

High Speed Rail Summary

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A National Strategy for High Speed Rail

In January 2009, the Government established High Speed Two Ltd (HS2 Ltd) to consider the options for a new high speed rail network in Britain, starting with a costed and deliverable proposal for a new line from London to Birmingham.

HS2 Ltd's report was presented to the Government at the end of December 2009. It is published alongside the Command Paper today. It concludes that there is a strong business case for a new London to Birmingham line, and sets out detailed recommendations for the design of its route, together with a range of options for how it might be extended to serve other conurbations.

The Government has evaluated these proposals in respect of their costs and benefits for enhancing capacity and connectivity in a sustainable way, which is its key strategic objective for inter-city transport. As part of its analysis, it has also considered other realistic options for meeting the UK's inter-urban capacity needs over the next 30 years, including carrying out a detailed analysis of the potential costs and benefits of major improvements to existing rail and road networks.



Rail Images

On the basis of this evidence, the Government's assessment is:

1. That over the next 20 to 30 years the UK will require a step-change in transport capacity between its largest and most productive conurbations, both facilitating and responding to long-term economic growth;
2. That alongside such additional capacity, there are real benefits for the economy and for passengers from improving journey times and hence the connectivity of the UK;
3. That new capacity and improved connectivity must be delivered sustainably: without unacceptable environmental impacts, and in line with the Government's strategy to promote a low carbon economy, including its statutory targets for reducing emissions of greenhouse gases;
4. That high speed rail is the most effective way to achieve these goals, offering a balance of capacity, connectivity and sustainability benefits unmatched by any other option;
5. That high speed rail should form an essential part of a wider strategy for sustainably enhancing national, regional and local transport networks in the UK that includes policies for managed motorways, rail electrification, and the increasing uptake of low carbon vehicles;
6. That Britain's initial core high speed network should link London to Birmingham, Manchester, the East Midlands, Sheffield and Leeds, and be capable of carrying trains at up to 250 miles per hour. This Y-shaped network of around 335 miles (see indicative map on page 10) would bring the West Midlands within about half an hour of London, and deliver journey times of around 75 minutes from Leeds, Sheffield and Manchester to the capital. HS2 Ltd's work has shown that as a first step a high speed line from London to Birmingham would offer high value for money as the foundation for such a network, delivering more than £2 of benefits for every £1 spent;
7. That the initial core 'Y' high speed network should include connections onto existing tracks, including the West and East Coast Main Lines, so that direct high speed train services can be operated from the outset to other cities including Glasgow, Edinburgh, Newcastle and Liverpool. Consideration should be given to extending the network subsequently to these and other major destinations to further improve capacity and connectivity;
8. That the capacity released through transferring long-distance services to this network should be used to expand commuter, regional and freight services on existing lines, with particular benefit for areas expected to see significant housing growth including Milton Keynes, Luton, Northampton, Peterborough, Kettering, Corby and Wellingborough;
9. That HS2 Ltd's recommended route for a London-Birmingham high speed line ('High Speed Two'), which would run from a rebuilt Euston station in London to a new Birmingham City Centre station at Curzon/Fazeley Street, is viable, subject to further work on reducing specific impacts on the local environment and communities;

10. That following completion of that further work, formal public consultation on the Government's proposals for high speed rail in the light of HS2 Ltd's recommended route for such a line should begin in the autumn;
11. That HS2 Ltd should now begin similar detailed planning work on the routes from Birmingham to Manchester and to Leeds, to be completed in summer 2011, with a view to consulting the public early in 2012;
12. That effective integration with London's current and planned transport networks is crucial, and that this is best delivered through the combination of a Euston terminus and a Crossrail Interchange station sited between Paddington and Heathrow, which would also provide a link to the Great Western Main Line;
13. That a second interchange station located to the south east of Birmingham would be of value in enhancing access to the high speed line for the West Midlands, and offer direct links to Birmingham Airport, the National Exhibition Centre and the M6 and M42. Such a station should be included in the core project, subject to an acceptable funding package being identified;
14. That high speed rail access to Heathrow is important, and should be provided from the outset through a fast and direct link of about 10 minutes via the Heathrow Express from the Crossrail Interchange station;
15. That, as foreshadowed in paragraph 57 of the Government's 2009 Decision on Adding Capacity at Heathrow, further assessment is needed of the case for a potential station at Heathrow Airport itself. The Government has appointed Lord Mawhinney to assess the options, and their respective business cases, taking account of the work published today by HS2 Ltd, the study already underway by the airport operator, and the proposals that have been put forward for a station at Iver;
16. That the new British high speed rail network should be connected to the wider European high speed rail network via High Speed One and the Channel Tunnel, subject to cost and value for money. This could be achieved through either or both of a dedicated rapid transport system linking Euston and St Pancras and a direct rail link to High Speed One. HS2 Ltd will carry out further work to assess the viability and cost of each of these, including a full assessment of the business case, prior to any public consultation;
17. That powers to deliver this proposed high speed rail network should be secured by means of a single Hybrid Bill, to be introduced subject to public consultation, environmental impact assessment and further detailed work on funding and costs to feed into decisions to be taken in the next Spending Review. Depending on Parliamentary timescales and approval, this could allow construction to begin after the completion of London's Crossrail line, opening from 2017, with the high speed network opening in phases from 2026;
18. That HS2 Ltd's estimated £30 billion cost for a core high speed rail network linking London to Birmingham, Manchester and Leeds reflects its finding that construction costs for major projects in the UK are higher than for comparable projects elsewhere in Europe. In the light of this evidence, Infrastructure UK

will work with the Department for Transport to consider whether and how civil engineering costs can be reduced, and further work on HS2 Ltd's cost estimates may be required following the completion of that work;

19. That the funding options for high speed rail should be further developed by the Government, taking particular account of the scope for securing third party contributions towards the cost of constructing new lines and stations;
20. That a long-term programme of investment in high speed rail would present significant new opportunities for the UK's design, engineering, construction and manufacturing sectors; enable the development of skills and expertise in the UK's rail industry supply chains; and promote UK firms' expertise and competitiveness in the global high speed rail market;
21. That a strategy of this kind can only be developed and made a reality through active and open engagement with those who will be affected by or who are interested in it; and that, well before formal consultation starts in the autumn, HS2 Ltd should engage with local authorities and representative groups, including those representing key minorities, to ensure that the consultation can be as effective as possible.

