

# ICE Briefing Paper: The cancellation of HS2's northern leg – learning lessons

April 2024

## Introduction

In October 2023, UK Prime Minister Rishi Sunak cancelled the northern leg of the High Speed 2 (HS2) rail network, citing costs and changed circumstances.<sup>1</sup> The consequence of that decision is that the UK currently has the worst outcome – a truncated rail line that may degrade rather than improve rail services to the North.

Governments globally are finding that rising costs and delays are making it impossible to follow through on original infrastructure project visions. The cancellation of HS2's northern leg is a symptom of broader market capacity issues that have impacted infrastructure pipelines worldwide. But its problems also run far deeper.

HS2 was first proposed in 2009 and greenlit in 2012. Since then, it has attracted controversy and has been subject to countless reviews. However, it is worth noting the following:

- a) All official reviews since 2009 have recommended that the project should proceed.
- b) Parliament has consistently voted in support of HS2-related legislation.
- c) HS2 has had overwhelming support from the cities that it would open up to new growth opportunities.

The arguments over HS2 have somewhat overshadowed the many positives arising from the project. HS2 has generated investment in businesses, communities and transport links along the route. The project itself has trained and upskilled thousands of engineers, apprentices and other professionals. It has driven forward innovation in delivery practices, including pioneering ways to reduce the impacts of large-scale infrastructure projects.

There is no question about the civil engineering and construction capability to deliver a project of this scale in the UK: the reality of what has been achieved so far on Phase 1 speaks for itself.

The demise of HS2 has attracted wide interest, and given that similar projects will be scoped worldwide, there are many lessons to learn. As a global learning society, the ICE is well placed to lead this work and conduct a definitive study of what went wrong, what went well, how mistakes could have been avoided, and what lessons the profession and policymakers need to learn.

## We want to hear from you

Through Next Steps Programmes, the ICE convenes global public debates to discuss what needs to happen next on key policy issues affecting civil engineering and society. The scope of this Next Steps Programme focuses on decision-making in upstream planning, procurement and delivery on HS2, and the people, culture and context within which those decisions were made.

This briefing paper provides a scene setter for discussing learning lessons from HS2's cancellation. As part of a Next Steps Programme, this paper sits alongside a wider programme of work and will be updated in July 2024.

The information in this initial briefing paper was developed through interviews and engagement, as well as drawing on secondary sources.

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<sup>1</sup> Prime Minister's Office, 10 Downing Street (2023) [PM redirects HS2 funding to revolutionise transport across the North and Midlands](#)

The ICE wants to hear responses from infrastructure professionals and other experts to the issues set out in the paper. In particular, we want to hear from those with insights and evidence we may have missed which would enable new lessons to come to light within the scope of the programme or which would challenge these initial findings and emerging lessons.

Please contact [policy@ice.org.uk](mailto:policy@ice.org.uk) to share your views by **31 May 2024**.

## Approach

This Next Steps Programme on HS2's cancellation reviews decision-making and how the consequences of individual or aggregated decisions may have contributed to Prime Minister Rishi Sunak's final decision to cancel the northern leg of HS2 in October 2023.

Decisions are grounded in fact and value judgements of the individuals or teams involved. Both facts and value judgements are also informed by the context (for example, external factors or organisational culture) within which decisions are made.

A different individual or team within a different context may make different decisions from the ones that were made. How decisions were made was a critical factor that informed the ICE's work in developing this briefing paper.

## The external context behind HS2

In 2005, the Labour government commissioned the Eddington Transport Study to examine the long-term links between transport and the UK's economic productivity, growth and stability. The study concluded in 2006 that the UK's transport network was broadly adequate and the country did not need a high-speed railway. Eddington stated that while the benefits of high-speed rail were likely to be both 'real and substantial', those goals could be achieved by other solutions, perhaps at a much lower cost.<sup>2</sup>

Despite Eddington's recommendations, politicians decided a few years later to take forward HS2. Rail passenger demand continued to grow at pace, while the 2007–08 global financial crisis led policymakers to consider the case for major projects as a way to deliver post-recession economic growth and modernise ageing infrastructure networks.

