

Submission to Transport Committee Major Transport Infrastructure Projects: Appraisal and Delivery Inquiry from High Speed Rail Group

Transport infrastructure strategy and priorities

The Government's transport infrastructure priorities, including those set out in the National Infrastructure Strategy

1. HS2 will provide a new national transport spine for the country and will be a flagship infrastructure programme as the nation seeks to 'build back better' from Covid-19. The scheme has the potential to reshape the country, as outlined in HSRG's report [Why Britain Needs HS2](#). To ensure that maximum benefit is realised, the phased construction of HS2 must be fully completed, along with complementary schemes including Midlands Engine Rail and Northern Powerhouse Rail. High speed rail can have a transformative impact on our country, creating a stronger, more sustainable and more productive economy, where every nation and region shares the opportunities created by economic growth.
2. Missing from the National Infrastructure Strategy was the development of high speed rail for the Anglo-Scottish market, removing existing uncertainty on the future of cross-border travel. Through a mixture of new high speed lines and the upgrading of existing lines, joining the HS2 route to Scotland would enhance connectivity between the two nations by cutting travel time between London and Scotland to just over three hours. Our report [High Speed Rail and Scotland](#) evidences the benefits derived from capacity and connectivity gains that cover both person travel and freight.
3. As outlined in our response to the [Government's Union Connectivity Review](#), the provision of a cross-Irish Sea rail tunnel with connecting rail links to Carlisle and Belfast could also be considered. This would bind Northern Ireland closer to Great Britain and help address challenges in the post-Brexit Northern Ireland economy, as well as increasing connectivity for South West Scotland.

The contribution transport infrastructure can make to the Government's 'levelling-up' agenda and the economic growth of the UK's towns, cities and regions outside London

4. HS2 will be the cornerstone of the Government's vision to level up Britain – transforming regional economies of the Midlands and the North which suffer from huge economic imbalances, with productivity in London some 40% greater than in the North. The scheme will rebalance the economy away from the London and the South East and bring Britain's towns and cities closer together. HS2 releases capacity on the existing network and provides new capacity – research from Midlands Connect has shown that 73 stations on the existing rail network stand to benefit from improved passenger services as a direct result of the of the capacity released by HS2, including 54 stations with no direct HS2 services. HS2 is also integral to the economic and growth plans for local areas and regions, and already investment has started to flow into areas because of the new railway. In addition, HS2 supports a wide supply chain and multiple businesses across the country.

5. Harnessing the benefits of HS2 therefore needs to be maximised as part of the levelling up agenda. This was attested to in our reports [HS2 North West Voices](#) and [HS2 Midlands Voices](#), in which regional figures from politics, business and civil society spoke of the importance of the scheme to their economies. As Paul Faulkner, CEO of the Greater Birmingham Chambers of Commerce wrote in our Midlands Voices report, HS2 will be fundamental in ‘realising the Government’s long held ambition to move away from a reliance on the South to drive economic growth and bring prosperity to all four corners of the country.’
6. There are other improvements that could be made to the UK’s rail network that would have a significant impact on the levelling up agenda. As outlined in our submission to the Government’s [Union Connectivity Review](#), these include converting the ‘Y’ shaped HS2 network into an ‘X’, providing a direct connection between Cardiff and Edinburgh and bringing the UK’s capital cities closer together with the provision of direct rail connections currently missing between Cardiff and Sheffield, Leeds, York, Tees Valley and Newcastle. In addition, the development would improve Cheltenham/Gloucester’s rail connectivity and make South Wales a beneficiary of HS2. Whilst beyond HS2, another upgrade that would positively impact levelling up could be improvement to the connection from Cardiff – Liverpool/Manchester. Upgrading the Newport-Crewe railway to accommodate additional and faster services would result in cross-border link enhancements, provision of better north-south cross-Wales connections and better connectivity for the economically weak English border counties, especially Herefordshire.

