Deploying Modular Housing in the UK

Exploring the benefits and risks for the housebuilding industry

Campbell Middleton
Laing O’Rourke Professor of Construction Engineering
High Level Mission

“Transforming construction to improve our planet and the quality of life for all in an equitable and sustainable way”

QUALITY OF LIFE (not just GDP growth)

ZERO NET CARBON

The biggest threat – Climate change
Objective – *Transforming Construction*

Drive transformation in the productivity, performance and sustainability of the construction industry by focusing on three core pillars:

- Policy and Thought Leadership
- Education & Skills
- Research and Innovation

Laing O’Rourke Centre

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<th>Digital Engineering</th>
<th>Carbon</th>
<th>Procurement</th>
<th>Productivity</th>
<th>Housing</th>
<th>Skills</th>
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<tbody>
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<td>Manufacturing (MMC / Offsite)</td>
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<td>Whole Life Performance</td>
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Methodology for quantifying the benefits of offsite construction

CIRIA C792 : authors - Tercia Jansen van Vuuren & Campbell Middleton
Consistent and repeatable methodology for evaluating project performance:
  • How does offsite influence project outcomes?
  • Are expected benefits delivered?
Example: Total construction cost (£/m²) vs GIFA (m²)

- Low PMV
- Medium PMV
- High PMV
- Unreported