

## HS2 Fact Sheet, January 2020.

### About Stop HS2

Stop HS2 is committed to rebutting the false arguments propagated to support the case for HS2, which largely originate from lobby groups with vested commercial interests in the construction of HS2, or the associated land-grab surrounding station sites. We have spent the last ten years analysing the case for HS2, working with NGOs, MPs, councillors and communities. We believe that after examination of the facts surrounding HS2, there can be no other conclusion than the project is a costly and environmentally damaging mistake, which represents a severe opportunity cost, and will actually exasperate many of the problems it is purported to solve.

### History

In 2006 the Department for Transport commissioned the Eddington Transport Study, which made the rather obvious conclusion that transport projects should be prioritised on the basis of need. However, with regard to the embryonic HS2 project, Eddington stated *"The challenge to be tackled was not fully understood before a solution was generated, due to intense political lobbying from advocates"*, and politicians should *"Avoid wasting time and money pursuing alluring new super-high-speed rail networks that might prove difficult and unpopular to stop."*

Instead of implementing the wide range of incremental improvements Eddington had advocated, in March 2010 the official plans for HS2 were finally announced. The preferred scheme was not a result of any assessment of future UK transport infrastructure needs, but was put forward on the nod of

Class	Ticket type	Promised benefits
PRIVILEGED FEW	SUPER EXCESSIVE VANITY PROJECT	MAINLY FOR VESTED INTERESTS
From TAXPAYERS' POCKETS	Start date BEFORE THE PUBLIC REALISE IT'S A WASTE OF MONEY	Method of payment INCREASED CUTS TO ESSENTIAL SERVICES
To A FINANCIAL BLACK HOLE	Valid NEVER HAS BEEN	Price £15.7 billion (2008)
		£32.7 billion (2010)
		£50.1 billion (2013)
		£55.7 billion (2015)
		£88.0 billion* (2019)
		£115.8 billion** (2020)

\* PM admitted this would more likely be over £100bn  
 \*\* Independent Review by Lord Berkeley  
[www.stophs2.org](http://www.stophs2.org)

Transport Secretary Lord Adonis, at a time when the impending election ensured there would be no detailed analysis of the plans.

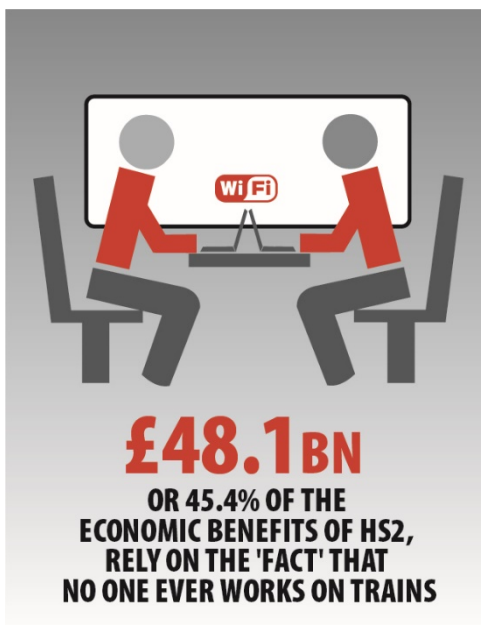
As is common practice when it comes to megaprojects across the world, the Government had been lobbied heavily by representatives of industries which would directly benefit from the building of HS2. A series of justifications, benefits and costs had been drawn up that in no way accurately represented the realities of proceeding with HS2, but had been deliberately engineered to attract political advocates. As such the project that was going to cost £32.6bn and be finished by 2033, has current estimates for cost between £88bn and £115.8bn, would be ready by 2040 at best, and has been downgraded with the proposed links to both Heathrow Airport and the Channel Tunnel removed. These cost increases and cutbacks, coupled with more realistic estimates of benefits, led to the independent review of HS2 by Lord Berkeley putting the benefit-cost ratio around 0.6.

### An Invented Business Case

The construction of HS1 led to the establishment of the “Kent Principles”, which balanced cost, speed and environmental impact, by following existing transport corridors, avoided important habitats and provided intermediate stations. These principles were meant to dictate the design of future high-speed rail projects in the UK, but when HS2 was being planned, speed became the only consideration with a 250mph design speed that would make HS2 the fastest railway in the world.



