

integrated rail in the north and the midlands — good balance



It was depressing to witness the political cries of outrage that greeted the government's *Integrated Rail Plan for the North and Midlands* publication¹ in November. Labour leader Sir Keir Starmer said that the Prime Minister 'had 'ripped up' promises he made that HS2 would go all the way to Leeds and that there would be a new NPR (Northern Powerhouse Rail) line from Manchester to Leeds.'² 'This was the first test of 'levelling up' and the government has completely failed and let down everybody in the North. You can't believe a word the Prime Minister says,' he said.²

The objective of better rail linkage south to London has been part of the established political mindset for decades. In the political arena, and in some economic and cultural sectors, London may still be the lynchpin, as should be expected of our national capital. But that does not mean that the number of people physically needing or wanting to travel by train to and from the North and Midlands (let alone regularly, and frequently) is strategically significant. The pre-Covid rise in numbers, year on year, may come back but, as the National Infrastructure Commission (NIC) had put it to government a year earlier, there should be a focus on 'the journeys that people are most likely to take—into cities from the surrounding area, rather than into London (for example, in 2018–19, 60 per cent of journeys in Yorkshire and Humber were between places in the region, while only 10 per cent were to London)'.³

HS2

It is appreciated that the boasting rights of having an HS2 connection is one that would be proudly worn by many towns and cities, if only they could get one without upsetting the locals through its environmental

impact. But the new dedicated fast rail line HS2 is a project grown from a different root stock: its primary purpose (never explained loudly enough) has been to relieve the West Coast Main Line. The other real benefits that could be gained in achieving that objective would improve its financial appraisal, and gain trophy-hunting political support, but were consequential.

The most recent root stock was the 2008 Department for Transport report, *Delivering a Sustainable Transport System*,⁴ which had identified 14 strategic national transport corridors in England. The intensely pressured London-to-Manchester corridor warranted a special mention. The following year the Department's modelling showed that the 'single most important and heavily used' rail corridor, and also the one which presented 'both the greatest challenges in terms of future capacity and the greatest opportunities to promote a shift of passenger and freight traffic from road to rail', was 'the West Coast main line, between London and the West Midlands [which was] likely to reach its absolute capacity limit by the mid-2020s—even after the £8.8 billion upgrade just completed and implementation of plans for longer trains and in-cab signalling'.⁵

Soon afterwards, and also in 2009, Gordon Brown's Labour government created a company called High Speed Two Limited (HS2 Ltd) to deliver a new relief line. After consultation during 2010, the 'Y'-shaped route from London to Birmingham, with branches to Leeds and Manchester, was confirmed by the Cameron/Clegg coalition government in 2012.

Exciting times for the train industry

The compressed logical sequence of events described above does not reveal enough about what the train engineering industry itself had been yearning for. The idea of a wholly new fast train line north of London had been brewing in and out of the public gaze for years: most developed countries had exciting rail projects of that sort, from Japan's Tōkaidō Shinkansen 'Bullet Train' network (started in 1964⁶) onwards.



The route of HS2 Phase 1

The UK had been embarrassed as a nation to have scrapped the wonderful tilting Advanced Passenger Train, designed and developed in the UK, but abandoned in 1985/86 due to cost overruns and forced premature trial running in a doomed attempt to stave off Margaret Thatcher’s public spending axe.⁷ So restoring the prestige of the UK’s brilliant railway engineers and revitalising the industry, by having the chance to create a brand new fast line, scything across the landscape to carry whizzy new trainsets, was really exhilarating.

This dimension is mentioned because difficulties arose for HS2 from this proprietary focus of the train industry. Phase 1, now under construction and to be ready in 2033, has generated widespread opposition and resentment. The designers disregarded long lengths of the wide former Great Central Line through Buckinghamshire, Oxfordshire and Warwickshire, the track bed of which still exists, with only relatively small lengths obstructed by housing or employment uses.

