East, West, North & South Joining the dots between the Union Connectivity Review and the Integrated Rail Plan

A report by Greengauge 21

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The Union Connectivity Review (UCR) was established to explore the value of better links between England, Scotland, Wales and Northern Ireland. There is much to admire in its conclusions.

Its stand-out recommendation is that more needs to be done to exploit the investment being made through HS2. The Review calls for investment in the corridor stretching northwards from Crewe (reached by HS2 Phases 1 & 2a) to Scotland's central belt. It seeks faster journey times and more capacity along the northern section of today's West Coast Main Line, across Lancashire, Cumbria and South West Scotland to Glasgow and Edinburgh.

This would extend the HS2 Golborne link, taking currently planned high-speed infrastructure from Wigan onwards to Preston, with a mix of further improvements north of Preston. Its target? The 3-hour London–Glasgow/Edinburgh journey times Ministers from Holyrood and Westminster agreed as a sensible target back in 2016.

This ambition has a renewed urgency given the Climate Emergency. The UCR provides good evidence why. Getting journey times down to 3 hours will lead to a significant reduction on what is by far the UK's busiest set of domestic airline routes. A big 'mode shift' is forecast—see below. The contribution to UK decarbonisation is significant.

> Ministers Brown and Goodwill agreeing a 3-hour target, Waverley Station, Edinburgh

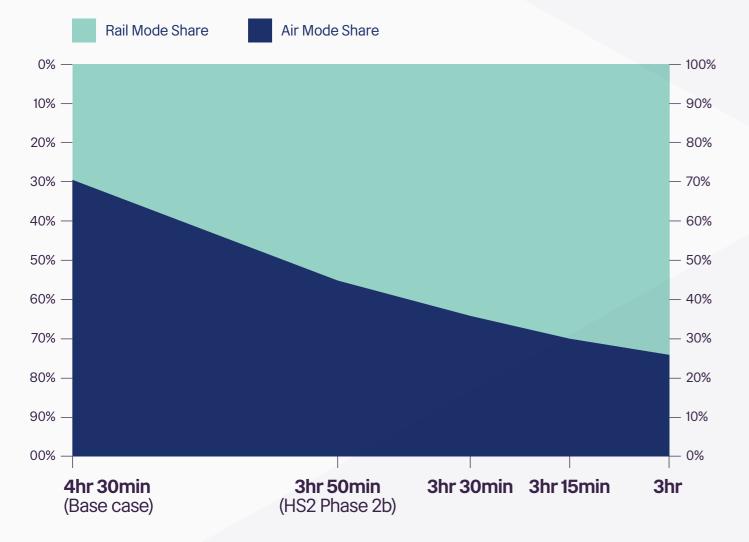
Photo: Greengauge 21

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London–Scotland Journey Time vs Mode Share



On the west of side of England, then, the call is for a bit more HS2—and upgrades in the form of bypasses or relief lines over steeply graded, northern, sections of the West Coast Main Line. These investments will help in making progress towards the 3-hour rail journey time target and bring about a switch in travel behaviour from air to rail, decarbonising Anglo-Scottish travel. Making equivalent gains in the freight sector is possible too, with freight switching from HGVs to rail.

On the east side of England, on the other hand, rather than an extension of HS2, the just-published Integrated Rail Plan curtailed HS2 plans so that the northern limit of new line on this side of the country is now near Nottingham. However, the IRP did also call for consideration of upgrading the East Coast Main Line—as indeed does the Union Connectivity Review, since this is the second principal rail route across the England-Scotland border.

Source: Union Connectivity Review, p40.

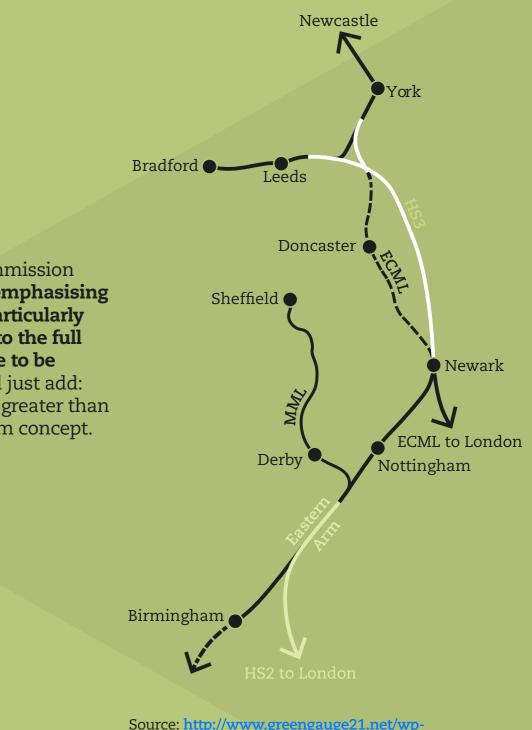
In the interests of a balanced pattern of regional development across northern England, upgrading the East Coast Main Line must now become a priority. As Greengauge 21 has **pointed out before**, provided at least the cross-Midland section of HS2 (in effect, Birmingham–Nottingham) is built, connectivity of the eastern side of England needn't fall behind (see box).