Some supporters of HS2 have recently tried to claim that HS2 was never really about speed, but capacity instead. The reality is that HS2 was only ever about speed. The 250 mph design speed dictates everything about the project: it minimises functionality and flexibility by prohibiting freight and denying intermediate stops; it maximises the cost of building, operating and maintaining the railway; it increases the carbon footprint due to exponentially increasing energy requirements; damage to the natural environment, habitats and communities is increased as the design speed needs a far straighter route than normal railways or road, with the land-take in many places wider than that of a motorway; and instead of following an existing transport corridor, it was decided with Phase 1 that HS2 should follow the straightest line from Birmingham Airport to Old Oak Common near Wormwood Scrubs in London. Far from being a tool to rebalance the economy, HS2 has specifically been designed to feed into



and fuel the Old Oak Common development, which is intended to be "The next Canary Wharf".

It seems to be irrefutable that the 250mph design speed HS2 was plucked out of the air for no other



**Projected to create almost  
100,000  
new journeys every day**

Source: HS2 Ltd

reason to present a positive business case to get the project adopted. The entire HS2 business case is founded on the 'fact' that no-one ever works on trains, meaning that if journeys are shorter there will be an increase in productive time in the economy, as no-one presented with a shorter morning commute would ever stay in bed for longer. Ignoring the fact that many of the time saving benefits of travelling by HS2 are lost due to poor connectivity at the proposed new-build stations, a cash value was then put on the time saved based on the assumption that every business user on the train would earn executive level wages, which is then multiplied by a grossly inflated passenger forecast and produced £48bn worth of economic benefits.

This approach is typical of the entire case for HS2 which relies on justifications for building the project which were made after a decision to go ahead with the project has been made. It is a common factor of high speed rail projects across the world that they always fail to attract the grossly inflated passenger forecast which were used to justify their

construction. In the case of HS2, official figures make the ludicrous claim that HS2 would carry more passengers than all the inter-city services on the East Coast, West Coast and Midland Mainline combined, despite the fact that HS2 would stop at far fewer stations. Over a quarter of projected passengers are expected not to travel *at all* until HS2 is build.

Another underlying assumption for the business case and service pattern of HS2 is that it would carry 18 trains per hour, more than any other high speed rail service anywhere in the world. The nearest any high speed rail service comes is 15 trains per hour, at lower speeds and without the complications of having five 'classic compatible' connections which would import reliability issues from the existing rail network. It is now accepted that HS2 could at best manage 12-14 trains per hour, which is an admission that the promised service patterns are unobtainable.

### The Capacity Con

Some proponents of HS2 will now claim that the project was never really about speed, but that it has always been about capacity, despite the fact that speed dictates everything about the project. It is felt this argument will have more resonance amongst the public because everyone who regularly uses trains uses busy trains, but HS2 would do nothing to address the majority of crush-hour conditions. Much of what is said is simply factually inaccurate, for example it has been repeatedly said that there is simply no room on tracks like the



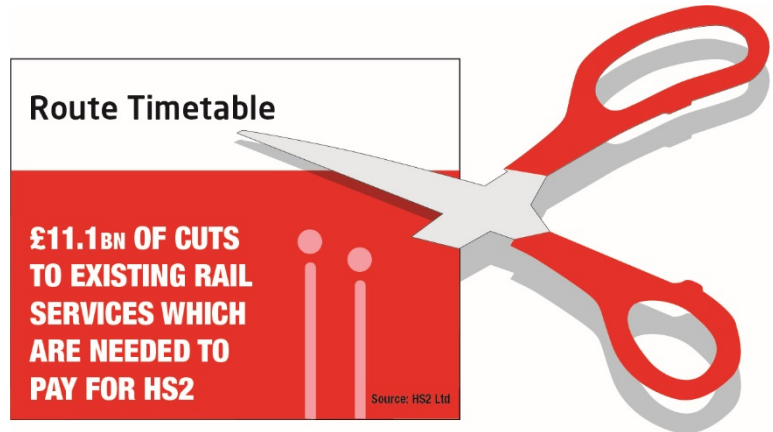
**"THE SUGGESTION THAT HS2  
WILL FREE UP COMMUTING CAPACITY  
INTO LEEDS OR MANCHESTER  
SIMPLY ISN'T TRUE."**

Quote: Chris Stokes, former director,  
British Rail & the Strategic Rail Authority.