2009 saw the completion of the West Coast Main Line (WCML) modernisation programme, which began in 1998. The attempt to allow faster and more frequent trains without shutting the line completely and without total replacement of the line was likened to 'open heart surgery on a marathon runner mid-race'.<sup>3</sup>

The ensuing cost and schedule overruns on the WCML, alongside a decade of disruption to passengers and freight, played a large part in subsequent governments' decisions to pursue new-build rail options as opposed to upgrading the WCML further. It also became clear that the WCML modernisation programme would not solve long-term capacity issues.

HS2 is named as a spiritual successor to HS1, which has serviced the Channel Tunnel rail link in South East England since 2007. HS1's construction was finished on time and within its agreed funding envelope. It has delivered significant journey time reductions, greater reliability, and the economic and lifestyle benefits of urban regeneration along the route.<sup>4</sup> The completion and successful operation of HS1 spurred further discussion about new high-speed lines in the UK.

In 2009, the Labour government created HS2 Ltd and, in 2010, following the general election, the Conservative/Liberal Democrat coalition government committed to developing the project.

The formation of the coalition government meant the political constituency dynamics of the route changed: mitigations were made in the form of tunnelling and cuttings to reduce the visual and environmental impact of the project throughout the Chilterns, naturally resulting in increased costs.

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<sup>2</sup> House of Commons Library (2010) [Eddington Transport Study](#)

<sup>3</sup> Rail Engineer (2015) [HS2 – The Story So Far](#)

<sup>4</sup> Steer (2020) [Delivering for Britain and Beyond – The Economic Impact of HS1](#)

## The three most consequential decisions on HS2

### January 2009 – Establishment of HS2 Ltd

In 2009, HS2 Ltd was established by the then Labour government to consider whether there was a case for high-speed rail to the West Midlands and, if so, how it could be achieved.

HS2 Ltd's report later in 2009 estimated the cost of designing and building a line from London to the West Midlands at between £15.8 billion and £17.4 billion, at 2009 prices. Additional costs would include rolling stock at around £3 billion.<sup>5</sup>

An initial assessment in March 2010 of a core network linking London to Birmingham, Manchester and Leeds put the cost in the region of £30 billion (excluding rolling stock).<sup>6</sup>

### February 2020 – Following the publication of the Oakervee Review, then Prime Minister Boris Johnson makes the decision to proceed with HS2

In 2019, Sir Doug Oakervee was asked by then Prime Minister Boris Johnson to review 'whether and how' to proceed with HS2. The Oakervee Review's remit included HS2 Ltd's ability to deliver the project, the full range of costs and benefits, and the potential to reduce costs and reprioritise parts of the project.<sup>7</sup>

The Oakervee Review concluded that, on balance, HS2 should continue. Its reasoning included the cost of cancellation arising from sunk costs, the detrimental impact it would have on the supply chain, rail capacity and reliability challenges still needing to be addressed, and there being no ready alternatives to HS2. However, not all of Oakervee's recommendations were adopted by the government, including recommendations to remove HS2 Ltd's involvement in the development of Euston station.

The outcome of that review was the decision by Boris Johnson to go ahead with HS2. The cost of delivering the entire Y-shaped network was revised from £72 billion to £98 billion in 2019 prices.<sup>8</sup>

### October 2023 – Prime Minister Rishi Sunak makes the decision to cancel HS2's northern leg

In October 2023, Prime Minister Rishi Sunak announced the cancellation of Phases 2a and 2b, as well as confirmation that completion of HS2's London Euston terminus, with a simplified design, would be contingent on private investment. He also announced the allocated budget would be reallocated to other transport schemes. By then, the cost of delivering HS2 – which had already been scaled back with the removal of the eastern part of the network to Leeds<sup>9</sup> – had reached between £53 billion and £71 billion in 2019 prices.<sup>10</sup>

