

11.45 – 12.15

Panel: innovating through the prisons programme

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Gareth Jones, Head of Technical Standards, Ministry of Justice

IN ASSOCIATION WITH



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Innovating with MMC and delivering social value through the prisons programme

Sue McElroy
Gareth Jones
Raj Singh

November 2023



What are we trying to achieve?

We are investing in the prison estate to creating decent, safe and productive places to live and work to:

Protect the public from serious offenders and improve the safety and security of our prisons

Reduce reoffending

Deliver swift access to justice

Ensuring the right conditions are in place to rehabilitate prisoners by delivering:

- New, **modern** places
- **Sustainable** accommodation
- The **right** places in the **right** regions
- **Enough** new places at the **right time**

New Prison Capacity Portfolio

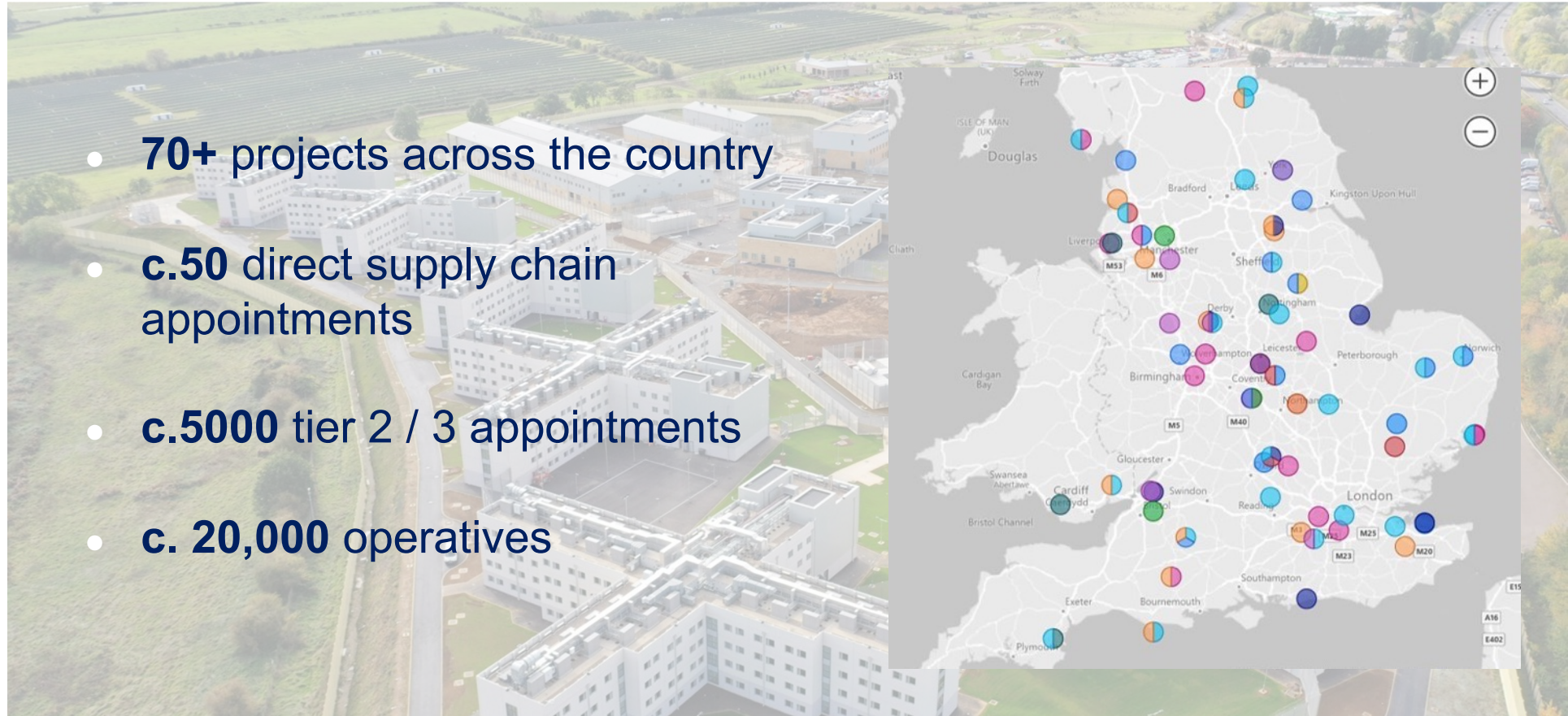
SR 21 confirmed £3.8bn commitment over 3 years, to support the delivery of 20,000+ prison places. Over £5bn total investment, continuing beyond the Spending Review Period.

