	Incorporation of manufacturing capabilities and relative considerations as a primary strategy to enhance a process.
MES – Manufacturing Execution System	A software system that monitors, tracks, documents, and manages the manufacturing process.

ACRONYM	DETAILS
MMC – Modern Methods of Construction	MMC is defined as an umbrella term encompassing a variety of methodologies and materials primarily focused on driving greater efficiency in construction.
MOC – Manufacturing Oriented Construction	Incorporation of manufacturers to exploit the advantages gained from the repetition of processes.
MPP – Manufacturing Payback Period	The time required to recover an investment in manufacturing processes, between initiation and an economy of scale.
NHBC – National House Building Council	A leading UK-based organisation, established in 1936, offering warranty and insurance services for new homes.
NLBVA – Non-Load-Bearing Volumetric Assemblies	A method that includes the production of assemblies that are not meant to support any structures but itself.
NVQ – Non-Visible Quality	A quality finish that is not visible such as being covered with gypsum or any other material.
OPC – Open Panel Construction	Preconstructed but uninsulated and onboarded panels that form the load-bearing section of external walls.
OSAA – Offsite Assembly Automation	Application of automated technologies to enable assembly of per-manufactured building components and modules.
OSC– Offsite Construction	Shifting core construction processes to be maximised offsite with minimal onsite activity.
OSM – Offsite Manufacturing	The process of remote manufacturing of components or modules away from their destination.
OSPA – Offsite Production Automation	Application of automation technologies to enable the production of per-manufactured building components.
OSPM – Onsite Pre-Manufacturing	Use of site of final delivery to manufacture components for partial productivity gains that are not fully applicable offsite.
PBA – Product-Based Approach	Providing buildings or structures with standardised and common products rather than tailor-made designs.
PFC – Platform Frame Construction	A building method that creates a framing system where each story becomes a platform that is lighter and quicker to build.
PHPP – Passivhaus Planning Package	A user-friendly planning tool for energy efficiency designed for architects and planning experts.
PLPI – Product-Led Productivity Improvements	Measurable improvements in construction productivity enabled by the Product-Based Approach (PBA).

ACRONYM	DETAILS
PLSLR – Product-Led Site Labour Reduction	Measurable reductions in construction labour enabled by the Product-Based Approach (PBA).
PMV – Pre-Manufactured Value	A score that denotes the value generated to a project or product through methods of minimal onsite activities.
PP – Product Platforms	A platform that is pre-defined by the available standardised elements, which benefits from the presence of others.
Prefab – Prefabrication of Components	Components produced for the intention to be easily installed on site for productivity gains.
PS – Panelised Systems	Methods of construction that utilise prefabricated panels for creating the structural components of buildings.
PCP – Precast Concrete Panels	Prefabricated components are created by casting and curing concrete in a factory, then transported to site for assembly.
PYAT – Poka-Yoke Assembly Techniques	A mistake-proofing technique that employs methods to prevent errors from occurring or to early identify them.
RoL – Repeatability of Layouts	Consistently reproducing layouts or designs across numerous projects or phases to realise previously confirmed gains.
REM – Rapid Engineering Models	An innovative method utilising automated design which provides data-informed, unbiased design and decision-making.
SB – Smart Buildings	Buildings with their subsystems connected and their data communicable to enable interaction and adaptability.
SBC – Straw Bale Construction	A building method that utilises bales of straw as a biobased material suitable for structural applications.
SD – Standardised Design	The practice of applying pre-established, uniform design templates and specifications across multiple projects.
SfMC – Standardisation for Mass Customisation	A strategy that allows capturing the gains of customisation without completely eliminating the gains of standardisation.
SIPS – Structural Insulated Panels	A type of prefabricated building panel that combines both structural and insulating components into a single product.
VCCI – Value-Chain Control and Integration	Coordination within the construction value chain to optimise efficiency, lower costs, and improve overall performance.
VM – Volumetric Modular	A method that refers to premanufacturing of full three-dimensional structures that are ready for onsite installation.

Call for views

Summary

The Local Government Digital Construction Working Group (DCWG) is developing a comprehensive terminological manual of key terms related to Modern Methods of Construction. We invite local government officers and industry representatives to contribute to this living document.

About the Local Government Digital Construction Working Group (DCWG)

The DCWG was created in 2022 to support local authorities overcome preconceived obstacles around various new ways of digital working in the built environment. The mission of the group is to challenge common misconceptions and overcome perceived barriers to adopting digital approaches in construction. Our goal is to build confidence and capability across local authority construction, procurement, planning, supply chain teams, and related areas - empowering them to embrace digital and modern methods of working by sharing, learning, and benefiting from case studies and practical tools and resources.

Why are we seeking views?

As part of this being a living publication, multiple iterations are expected so that the terminology is accurate and recognised by industry. Your feedback is crucial in making the document a practical and useful resource for the local government audience. Therefore, it is important that we seek inputs from industry and local government. In doing so, we hope that it is continuously developed to become a widely adopted, meaningful, and reliable resource. The terms and definitions included will be refined over time to serve as a benchmark for procuring and managing MMC projects.

Your input is important

Who should respond?

We encourage responses from local government construction and procurement officers as well as industry representatives involved in the management and construction of MMC projects.

To provide your feedback please complete this survey by **30th September 2026** (iteration #1).

If you have any questions or would like to discuss the document further, please email **Dr. Ali M. Saad at a.saad@lboro.ac.uk**.

Click here to respond

Digital Construction Working Group

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