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<sup>5</sup> HS2 Ltd (2009) [High Speed Rail: London to the West Midlands and Beyond, Part 9 of 11](#)

<sup>6</sup> Department for Transport (2010) [High Speed Rail Command Paper](#)

<sup>7</sup> Department for Transport (2020) [Oakervee Review of HS2](#)

<sup>8</sup> Department for Transport (2020) [HS2 6-monthly report to Parliament: October 2020](#)

<sup>9</sup> ICE (2021) [Will the Integrated Rail Plan be a game-changer for the North and Midlands?](#)

<sup>10</sup> Department for Transport (2023) [HS2 6-monthly report to Parliament: June 2023](#)

## Why did the UK Prime Minister take the decision to cancel HS2's northern leg?

In this section, we explore some of the factors and decisions that may have resulted in HS2's cancellation.

Whatever the reason for the Prime Minister's decision, the starting point is that he *could* make the decision. Despite the Department for Transport and HS2 receiving authorisations to spend and permission to proceed through Hybrid and other Bills, ultimately none of that matters if the UK government decides not to act on Parliament's instruction on investment.

The only political control over the Prime Minister's decision was based on how much political capital would need to be expended to make the decision to cancel. However, political support for HS2 had begun to evaporate by the time of his decision, while voters were ambivalent about the project.<sup>11</sup> This meant very little political capital needed to be spent, and despite complaints from senior politicians at the time of cancellation, no one was willing to make cancellation an issue on which to resign. This suggests that political support for HS2 was weak despite significant majorities in parliamentary votes concerning the project. The Prime Minister has exercised his powers to cancel the project; however, previously assumed powers of the UK's executive vs. the legislature are being tested through judicial reviews (most notably on triggering Article 50 to initiate Britain leaving the European Union). Such a review, if used, could test if new primary legislation is needed to cancel the project.

### Why might political support have evaporated?

Political support for HS2 could be seen as being constructed on tactical concessions given to parliamentarians and other senior political figures to secure their support. The buy-in on the strategic case for HS2 would have been shallow.

In addition, HS2 as a project has had to navigate six Prime Ministers, eight Chancellors and nine Secretaries of State for Transport. All of these different senior decision-makers will have had different priorities for why HS2 was important, with some seeing this as a project focused on either speed, capacity, economically connecting the country or demonstrating Britain as a modern country.

These value judgements will have informed the decisions made by senior politicians, resulting in decisions over time not being aligned to a central purpose and, with it, changes to the narrative over the need for HS2.

A second reason political support could have evaporated is that, in addition to changes in senior politicians, the key players involved in developing HS2 also changed. This included CEOs, chairs, senior responsible officers within the Department for Transport and other senior directors across HS2 Ltd and DfT.

Over time, these changes will have resulted in reduced institutional knowledge of previous decisions (and lessons learned so far on the project) and why those decisions were made. Additionally, the changes in personnel will have also meant that intended future decisions, not made but tacitly understood, would have been lost to time. One example is the expectation that HS2 would have used standardised designs for bridges; this was not followed through in procurement decisions.

The final and most well-documented reason for the Prime Minister's decision to cancel was linked to cost increases. As highlighted in the timeline above, the cost of constructing the project had well exceeded forecasts by October 2023. This raised questions about what the final outturn price for the project would be once construction for Phases 2a and 2b had commenced.

At a time of constrained public finances, and a 'cost-of-living crisis', a project that had and would continue to exceed its budgets would have been difficult to justify. This is especially true in a political environment where political support was already weak and where the narrative on the need for HS2 had shifted frequently.

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<sup>11</sup> YouGov (2024) [Support for High Speed Rail HS2](#)

Despite this, some have raised the question of why the decision jumped immediately to cancellation, rather than a pause to take stock and see what could be done to reduce costs while still securing the main benefit of HS2. It has been suggested that this may link to a wider political need which had little to do with HS2, and more to do with building an image for the Sunak government of being willing to challenge the status quo.

