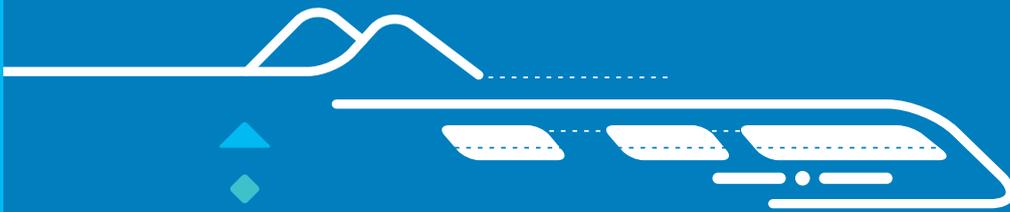




Department  
for Transport

# High Speed Rail

Investing in Britain's Future  
Phase Two: The route to Leeds,  
Manchester and beyond  
The Summary



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Investing in Britain's Future –  
Phase Two: The route to Leeds,  
Manchester and beyond

The Summary

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Any enquiries regarding this publication should be sent to us at:  
Department for Transport  
Great Minster House  
33 Horseferry Road  
London SW1P 4DR

Telephone 0300 330 3000  
General email enquiries [FAX9643@dft.gsi.gov.uk](mailto:FAX9643@dft.gsi.gov.uk)  
Website [www.gov.uk/dft](http://www.gov.uk/dft)

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# The Summary

## A National Strategy for High Speed Rail

### **High speed rail**

Great Britain has a proud railway history. Our Victorian pioneers designed and built railways and locomotives which were the envy of the world. They changed the way we travelled and the way we did business. The railway's success as the first fast, reliable and high capacity form of passenger and freight transport, helped power our economy and drive the industrial revolution.

That success story continues today. Every year, the rail network carries over a billion passengers – more than at any time since the Second World War – and over 19 billion tonne kilometres of goods.

But essentially, the current railway is little changed from the one designed by the Victorians. We have a 19<sup>th</sup> century network straining to support a 21<sup>st</sup> century economy, with all the inherent limitations that brings.

The biggest problem will be lack of capacity to support economic prosperity over the longer term. Demand for long distance rail has doubled over the past 15 years, and if we do nothing routes would fill up and services will creak at the seams. Current rail journeys no longer reflect the needs of today's passengers who need quick connections to access jobs across the region. For example, the current rail journey between Birmingham and Leeds takes nearly as long as the trip from London to Brussels.

High Speed 2 (HS2) is the biggest infrastructure investment in the UK for a generation. It will provide a network of new high speed lines across Britain – connecting our biggest cities quickly and reliably. It will slash journey times for over a quarter of a million passengers each day, but even more crucially it will provide the new transport capacity we will so manifestly need. This will allow existing lines to be used for more freight and local traffic and help take the strain off our roads.

HS2 is one network, being planned and built in two sections. And from the outset being connected to the existing network. Phase One will see a new line from a redeveloped station at London Euston to new stations, one near Birmingham Airport and one in the heart of Birmingham's city centre – offering an alternative to one of the most congested stretches of rail line in the country.

But Phase One isn't simply a line between London and Birmingham. It will also provide a direct connection onto the existing network beyond Birmingham so that passengers can benefit from the faster journey to the Midlands, before continuing to destinations in the North West and Scotland without having to change trains.

Phase One will also provide a direct link with Continental Europe through High Speed 1 (HS1) and the Channel Tunnel. In the future, this could see passengers boarding direct services from places like Birmingham, Liverpool or Edinburgh to Brussels, Paris or Frankfurt.

From day one of Phase One, the new high speed line will improve services to Heathrow Airport, via a change of trains at the new Old Oak Common hub. This will speed passengers to the airport in just 11 minutes. Subject to the Airports Commission report on maintaining the UK's international connectivity, HS2 could also be extended to serve Heathrow directly. A Heathrow spur is not in the scope of the Command Paper but could be included in legislation for Phase Two if the timing and the conclusions of the Airports Commission support it. A further consultation would be needed. Work is well underway to introduce the legislation this year which will make Phase One a reality.

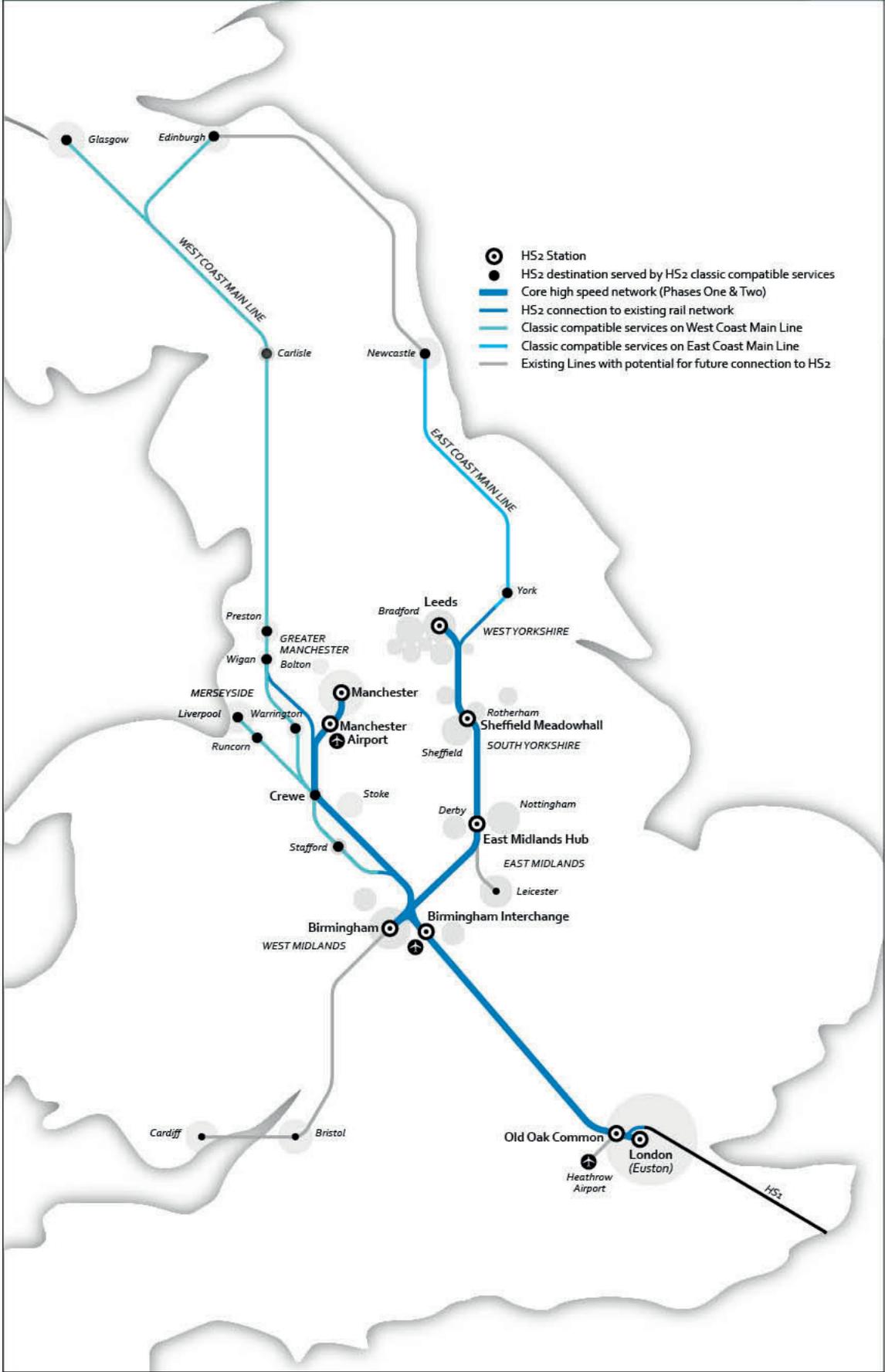
The Command Paper sets out the Government's initial preferences for Phase Two of the project, which will unlock the vast potential of HS2 to transform the whole of UK. Phase Two will extend high speed lines to Manchester in the North West and to Leeds in the North East with intermediate stations at Manchester Airport, South Yorkshire and the East Midlands.

