

– FOR BACKGROUND USE ONLY –

HS2 Explainer

Since the last NAO HS2 value for money study published in 2016, there have been a number of changes to: the governance of HS2 Ltd; understanding of the ground conditions and build requirements; and the plans for construction. These have had a significant effect on the cost and schedule estimates, but also on the organisational capacity of HS2 Ltd, as a result of which we now believe we have assembled the best team available to build HS2, and the most complete and robust costings the project has ever had.

HS2 LTD GOVERNANCE

- Since Mark Thurston was appointed CEO in March 2017, **the HS2 Ltd Executive has made a number of significant changes and improvements to the company**, across governance and controls, as well as the levels of talent and skill needed to develop a rigorous cost and schedule estimate for the project.
- These changes were made with the intention of demonstrating sufficient organisational capability to DfT and HMT to allow approval for the start of construction of Phase 1 of the railway. **The competency of HS2 Ltd was assured by an Independent Assurance Panel in late 2019**, who said that this was the most rigorous approach to testing and improving capability they had ever seen in a major project.
- **On his appointment as HS2 Ltd Chairman in December 2018, Allan Cook commissioned a detailed assessment of the HS2 project, particularly the cost and schedule estimates.** This stocktake was provided to the DfT in 2019 and the costs were set out by the Transport Secretary in a written statement to parliament on 3rd September 2019. The 2020 NAO report acknowledges this work.

COST AND SCHEDULE

- HS2's current funding envelope was set by the DfT in 2013 and uplifted for inflation in 2015. It used a basic outline of the programme design and a simple calculation, using average cost rates per km (in 2011 prices). This **didn't provide for the impact of project delays and inflation, the effect of Carillion on supply chain risk appetite, the uncertainty of high cost elements, challenging ground conditions, or changes to scope and expensive environmental mitigation measures** added to the Phase 1 Bill during Parliamentary approval (e.g. a 16km tunnel under the Chilterns).
- Phase 1 of the project (London to Birmingham) now has a higher degree of cost certainty. We have greater confidence in this estimate compared to previous, because the 2016 figures - analysed by the NAO in their previous value for money report - were based on full scheme designs at around 3-5% completeness. **On Phase 1, the estimate is now based on full designs around 30-50% completeness - a level that is considered industry standard for a scheme of this size.** We have also done extensive ground investigations, our contractors have produced detailed costings for much of the build work required, and contracts are in place for many parts of the Phase 1 works.
- Although Phase 2 remains at a far earlier design level (and will do until the Bills for 2a and 2b pass Parliamentary approval), we are applying **our learnings gained during the Phase 1 preparatory works and ground investigations to update cost estimates for Phases 2a and 2b.**

ALTERNATIVES TO HS2

- Phase 1 of HS2 is **the only shovel-ready major transport project in the UK.** It has taken ten years of expert design and development, parliamentary scrutiny, and public consultation to get to this point. **No other major project, from upgrades to new rail schemes, is within five years of being where HS2 is today.** Cancelling HS2 now would be difficult for UK construction firms and the construction industry.
- Phase 1 of HS2 is **the first new railway built north of London for over a century.** It is a new high-speed railway and improved capacity and connectivity on the West Coast Mainline, Midlands Mainline and East Coast Mainline: four improved railways benefiting the north and midlands for the price of one.
- It's estimated that upgrading existing lines instead of building Phase 1 would result in **2,700 weekend closures over 15 years.** HS2 is a 20 year programme. Between 2004-2024 Network Rail will invest over £122bn in the existing railway. However, this investment does not increase capacity like HS2 will.