

## **Connecting Northern Cities**

### **National Infrastructure Commission: Call For Evidence**

#### **Submission from Alan Chape and Ian Wray, University of Liverpool**

Alan Chape is a Visiting Fellow at the Heseltine Institute for Public Policy and Practice at Liverpool University, and former Assistant Chief Executive, Liverpool City Council.

Ian Wray is a Visiting Professor in Planning at Liverpool University, former Chief Planner, Northwest Development Agency, and also a Fellow at the Heseltine Institute.

Their paper, '**Closing the Gap - the Case for a Second British Super City**', was based on a joint submission of evidence to the RSA Cities Commission and published in the Town and Country Planning Journal April 2014. It prefigured much of the Northern Powerhouse agenda.

This evidence is a personal submission.

#### ***1. To what extent are weaknesses in transport connectivity holding back northern city regions (specifically in terms of jobs, enterprise creation and growth, and housing)?***

We can summarise the weaknesses of northern transport infrastructure quite simply:

- Slow east-west rail communications caused by an inherited Victorian system focused on the transport of coal and manufactured goods, little or no investment, and in parts topography which gives rise to steep and twisting routes
- Weak, non-existent and slow rail connections to the smaller industrial towns, caused by limited investment or disinvestment in a Victorian system
- Following from these, slow connections through to Manchester airport
- Heavily congested motorway networks, both on the east-west and north-south axis. Projections in the Eddington report showed that high levels of congestion were expected by 2025 across large parts of the North West's motorway network, essentially constructed in the 1960s and 1970s (parts of the M6 were the first motorways built in Britain, with no investment since then, beyond the recent introduction of automated traffic management on part of the M60).

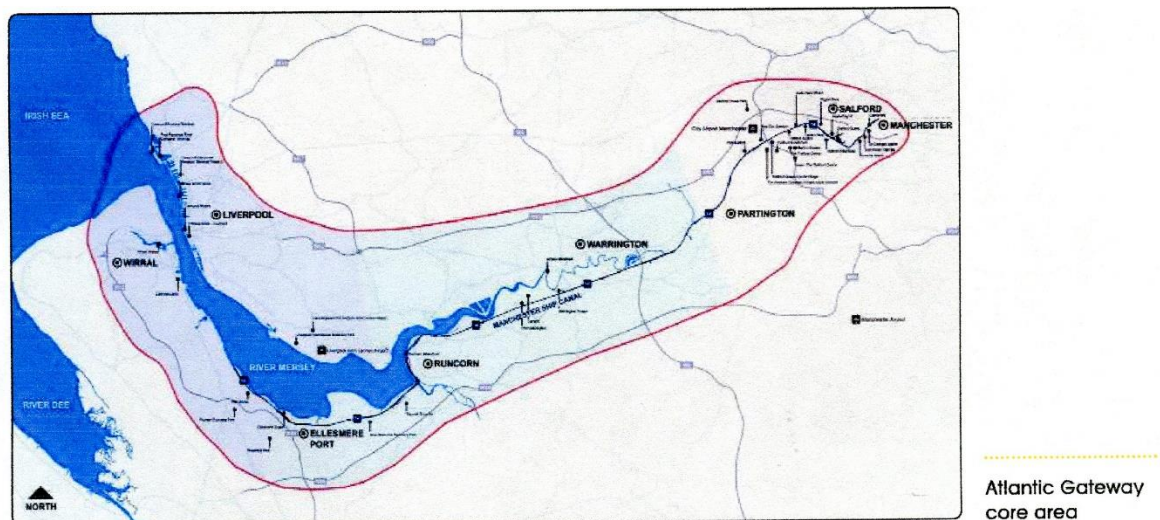
The results are delay, slow city to city connections and a deteriorating outlook.

