

# STOP HS2 **No business case. No environmental case. No money to pay for it.**

## **Introduction**

This response to the HS2 consultation is made on behalf of STOPHS2. STOPHS2 is a national grassroots campaigning group opposed to HS2. Our online petition has nearly 50,000 signatures, with many more on paper forms.

This submission is not confidential.

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## **Overview of HS2 Consultation**

It is Stop Hs2's opinion that the HS2 consultation process is fundamentally flawed.

The questions are biased, asking whether the consultee agrees with the government's position. No-one can be in any doubt as to the answer the Department for Transport was hoping to be given at the end of the process.

The questions are not clear and miss out some important issues. Other questions overlap, meaning that a reply needs to repeat information several times to ensure it will be included everywhere appropriate.

During the consultation, information has been fed out, slowly, with some information only being made public over 4 months into the consultation.

Many people think there were errors, omissions and inadequacies at the Roadshows, ranging from ignorance to misinformation and blatant partiality in both the Roadshow materials and the responses to questions by officials.

A key democratic deficit, was the failure to adequately inform and consult with the public and businesses on the Y route. Once this consultation is closed, the principle of the Y shaped route will have been decided, which means that their right to respond on the principle of the scheme will have lapsed. Deutsche Bundesbahn were seriously criticised over the development of the S21 route for exactly this amalgamation and HS2 should be similarly seriously censured for the consequential democratic deficit.

In addition the unacceptable behaviour of Philip Hammond and others make it clear the consultation has not been undertaken with the aim of finding out what the public thinks about HS2. Rather than engaging with the arguments, Philip Hammond and others have repeatedly referred to people

opposed to HS2 as “luddites” and “nimbies” and ignored what the objections are.

Further, two weeks before the end of the consultation, the Campaign for HSR appear to have been given information that the majority of responses to the consultation are opposed to it.

Worse, with just one week to go, a statement of strong support for HS2 by Philip Hammond appeared on the East Midlands Trains employee intranet, asking employees “who have a very significant stake in seeing HS2” to respond to the consultation.

This is clear manipulation of the consultation process, and shows contempt for the many thousands of ordinary voters who are taking part in the consultation process in good faith.

The whole consultation process for HS2 has made it clear that the only proper way of finding out whether HS2 is a good use of resources would be to hold a public inquiry into the entire scheme.

**Q1 This question is about the strategy and wider context (Ch1):  
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?**

No. The first comment which has to be made in reference to this question is that it is deliberately leading and misleading in that it is the wrong question and an unreasonable question to ask in the context of this consultation.

This is the first question in the consultation on HS2, not on the more general subject as posed in this question; the inter-city rail network. If the DfT and HS2 Ltd are genuine in wanting to have a consultation about the specific proposal of HS2, then all questions should have been specifically framed on this subject and this subject alone. The wording of this question implies that HS2 is the only way to enhance the capacity and performance of the inter-city rail network: it is not.

However, the first issue is what place do improvements in the inter-city network play in an integrated national transport strategy? There appears to be no integrated transport strategy. Stop HS2 have identified three parts of the Dft’s strategy: reduce demand for travel, reduce carbon emissions, build HS2. Unfortunately the third part of building HS2 is in direct conflict to the first two. It depends on a massive and long term growth in demand for long distance travel, with a further 22% of passengers using it simply because it has been built. Building HS2 ignores moves to encourage greater use of the internet and videoconferencing, which are both forms of communication which are competitors to long-distance travel so as to be able to communicate in face-to-face meetings.

HS2 is also in direct conflict with strategies aimed at reducing carbon and even ignores the government's rationale for wanting to build a high speed rail network. The Coalition's programme for Government states

"We will establish a high speed rail network as part of our programme of measures to fulfil our joint ambitions for creating a low carbon economy. Our vision is of a truly national high speed rail"

Although HS2 Ltd say that the operation of the railway will be carbon neutral (ignoring the emissions during construction of the railway), but merely being carbon neutral does not contribute to a low carbon economy. Given Britain's commitment to *reducing* carbon emissions, this is simply not good enough. To plan a £33 billion transport project which is merely carbon neutral is in clear conflict with a much wider government policy of being "the greenest government ever".

To answer the question itself, the rail network in the UK currently works at its best for those currently wishing to travel between cities and within London. Any further development of the inter-city rail network will come at the expense of local travel initiatives.

Study after study shows that the transport projects which net the greatest benefits concern local infrastructure, improving connections which the majority of people in an area use in their everyday lives.

Only around 10% of rail journeys are long distance trips and those making these trips, especially for commuting, are proven to be the highest earners. Further investment in long distance travel will only benefit a small proportion of the population, those who are the best off in the first place, and investment in HS2 would mean a massive ongoing subsidy having to be paid annually to something which only benefits the richest in society.

Further long and medium distance travellers on Britain's railway are generally satisfied with it: in particular in a recent EU survey, 92% of passengers were satisfied or very satisfied with the timetabled speed of the journey, the second highest percentage in Europe of the countries surveyed.

Additionally, HS2 does not improve the inter-city rail network, it provides additional capacity at higher speed from London to three cities with strong financial districts: Birmingham, Manchester and Leeds, without even providing better inter-connectability between the centres of those three provincial cities.

In addition to this, the proposal is for two out-of-town parkway stations in South Yorkshire and the East Midlands which are certain to be a significant distances from the city centres of Nottingham, Derby and Sheffield. In the case of all of these cities there is likely to be a significant interchange time between the HS2 stations and the existing rail network, meaning the benefits of high speed for onward journeys are lost, a view shared by the Institute of Civil Engineers.