The rest of this section explores why the project was sold based on transactional factors, why there were changes in personnel, and why the forecasted costs kept increasing.

### Why was the project sold on transactional factors?

There are three reasons why the project ended up being principally sold to politicians on transactional factors.

The first is that, in the early stages of the project ahead of the 2010 general election, proponents of the scheme decided to move quickly with project planning and development to try to escape politics and overanalysis slowing things down. The lesson learned from previous projects, such as Crossrail (opened in 2022 but where the initial need was identified in 1974), is that even when a need is identified, there is no guarantee that the political system will allow that need to be translated into a project in a timely manner.

As a result of moving quickly, there was limited time to sell a consistent strategic story on the need for HS2. This became a bigger problem as both coalition parties in government after the 2010 election went into that election backing HS2, with limited time for analysis of the need (the initial analysis on the case for HS2 was published in March 2010, less than two months ahead of the 2010 general election). The Conservative Party backed the project in that election as a way to achieve other tactical purposes, principally using it as an argument for why there was no need for a third runway at Heathrow.

From the outset, the discussion about HS2 was focused on transport, not outcomes. With the initial narrative surrounding HS2 framed around the journey time savings from London to cities in the North and Midlands, messaging quickly became unclear – encompassing speed, capacity, economic rebalancing and emissions savings.

The lack of a well-embedded strategic story for HS2 meant that there was a significant cohort of the public who were indifferent to the project. Therefore, it did not take much for them to become detractors, particularly as planning approval and then construction for Phase 1 started.

Separately, the nature of securing planning approval for rail projects in the UK – the Hybrid Bill process – naturally lends itself to granting concessions to constituents in order to secure the support of their MPs for the final vote. The Hybrid Bill process was the second factor that would have reinforced the project being sold on a transactional basis.

Lastly, in the absence of a strong strategic case, many considerations as part of the business case would have been proposed to ensure that the project's benefit-cost ratio (BCR) was high. It has been suggested that aspects of the HS2 project, such as the number of train paths per hour or the design speed of the railway, were pushed to the limits of what was needed. This was to increase the value of benefits to ensure the overall proposal achieved a BCR closer to 2. For example, based on transport modelling in use at the time, time spent on trains was seen as wasted time and, therefore, a faster journey meant more productive use of time off trains.

### Why were there so many changes in personnel?

There are two reasons why there was so much change in personnel. The first is the changing nature of HS2 Ltd's role. Initially set up to examine the case for high-speed railways to the West Midlands, the organisation then scaled up significantly to be an organisation focused on getting the Phase 1 Hybrid Bill into and through Parliament. It then changed again to be the organisation responsible for delivering the project.

Each change in role for HS2 Ltd would have seen key people move on as the objectives of the organisation changed, but also a project of this length would have naturally seen key people move on over time. For example, those brought in to make the case across Whitehall and secure political buy-in may have preferred to move on once the delivery stage commenced. Similarly, specialist talent would have been brought in to deliver the Hybrid Bill. With each change, there was also a change in the culture, behaviour, focus, strategic alignment and organisational balance of HS2 Ltd.

The second reason is the nature of UK politics over the last 15 years. Ministers in the UK often change frequently, with Prime Ministers undertaking reshuffles of Ministerial portfolios to meet political objectives or to fill gaps left by resignations.

Over the last 15 years, however, the changes have been unprecedented. Since 2009, the UK has had six Prime Ministers, nine Secretaries of State for Transport and eight Chancellors. Compare this to the 15 years before 2009, when the UK had three Prime Ministers, seven Secretaries of State for Transport and three Chancellors.

Some of these changes were the result of general elections; these elections also saw changes to the Members of Parliament serving on the Hybrid Bill Select Committee, which determined appropriate mitigations along the line of the route.

Frequent political changes will have resulted in many changes in the political case for HS2, as well as the depth of political buy-in from those accountable for the political outcomes of the project.