Rather than discussing weaknesses further, we prefer to consider challenges. These are as follows:

- Building agglomeration economies within the biggest cities, and the fast growing suburban economies of places like Warrington<sup>i</sup>, by speeding up transport links and fusing their high level labour markets
- Hugely expanding the effective catchment area for Manchester airport, thus securing more international services and creating a second UK hub airport. International research shows an expansion of international connections

correlates significantly with the growth of high level world city functions (see below).

- Connecting smaller old industrial towns with the metropolitan labour markets, especially by enhanced rail commuting networks
- Securing reliable and fast road connections to serve the north's significant manufacturing sectors and to expand the effective hinterland of the port of Liverpool. This would build on private investment in manufacturing and the ports sector. Exemplar projects include the vehicle sector (Land Rover, Vauxhall and Bentley), and the new post panamax terminal nearing completion at Liverpool. The importance of these projects is already reflected in productivity levels: Liverpool has the highest levels of productivity of any city region in the UK, London excepted, and higher productivity than the South East<sup>ii</sup>
- Realizing the potential of the Atlantic Gateway vision. Peel Holdings has outlined an ambitious long-term strategy for their extensive land and infrastructure assets in the Atlantic Gateway between and within Liverpool and Manchester (see map below). There is no question that this is a major opportunity for private leadership and capital, and for joined up investment in transport, airports, ports and regeneration<sup>iii</sup>. It needs to be given some weight



in government decisions.

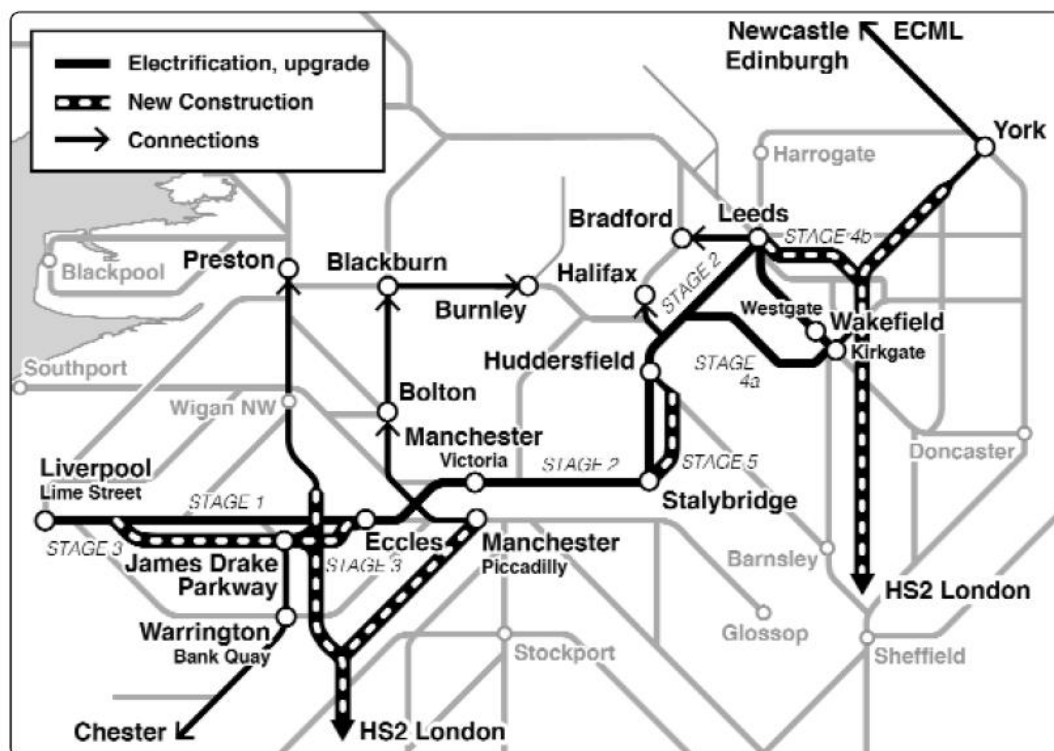
## ***2. What cost-effective infrastructure investments in city-to-city connectivity could address these weaknesses? We are interested in all modes of transport.***

In terms of rail connectivity, the late Professor Sir Peter Hall set out a convincing and logical plan in his High Speed North paper. Hall proposed a phased programme of rail investment, beginning with relatively modest upgrades and infrastructure schemes and culminating in some big ticket projects which would take place well into the recovery phases of the current downturn, when more public finance should be available. The Hall plan included some ingenious proposals for cost saving which need to be tested and emphasised the importance of wider connections through to towns like Blackburn, Preston and Burnley.

