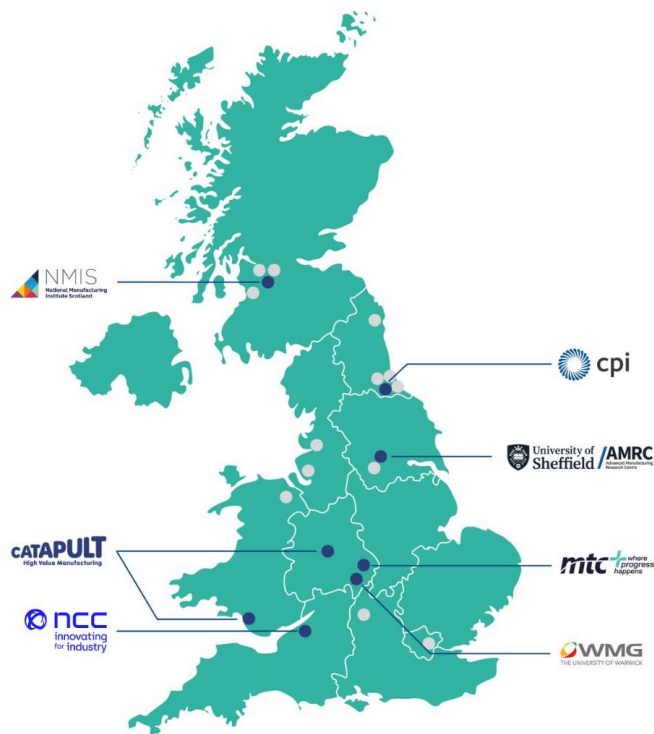


# Industrialised construction

Keith Waller, Programme Director



# HVM Catapult overview



Established by  
Innovate UK in  
**2011**



Part of  
Innovate UK  
Catapult  
Network



Employing  
**3,500+**  
people

Since 2011:

**16,193**  
CR&D and  
commercial  
projects

**36,655**  
Companies  
worked  
with

**20,878**  
SMEs  
worked  
with



1

**Creating a scalable model** through digitalisation and standardisation by integrating digital tools across design, planning, and delivery streamlines processes and enhances coordination.



2

**Expanding capacity and accelerating delivery** through off-site manufacturing and advanced construction methods, underpinned by demand aggregation and the production of standardised components.






3

**Developing a skilled and resilient workforce** by shifting towards roles in digital design, automated manufacturing, and off-site assembly.



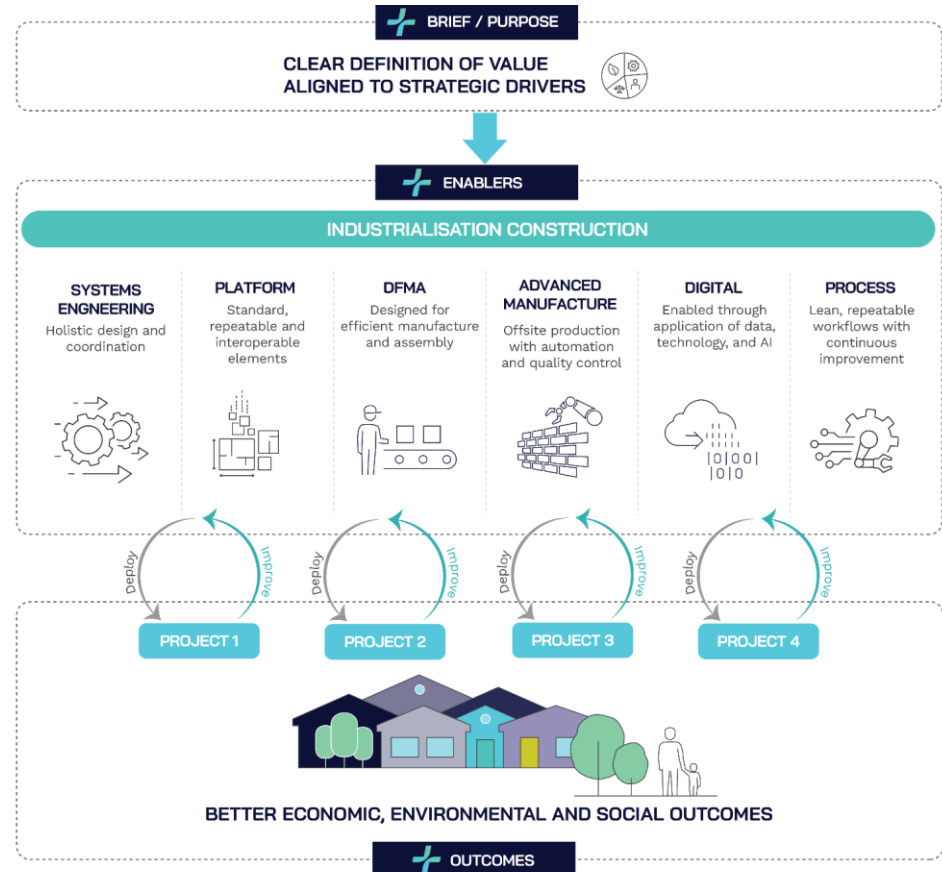
# Desired end state (better outcomes from our investment in infrastructure)

