



CitA | **TECHLIVE** 2022

Challenge, Change, Learn

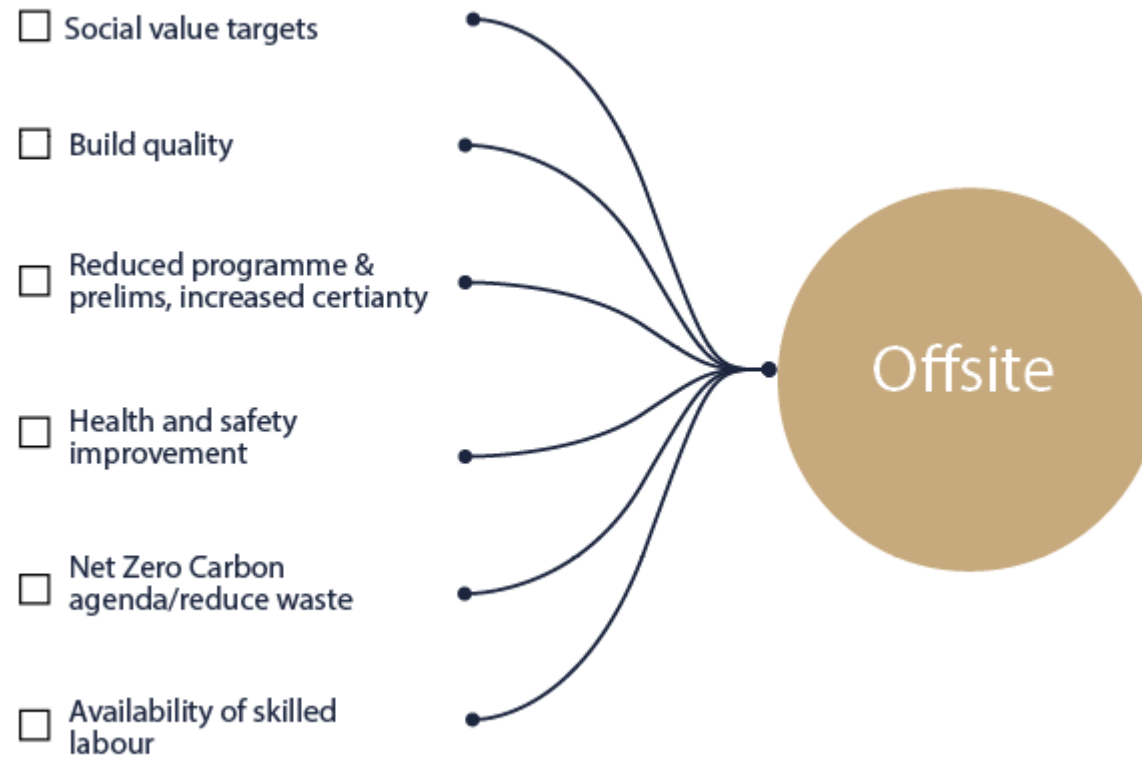
Welcome to TechLive 2022

by CitA, Ireland's premier
multidisciplinary construction
network.





Why do we need culture change?





MMC

Modern Methods of Construction

Non-traditional methods of construction – These have been categorised in a definition framework (categories 1-7) encompassing all varieties of MMC.

DfMA

Design for Manufacture & Assembly

Focuses on reducing parts and simplifying connections. The process used to design, manufacture and deliver an Offsite building.