This is delivered through:

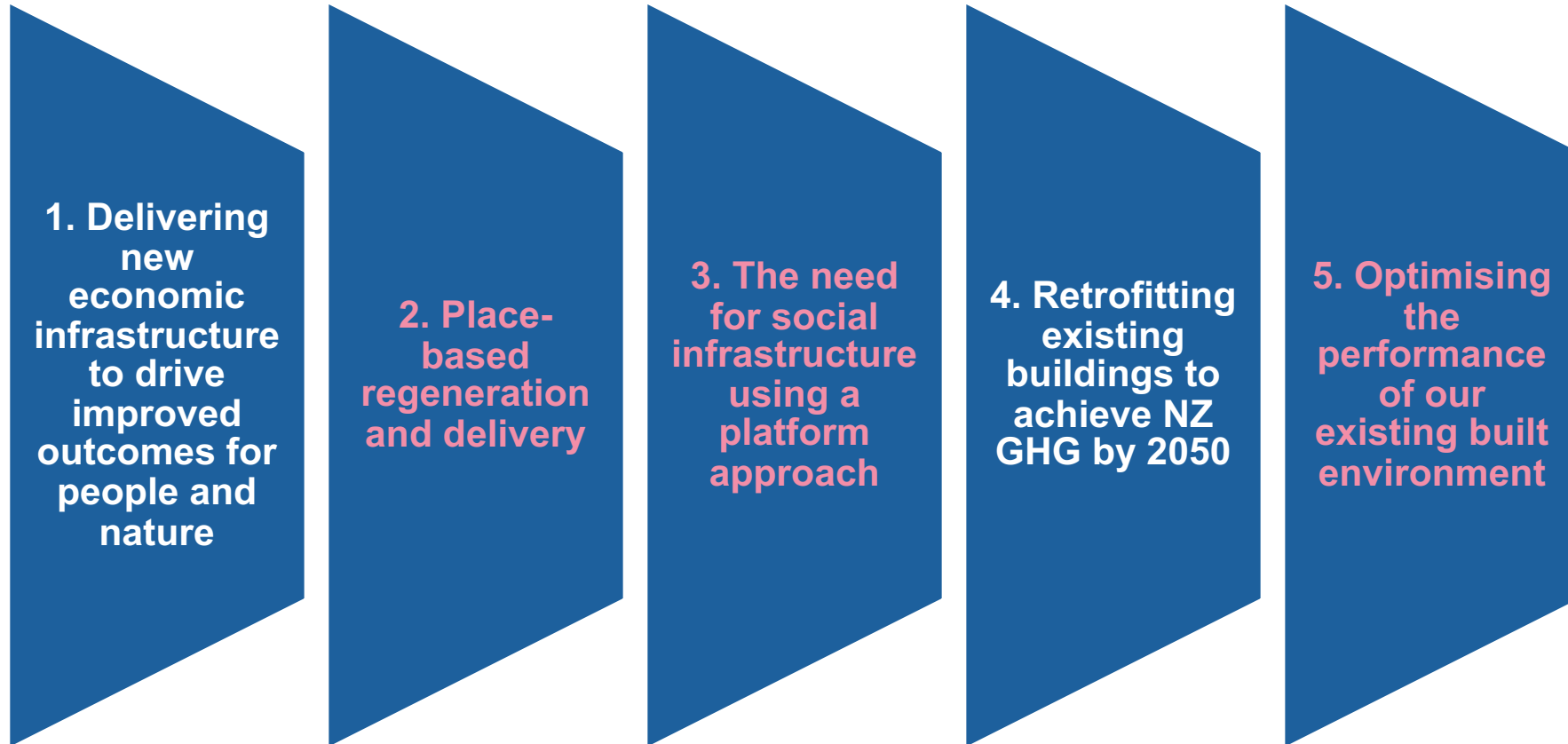
- Construction and mobilisation of **new re-settlement prisons**
- **Expansions** of the existing estate, both open and close
- **Refurbishment** of the existing estate
- **Temporary expansions**

New Prison Capacity Portfolio

- **70+** projects across the country
- **c.50** direct supply chain appointments
- **c.5000** tier 2 / 3 appointments
- **c. 20,000** operatives



TIP Five Focus Areas



Social value

Platform approach

Digital twins



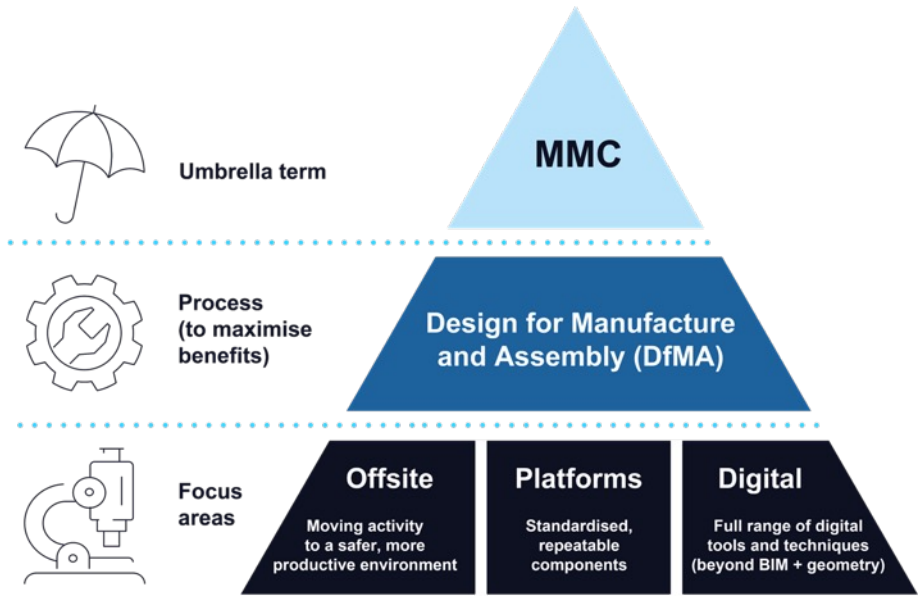
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Platform approach & manufactured, environmental benefits