### Why did costs go up?

While politicians may have had a loose awareness of the case for HS2, one thing they would have been very aware of is the increases in the forecasted budget for construction. Many of the reasons why construction forecasts fail to meet outturns on major projects have previously been explored by the ICE,<sup>12</sup> and many of these have been addressed through the development of the Construction Playbook (even if governments have failed to reinforce the Playbook as rigorously as they should). This section explores four of the most striking reasons why HS2's forecasted costs would have escalated.

#### Unrealistic budgets given the limited design

The first is that unrealistic budgets were set for the project from the start in 2010, given the limited knowledge and level of detailed design work at that stage. Designers would have been aware that the Hybrid Bill process would introduce revisions to the line of the route, while other mitigations also surfaced (such as tunnelling), which would have added significantly to the cost of the project.

#### Short timescales for conceptual planning

Second, the initial study by HS2 Ltd in 2009 into the case for a new high-speed line was given a deadline of less than a year in order to be completed before the 2010 general election. This limited the ability to be adaptable in the conceptual stage of the project, which is the stage where costs are lowest and flexibility is highest.

This initial study also recommended a preference for world-class design and designing a railway for 'the next 200 years' (hence the design speed of 400 km/h); this preference came with increased costs compared to a more conventional railway. We have been told that the cost difference between a conventional railway and a high-speed railway (as designed for HS2) was 10%, and therefore, given the additional benefits of a high-speed railway, this was preferred.

However, it is not clear what HS2 design the conventional railway was compared against, and at 10%, the difference in costs would now amount to close to £10 billion.

#### Inflation

Inflation has also clearly been a factor. The forecasted budgets will have been re-baselined to factor in inflation, as is standard practice. However, since the end of the Covid-19 pandemic, inflation has been significant across the economy, particularly within the construction supply chain, with material and labour costs outpacing inflation across the whole economy.

#### Procurement and contracting

Perhaps the most striking cause for an increase in costs was the approach taken to procurement and contracting of Phase 1 of HS2. There were three factors at play in this space which had cascade effects on the costs.

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<sup>12</sup> ICE (2019) [Reducing the gap between cost estimates and outturns for major infrastructure projects and programmes](#)

### *Size of contracts*

The first is the size of contracts. HS2 Ltd originally tendered seven contracts. This was driven by a concern, following the collapse of Carillion in 2018 and with Crossrail in construction, that individual contractors would not be strong enough and would need to work through joint venture arrangements. There was also a view, learned from Crossrail, that smaller tenders introduced too many interfaces which then had to be managed and assured, with significant levels of costs and time involved in oversight for the client.

Following the awarding of contracts, successful bidders utilised a provision in their contracts to combine their lots; the seven original tenders became four. The size of these contracts meant an imbalance of power would have occurred between contractors and HS2 Ltd – especially as there was a drive to move as quickly as possible with delivery.

On its own, this approach to the size of tenders may not have been a problem. However, coupled with other decisions it had a cascade effect on costs.

### *Transfer of design and assurance to contractors*

Second, again, the learning from Crossrail was to reduce interfaces, and the decision was taken to pass design and assurance for project assets to contractors. This had two effects. The first was to get rid of the expectation that project assets would be standardised, therefore reducing costs through economies of scale (e.g. bridges and other structures). The second was to remove the ability of HS2 Ltd to play the role of 'guiding mind' for the ongoing technical development of the project, which had implications for the ability to manage costs.

### *Approach to managing risk*

The third factor is that if design and assurance for project assets were being passed to contractors, then HS2 Ltd also had to transfer risks of long-term deterioration 100% to the supply chain, which introduced a conservative approach to design and, with it, a higher cost of construction. It has also been suggested that project assets were being designed to meet the price, which then pushed the approach to a cost-reimbursable model rather than one based on should-costs.



## Emerging lessons

### **There is a need for better corporate governance on who makes decisions, and how and when these decisions are made**

HS2 Ltd morphed into various guises throughout its lifetime. First, as an organisation focused on concept and design. Then, as an advocacy body that scaled up significantly to develop and deposit the Phase 1 Hybrid Bill, bringing in a development partner to support this. Then, later, as a delivery organisation, while also focusing on the Hybrid Bills for Phases 2a and 2b.

