



National Audit Office

Report

by the Comptroller
and Auditor General

Department for Transport and HS2 Ltd

Progress with preparations for High Speed 2

Key facts

2026

target opening date for phase 1

60%

the Department and HS2 Ltd's level of confidence that phase 1 of the programme will be delivered by 2026. HS2 Ltd are reviewing the schedule with the aim of increasing this to 80%

£55.7bn

agreed funding for the High Speed 2 programme (including infrastructure and rolling stock) in 2015 prices

£417 million	estimated additional funding requirement, including contingency, for work to enable over-site development at Euston station
2033	target opening date for the full railway
2,600	petitions processed during the passage of the hybrid bill for phase 1
£7 billion	savings required to bring the costs of phase 2 within the agreed funding at the time of the 2015 spending review
£9 billion	potential phase 2 savings identified by the Department, HS2 Ltd and a Cabinet Office led review since the 2015 spending review. The Department has asked HS2 Ltd to incorporate the efficiencies and cost savings in its next cost estimate
32%	of planning and development milestones delivered late on the programme so far
1.8:1	current benefit–cost ratio for the full programme excluding wider economic impacts
2.2:1	current benefit–cost ratio for the full programme including wider economic impacts

Summary

1 High Speed 2 is a highly ambitious programme to create a new high speed rail service between London to Manchester and Leeds, via Birmingham. The Department for Transport (the Department) is the sponsor of the £55.7 billion programme (2015 prices) and HS2 Ltd, a company wholly owned by the Department, is responsible for developing, building and maintaining the railway.

2 The programme is split into three phases. Phase 1 between London Euston and the West Midlands is due to begin construction in 2017 and open in 2026. Phase 2a, between the West Midlands and Crewe is expected to open in 2027, with phase 2b, completing the full network to Manchester and Leeds, due to open in 2033.

3 The Department's objectives for High Speed 2 are to enable economic growth by increasing capacity to meet existing and future rail passenger demand, and to improve connectivity between UK towns and cities. The Department also aims to encourage additional investment to drive regeneration, particularly in areas around stations.

4 We reported on early preparations for High Speed 2 in 2013, focusing on the business case, programme management and the estimated costs of the programme. Since then, the Department and HS2 Ltd have made significant progress. They have issued tender documents for major civil engineering contracts on phase 1, and plan to announce the preferred route for phase 2b later in 2016.

Scope of the report

5 This report looks at the key risks to be managed to protect value for money, and provides an update on the forecast costs and progress against the programme schedule. The report also looks at progress with preparations for delivering the benefits of the programme. We expect to return to look at the programme as it develops.

Key findings

6 **The Department and HS2 Ltd have taken steps to address weaknesses in the business case identified in our 2013 report.** The strategic context and the objectives of High Speed 2 are clearer than when we last reported and the business case includes more detail about the scale of potential future capacity shortages – particularly on the west coast main line (paragraphs 1.3 and 4.3).

7 The Department and HS2 Ltd are on course to gain the legislative powers to start building phase 1 of the railway by December 2016 which represents a significant achievement. The Department and HS2 Ltd have had to process some 2,600 petitions. To achieve this the Department extended the original timetable for gaining Royal Assent for phase 1 by 21 months. It is sensible that the proposed legislative timetables for phases 2a and 2b are similar in length to the more realistic revised timetable for phase 1. However, the longer legislative timetable has put greater pressure on the opening of phase 1 by 2026 (paragraphs 3.3 to 3.5 and 3.13).

8 The 2026 target opening date for phase 1 is at risk. HS2 Ltd have made good progress with some major procurements for phase 1. However, a range of indicators suggest that the schedule is under pressure. For example, HS2 Ltd is only 60% confident that it will complete phase 1 by December 2026. The Department's view is that this is too low, and it has asked HS2 Ltd to revisit the programme schedule in order to increase confidence in delivery to 80%, without increasing costs. It has asked HS2 Ltd to assess the impact of extending the timetable for opening phase 1 by up to 12 months (paragraphs 3.13 to 3.16).

9 The Department set HS2 Ltd a schedule for achieving delivery readiness that was too ambitious. In 2013, the Committee of Public Accounts raised concerns about the ambitious timetable for High Speed 2. HS2 Ltd is building its capability at the same time as starting to deliver the programme. There are a large number of major decisions which need to be made over the next few years, including a decision on the route for phase 2b. It is important that HS2 Ltd builds and embeds the organisational capability, and produces fully assured plans to enable it to complete work on schedule, and to gain the delegated authority to deliver the programme efficiently. The Department and HS2 Ltd delayed the first of three formal review points – which tested HS2 Ltd's readiness to deliver – by ten months. By May 2016, HS2 Ltd had the capability it had originally planned to reach by July 2015, but did not pass the first review point due to concerns about cost and schedule (paragraphs 3.6 to 3.10 and Box 3).