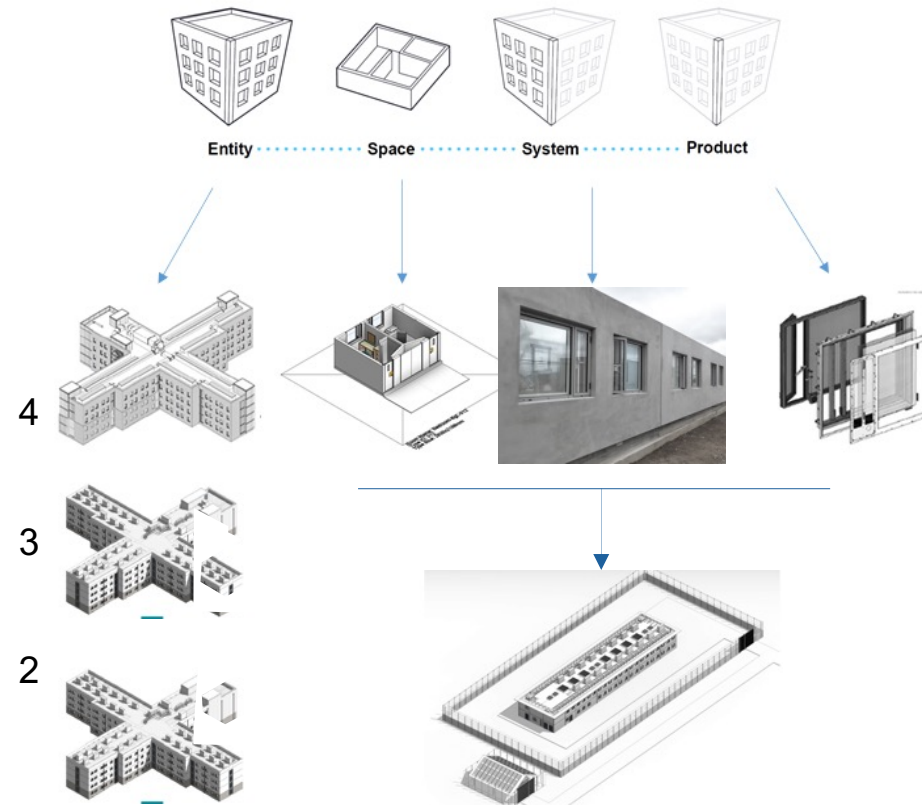
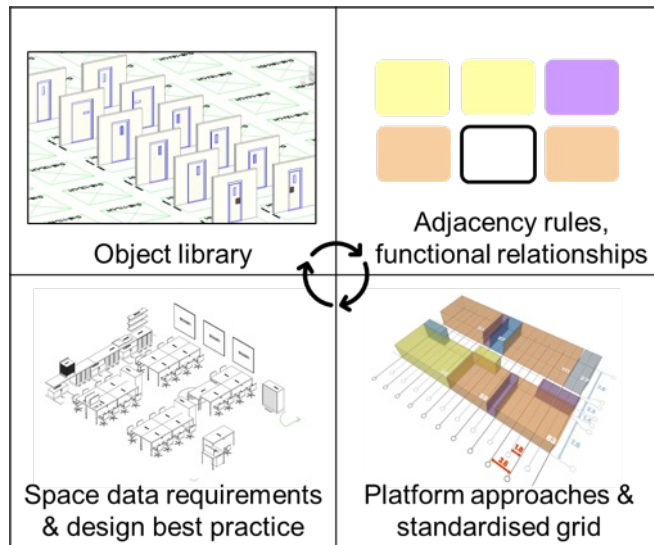
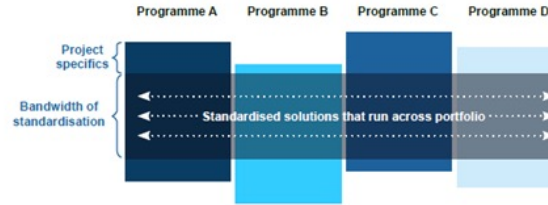
*Focus 3: The need for social infrastructure
using a platform approach*