The Command Paper sets out both the Government's response to HS2 Ltd's recommendations and its assessment of the case for an initial core British high speed rail network, on the basis of the evidence presented by HS2 Ltd and its own analysis. It will be the subject of formal public consultation and further review and assessment before any final decisions can be taken on either the strategic case for high speed rail or the specific routes that any line may follow.

The Government proposes to begin formal public consultation in the autumn, to cover three key issues:

- HS2 Ltd's detailed recommendations for a high speed line from London to the West Midlands
- The strategic case for high speed rail in the UK
- The Government's proposed strategy for an initial core high speed rail network

Part 3 of the Command Paper sets out in more detail the Government's plans for public engagement and consultation.

Executive Summary

The Twenty-First Century Transport Challenge

Demand for travel between the UK's largest cities is expected to increase significantly over the coming decades, driven by continuing economic growth and rising prosperity. This has the potential to see congestion and crowding gradually worsen across all modes of transport, leading over time to slower, less reliable and more uncomfortable journeys for travellers, and potentially endangering the long-term health of the UK economy.

The Government is taking action to address these challenges and, in line with Sir Rod Eddington's recommendations¹, is focusing substantial investment on improving the capacity and performance of existing networks.



Rail Images

For rail, some £25 billion will be invested in capacity enhancements in England and Wales over the next seven years, including at least 1,300 extra railway carriages, major line and station upgrades in Reading and Birmingham, and the

¹ The Eddington Transport Study (2006) <http://www.dft.gov.uk/about/strategy/transportstrategy/eddingonstudy/>

Thameslink and Crossrail schemes to transform capacity and major north-south and east-west commuter routes into London. The recently completed modernisation of the West Coast Main Line has substantially increased rail capacity to Birmingham and beyond. Electrification and additional rolling stock are also planned for the Great Western Main Line and on commuter routes in the North West.

On the strategic road network, motorway widening and the innovative use of hard shoulder running at peak times on the M42 near Birmingham, together with improved real time information for motorists, offer the prospect of sizeable capacity and reliability benefits. The £6 billion roads programme announced in January 2009 is rolling out this approach much more widely, alongside a number of targeted motorway and strategic road widening schemes across England.

But there is a limit to the improvements that can be squeezed out of our current transport system. The same railway lines that provide inter-urban routes north of London must also support the capital's commuter market, as well as regional and freight services. As a result, they are already close to carrying as many services as they can.

Further major upgrades to the existing network would be highly expensive, problematic and disruptive. The West Coast Route Modernisation project cost £8.9 billion and took almost a decade. It delivered fewer benefits than originally envisaged and caused serious ongoing disruption to travellers and to business, at a significant economic and social price in addition to the cost of the project itself.

Given the extended timescales for planning, developing and delivering major schemes, it is therefore vital that work begins now to identify how best to ensure that the UK's transport infrastructure can continue to support and facilitate a successful twenty-first century economy.

Improving capacity and connectivity cannot be the sole objectives for new national transport infrastructure. It must also be sustainable.

Transport projects bring substantial social and economic benefits, but they can also impose costs through their impacts on individuals, communities and the environment, including through the carbon emissions that they generate. In developing the UK's future transport networks, therefore, the Government's objective is to bring forward transport projects which will deliver the greatest improvements in capacity, connectivity and performance whilst minimising these negative impacts.

The Strategic Case for High Speed Rail

The Government has considered a wide range of options for addressing Britain's long-term inter-city transport challenges, taking into account their impacts on capacity, connectivity and sustainability, as well as their financial costs. These included new motorways and railway lines, both conventional and high speed, an expansion in domestic aviation, and a number of major packages of improvements to existing networks.

In respect of improving the networks linking England's principal conurbations, the Government has ruled out major new motorways and an expansion of domestic aviation on sustainability grounds. The growth in car travel enabled by entirely new

major motorways would increase greenhouse gas emissions substantially, over and above the local environmental implications of such schemes. And new motorways would not in any case provide significant time savings for city centre to city centre journeys. A major expansion in domestic inter-city aviation is considered by the Government – in line with the Committee on Climate Change's advice in December 2009 – not to be a viable option due to long-term constraints on aviation capacity.

A detailed analysis has been carried out by the Government of the potential costs and benefits of improving existing road and rail networks, alongside the work done by HS2 Ltd on the case for new high speed and conventional railway lines.

This assessment indicates that major, multi-billion pound upgrades to existing road and rail networks would provide far less additional capacity than a new railway line. Major upgrades also involve considerable disruption for travellers. Moreover, they yield few of the connectivity improvements which new high speed routes make possible – for example, transforming links between the West Midlands and other conurbations in the Midlands, the North and Scotland, in addition to substantially improving journey times to London.

While entirely new conventional rail lines could address the long-term capacity constraints on the rail network, their net costs would be almost as high as those of high speed rail without delivering anything close to the same journey time benefits.

