REDESIGNING OUR RAILWAYS

October 2019



HS2 NORTH EXECUTIVE SUMMARY

The future of the High Speed 2 rail line, linking the North, Scotland, the Midlands and London with reliable, frequent and shorter journey times — revolutionising capacity on the UK rail network — is under question. A government decision, partly based on evidence to be presented by the Oakervee review, is expected by the end of 2019. At the moment of writing, all options remain on the table; including the intriguing option suggested by government of delivering the project from North to South.

This review sets out the practical and achievable steps to rebalance the economy and play a significant role in eradicating the North-South divide. It has been directed and overseen by an independent panel of experts, including former Chief Executive of Manchester City Council Sir Howard Bernstein, Bruntwood CEO Chris Oglesby, Kevin Hollinrake, MP for Thirsk and Malton, Paula Dillon, former senior lawyer in Yorkshire and Councillor Nick Forbes, Leader of Newcastle City Council and supported by a secretariat. With the regional income gap at the highest level in 100 years ⁽¹⁾, it is essential that we invest in productivity-enhancing projects in the North, but also make sure that we better connect Northern cities to those in the Midlands, Scotland, Wales and London. Investment in the North in isolation will neglect a once in a generation opportunity to maximise economic gains from rebalancing the UK economy.

"The panel is clear – the evidence shows that scrapping HS2 or simply delivering upgrades to the existing network and still fully closing the North-South divide would not be achievable."

This review sets out extensive economic evidence from growth strategies produced by our city regions. Yet the potential for land use changes being valued (not included in the national HS2 business case), unlocking Manchester Airport as an intercontinental gateway, the benefits to innovation in construction from building the line and need to reach net zero emissions by 2050, are not fully quantified and are the basis for significant further work. In the time available, neither the Oakervee Review nor this panel had the opportunity within the government's timetable to undertake new analytical work. Before a politically-driven decision to cancel any element of HS2 in the North is taken, further work to piece together the economic impact on the North's towns and cities needs to be brought forward with oversight devolved to Mayors and civic leaders – as it should also be for delivery over the coming three decades.



EXECUTIVE SUMMARY

Our report:

- **Recommends** the establishment of HS2 North a special purpose vehicle working with the private sector to integrate HS2 and Northern Powerhouse Rail (NPR)
- **Articulates** a 20% increase in the transformational economic impact to the North of delivering NPR along with building HS2, with £1 in every £5 generated from building a new East West line as a result of long-distance journeys onto HS2 ⁽²⁾
- **Warns** that only by investing in a new, integrated high-speed network can the historic North-South divide be tackled; upgrades or scrapping HS2 have none of the prerequisites to tackle the UKs geographic imbalance
- **Identifies** parts of the new and upgraded line network that can be delivered now including connecting Northern cities to each other the North will not accept waiting until 2040 for HS2 to connect Northern cities to Birmingham, London, Newcastle and Edinburgh





HS2 NORTH INTRODUCTION

The North of England was the birthplace of the railway. The first passenger trains, which ran from Stockton to Darlington, were soon followed by services linking Liverpool and Manchester, leading to a national expansion in railway building. Yet since the Victorian era, the North has seen almost no investment in new rail lines.

"The underlying reality of the UK economy is that it is historically unbalanced. There is a North-South divide, with the many assets and opportunities outside London and the South East inadequately exploited."

The Northern Powerhouse, launched in 2014 by then-Chancellor of the Exchequer George Osborne, was established to eradicate this divide once and for all. Linking the North's great cities and towns with enhanced connectivity to each other, the rest of the UK and the world, can create a virtual, high-skilled city across the North generating greater productivity. Progress has been made, particularly in devolving more power and authority to the North. But without significant infrastructure investment, the divide will never be fully tackled.

The solution proposed included investment in major innovation, industrial and infrastructure projects – High Speed 2 (HS2), the UK's attempt to drive economic rebalancing to both the North and Midlands – and Northern Powerhouse Rail (NPR). Creating a high-speed network North to South and East to West would stimulate growth, encourage investment from businesses in the UK and overseas and allow school leavers to explore skilled job opportunities across a wider geography. Crucially, the projects would allow for much-enhanced capacity, unlocking increased local services as well as capacity for freight.

Economic growth scenarios point to a potential aggregate gross value added prize for the North of £1,008bn between 2035 and 2050. If transport investment unlocks just 10% of this prize it would deliver £100bn. (3)

As with any major project, HS2 has not been without its vocal critics. Yet it has been backed by both regional leaders and leading national politicians on a cross-party basis. The Oakervee review was set up to look at the evidence, as well as alternative delivery approaches – such as starting in the North rather than the South and integrating with NPR.



HS2 NORTH INTRODUCTION

This review by an independent panel will consider the case from a Northern Powerhouse perspective of increasing connectivity and capacity, the efficacy of HS2 and the dangers of the scheme being cancelled (if it was to be seriously considered). The view of the panel is that cancelling HS2 without credible and viable alternatives, or simply upgrading existing lines, will fail to secure many of the transformational benefits to the UK economy this country so badly needs.

The existing evidence for HS2 is already compelling, but does require further development; in particular to ensure it does not become a narrow engineering project rather than the rebalancing asset in can and must be. It has to be transformational, redesigning city centres and encouraging business investment. HS2 would take thousands of cars and lorries off the road, reduce the economic requirement for domestic air travel, and will be a significant contributory factor towards the country's aim of net zero carbon emissions by 2050 without making unnecessary economic sacrifices. It will link far more effectively the economic powerhouse of the North with the engine of the Midlands.

