



Nottingham Trent
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Why housing delivery is a systems challenge

Preliminary research findings

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The challenge is converting ambition into delivery



The need is clear. We now have major investment. Why is delivery so difficult?

Why do large housing needs, planning permissions and substantial investment not automatically translate into homes delivered at scale?



Sources: House of Commons Library (2023); Homes England (2026); MHCLG (2025); Eurostat (2025)

Research question and purpose

How can housing delivery be strengthened across the Thames Freeport area, and where could industrialised construction make a useful contribution?

Aim:

Develop evidence-based strategies that accelerate the delivery of affordable housing across the Thames Freeport geography

Research will identify institutional, commercial and technical conditions required for MMC adoption

PROJECT OBJECTIVES

- Key constraints on housing delivery
- Assess role and viability of MMC
- Identify leading international examples
- Map supply chain and capabilities gaps
- design 2-3 implementable intervention options for TFP



Research Method

Design Science Research

Structured documentary review

Plans, permissions, strategies, risk logs and delivery evidence

18–22 stakeholder interviews

Semi-structured perspectives across delivery, policy and market actors

3 structured workshops

Validation and co-design cycles

Comparative case analysis

UK and global reference cases for transferable lessons

Traceability + peer review

Evidence trail and internal challenge to strengthen rigour

Resulting interventions will be evidence-based, practical and implementable

NTU

The CIB symposium provides external challenge and international knowledge exchange

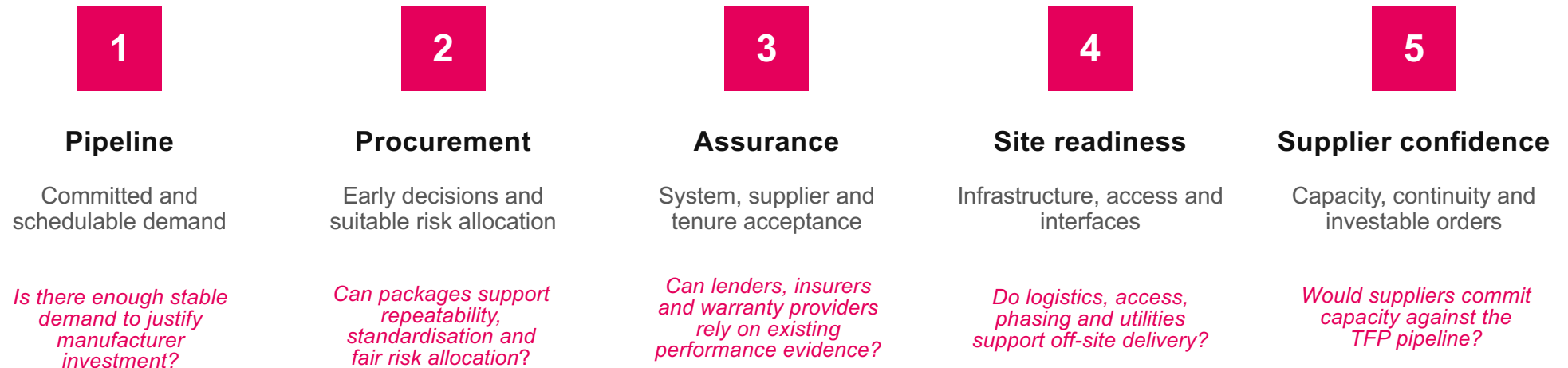
Project Outcomes



Presenting findings to test them, identify rival explanations and gather comparative evidence