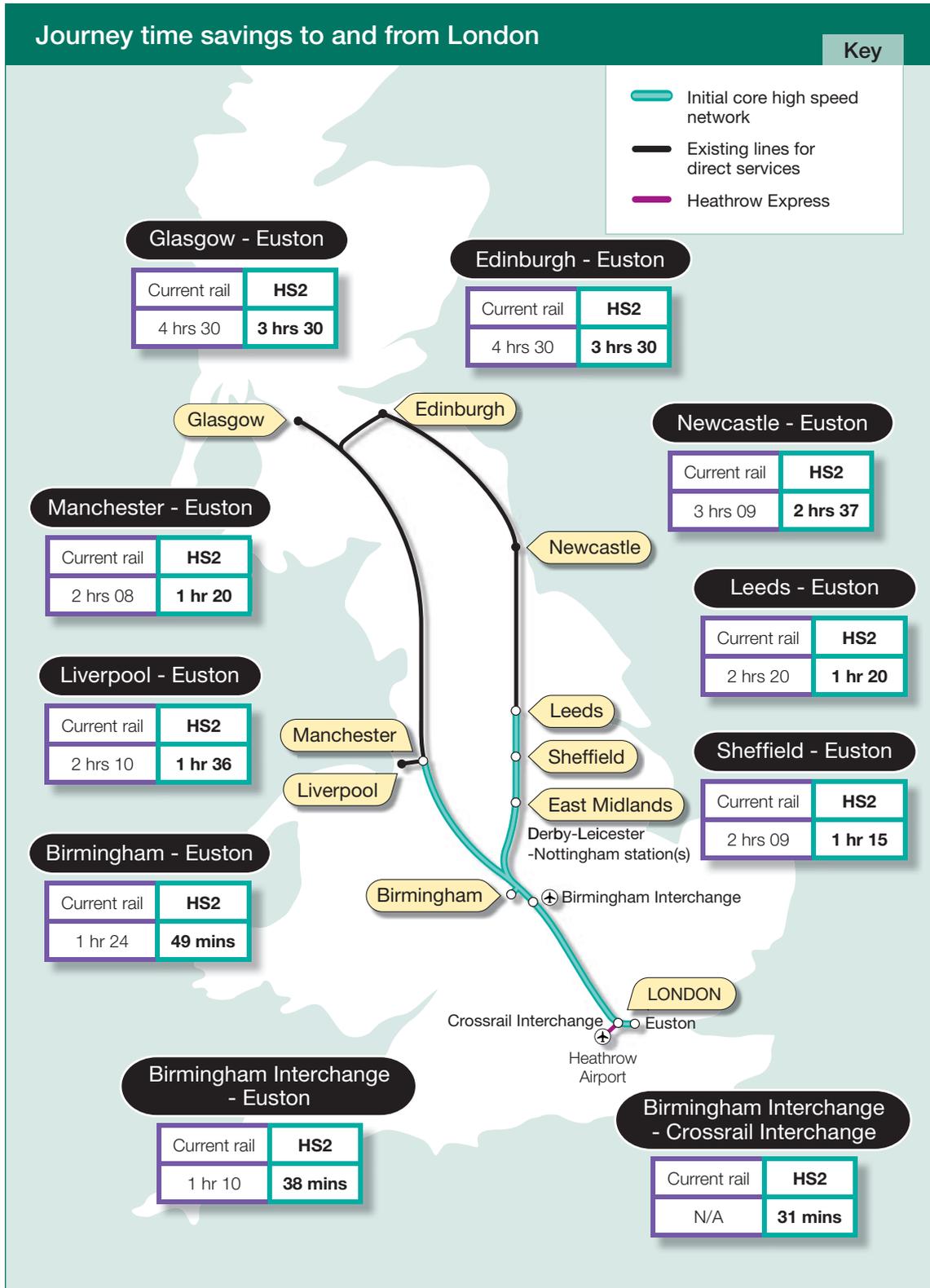
High speed rail, in contrast, delivers against every one of the Government's key objectives. It offers dramatic connectivity benefits and journey time savings between major urban centres. It provides very significant capacity increases for long-distance travellers as well as releasing space on conventional networks for increased commuter and freight services. And it achieves this whilst remaining consistent with the Government's overall strategies for reducing greenhouse gas emissions.

Furthermore, HS2 Ltd's work suggests that a well-designed and managed high speed rail project, despite its substantial costs, could deliver high value for money, with well over £2 of benefits for every £1 spent.

On the basis of this analysis, the Government's assessment is that high speed rail should be at the heart of its long term strategy to transform the UK's inter-urban transport networks.

A core high speed rail network for the UK

In comparison to other European nations, Britain's economic geography is tightly packed, with relatively short distances between its major cities, especially in the Midlands and the North. Journey times and capacity between the UK's four largest conurbations – London, Birmingham, Manchester and Leeds – could be transformed by a Y-shaped high speed rail network of around just 335 miles of high speed track, capable of carrying trains at up to 250 miles per hour.