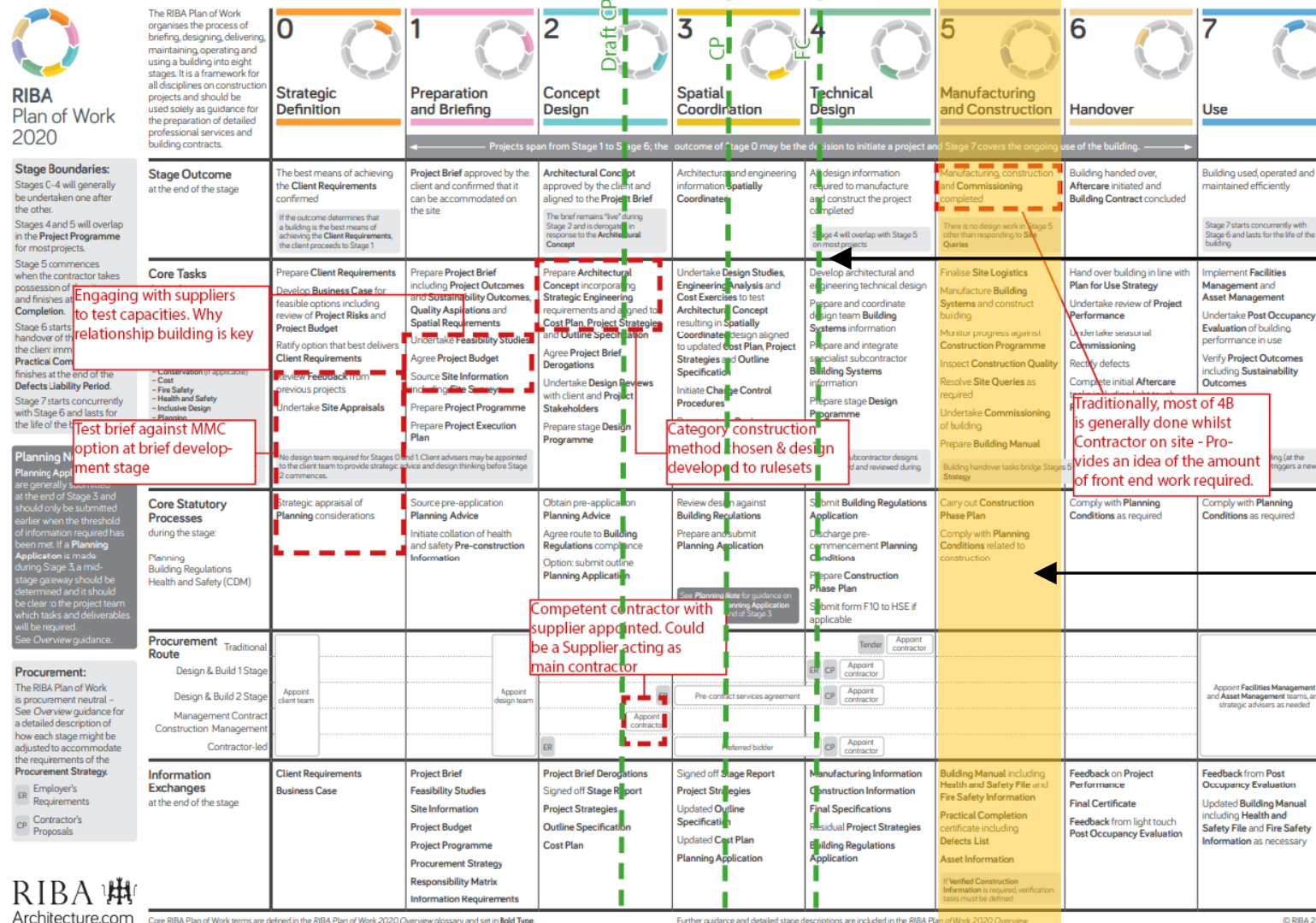
PMV

Pre-Manufactured Value

Offsite method of measurement - the amount of building delivered Offsite. Represented as a % value.