Two further stations are intended to serve airports, whilst being considerable distances from both the airports and existing rail connections.

With further reference to the 'inter-city rail network', it is clear that if HS2 is to achieve 'more local trains due to the capacity released via HS2' this must mean a cut in current inter city services, for the many towns and cities which will not be included in the network. It is likely that Coventry, Sandwell and Dudley, Wolverhampton; Milton Keynes; Shrewsbury, Wrexham, Stoke on Trent, Wellingborough; Kettering, Corby, Market Harborough; Leicester, Loughborough; Nottingham, Derby; Sheffield, Chesterfield, Peterborough; Doncaster and Wakefield would all have fewer London inter-city trains if HS2 went ahead, with other cities receiving lower levels of capacity.

This will result in increased crowding on remaining services and longer waits for travellers using inter-connections which depend on links via London.

Economic benefits from better North/South intercity connections will favour London and the South East. This is because the benefits from new transport links tend to be concentrated primarily around the largest economic centres, ie London. The government's own figures show that many more jobs will be created in London than in Birmingham. This is inconsistent with Government's stated objective to reduce the North/South divide.

If the question is really about what is the best way to enhance economic growth over the coming decades, then the answer is not high speed rail, it is high speed broadband.

To believe that the answer to international economic competitiveness is to be able to move more people around the country at faster speeds is a truly luddite view. In this respect, HS2 is a nineteenth century solution to a twenty-first century problem and ignores the significance and development of the knowledge economy and what investment in IT infrastructure could mean, not only in terms of international competitiveness, but also achieving Kyoto targets for CO<sup>2</sup> emissions by reducing the need for travel and the benefits gained by local economies and communities on enabling more people to work in the area they live in.

Part of the forecast model includes projections for international migration to the UK, which is at conflict with predictions from the Office of National Statistics. If ONS predictions had been taken into account, as opposed to the over simplistic straight-line projection for demand using growth over the last ten years, then the forecast demand model for HS2 falls apart.

The fact that the predictions for HS2 passenger usage dropped from a projected 267% uplift in passenger numbers as stated in the March 2010 documents, to a 214% increase in the consultation documents published less than a year later in February 2011, which led to a decrease in the supposed benefits from £67bn to £44bn, show that the forecasts are unreliable and highly sensitive.

**Q2 This question is about the case for high speed rail (Chapter 2): Do you agree that a national high speed rail 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?**

No, Stop HS2 does not agree.

The consultation documentation issued by the Department for Transport has not presented any credible alternative to HS2. Without several credible alternatives no one can state that the HS2 proposal is a "best value for money solution". There may be many far better solutions to whichever problem it is that HS2 is supposed to be solving today.

It should be noted that HS2 Ltd was set up to look into developing a high speed railway, not to look into enhancing the railway generally.

Although a package of alternative improvements was suggested by the government, the Department for Transport has spent the consultation period critiquing these. Any consideration of a new railway must be comprehensive, even handed and based on like for like assessment of the HSR option against the often better, far less risky, significantly less expensive and more speedily implemented alternative of improving the existing classic railway system. It would appear, in the DfT's consideration, this set were never a credible alternative.

HS2 say the other alternative in the economic case of a conventional speed railway will cost nearly as much as HS2, but without the speed benefits. However, HS2 Ltd say, "Apart from speed we used the same specification as for the high speed line, for example the service levels and station stops". This is clearly not a credible way of designing a conventional speed railway line (and so not a credible evaluation of alternatives): for instance using the Great Central Line trackbed at conventional speeds would have allowed for reopening old stations and developing new stations, serving new customers and a different set of benefits. A carefully chosen station location on a conventional speed line could have provided an interchange with the East West line based on the old Varsity line between Oxford and Cambridge, increasing cross country options and reducing pressure on London's transport system. HS2 Ltd did not say what speed the conventional railway would use but if the new line used the same speed as the WCML, it would be a high speed line.

However, the Government has failed to make any sound case for a high speed rail network being built either within a comprehensive transport policy covering all modes of transport or within a coherent strategy for improving Britain's existing railway network.

In their approach to HS2, both the Labour and Coalition Government have completely ignored the recommendations in Sir Rod Eddington's Report of December 2006. This recommended giving priority to improving the existing network before embarking on any new major flagship projects that involve much higher exposure to technological, cost and programme risks.

Other organisations tasked with looking into rail performance generally have tended to come out against building a new high speed railway similarly to the Eddington report.

Further to describe a rail system that links just four cities as “national” is short sighted and parochial. What about Exeter? Or Bristol? Norwich? What about Cardiff and Glasgow? Or is this consultation about an English railway system, at a time when a joined up national strategy is required? Department for Transport officials have said it will be “too difficult” to get an HS2 network to Scotland through Parliament, suggesting HS2 is not in the nation’s interest.

HS2 will require huge numbers of other transport improvements which are not included in the costs. These range from a new underground rail line in London, improvements in the West Midlands, and no doubt other changes elsewhere. But the specific requirements for local transport needed for HS2 might not be a good local priority.

Britain already has a mature and well developed railway network with significant reach across the country. We have remnants from the Beeching days and earlier that could be revived. The UK has had fast intercity express train services for four decades that still result in shorter journey times between London and its next four large cities, when compared with any major European country, including those with High Speed Rail services.

Without an integrated transport policy or a clear description of the issues which the railway is designed to deal with, it is impossible to say that the current HS2 proposal is the “best value” means of enhancing the existing railways.

**Q3 This question is about how to deliver the Government's proposed network (Chapter 3):**

**Do you agree with the Government's proposals for the phased roll-out of a national high speed rail network, and for the links to Heathrow Airport and the High Speed 1 line to the Channel Tunnel?**

There are 4 different questions here, and we trust that your coding and analysis will take account of that!