Birmingham/West Midlands connections via initial core high speed network

Key

-  Initial core high speed network
-  Existing lines for direct services

Birmingham - Glasgow

Current rail	HS2
3 hrs 57	3 hrs 15

Birmingham - Edinburgh

Current rail	HS2
4 hrs 02	3 hrs 15

Birmingham - Newcastle

Current rail	HS2
3 hrs	2 hr 20

Birmingham - Liverpool

Current rail	HS2
1 hr 34	1 hr

Birmingham - Leeds

Current rail	HS2
2 hrs	1 hr 05

Birmingham - Manchester

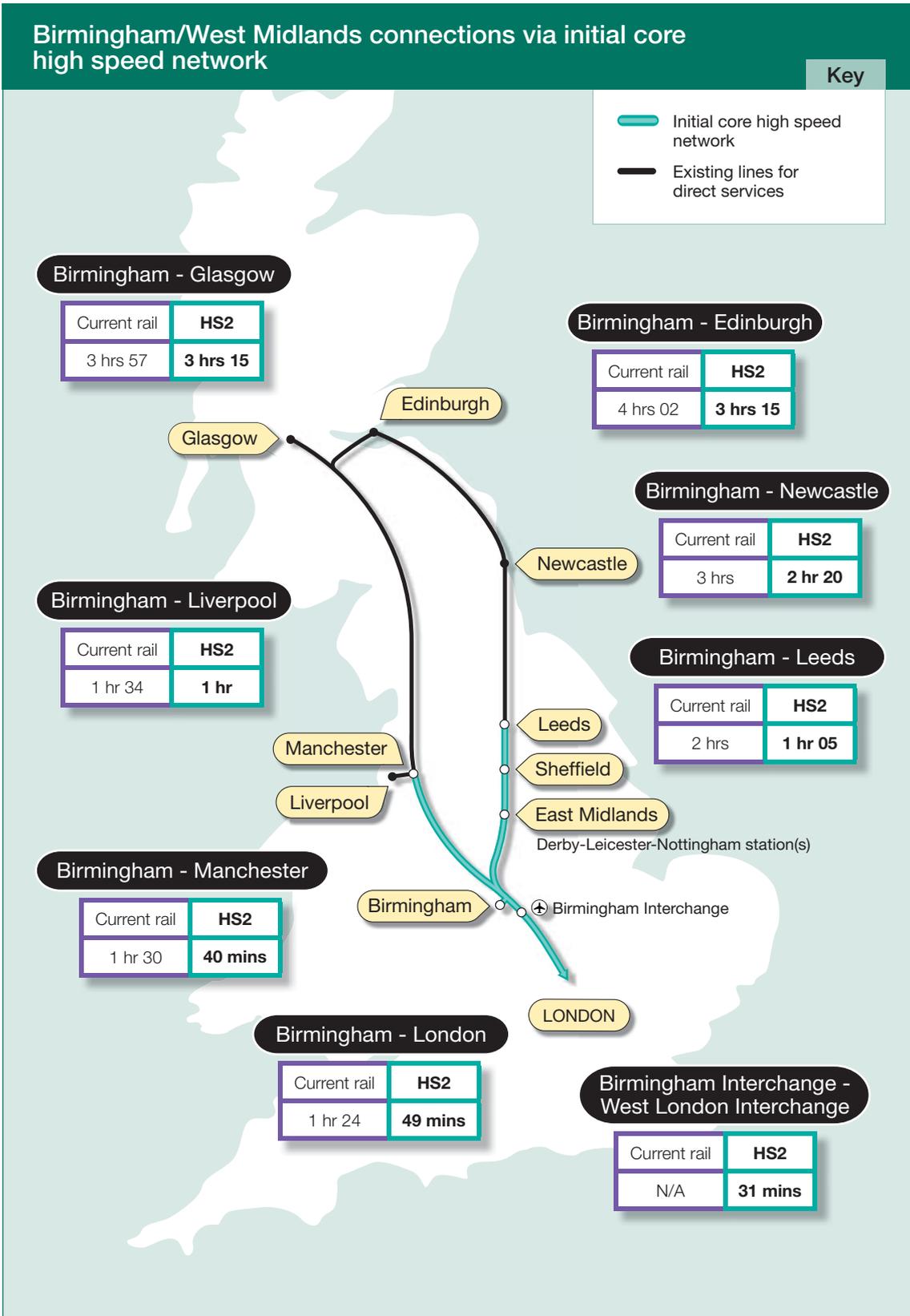
Current rail	HS2
1 hr 30	40 mins

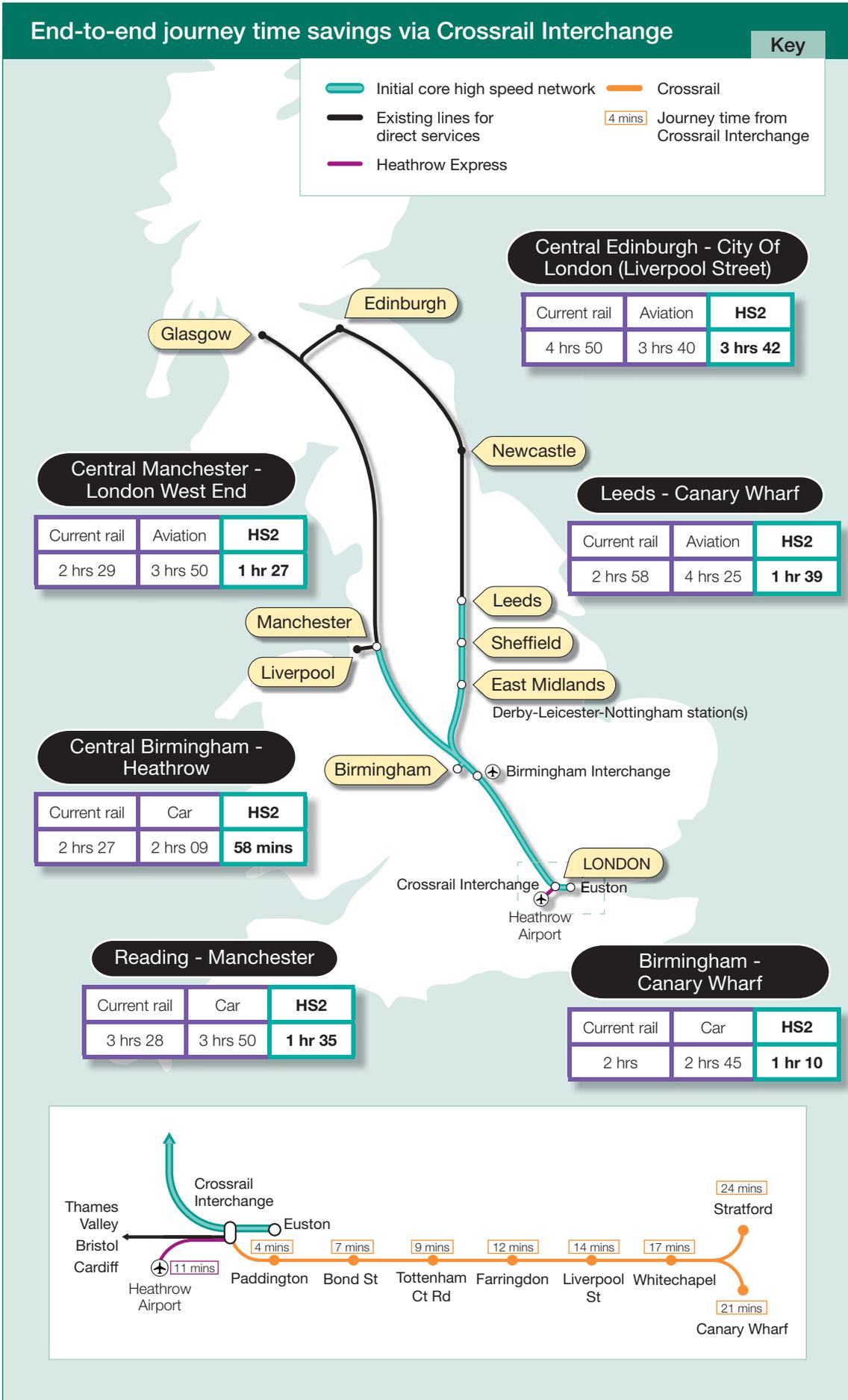
Birmingham - London

Current rail	HS2
1 hr 24	49 mins

Birmingham Interchange - West London Interchange

Current rail	HS2
N/A	31 mins





The benefits of this initial Y-shaped network would not be limited only to travellers from the four cities directly situated on the high speed line. By including stations in the East Midlands and South Yorkshire, connectivity and capacity would be increased to other key cities and regions. Additional destinations, including Liverpool, Newcastle, Glasgow and Edinburgh, would be reached directly by high speed trains from the outset, by building in the links necessary for trains to continue at conventional speed onto the East and West Coast Main Lines.

Capacity

The most significant capacity benefits of this network would be felt on the three principal rail corridors heading north from London, and particularly the critical London-West Midlands corridor, whose rail capacity would be more than trebled. This would address the substantial demand growth expected on these key strategic routes, which serve extensive long distance, commuter and freight markets, as well as providing the foundation for journeys to a wide range of destinations further north, on both sides of the Pennines.

The very high capacity of the new line would be achieved both through its dedicated use for high speed operations, allowing an intensive service pattern, and through the use of longer (and larger) trains of up to 400 metres (compared to the current 207-metre Pendolinos currently in service on the West Coast Main Line).

By transferring long distance services to the high speed line, significant amounts of capacity would also be released on the existing West Coast Main Line for commuter and freight trains, including services to key areas of housing growth around Milton Keynes and Northampton.