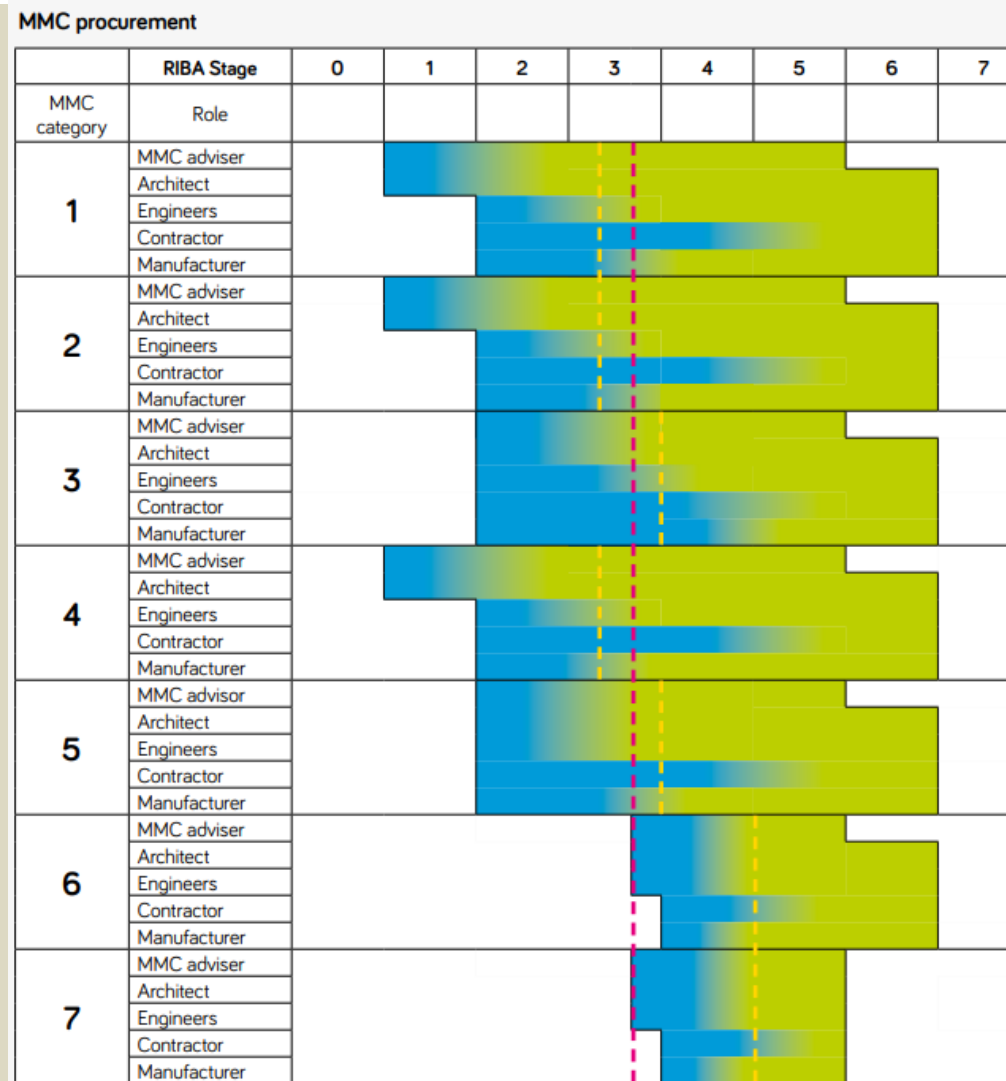
MODERN METHODS
OF CONSTRUCTION
INTRODUCING THE MMC DEFINITION FRAMEWORK

How DfMA can drive the culture change needed to transform our industry



Early engagement

The missing link



DfMA overlay to RIBA stages of work, 2020



MMC procurement

	RIBA Stage	0	1	2	3	4	5	6	7
MMC category	Role								
1	MMC adviser								
	Architect								
	Engineers								
	Contractor								
	Manufacturer								



Traditional process (D&B) Single stage, Contractors enters process. Product specification, re-design, value engineering and procurement to happen in this time



MMC procurement

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Contractor on board, agreeing specification from kit of parts.