Our review reveals for the first time publicly the economic benefits of doing both NPR and HS2 together – 20% of the benefits of NPR are delivered from the long distance journeys on the HS2 network. A third of this comes from the crucial Liverpool to London link NPR and HS2 deliver. This increased contribution to the economy of the North and the wider UK undermines the argument of those who suggest the North's business and civic leaders should be forced to choose between either HS2 or NPR. Simply delivering NPR on its own, quite apart from the major issues with a continued lack of capacity that would result from not delivering HS2, would still require £10bn of the HS2 budget to be spent. Far from taking money away from local services, HS2 and NPR will provide the capacity relief badly-needed by commuter routes and encourage people off the roads and onto trains.

Furthermore, our review proposes that the North and Midlands must take control of the nation's high-speed network, integrating HS2, NPR — a major priority of Boris Johnson and his government — and linked upgrades to existing lines. This should be democratically-controlled with thoughtful development of the existing mechanisms, driving the priorities of a special purpose vehicle (SPV), bringing in private sector expertise and working closely with Network Rail. We propose that this SPV — HS2 North — should commission and carry out analysis of further options with the aim of extracting as much value for the North and the wider UK.



INTRODUCTION

HS2 North must also be responsible for building stations across this part of the high-speed network. The transformative nature of HS2 North's delivery supports the case for Government funding. If affordability is an issue, the Government needs to take a more open approach to unlocking investment that is able to directly access commercial returns and does not rely on wider potential business benefits. This could unlock significant additional private investment, such as to help enable the work of the Liverpool Station Commission.

Work needs to start immediately, as recent delays meaning that HS2 may not arrive in the North until 2040 are counter-productive to rebalancing. In this review, we identify a series of immediate upgrades – such as up the East Coast mainline from York to Newcastle, between Sheffield and Chesterfield/Goldthorpe, between York and Leeds and further elements of NPR that Network Rail can lead on – that should be underway now. Only by delivering an integrated high-speed network right across the North can the Northern Powerhouse vision be truly realised, with stations from Darlington to Carlisle to be upgraded and ready for HS2 and NPR.

This review has been based on an extensive review of the economic evidence, published alongside a piece of economic analysis by Steer Economic Development.





HS2 NORTH THE CASE FOR CAPACITY

"Capacity is not as exciting as speed, or as eye-catching as rapid journey times. But is it the key to a rebalanced economy and a fair, balanced country that works for everyone."

Rail passenger numbers cannot continue to rise, as they have in the past two decades, without extra capacity being released. At peak times and on certain parts of the network, such as south of Sheffield and on entering Manchester, the conventional network is as challenged as any train services entry point to London.

The North's need for better connectivity is frequently debated in a political context, but understanding the rationale behind it economically is more important. It is also necessary to properly unpack why different types of connectivity reinforce the cost effectiveness of other investments, creating a multiplier effect between building inter city links both North-South and East-West.

The Northern Powerhouse Independent Economic Review (NPIER) ⁽⁴⁾ showed that a transformational scenario, including better transport alongside skills, enterprise and innovation, would generate an additional £1,000bn of GVA between 2035 and 2050 as long as constraints to growth are removed. ⁽⁵⁾

The North is constrained on all four types of connectivity that an economy needs:

- Intra city transport matching jobs to skills; for example the lack of an effective mass transit system in the Leeds City Region.
- Inter city regional transport, where we struggle to match high level skills to appropriate jobs.
- Inter city national transport, either to London or the Midlands.
- International transport for inward investment and exports, where Manchester Airport has extensive global links but a constrained accessibility to the wider North.



HS2 NORTH THE CASE FOR CAPACITY

In order to address low productivity, where the North is 25% behind the UK average, inter city and intra city regional transport are key enablers. They are not a zero-sum game, because in order to establish an integrated economic strategy both are necessary and perform different functions. However, practically they often interconnect in the daily life experience of those who live and work in the North, due to the fact that most journeys to Leeds, London or Liverpool start from a place that is not adjoining a major transport interchange.

While HS2 is not, despite what its critics believe, simply a means of getting to London more quickly, it is vitally-important to increase capacity on lines in and out of the capital; into Manchester, Leeds, Sheffield, Liverpool, Newcastle and wider Northern towns and cities as well as other major regional economic centres such as Birmingham, Derby, Nottingham, Edinburgh and Glasgow.

It is hard to underestimate the macro economic impacts of changing land use by moving functions to rebalance the economy. Both the 2013 and 2017 HS2 economic cases essentially disregarded land use change and private sector investment. It is accepted that overall job creation may be of limited interest in most transport appraisal, if you believe the investment would have happened anyway, such as an activity like traditional high street retail. The motor industry and financial services would both be examples of industries where areas of the Northern Powerhouse, such as the North East or the city of Liverpool, are competing with international opportunities – not simply relocating jobs from London.

Interestingly, of course, the government's transport appraisal methodology does not capture functions such as the effect of the relocation of a major business like Channel 4 to the North, and assumes that when a job is moved to a city such as Leeds it takes on the average productivity and economic value of that place, rather than from where it has been transferred. In the principle of 'Northshoring' of jobs, this is an inappropriate assumption to make.

Five years on from the development of the Northern Powerhouse as a government policy, the inherent realities of examples of rebalancing – in this case retaining a distribution of activities where only functions which need to be in London being based there – is entirely absent from the methodological thinking applied when seeking public investment to underpin rebalancing. Transport appraisal assumes that a government policy which has existed now for half a decade, as the Northern Powerhouse has, is either irrelevant or destined to fail. If the government is serious, it has to consider a strategic case alongside the tools of economic appraisal, and recognise the blind spots.