No, Stop HS2 does not agree with any of the proposals in this question.

**Q3a Should the development of a high speed network be developed by concentrating on different geographic sectors, one at a time?**

- No, because far quicker and cheaper increases in speed and in capacity could be gained by concentrating on the worst ‘pinch points’ wherever they occur in the UK.

- No, because geographic phasing would concentrate a very large amount of resources for infrastructure modernisation on relatively small areas and do nothing for the rest of the UK.
- No, because geographic phasing means that sections would be modernised that have far less need of improvement, just because they are necessary links in that geographic sector.
- No, because although the Government claim that geographic phasing would “ensure rapid and early progress in developing HSR in the UK” this would not be as rapid or as cheap as developing the RP2+ scheme nationwide. That would not require a lengthy Parliamentary process and it would not be necessary to wait until the completion of CrossRail (to free capacity in building industry).

### **Q3b Is it right to begin with the London the Birmingham stretch?**

- No, because there has been no study to show that the benefit that would be gained from the Birmingham – London section would be significantly more, or would address significantly worse capacity and speed problems, than if that investment were to be started elsewhere.
- No because there is already a good high speed rail service between those 2 cities and the difference between HS2 speeds and WCML services to Birmingham are projected to be only 10 minutes by 2026.
- No, because there are a large number of alternative ways to increase capacity on the London - Birmingham stretch, which could be put in place long before 2026 and which would avoid risk from needing to forecast over many years.
- No, because it is back to front - if the aim of HSR is to ‘transformationally’ change the ‘North-South’ divide then the highest impact will come from starting with the rail improvements that would most benefit the north. HS2 Ltd were never briefed to enquire into ways to do this.
- No, because starting with this sector will have the least impact on regionally re-balancing the economy as 7 out of the 10 jobs that are purported to follow HS2 will be based in London – clearly *regressive* in terms of regional rebalancing.
- No, because there are serious concerns that HS2 will have major dis-benefits for areas close to but not next to HS2 stations and until a study has been undertaken to ensure that this will not be the case, it is too risky to spend £17+ Billion on a project that might worsen the unemployment and connectivity in cities such as Coventry, Stafford and the Black Country.
- No because the investment on this stretch would have least impact on reducing CO2 levels as this stretch will have no impact on modal shift from air.
- No, because the demand estimates for the London - Birmingham stretch have been greatly over-estimated and the business case – with a lower NBR than the Y sector - suggests that it is the least appropriate place to start.
- No, because the proposed ‘phasing’ on which we are being consulted, assumes that in phase 2 the Y sector would be built. Phase 1 makes absolutely no economic sense and it would not remotely offer value

for money on a stand-alone basis if the rest of the Y is not completed. However, there is no surety that this will be completed by a future government and the feasibility of this Y route has not been worked out and may never be possible. Without surety regarding this, the London – Birmingham stretch is nonsense.

- No, because if the purpose of HS2 is to enhance the economy, then no study has been done to show whether more jobs would be created from building HS2 from London - Birmingham, or from spending that same sum of money on rail investments over many parts of the UK.
- No, because of the inadequacy of both of the proposed termini. In Birmingham it will not connect to all other rail services operating out of New Street; and in London, it will terminate in Euston which, as the local MP Frank Dobson says, "is about as bad a place to bring it into as it is possible to imagine." Until proper seamless connectivity can be established with the classic services north and south, it is wholly inappropriate to begin with the London to Birmingham sector.
- No, because the business case for the London to Birmingham sector assumes 18 trains per hour yet the viability of this cannot currently be modelled.
- No, because the assumption is that if HS2 is started in the London – Birmingham stretch it will continue northwards on classic lines. However, classic compatible trains have less capacity than those they replace, but they will need to carry more passengers (if HS2 does generate demand). We will be left with a first phase that does not make business sense by itself but, in extending it northwards, it will create capacity problems.
- No, because many people understand that the underlying purpose of the London - Birmingham link is to provide the connectivity to expand Birmingham into another London airport (Hammond December 2010 speech). This is driven by air policy, which was never a part of HS2 Ltd's brief. There has been no national evaluation of air policy since the 3rd runway at Heathrow was halted and it is completely inappropriate to use HS2 to develop air policy 'on-the-hoof'. Flights that will be diverted from Heathrow to Birmingham will be replaced by more long-distance flights using Heathrow, thus expanding (not reducing) air traffic. It is particularly inappropriate to use HS2 to expand air traffic given that the Government use the argument that one purpose of HS2 is to reduce air traffic/ CO2 levels.

**SUMMARY** The London to Birmingham stretch is the weakest link – technically, economically and in its business case. It makes no sense to start with the weakest link.

### **Q3c Do you agree with the HS2 link to Heathrow?**

- No, because it is decidedly premature to consult on the efficacy or details of the Heathrow link. We do not think that the connection to Heathrow has been sufficiently worked out for it to be either the subject of a consultation or a part of a Hybrid Bill. All that is known is the proposal for a link between HS2 and the Heathrow Express at Old Oak Common in Phase 1. Everything else in HS2 Ltd's lexicon is fanciful ("through ticketing, through booking of luggage"; vague



references to turning Heathrow into the key 'hub' for extending access from the west to HSR; and initially building a spur but designing it so that it could turn into a loop). All of this is supposition – no serious work has been carried out on these proposals and the link should not be in the consultation.