While staff turnover is to be expected across a government-sponsored project in a 15-year period, over the series of Ministers and officials involved in HS2, the project failed to hang onto corporate memory. Mitigating procedures need to be in place to prevent the loss of knowledge as part of that personnel change.

It became unclear who was making decisions, how they were made and when, and whether those decision-makers had all the information required to make informed decisions.

An individual major project, such as HS2, often has many clients and owners, who set up practices and governance processes which are individual to that project. One factor of concern is the duplication of roles – with the same functions appearing multiple times between senior contractors, clients and sponsors. There is an element of ‘checkers checking checkers’ which can impede decision-making and add layers of oversight without necessarily adding value.

The lack of a coherent organisational model that was regularly reviewed and updated – ahead of each key decision point – was perhaps one of the root causes of the misalignment and unrestrained decision-making around scope.

When Crossrail ran into cost and time overruns in 2018, Ministers in the Department for Transport became concerned that the lack of departmental oversight on that project had resulted in problems being ignored until too late.

At a time when DfT should have been allowing HS2 greater freedom as it ramped up for the start of construction, instead further oversight was applied to ensure a Crossrail-esque situation did not occur. In addition, this was not the type of oversight required – there was a lack of technical design oversight to ensure that what was being built represented value for money.

### **There is a need for stronger client and departmental capability – particularly on technical assurance and ‘owning the project’**

During discussions, we have heard from stakeholders that the model of departmental sponsorship works. But only if it is reinforced by strong departmental capability and robust advocacy.

2017, in particular, marked a pivotal moment for HS2. During a period of political upheaval following the EU referendum, there were numerous ministerial and staff changes just at the critical point when HS2 Ltd was ramping up to become a major delivery organisation. The loss of ‘guiding minds’ and champions for the project meant that the capability to challenge the design and costs was eroded across the government, DfT and HS2 Ltd.

Technical aspects of the project were outsourced to contractors, and there was an increasing reliance on consultants. In amongst this, there was no ‘challenge panel’ of independent experts.

### **The contracting approach did not set the project up for best-practice delivery**

As outlined in this paper, one factor that led to an increase in HS2’s costs was the approach taken to procurement and contracting of Phase 1.

The size of the contracts used on HS2 Phase 1 – which included design and build aspects – meant that contractors were in a more dominant position to make demands on changes to contract terms. The increases in cost that resulted from this

ultimately led to HS2 Ltd pushing back the 'notice to proceed' deadline initially from November 2018 to June 2019 to allow contractors to reduce costs, later revised to April 2020 following the Oakervee Review conclusions.

With these contracts including design and assurance aspects, the expectation that many project assets would be standardised was lost. It also resulted in HS2 Ltd losing the ability to act as the 'guiding mind' for the ongoing technical development of the project, eroding its capability as an intelligent client.

### **Major projects and programmes require clarity and consistency on outcomes to achieve political and public buy-in**

From the outset, the discussion about HS2 was focused on transport, not outcomes. The Oakervee Review noted with surprise that HS2's business case did not try to estimate many potential benefits to the UK economy in the project's benefit-cost ratio, such as changes to land use through commercial and residential development.

While the initial narrative and business case for HS2 was framed around journey time savings from London to cities in the North and Midlands, the messaging then became unclear – encompassing speed, capacity, a project to put Britain on the map, economic rebalancing and emissions savings – particularly when spread over so many different decision-makers and a period of 15 years.

Confusion about outcomes and the wider value of a project also leaves nothing to judge decisions against when problems with projects are inevitably encountered. Policymakers will, therefore, often narrow decisions down to a single lens – the cost.

Constrained public finances and the frequent shifting of the narrative on the need for HS2, resulting in eroded political support, made the Prime Minister's decision to cancel the northern leg of the project in October 2023 easier.