The TCPA’s former President, the late geographer Professor Sir Peter Hall, was particularly incensed about that, and so were many who were aghast at the swathes of land and property clearance and the environmental harm of a wholly new route being built through open countryside and woodland across a chain of Tory constituencies, yet with no stations except at either end. The approach compared badly with the Arup-initiated, and subsequently Arup-designed, careful threading of the Channel Tunnel Rail Link (CTRL, now called HS1) up through Kent from Folkestone. Expensive long tunnels under the Chilterns have placated a few of the HS2 detractors, but too few to make much difference to the scale of outrage. Further, the cost of building this ‘perfect’ new fast train line predictably overran.

The Oakervee Review of HS2, February 2020

In August 2019 continuing controversy caused the new Johnson government to request a review of the project by HS2 Ltd’s former Chairman, the eminent civil engineer Douglas Oakervee. The construction costs of HS2 had been estimated in 2010 to be between £30.9 billion and £36 billion; in 2015, this estimate was combined with the cost of rolling stock and adjusted for inflation to give a budget of £56.6 billion. Oakervee’s review⁸ estimated that the project would cost between £80.7 billion and £106 billion at 2019 prices. According to 2012 figures, energy running costs for operating HS2 trains on the high-speed line was estimated to be nearly double that of conventional rail trains.

Nevertheless, Sir Douglas (he was knighted a few weeks ago) recommended that the entire project should proceed as planned.

The National Infrastructure Commission assessment

In December 2020, just as various drug treatments for Covid-19 were being approved around the world and we were focused on the extent of constraints that would be placed on Christmas, the NIC published its *Rail Needs Assessment for the Midlands and the North*,³ which noted (on page 21) that in response to Oakervee, the government had committed to prepare an ‘Integrated Rail Plan for the North and the Midlands which will identify the most effective scoping, phasing and sequencing of relevant investments and how to integrate HS2, Northern Powerhouse Rail, Midlands Rail Hub and other proposed rail investments. This plan will be informed by the Commission’s independent assessment of the rail needs of the Midlands and the North.’

The NIC accepted that HS2 Phase 1 was committed and therefore outside its statutory scope for review.

The full scope of the Midlands Rail Hub⁹ and Northern Powerhouse Rail¹⁰ are topics beyond this month’s column. Suffice to say that, at last, the objective of both is to improve the connectivity between and within towns and cities in those tranches of England. The appropriateness of both was now formally confirmed by the NIC: investment ‘to create ‘clusters’ of cities’¹¹ is worthwhile from every point of view.

With regard to Phases 2a and 2b (the two branches of the ‘Y’ of the original concept), since enriched by the idea that HS2 trainsets should then feed into Northern Powerhouse Rail and Midlands Rail Hub strategies, the NIC concluded that the inter- and intra-regional connections (east–west in this column’s shorthand) were more valuable than all the original HS2 plans for very fast north–south services. The NIC advice was stress-tested under

three degrees of tight financial scenario, in typical NIC manner.

A particularly difficult NIC recommendation concerned the East Midlands Hub—a new HS2 station planned at Toton (between Nottingham and Derby, just west of Long Eaton), for which a special East Midlands Development Corporation has been established and grand housing and employment development plans prepared. The NIC took the view that the East Midlands Parkway station by the expiring Ratcliffe coal-fired power station, easily accessed from East Midlands Airport, was a more valuable point of connection. Toton would have a role less strategic than previously envisaged. For the time being. Perhaps.¹²

The government’s Integrated Rail Plan for the North and Midlands

A year after receiving the NIC advice, the *Integrated Rail Plan for the North and Midlands*¹ of November 2021 outlines how major rail projects, including HS2 Phase 2b, Northern Powerhouse Rail and Midlands Rail Hub, will be delivered—according to HS2 Ltd:

‘so that communities, towns and cities across the North and Midlands are better connected with more frequent, reliable and greener services and faster journey times. In respect of the HS2 project the Government’s Integrated Rail Plan sets out the following proposals:

- *Complete HS2 from Crewe to Manchester, with new stations at Manchester Airport and Manchester Piccadilly. A hybrid Bill for the route from Crewe to Manchester will be deposited, which will seek the legal powers to construct and operate the new high-speed railway.*
- *A new high-speed line between Birmingham and East Midlands Parkway. Trains will continue to central Nottingham, Derby and Sheffield on an upgraded and electrified Midland Main Line.*
- *The Government will progress options to complete the Midlands Rail Hub and spend £100million to look at how best to take HS2 trains to Leeds, including assessing capacity at Leeds station and starting work on the West Yorkshire mass transit system.’¹³*

The plan mostly reflects the advice of the NIC. There is not space here to report the numerous details, but the strategic decisions (it is so difficult to sail above details!) appear to be these:

- The new fast line built for HS2’s western ‘Y’ will go no further north than Manchester Piccadilly, but HS2 trainsets will run onwards¹⁴ to join the West Coast Main line and thus on to Glasgow.
- The new fast line built for HS2’s eastern ‘Y’ will go no further than East Midlands Parkway station,



The current plan for HS2

Source: Cnbrb. CC BY-SA 3.0

<https://commons.wikimedia.org/w/index.php?curid=70274282>

- where HS2 trainsets can run on upgraded Midland Main Line conventional rail lines to reach Derby, Chesterfield, Nottingham and Sheffield centres.
- The role to be played by an upgraded East Coast Main Line as part of the eastern ‘Y’ of HS2 is changed. It will not have HS2 trainsets.
- Newcastle and Leeds will still use the HS2 section from East Midland Parkway station for services to Birmingham, but will have longer journey times to London than the previous HS2 proposal.
- Sheffield’s access by the Midland Main Line will equal the previously planned HS2 journey times from London.
- HS2 trains will now access Runcorn only temporarily until trains to Liverpool access the city via Warrington, which will now have high-speed Northern Powerhouse Rail track shared by HS2 direct to a new station in the town at the east–west aligned Warrington Bank Quay low-level station.

UKNET—the fruit of the Union Connectivity Review

The Union Connectivity Review stream of multi-modal transport planning work by Sir Peter Hendy has been bundling along during the months of Covid distraction. There was an interim report in March 2021, and November’s final report¹⁵ was overshadowed by the government’s *Integrated Rail Plan for the North and Midlands*, even though it considers

connections between the nations of the UK and makes several recommendations with implications for HS2. It is ground-breaking. Hendy says:

*'leaving the EU and its Trans-European Network has created the opportunity to establish UKNET—a strategic transport network for the whole United Kingdom, which, with funding and regular review, can much better serve the overall economic and social needs of the whole of the UK.'*¹⁵

It is meaty enough to be discussed in a future editions of this journal, but here we may note his recommendation to invest in 'the West Coast Main Line north of Crewe to properly use HS2 and [...] serve connectivity between Scotland and England better'. The synchronised *Integrated Rail Plan* publication commits to that. Hendy also recommends 'conducting an assessment of the East Coast rail and road corridor to determine appropriate investments for better connectivity between Scotland and England'. He mentions the road link, too, because his span is multi-modal (as it should be).

In conclusion

This article expresses what may seem a heresy in the fevered political atmosphere surrounding Prime Minister Johnson at the time of writing, in late January 2022: that his government has made the right decisions in its *Integrated Rail Plan for the North and Midlands*. It has a sound evidence base in the work of the National Infrastructure Commission, and chimes with threads in the multi-modal *Union Connectivity Review* (which must be dragged further into the sunlight of public gaze in the period ahead).

In a foreword to the *Integrated Rail Plan*, Mr Johnson says 'in my discussions on HS2 last year, I was struck by what one of my Parliamentary colleagues, Lee Anderson MP, told me: that his constituents in Ashfield would have to watch the high speed trains go through at 200 mph without stopping when what they really wanted was a decent bus service to the next town.'¹ Nicely put.