West Coast Mainline for more trains, despite the fact that since that claim was first made London Midland (as was) added more trains by changing the timetable twice, and the new WCML inter-city franchise holder Avanti is promising to add 263 more services each week on tracks HS2 proponents claim are full. Additionally, in terms of London to Birmingham services, the Chiltern Line is massively under-utilised and remains unelectrified, meaning more capacity, quicker journeys and decarbonisation without massive habitat destruction could be achieved there at a fraction of the cost of HS2.

The vast majority of rail users are short distance commuters, and HS2 does little for these passengers. While HS2 itself delivers capacity where it is needed least at the greatest cost, decades into the future for point-to-point inter-city journeys, which are mostly the preserve of the business elite, the claim now is that HS2 'frees up capacity' on existing lines, meaning more services could run on them.



This has never been the intention, as the HS2 business case very specifically expects there to be a net cut of £11.1bn to existing rail services over 60 years. Whether this is possible is another matter, as it would mean cutting services to all the towns and cities which are currently served by inter-city express trains, but would not be served by HS2. As former British Rail director Chris Stokes recently told Parliament, HS2 would deliver 'pretty much zero' extra commuting capacity to Leeds or Manchester as the trains coming in from London will be carrying people who got on at Doncaster and Wakefield or Stoke-on-Trent, Macclesfield, Crewe and Wilmslow. Those people who say HS2 could 'free up capacity' in this way are basically claiming that if those trains to Doncaster and Wakefield or Stoke-on-Trent, Macclesfield, Crewe and Wilmslow are cancelled, there could be more trains for places like Doncaster and Wakefield or Stoke-on-Trent, Macclesfield, Crewe and Wilmslow.

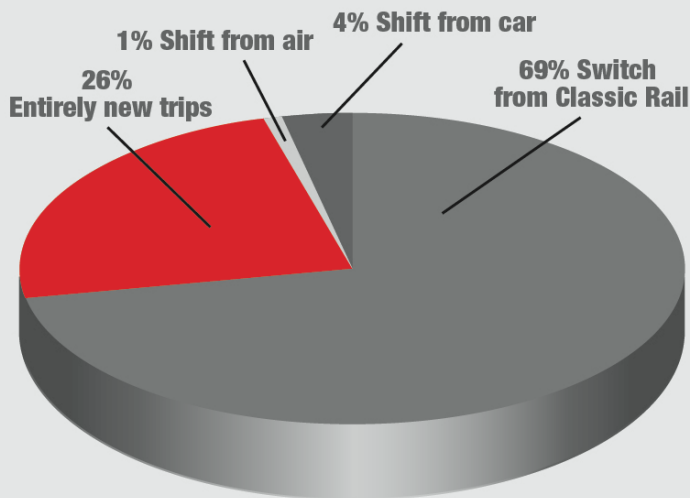
It is now being suggested that HS2 would get lorries off the roads by increasing freight capacity, despite the fact it would not carry any freight. Again, this would supposedly happen by removing all the 'fast trains' from existing tracks, which is claimed would mean more trains could be run on existing tracks as the remaining services would all be going the same speed, so could run closer together. This simply intellectually disreputable and like many of the arguments for HS2, relies on

conning the public. Not only is it not possible to remove all the express trains as demonstrated above because they stop at places which HS2 will not, the speed of semi-fast commuter trains can be around 100-110mph, much closer to the inter-city top speed of 125mph than the average for freight trains of around 60mph. The only way this could work is by slowing down remaining passenger services across the East Coast, West Coast and Midland Mainlines.



Lord Berkeley, who recently retired as chair of the Rail Freight Association, commented in his independent report on HS2 that: "HS2 Ltd claims to free up capacity for rail freight, but DfT's actions to date mean that this may be just an illusion.....even existing services may be prevented from operating."

