Getting the Biggest Bang for our Buck

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HS2’s Vision: To be a catalyst for growth across the UK
Why HS2 is implementing Whole Life Value

To ensure decisions are informed by Whole Life Value, Whole Life Cost and Value-for-Money considerations, via a suite of coherent Benefit, Cost and Risk Models.

- Align all investment and engineering decisions with HS2 strategic goals and the HS2 Business Case, in a transparent and meaningful way
- Enable meaningful Capex vs Opex trade-off decisions
- Focus on “big ticket” items. Should be used as an input to the current decision-making and governance processes
- Bring together the best of VfM, WLV, WLC and LCC approaches; and build on the current B-C-R appraisal process
What’s the Bang?

- HS2 Whole Life Value
  - HS2 Economic Appraisal (Social Cost Benefit Analysis)
  - Environmental
  - Analysis of Risk
  - Performance Requirements

- HS2 Whole Life Cost
  - Life Cycle Costs (LCC)
  - Non-construction costs
  - Revenues
  - Externalities

- Rolling stock LCC
- Infrastructure LCC

Shared assumptions
- Passenger demand
- Route and station design
- Rolling stock
- Train service specification
- Policy/regulatory environment
- Web TAG/Green Book compliance
- HS2 Strategic Themes

Externalities are costs and benefits external to HS2 and includes Economic, social and environmental factors

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Key construction statistics

- 230km ROUTE LENGTH
- 46km TUNNELS
- 74km CUTTINGS
- 128 mt EXCAVATED MATERIAL (90% TO BE RE-USED)
- 145 STRUCTURES OVER BRIDGES
- 152 STRUCTURES UNDER BRIDGES
- 31 MAIN COMPOUNDS FOR CONSTRUCTION
- 299 SATELLITE COMPOUNDS

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Where are the opportunities?
How we govern Infrastructure Delivery Decisions

**Emphasis on WLV Analysis**
1. Options screening v base case
2. Inform business case & funding
3. Input into value management reviews

**Emphasis on WLC/LCC Analysis**
1. Inputs into business case – WLC feeds
2. Options appraisals – identify solution
3. Choice of design/material specification
HS2 Value Management Framework

HS2 Strategic Goals

HS2 VM Framework Approach

Continuous Improvement

Supportive Culture

VM Capability Improvement Model

VM Training Plan

VM Methods & Tools

Performance Management and Reporting

Legend:
- Supporting and Supported HS2 processes
- Core VM Framework components
- Other projects/work-streams

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Questions or clarifications?