



*Railfuture* is Britain's only national independent rail campaigning organisation. Its key aim is for the railway's modal share for both passengers and freight to increase. This inevitably means a bigger railway, with more stations and more track, operated with modern, fast and reliable trains.

*Railfuture* is naturally supportive of proposals to expand the network and construct new lines, for both conventional and higher speeds. Its campaigning over more than three decades has helped influence political parties and turn around established thinking – there is no longer talk of closing lines. All the major political parties now support its call for a major new north-south rail line.

As a not-for-profit organisation relying upon volunteers for most activities, we are supported by membership subscriptions from groups or individuals who share our aims generally. Please consider joining us - visit [www.railfuture.org.uk](http://www.railfuture.org.uk) - membership is £21 per year (£14 concessions).

## RAILFUTURE'S RESPONSE TO GOVERNMENT'S HS2 CONSULTATION

We have been aware of the plans for a second high speed rail line for the UK, for well over a year now, first planned seriously by the outgoing Labour Government prior to May 2010, and adopted in principle by the incoming present Conservative and Liberal Democrat coalition Government, but with some variations to the original plan. They commissioned a study by HS2 Ltd, set up to prepare a detailed report for the Government, which has now been delivered. Therefore it can be seen that, in principle at least, plans to continue developing a high speed rail network in the UK, following completion of HS1 (High Speed 1) between Folkestone and St Pancras for both domestic and international trains, are supported by all three main political parties.

Railfuture strongly supports the concept of a planned network of new rail lines across the UK provided where they are most needed, to relieve pressure on the busiest routes, and to enable provision of much expanded passenger and freight transport route capacity, at a time when demand for transport generally continues to rise, and whose growth is only slightly stalled by the current recession. The railways are now also carrying more passengers than at any time since 1928 on a route network, substantially reduced by gradual closures since the early 1930's and more drastically as a result of the Beeching cuts in the early to late 1960s, following substantial increases in car ownership, and a modal switch of freight to road.

Increased road congestion is now an annual multi-billion pound drain on the profitability of many businesses. Also the high construction costs of new motorways and their impact on both the built and rural environment are dramatic, but they provide no enduring solution to the nation's transport problems, and are increasingly unacceptable to those living close to these routes. Furthermore the Government must meet the challenge of tackling rising carbon emissions from land transport modes quickly. The Committee on Climate Change said (in its Advice to Government on the 4th carbon budget in 2010, covering the period 2023-27) that at least a 60% cut in domestic emissions is needed by 2030, to be on the right path to secure a 90% cut by 2050 (equivalent to 80% once emissions from aviation and shipping are factored in).

We welcome this major switch from previous policies by Governments to build motorways and other major roads. It seems logical to build such new lines to the highest speed economically practical, so that they can encourage a switch from excessive carbon-generating modes such as domestic and short-haul international air travel, and replace many of the longer distance car journeys being undertaken on our congested road system. Such high speed rail networks have been an

## THE NEED FOR NEW CAPACITY

Passengers numbers are rising fast

Trains are overcrowded

Track capacity is reaching its limit

WCML and MML intermediate station services have already been cut back to make space for faster long distance services

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## THE REASON FOR HIGH SPEED LINES

Removing faster services from main lines increases capacity

Higher speed increases income from more passenger fares

Upgrading existing lines will become progressively more disruptive and expensive.

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## POTENTIAL BENEFITS FROM HIGH SPEED LINES

Large increase in overall capacity

Better rail connections to Europe and to hub airports

Less pollution from air/car journeys changed to rail

overwhelming success in the countries that have built them, starting first in Japan, then France, Germany, Italy, Spain, Belgium, Netherlands, South Korea, Taiwan, Russia, Turkey, and massively in China. Poland, Portugal, Austria, Saudi Arabia, Iran, and the USA also now have proposed networks. So far in the UK we have only one 112 km line from St Pancras to Folkestone, completed in 2007.