HS2 NORTH THE CASE FOR CAPACITY

If the government's commitment to Global Britain is to be meaningful, then inter city national transport, and inter city regional links to enable international connectivity, have to become questions of economic competitiveness. The need to model land use to understand where connectivity could stimulate economic rebalancing – large scale agglomeration of the North to create a Northern Powerhouse – is clear and present. It is only by understanding what stations as centres for economic growth could achieve that we can start to evaluate the full opportunity which the current projects open up. Leeds station, for example, needs a joined-up strategy – wider than individual projects and becoming the catalyst for the economic masterplan for the south of the city.

The original policy solution, made before the Northern Powerhouse concept was fully developed, was without an intercity regional policy solution. This is now no longer the case, and any cancellation decision for parts of HS2, and the knock-on effects on the proposed network for NPR, would be withdrawing elements of a linked package of projects.





HS2 NORTH CROSSRAIL CASE STUDY

In a similar way to HS2, Crossrail has faced criticism of late, particularly around delays and overspend. However, as a model for how a major infrastructure project is delivered and how a funding mechanism is established, there are helpful parallels to be drawn.

To date, Crossrail is the UK's largest transport project. As such, its ambition and scale required an innovative funding model, working in land value capture and a contribution of two thirds of the overall cost from the private sector. Treasury officials, who initially wanted the project to be completely paid for by private money, later only committed to fund a third of the scheme. Businesses, alongside groups that represent them such as London First, made the case for investment persuasively, basing the proposition largely around the necessity of major infrastructure for sustained economic growth in the capital.

The other principal drivers were the Mayor of London, together with colleagues at Transport for London, who provided the leadership and focal point for the project. The business case they laid out was a compelling one for London businesses, who saw the advantages of working side by side with the capital's decision makers.

Businesses who committed funds to the project included The Canary Wharf Group, who contributed £150m to the cost of their station, and property developers The Berkley Group, whose backing for a station at Woolwich (initially rejected) helped to complete a station there. In return for their backing, the Canary Wharf Group were permitted to raise revenue from retail and leisure above the station. In 2017, studies showed that Crossrail had had an impact of between 1-2.5% on commercial property prices and in stimulating residential builds, with a 50% increase in the density of new developments within 500 metres of a Crossrail station compared to other areas.

While Crossrail and HS2 are different in many ways, the level of opportunities for business backing is the same or greater when Northern Powerhouse Rail is included as a joined-up network. HS2 will have fewer stations than Crossrail; rather the focus needs to be on the income stations will generate in the longer term – such as from parking and fare box at parkway locations, land value uplift after opening in cities – and unlocking this rather than using a contribution-based model.



HS2 NORTH CROSSRAIL CASE STUDY

Expanding rail connectivity has an impact on the concept of the UK's regions to be more collaborative, rather than competitive. In particular, the impact of reducing the journey times between both Manchester and Leeds with Birmingham by 50% has been underestimated. The latent demand for this is hard to calculate, with a low level of inter city travel currently, but these journeys will move from national to essentially regional inter city journeys. Improving journey times and frequency from Leeds to Birmingham is a significant opportunity; linking two thriving economic centres far more efficiently could result in a major economic boost.

Exploring how home and work locations will change needs further analysis, alongside land use and choice of airport. Manchester Airport opened up to the east side of the country by NPR and by HS2 to the Midlands would reinforce an intercontinental hub of equivalent importance to UK businesses as Heathrow.

As HS2 Chairman Alan Cook argued in his August 2019 Stocktake ⁽⁶⁾, the business cases from 2013 and 2017 underestimated the issue of capacity. This leaves us without figures to accurately demonstrate what the full benefits of addressing underlying capacity issues would be, making it impossible to see the economic impact of any serious consideration of cancellation. To approve a scheme based on its Cost Benefit Ratio (BCR) historically, even if that was undervalued, allowed government at the time to not have to undermine its own orthodoxy on how to evaluate transport schemes. The inconvenient truth is that welfare-linked arguments will inadvertently favour investment which serves addressing the overheating of cities like London, rather than building infrastructure which removes barriers to growth such as in the North or the Midlands. Yet if connectivity is not provided, growth will simply not happen at the same scale.

The prize of more than £1,000bn in transformational economic change in the North is significant. The panel judges that HS2 is only one part of unlocking it, but the amount of other spending required to address the same inter regional and national city challenges would have to be compared. Otherwise, the Oakervee review could fall into the trap of recommending cancelling the parts of the project that the economic evidence suggests is a non-negotiable part of economic rebalancing. This would leave government searching for sub-optimal solutions, none of which share the same strategy of improving connectivity provided by the Y shaped proposal taking in Leeds, Manchester with Liverpool thanks to the NPR connectivity and beyond. The model sets up Midlands and Northern success to be collaborative – rather than a zero sum game where only one part of the country beyond London can thrive, level up and, most importantly, become globally economic competitive.



AN INTERGRATED SOLUTION

The proposal for HS2 is the result of a significant amount of evidence gathering. This made the case for the Y-shaped network; including an eastern leg from Birmingham to Sheffield and Leeds, on to Newcastle, and west from Crewe through to Liverpool, up towards Preston and Scotland as well as Manchester Airport on to Manchester Piccadilly.

Fundamentally, the panel is clear that the terms of reference for the Oakervee review are correct in looking to what can be delivered sooner, including starting building from the North. Most notably, upgrades of lines – such as to reach Sheffield on the Network Rail asset from the new HS2 line – can be completed more quickly, bringing more immediate benefits than whatever far-off opening date for the full eventual network is achievable. There must be a focus on whether different delivery models could bring timescales closer to those originally envisaged.