MMC depends on the wider delivery system

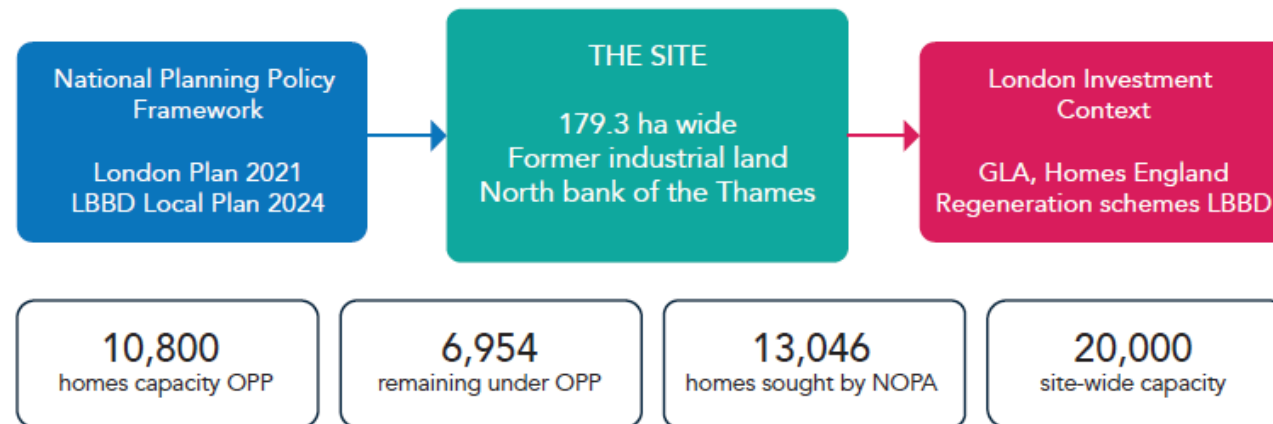
INDUSTRIALISED CONSTRUCTION



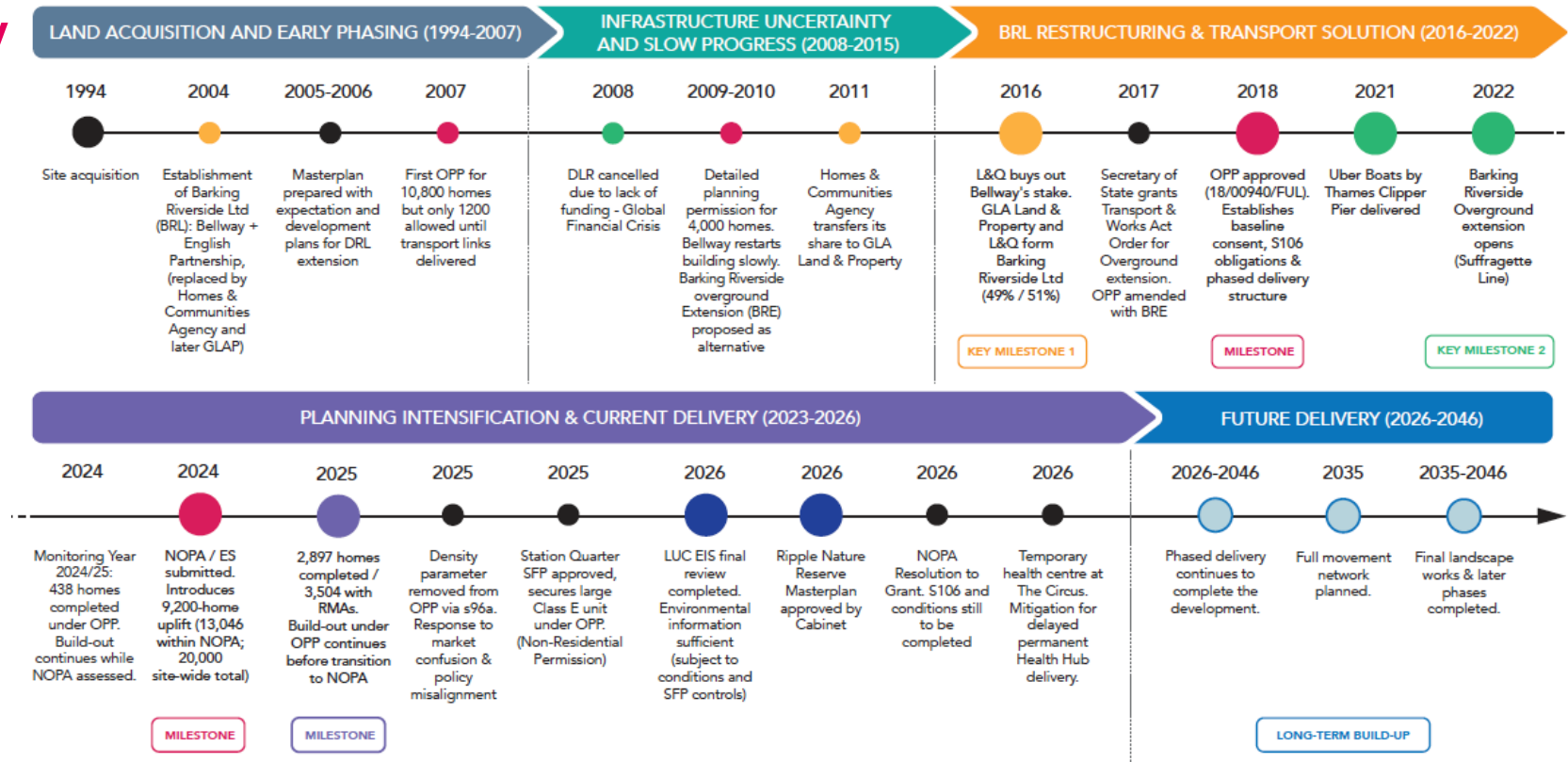
**A technically capable system can still fail commercially
when these conditions are absent**