Limited value engineering required, final coordination & procurement.

Time to coordinate On-site packages.

Modules onsite.

Ground works can start early.



Modern Methods of Construction (MMC) and Net Zero Provisions for Construction or Development Agreements

Skip to clause

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- Scope control through digital emerging technology & contracts

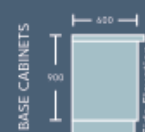


What is a Platform?



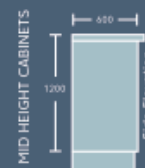
THE PLATFORM

The platform is both the underlying elements that are common but also the rules and interfaces that govern how parts and elements can be integrated. In this example, the platform is the standard dimensions of a kitchen cabinet - in defining a standard size it provides a common framework.



THE PRODUCT FAMILY

A product family is a group of related products that share common features, parts and systems, yet deliver variety. In the kitchen example, the carcass size is common (the platform) with variety of functionality or purpose (i.e. drawers).



THE PRODUCT VARIANTS

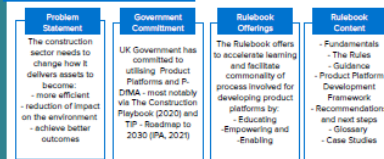
Working within the framework of the platform, individual products can be variants or derivatives. For the kitchen unit example, this could include adding, removing, or substituting one or more elements - a change in door finish for example - or scaling or stretching the platform - standard base cabinets lead into mid-height or tall, wall cabinets, or double units, etc.



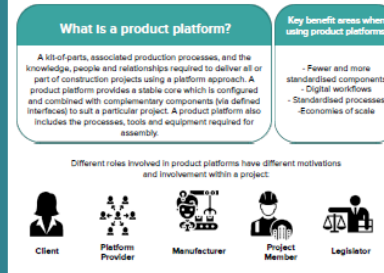
How do Platforms help?

Rulebook Visual Executive Summary

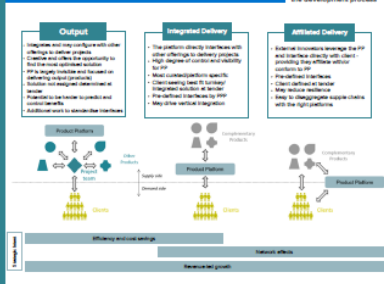
What is the Rulebook?



