The infrastructure challenge – delivering in the built environment

David Penhallurick,
Strategic Lead - Cross-Sector Delivery,
Infrastructure UK

June 2014
Current model of delivery

“Pothole road is relaid then dug up again a week later”

Notorious Preston junction to be dug up again

Anger as newly repaired roads in Rushden are dug up again

Uley road dug up 12 days after resurfacing

“Dismay as roads are dug up again”

“Resurfaced road dug up again”

“Only 30% of all the work that we see on the streets is part of a longer term programme.”

“Oh look, the road’s been dug up again!”

East Road to be dug up - all over again
Some of the prizes

3,000,000,000
A possible future?

- Local Spatial Plans
- Strategic Economic Plans
- National Policy Statements
- Utilities Investment Plans

Area wide integrated infrastructure delivery
Increased Value for UK PLC/Citizens Infrastructure Interdependencies

Academic
- Enables NEW BUSINESS models
- Reduces BUSINESS risk
- Encourages INNOVATION in engineering
- Encourages impactful R & D
- Adds to HUMAN KNOWLEDGE
- Encourages SYSTEMIC RISK analysis

Business
- Brings INVESTMENT forward
- Encourages multi-sector PORTFOLIO investment strategies
- Allows for EARLIER deployment of NEW TECHNOLOGY
- Enables FUTURE deployment
- Reduces ENVIRONMENTAL impact
- Minimises LAND USE
- LOWER overall COST of deployment
- Contributes to GROWTH
- Maximises VALUE from deployments
- Brings INVESTMENT forward
- Encourages SYSTEMIC RISK analysis

Environmental
- Increases Value for UK PLC/Citizens Infrastructure Interdependencies
- Improved network RESILIENCE
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Economic
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Encourages multi-sector PORTFOLIO investment strategies
Infrastructure: a network of networks

Current work on Infrastructure Interdependencies in HMT

1. Developing an Interdependencies Planning and Management Framework
2. Testing possibilities on real infrastructure projects – HS2 Phase 2
3. Sharing potential wins with project teams
4. Tackling barriers to implantation - working with Regulators on improving environment for shared assets and services.
5. The economics of Resilience and Passive provisioning.
1. Creating the environment where serving unconstrained demand is no longer the best business model

2. Understanding how to profit from the provision of a utility rather than the provision of a good. *(Applies to how we think about large transport infrastructure projects as well as providing services to household customers)*

3. Navigating an economic regulatory environment that is siloed into sectors and currently has no need to regulate for companies operating in an integrated manner across many sectors

4. Bringing together disparate investment timetables into single, multi-sector programmes
Harnessing the Opportunities from the Interdependencies of Infrastructure

Questions