The proposal set out by Transport for the North (TfN) to address the North's lack of connectivity East to West is Northern Powerhouse Rail – linking Northern cities from Hull to Liverpool, Sheffield to Newcastle and via Manchester Airport to create the economic whole set out in the concept of a Northern Powerhouse. The strategic outline business case for NPR was submitted to government in early 2019, followed by a commitment from Prime Minister Boris Johnson in July to a new line between Leeds and Manchester, as well as a pledge to work with Northern leaders to deliver the rest of the network.

"NPR will prove transformational for the North. The number of people able to access four or more Northern cities or Manchester Airport would rise from less than 10,000 today to 1.3 million."

Bradford, the UK's youngest city, is currently 60 minutes away by train from Manchester and even 20 minutes from Leeds (a distance of less than 10 miles). Under NPR, it would be 20 minutes to Manchester and seven minutes to Leeds, opening up a far wider range of skilled jobs and training opportunities. Six regular, reliable services an hour from Leeds to Manchester, taking under 30 minutes, would create a 'virtual city' across the Pennines, opening up investment opportunities in the towns in between.

Yet none of these benefits can be fully transformational without HS2. As Allan Cook's Stocktake argues, half of the new lines to be built for NPR are from HS2. Even if the £10bn worth of this line which is needed for NPR was built, the premium of doing both HS2 and NPR together as complimentary networks — a fifth of the projected benefits to NPR — would be lost.



AN INTERGRATED SOLUTION

freeing up space through new lines and remodelling of existing track. Economic growth depends on being able to move large numbers of people and goods seamlessly and effectively. Because of the historic under-investment in the North's rail network, the region's rail network is full and incapable of either meeting rising passenger numbers or encouraging more road users onto the train.

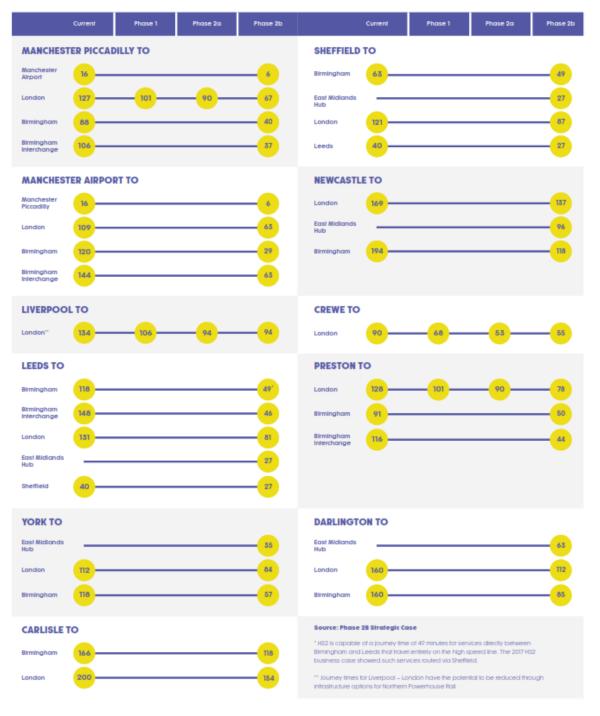
While NPR will be a significant factor in addressing the North's productivity and contributing to the UK economy, HS2 will allow the UK to be competitive on a global stage. In a post-Brexit world, the Northern Powerhouse has an opportunity to encourage significant overseas investment, particularly in UK-leading sectors such as fintech, energy and digital. Manchester Airport, the North's international hub, currently handles around 30 million passengers a year, but has the potential through its existing two runways to handle 55 million passengers a year. HS2 and NPR together would mean that the population of the North able to access Manchester Airport within an hour increases from 2 million today to 4.7 million, and within 90 minutes by 4 million to 8.7 million – over half of the North's population. This would allow people and businesses across the North access to international connectivity via Manchester Airport, as well as providing further competition for travellers in the Midlands and London.

Initial propositions for HS2 set out the journey time improvements the project would deliver. The time savings in linking North and South cities and towns will be significant – allowing for greater connectivity between UK major destinations and creating opportunities for businesses to invest around transport hubs. As well as direct routes through Crewe, Manchester, Leeds, Sheffield and parkway stations, the journey times between cities and towns not currently served by direct HS2 services (ie run-on services linking existing networks) are considerable and provide the basis for stations in towns like Wigan and Darlington, and cities such as Newcastle and Carlisle (the latter, the panel argues, is vital as an additional calling point to what was initially promised as an HS2 network further improving connectivity to the Borderlands and West Cumbria).

Currently from Birmingham, it takes just under two hours to get to Leeds, and almost an hour and a half to Manchester. This would be reduced to 49 minutes and 40 minutes respectively. As discussed above, the connections to Birmingham for Northern cities are particularly promising, because these are moving journeys to regional intercity, more important than journey time savings to London, where the benefits are much less significant than capacity in terms of the macro economic implications.



AN INTERGRATED SOLUTION





HS2 NORTH ENVIRONMENT

"There is no way that the economic growth this country needs to be globally competitive can be realised without major investment in infrastructure – either building a series of six lane M25 multi-lane motorways or investing in high-speed rail."

The latter, once the heavy engineering needed to deliver the project is complete, has the potential to be a significant factor in reducing carbon emissions as we strive to net zero emissions by 2050, and needs to be compared with the other alternatives rather than a do-nothing scenario.

Giving commuters and leisure travellers an integrated high-speed rail network North to South and East to West will reduce the number of cars and lorries on the road, and could cut the number of domestic flights. Between 1980 and 2013, there has been a 56% increase in road demand and a 175% increase in domestic aviation. (7) A very small proportion of daily commuters travel by rail in the North (7% between Liverpool and Manchester, 10% Leeds-Newcastle, 3% Hull-Sheffield) which demonstrates the opportunity for NPR specifically to take cars off the road.