Further connections onto the existing network will enable passengers in even more cities across Britain to benefit from HS2. High speed trains will be able to continue seamlessly on to destinations such as Crewe, Liverpool, Wigan, Preston, York, Newcastle, Glasgow, Edinburgh and many others.

The Government has drawn on a number of areas of information in reaching its initial preferences for Phase Two. First, it has carefully reviewed the advice prepared by HS2 Ltd in March 2012. Second, it has considered the reports prepared by delivery partners on the station options. Third, Ministers and officials have visited the route and station options for Phase Two to get the best possible sense of their likely impacts. Fourth, Ministers have held meetings with key political and economic leaders in the cities to discuss the station options and hear first-hand the views from the cities. Finally, each of these activities has led Ministers to commission further advice, both from HS2 Ltd and from delivery partners. Unless confidentiality has been requested, this material is also being published alongside the Command Paper.

Phase Two is not just about services to London. It will also re-draw the rail map of Britain, providing fast services between cities which are not currently well connected.

# A Vision for High Speed Britain



## High Speed 2 – Providing capacity to drive growth

A successful, reliable and modern transport network underpins so many elements of our productivity – enabling businesses to get their goods to market, business people to meet, employees to work and leisure travellers to explore the UK. Effective and efficient transport systems help to support the economic potential of whole communities, cities, regions and the country as a whole.

Outstanding transport links – at local, regional, national and international levels – also bring wider social benefits. It means that friends and families can stay connected, that people can fulfil their cultural and leisure aspirations, maintain their independence and widen their horizons.

Rail travel is a vital part of the Government's vision for transport. It enables fast and efficient journeys between productive urban centres and supports the efficient functioning of labour markets. And over recent years rail travel has been experiencing remarkable levels of demand growth in almost every sector. In 2011/12 passengers made around 1.5 billion journeys on the rail network, a figure which has almost doubled since 1994/95, and travelled over 35 billion miles<sup>1</sup>. 125 million long distance journeys were made in 2011/12, more than double the 54 million made in 1994/95, and, despite the recent recession, demand for long distance rail travel continues to grow year-on-year – a trend which shows no sign of changing.

Adding new rail capacity is therefore essential and requires careful and long-term planning. The announcement in July 2012 of the Government's plans for record levels of investment in the railways demonstrates the level of our ambition and commitment to ensuring that rail continues to thrive. That £9.4 billion package will fund enhancements which include:

- a new electric passenger and freight corridor from the south coast to the Midlands and Yorkshire;
- new Intercity Express trains;
- delivery of the Northern Hub to increase capacity and improve connectivity between key cities in the North;
- rail access to Heathrow Airport from the west; and
- over £900 million in flexible funding for smaller schemes.

It is vital that investment in the existing network continues to ensure it is able to meet the challenges being posed. However, work by Network Rail shows that investment in the existing network alone will not be sufficient to cope with the levels of demand that the inter-city network will face over the next 20-30 years.

## The need for action – capacity and connectivity

The central benefit of a national high speed rail network is the extra rail capacity this country needs. With rail demand forecast to continue growing over the coming decades, the rail industry recognises this is likely to outstrip what could

<sup>1</sup> Office of Rail Regulation, <http://dataportal.orr.gov.uk/>

be accommodated on the existing network even with substantial programmes of additional investment. Network Rail, as custodian of Britain's rail network, considers that only a new line is capable of providing sufficient capacity to meet forecast growth on the railways<sup>2</sup>.

## HS2 – providing transport capacity

HS2 will create new capacity:

- The HS2 network itself will provide high frequency and high capacity services for passengers. Up to 18 trains per hour will run between Britain's major cities, each carrying up to 1,100 passengers. The London to Birmingham line will effectively double the capacity between London and Birmingham city centres.
- With fast, long distance trains increasingly using the new HS2 network, capacity will be freed up on the existing network for extra commuter and freight services. Key commuter stations, such as Milton Keynes and Northampton, could see around twice as many direct services to central London.
- HS2 will also provide capacity benefits on the road network and at our busiest airports. HS2 is forecast to carry up to 5.4 million passengers every year who might otherwise have travelled by air, as well as seeing up to 9.8 million passengers transfer from the national road network. The contrast that HS2 could have with car journey times is shown in the table below:

### Journey Time Comparison Between HS2 and Car

Origin	Destination	HS2 Journey Time (hrs:mins)	Car Journey Time* (hrs:mins)
<b>Eastern leg</b>			
LONDON	East Midlands Hub (Toton)	0:51	2:28
	Nottingham	1:08	2:38
	Derby	1:11	2:30
	Sheffield	1:19	3:10
	Meadowhall	1:09	3:04
	Leeds	1:22	3:36
	York	1:23	3:56
	Newcastle	2:18	5:06
<b>Western leg</b>			
LONDON	Crewe	0:58	3:14
	Manchester Airport	0:59	3:37
	Manchester	1:08	3:50
	Preston	1:24	4:10
	Liverpool	1:36	3:54
	Glasgow	3:38	6:48
	Edinburgh	3:38	7:23

\*Car journey times from Transport Direct journey planner.

More freight trains using the space freed-up on the existing rail network will reduce lorry traffic on the motorways and help improve air quality.