The Government published its report on HS2 in February 2011. We have been working on this task thoroughly, and this is a shorter version of our full response, to be published on 9 July 2011. The consultation exercise has been in the form of the following questions to which respondents address their views.

### Consultation Section 1:

This question is about the strategy and wider context: Do you agree that there is a strong case for enhancing the capacity and performance of Britain's inter-city rail network to support economic growth over the coming decades?

Railfuture supports the view that the enhancement of the inter-city rail network's capacity, performance and connectivity is of great importance to the national economy. However, while we support operation at the highest speeds economically practicable, this is less important than the other three objectives we have cited. We believe it is crucial to develop a national transport strategy, which also encompasses aviation, rail, and other forms of land transport to ensure a clear perspective about the way forward, taking into account the need to meet other targets, including those related to climate change.

We believe it is essential therefore to plan a network of mostly high speed lines for the whole of the UK's principal transport demand corridors, for implementation in the coming decades. This should be set out in an approximate inter-city route framework format, to serve principally the major cities of Manchester, Liverpool, Leicester, Nottingham, Derby, Sheffield, Leeds, Newcastle, Edinburgh, and Glasgow, some of which will in any case gain some limited journey time improvements after completion of the first stage of HS2 from London to the Midlands. However it should include plans for the network to include western cities such as Bristol and Cardiff, and other axes such as from the West and South West to the Midlands and North East.

There is a clear imperative for full integration between classic and high speed networks, and a high speed model tailored to match Britain's geography, demography and topography. We are also concerned that there may be a risk that the massive funding needed for high speed rail, together with certain statements from some politicians, may put at risk the funding needed for other much-needed railway modernisation projects. For example, the risk that the Midland Main Line between Bedford and Sheffield may never receive authorisation for electrification, if HS2 is extended via this corridor, is something we would be very seriously concerned about. After all, high speed rail should be a means to relieve pressure and capacity demands on the classic rail network, not be seen by Government as a way to make economies on those lines instead. Experience elsewhere in Europe shows that total demand

continues to rise and that nearly all this capacity is eventually needed. This is commendable in helping to achieve a popular transition from other more environmentally damaging transport modes.

Railfuture believes that within the transport sector, the majority of the required cuts in CO2 emissions will come from modal shift, with high-emitting road and air traffic transferring to rail with its lower emissions, particularly with electric traction, (which of course can be generated from any power source including solar power, wind, and hydro, beside the obvious others). We estimate that with a comprehensive high speed rail network and good connectivity with the classic network, including sensible fare policies, perhaps one third of existing private transport passenger-kilometres, and almost all domestic air journeys in the UK (excluding those to and from the islands, Northern Ireland, and other remote locations), are potentially convertible to inter-city rail journeys. It has been well established across Europe that air travel cannot compete effectively on rail journey times of under four hours duration. Indeed enhanced journey times on both the west and east coast main lines in the UK and improved frequencies have also reduced demand for domestic air travel, except when and where the pricing mechanism still unfortunately favours cheaper air travel.

## Consultation Section 2

This question is about the case for high speed rail: Do you agree that a national high speed network from London to Birmingham, Leeds, and Manchester (the “Y” network) would provide the best value for money solution (best balance of costs and benefits) for enhancing rail capacity and performance?

Not necessarily. A suitable network should be planned for the whole country for the long term, and then built up gradually. Once the network is designed it will be clearer which sections should be built first and what the final shape of the network will be. Logically the first section will probably be that from the London area to the West Midlands, where some of the greatest pressure on present routes exists, but the network does not have to be the particular Y shape, as shown in the Government’s plans. It could be based on a “Trident” shaped network, or a Y network separating at a quite different location than that envisaged in the current plan, or one which looks like a spine with a series of branches off it. We believe it would be a mistake to build the first section without clear and popular support for which cities will be served by the remaining network.