### HS2 PASSENGER FORECAST FOR 2043



**WITH ONLY 5% OF JOURNEYS PROJECTED TO SWITCH FROM THESE MODES, HS2 IS NOT INTENDED TO GET CARS OFF THE ROADS OR FLIGHTS OUT OF THE AIR**

### Shifting Modal Shift

In a similar vein it has also been claimed that HS2 would get cars off the road, with lobbyists even adopting the scare tactic of suggesting that if HS2 were not built, this would dictate a need for new motorways. This is simply not true. Very few people use cars for the journeys provided for by HS2: even HS2 Ltd only project a 4% modal shift from cars. In reality, the parkway location of a number of the proposed HS2 stations could lead to an increase in car use, as people of course would have few choices but driving to get to some of the HS2 stations.

It seems bizarre given the declaration of a climate emergency that the heart of

HS2 plans is focussed on encouraging more people to travel greater distances for work at a time which we should be enabling more people to work from home, and creating jobs in towns and cities where people actually live via increased investment in information technology.

One of the ways HS2 was first sold to politicians was that it would help reduce domestic aviation, connecting Heathrow Airport to major cities and the Channel Tunnel. For some reason, this belief has ensured even after those connections have been dropped. HS2 modal shift figures from air now stand at 1%, and it is expected to see an overall increase in aviation. HS2 is planned to go to both Birmingham and Manchester Airports, as well as very close to East Midlands Airport and is actively being lobbied for by those airports, along with Leeds-Bradford Airport, who all state that HS2 is 'essential' for their plans to significantly expand international aviation.

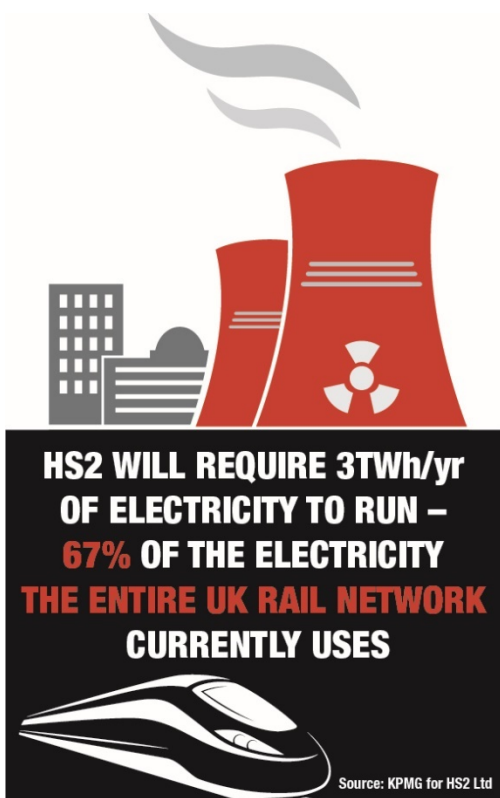
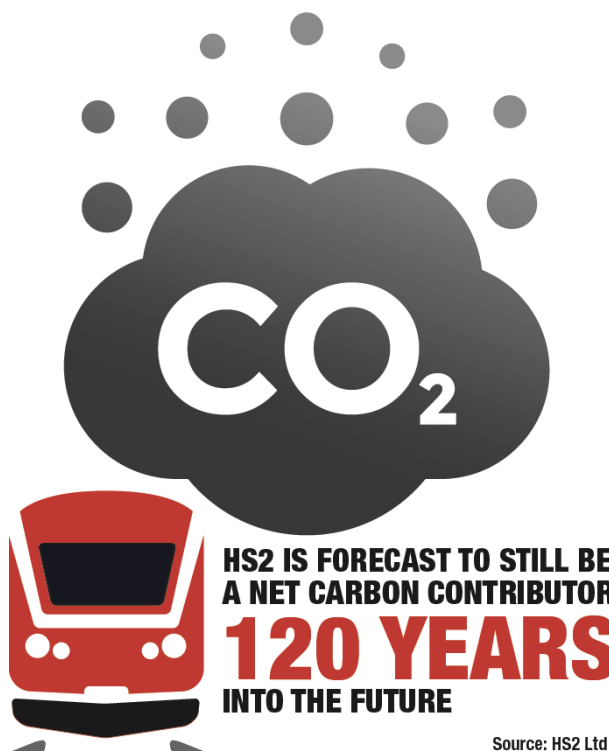