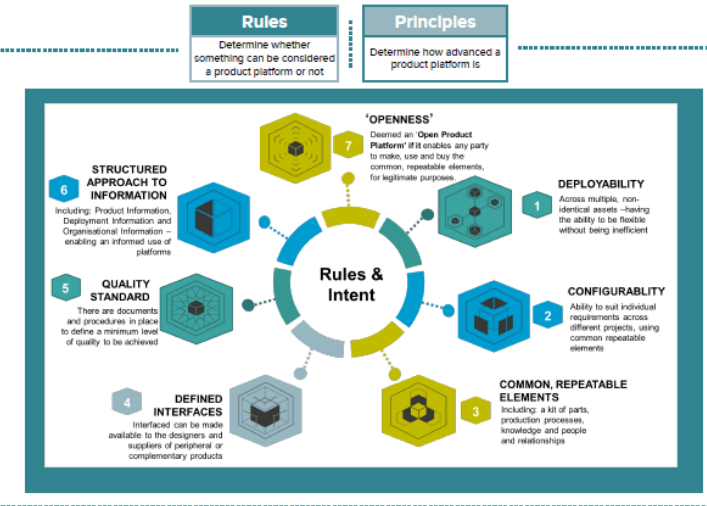
Use of product platforms



Approaches to Product Platforms

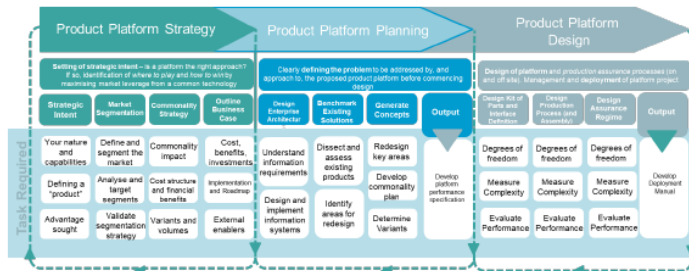


Product Platform Rulebook



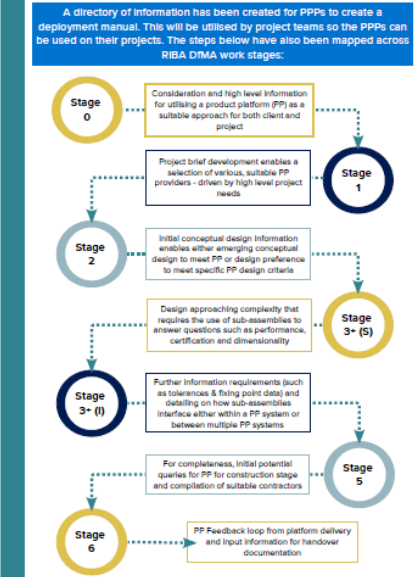
Product Platform Development

Split across 3 stages (of PP Strategy, Planning and Design), below is a