Barking Riverside

1. Planning capacity is not the same as a committed development pipeline
 - Plot acquisition, finance, market absorption and commencement decisions remain decisive
2. Infrastructure has two effects
 - Enables development physically and signals confidence commercially. Services which depend on population also create a critical-mass loop
3. No single organisation controls the complete outcome
 - Authority, investment, land, infrastructure, procurement and delivery decisions are distributed
4. MMC may help, but only where there is stable demand, standardisation, suitable logistics, finance and client commitment



Case Chronology



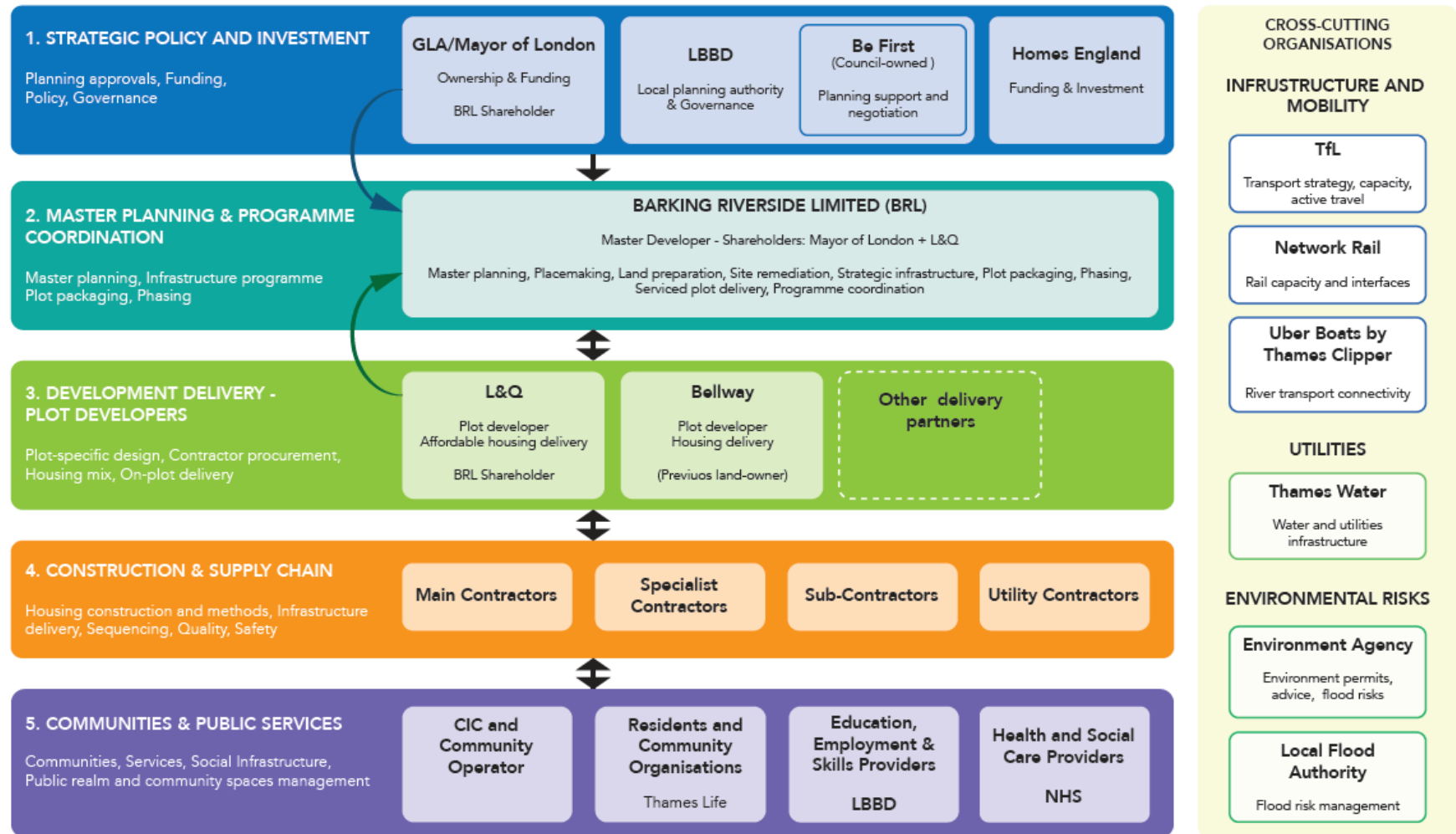
What the timeline shows:

- Major delays driven by transport uncertainty (2008–2016)
- BRL / land ownership restructuring and transport solution unlocked progress (2016–2022)
- Planning intensification and detailed approvals dominate the current phase (2023–2026)
- Long horizon to 2046 with infrastructure and landscape phasing



Barking Riverside delivery system

Delivery depends on interfaces across several layers of authority and action



Mixed delivery model with responsibilities shared across multiple organisations, each exercising different decision-making powers. At the centre is Barking Riverside Limited (BRL), the master developer, partnership between GLA (public) and L&Q (private)

Outcome 1: Barriers - four reinforcing mechanisms

Structural viability, investment risk, plot-developer confidence

Land, funding, market absorption and plot commitment shape build-out.

PACE, PREDICTABILITY AND DELIVERY CONFIDENCE

Infrastructure and place-making sequencing

Transport, utilities and amenities depend on housing and also enable it.

Distributed decision rights

Multiple approvals and organisational interfaces must align over time.

Programme fragmentation and incentives

Plot-level procurement limits aggregation, continuity and standardisation.

Volumetric, panelised and hybrid approaches

Provisional comparison from interviews and literature; assess defined systems and suppliers before any decision

System	Potential contribution	Critical dependencies	Current evidence position
Volumetric	Parallel manufacture and rapid occupation for suitable repeatable products	Early design freeze; stable orders; transport and cranning; supplier and warranty continuity	Most conditional overall; strongest in clearly defined use cases
Panelised	Greater configuration flexibility; efficient transport; repeatable components	Interface control; system-specific fire and moisture evidence; early coordination	Promising, but local high-density outturn evidence remains limited
Defined hybrid	Allocates different building elements to appropriate methods	Clear system definition; integration owner; multi-supplier interfaces and assurance	Broad near-term potential in interview evidence; not a generic category winner



Four distinctions that change the MMC decision

Headline housing pipeline

is not the same as funded, schedulable factory orders

Rapid site assembly

does not guarantee a shorter total development programme

Certification

does not by itself establish warranty, insurance or mortgage acceptance

A technology category

cannot replace due diligence on the defined system and supplier

These distinctions explain why apparently successful demonstrations do not create a scalable market





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Your contribution

Thank you

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