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MMC – to the MoJ



MMC – A Platform approach

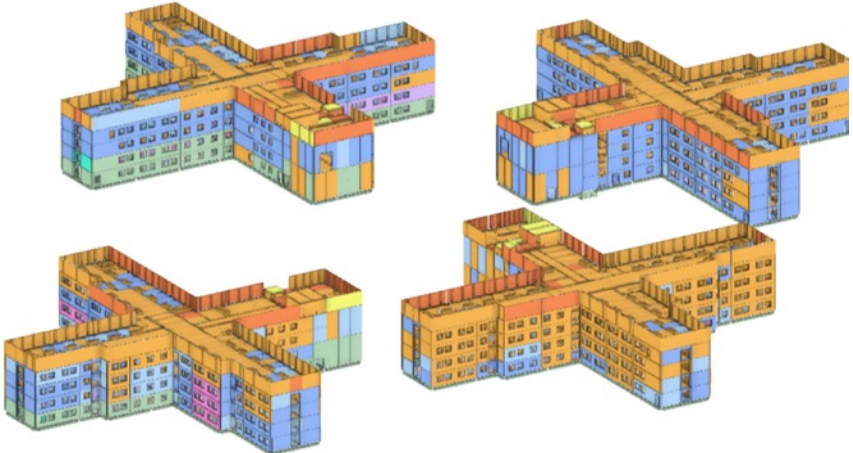


MMC – in action



- Circa 60% of 18K portfolio delivered via one spatial platform
- 12.5-18% Embodied Carbon saving in Houseblock super structure.
- Suppliers Investment in automation and robotics.
- 70t material weight removed from windows, a 48% reduction in embodied carbon.
- Saving through economies of standardisation of products
- Greater programme certainty

MMC – in action



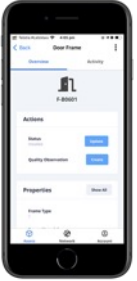
- Automation is made possible with Hardware & Software built to Reliably and Cost-Efficiently capture Supply Chain information of thousands of units in existing workflows



Gateways



Tags

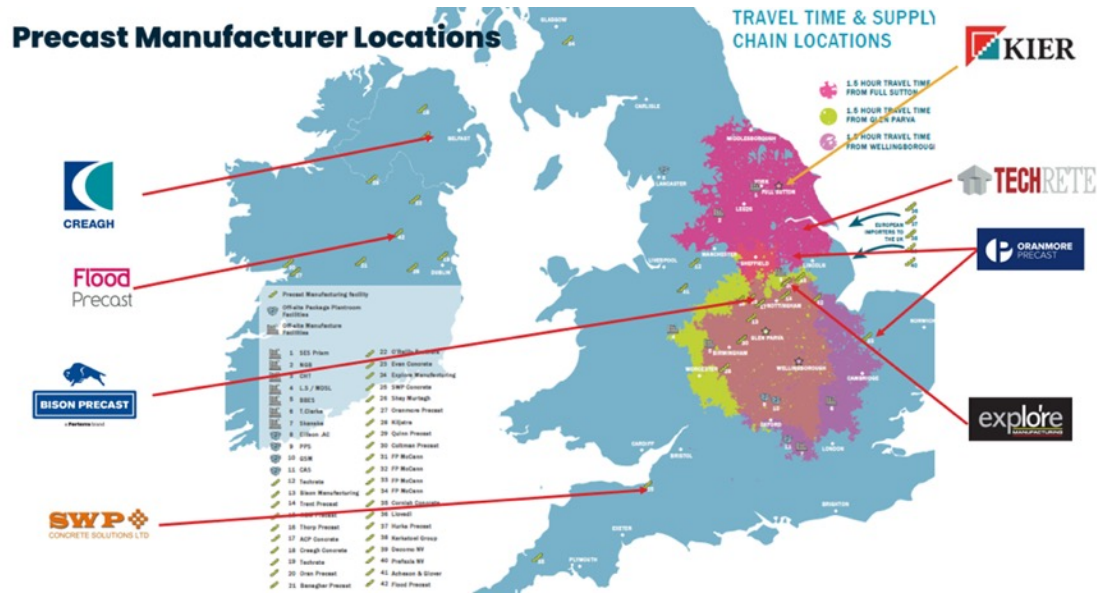


App



MMC – in action

- 13,000+ Components tracked,
- 25% improvement in as-built accuracy



- ☑ Reduced costs through efficiencies, direct and indirect time savings.
- 📍 Reduced risk, primarily through programme certainty in delivery and quality.
- 🌱 Carbon footprint reduction opportunities.
- 🔍 Improved visibility, sense-making & identification of issues for better management & delivery.
- 🔒 Improved Security and Chain of Custody.
- ✳️ Support Supply Chain and SMEs, including improved cashflow and fairer payment





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Optimising performance through digital twins