The benefits from HS2 do not stop with the increased capacity and improved journey times. The capacity that HS2 will release provides an opportunity to accommodate a wide range of competing demands on the network that will otherwise have suffered from competition with inter-city services. If forced to compete, there's a risk that local and regional journeys will become slower and less reliable and some towns and cities will see their services becoming less frequent, slower and more expensive to operate. With HS2, there's an opportunity to accommodate services that are beneficial to regional and local economies. Another option could be to use the released capacity to make more room for freight on the existing rail network, meaning fewer trucks on the roads.

The Government considers that the 'released capacity' from Phase Two of the network could be significant. These are not decisions that it would be appropriate, or even possible, to take at this early stage in the project. However, it is important that we begin planning and collecting evidence so that eventually we are able to put that capacity to use in ways that will maximise the benefits for the country. Therefore, the Government has asked Network Rail to undertake a study of the potential capacity benefits for the existing rail network from the advent of HS2 working with Passenger Focus<sup>3</sup>. Network Rail will involve the cities and representatives of passenger and freight interests in taking this forward over the coming months. Network Rail will report to the Government by summer 2013.

## Rebalancing Britain

HS2 will provide improved connectivity between the major conurbations in the Midlands and the North, which could help enable these cities to work together more effectively. This could put them in a stronger position to benefit from access to wider markets and may bring benefits from increased competition and specialisation.

Although the distances between some of these cities are relatively short, rail journeys between them take a disproportionately long time. The majority of services between Sheffield and Leeds currently take around 40 minutes for a journey of little more than 30 miles, and most services take longer than this. Travel time between Leeds to Nottingham is one hour and 45 minutes for a journey that is only 70 miles, with travel times between Birmingham to Manchester taking nearly one hour and 30 minutes and Birmingham to Leeds nearly two hours.

These long journey times between cities in the Midlands and the North are one of the reasons why their economies function as isolated units rather than a coherent whole. Firms are discouraged from entering new markets and so the service sectors in these cities are largely replicated.

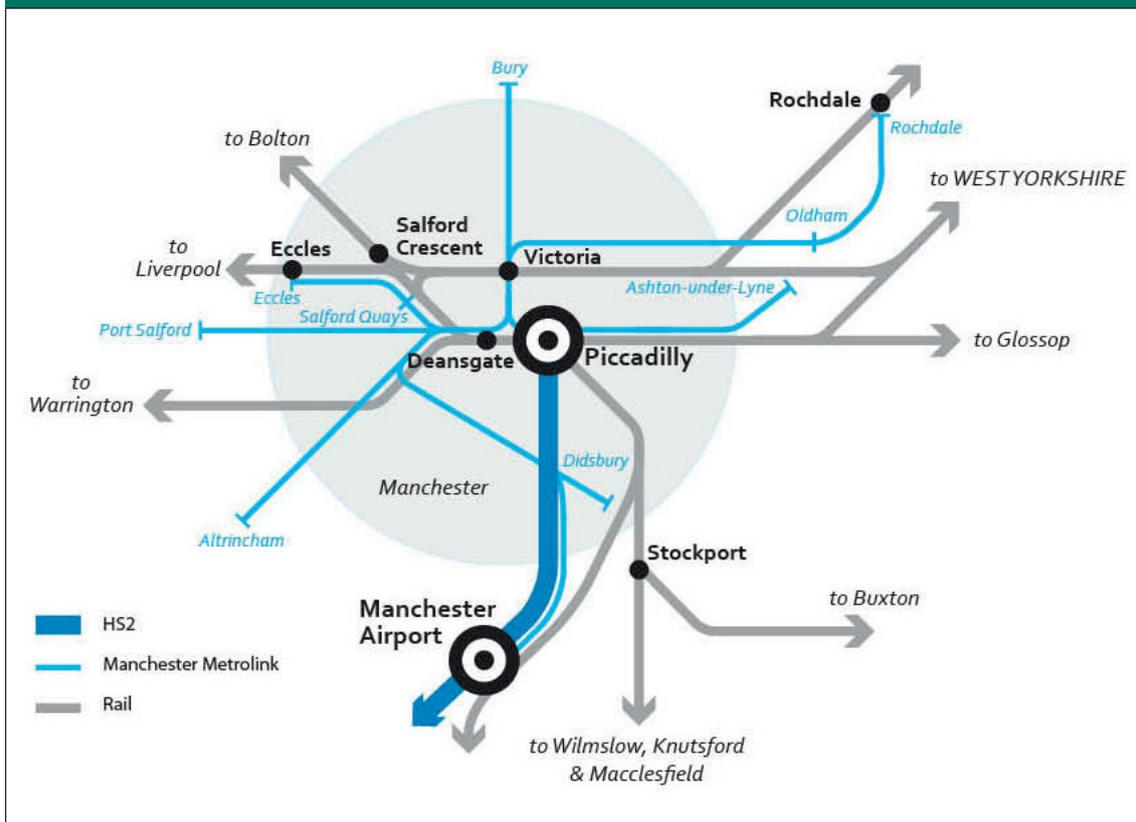
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<sup>3</sup> Available as Annex D in the Command Paper [www.dft.gov.uk/highspeedrail](http://www.dft.gov.uk/highspeedrail)