Hall et al set out detailed phased proposals for 'High-Speed North' in April 2014<sup>iv</sup>, building on the extremely modest 'Northern Hub' investment and electrification

between Liverpool and Leeds, which is already committed, or in progress. These proposals began with the introduction of tilting trains (needed to cope with the steep gradients and sharp curves on the trans-Pennine route), the re-introduction of four-tracking where rails were lifted in the 1970s (allowing fast trains to overtake slow), and the re-routing of local trains off the rail network in Manchester and onto some new sections of the Metrolink tram system.

They also proposed, at later stages in the project, some new rail infrastructure, the rail equivalent of bypasses – especially a new 20-mile route from Warrington to Liverpool, which would act as part of the High-Speed North network (and as a vital high-speed spur from HS2 to the centre of Liverpool), while providing capacity on an increasingly busy passenger and freight route. Finally, they suggested a new 13 miles ‘base tunnel’ under the Pennines from Manchester to Huddersfield.



**Fig. 2 Proposed High-Speed North Programme 2014**

Source Hall et al 2014

We regard motorway connections as equally important, especially the heavily congested north-south routes focused on the northern section of the M6, beyond Stafford to beyond Manchester, and the M60. The history of non-investment in the M6 between Manchester and Birmingham, over the last two decades, has been an object lesson in how not to do it. The early 2000's saw proposals for a widening (supported on all sides), then abandoned by the Transport Department in favour of parallel toll motorways, then abandoned in favour of active traffic management. The latter has still to materialise, apart from on the M60, but we believe that it does no more than secure a breathing space.

Significant additional road capacity is needed either through widening, or new routes. Amongst other options we should like to see a new road alignment investigated alongside the HS2 route. Technical work on options followed by a clear decision is needed

Wherever possible, land value increases brought about by transport investment should be captured by public sector investors, not private landowners. To secure this, public institutions will be required to assemble land, prior to transport investment, securing high quality development well related to transport infrastructure. This process might be led either by new local development corporations operating at a city region scale, or by an enhanced role for London and Continental Railways which has already built up significant expertise, in the Kings Cross area, as well as locations close to proposed HS2 terminals. The same process is required adjacent to smaller rail hubs and park and ride sites.

### ***3. Which city-to-city corridor(s) should be the priority for early phases of investment?***

We would argue for a phased realistic programme starting with achievable projects, rather than a focus on a small number of very big-ticket items such as long distance tunnels. These are better built towards the end of the investment programme when the impact of smaller schemes can be evaluated.

The long term goal should be an integration of the big three labour markets (Liverpool Manchester and Leeds) together with the very buoyant mid Mersey economy focused on Warrington. There is already a high level of commuting interpenetration between Liverpool, Warrington and Manchester and investment can secure further integration, agglomeration economies and a further extension of Manchester airport's catchment into the Liverpool City Region.

Trans Pennine commuting is the focus of much attention, and we do not doubt the long term benefits of bringing the Leeds, and possibly Sheffield, labour markets closer to those of Warrington, Liverpool and Manchester. But caution is needed. As the map on the cover of the Transport for the North<sup>v</sup> makes clear there is little or no cross Pennine commuting, but much evidence of interpenetration of commuting patterns in the Mersey Belt corridor. This reflects the nature of commercial relationships between Manchester and Leeds. Research by Manchester University for found that Leeds and Manchester had parallel roles on both sides of the Pennines. The Pennines were a perceptual, physical and institutional barrier. Leeds based businesses tended to trade with Yorkshire based businesses, and this pattern was reinforced by professional and business associations which have a Pennine split<sup>vi</sup>. Manchester and Liverpool have between them a semi continuously urbanised strip, with the buoyant Warrington economy midway<sup>vii</sup>. Manchester and Leeds have mountains between them, and consequently low population densities.