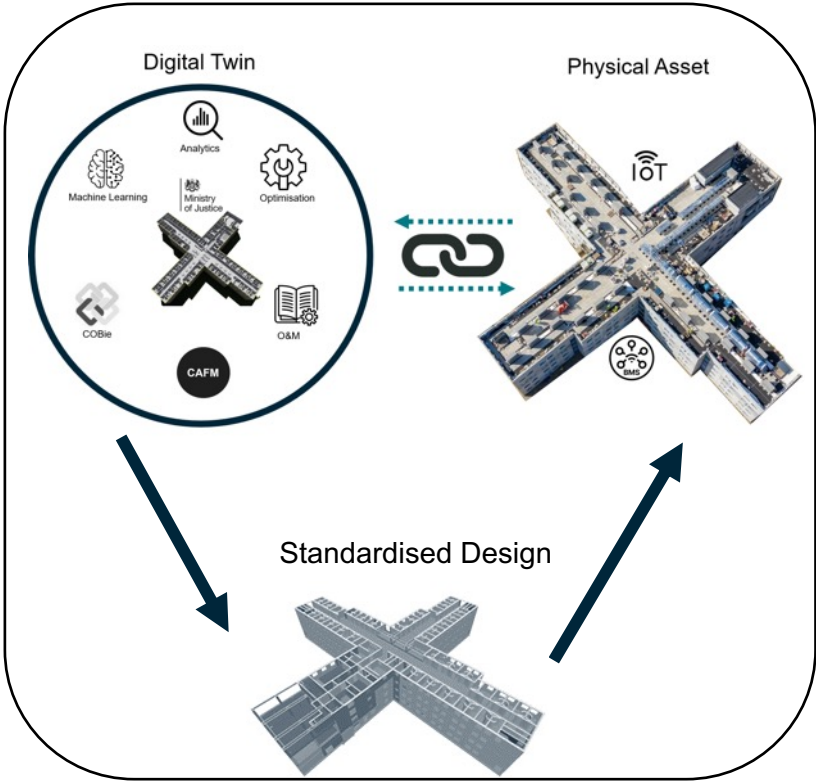
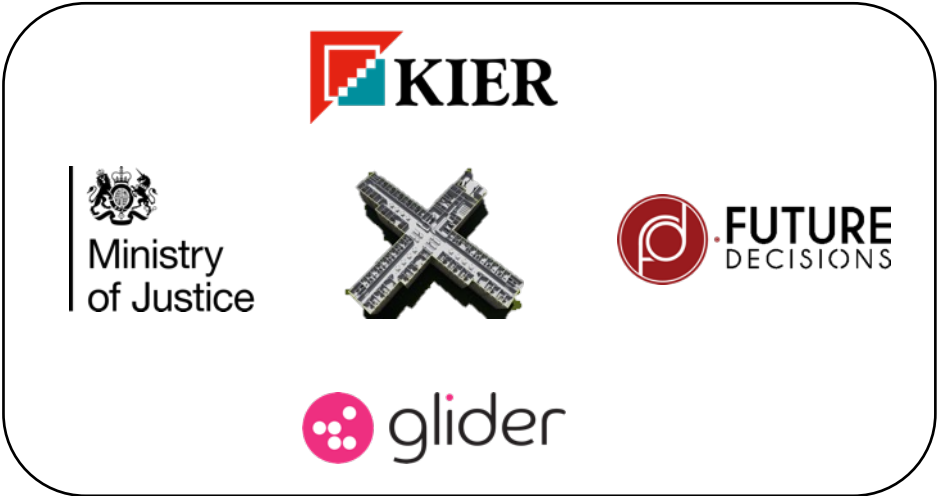
*Focus 5: Optimising the performance of our
existing built environment*

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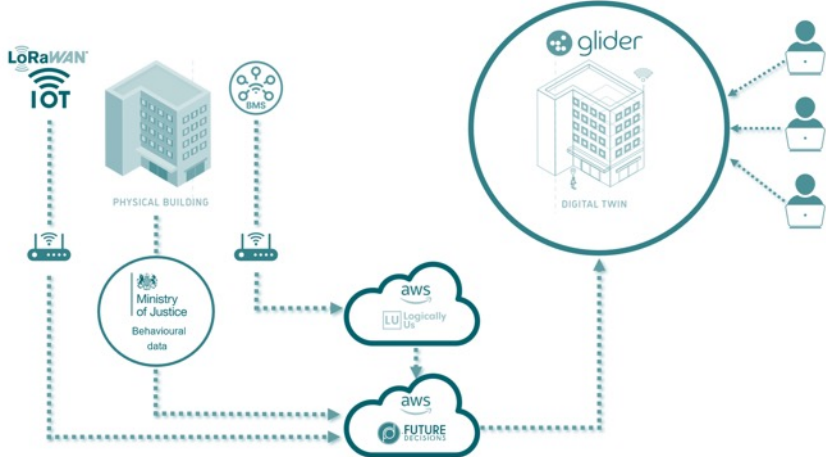
MMC – in action digital twins

Mission Statement

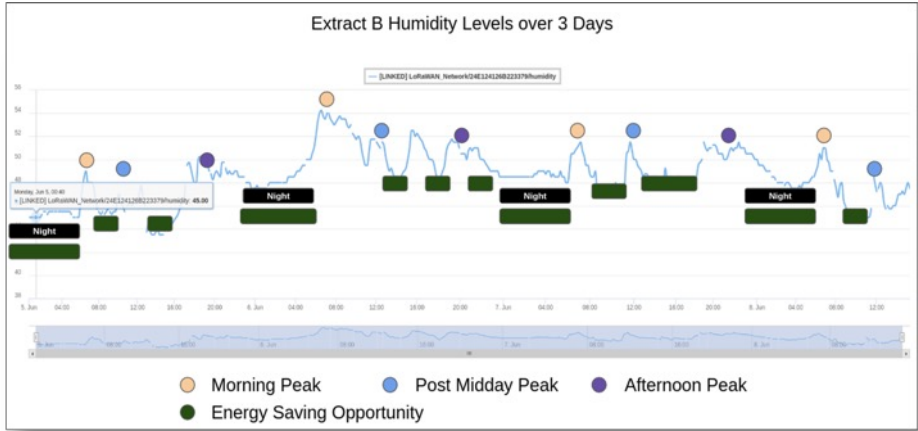
“To research and feedback on ‘Digital Twin’ technology implemented on MoJ property, with a focus on energy-use reduction in lifecycle operation within a secure environment, aligned with sustainability goals and the net-zero agenda.”