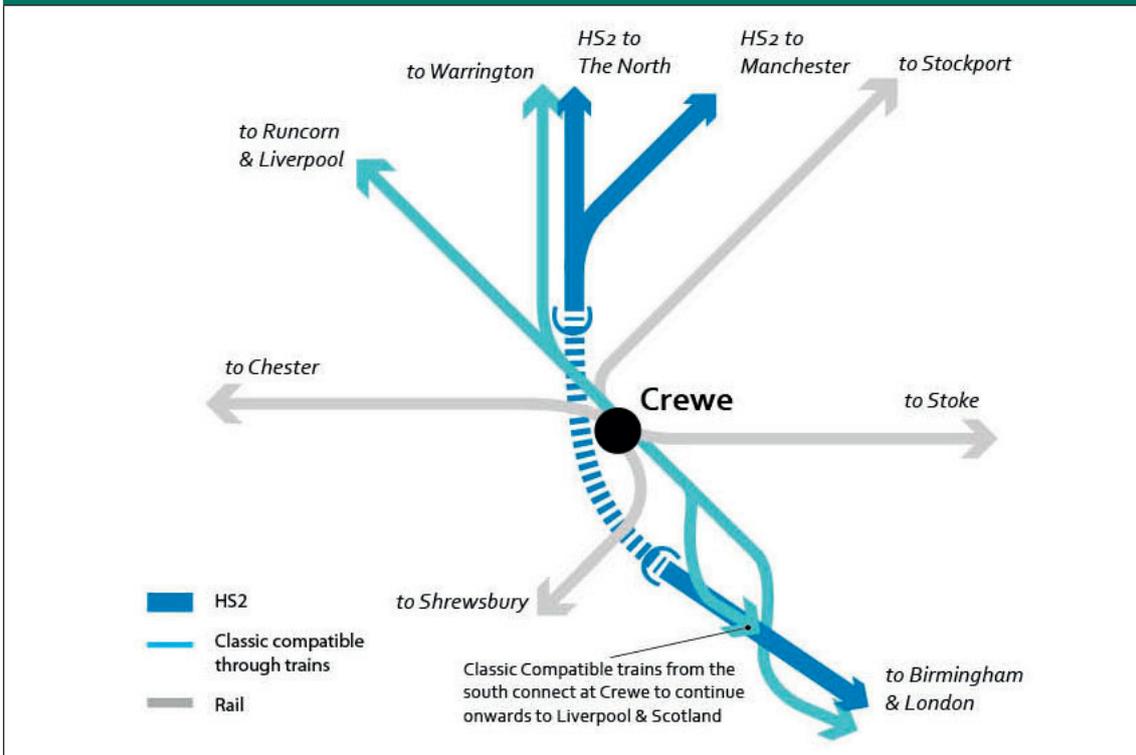
The transformational rail links that HS2 will bring, particularly if combined with other transport improvements, could play an important role in helping enhance the potential of the Midlands and the North to act as a counterweight to the economic strength of London and the South East. Companies and employees will be able to access a wider range of opportunities for markets and jobs. Firms may be able to service a number of cities from one office and thus reduce their costs as a result. In the long-term, it could help support the specialisation of cities in certain fields – such as building on Leeds’ reputation for legal expertise – by opening the Midlands and North to further investment from businesses.

Not only will the major cities become better connected with better journey times making them seem closer together but the surrounding towns and villages will all see significant benefits through connections into the wider regions. We have illustrated the existing connectivity diagrams below.