It should be noted that the local environmental impacts from building HS2 are not largely wider beyond the immediate area (for example, the 52,000 ancient woodland sites in England it is estimated that 43 will be affected by the route between London and Crewe). HS2 have said they will offset any loss of woodland by planting seven million trees along the route.





HS2 NORTH FREIGHT

The importance of freight in making the case for HS2 has been somewhat downplayed, with both critics and proponents focussing on passenger-based outcomes. Yet a leading factor in major business backing for the project is the role it will play in freight delivery in the UK. Currently, many freight services taking goods from Northern Powerhouse ports to other parts of the North and wider UK are competing with passenger services, reducing productivity because of the slow transfer of goods. The slow nature of these deliveries again encourages organisations to transport by lorry, which is less efficient and more costly, or air.

Currently, it takes up to 11 hours for biomass pellets to be transported from Liverpool to Drax power station near Selby; a journey of less than three hours by lorry; competing for space on lines with commuter trains. Efficient freight services are vital to the Northern economy – analysis found that the total economic benefit per daily weekday return freight service from Port of Liverpool to ports east of the Pennines was almost £81m.⁽⁸⁾

"Post-Brexit, creating industries that export goods all over the world could be crucial to the success of the Northern Powerhouse – creating the infrastructure to allow that to happen is imperative."

It is key that the Trans Pennine Route Upgrade is increased in its current funding and scheme length to give certainty of a gauge-cleared route across the Pennines, avoiding previous government promises to passengers and the needs to improve freight reliability being traded off in Whitehall, where this project is still controlled day to day despite repeated calls for a different governance process.

HS2 will allow for 144 extra freight trains per day, carrying more than 2.5 million lorries' worth of cargo each year. Transporting freight by rail rather than by road produces 76% per cent less carbon emissions. (9)



NORTHERN CITY BENEFITS

The economic impact on Northern Powerhouse cities and towns of HS2 has not been fully quantified; partly bound up in the uncertainty of the future of the scheme and when services may be delivered. However, individual city regions have drawn up some economic scenarios of the benefits of HS2, in terms of jobs, economic growth and GDP (see table 1 below). A more comprehensive and overarching piece of analysis needs to be carried out to model the potential impact of both HS2 and NPR, which government need to analyse before any actions from the Oakervee review are recommended.

This analysis should capture the transformational benefits of doing both schemes and bring together the growth strategies carried out by Northern combined and local authorities. The Leeds City Region Growth Strategy, which predicts the growth HS2 would provide, is valuable in its own right as are those for other city regions. However, as these were completed in isolation, the full Northern Powerhouse perspective was never captured, and for stations like Darlington and Newcastle across to Preston and Carlisle the depth of economic analysis necessary still needs to be completed, with not enough emphasis on those



Proposed redevelopment of Newcastle Central Station. Image courtesy of Newcastle City Council



NORTHERN CITY BENEFITS

Table 1 - City Region Assessment of Benefits

	Impacts	Jobs	GVA
Liverpool City Region		24,000 jobs (Impact of HS2 direct services via NPR)	Benefits (60) year £14,502 based on connection via NPR.
Greater Manchester			Benefits by 2037, 2013 prices, Greater Manchester £0.6- 1.3bn per year, 0.8%- 1.7% increase in local economic output (KPMG). (20)
Leeds City Region/ West Yorkshire	Increase in GDP relative to current levels of accessibility, every year, Leeds City Region: £150M. (7) Productivity benefits £750M Leeds CR (PV 2002 discounting), Almost 80% of Leeds benefits are accrued in financial and business services Extra GDP per year based on direct estimated benefits; two thirds by HS2 East regions. Leeds CR: £128M per year	Additional jobs across Leeds City Region: At least 20% of HS2 workforce from LCR. 5% of these workers previously unemployed. 40,000, (5,000 direct from HS2) by 2050. (14) Additional jobs in Leeds City Centre from planned investment (including HS2) 24,500 by 2050. (14) New direct jobs by HS2 in Leeds, 50,000 by 2050 (21)	GVA added to regional economy: £54bn by 2050, extra to the region every year from 2050, £3.8bn (14) Productivity benefits, 2037 and persist in years following opening of HS2, point estimate, 2013 prices, West Yorkshire £1bn (19) KPMG benefits by 2037, 2013 prices, West Yorkshire £1bn per year, 1.6% increase in local
(1)	point estimate (11).		economic output. (20)



Table 1 - City Region Assessment of Benefits

	Impacts	Jobs	GVA
Wider North	Benefits: HS2 to Manchester £37,292M, HS2 to Leeds and Sheffield City Region £59,896M, 2002 discounting (8) Productivity benefits: East vs West, £2.6bn vs £2.1bn (9) 70% of the productivity benefits of the eastern route from faster journeys to London. 30% will also result from High Speed Rail bringing city regions outside London closer together. Additional GDP per year based on direct benefits - two thirds by HS2 East regions. North East £14M, per year, point estimate. (11)	Additional jobs in York Central. 7,000 by 2050 (14)	GVA York Central, £1.6bn Economic uplift (14)