To what extent the coronavirus pandemic and its longer-term implications affects the necessity and cost-effectiveness of current and future major transport infrastructure projects

7. As the country looks to recover from Covid-19, HS2 will form an important part of the economic programme ahead, particularly as it is a scheme that is not just ‘shovel ready,’ but underway following the start of main construction works in September 2020. It provides highly skilled jobs and supports a wide supply chain, and there are currently 13,000 direct jobs on the HS2 programme, a figure which will rise to 30,000 at peak construction. This will in turn build a new export capability as high speed rail continues to expand worldwide. HS2 demonstrates the relationship between effective major infrastructure and the multiplier benefits that flow from this. The scheme will also build much needed resilience within the transport system.
8. Though the pandemic has impacted travel patterns, we know that the rail network can and will bounce back. As outlined in our report [Building Back Better: The Green Case for Rail Investment after the Pandemic](#), passenger transport usage in the UK has increased relentlessly over the last two centuries, and rail travel demand has more than doubled since 1994. Increasing railway patronage to pre-pandemic levels will be essential if we are to meet the Government’s net zero carbon emissions commitment by 2050. Post-pandemic, high speed rail creates the opportunity to become the sustainable travel mode of choice in the leisure and long-distance (as well as business) travel markets – which account for the majority of carbon emissions. As a new national transport spine, HS2 will be essential to this endeavour.

How major transport projects can be delivered while ensuring the Government meets its decarbonisation 2050 net-zero targets

9. As we lay out in our report [HS2 – towards a zero carbon future](#), the delivery of HS2 is leading the way in environmental construction. HS2 will have a climate impact equivalent to less than a hundredth of UK aviation emissions or 0.5% of current road transport emissions. The HS2 enabling works have seen an outperformance of 20-30% in reducing embedded carbon and for main works the target is 50%. The scale of the HS2 programme provides lessons in low carbon construction can drive change in other programmes as part of a ‘green recovery.’
10. Critically, in addition to emissions, how the delivery of major transport projects impacts nature should also be considered. While there will inevitably be visible impacts on local environments during HS2’s construction, just as there have been with other infrastructure projects like HS1, the string of nature reserves that have since grown up along the route shows how building railways can go hand-in-hand with nature restoration. HS2’s flagship ‘Green Corridor’ takes these ambitions to the next level, restoring and enhancing habitats and delivering ecological connectivity at the landscape scale. As highlighted in our report [High Speed Rail and Nature Networks](#), HS2 is at the centre of new thinking and best practices, including revolutionising the collection and usage of green data across the supply chain, setting new standards on how large infrastructure projects can deliver environmental net gain and share species data and licensing.
11. As we look to rebuild our economy and communities, we should aspire to rebuild better than what has gone before. Once operational, HS2 can play an essential role in the environmental recovery and as we head towards net zero, and the fundamental change that is needed to the way people and freight move around. As outlined in our submission to the Government’s Transport Decarbonisation Plan - [Decarbonising Transport: Setting the Challenge](#) - high speed rail is particularly critical in decarbonising long-distance travel, and the ever increasing leisure travel segment.
12. Domestic UK flights saw a reduction in volume in 2020 as a result of Covid-19, and this presents an opportunity to accelerate transformative rail upgrades to create a long-term carbon beneficial domestic modal shift and reduce the need to fly. We can be inspired here by the success of HS1, which has reduced CO₂ emissions by the equivalent of 60,000 short-haul flights every year. Equally, providing a high capacity, higher speed and resilient rail connection between England and Scotland to open in the early 2030s with a journey time of approximately three hours should be a flagship measure to make high speed rail services even more competitive to flying, shifting the busiest domestic aviation routes and long distance freight to rail.

Appraisal and funding of transport infrastructure

The effectiveness of the Government’s decision-making and appraisal processes for transport infrastructure projects and any changes required to the ‘Green Book’

13. The business case for rail schemes is hindered by the current approach to transport forecasting and appraisal, such as the DfT’s Transport Appraisal Guidance (TAG), which assumes far lower rail growth in the future than the historical growth seen over the past 25 years that has been as high as 4.2% per annum for the market most relevant to HS2.

The refreshed business case for HS2 noted the DfT assumed an annual growth rate of 2.2% in 2013, then lowered that to 1.9% in 2018 but that long-distance growth since 2011/2 has been 2.8% - over a decade when fuel duty was frozen, but rail fares have increased above inflation.