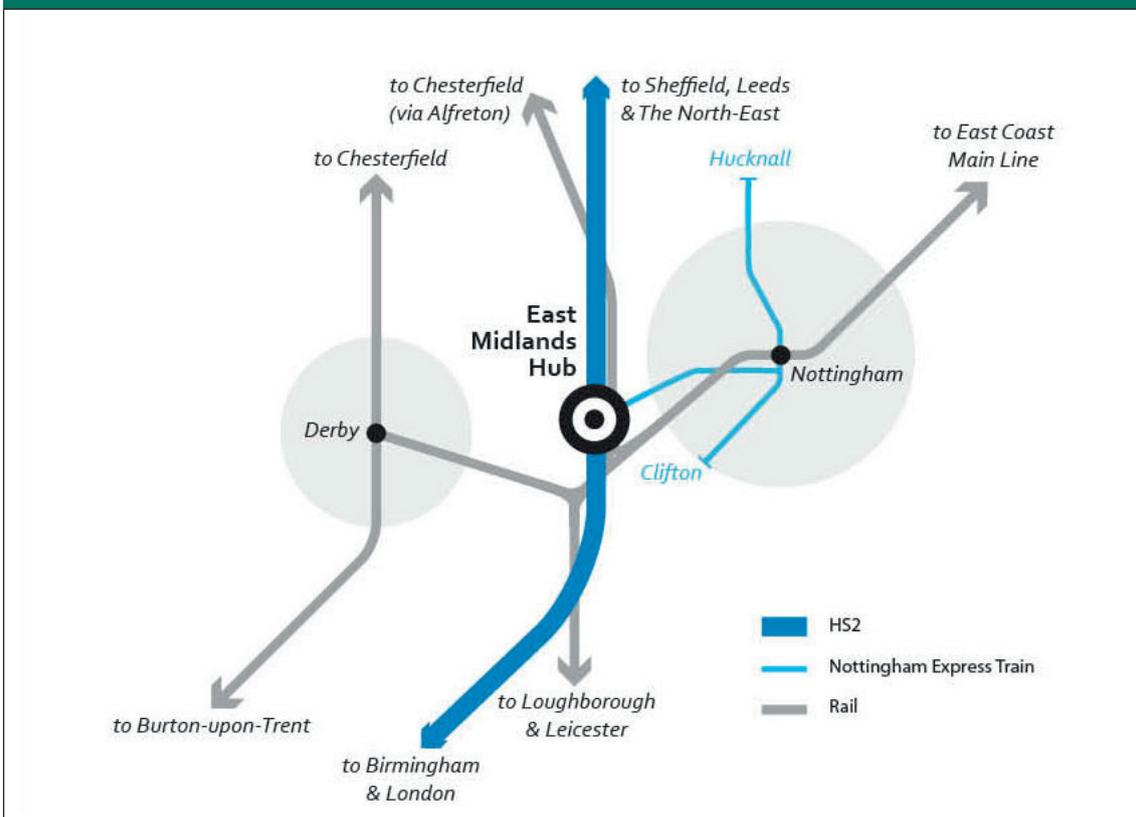
### Rail connectivity in Manchester



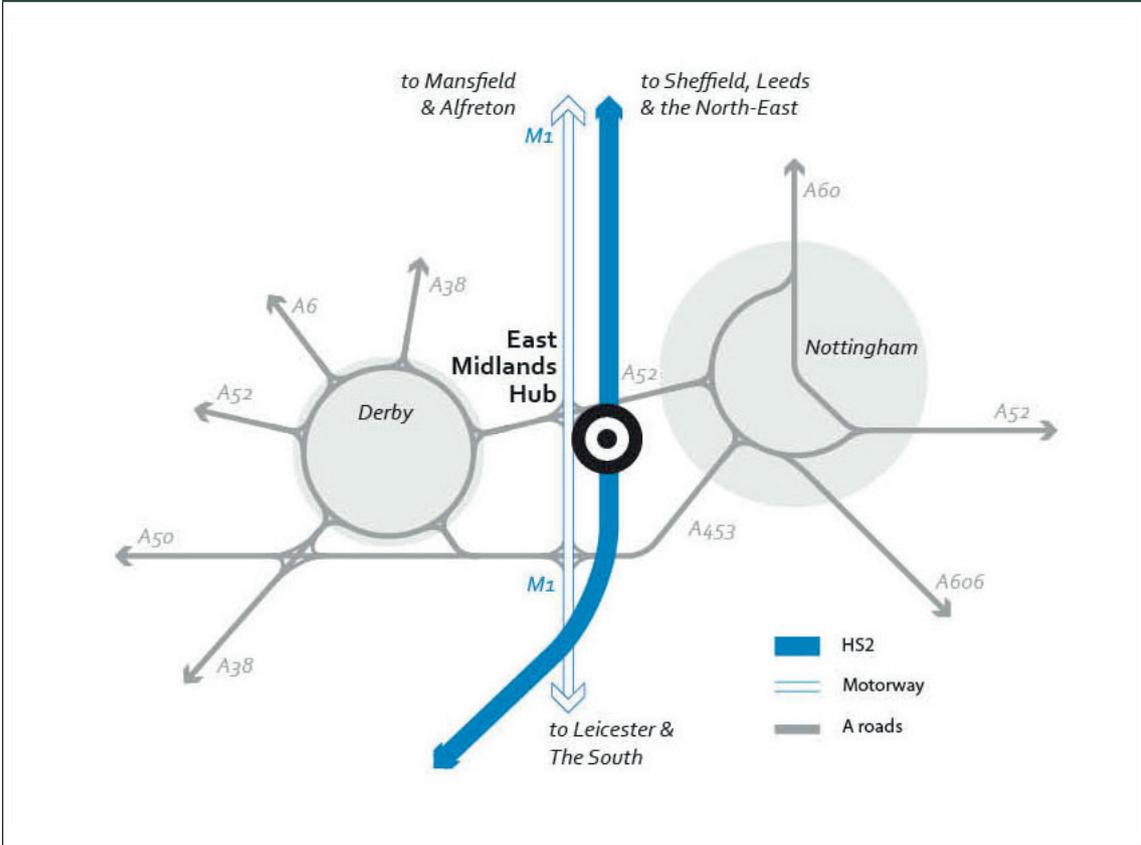
### Rail connectivity from Crewe