For this reason we believe there is a prima-facie case for constructing the high speed line from London with 4 tracks, or with passive provision at least built to allow expansion to a 4-track route later. The option of constructing a second northward route from London later has been deemed by many to be inevitable, but this strategy would of course double approximately the notional construction costs, while constructing a wider alignment to facilitate two additional tracks either now or later would of course add a cost, but perhaps only 20%. We confess we are not experts on construction costs, which can vary greatly between a built and rural environment, but this seems a logical analysis. We are mindful

## **ECONOMIC GROWTH AS A RESULT OF SHORTER TRAVEL TIMES**

Reduction in North – South economic divide

Increased capacity in other lines beyond the HS line

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## **THE ROUTES FOR HIGH SPEED LINES**

New capacity where congestion is greatest

WCML, London to Birmingham and Manchester

Birmingham to Leeds – partly political

Later extensions to Scotland

South Wales and Bristol to London and Birmingham

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## **GOVERNMENT’S PROPOSALS FROM HS2 LTD**

Published March 2010, with later changes

HS2 to HS1 link

HS2 to Heathrow airport link

Extension of HS2 to Leeds as well as to Manchester

Negative public reaction in Chilterns

Opposition by many local authorities

Widespread criticism of business case for HS2

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### **RAILFUTURE VIEWS ON HS2 LTD PROPOSALS**

Poor connectivity with the current rail network

Environmentally unsound route due to a preference for maximum speed over sustainability

Excess bias towards London flows

Inadequate connections to HS1 and Heathrow

Politically divisive

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### **RAILFUTURE PRINCIPLES FOR HIGH SPEED RAIL**

Network connectivity overrides maximum speed

HS train stops at existing city centre stations

No parkway stations

HS trains to serve stations off the HS line

Reduce CO2 emissions

of a contribution by a representative of French Railways, at the Transport Times Conference on High Speed Rail, held in London in March 2010. She reported that they are now designing plans for a second high speed line from Paris to Lyon on a different route, because the first route, built in 1981, is now full at peak times, and cannot accommodate new services now needed. She added that had they foreseen this in 1981, they would have built a 4-track route at the outset for relatively modest additional cost in comparison with that needed for a new second route. She strongly advised the UK railway planners present not to repeat this mistake!

### Consultation Section 3

This question is about how to deliver the Government's proposed network: Do you agree with the Government's proposals for the phased roll-out of a national high speed rail network and for links to Heathrow Airport and to the High Speed 1 line to the Channel Tunnel?

Railfuture supports a phased roll-out of a national high speed rail network as long as the probable whole network is designed now, even if precise routeings cannot yet be determined. This must provide full connectivity with the classic network and direct access to city centre stations by high speed trains, before and after completion of the relevant sections of extended high speed route. We remain completely opposed to any new parkway stations being constructed on the high speed network, and are firm that all services should serve city centre stations whether on a through route or as a stand alone branch, (where onward extension is not feasible physically). We also strongly support the need for a direct physical link between HS2 and HS1 but not by the routeing suggested in the proposals.

We refer to the example of Ebbsfleet (parkway) Station on HS1, served only by high speed trains, where the expected redevelopment at this former quarry site has not taken place, where off-peak patronage is very low, and where there is no interchange with the classic railway or Northfleet Station, 600 metres away (with no designated footpath). There is however a massive surge in usage at peak hours mainly by passengers who have driven there and use the 9,000 space car park. Evening and Sunday bus services to the nearby major rail station at Dartford are only half-hourly, and thereby, connectivity to suburban south-east London is extremely poor.

Connectivity between HS2 and HS1 is essential. However we do not support the proposed route for a single track tunnel from Old Oak Common to a point on the North London Line. A long single track tunnel for international trains only would be disproportionately expensive at a perceived cost of £0.9billion, and inadequate if required for what will undoubtedly be two way traffic. This route would also be constrained by limited track capacity at Camden Road station on the North London Line, and would be very slow, unless planning to avoid serving St Pancras and missing serving a London terminal completely. Our alternative proposals are provided in the next sections answering questions 4 and 5.