MMC – in action digital twins



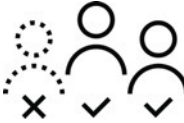
The screenshot shows the 'gliderbim' software interface. On the left is a navigation menu with options like 'RFIs', 'Import', 'Changes', 'Verification', 'Register', 'Browse Data', 'Browse 3D', 'DMS', 'Plan of Work', and 'Export'. The main area displays a 3D model of a building interior. On the right, a detailed data panel for element 'EDP-0013-00027' is shown, including a 'DATA' section with fields like Name, Creativity, CreatedOn, Space, Description, EntityName, EntityType, Extent, ExtentOrder, SerialNumber, InstallationDate, WarrantyStartDate, TagNumber, BarCode, and AssetIdentifier. Below this is an 'ATTRIBUTES' section with various technical parameters.



MMC – in action digital twins



Prevent overheating



Absenteeism



Operational carbon reduction



Prevent over-ventilation



Sleep data



Save money



Reduce power consumption



Rates of self-harm



Maintain air quality



Incident rates



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Delivering Social Value

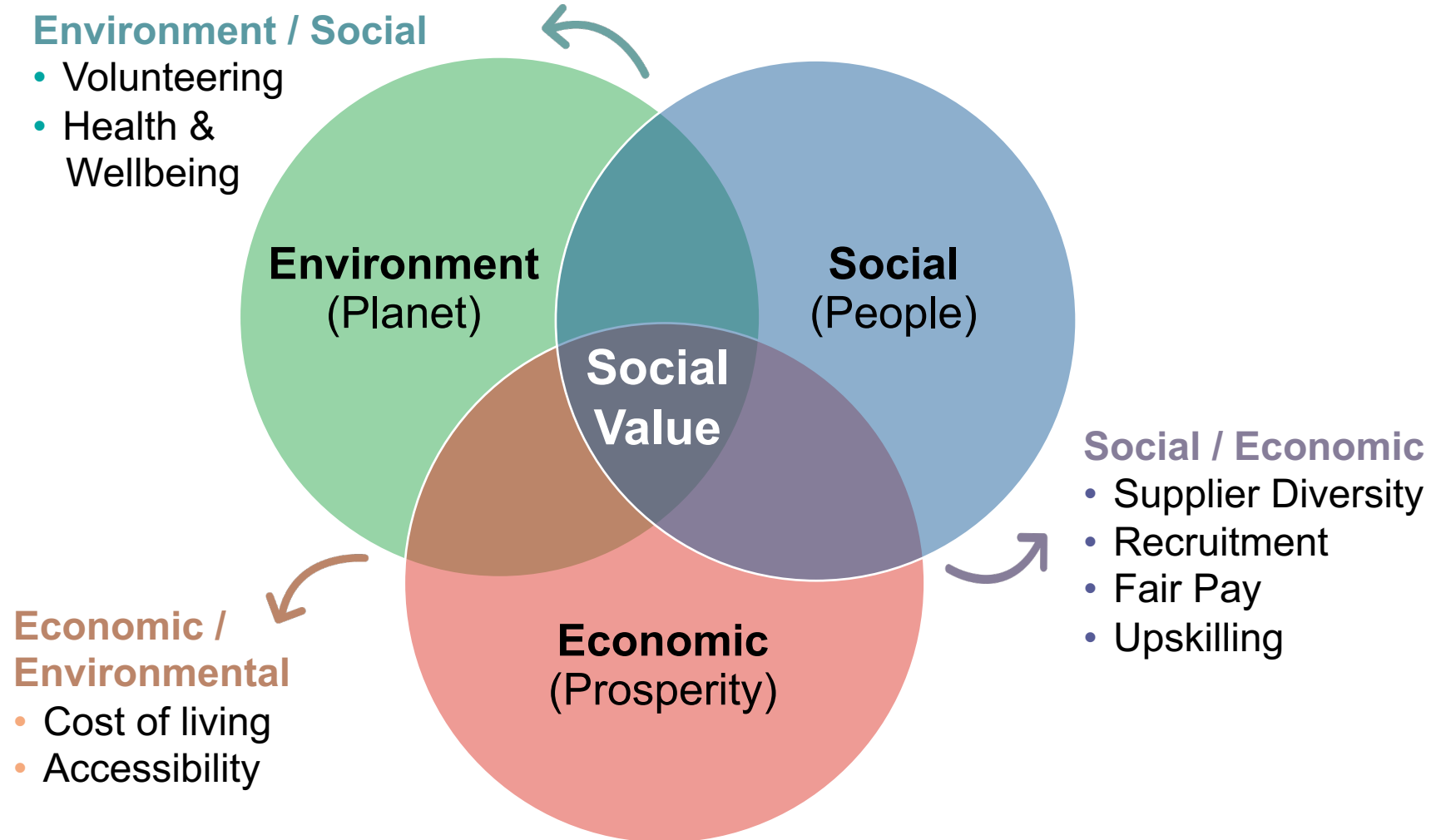
Focus 2 – Place based regeneration

Focus 3 – Platform approach, social & environmental benefits

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What does Social Value mean to the MoJ?