- No, because no proper business case has been made for the investment in a Heathrow spur/loop. The Government say that this case will not exist until demand has been created by the Y and extension of HSR to Scotland. As this is unlikely before about 2040, it is singularly inappropriate to seek to legislate for that link in the 2012 Hybrid Bill. Additionally the current claims that there will be a substantial demand to travel from the North by HSR in order to get a flight from Heathrow, is not self-evident – international flights from Scotland and the North are already available.
- No, because the current plan is for Heathrow to be connected only as a spur line to HS2, and for only some of HS2 services to go via Heathrow, (so many passengers will have to change trains to travel from Birmingham to Heathrow), it is hard to see how this will ever add up to the 'seamless connectivity' between Birmingham and Heathrow airports needed for flight transfers.
- No, because there is no case setting out demand forecasts that would justify the expenditure for this link.
- No, because the Heathrow link is a makeshift after-thought and as such makes no sense.
- No, because there are three services between central London and Heathrow and potentially a fourth (tube, Heathrow Express, Crossrail and potentially Airtrack), so the expenditure for this link could not be justified given the serious need for rail investments elsewhere in the UK.

**SUMMARY:** A link to Heathrow is an addendum to the choice of route and, as it currently makes no business sense, and offers no real connectivity, it is premature to include it in the consultation.

### **Q3d Do you agree with the proposal for HS2 to link to HS1?**

- No, precisely because your proposal does NOT link HS2 with HS1!! Despite your rhetoric, 'seamless connectivity' between HS1 and HS2 is not in your proposal.
- No, because a link between Paddington and HS1 was part of the 1998 HS1 plans and was never built – we have no confidence that it will be built now. Both the weakness of the current specification and the weakness of the business plan for this link reaffirm the view that it is not a serious proposal. Wider links to the Continent are just rhetoric to sell the scheme.
- Linking HS2 and HS1 is essential to make sense of building a high speed network across Britain. Given how important it is to the whole scheme of things, the current proposals are embarrassingly inadequate and appear to have been an afterthought after the main route was decided.
- No, because as Frank Dobson MP noted, the current proposal is "bodged" [Hansard 31 Mar 2011: Column 167WH]. Direct links

between HS2 and the Continent and/or between HS2 and HS1 are essential to the development of a national HSR network – critical break-points - yet they are 'after-thoughts' to the development of the HS2 route for the London to Birmingham Airport link. HS2 is being 'sold' to the country, especially the North, on the basis that it is a nation-wide network linking to the Continent. Yet both the technical and the business cases for this critical link - as set out in the consultation documents - are very uncertain and risk the realisation of such a network.

- No, because the business case for this link makes inappropriate demand assumptions - that passengers will travel on HSR from Scotland and the North down to the Channel Tunnel, in order to travel on HSR to large parts of Europe. As in many cases this would entail a long train journey south, in order to take another train journey north or east, (extra time, money and CO<sup>2</sup>), the demand figures should be modified.
- No, because the business case has been put forward without any clarity on the technical requirements for the route. HS2 Ltd does not seem to know that at the time HS1 was built, they realised that they could not use the North London line route into St Pancras as the cuttings would have to be rebuilt and it would be cheaper to tunnel. Without knowing whether the whole HS2 link across North London will need to be tunnelled, and whether a stop in St Pancras will be provided, the business case cannot be made. It is clear that this business case is not fit for consultation.
- No, because the current proposal will be hugely expensive and there is no evidence that other proposals for this link were adequately considered as part of the overall choice of HS2 route.
- No, because the current proposal to link HS1 and HS2 involves taking track away from an existing rail use (North London Line) and the dis-benefit that this would cause should be factored into the business case.
- No, because taking HS2 to Euston will require a long single track section along the North London Line and as trains (even HS2 trains!) will regularly present late (particularly if they are coming from long distances on the Continent), the single track will be a major source of instability for the HSR network as a whole.
- No, because the singling of the Primrose Hill link will worsen conditions for freight trains that also use that line from the Haven ports, by restricting their access to WCML. Similarly, it will restrict the ability to lengthen freight trains and it will increase pressure for additional night time freight trains.
- No, because as Transport for London say, Euston has "by far the greatest capacity issues on the route in London ... Euston station is unlikely to cope with (the projected) level of growth (of its *existing* services)" and these will have to be curtailed if HS2 is developed there. In Frank Dobson MP's words, "Euston is about as bad a place to bring (HS2) into as it is possible to imagine."
- No, because Transport for London and London Overground think that there is only one train path potentially available for a HS1/HS2 link. This immediately puts a constraint on future growth.

- No, because there will be huge disruption to both the rail services using Euston, and the road services around Euston, from the remodelling of the station at a time when major construction works are underway for HS2. The costs of this have not been factored into the business case for terminating HS2 at Euston.

**SUMMARY:** The proposal to take HS2 across North London - only to *fail* to seamlessly link it to HS1 – will have large scale and very costly impacts on freight and other Euston services and this aspect of a HSR network needs serious re-thinking.

**Q4 This question is about the specification for the line between London and the West Midlands (Chapter 4 of the main consultation document):**

**Do you agree with the principles and specification used by HS2 Ltd to underpin its proposals for new high-speed rail lines and the route selection process HS2 Ltd undertook?**

No, Stop HS2 does not agree.

HS2 is being designed for speeds of up to 400kph. This is excessive for a small country like Britain, and at odds with the speeds of new high speed railways currently being built elsewhere in Europe.

Some new links which are being called "high speed rail" are considerably slower, sometimes slower than the WCML.

The design speed seems to have been chosen to make a marginal business case possible.

International rail experts agree that such high speeds are only necessary when stations are at least 150-200km apart. London to Birmingham only just reaches this distance. With up to three stations on the branch to Leeds, trains on this stretch are unlikely ever to get to full speed as it takes up to 20km for high speed trains to reach their maximum.