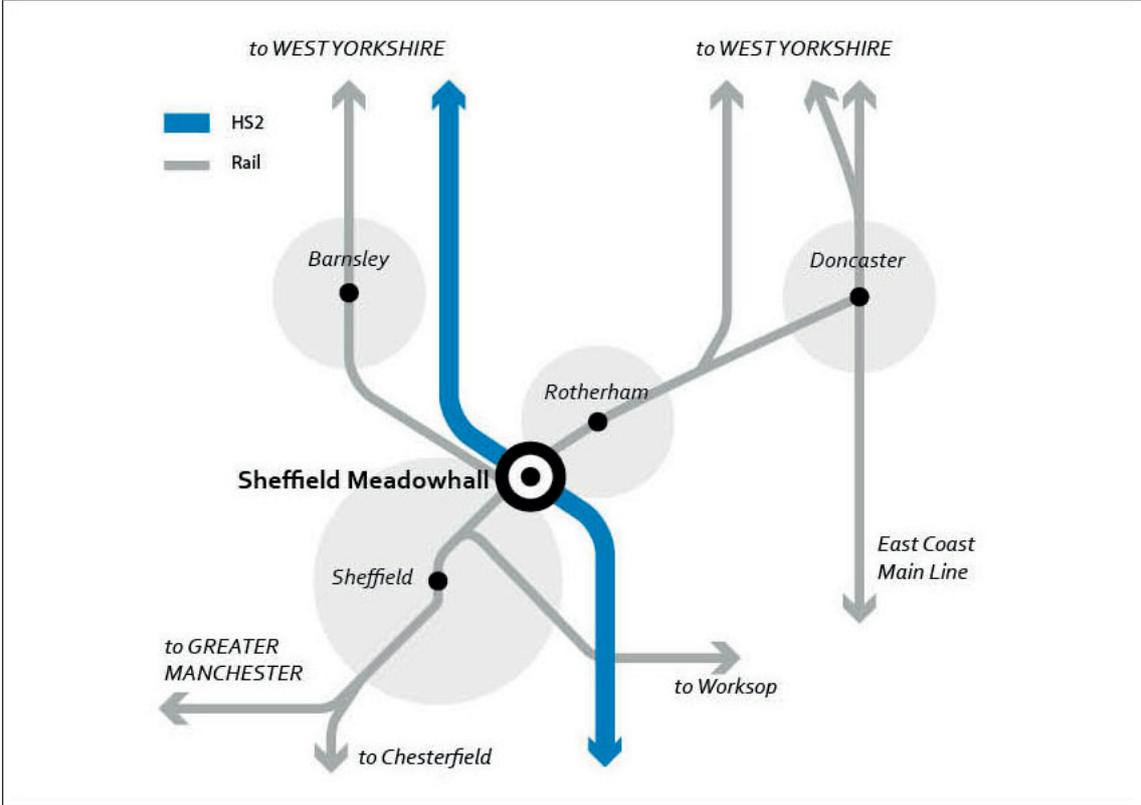
### Rail connectivity in the East Midlands



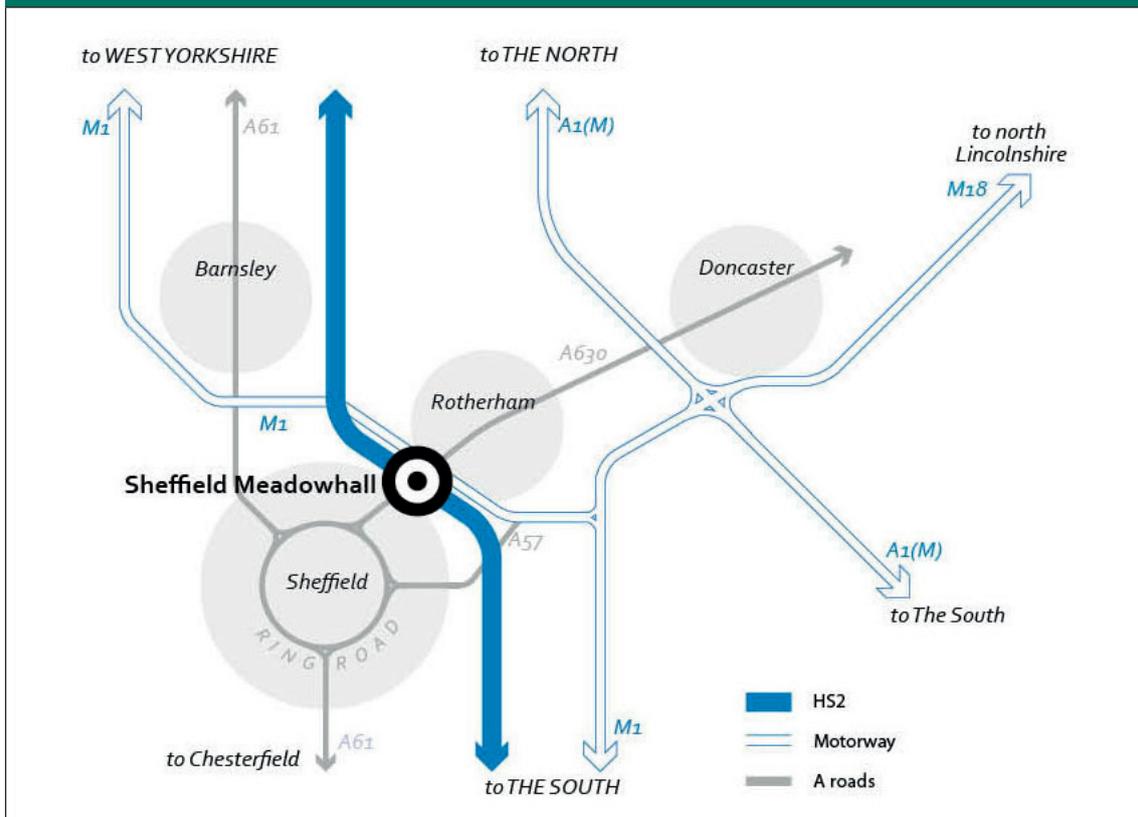
### Highway connectivity in the East Midlands