What does Social Value mean to the MoJ?



The Social Value Model – Themes and Outcomes



COVID-19 recovery



Tackling economic inequality



Fighting climate change



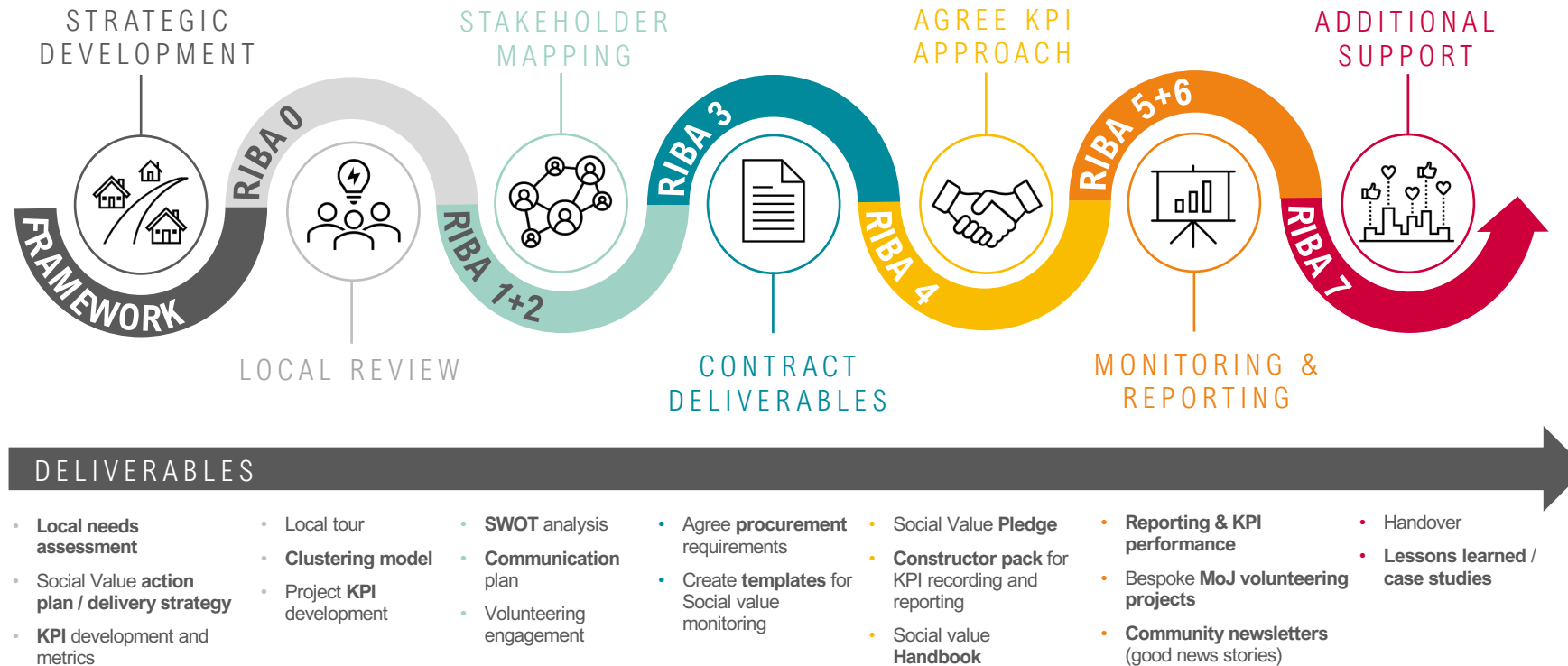
Equal opportunity



Wellbeing

<ul style="list-style-type: none"> • Help local communities to manage and recover from the impact of COVID-19 	<ul style="list-style-type: none"> • Create new businesses, new jobs and new skills • Increase supply chain resilience and capacity 	<ul style="list-style-type: none"> • Effective stewardship of the environment 	<ul style="list-style-type: none"> • Reduce the disability employment gap • Tackle workforce inequality 	<ul style="list-style-type: none"> • Improve health and Wellbeing • Improve community integration
<ul style="list-style-type: none"> - Volunteering - Local Spend - Community Investment 	<ul style="list-style-type: none"> - VCSE Spend - Local Spend - Training & Development - Vocational Qualifications - Community Investment - Prison Leaver Recruitment - Employment Opportunities - Modern Methods of Construction 	<ul style="list-style-type: none"> - Carbon offset - Biodiversity Net Gain - Environmental Incidents - Fuel Consumption (Diesel) - Greenhouse Gas Emissions - Waste Generated - Water Consumption 	<ul style="list-style-type: none"> - Training & Development - Vocational Qualifications - Educational Outreach - Equal Opportunity Programmes 	<ul style="list-style-type: none"> - Employee Turnover - Wellbeing Programmes - Volunteering - Healthcare programmes