**FAR FROM REDUCING FLIGHTS, HS2 IS BEING LOBBIED FOR BY 4 MAJOR AIRPORTS WHO ALL SAY HS2 IS ESSENTIAL IN THEIR PLANS FOR AVIATION EXPANSION**

## The Carbon Con

Possibly the most shameful claim being made by supporters of HS2 at the moment is the idea that it is 'essential' if the UK is to meet net zero carbon targets. Quite simply, anyone trying to claim that HS2 has any credentials whatsoever in terms of reducing carbon emissions is ignoring 1,451,000 tCO<sub>2</sub>e tonnes of embedded carbon associated with the constructing the railway. The official forecasts from HS2 Ltd specifically state that even after 120 years HS2 would still not have achieved carbon neutrality.

Additionally, in operational terms, the HS2 carbon case seems to have been specifically been fiddled to present it as having the lowest carbon impact for any train in the history of the world, despite not knowing what the exact specification of trains would be. This is another by-product of the grossly inflated passenger forecast which helps make the carbon impact per passenger kilometre seem better, despite the fact that slower trains - which is pretty much other electric train in the world - require less energy. There also seem to be discrepancies around the projected decarbonisation of other forms of transport (including all other UK trains), the increase in new journeys to get to stations, and the impact of removing over 300 miles of trees, hedges and fields. As has happened with the business case, the carbon impact of two decades of roadworks during the HS2 construction phase seems to have been completely ignored.



The decision for to design HS2 for 250mph makes the project massively energy intensive, with a KPMG report stating HS2 would need 67% of the electricity the current rail network requires, or around 1% of the current output of the entire grid. What additional infrastructure will be needed to generate and transmit this power is unknown, with these costs never having been assessed by HS2 Ltd.

These additional off-the-books costs are typical of the HS2 project. It has often been pointed out that HS2 does not connect well with the rest of the transport network, with the National Infrastructure Commission saying another £43bn would be needed to plumb HS2 into to the transport network. Even the 'people mover' to get passengers across the M42 from the proposed 'Birmingham Interchange' station to the existing Birmingham International station is not included in the official costs.



**HS2 THREATENS;**  
**693 LOCAL WILDLIFE SITES**  
**33 SITES OF SPECIAL SCIENTIFIC INTEREST**  
**21 DESIGNATED LOCAL NATURE RESERVES**  
**5 WILDLIFE REFUGES OF INTERNATIONAL IMPORTANCE**

Source: The Wildlife Trusts

‘inaccurate and misleading’, a similar response to when they said in 2018 that it was ‘wrong and misleading’ to claim the project was three years behind schedule, it was the timetables published on their own website that demonstrated the delays.

This is in line with the standard practice of HS2 Ltd to dismiss any and all criticism of the project outright, no matter who is making it. Because HS1 created a genuine wildlife corridor by following an existing transport corridor, HS2 Ltd feel they have the right to say they will create a wildlife corridor too, when in reality they are proposing disconnected and sporadic mitigation sites, miles from the line of route, and for any replacement habitats to be of any use, they would have to have been well established before the current ones are destroyed. The reality is that the proposed mitigation of HS2 is far from adequate.



Source: HS2 Ltd

## Damaging by Design

In January 2020, the Wildlife Trusts produced a report that stated HS2 would impact: 693 Classified Local Wildlife Sites; 21 Designated Local Nature Reserves; 33 Sites of Special Scientific Interest which are protected by UK law and 5 Wildlife refuges of international importance which also have legal protection; along with the 108 ancient woodlands that the Woodland Trust had previously identified as being under threat, as well as other serious impacts.

The response from HS2 Ltd was to say that the report from the Wildlife Trust was



The 108 Ancient Woodlands under threat are irreplaceable

habitats which are again impacted because of the 250mph design speed of HS2. Slowing down the proposed running speed at this late stage may save on some construction and running costs, but it will not save these habitats HS2 is due to smash through.