Railfuture believes that the longer term HS2 proposals for establishing high speed rail access to Heathrow do not comprise an appropriate

model of airport access. We feel it is essential to establish the fundamental rationale for high speed rail as a means of addressing high volume passenger flows between major population centres, usually where existing routes are struggling to cope adequately with total demand and with minimal scope for service expansion. The primary purpose of high speed rail cannot be fully realised if designed as a branch terminating at the airport for journeys from one direction only. The relatively low levels of airport passengers, perhaps only 1,000 a day each from the major conurbations of Birmingham or Manchester, appear inadequate to justify dedicated services. Therefore the high cost, perhaps £3 billion to provide a mainly tunnelled route for only 2000 airport passengers a day (the Government's own figures) is difficult to justify.

Some proponents may refer to the successful high speed lines tunnelling underneath Paris (CDG), Amsterdam (Schiphol), and Frankfurt airports, but in all these examples the stations are directly under the main terminal (Heathrow has four), and all the high speed services run on to other cities, and carry through passengers as well, and indeed others who are changing conveniently between connecting inter city services.

The connection at Old Oak Common between HS2 and Crossrail would not be seen by many airport passengers as a sufficiently convenient changing point nor likely to persuade them to travel to Heathrow by train instead of by car. We believe that there is a pressing need for major improvement and expansion of conventional surface rail lines to serve Heathrow far better than now from all directions, and refer to proposals such as Airtrack, 2M Group's Compass, and other schemes mooted by BAA and rail campaigning groups including *Railfuture* for decades.

### Consultation Section 4

This question is about the specification for the line between London and the West Midlands: Do you agree with the specification used by HS2 Ltd to underpin its proposals for new high speed rail lines and the route selection process HS2 Ltd undertook?

Railfuture supports the general principles listed including compliance with EU directives and specifications for Interoperability, and we also note the document's pledge to "ensure that some trains can run on the classic network". It is our view that it would be desirable for the whole train fleet to be built to a loading gauge which would enable any train to run on the classic network, rather than having trains incapable of being operated on the classic network at all. We do welcome the possibility that 400m trains from mainland Europe built to "Eurogauge" dimensions might run to provincial cities beyond London eventually. However for now we would recommend that if 400m trains are selected, they should all be capable of splitting into 2 X 200m units, as is normal in almost all of Europe with trains of these dimensions, so that they can all run on to the classic network after splitting.

We feel that 300m trains are preferable so that they can be accommodated at almost all existing stations served by inter-city trains without further expense on extending platforms.. Obviously a compromise with a mixed fleet of 300m and 2 X 200m train operations is possible. It is also important that we do not have a result where we run 400m

Faster journeys between cities other than London

Use existing transport corridors

Full HS network planned before HS2 route finalised

### **THE RAILFUTURE PROPOSALS**

Euston is the best choice of London station

Slower trains diverted on to Crossrail via Willesden

Route to follow close to M1 to near Rugby

4 tracks optimum for full traffic potential

3 route split near Rugby to Coventry, Nuneaton (replaced by new construction in the Manchester HS2 route) and Leicester

Birmingham services via Coventry and International

Through services to Wolverhampton & Walsall

International trains from New Street

Requires 4 tracks Coventry - Birmingham

Max train length 12 coaches UK gauge

Requires Nuneaton – Leamington grade separated at Coventry

Manchester and NW services to join WCML 4 track

Leeds services to via Leicester

High speed station adjacent to existing station

High speed line to end just north of station

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## BENEFITS OF RAILFUTURE PROPOSALS

Less controversial more sustainable route

Superior network connectivity

Less tunnelling required

Fewer properties to be demolished

More fast paths saved from WCML & MML

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## NEXT STEPS

Detailed report of *Railfuture* proposals available

Support from Right Lines Charter members and various councils

Independent assessment of *Railfuture* proposals

Eurogauge trains, (possibly double deck stock), that cannot run anywhere off HS2, operating in isolation from the incompatible classic network, thereby creating a “two-tier” railway. Only the UK has this particular gauge problem, and limited dispensation from the EU directive should be sought.