summary of categories and their core activities to be completed:

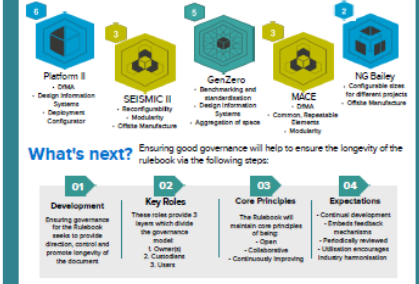


Deployment Manual

Delivering what information PPPs need to provide to project design teams to enable the deployment of PPPs

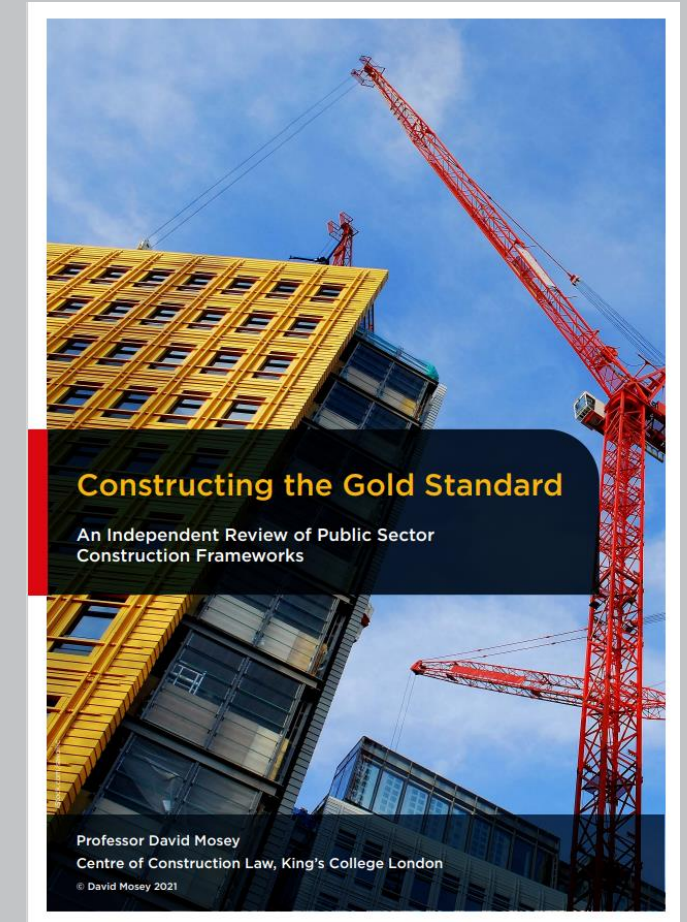
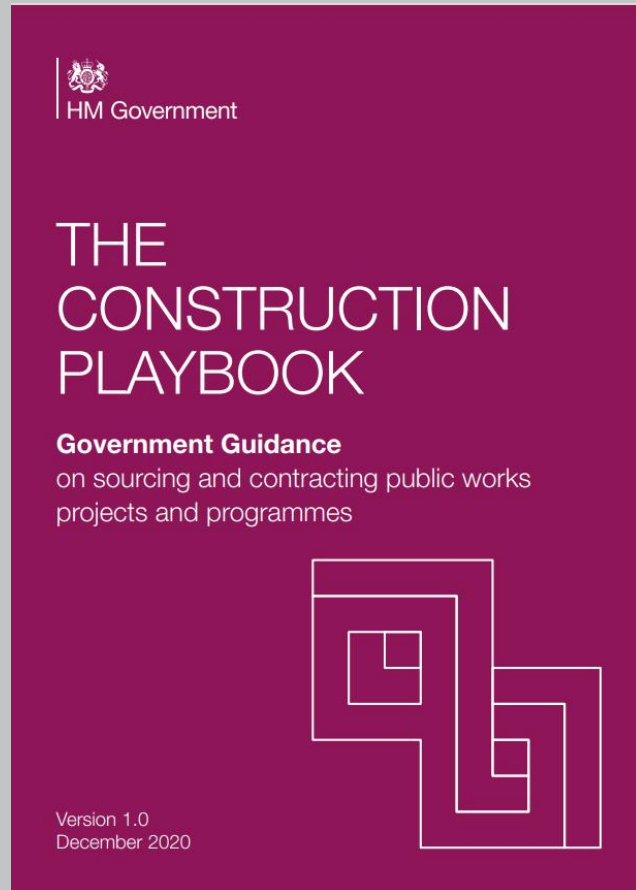