Thus we advocate a phased approach to integrating the labour markets starting with electrification, on line improvements and tilting trains as proposed by Hall et al and concluding with major infrastructure.

There is a case for early and significant rail investment in the Liverpool-Manchester corridor. The current proposals, so far as they exist, would see the old Manchester Liverpool railway (the oldest intercity railway in the world) used for three purposes:

- **existing stopping services** between the two cities
- **new faster semi high speed services** between Liverpool, Manchester and Leeds. The route has already been electrified
- **freight from the port of Liverpool** via the recently installed Olive Mount chord (a 300-metre stretch of railway track between Olive Mount Junction, in Olive Mount cutting, and Edge Lane Junction that provides access to the Canada Dock Branch) and the loading gauge improvements on the dock railway branch from Wavertree. Future traffic will include container trains from the almost completed Liverpool post panamax container terminal, built to accommodate the biggest ships in the world, as well as other traffic. For example, new trains are using this route to transport massive biomass cargoes to Yorkshire power stations.

We do not believe that this route has sufficient capacity to accommodate this activity and support the Hall plan. There is a need to examine the case for a new line between Wavertree and Newton Le Willows. This line is needed to further speed up services from Liverpool to Manchester, to Manchester airport and, in the medium term, it provides a crucial free bonus, serving as Liverpool's connection to HS2. Without this link there is serious risk that much faster HS2 connections to Manchester will create serious comparative disadvantage for Liverpool, leading to what the French refer to as economic 'desertification' rather than 'irrigation'.

***4. What are the key international connectivity needs likely to be in the next 20-30 years in the north of England (with a focus on ports and airports)? What is the most effective way to meet these needs, and what constraints on delivery are anticipated?***

The most important international transport connectors are:

- Manchester Airport
- The Port of Liverpool
- High speed rail to London and European destinations

Manchester Airport, as we have already argued, should expand its scale and route connectivity. Unpublished research carried out for the former NWDA demonstrated a strong statistical correlation between airport route connectivity and the level of world city functions<sup>viii</sup>.

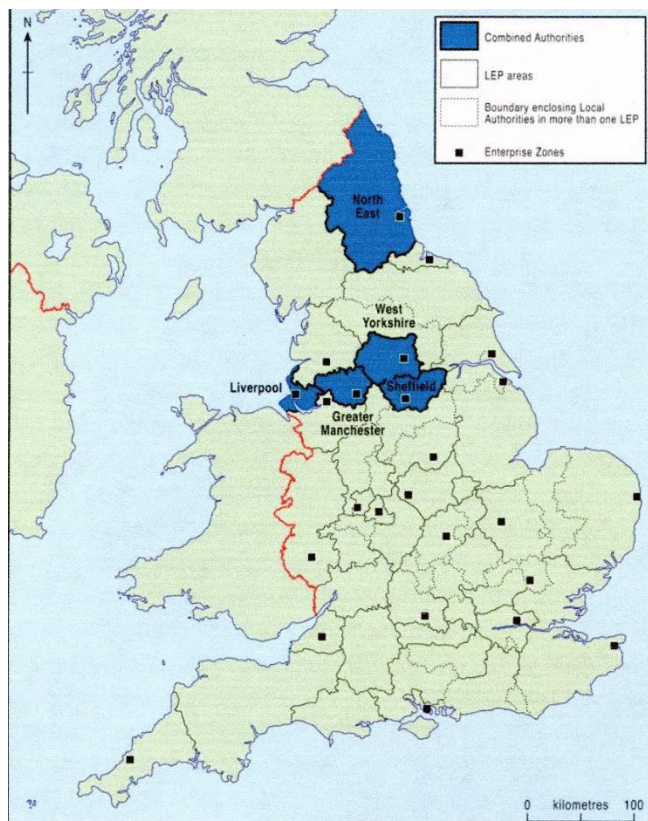
The Port of Liverpool will need rail capacity for containers and other freight traffic as well effective motorway connections, given that much of its generated traffic will be distributed to locations within the 150-mile limit where rail finds it difficult to compete.