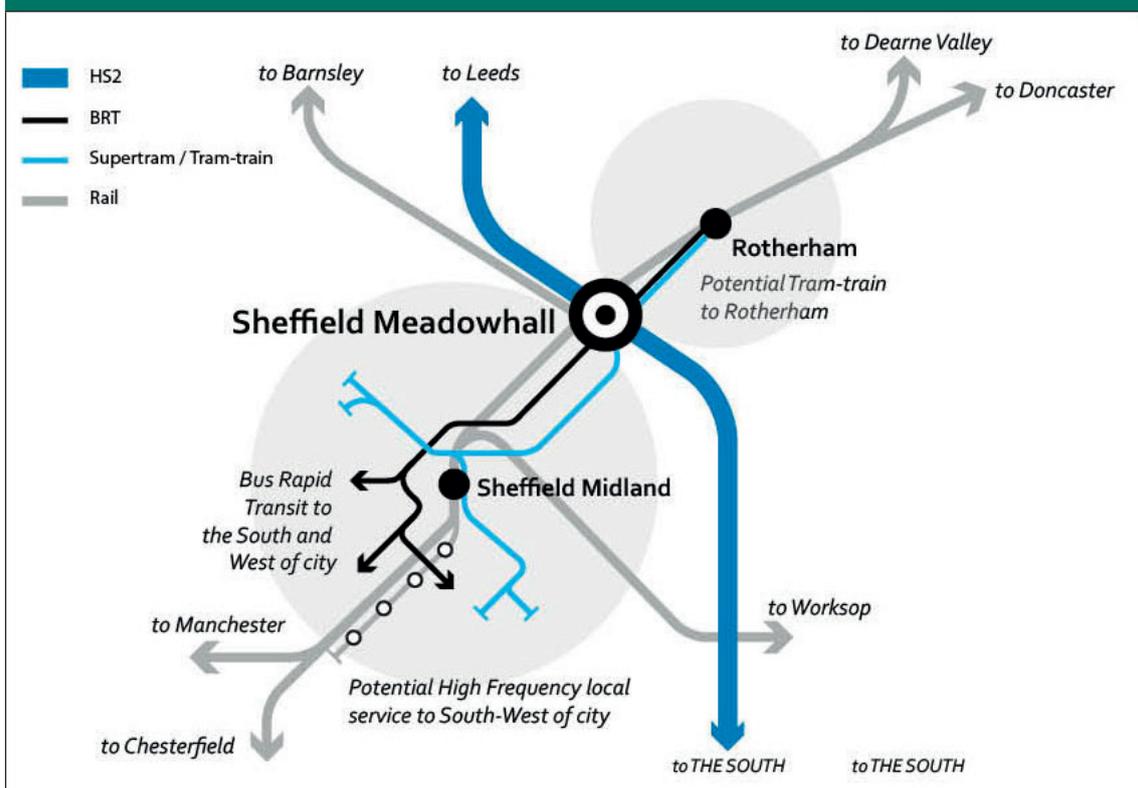
### Rail connectivity in Sheffield



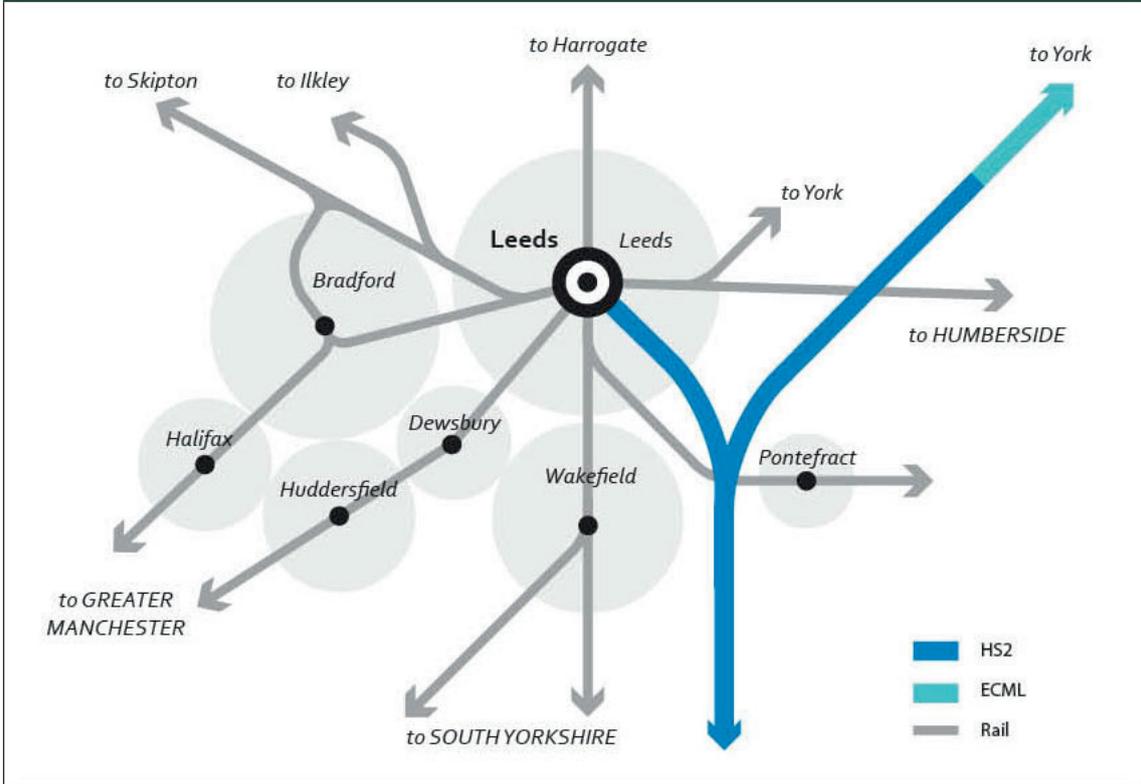
### Highway connectivity in Sheffield



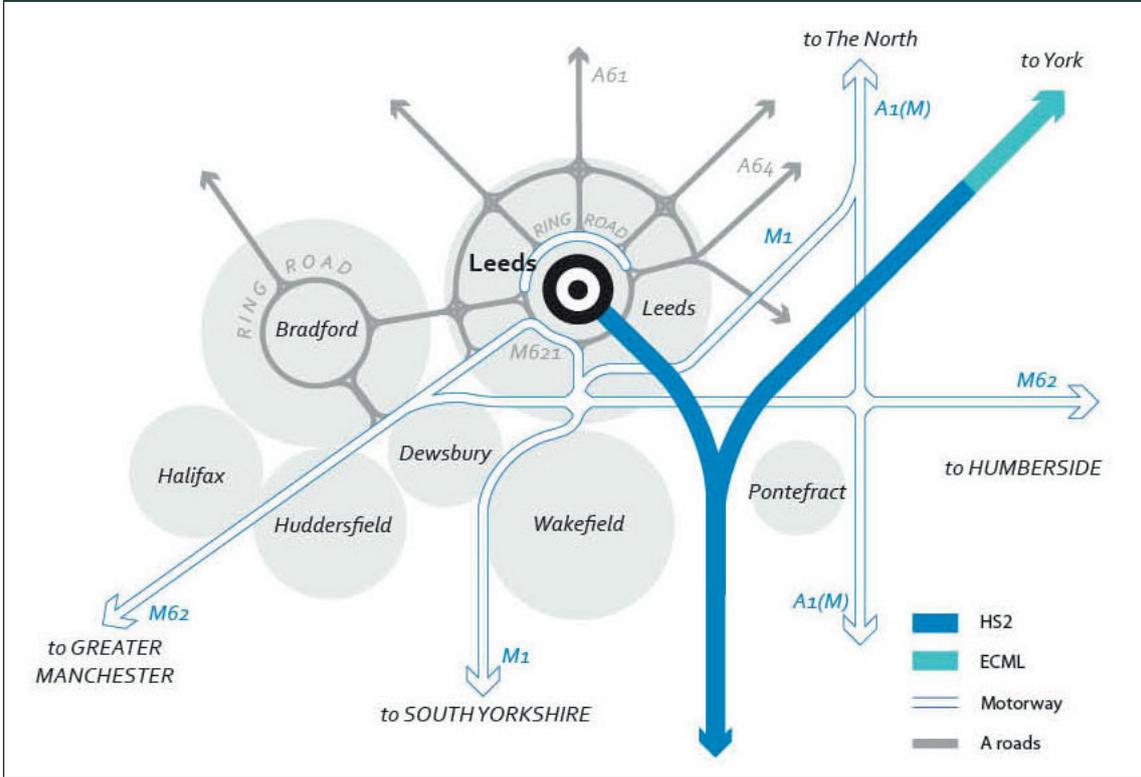
### Public transport opportunities for Sheffield with HS2



### Rail connectivity in West Yorkshire



### Highway connectivity in West Yorkshire



## Fuelling regeneration

The new station sites will provide a significant opportunity for regeneration and development, both around the station and across the wider city region. Station environs will be attractive sites for investment and new development, bringing new jobs to the area as well as new services for local communities.

HS2 Ltd's initial analysis shows that Phase Two of HS2 will help to support the creation of some 60,000 jobs in the cities of the Midlands and the North, mostly through development around stations. We also expect the employment benefits to reach much further into the great cities of the Midlands and the North, supporting many more jobs.

## Towards a truly national high speed rail network

HS2 is a transformational project that will bring great benefits in terms of rail capacity, connectivity and reliability, which will help underpin prosperity right across the UK and leave a lasting legacy for generations to come. The new routes and stations in the Midlands and North of England will deliver benefits that do not stop at Manchester and Leeds. The beneficial effects of the new national high speed rail network will extend further north, supporting growth, unlocking jobs and boosting the competitiveness of the UK as a whole.

The Government's goal is a national network that brings the country closer together. Phases One and Two of HS2 are very significant steps toward this. The Government's priority is getting the Y network built and showing the major benefits it will bring to passengers and businesses across the country. Scotland will gain from this straight away, but it is also important to start to consider how these benefits could be extended further. We will now undertake work with Transport Scotland to understand Scotland's inter-city transport needs and how to spread the benefits of high speed rail across the UK.

## Phase Two key points

The Command Paper sets out the Government's initial preferred route with station and depot options for Phase Two of the network, which will extend directly to Manchester and Leeds and provide seamless services to a host of northern and Scottish cities.

This announcement follows the same approach used for Phase One. It allows for sharing information on the proposals as we identify our preferred route for consultation this year.

In summary, our initial preferences are:

**Manchester (Piccadilly):** A new station would be built alongside the existing Manchester Piccadilly station in the heart of the city. This would allow easy connections with regional rail services to places such as Salford, Stockport and Bolton. There would also be excellent, easy access to the extensive Manchester public transport network, such as Metrolink services to Bury, Altrincham, Eccles

and Salford Quays including MediaCityUK. Local and regional buses would be on the doorstep and there would be easy pedestrian access to the city.

**Manchester Airport:** A new interchange station would provide direct links to Manchester Airport. This station would also give the wider Cheshire area easy access to the high speed rail network, both by public transport and by car – subject to agreeing a suitable funding package with the airport and wider region.

**East Midlands (East Midlands Hub):** A new station at Toton located between Nottingham and Derby would offer excellent links to East Midlands cities and stimulate growth across the region. The station would be readily accessible by public transport from both Derby and Nottingham. Rail lines which can be connected to serve Derby, Leicester, Nottingham and much of the wider East Midlands region. For example, it would be possible for either shuttle or existing services to call at the East Midlands Hub station en route, with a journey time of 12 and 15 minutes from Nottingham and Derby respectively. The site is also close to Junction 25 of the M1 providing good road access.

The integrated HS2 and classic rail station would mean that passengers are able to benefit from quick and efficient interchanges. The connection to Derby would provide easy access for business locations in Derby including Rolls Royce, Bombardier and other businesses. The Nottingham Tram system could be further extended to the new station, providing easy access to locations such as Nottingham University, the Boots campus, Queen's medical centre and other important businesses.