Further, a significant proportion of the route between London and Birmingham will be slower. For approximately the first 45km – from Central London to past Amersham, the tracks are designed for speeds of 320 km or less (apart from a single 3km stretch of 360kph). Near Birmingham the speed will again be restricted to 315kph on the London to Birmingham side of the interchange junction.

There might be some justification for a high speed design, if it linked to other railways of similar speeds. But HS2 won't. Even if a link to HS1 is constructed, HS1 is designed for a considerably slower speed.

The decision by HS2 Ltd to design the proposed rail link for such high speeds on parts of the route, mean that the costs of building the railway,

and the operating costs of running it, will be greater than for a slower railway.

However, the requirement for a really fast railway is not being led by demand from rail users. A recent report commissioned by the European Commission into attitudes of long and medium distance train passengers in different countries show that British train travellers are amongst the most satisfied in Europe with the time their journeys are scheduled to take: 92% are "satisfied" with the scheduled times of the trains, and only one country has a higher satisfaction rating.

Energy requirements will be higher as well - the faster a vehicle goes, the more energy needed to power it. While new trains might be designed to be more energy efficient (although safety considerations are likely to mean trains get heavier, not lighter), it is a fact of physics that going faster uses more energy. Acceleration requires more power than maintaining speed, and with the relatively short distances for a significant proportion of the journeys the HS2 trains will be accelerating or decelerating.

While it is possible that changes to the energy mix in the country may mean that electricity generation causes less carbon emissions than at present, designing a network reliant on higher energy needs seems perverse when the UK's overall CO2 emissions need to fall and the current government wants to be the "greenest government ever". Far better to look at ways of decreasing energy requirements of travel, so less overall electricity is required.

With the choice of speed the tracks need to be straighter than if a lower maximum speed was chosen. Whereas HS1 was built with 85% of it in tunnels or next to railways, major roads and motorways, the choice of route of HS2 makes this impossible. The speed means that even where the railway follows the old Great Central railway, it still has to deviate away from the trackbed.

It is impossible for the route to avoid sensitive sites, like SSSIs, ancient woodland, ancient monuments, listed buildings and other features of the landscape.

A significant proportion of the route is across open countryside, with subsequent environmental concerns. The splitting of countryside leads to risks to biodiversity and damage to the natural environment: larger contiguous areas of habitat provide resilience for wildlife populations.

Although HS2 Ltd considered putting in stations at Bicester, Milton Keynes and Aylesbury, they decided not to. More stations would have meant far more people had a chance to take advantage of a new railway.

Milton Keynes and Bicester were both stations rejected on the grounds that too many people would use them. This seems bizarre, especially as part of the remit for HS2 Ltd was on capacity issues. Milton Keynes in particular is a city which is growing fast, with major development round the city centre and good motorway links.

If similar decisions are repeated north of Birmingham, then potential growth areas will be sidelined.

The effects on Milton Keynes are particularly insidious. The city will no longer be on the main intercity line, which will inevitably limit future prospects for the city. Just like places not on the high speed line in Kent have found, it is likely that long distance services through Milton Keynes will be slower.

The main HS2 consultation document says on p19

"The focus has been on developing proposals for a safe and reliable railway, using proven European standards, technology and practice....up to 14 trains per hour in each direction; developments in train control technology are expected to see that increase to 18 trains per hour on a wider network."

However, in evidence to the Transport Select committee, Pierre Messulam said, "The Japanese are running 12 trains per hour. We are running a maximum of 12 trains per hour. We are considering next December 13 trains per hour, and nobody does more."

This means that if the selection of the route relies on 18 (or even 14) trains per hour then there is a massive risk in using unproven technology, not used elsewhere.

The specification for the route assumes specially designed "classic compatible" trains for services beyond Birmingham. This is also a risk factor.

To be effective, a new railway line should provide ample links with existing railway lines. HS2 does not provide any links with the existing network, except in London and Birmingham, and for Phase 1 a possibility for trains to run on to the WCML.

**Q5 This question is about the route for the line between London and the West Midlands (Ch 5 and Annex B):**

**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?**

No, Stop HS2 does not agree.

The question assumes that a new very high speed rail route is a given necessity. This has certainly not been successfully argued.

Nor has genuine consideration been given to alternative solutions to any capacity problem that might be proved in the future.

Constrained by an obsession with very high speed, for no better reason than because without it there is no business case (according to Mr Hammond himself) and ignoring more cost-effective options which deliver equal capacity benefits, the route represents an uneconomic choice.

Such a route is also unnecessarily damaging to some of England's much cherished countryside. There should be a balance between sustainable development and the conservation of the natural environment. HS2 meets neither of these objectives.

The failure to consider options including the specification of a lower track speed means that alternatives which may have been more acceptable, have been discounted and not presented for consideration by the public.

The scale of the physical environmental impact of HS2 has not been acknowledged or investigated in any depth.

It is utterly shameful that those who are attempting to defend the environment in this matter are being contemptuously dismissed by prominent supporters of HS2, led and encouraged by the Secretary of State, as 'the vocal minority', Luddites or Nimbys.

The proposal misleadingly suggests that HS2 follows existing transport corridors. In fact, once outside London it will largely be built across open countryside.

In the earlier case of HS1, a large part of its route follows the previously developed M2 / M20 corridor, which meant that a significant part of the necessary re-alignment of local roads had already taken place. Even so, a vast amount of new road building and upgrading was still required. The same will be true of HS2.