Table 1 - City Region Assessment of Benefits

	Impacts	Jobs	GVA
Sheffield City Region/South Yorkshire	Eastern Leg. Increase in GDP relative to current levels of accessibility, every year, Sheffield City Region: £105M, unclear price base (7) Additional GDP per year, direct estimated benefits - two thirds by HS2 East regions. Sheffield CR: £99M per year point estimate. (11)	Net additional jobs against base year (2018 - 2048), Low growth 11,630, High Growth 22,970 (3) Job impacts in Sheffield 10,000 (requires more work according to report) (21)	Source 19: Productivity benefits, 2037 and persist in years following opening of HS2, point estimate, 2013 prices, South Yorkshire £0.5-0.9bn (19) KPMG benefits by 2037, 2013 prices, South Yorkshire £0.5- 0.9bn per year, 1.9%- 3.2% increase in local economic output. (20)



Table 2: City Region Assessment of Benefits – Growth Strategy Impacts

	Impacts	Jobs	GVA
Liverpool City Region			Increase in land values £179M (60 year Net Present Value, 2010 prices) (2) Increase in Business Rates £395M (60 year Net Present Value, 2010 prices) (2).
Greater Manchester		HS2 job impacts, Manchester - Piccadilly & Airport - 60k, Crewe - 37k around station.	
Leeds City Region/West Yorkshire	Leeds Station will be transformed as part of plans to bring HS2 to Leeds. 134% increase in passenger numbers to 30M in next 30 years - comparable with Kings Cross (12)		



Table 2: City Region Assessment of Benefits – Growth Strategy Impacts

	Impacts	Jobs	GVA
Sheffield City Region/South Yorkshire	Net uplift of housing units against base case 2018-48, Low Growth - 1,701, High Growth - 2,182 (3)		30 year period 2018- 48 based on land and property development - Against the base case, Low Growth - £7,132M, High Growth - £13,228M (3)
Constellation Partnership (Crewe Hub)			This will bring an additional GVA contribution to the national economy of up to £6.4 bn per annum. Of this uplift, the net additional GVA benefit of a full specification HS2 service is between £2.5 and £3.2 bn per annum.



A WORLD CLASS RAIL NETWORK

To truly rebalance Britain, and energise the Northern economy, HS2 will play a major role in achieving our ambitions and improving the quality of life across the North. It will expand the existing rail network, regenerate railway stations and their surrounding areas, and support the delivery of Northern Powerhouse Rail, which will free up much-needed North-South and East-West capacity in a system that is struggling to perform. The French model, where cities such as Lyon and Lille have demonstrated that the benefits of high-speed rail can be increased when stations are planned together with surrounding development, often by a public-sector development body (such as at Lyon Part-Dieu), and take jobs out of the capital into other parts of the country.

"How the North's high-speed infrastructure is delivered is vital for the success of the project. HS2 is a project of unprecedented scale, and considering alternative models of delivery where building has yet to be commenced is the only responsible course of action."

Northern bodies and elected leaders have called for devolution of oversight over their rail networks, with submissions to the forthcoming Williams review and the Blake-Jones Review ⁽¹¹⁾ and Northern Powerhouse Partnership Devolving the Railways report ⁽¹²⁾ commissioned in the wake of the May 2018 rail timetabling fiasco consistent in their assertion that better local control is a necessity to improve services for commuters.

The proposal we set out in this review is for the establishment of HS2 North; a special purpose vehicle (SPV) on the model of the Olympic Delivery Authority at arms-length from government, with private sector delivery partners and Network Rail, overseen by Transport for the North to ensure HS2, NPR and related Trans Pennine Route Upgrades are combined efficiently and with maximum value. An example of this would be to deliver the building blocks of improvements where HS2 was to run on the existing network in partnership with Network Rail routes, such as up the East Coast Mainline from York to Newcastle, around Sheffield and between Leeds and York, without the need for them to bid to the Department for Transport for these funds. This model would be key to addressing some of the challenges government faces in continuing to build this project the way it has, while retaining HS2 Ltd to complete construction in the South to reach London and operate the services.



A WORLD CLASS RAIL NETWORK

Technical work specifically commissioned for this review concluded that delivering HS2 and NPR and other major interventions from Network Rail could deliver a range of potential benefits, including:

- Improved regional economic growth
- Improved passenger benefits
- Better certainty of outcome
- Improved programme governance
- The opportunity to apply lessons-learned from Phase 1
- More efficient delivery and capital cost reduction
- Improved supply chain support

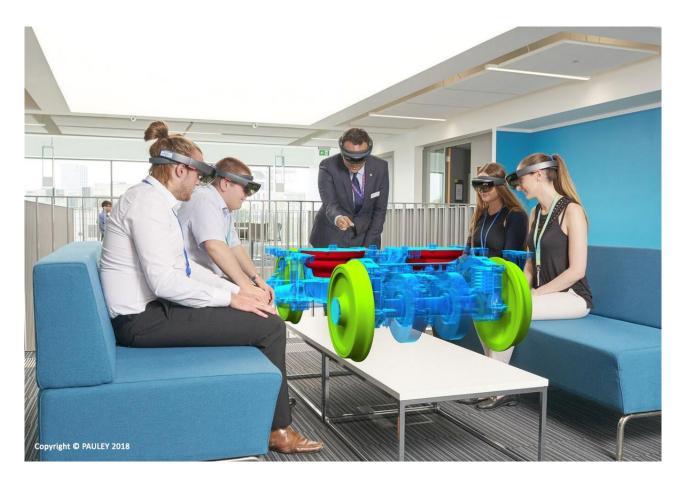
The SPV partnership would be a thin client, with private sector support to allow the rail projects to be delivered at private sector pace, efficiencies and capabilities from the beginning. It would drive more efficient and effective governance and introduce best practice, and reduce duplication of interfaces with government bodies. Crucially, this organisation must be flexible and lean so that it can morph through the programme life-cycle efficiently and safeguard against performance with commercial mechanisms to the delivery partner. Hs2 Phase 1 has faced significant issues and criticism based on decisions made over a number of years, which are now being addressed. It is imperative that the SPV also learn from those lessons and change their plans accordingly.