The East Coast Corridor

The shortened eastern arm of HS2, as suggested in the Integrated Rail Plan, will provide the same speed-up of connections from Sheffield to London, and add both Derby and Nottingham to the list of major cities served by HS2. These will be very welcome improvements. What is required in addition is a way of serving the rest of Yorkshire and the Humber and North East England.

How this can be done is shown below. The existing line through Nottingham to Newark (where it meets the East Coast Main Line) needs to be upgraded to Intercity (200km/h) standards. With a new junction at/near Newark, this will allow HS2 trains from London, and potentially crosscountry trains from south of Birmingham to access the East Coast Main Line. With additional demand for capacity on this line north of Newark, there is a good business case to provide a new highspeed line to bypass constraints that will otherwise materialise at the key hub of Doncaster. In the diagram right, this is identified as HS3. All East Coast intercity services could be speeded up as a result.

This joined-up plan allows HS2 to provide hugely valuable capacity relief to the busy southern section of the East Coast Main Line (ECML), and HS3 to speed up journeys further north. As the diagram right shows, it provides a natural way to add Bradford, as well as Leeds, (and York–Newcastle) to the list of cities served by HS2—and this can be achieved as soon as the shortened HS2 Eastern arm is available, using the existing ECML (with HS3 to follow). It also allows the 'Y' shaped HS2 network in effect to become 'X'-shaped using the connection through Birmingham as shown below. The National Infrastructure Commission noted in 2020 that: "It is worth emphasising the scale of work involved..., particularly potential strategic alternatives to the full eastern [arm] of HS2 if these are to be considered." To which we would just add: the benefits could be very much greater than with the original HS2 eastern arm concept.



Source: http://www.greengauge21.net/wpcontent/uploads/GG21_Meeting_Rail_Needs_Of_ The_Midlands_And_North_A4P_FINAL.pdf

From TEN-T to UKNET

Cross-domestic border transport has always been 'a reserved matter', for the attention of Westminster rather than the devolved administrations. But it has never been subject to strategic examination before the Union Connectivity Review. As the review's author Sir Peter Hendy points out, this has been a field of some previous neglect.

An analogy is drawn with the European Commission's 'TEN-T' which has sought to ensure that European Union transport links are improved across national frontiers, once seen as a pre-requisite to establishing a successful single market for goods and services. Hendy consulted on the idea of a 'UKNET' for the four home nations—and got an overwhelmingly positive response. It turns out that there are, indeed, critical limitations in the transport arrangements across the home nations' borders. The UCR sets out the ways ahead to repair the damage. Greengauge 21's evidence to the Union Connectivity Review included a summary of the best economic analysis we could find on the benefits of overcoming the tendency of borders—whether current or historic—to reduce economic interactions and trade. While the UCR understandably draws on current (and recent) HM Treasury guidance on benefit valuation, there is nothing added to the existing canon of investment appraisal techniques, nothing that would signal, for instance, an intention to prioritise cross-border investment. The easy pickings for the EU with its TEN-T programme, removing trade barriers from inconsistent (even sometimes incompatible) technologies and operating practices, are very largely inapplicable to the borders between the 'home nations' of the UK. But there is little light shed on whether improving transport across our internal borders will provide any added value compared with investment elsewhere in the UK.

In the end, the UKNET is identified by reference to port and airport connectivity; by 'strategic corridors'; and by the transport priorities identified by Sub-National (transport) Bodies (SNBs)¹. But UKNET's relevance going forward risks being minimal unless it has a custodian and champion that will argue for UKNET-based investments. This is something the UK Government will need carefully to address in its response if the Union Connectivity Review is not to look like a one-off.

The development of the EU's T-NET led to investment and significant growth, including in terms of cross-border rail usage, with a key focus on freight and (more recently) on long distance overnight passenger (sleeper) services.

^{1.} But the SNBs, it may be noted, offer only partial, coverage of England, so there is a risk that other areas' needs are under-represented.

But T-NET is of course only one area of EU funding for transport. Across the UK, there are very large numbers of transport projects, large and small, that were beneficiaries of large-scale EU funding through programmes for 'structural funds', and for peripheral areas. These would include funding contributions, for example, to the major 'Heads of the Valleys' A465 trunk road upgrade in South Wales (over which, a significant proportion of longer distance travel will be between Wales and England), and to the provision of disabled access amenities at Leominster station on the Cardiff-Shrewsbury-Crewe (England-Wales border) line. These other EU funds, including those for 'peripherality', didn't fall under the gaze of the UCR team, but they have been of very great significance to border areas, and have no long-term replacements in sight.