There is no mention of this in the Consultation documents however and the replies to questions about new road building at the HS2 Road Show can be summarised as 'We don't know'. This is thoroughly unsatisfactory from the point of view of a public Consultation.

The level of mitigation assigned to the line appears to be inadequate given the quality of landscapes en route, which includes the Chilterns AONB and large areas of open and unspoilt countryside. Recent tweaks to the route design and specification offer little to suggest that greater emphasis will be placed on adequate and effective mitigation, particularly given the associated costs, and they appear to be a sop to silence some of the more vocal critics of the route.

In any case it is not possible adequately to mitigate the damaging environmental, economic and social impacts of HS2.

**Q6 This question is about the Appraisal of Sustainability (Ch 5):  
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?**

Yes, Stop HS2 wishes to comment.

It is almost incredible that, whilst claiming 'green' aspirations if not actual credentials, this Government should defer the Environmental Impact Assessment (mandatory under EU law) until after a decision on the project's implementation and route.

The decision not to undertake detailed environmental assessment until after the route has been selected seems perverse and ill-judged. If HS2 were to be built, this level of detail is essential in determining which route would be most appropriate and least damaging.

It is our view that the failure to undertake the Environmental Impact Assessment before deciding the route and going out to Consultation raises serious questions about the value and credibility of the Consultation as part of an informed and democratic decision-making process.

The Appraisal of Sustainability itself is insufficient and lacking in the detail required to make an informed decision as to the viability of the HS2 project.

It contains factual inaccuracies, for example HS2 Ltd's under-estimation of the amount of spoil that will be generated during construction.

The Appraisal of Sustainability represents a strategic assessment, one which ignores the consequences of HS2 at a local level.

The potential effects of noise pollution are insufficiently addressed.

Similarly the impact on local ecology, flora and fauna is insufficiently addressed. Each of these needs greater attention and a real sense of urgency must be given the Government's legal obligations to the countryside.

We share the view that the Appraisal of Sustainability should, but fails to, adequately assess the economic consequences of HS2 at the local level and its relative effect on the vitality of numerous communities along the proposed route, including its effects on tourism and the reduced commercial viability of businesses, farmers and landowners.

The sustainability merits of the project are at best dubious. Of the 66 identified impacts associated with the construction and subsequent running of HS2, only 9 comply with sustainability objectives as set by the Government, whilst more than 50% conflict greatly with an ongoing commitment to embed 'green' principles throughout all aspects of UK society. This is not a sound basis on which to proceed with the proposed new high speed rail line.

## **Shortcomings of the Appraisal of Sustainability**

The lack of a specific assessment on the Chilterns Area of Outstanding Natural beauty raises the question of whether the Government itself has complied fully with the duty in Section 85 of the Countryside and Rights of Way Act 2000, which requires any public body to give regard to the special qualities of the AONB when undertaking its activities.

Notwithstanding this requirement it is surprising that, in view of the sensitivity of the impact of HS2 on the Chilterns AONB, the consultants were not instructed to make a separate assessment.

The Consultation document does not include sufficient information about the environmental impact of HS2, both during the construction and subsequent operation. The Appraisal of Sustainability, whilst an essential pre-requisite for the assessment of environmental impacts, is a high level strategic document. It does not provide the level of detail required for the purposes of enabling the public to judge whether or not the environmental impact of HS2 is acceptable.

The Government is seeking public endorsement for the Y shaped network but the Appraisal of Sustainability only goes as far as Lichfield. It does not cover the entire proposed network. The environmental impacts of supporting the Y shaped network are unknown. This is an incredible omission. It is totally unreasonable to expect people to make an informed response on the whole network in the absence of information.

## **Impacts Identified by the AoS**

There is no information to enable the public to interpret the proposed impacts on the area where they live. The entire report should have been prepared on a section by section basis.

In general, the consideration of the impact on the landscape and biodiversity is inadequate and fails to recognise the importance of the wider landscape instead just concentrating on direct impacts on a small number of designated sites.

Some aspects, all negative, are scarcely covered e.g. impact on the Chilterns and Warwickshire aquifers, public rights of way, the historic environment and noise.

Insufficient weight has been given to ancient woodland: the Woodland Trust have identified 21 ancient woods which will be damaged or destroyed by HS2. In total over 50 hectares of ancient woodland will either be lost or fragmented. This is a major issue for biodiversity.

No assessment is made of the impact of construction, which will be severe and prolonged.

Disruption is given by DfT as a reason for not undertaking further upgrading of the WCML and yet is not given any weight when proposing HS2. HS2 Ltd says that it will take 7-8 years to rebuild Euston. Changes will also need to



be made to the WCML/HS2 join at Lichfield. If the HS1 link goes ahead there will also be disruption to the North London Line and St Pancras. This is all in addition to local roads and rail along the route.

The impact of the construction itself will be so significant it is, arguably, a reason to reject the entire project.

An example of the inadequacy of the AoS is the issue of spoil requiring offline disposal. It states that only 680,000 cubic metres will be removed from the West Ruislip to Aylesbury section. The correct figure for the total volume of spoil to be removed is over 12 million cubic metres of which less than 10% can be used along the line. The rest will have to be removed by road. Sources in the railway industry have told the Chilterns Conservation Board that it will not be possible to use any part of the Metropolitan/Chiltern line for this purpose. The enormous quantity of spoil has to be disposed of somewhere offline outside the Chilterns AONB. The Appraisal of Sustainability does not adequately address the matter nor incorporate the associated disturbance to communities or emission of green house gases, let alone the financial cost.

There is no assessment of the impact on the local economies as required by PPS7 for rural areas. There is a high likelihood that jobs will be lost along the line which need to be balanced against claims for job creation which, it seems, would be within close proximity to the small number of HS2 stations. The relevant Appraisal of Sustainability sections fail to identify these job losses.