HS2 NORTH HS1 CASE STUDY

High Speed 1 (HS1) is a 108 km high-speed railway running from London St Pancras International station to the Channel Tunnel, and was the UK's first high-speed railway. The first sections of HS1 connecting to the Channel Tunnel opened in 2003 and the section into central London was completed in 2007.

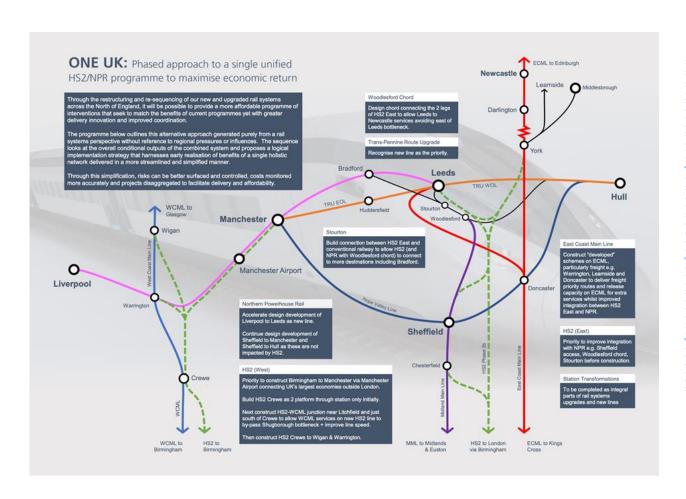
Notably for a major UK infrastructure project, HS1 was delivered on time and on budget, in spite of issues with both funding and the construction itself. This was delivered with a thin client organisation leveraging capability in the private sector to be able to assemble an effective and efficient supply chain.





PRIORITIES & SEQUENCING

A newly-established body overseen by TfN should be set up to lead on how HS2, NPR and related schemes are delivered in partnership, at arms-length from government. Nevertheless, from an engineering point of view, there are some options for how various parts of the network are prioritised and sequenced to ensure passengers see benefits as soon as possible, after delivering all the work on Network Rail asset which can be done. Advisors to the panel have carried out work for this review with its secretariat, setting out how such engineering projects might work. It should be stressed that this is exploratory work and in no way a final plan.





HS2 NORTH CONCLUSION

The government has a duty to question. A responsibility to ensure the best oversight and governance. A need to be assured the right policy choices have been made. However, the briefings of recent weeks, putting in doubt the Eastern leg of HS2, are the height of irresponsibility when the work of the Oakervee Review has not even been completed. Those responsible have done the reputation of the government, specifically towards its commitment to the Northern Powerhouse, significant damage.

The answer to the questions asked of this panel from this work are conclusive: the evidence to cancel any of the HS2 Northern network is weak, but that the additional benefits of it being integrated fully with Northern Powerhouse Rail are compelling and cannot be fully determined without further detailed work. The balance of the evidence is to devolve power and decision making, with a first duty to complete the case to rebalance the economy, and avoid this simply being a railway to address current challenges and passenger interests. Without taking rebalancing into the equation, the significant costs of HS2 would not be justifiable. HS2 could, if it plays its wider role, be the answer, particularly through accelerating Northern upgrades alongside the new Northern Powerhouse Rail line across the Pennines.

For government, there is no defensible position other than giving up on the Northern Powerhouse, and abandoning the five-year long commitment to economic rebalancing, or undertaking the further work to tie together growth strategies for the North and Midlands. Accepting that more work is required means that a Special Purpose Vehicle, on the basis of the Olympic Delivery Authority model, needs to start work using existing structures in shadow form imminently. This would ensure that economic drivers and the value of stations are fully appreciated, rather than only the costs being understood in isolation from the benefits – a limited and fundamentally-wrong policy response which government would be negligent in accepting.

With the regional income gap at the highest level in 100 years, it is essential that we invest in productivity-enhancing projects in the North, but also make sure that we better connect all our cities to those in the Midlands, Scotland, Wales and London. Investment in the North in isolation will neglect the opportunity to maximise economic gains from rebalancing the UK economy. The next steps are not simply to carry on as we did before, but to refocus HS2 as an economically-driven project as it first began. This is the chance to unlock for the North the economic competitiveness it needs for the UK to close the North-South divide for good, recapture the spirit of the Industrial Revolution which began in the North and made it great, and create a UK economy that works for all.



Sir Howard Bernstein

Sir Howard Bernstein is the former Chief Executive of Manchester City Council (1998-2017) and former Head of Paid Service for the Greater Manchester Combined Authority (2011-2017). A strong believer in the transformative power of cities and one of the chief architects of Manchester's urban, social and economic resurgence over the last four decades, Bernstein now serves as a strategic advisor to several public, private and academic institutions in the UK and internationally.

Over a distinguished career in public service, Sir Howard was instrumental in a range of projects and initiatives benefitting Manchester, Greater Manchester and the United Kingdom. He is widely recognised for his pioneering use of innovative financial instruments, planning mechanisms, governance arrangements and public-private partnerships to attract investment, accelerate development and deliver marked improvements in social and economic outcomes for people and businesses in Greater Manchester and the UK. He was knighted for his services to Manchester in 2003.

Following his retirement from the Council in 2017, Sir Howard was appointed as an Honorary Professor of Politics and a strategic advisor to the University of Manchester.

He is also a strategic advisor to Deloitte, an Honorary President of Manchester City FC and President of Lancashire County Cricket Club.

He has sat on this review in a personal capacity.