### **Any programme of this scale and significance needs to spend more time in development**

In the conceptual stages of a project, flexibility is high and cost expenditure is low.

Spending time understanding what is required and acceptable, including how it compares with alternative options, and more focus on design detail and how this translates to delivery, is vital. More development at this stage should help lead to a shorter planning consent process.

As far back as 2019, the ICE recommended that scope, design and exploration should be completed before commencement of work is allowed, to avoid scope creep and to limit later changes, as well as to include contractors in design at an early stage.<sup>13</sup>

HS2 developed incredibly quickly from a concept in 2009, through to a public consultation on the route in 2011, to then being given the green light by the Conservative/Liberal Democrat coalition government in early 2012.

A large amount of work was undertaken by HS2 Ltd in a ten-and-a-half-month period in 2009. The short timeframe was precipitated by the upcoming 2010 general election, with concerns from a then Labour administration that a new government would not proceed with HS2 if detailed designs were undeveloped.

In this short time, HS2 Ltd conducted a route engineering and alignment study between London and the West Midlands, station layouts, facilities and passenger circulation, a demand model to provide transport forecasts, environmental and sustainability reports, as well as the business case appraisal. That such a vast amount of work was completed in a short period is a remarkable achievement.

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<sup>13</sup> ICE (2019) [Reducing the gap between cost estimates and outturns for major infrastructure projects and programmes](#)

However, it is likely that not all factors affecting the cost were considered and, due to the speed with which HS2 Ltd's initial proposals were developed, the opportunity to build in greater flexibility was lost, the government of the day being keen to act quickly to accept the proposals and avoid the project becoming embroiled in a political row.

The proposals that emerged from this work included a preference for world-leading design, longevity and a very high line speed of up to 400km/h – all of which had cost implications and consequences. It is unclear how rigorously these proposals were scrutinised and challenged.

## Conclusions and next steps

In all of this, it is important not to forget the need for additional rail capacity on the UK's key rail corridors, between London, the Midlands, the North West and North East of England and into Scotland. What has been contested is whether this capacity could have been met through new, faster routes or whether alternatives could have been delivered more cheaply while offering similar benefits.

Demand for more rail capacity is being driven by population growth and the post-Covid-19 pandemic recovery in rail use. Better rail connectivity is needed to rebalance the UK's economy and accelerate regional growth. Surface transport is also the largest source of carbon emissions in the UK, mostly from road transport, meaning moving passengers and freight from road to rail is crucial for the UK to achieve net zero by 2050.<sup>14</sup>

As noted at the outset of this paper, the decision to cancel the northern leg of HS2 has left the UK facing the worst outcome – a truncated rail line that may degrade rather than improve rail services to the North.

The issues set out above do not tell the full story behind the decision-making that brought the country to that point. These are not the only lessons – positive and negative – that need to be learned from the experiences of the past 15 years.

The ICE is keen to hear challenges to the views in this paper as well as further evidence, insight and suggestions about what HS2 can teach policymakers, civil engineers and other stakeholders. Robust, open debate is key to improving how the UK plans infrastructure that meets its strategic needs and how it delivers major projects.

To share your views please contact [policy@ice.org.uk](mailto:policy@ice.org.uk) by **31 May 2024**. An updated briefing paper will be published later this year following further engagement.

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<sup>14</sup> National Infrastructure Commission (2023) [Second National Infrastructure Assessment](#)

## About the ICE

The Institution of Civil Engineers (ICE) is a 97,000-strong global membership organisation with over 200 years of history.

It is a centre of engineering excellence, qualifying engineers and helping them maintain lifelong competence, assuring society that the infrastructure they create is safe, dependable and well designed.

Its network of experts offers trusted, impartial advice to politicians and decision-makers on how to build and adapt infrastructure to create a more sustainable world.

This project supports the ICE's strategy by outlining how better strategic planning and prioritisation of infrastructure, alongside improving infrastructure delivery, are crucial in helping to achieve better outcomes for society.

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