There is also an unassessed (or at least unpublished) risk of damage to the Chiltern Aquifer which supplies drinking water to millions of people. It is still unclear whether the proposed tunnel through the aquifer is actually possible. There are also severe unanswered questions surrounding the viability of the route of HS2 through the Cheshire Brine Fields and the route through former mining areas in the East Midlands and Yorkshire due to severe subsidence in these areas.



## Far From a Magic Wand to Cure the North/South Divide

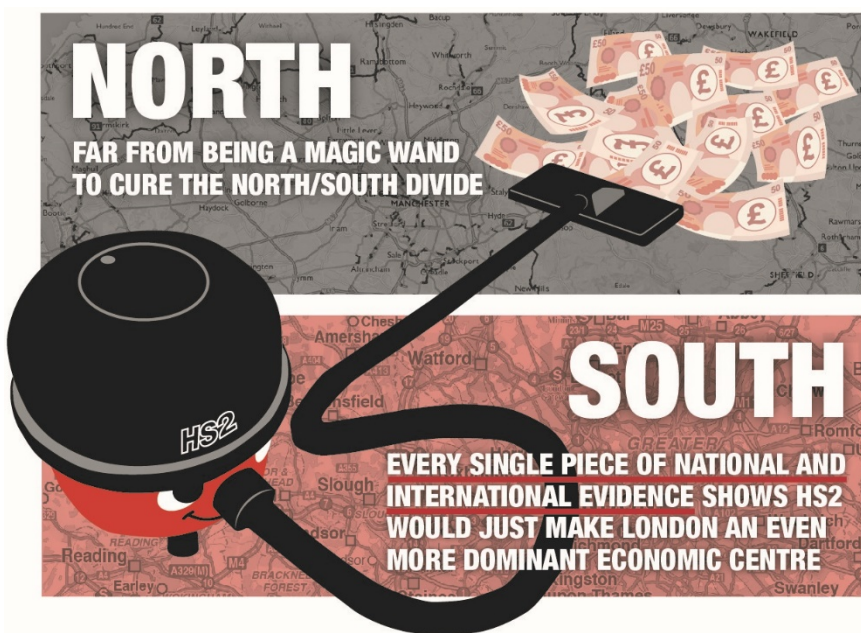
Every single piece of international evidence, as well as the experience of our own hub and spoke transport system shows that far from being a magic wand to cure the North/South divide, HS2 would do exactly the opposite and reinforce the economic dominance of London. At best there might be an economic uplift and increase in property prices in the areas surrounding stations, but this would be at the expense of the wider regions.

HS2 is the perfect example of a policy that goes down well in the Westminster Bubble as something that would be good for the North of England and the Midlands: a project supported by the political and executive classes who think the trains they use occasionally are more important than the trains and busses that ordinary people use every day; a project that has been lobbied for by people representing those with vested commercial interests in seeing the project built; and a “Zone One” project that reinforces the attitude that ‘The North’ consists of the square miles surrounding Leeds Central and Manchester Piccadilly stations, exactly the sort of attitude that has left behind the towns and cities that used to make up the red wall.

The idea that HS2 would be a job creation scheme is completely false. Besides construction and operation, transport projects do not create jobs, they simply influence their location, and many seem not to be paying attention that HS2 is intended to connect to Old Oak Common, which is being billed as the “Next Canary Wharf”. The reality is that HS2 is all about fuelling the London economy and extending its commuting belt. In terms of job creation, official analysis from HS2 Ltd shows the project is due to create only around 8,000 more jobs than it displaces.



Many of the arguments supporting HS2 consist of bombastic rhetoric, along the lines of needing to show we can take on and complete projects like HS2. The reality is as Rod Eddington said, projects should be prioritised on the basis of need, not because there are people lobbying for them. At this



point in time it is absolutely clear that Parliament has been misled over the costs of HS2, and irrespective of the outcome of the Serious Fraud Office investigations, HS2 could easily become the scandal that keeps on giving for the next two decades. Backing HS2 at this time is simply standing on the wrong side of history, backing a 19<sup>th</sup> century solution for a 21<sup>st</sup> century world.