Chris Oglesby, CEO Bruntwood and Northern Powerhouse Partnership Board Member

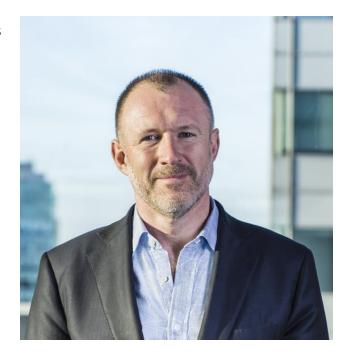
Chris grew up in Manchester, studied at LSE and City University, London and worked briefly in the City before returning north in 1991 to work for the company his father founded in 1976. He was appointed CEO in 1999 and has overseen the growth of the business to one that owns over £1bn of commercial property across the city regions of Manchester, Liverpool, Birmingham and Leeds with a further £1bn development pipeline across all four cities.

Chris is the majority shareholder of Bruntwood, which was founded on a belief that its success comes from the success of its colleagues, customers and the communities in which it operates. This commitment to creating thriving cities has led to Chris playing an active role in many public and private sector partnerships including CityCo, MIF, Manchester Oxford Road Corridor, the Business Leadership Council and Manchester Climate Change Forum.

Continuing its strong partnership approach, in 2018 Bruntwood created Bruntwood SciTech; a 50:50 joint venture with Legal and General Capital focussed on the creation of environments and ecosystems for companies in the science and technology sector. This includes Alderley Park, Innovation Birmingham, Citylabs, a development for the Manchester University Hospitals NHS

Foundation Trust and Manchester Science Park, part of Manchester Science Partnerships which includes the Councils of Manchester, Salford and Cheshire East, the University of Manchester and MMU and the Manchester University Hospitals NHS Foundation Trust.

Bruntwood is recognised nationally for its support of cultural and community initiatives, donating 10% of its annual profits to charitable causes. Chris is a trustee of The Oglesby Charitable Trust, which works with more than 40 community based charities a year, is a board member of youth charity Young Manchester and a school governor





Paula Dillon

A real estate development and investment lawyer for thirty years, Paula sat on UK and global boards of Womble Bond Dickinson and was the first female President of the Leeds Chamber of Commerce, remaining as Vice Chair of the West and North Yorkshire Chamber of Commerce. She has more than 30 years of experience in advising on office, retail, industrial, residential and leisure developments of all sizes and complexities, and was diversity and inclusion Board sponsor at Womble Bond Dickinson. She founded the Crypt Factor, raising over £500,000 for homeless charities. She has also given her time to Opera North, where she was Vice Chair, and she remains one of Yorkshire's most senior and respected business women for both her contribution to debates on infrastructure and the economy as well as her commitment to the social challenges which face the North



Kevin represents the constituency where he was born and brought up and now lives with his wife and four children. He was elected to Parliament in May 2015 and holds the position of Parliamentary Private Secretary to Michael Gove. He serves on the Housing, Communities and Local Government Select Committee. Kevin has a business background. He was a founder partner and now Chairman of Hunters Estate Agents, which is now one of the largest independent networks of sales and letting agents in the UK. In 2008 he founded Vizzihome and the search agent, Shoptility.com where he became Chairman in 2013. Kevin is a strong advocate of the





small business sector and of the North, where he has been campaigning hard for more money for roads and rail which he believes is key to growing the Yorkshire economy.



Councillor Nick Forbes, Leader, Newcastle City Council

Nick Forbes is a Labour politician and became Leader of Newcastle City Council in 2011. Nick has made economic growth a key feature of his council, securing new financial powers by negotiating one of the first round of City Deals with government and has been instrumental in securing a devolution deal for the North of Tyne. He has played a leading role in raising the profile of local government in a time of austerity and has been involved in national lobbying efforts for successive local government finance settlements.

Current roles include vice chair of Tyne and Wear Fire and Rescue Authority, Vice Chair of the Core Cities Cabinet and Business Competitiveness portfolio holder for the North of Tyne Combined Authority.

At a national level, Nick is the Leader of Labour in local government, heading up the Local Government Association (LGA) Labour Group, representing the views of more than 6000 Labour Councillors in Westminster. He is currently Senior Vice Chair of the LGA. He is also a member of Labour's ruling National Executive Committee.

The panel would like to thank the
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Greater Manchester Combined Authority,
Liverpool City Region Combined Authority,



West Yorkshire Combined Authority, Sheffield City Region Combined Authority, Steer Economic Development, HS2 Ltd and Midlands Connect for their assistance.



HS2 NORTH NORTHERN POWERHOUSE PARTNERSHIP

The Northern Powerhouse Partnership (NPP) exists to increase the impact and contribution of the North of England to the UK economy by bringing the individual cities, regions and counties closer together, so that the whole of the North has a greater economic input than its separate parts. The NPP has a business-led board, with representatives from key companies operating across the North including Manchester Airports Group, Mace, Barclays, Associated British Ports, Siemens, HSBC, Addleshaw Goddard, Arcadis, Drax, Arup, Bruntwood, Sellafield, Sirius Minerals, Atkins and support from EY. These organisations play an important role in providing insight and evidence to drive the Partnership forward.

We also pay close attention to the views of small and medium-sized businesses, both directly and with the leading Chambers of Commerce across the North. Prominent city leaders across the North of England are represented on the Board, in addition to former Chancellor George Osborne, former Commercial Secretary Lord Jim O'Neill, Chair of Transport for the North John Cridland and Professor Dame Nancy Rothwell to ensure that the NPP maintains a cross-party approach.

www.northernpowerhousepartnership.co.uk or follow us on Twitter @NP Partnership