A Y-shaped core high speed rail network yields similar increases in capacity on the East Coast and Midland Main Lines. Long-distance services to the East Midlands, South Yorkshire and Leeds would switch to the new network, as well as the southern portion of journeys to Newcastle and Edinburgh. All these lines are expected to experience significant capacity constraints over the next 20 to 30 years.

Connectivity

This initial core high speed rail network would not only provide capacity benefits, but would also significantly reduce journey times between all of the UK's largest conurbations.

The fastest journey from the West Midlands to London would be more than halved to around half an hour, and Manchester and Leeds would be brought within around 75 minutes of London, with travel time from these cities to Birmingham halved to just 40-45 minutes. The time needed to travel from Sheffield to London could be cut by 55 minutes to just 75 minutes, and from Sheffield to Birmingham from 75 minutes to just 45 minutes.

Furthermore, the links from the core high speed network onto current inter-city lines would see greatly improved connectivity to Liverpool, Newcastle, Edinburgh and Glasgow. A journey time from Glasgow and Edinburgh to London of just 3 hours 30 minutes could be achieved – fast enough to be an attractive and viable alternative to travelling by air. The use of flexible rolling stock, able to run on both high speed and conventional lines, would ensure that these wider benefits were delivered from the outset.

The connectivity benefits of this core network would be multiplied by a fast, convenient link onto Crossrail, the rapid and frequent east-west underground line through London due to open from 2017. A high speed rail/Crossrail Interchange station, west of Paddington, would slash end-to-end journey times to key destinations in the West End, Canary Wharf and the City of London. The journey time from Leeds' financial services sector to Canary Wharf, for instance, would be as little as an hour and a half.

A Crossrail interchange station would also transform connectivity between the north-south rail network and both Heathrow and the Great Western Main Line. This would bring Heathrow Airport to within an hour of the centre of Birmingham, and around 45 minutes of Birmingham Airport, and provide swift connections for those travelling to the cluster of technology and other firms in the Reading/M4 corridor, and to Bristol, South Wales and the South West. A second interchange station close to the National Exhibition Centre could bring Birmingham Airport closer to London.

Sustainability

The capacity and connectivity benefits of high speed rail are substantial. But for a British high speed rail network to be a viable way forward, it is equally important that it is sustainable.

HS2 Ltd has carried out a thorough assessment of high speed rail's potential carbon implications (based on a London to Birmingham line). Its conclusion is that, even allowing for the additional demand for travel that such a line would generate, they are likely to be broadly neutral: a change in average annual emissions in a range from -0.41 to +0.44 million tonnes, equivalent to just +/-0.3 per cent of current annual transport emissions. There would also be some carbon emitted as a result of construction but this would not be significant in the context of the UK's overall emissions.

The great majority of transport carbon emissions – around 90 per cent – are generated by road transport, and cutting these emissions will be the key factor in ensuring that the transport sector plays its full part in meeting the UK's statutory carbon reduction targets. The Government's low carbon transport strategy sets out a routemap to achieve this. Any new high speed network would also need to be designed and built to be resistant to the unavoidable impacts of climate change.

A high speed rail network would have other implications for sustainability as well as its carbon emissions. The Government is mindful of its responsibilities to protect landscapes and biodiversity, including sites of particular beauty or scientific interest, as well as to ensure that land take, noise and other impacts on local communities are proportionate.

In contrast to carbon emissions, these effects are heavily dependent on the detailed route chosen and mitigation measures deployed. HS2 Ltd has assessed a range of route options between London and Birmingham for sustainability, and identified a recommended route whose impacts on the local environment and communities are assessed as being the most consistent overall with the Government's sustainable development objectives. However, having assessed the recommended route in detail, the Government believes that further mitigation may be possible, and has asked HS2 Ltd to consider the options for providing such additional mitigation.

The Government's view

The Government's view is that the UK's initial core high speed rail network should consist of a Y-shaped network connecting London directly with Birmingham, Manchester and Leeds at speeds of up to 250 miles per hour.

The necessary interchange stations and links to the conventional rail network should also be provided to reach the full range of potential destinations from outset, and the capacity released on existing lines should be used to expand commuter and freight services, with particular benefit for key areas of housing growth around Milton Keynes and Northampton.

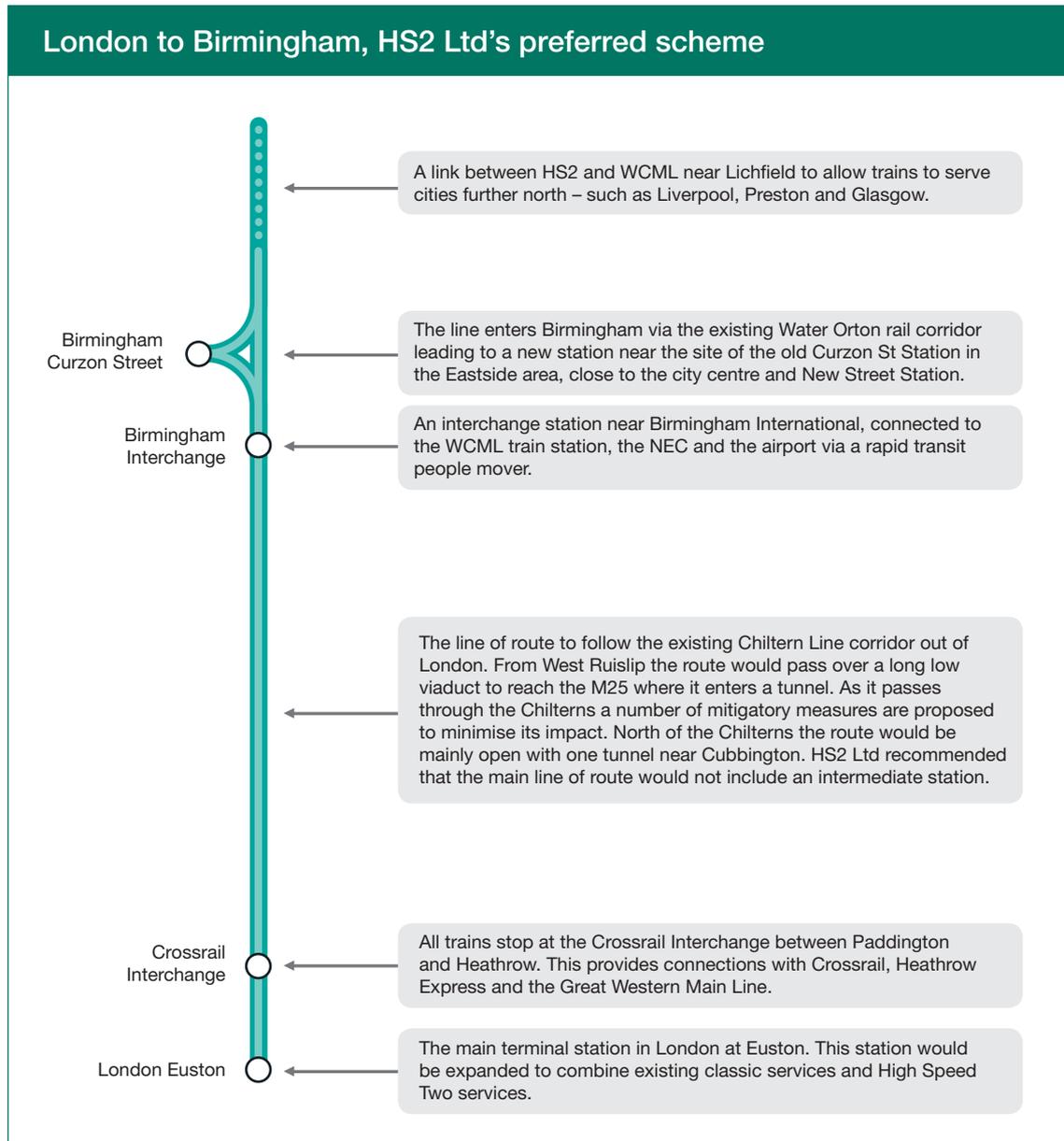
This assessment will be subject to the results of the further work by HS2 Ltd that the Government has commissioned on the detailed route options and business case for the lines to Manchester and Leeds, as well as to the outcome of forthcoming public consultation.