Case Studies: 5 exemplary industrial applications of the rules



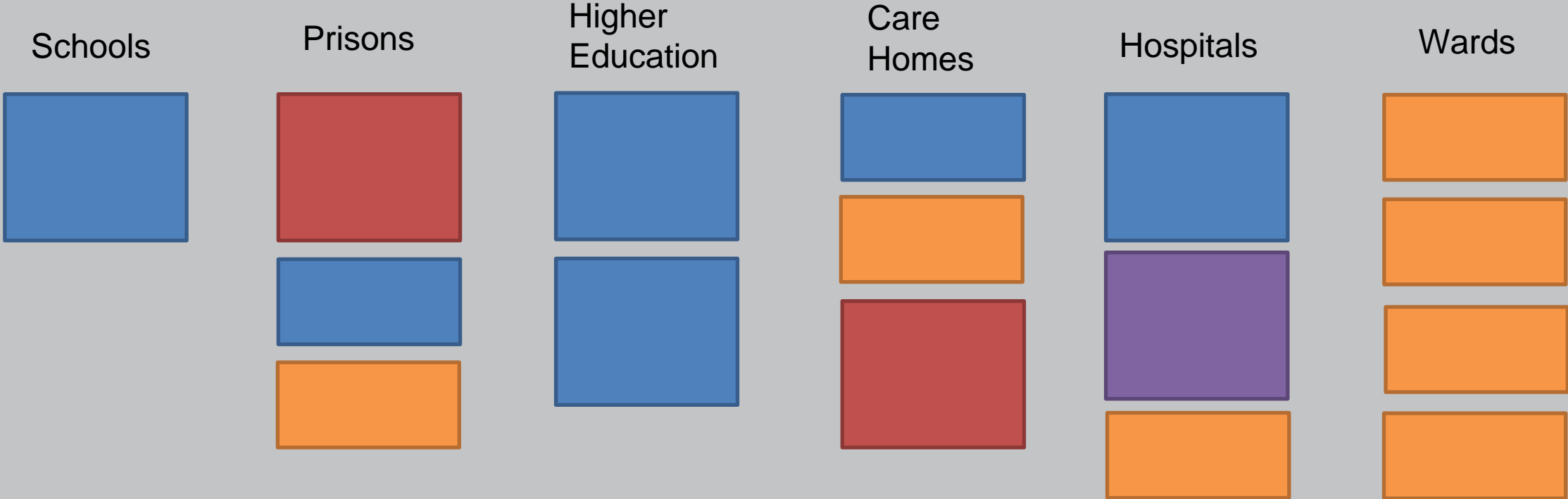


Platforms and Pipelines



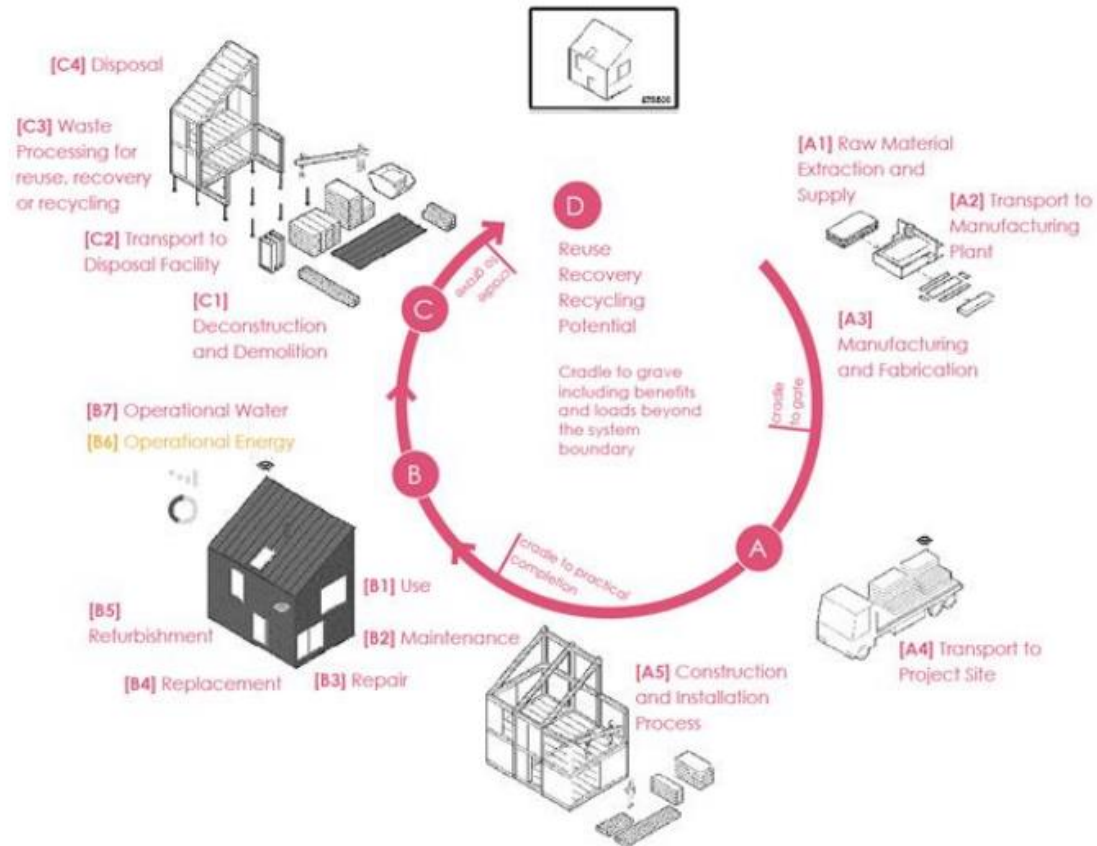


Platforms and Pipelines





Building Greener





Offsite for Building Safety





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