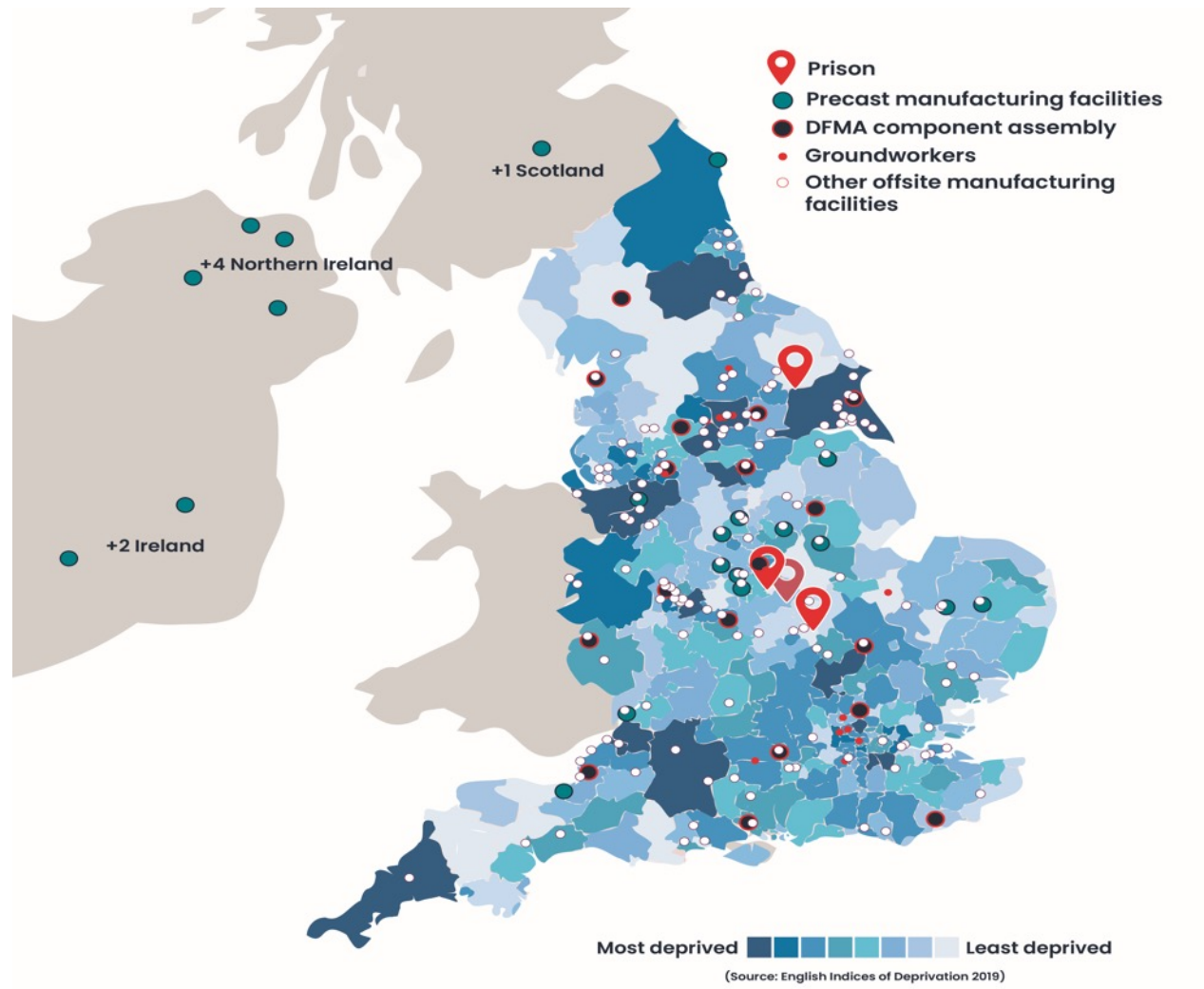
Social Value Delivery Model



Our contribution, local to global



Our contribution to levelling up



Social Value Performance



Jobs created

Target **416** Achieved **1075***

*10.7% prison leavers (115)

£



Offsite labour

Target **40%** Achieved **52%**



Local Spend

Target **25%** Achieved **53%**



Upskilled workers

Target **3000** Achieved **2873**

**We ensure we create REAL Value to
Society**





**Video played
here**



TIP Five focus areas – Summary

1. Delivering new economic infrastructure to drive improved outcomes for people and nature

- Focus on outcome from outset
- Establish long-term relationships & alliancing

2. Place-based regeneration and delivery

- Identify the local context
- Build in social value

3. The need for social infrastructure using a platform approach

- Standardise where possible; design, technical standards, manufacturing to unlock efficiencies

4. Retrofitting existing buildings to achieve NZ GHG by 2050

- Create benchmark data to inform where and how to invest

5. Optimising the performance of our existing built environment

- Embrace technology digital twin
- Measure performance



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QUESTIONS