We do not accept the need for the line to be built for speeds as high as 400kmh. Lines designed for this speed must have gentler curve profiles than ones built for only 320 kmh, which can more easily follow contours minimising any harmful landscape impacts. Significantly no other European countries are building new lines capable of more than 350kmh and none run trains faster than 320kmh at present. China has just abandoned plans for such a speed on future lines, and the newest line built for 400kmh will limit trains to 300 kmh, on grounds of economy, power usage, future construction costs, and technical costs.

## Consultation Section 5

This question is about the route for the line between London and the West Midlands: Do you agree that the Government’s proposed route, including the approach proposed for mitigating its impacts is the best option for a new high speed rail line between London and the West Midlands?

*Railfuture* is firmly of the view that the route chosen for HS2 is inappropriate for the scheme. The route selected is based on the core element of the plans which seeks to provide a route passing close to Heathrow Airport, without actually reaching the airport itself, unlike the superior European examples referred to earlier. It is clear that once such a westerly exit from London is selected with Old Oak Common deemed as an acceptable compromise interchange point for airport passengers, that the only obvious route is the one selected, striking across an AONB in the Chilterns, with major environmental impacts and requiring at least some 20km of tunnel. The route inevitably arrives in the West Midlands (at a parkway station, which could be called Birmingham International 2), and is a point too far west to provide the best possible route for passengers to the East Midlands cities in particular, and does not serve the major cities of Leicester or Coventry at all.

Therefore we have examined alternative route possibilities and have a firm preference for what we see as the most logical route. This would follow the present route out of Euston as far as Primrose Hill and then by a short tunnel to West Hampstead, where it would run alongside the existing Midland Main Line as far as Brent Cross. From there it would follow the M1 corridor all the way to near Rugby. This route has far less adverse impacts which are clearly minimised by the presence of a major existing adjacent transport corridor. Objections from lineside property owners and compensation payments will be less because of this existing blighted environment. We estimate that only 10 km of tunnelling would be needed, further reducing the high costs associated with the central Chiltern route. Importantly when the next stage of HS2 is planned for the East Midlands, this route can continue to follow the M1 for most of its onward trajectory with a shorter routeing, and serve Leicester directly, and Nottingham more closely than it would be with another parkway station. From the M1 near Rugby, the Birmingham line would diverge

away from the M1, and probably follow the M6 motorway to the Birmingham City station. There is no serious justification in our view for the second Birmingham International Station, with no connectivity at all there with other rail services, and limited opportunities for quality public transport to be provided. It would also be a poor location for airport passengers.

Railfuture is also concerned with failing to serve Coventry which it is proposed would have its 20 minute service to London reduced to a slower hourly service in spite of its population size. We believe that 4-tracking the classic Rugby-Coventry-Birmingham International-Birmingham New Street line should be studied in detail to see if it is possible without major impact on lineside property or environment. This could be in addition to or as an alternative to the M6 approach, but would secure better services on this route even if the overall journey time was increased by a few minutes.

At Birmingham itself we admit to uncertainty about the best practical solution. We strongly prefer all high speed services to run serve New Street station, but accept that the location is confined, that only 300m trains or a split 200m portion of a 400m train could serve it, but believe there is scope for relieving the constrained eastern platform approaches, and reducing platform occupancy by other services. The station is about to be completely rebuilt anyway and passenger flow will be greatly eased when complete. The proposed Fazeley Street terminal station would require 12-15 minute walk between here and New Street, which a traveler would only reduce by a couple of minutes. The terminal structure would not permit onward extension of services on to the classic network. Across Europe they have been spending colossal sums to eliminate such terminal stations on high speed routes, not build new ones. Nevertheless we recognise the space limitations without the site at Fazeley Street being utilised and advocate further detailed examination of the options here.