- Better value, more predictable, better performing
- More productive, sustainable UK supply chains
- Greater resource efficiency, less waste
- Lower energy use in production and operation
- Better data and exploitation of digital solutions
- Supporting growth throughout the UK's regions

	TIME	PRODUCED	HUMAN	NATURAL	SOCIAL
<b>PROJECT IMPACT</b> 	<b>CERTAINTY:</b> Reduced risk profile, with enhanced certainty (time and cost) by reducing impact of external factors.  <b>SCALE EFFICIENCIES:</b> Aggregation and standardisation improves predictability of projects.	<b>PRODUCTIVITY:</b> Higher productivity and efficiency, including the use of digital technologies.  <b>BETTER QUALITY:</b> Improved quality control to deliver right, first time, including offsite mock-ups prior to production.  <b>SPACE STANDARDS:</b> Promotes greater consistency and compliance with space standards improving living conditions.	<b>SAFER ASSEMBLY:</b> Removing work from high-risk environment to minimise accident potential.  <b>MITIGATE SKILLS AND SUPPLY SHORTAGE:</b> Reduction in on-site labour profile.  <b>CENTRALISED WORKFORCE:</b> Reduced commuting burdens, enhanced work-life balance, and strengthened local community ties.	<b>NET ZERO:</b> Reduction in embodied and operational emissions.  <b>WASTE:</b> Reduction in waste and use of natural resources.  <b>END OF LIFE RECYCLING / REUSE:</b> Promotes efficient end-of-life recycling and resource recovery.	<b>POSITIVE COMMUNITY CONTRIBUTION:</b> Minimising on-site operatives, deliveries, traffic and disruption to surrounding community.
<b>INDUSTRY IMPACT</b> 		<b>SECTOR DIGITISATION:</b> Transparent data flows, improving planning, operations, project and sector outcomes across systems.  <b>REGULATORY COMPLIANCE:</b> Supports the objectives of the Building Safety Act and other regulatory frameworks.  <b>INCREASED CAPACITY &amp; SUPPLY:</b> Boosts housing supply by streamlining production.	<b>SKILLS AND TRAINING:</b> Development of skills in a fixed, stable environment.  <b>ADDRESSING THE SKILLS GAP:</b> Reduces traditional skill needs while creating new, accessible roles and careers.  <b>JOB SECURITY:</b> Stable employment improves workforce resilience and volatility.	<b>CIRCULAR ECONOMY:</b> Incorporating practices reduces waste and environmental impact and resource costs.	<b>EQUALITY:</b> Flexible work arrangements foster a more inclusive and diverse industry.
<b>SOCIETAL IMPACT</b> 			<b>GEOGRAPHIC DISTRIBUTION:</b> Strategic placement of manufacturers helps to boost local skills and economics.	<b>SUSTAINABLE PROCUREMENT:</b> Investment in low carbon solutions.  <b>NET ZERO:</b> A more sustainable workforce aligning the sector with net-zero goals.	<b>REDUCE TEMPORARY HOUSING CRISIS:</b> Increases delivery of affordable housing to reduce waiting lists and temporary housing burden.  <b>RESPONSIBLE SOURCING:</b> With traceability of product / material stewardship.

# Industrialised, not just modern

- Neither the status quo, nor slow, incremental change will meet our national objectives
- Key roles for government and industry to drive and support change:
  - and avoid siloes or regression





# CATAPULT

High Value Manufacturing



[hvm.catapult.org.uk](https://hvm.catapult.org.uk)