Similarly in more built up areas, the costs of HS2 on businesses are ignored.

There are places both in London and Birmingham where existing regeneration plans are now on hold, which reduces the options for these areas in the present.

HS2 Ltd gives precise numbers for the number of houses affected by noise, but takes no account of impact on the tranquillity of the countryside and the detrimental effects for walkers, cyclists and others seeking recreational opportunities in the vicinity of the route.

HS2 refuses to publish the noise contour maps which are needed to show the full effects.

The impact of noise pollution and its effects on a sense of tranquillity are given little weight in general and the numbers of properties which, it is claimed, will be significantly affected looks very low.

In some circumstances noise can be reduced, but often it cannot be.

Sound barriers are visually intrusive and ugly engineering features. Even Philip Hammond said they were not "aesthetically pleasing".

This is another example of how a negative impact should be avoided in the first place rather than mitigated.

It is also noted that the very high track speed will generate additional aerodynamic noise and, at 400 kph, the noise impacts are not known.

The HS2 documents, including the AoS, do not include any mention or assessment of the environmental impact from the wide range of associated infrastructure - everything from work camps, new access roads, masts, gantries, fences, storage compounds, electricity supplies and ventilation shafts. They are all likely to have a deleterious impact on the landscape and biodiversity but have not been taken into account.

Some of these will be sited on small green spaces in London; others will be the only industrial activity in a rural area.

It is not known whether the energy demands of HS2 will require the provision of additional electricity supplies necessitating the installation of new cables, either above or below ground. Either will have significant impacts and should be known at this stage.

If a great deal has been learned from HS1, as is claimed, then these issues should already have been given much thought.

### **Land Take**

The HS2 reports do not give a figure for the final land take or that required for construction. This is an extraordinary omission. It is known that HS2 Ltd know the figure and the breakdown by land use type (they confirmed this at an HS2 seminar). Despite requests to HS2 Ltd that it should be provided, HS2 Ltd has refused to do so.

One consequence is that the AoS does not include an assessment of the loss of economically productive land especially farmland. At a time when food security is of increasing concern the impact of HS2 on food production could, and should, have been readily calculated and the public informed.

### **Green House Gas Emissions**

This consultation document does not specifically address the major issue of greenhouse gas emissions.

Despite earlier claims that HS2 would be part of a low carbon economy it is noted that HS2 Ltd now claim that it is likely to be only broadly carbon neutral.

Even the carbon neutrality will only be the case if flight slots vacated due to competition with HS2 are not filled by flights to other destinations. BAA has already published a statement that this is extremely unrealistic and withdrawal of a domestic flight is more likely to be replaced by a medium or long haul flights, which typically generate up to ten times the amount of green house gases.

*"Every time BMI or British Airways have cancelled a domestic route in the past, they've replaced it with a more profitable medium- or long haul route. That is exactly what will happen when HS2 comes and more domestic routes get cut."* Nigel Milton, Director of Policy and Political Relations for BAA.

A point to note is that Birmingham Airport's expansion plans feature HS2 and the hope that it will enable Birmingham to become London's fourth airport. So HS2 will be instrumental in enabling a doubling of activity at Birmingham with the associated increase in aviation emissions.

Compared to classic rail, high speed trains will generate several times the emissions due to their energy demand.

The limited modal shift from cars and planes restricts the scope for offsetting. According to the CAA passenger numbers on the routes between London, Glasgow and Edinburgh are decreasing: Manchester to London air travel is falling by approximately 5% a year. This restricts the extent of offsetting that is possible and will require an unrealistically high market share to be captured by HS2. As HS2 does not bring significant journey time savings compared to current rail services the modal shift will be limited.

The combined effect of increased energy demand from the faster and more frequent HS2 services, and indirect increase in longer haul flights triggered by HS2, will lead to a significant increase in emissions compared to today.

This is compounded by HS2 forecasting that 22% of its passengers would not have otherwise travelled at all and several hundred thousand more car and train journeys will be made per day to reach stations served by HS2.

The extent to which energy generation can be de-carbonised will affect the total amount of additional emissions of green house gases from HS2.

However, HS2 will still lead to a proportionately larger need for electricity compared to classic rail. Additional generating capacity, whatever form it takes, will be required to run HS2 at a time when we should be endeavouring to reduce our energy use.

In the context of very challenging legal and binding international commitments to reduce carbon emissions the government should be ensuring that any major public investment delivers substantial reductions in carbon emissions especially as the transport sector is responsible for a high proportion of national emissions.

### **Embedded Carbon**

The impact of embedded carbon is given insufficient weight. A report by Booz Temple for the Department for Transport in 2007 concluded that it would take many years for a high speed railway to pay off the embedded carbon involved in its construction. This is confirmed by studies into a possible high speed railway in California which came to the same conclusion

(Dept of Civil and Environmental Engineering, University of California, Berkley 2010).

Notably the AoS does not include the carbon emissions from the operation of several very large new power stations.

### **Need to Travel**

It is surprising that the Government is not giving greater emphasis to helping people avoid the need to travel and thus avoid generating transport related emissions of green house gases.

The use of IT will provide many people with a viable alternative to travel and, in view of the financial and environmental cost of travel, a national objective should be to reduce travel especially over long distances. The current drive by Government itself to reduce travel and make greater use of video technology is an example of the way ahead. The aspiration, even requirement, for HS2 to generate significant numbers of additional long distance journeys is wholly incompatible with this objective.