At London Euston while extension of the station area southward toward the Euston Road seems fine, we question the need to widen the land-take or demolish properties on the west side of the station. The station space is poorly used at present. There are suggestions by Network Rail to divert most of the outer suburban London Midland commuter services at Willesden Junction to run via the Old Oak Common area then on to Crossrail. Also the London Overground Watford Junction-Euston service could be diverted to Stratford instead, and we understand Transport for London are not opposed to this. There would then be plenty of platform space for both HS2 trains and remaining West Coast main line services.

In any case we also advocate the operation of future East Midlands HS2 services into St Pancras as they do now. They would simply follow the existing Midland Main Line from West Hampstead after separating from the Euston HS2 route. We would then recommend platforms on our preferred route at either West Hampstead or Brent Cross (where major redevelopment is already planned), to be served by some but not all HS2 train services so that Euston-Bound and St Pancras bound passengers could interchange conveniently there. This would also assist greatly passengers wanting connections with HS1 at St Pancras, and reduce the inconvenience of making their own way between Euston and St Pancras. This is how we believe the connectivity between HS2 and HS1 can be achieved. No tunnel would be needed to reach St Pancras and there is capacity for more trains on this axis, although we recognise that re-design of the approaches into St Pancras would probably be needed to make best use of the total platform capacity available there. By this routing option, it would also be possible to provide through trains to and from mainland Europe (or even to Kent destinations on HS1) but not those of Eurogauge dimensions admittedly, without tunnel widening on the Midland Main Line. An orbital connecting train service could also be run from either West Hampstead or Brent Cross via Dudding Hill freight line to Acton and Heathrow.

## Consultation Section 6

This question is about the Appraisal of Sustainability: Do you wish to comment on the Appraisal of Sustainability of the Government's proposed route between London and the West Midlands that has been published to inform this consultation?

Although *Railfuture* has no specific comment about the detail of the Appraisal of Sustainability, we are concerned that the wider consultation document does not fully address the fundamental climate change issues, and the need to ensure that Britain's transport policies are helping meet its required carbon emission reduction targets referred to in our preface on the first page. In particular the document's prediction that HS2 would only be "...carbon neutral..." over a 60 year period is not attaining full sustainability and is particularly unambitious. A network of high speed lines, related inter-city services and full connectivity with the classic network, together with increased use of the capacity released on the classic network by removal of most of the longest distance services for more passenger services, and to carry more freight transferred from the congested road network, would greatly assist these targets being met.

Britain has a limited supply of unspoiled rural landscapes, and these should be preserved unless there is an overwhelming imperative to do otherwise. For major transport routes such as HS2, these should be aligned with existing transport corridors where the route will only create marginal additional intrusion on to the landscape, rather than pushing it through an AONB (Area of Outstanding Natural Beauty) such as the heart of the Chilterns, as well as attractive unspoiled parts of South Warwickshire for example. The construction of the M40 motorway some forty years ago in less sensitive times through this part of the Chilterns was another damaging project of similar if not worse magnitude environmentally, and we urge that this type of planning error not be repeated when clear route alternatives exist.

### Consultation Section 7

This section is about blight and compensation: Do you agree with the options set out to assist those whose properties lose a significant amount of value as a result of any new high speed line?

Railfuture has no specific informed comment about the detail of any proposed compensation scheme for property owners or users who may be adversely affected by a transport project such as a high speed rail line. Certainly the Government should be prepared to pay a generous price now for any property where the owners cannot secure the same market price for their property as would have prevailed prior to the route being identified. However, compensation payable during and after construction, and the volume of properties affected by this proposed route, would be far less with a route superimposed immediately next to the M1 motorway (and other major roads for later stages of the scheme). Similarly the quantity and length of noise barriers required and other similar mitigation measures will be greater, and therefore more costly, on the chosen route than one already blighted and experiencing comparable noise such as the M1.

### CONCLUSION

This pamphlet is a summarised version of our submission to the Department of Transport. The full version in stapled A4 format has been submitted with much greater detail on some of the issues we raise. It is available at a cost of £2 to cover the basic copying and printing costs (purchase at our events or send cheque to address below) or download free from the [www.railfuture.org.uk](http://www.railfuture.org.uk) web-site.

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