**South Yorkshire (Sheffield Meadowhall):** A new station at Sheffield Meadowhall would be situated alongside the M1, providing convenient access by road from the wider region serving Sheffield and the wider South Yorkshire region. This station is well-placed to encourage jobs and growth in Sheffield and already has excellent connectivity with existing public transport networks. Meadowhall currently has a frequent rail service. At peak times up to nine trains per hour run into Sheffield Midland station, with a journey time of as little as five minutes. Trains also connect Meadowhall to Rotherham, Barnsley and beyond to Wakefield, Doncaster, Scunthorpe and stations to Leeds and Manchester. Enhanced rail access from south west Sheffield to Meadowhall could also be considered. Potentially, up to six trains per hour could run between Dore & Totley and Meadowhall. Such measures would undoubtedly improve travel time from the south west of the city, facilitating access to Meadowhall in around 20 minutes from Dore & Totley. Alternatively, potential extensions of the Tram Train could be considered, which would offer scope for additional new stops in south west Sheffield. Meadowhall is already a major bus station and an important calling point on the National Express coach network. A high quality interchange would be provided between HS2 services and rail, tram and bus services. We would work with the region to develop proposals on the connectivity at the HS2 station so that it brings benefits to the whole South Yorkshire region. With the addition of HS2, Meadowhall could become a key transport hub within the region, in a location that allows not only quick access from central Sheffield but also from across the region.

**Leeds (New Lane):** A new station in central Leeds would be built alongside the South Bank area of the city centre. This would be joined to the existing station via a dedicated pedestrian link, making it just a short walk between the two. This transfer time could be further reduced by the introduction of moving walkways. Leeds station offers connections to a number of regional rail destinations such as Bradford, Halifax and Castleford, as well as to the city's extensive bus network. There would be immediate access to this station from the M621 (Junction 3), providing connections with the city's ring roads and regional motorways. There would also be ample car parking provided at the southern entrance for those not arriving on foot or by public transport.

## Connecting the UK

In addition to the stations listed above, connections will be provided at various points across the HS2 network onto existing rail lines, enabling high speed trains to continue on to nine out of the UK's ten biggest conurbations. This means the vast majority of the country's major urban economies will benefit directly from high speed services.

Connections to the existing railway would be built at the northern end of each leg. On the western route, high speed trains would be able to directly serve destinations such as Wigan, Preston, Blackpool, Lancaster, Penrith, Carlisle, Glasgow and Edinburgh. From the eastern route, the high speed line would continue almost as far as York, making it possible for high speed trains to continue directly to places such as Newcastle, Darlington and Durham.

Further south, HS2 would connect with the West Coast Main Line at Crewe, meaning key destinations like Liverpool, Runcorn and Crewe would benefit from direct services. By calling at the key interchange of Crewe HS2 would be easily accessible for passengers in North Wales and elsewhere in the region. Decisions on the precise services to use high speed rail lines and maximise the benefits of capacity on other lines would be taken nearer the date when lines would open, so that we can be sure to take account of latest developments. We hope people will share with us their aspirations and ideas for how services could be designed to meet the needs of the country as a whole.

**Western route summary:** The western leg of the network would serve the proposed stations at Manchester Airport and Manchester Piccadilly. The line would connect with the London to West Midlands leg near Lichfield in the West Midlands, before heading north west past Stafford and on towards Crewe. A connection with the West Coast Main Line would be provided just south of Crewe, with the main line continuing in tunnel under the town, heading north. It would cross over the M6 and then the M56, and then head up past Warrington to a further connection with the West Coast Main Line south of Wigan. The Manchester stations would be served by a spur off the main line running roughly parallel with the M56 towards Manchester Airport. The airport station would be located between Junctions 5 and 6 of the M56 as the line approaches the main built-up area of Manchester. Heading north from here the line would enter a seven and a half mile tunnel, surfacing a short distance from the new station alongside

the existing station at Manchester Piccadilly. The total route length would be 95 miles.

**Eastern route summary:** The eastern leg would serve the proposed stations in the East Midlands, South Yorkshire and Leeds. The line would connect with the London to West Midlands leg to the east of Birmingham, near Junction 4 of the M6, and then follow the M42 corridor north east towards Derby and Nottingham. The East Midlands Hub station would be located between these two cities at Toton, about a mile from the M1. The line would head north, following the M1 corridor as it continues towards South Yorkshire. The station serving this region would be located at Meadowhall alongside the M1, between Sheffield and Rotherham. From here, the line would pass to the east of Barnsley and connect to the East Coast Main Line nine miles to the south west of York. As with Manchester, Leeds would be served by a spur off the main line. It would run within the existing Castleford to Leeds railway corridor, passing the southern suburbs of Leeds before rising above street level into the new station at Leeds New Lane. The total route length would be 116 miles.

**Heathrow spur and station:** As stated in January 2012, the Government believes the HS2 network should link to Heathrow and its preferred option is for this to be built as part of Phase Two. However, the Government has since established an independent Airports Commission, chaired by Sir Howard Davies, to recommend options for maintaining the country's status as an international aviation hub.

We have therefore taken the decision to pause work on the spur to Heathrow until after 2015 when we expect the Airports Commission to publish its final report. The proposals for the Heathrow spur and station are not planned to be part of the Phase Two consultation in 2013. However, there would still be the opportunity to consult separately at a later point and include the Heathrow spur in legislation for Phase Two without any impact on the delivery time, if that fits with the recommendations of the Commission.

## Next Steps: Engagement and Public Consultation

Following the publication in the Command Paper of the Government's initial route, station and depot preferences for Phase Two a period of 'informal engagement' will begin, in preparation for subsequent public consultation. The process to be followed will largely match that conducted previously for Phase One of the network.

Over the coming weeks, Ministers will be available to meet Members of Parliament affected by the Phase Two route, station and depot options. This will provide an early opportunity for Ministers to reflect on their initial preferences in the light of any local priorities. In parallel, HS2 Ltd will engage with local authorities affected by the line of route, station city partners and key environment and heritage organisations. This will help inform the Government's preparations for consultation and to ensure that interested parties are as well informed as possible.

A public consultation on the routes, stations and depots for Phase Two was originally planned for 2014. However, the Government has decided to fast-track this work and now intends to hold a public consultation in 2013.

As well as recognising the significant opportunities a high speed rail network offers Britain, the Government also acknowledges that major infrastructure projects also have an impact on local communities. We are committed to ensuring a fair deal for those affected by the initial options for Phase Two set out in the Command Paper. A consultation on an Exceptional Hardship Scheme (EHS) to assist property owners affected by Phase Two has therefore been published alongside the Command Paper. More detailed information on the EHS Consultation can be found by:

- Using the HS2 Ltd consultation website at [www.hs2.org.uk](http://www.hs2.org.uk)
- Placing an order by phone – 0300 123 1102

The consultation on the Phase Two EHS will close on 29 April 2013.

## Keeping in touch

HS2 Ltd can be contacted directly via the enquiry line (020 7944 4908), email address ([HS2enquiries@hs2.org.uk](mailto:HS2enquiries@hs2.org.uk)) or by post:

HS2 Limited  
2nd Floor  
Eland House  
Bressenden Place  
London SW1E 5DU

The Command Paper and all the published supporting documents can be found on the Department for Transport's website, at [www.dft.gov.uk/highspeedrail](http://www.dft.gov.uk/highspeedrail)