### **Q7 This question is about blight and compensation (Annex A): 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 rail line?**

No, we do not agree with the options, because they are too limited.

There are a number of different forms of blight which should be considered, but which are ignored by the public consultation. They arise at different times and should all be included for compensation. These can be summarized as blight due to construction of HS2, blight due to operation of HS2, loss of amenities to communities (including intangible losses, such as access to nature and tranquility) and losses to individuals who may be affected by any part of the process. It should also be recognized that uncertainty and lack of information about the HS2 plans also causes major blight.

The current plans only include certain types of blight to property owners and ignore completely losses to communities and the operations of businesses. They are therefore flawed.

It is vital that people feel that, as individuals, as members of communities and as employers or employees, the proposed scheme will be fair and cover as many different types of blight as possible.

However, the consultation documentation asks whether we want another consultation in 2012 about compensation schemes. This will be the third consultation: it is easy to assume that the Department for Transport will keep having consultations until the public gives the answer the Dft wants.

This leads to uncertainty about whether the schemes which are eventually put into use will be fair.

The criteria for the current Exceptional Hardship Scheme mean that it is only available in a very small number of cases where people want to move although others are affected and were refused compensation.

Blight is real and is already happening – there is very little market activity in some areas and where sales have occurred prices have been well below the previous unblighted level. This means that many property owners are realistically unable to move, and face a long period of uncertainty.

It is completely unjust to expect people to wait until the train has been running for a year to even BEGIN the process of compensation, even if you are considering going beyond existing statutory compensation.

If a government official were to suggest that people should only be allowed to move house under a very limited number of circumstances, there would be an outcry, but this is effectively what has happened with the Exceptional Hardship Scheme. It is simply inadequate.

In addition to the eventual operation of the line, the impact of construction work is anticipated to be extremely severe – based on the experience of HS1 in Kent. Statutory compensation is only available after the line opens and takes no account of construction.

Communities, both rural and within cities, will be afflicted by the current proposal. Where homes are likely to be demolished to make way for HS2, there must be an option for re-housing people in the same community at no cost to the individual. This should apply both to people living in flats in London and houses in the country, and all scale of property in between. This should be available from now until after HS2 – if it goes ahead – has been operational for some time.

Delaying the process of these payment until 2027 is unfair and unjust considering the economic blight, the physical disruption and the mental health impacts.

Compensation should also be given for less tangible effects due to HS2. These include losses to communities of local amenities, such as flora, fauna and the value of tranquil areas of countryside, including woodland.

Ancient woodland can never be satisfactorily replaced, although if HS2 were to go ahead, it is vital that significantly more woodland than currently proposed by the DfT is planted, and that this planting should start early in the construction phase.

Other losses include communal buildings like schools and village halls. These losses will take place in areas ranging from cities to rural communities.

But the level of disruption and therefore compensation cannot be known in the current state of HS2 Ltd and the Government's planning. This is because exact route, type of track, rolling stock, noise and vibration modelling have not even been considered much less started.

Impact on the local environment which greatly impacts on an individual's well being; permanent erasing of animal, bird, and insect habitats; destruction of flora and fauna; all have a compensatory level of impact and therefore payout.

Sound demonstrations at the road shows were based on mitigated noise yet there is nothing proposed that would ensure this, other than a statement that HS2 are considering *"if the potential impact from a new line could be mitigated as far as possible"*.

A frequent criticism was that the sound of birdsong was louder than that of the trains. This does not tie in with people's experience of high speed trains on the Continent or of HS1. People have got no confidence in HS2 Ltd's noise modelling projections and this is an issue which must be resolved as a matter of urgency. Accurate sound maps must be developed as soon as possible.

Further, there is no proposal to include sound mitigation on both sides along the entire route of HS2, meaning that the peace of large areas of countryside will be ruined by the unmitigated noise of the trains.

This loss of tranquillity is in direct conflict with government plans for a national well-being programme: a spokeswoman working on the Government's well-being programme told the BBC - :

*"So our sense of national well-being,... it's got to look at sustainability ... and there's also something about locality - things that you can find out about local areas, like access to green spaces and the sense of community cohesion."*

<http://www.bbc.co.uk/news/uk-14272038>

The HS2 proposal is in clear conflict with this, but HS2 Ltd has not taken these factors into account.

In addition, there is nothing offered in terms of business compensation and possible relocation costs beyond minimal statutory compensation for acquired land and buildings – yet close proximity to the line is likely to impact on workers operating out of single-skinned buildings and on businesses that are based on tranquillity and outdoor pursuits.

A 'one compensation package fits all' approach is not viable.

Businesses plan up to or more than 5 years ahead. HS2 will have serious health and safety implications but it is the business that is being left to cope with that.

Farms too will be split, making many of them less viable, and increasing the costs of operating the farm.

When it come to people's homes the HS2 proposal expects a limited number of people to bear most of the direct costs from HS2, even where these direct costs represent all of their savings. However, this same group of people is also expected to get none of the benefits of the high speed railway described in detail in the documents.

For many people their home or business property represents the majority or all of their savings and financial security.

Houses bought with a mortgage also represent security for a loan which still has to be paid even if government choices mean that the house is worth less.

Although the loss caused by the proposed HS2 may be small relative to the value of a property, if an individual has a mortgage which represents a large percentage of the value of the house, then the loss in value due to HS2 may be greater than the equity the individual owns, leaving them with a debt they may not be able to pay.

The proposals are clearly unjust.

The Government's package on compensation needs to go back for a total rethink.

The underlying principles should be

- that everyone who suffers a loss from the construction or operation of HS2 should be fully compensated.
- That individuals and organisations should be able to sell homes and other property just like people in other parts of the country.