In the longer term, the initial core 'Y' network could also provide the foundations for a more extensive network of high speed lines encompassing other English regions, Scotland and Wales. The work carried out by HS2 Ltd indicates a potentially strong business case for lines extending to Glasgow and Edinburgh, but further work will be required to understand the costs and benefits of each link in more detail and to identify the optimum solutions and funding packages. Any future decision on the construction of new lines in Scotland would be a devolved matter.



'High Speed Two' – London to Birmingham

The practical implementation of high speed rail remains a major planning, construction and funding challenge. This is why, as well as considering the options for a British network, HS2 Ltd was also commissioned to develop a costed and buildable proposal for a high speed line from London to Birmingham, 'High Speed Two', and to assess its costs and benefits.



After evaluating a range of possible station and route configurations, HS2 Ltd identified a recommended route option which their calculations indicate would deliver significant benefits of well over £2 for every £1 spent.

The Government has carefully assessed the various route options considered by HS2 Ltd, including routes using elements of the existing transport corridors of the

M1, M40, A413 and West Coast Main Line, and also those which follow new alignments, for instance crossing the Hughenden Valley through the Chiltern Hills.

It agrees with HS2 Ltd that its route option 3, which in part follows the A413 corridor, appears to best meet the Government's objectives for minimising journey times and cost, and managing impacts on the local environment and communities in an acceptable way. After thorough consideration, the Government has come to the overall view that all of the other route options presented by HS2 Ltd are significantly inferior. It is therefore HS2 Ltd's recommended route option 3 which the Government proposes to put forward for public consultation in the autumn, following the completion of further work on mitigating specific impacts on the local environment and communities along the route.

As described by HS2 Ltd, this route would run in tunnel from a rebuilt Euston Station, surfacing in West London to follow the route of the existing Chiltern Line, leaving London near Ruislip. The route would proceed largely in tunnel from the M25 as far as Amersham, and then continue to the west of Wendover and Aylesbury, partly in tunnel and partly following the existing A413 and Chiltern Line corridor.

The next section of the route would make use of the largely-preserved track-bed of the former Great Central Railway, before continuing north west through Warwickshire to enter Birmingham close to Water Orton. The route would terminate at a new city centre station built at Curzon/Fazeley Street in Birmingham's Eastside regeneration area, with the main line extending north to join the West Coast Mail Line near Lichfield, enabling services to continue at conventional speeds to destinations further north.

The Government's view is that a London-Birmingham route along these lines is viable, subject to further work on reducing the local impacts on landscape and communities, and could offer high value for money as the foundation for the high speed network. Following the completion of this work, public consultation will begin in the autumn of 2010.

Alongside this, the Government has also commissioned HS2 Ltd to undertake more detailed work on potential routes from Birmingham to Manchester and Leeds. This will be completed by summer 2011, with a view to consulting the public early in the following year.

Integration with urban and international networks

No effective high speed line can exist in isolation. Travellers are not interested in getting merely from one city centre station to another but in making complete journeys. It is therefore vital that high speed lines are well integrated with other transport networks, so that time savings are not dissipated through slow, unreliable or non-existent connections.

HS2 Ltd's modelling indicates that by far the largest market for High Speed Two would be for travellers to and from London, who would comprise more than 80 per cent of High Speed Two's passengers. As a result, the most important interchanges must be with London's current and planned urban transport networks, in particular the Underground and the new Crossrail line to be opened from 2017.