10 A shift from public funding to private finance for trains and depots would increase the risk to opening phase 1 in 2026. The Department will need to agree its overall strategy for trains and depots, which is expected in autumn 2016, before approving a decision on financing. The Department and HS2 Ltd have commissioned three studies since 2012 to test the value for money of different financing options. All have concluded that public funding provides best value for money and the lowest risk to the programme schedule. The privately financed Intercity Express and Thameslink train procurements took four to five years to negotiate. The target date for awarding a contract for High Speed 2 trains is late 2019, around 3 and a half years away, so any decision to move to private financing now would risk delaying the opening of phase 1. The Department currently plans to publicly fund the trains and depots with the option to seek a private buyer once the procurement is complete (paragraphs 3.11 to 3.12 and Figure 9).

11 The programme faces cost pressures. For phase 1 of the programme the current forecast cost slightly exceeds available funding by £204 million, and there is less contingency to deliver phase 1 than the Department and HS2 Ltd were aiming for at this stage. At the 2015 spending review, the estimated cost of phase 2 exceeded available funding by £7 billion. Work by the Department, HS2 Ltd, and a review commissioned by the Cabinet Office has identified potential to save around £9 billion on phase 2. £2 billion of these savings have been agreed, and the Department has asked HS2 Ltd to look at incorporating the remaining potential savings into its next cost estimate. Cost estimates for phase 2 are at a much earlier stage of development than phase 1 and some elements are currently unfunded. The cost estimates for phase 2 may move up or down as a detailed baseline cost, similar to that in place for phase 1, is developed (paragraphs 2.3 and 2.8 to 2.12).

12 There is a risk that the combined impact of cost and schedule pressures result in reduced programme scope, and lower the benefit–cost ratio. The benefit–cost ratio for phase 1 assumes that the programme is delivered well within its available funding. The 2013 economic case suggests that if costs are closer to, or exceed, available funding, which, given cost and schedule pressures, is a possibility, then the benefit–cost ratio, including wider economic impacts, would fall from 1.7 to around 1.5. If the programme is delayed, then benefits would be deferred. To help manage costs, the Department has asked HS2 Ltd to explore options for reducing the programme scope in ways that do not have a significant impact on programme benefits (paragraph 2.16).

13 The £55.7 billion funding package does not cover funding for all the activity needed to deliver the promised growth and regeneration benefits. The funding covers the cost of building the railway and buying new trains and maintenance depots in order to deliver the capacity and connectivity benefits assessed in the economic case for High Speed 2. Local authorities, in partnership with others such as Local Enterprise Partnerships, are responsible for driving regeneration and local growth benefits, and there is a risk that these wider benefits will not materialise if funding cannot be secured. The main exception is Euston where the Department plans to carry out works to enable further development above the High Speed 2 station at Euston, with an estimated funding requirement of £417 million, including contingency (paragraphs 4.7 to 4.8).

14 The Department and HS2 Ltd have developed a structured plan for delivering regeneration benefits at an early stage. Plans are more advanced than they were on, for example, High Speed 1, where benefits have not materialised as expected. The Departments for Communities and Local Government and Business, Innovation & Skills, and local authorities are working well together, given the early stage of the programme (paragraphs 4.11 and 4.12).

15 Effective integration of High Speed 2 with the wider UK rail system is challenging and poses risks to value for money. In the coming years the Department will need to address a number of issues including how High Speed 2 services will complement or compete with other rail services, and how High Speed 2 will interact with proposed improvements in the north. Failure to fully understand these interactions and make decisions in the right sequence will make delivering the programme more challenging. It could also mean decisions are made now which reduce benefits or increase costs across the network in future. The Department is now developing a long-term vision for the whole rail system (paragraphs 4.9 to 4.11).

Conclusion on value for money

16 Since we reported in 2013 the Department and HS2 Ltd have made significant progress in preparing to deliver the programme. However, HS2 Ltd has struggled to meet the overly ambitious timetable set for it by the Department for building delivery readiness, while also developing the programme. This will add to the challenge of delivering an already ambitious programme over the next few years. The programme is now facing cost and schedule pressures and, in response, the Department and HS2 Ltd are considering the impact of extending the phase 1 schedule by up to twelve months. Unless the Department and HS2 Ltd make forthcoming decisions promptly, with greater realism about timetables and full understanding of the trade-offs between costs, schedule and benefits, including the impact on the wider network, value for money will be at risk.

Recommendations

- a** The Department's accounting Officer should continue to periodically assure himself of the deliverability of the programme schedule as the programme progresses. In the near term the Department and HS2 Ltd should ensure that the programme schedule for phases 2a and 2b is based on lessons learned from the challenge of balancing cost and schedule in the detailed design of the phase 1 schedule.
- b** The Department should assess whether the pace at which the programme is planned to move over the next few years allows key recommendations and decisions to be supported by full assurance, and to allow governance bodies sufficient time to consider fully the implications of their decisions.
- c** The Department should establish a clear, thorough and realistic process by which HS2 Ltd will gain the delegated authority it needs to deliver the programme efficiently, and for the Department to be able to focus on sponsoring and overseeing phase 1.

- d The Department and HS2 Ltd should quantify the impact that proposed and future changes to the existing plans for phase 2 will have on core benefits, and the wider strategic aims of the programme, and communicate the expected impacts clearly and promptly to all affected stakeholders.
- e HS2 Ltd and the Department should ensure that the rationale behind its key future decisions about High Speed 2, including the implications for the wider network, are clearly communicated to all stakeholders in order to allow the rail industry as a whole to prepare for the future.