14. TAG requires capping rail growth 20 years after the start of the appraisal period. For HS2 this means ignoring the huge potential growth that would be unlocked once the whole HS2 network is completed. The “high” demand scenario for HS2 only assumed 16% higher usage, a figure that could easily be attained in a few years of a 60 year appraisal period. Even that small change would increase HS2’s Benefit Cost Ratio by 40%. Given the priority to accelerate modal shift, it is clear that new assumptions—rather than forecasts that have been shown repeatedly to underplay rail’s potential—are rapidly required, not least to build the case for the Integrated Rail Plan for the Midlands and the North.
15. In addition, the Government should reform engagement processes and consenting mechanisms for nationally significant infrastructure projects, to move us from adversarial processes dating from the 19th century, to ones fit for the 21st. The Government should also expand environmental assessment rules so that planning of schemes considers the strategic potential for restoring nature, not simply minimising harm to what is currently there. Greater focus should be given to impacts on and potential benefits for key species. This is outlined further in our [High Speed Rail and Nature Networks](#) report.
16. The aforementioned report also highlights that consideration should be given, where appropriate, to the need for working across departmental boundaries to ensure that wider benefits beyond the direct control of the delivery organisation are realised. Recognising there is no such thing as simply an engineering project – in the case of HS2, which is as much an environmental project as a transport one, this could mean bringing in departments including Defra.

Factors influencing the cost of transport infrastructure in the UK

The reasons for continual high costs of major transport infrastructure projects, both past and present, and whether projects could potentially be delivered in a more cost-effective manner

17. Costs could be reduced through certainty and a clear pipeline. The UK has a tendency of stop/starting rail investment and in order for a project to succeed, there needs clear requirements from the outset that don’t change. Clarity on the scope and aims of HS2 and high speed rail more broadly will help bring clarity on costs.
18. So too, the consenting process adds costs, for example in the case of HS2 additional tunnelling requirements as a result of petitioning.
19. Ultimately, we should see funding a national high speed rail network as an ongoing programme of committed spending year on year rather than a standalone project – similar to other countries with hugely successful and extensive national high speed rail networks such as France and Spain.
20. We recognise that long-term funding programmes can be challenging for HM Treasury which will face changing and unforeseen national financial circumstances in the years ahead. But high speed rail does not need a return to the now-abandoned PFI or PF2 to deliver a genuine cash injection to the Treasury.

As was found with HS1, once built and proved in service, high speed rail is attractive to pension-funds and other long-term investors and a concession model can return £bn to Government. This opportunity is an important counterbalance to the commitment needed to fund high speed rail investment over the longer term and it is an attribute not shared by any other comparable investment area.

What lessons can be learned from other countries in the delivery of major transport infrastructure projects

21. There are lessons in looking how consenting operates and nature assessed as per our [High Speed Rail and Nature Networks](#) report. Learning from schemes and processes in France, for example, engagement should be front-loaded through deliberative processes to build the cooperation with local communities and land managers needed to increase ecological connectivity.

Transport infrastructure capacity and skills

The extent to which there is enough capacity and the right skills within the UK to deliver the Government's transport infrastructure plans, and options to help address shortages in transport infrastructure skills.

22. HS2 will develop the industry's pool of technical skills to not only design and build HS2, but to deliver Britain's future infrastructure ambitions, and leave a lasting skills legacy for the country. With almost 2,000 apprentices currently working on the scheme, HS2 will provide a once in a lifetime opportunity to train and upskill the next generation of young people, who will deliver future infrastructure and rolling stock projects. HS2 is already supporting 13,000 jobs and is set to support 30,000 jobs at peak construction and train building activity.
23. At HSRG, we have created our own High Speed Rail Apprentice Network, launched in February 2020, with the aim of connecting apprentices from across the high speed rail space and will look to demonstrate that the rail and infrastructure sector is a high quality place to work. Apprentices have a unique experience at work and network members use their own first-hand experiences to communicate best practice in the sector.
24. Ultimately, beyond HS2, the best way to further build expertise in the sector is a long-term infrastructure pipeline. Such certainty of the programme ahead would enable companies to make forward thinking investment in their skills and training programmes.