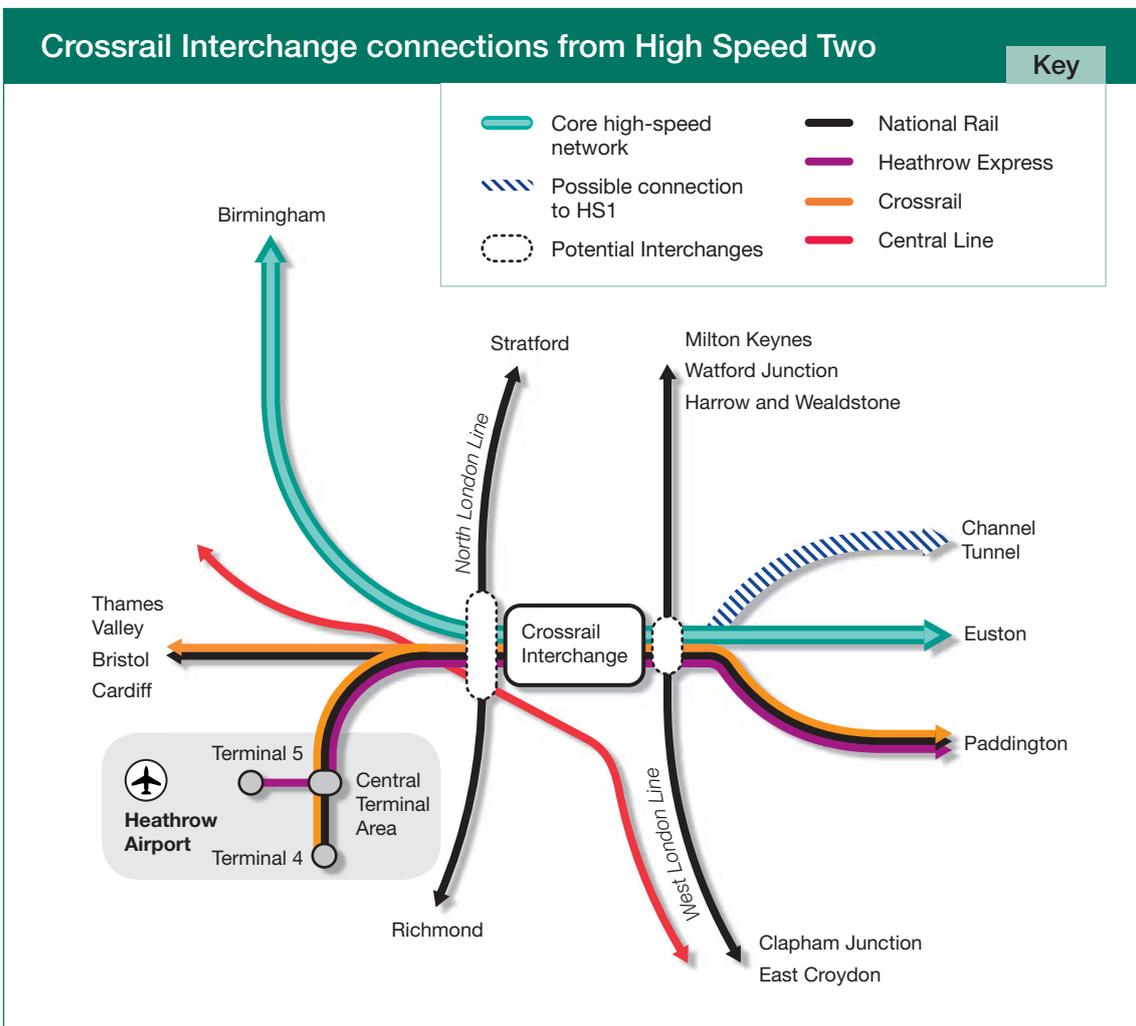
Whilst the proposed terminus at Euston would allow convenient transfer for passengers to the Victoria and Northern Lines, as well as access to other lines at Euston Square, it would not provide any connection with Crossrail. Furthermore, the large numbers of additional passengers generated by a new high speed line could cause significant operational problems on Euston’s increasingly crowded Underground platforms.

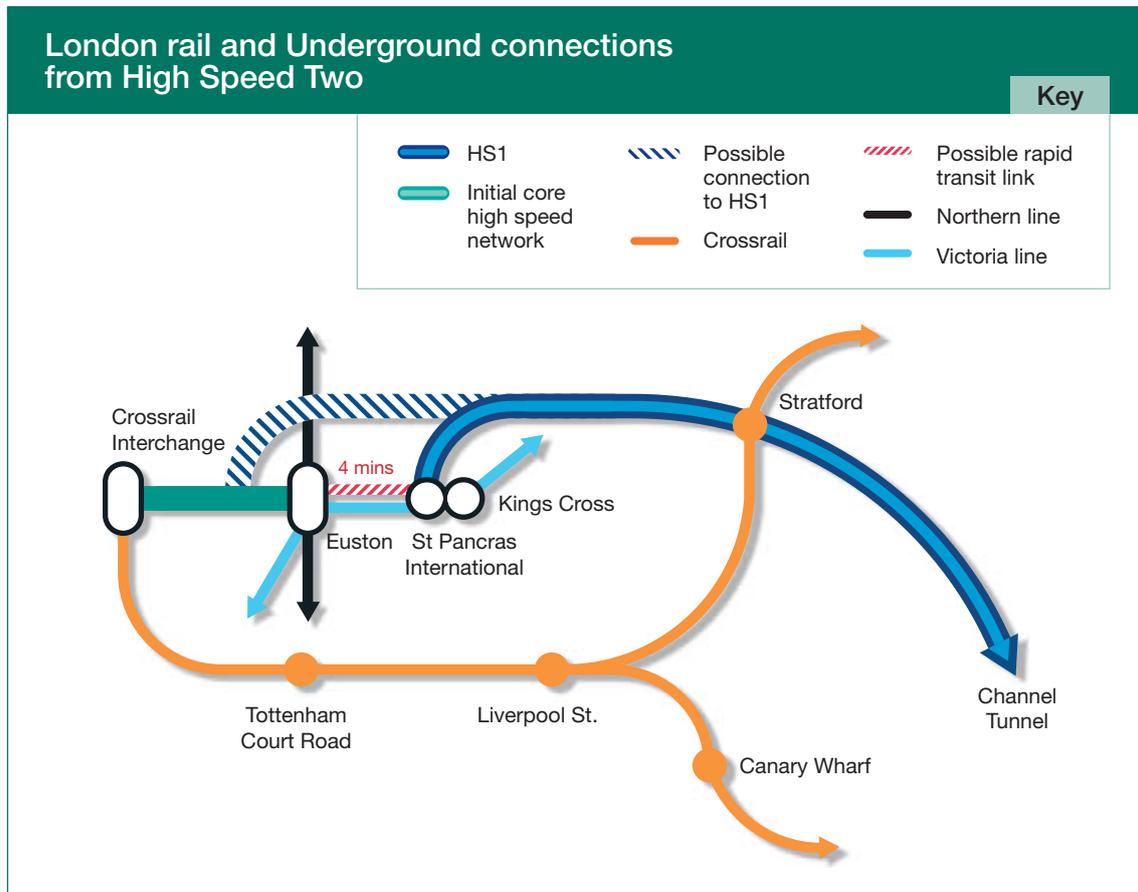
A Crossrail Interchange station a short distance west of Paddington, as recommended by HS2 Ltd, addresses these issues directly. An interchange station would provide a fast, direct link to Crossrail for passengers travelling onwards to the West End, the City and Canary Wharf, enhancing the connectivity of the high speed line and significantly reducing crowding and dispersal issues at Euston.