In the North it is connections east and west that are needed for everyone's benefit. The Midlands cluster—the Midlands Engine—similarly needs linkages within itself. Pruning state-of-the-art HS2 new-build a bit in those regions is more than compensated for by running HS2 trainsets on upgraded lines, forming part of the Northern Powerhouse Rail and Midlands Rail Hub lateral corridor visions. The balance is well judged.

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Notes

- 1 *Integrated Rail Plan for the North and Midlands*. CP 490. Department for Transport, Nov. 2021. www.gov.uk/government/publications/integrated-rail-plan-for-the-north-and-the-midlands
- 2 R Hotten: 'HS2 rail extension to Leeds scrapped amid promise to transform rail'. *BBC News*, 18 Nov. 2021. www.bbc.co.uk/news/business-59334043
- 3 *Rail Needs Assessment for the Midlands and the North. Final Report*. National Infrastructure Commission, Dec. 2020, p.17. <https://nic.org.uk/studies-reports/rail-needs-assessment-for-the-midlands-and-the-north/rna-final-report/>
- 4 *Delivering Sustainable Transport*. Department for Transport, Nov. 2008, para. 4.10, and also Fig. 4.1 on p.31. The DfT website does not give access to this report — but Google will take you to Oldham LDF evidence base files (for which, thanks)
- 5 *Britain's Transport Infrastructure: High Speed Two*. Department for Transport, Jan. 2009, paras 31 & 34. Available at www.whatdotheyknow.com/request/49278/response/121285/attach/7/highspeedtwo.pdf?cookie_passthrough=1
- 6 Train buffs will know that the 10 fastest trains in the world are currently the L0 Series Maglev (Japan — 375 mph), TGV POS (France — 357 mph), Harmony CRH 380A (China — 302 mph), Shanghai Maglev (China — 268 mph), HEMU — 430X (South Korea — 267 mph), Fuxing Hao CR400AF/BF (260 mph), Frecciarossa 1000 (Italy — 250 mph) and Siemens Velaro (Spain — 250 mph), AVG Italo (Italy — 224 mph), and Talgo 350 (Spain — 217 mph) — see www.statista.com/statistics/557186/high-speed-trains-maximum-speed/
- 7 It was a fine train. The patents for the APT's tilt system were sold to Fiat Ferroviaria and appeared in the UK in the form of the narrow Pendolino — see https://en.wikipedia.org/wiki/Advanced_Passenger_Train
- 8 *Oakervee Review*. Department for Transport and High Speed Two (HS2) Limited, Feb. 2020. www.gov.uk/government/publications/oakervee-review-of-hs2
- 9 See *A Strategic Transport Manifesto for the Midlands: Our Comprehensive Spending Review Asks*. Midlands Connect, Sept. 2020. www.midlandsconnect.uk/media/1722/a-strategic-transport-manifesto-for-the-midlands.pdf
- 10 See *Northern Powerhouse Rail. Connecting the People, Communities and Businesses of the North*. Transport for the North, Jun. 2021. <https://transportforthenorth.com/wp-content/uploads/Northern-Powerhouse-Rail-Connect.pdf>
- 11 *Rail Needs Assessment for the Midlands and the North* (see note 3), Box 5.3, p.57
- 12 See the discussion on pp.61&62 of *Rail Needs Assessment for the Midlands and the North* (see note 3)
- 13 'HS2 and the Integrated Rail Plan'. Webpage. HS2. www.hs2.org.uk/what-is-hs2/hs2-and-the-integrated-rail-plan/
- 14 Using the 'Golborne link', subject to an alternative linkage arising from the Union Connectivity Review (see note 15) — see *Integrated Rail Plan for the North and Midlands* (see note 1), pp.60 & 70
- 15 *Union Connectivity Review: Final Report*. Department for Transport, Nov. 2021. www.gov.uk/government/collections/union-connectivity-review