What is identified in the UCR report are strategic areas of weakness in transport service provision, many of them well-known to residents of 'border' areas. In terms of mainland Britain, those identified in the UCR requiring attention (in addition to the East and West Coast Main Lines) that Greengauge21 particularly welcomes are:

- » The case for **electrification of the North** Wales main railway from Holyhead and Bangor to Chester and Crewe, with better connections to HS2 at Crewe
- » The need to **improve Cardiff's connectivity**, with the desirability of much better services via Birmingham—and in our view Nottingham and an upgraded East Coast Main Line—to Yorkshire and the North East (and by extension, Edinburgh). This would entail new direct rail services (which could use the new, faster and upgraded lines discussed in the East Coast Corridor, see p3, above) and could also benefit Bristol (and the rest of South West England, recognised as being significantly distanced from existing strategic transport links but otherwise largely overlooked in terms of its connectivity needs in the UCR)
- » The support expressed for the Galashiels-Hawick-Carlisle (Borders Railway) line re-instatement.

Freight as well as passenger transport is covered, and so too is the need to improve access to ports. The report notes that there has been a post-Brexit switch in freight traffics to/from the Irish Republic. There has been a substantial loss of traffic on ferry routes to Liverpool and Holyhead, as 33% of HGVs are now using direct ferry routes between the Republic of Ireland and mainland Europe: much lengthier crossings but avoiding two sets of border checks over the 'land-bridge' route via Britain. Meanwhile, Northern Ireland HGVs are switching to the direct routes from Northern Ireland, rather than the previously favoured Dublin-Holyhead route.

What's Missing?

Northern Ireland

The UCR has had a good look at Northern Ireland. It points to its important air links and cross-Irish Sea ferry operations. And it looks at Northern Ireland's border areas too. It speaks of the potential to examine corridors such as Derry/Londonderry-Letterkenny and Enniskillen–Sligo, crossborder routes with the Republic of Ireland where rail connections were lost in the 1950s, but where the continuation of EU single market status for Northern Ireland offers continuing promise for enhanced trade and tourism.

It doesn't overlook either the strongest cross-border corridor—between Belfast and Dublin. This is a classic case of where individual administrations fail to see the bigger picture. The problems and opportunities over this 'Eastern Corridor' of the island of Ireland are palpable:

- A strong and growing Dublin economy, with a catchment spreading northwards into Ireland's fast-growing districts
- A growing all-island tourism market—with the number 1 and 2 attractions located in Dublin and Belfast city centres respectively
- » A recently built motorway, but only south of the border
- A rapidly growing airport (Dublin: throughput 29mppa—the same size as Manchester)
- An unimproved railway, with slow timings and a city to city 2-hourly service frequency, sharing tracks with...
- » A fast-growing highly successful commuter service (DART)—due to be extended northwards to Drogheda.

The need to examine the case for a fixed link across the Irish Sea appears to have cast something of a shadow over what's needed in its absence.

True there is discussion of the case for investing in the A75 trunk road which links the key port at Cairnryan (displaced from Stranraer) to the A74(M)/M6 motorway, 100 miles to the east. This supports the shortest of the Irish Sea crossings, Cairnryan–Larne (on which traffic grew by 18% in 2021) as well as Cairnryan-Belfast. These ferry routes should have a strong future, since they are more amenable to de-carbonisation than longer sea routes. But where is the specific attention that needs to be given to containing and reducing the carbon emissions from the lengthy HGV operations across the UK to reach major distribution depots and other destinations? How can highway investment for long distance traffic flows be made compatible with

carbon reduction targets? Cairnryan has no rail link and there are no railfreight operations in this part of Scotland.

If linked to a ferry rather than (say) a crosssea tunnel, then the case for re-instated (or new) rail link to link Stranraer/Cairnryan once again with Dumfries/Carlisle will be more challenging—but no harder than for the Borders railway from Edinburgh to Carlisle. Built to a suitable structure gauge, it could even provide a piggy-back freight route (HGVs carried on rail, as is commonplace across Switzerland).

Conclusion

The stated intention is that there will be a full government response to the Union Connectivity Review in early 2022. As we pointed out in responding to the £96bn Integrated Rail Plan which (just) preceded the Union Connectivity Review, it is to be hoped that HM Treasury has been alerted to the fact that more transport funding needs would likely soon emerge.

These needs do emerge very clearly in the Union Connectivity Review, and many of them are in, and adjacent to, the geography covered by the Integrated Rail Plan (central and northern England) as well as in Wales, Scotland and Northern Ireland. We have shown how well the key investments can be made to fit with HS2 plans—now scaled back on the eastern side of the country, lending strong support for accelerating East Coast Main Line upgrade plans, and accompanied by a modest extension from Wigan to Preston on the western side.

If Government wants to make good the omissions from HS2 service plans for 'everywhere bar Sheffield' in Yorkshire/ Humber/North East England, it needs to prioritise and give some sense of urgency to the plans set out here and join the dots between the Integrated Rail Plan and the Union Connectivity Review.

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