The Government therefore agrees with HS2 Ltd’s recommendation that a Crossrail interchange station is important for integration with London transport networks and should form part of the London-Birmingham line.

The Government also considers that rail access to Heathrow is an important factor for High Speed Two, given the airport’s strategic importance for the UK economy.

The Crossrail Interchange could provide a rapid (around 10-minute) and frequent service to Heathrow via the Heathrow Express and Crossrail.





A strategic case has been suggested for an at-airport station in addition to, or in place of, the Crossrail Interchange. The far greater connectivity and dispersal benefits of the Crossrail Interchange have led the Government to discount the option of an at-airport station substituting for this Interchange. However, consistent with paragraph 57 of its 2009 decision on adding capacity at Heathrow, the Government wishes to assess further the case for an additional high speed station at Heathrow, on a loop line from HS2 Ltd's recommended route, subject to the considerations set out in Chapter Seven.

Heathrow is not the only airport whose customers might make use of any high speed network. HS2 Ltd's report also recommends that a second interchange station should be built close to the National Exhibition Centre, providing direct access to Birmingham Airport as well as to the West Coast Main Line and the M42 and M6. The Government agrees that such an interchange has great potential to support wider connectivity within the West Midlands area and should be included as a part of the core project, subject to an acceptable funding proposal supported by the major beneficiaries. As part of its detailed design work for the routes north of Birmingham, HS2 Ltd will evaluate the business case and options for a similar interchange providing access to Manchester Airport on similar terms.

Links between High Speed Two and the existing High Speed One line to the Channel Tunnel and the wider European high speed rail network are also an important consideration. This could be achieved by a direct rail connection and/or more efficient connections from Euston to the existing High Speed One terminus

at St Pancras. HS2 Ltd's report considers options for a possible High Speed Two/High Speed One link, and a short dedicated rapid transit system between Euston and St Pancras. The Government wishes to assess firm proposals for both options, and has asked HS2 Ltd to undertake further work on both, including an assessment of their business cases, prior to the commencement of consultation.

Funding a UK High Speed Rail Network

HS2 Ltd estimates the total development and construction costs of the proposed initial core 'Y' network to be in the region of £30 billion, including risk, spread out over twenty years or more. Many of these costs, and especially the very significant expenditure on construction, would not be incurred for several years. Construction would not start until after the Crossrail scheme is completed from 2017. Moreover, as Crossrail and other major capital projects such as the Olympic Park indicate, the average rate of expenditure during construction of around £2 billion per year is not unprecedented.

It is vital that any project of this scale is delivered in such a way as to provide the best possible value for money. For this reason, the Government proposes that further work should now take place on both the costs and funding options for high speed rail.

As part of its work HS2 Ltd made a comparison of UK rail engineering costs and those in comparable European countries. This work identified significant disparities – in line with the high prices that can be seen across the UK civil engineering sector. The Department for Transport and Infrastructure UK (IUK) will work together to consider how and whether the cost of relevant civil engineering works could be lowered, taking into account HS2 Ltd's evidence. HS2 Ltd will engage closely as this work progresses, and its construction cost estimates will be kept under review in the light of the results emerging from this work and subsequent actions.

In funding a new core high speed network, the Government is determined that fair contributions should be made to the overall funding package by those who will benefit from it. The Government will therefore further consider the funding options for a high speed rail network in the UK. These may include third party contributions, including developer contributions linked to new station and interchange sites, and local authority funding where the project supports local economic growth.

New Industry, New Jobs

A long-term programme of investment in high speed rail would present significant new opportunities for British business and enable the UK to capitalise on its strengths in design, engineering, construction and manufacturing.

The UK's rail sector is recognised across the world as a source of innovative products and services, from sophisticated low-carbon technologies, to engineering solutions, consultancy and major infrastructure projects. The UK has a strong and highly competitive export capability in this sector, and its open market and strong business environment make it an attractive location for inward investment.

A commitment to invest in high speed rail would provide the construction and engineering industries in Britain with a predictable, long-term pipeline of major infrastructure projects, following the completion of the current works on the Crossrail and Thameslink schemes and the Olympic Park. HS2 Ltd has estimated that the construction of a new high speed line over seven years could generate as many as 10,000 new jobs, and provide significant opportunities for the development of the UK's skills base. It would also promote the UK supply chain across the world, by providing a show case for its world class expertise across a range of sectors.

The Government will work closely with HS2 Ltd and with industry to maximise the business opportunities associated with the development of a British high speed rail network. In doing so, it will seek to ensure that firms in the UK have the skills and capability to compete successfully for contracts and to offer the best value for money, and that every opportunity is taken to promote the expertise and innovation of British firms to the broader global market.

Engagement and Public Consultation

The Command Paper describes the Government's response to HS2 Ltd's recommendations for a high speed rail line from London to the West Midlands. It also sets out the Government's proposals for a core high speed rail network extending to Manchester and Leeds, with through services running beyond, which could be developed and delivered over the next twenty years.

Transport proposals of this scale and complexity can only be taken forward through a process of full and open public engagement with those who will be affected by them and interested in them.

HS2 Ltd has been asked to carry out further work on specific aspects of its recommended route. Subject to completion of that work, the Government proposes to undertake a formal public consultation in the autumn. This consultation will cover three key issues:

- HS2 Ltd's detailed recommendations for a high speed line from London to the West Midlands.
- The strategic case for high speed rail in the UK.
- The Government's proposed strategy for a initial core high speed rail network.

Alongside this, HS2 Ltd will also develop detailed plans for extensions to Manchester and Leeds for public consultation.

Subject to the results of those consultations and further detailed work on costs and funding to feed into decisions to be taken in the next Spending Review, the next step will be to carry out the necessary preparations, including the process of environmental impact assessment, for the introduction of a Hybrid Bill for a core high-speed network linking London to Birmingham, Manchester and Leeds.

This could see the London-Birmingham route opening by the end of 2026, with the legs to Manchester and Leeds opening over the succeeding years, although that is clearly dependent on securing Parliamentary approval.

But the very next step must be to ensure that the public is properly informed and to engage with local authorities and representative groups with a view to ensuring that the public consultation can be as effective as possible. The Government's plans for that process of public engagement are set out in detail in Chapter 9.

A new high speed rail network would be a project spanning the coming decades and which could transform the capacity, connectivity and sustainability of inter-urban travel in Britain. If such a network is to be made a reality, then it must be delivered in the way which best balances its potential impacts, with the very considerable benefits for the UK economy and society that it would bring.