As we have already argued, it is crucial that the benefits of HS2 do not disadvantage parts of the north.

***5. What form of governance would most effectively deliver transformative infrastructure in the north, how should this be funded and by whom, including appropriate local contributions?***

Network Rail and Highways England will be key to delivery and finance, either from central government budgets or by bond issues. We are aware that government is considering privatisation of one, and possibly both, these national agencies. We understand the fiscal argument for this, but contend that there may be conflict with the need for cost effective strategy and long-term investment programmes. Attempts to use private finance to build the Channel Tunnel rail link provide salutary warning. This project was dogged by high cost and organisational confusion. At £5.2 billion (or £50 million per kilometre) it has turned out to be the most expensive high-speed rail line in the world<sup>ix</sup>.

There is a hugely important role for private investment, not least in providing new development close to rail and road investment hubs, But the environment must be de-risked by a clear planning framework and a supporting development body, and there must be a significant return to the public sector via the capture of land value increases. This could be achieved, either by advance land purchase, involving the creation of new development bodies, perhaps as Local Development Corporations responsible to the new Metro mayors; or by using an existing national body with expertise in this area such as London and Continental Railways (see above). We would favour the latter, since it already exists and has all the necessary skills and assets.



**Fig. 3 Combined authorities as of July 2015**  
(Source: Pugalis et al, 2015 <sup>x</sup>)

A new geography of governance in the Northern Region is emerging (see Fig.3) It needs to be joined up by an overarching structure with strong links to the existing and



emerging combined authorities with their elected mayors. Investing in northern infrastructure will be a long-term project and must take place against a stable institutional background.

While Transport for the North can help to determine priorities, someone must be capable of championing long-term implementation. We argue that there is a need for government to take the lead in strategic implementation, creating a new Government Office for the North with overall control over strategic investment budgets. This will be especially important if government does decide to move Network Rail or Highways England (or both) into the private sector.

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<sup>i</sup> Alan Harding et al (2015) University of Liverpool, Heseltine Institute, Liverpool City Region Foresight Prospectus, fig 2.7. Warrington had the eighth highest GVA growth rate in the UK 1997-2013.

<sup>ii</sup> Alan Harding et al, op cit (2015) , see fig 2.9 shows

<sup>iii</sup> Ian Wray (2014) Mega projects and regional revival: comparing proposals for Atlantic Gateway and high speed rail in northern England, Town Planning Review Volume 85 Number 6

<sup>iv</sup> High-speed North - Building a Trans Pennine Mega-City: Peter Hall, David Thrower and Ian Wray TCPA Journal April 2014

<sup>v</sup> Transport for the North (2015) The Northern Powerhouse One Agenda, One Economy, One North. A report on the Northern Transport Strategy, March 2015

<sup>vi</sup> Manchester University (2007) Northern places in a national urban economic hierarchy. Third thematic report to the Northern Way

<sup>vii</sup> Alan Harding et al, op cit (2015) fig 2.9 Cheshire and Warrington's GVA per hour worked was higher than the South East's. It had the eight highest level of GVA growth.

<sup>viii</sup> Northwest Development Agency (2002) International air service growth and emerging world city functions. Unpublished paper

<sup>ix</sup> See Ian Wray (2016) Great British Plans, Chapter 9, Routledge

<sup>x</sup> Source: RTPI Planning for Growth: The Role of Local Enterprise Partnerships in England Final report: Lee Pugalis, Alan Townsend, Nick Gray, and Ania Ankowska, Northumbria University and Durham University, 2015