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How to kickstart a northern renaissance

A vision-led case for investing
in Northern Powerhouse Rail



Foreword

Let's unleash the north's true potential

In June 2014, then Chancellor George Osborne made a speech at the Museum of Science and Industry where he outlined his vision for a Northern Powerhouse. At the heart of that vision was a central idea – by connecting the great towns and cities of the north, we could unleash our true economic potential.

He proposed a high-speed rail network, Northern Powerhouse Rail. When integrated with both the western and eastern legs of HS2, it would create a modern, efficient high-speed rail network north to south, east to west.

Substandard infrastructure means that many people in the north remain hemmed in by geography. Poor transport connections limit opportunities, shrink the travel to work areas of towns and cities and stop people from accessing jobs in other areas. Businesses can only recruit from a small talent pool, which puts them off investing here.

Liverpool, Manchester, Bradford, Leeds, Sheffield, Hull and Newcastle; these places need proper rail connections in order to grow together, and see their labour markets grow. And they need to be connected to the world through Manchester Airport – the Northern Powerhouse's global gateway for long haul destinations.

Building Northern Powerhouse Rail to Leeds via the city centre of Bradford, one of the youngest, most diverse cities in the UK, means an upgraded line to a new station, and then on to the new line needed to reach Manchester. The first stages of this can be completed in this decade, and in the Integrated Rail Plan it should sit alongside building HS2 from the north.

We need to see the north in terms of potential, not problems. That means delivering on that original Northern Powerhouse vision, raising productivity and fundamentally rebalancing the UK economy. Missing out Bradford or downgrading the new line between Leeds and Manchester to a series of upgrades would make levelling-up nothing more than rhetoric, undermining the opportunity to secure private investment that a credible Integrated Rail Plan would unlock.



Henri Murison
Director, Northern Powerhouse Partnership

A vision for Northern Powerhouse Rail

When I was growing up in Blackburn I never dreamed that I could take a job in Leeds or Newcastle without moving to those cities. I thought of visiting Sheffield, Hull or even Liverpool as a major excursion. They all seemed remote, a long way from home.

Even now, as the leader of a business with a strong presence right across the Northern Powerhouse region, I am painfully aware of the difficulties of travelling between our major cities. It is often quicker to visit London than to journey across the north.

This has to change. We have to improve connectivity right across our region.

Mott MacDonald is proud to have been involved in the development and delivery of many major transport projects in the UK and around the world. We have seen the transformational benefits that new and improved connections between cities and regions can bring in economic and social outcomes.

This paper focuses on the economics. By itself it makes a powerful argument for taking a fresh look at the case for investment in Northern Powerhouse Rail and how decisions are made about it. But it is just the start: over the coming months we plan to produce a series of these reports, looking at the social, health and many other benefits NPR will bring.

Together they will argue for visionary leadership to deliver NPR, the key to a new future for the north and the cornerstone of levelling-up. All of us at Mott MacDonald look forward to playing our part in making that vision a reality.



Cathy Travers
Managing director for the UK and Europe,
Mott MacDonald

How to kickstart a northern renaissance

The ‘northern capital region’ of Manchester, Liverpool, Leeds, Newcastle, Hull and Sheffield has a bigger population than London but only half its economic output.

This paper articulates a vision for the north in which transport infrastructure underpins economic growth and regional development to close that gap, levelling-up in a way that is socially inclusive and assists the national effort to reduce carbon emissions to net-zero.

In particular, rail transport is vital for economic progress in the northern capital region. Traditional cost-benefit analysis seriously underrepresents its benefits; it specifically diminishes the case for Northern Powerhouse Rail (NPR).

NPR’s proposed Manchester-Bradford-Leeds line is an essential part of delivering our vision. Also important are projects west to Warrington and links to other northern cities, including Liverpool, Sheffield, Hull and Newcastle.

Rail connectivity will give improved access to the world-leading specialisms located across the north, strengthening the regional economy and, indeed, the national economy. Connections into Cumbria will improve access to the area’s world-leading tourism and leisure opportunities. And NPR will also facilitate linkages with the global economy via Manchester Airport.





However, standard cost-benefit analysis (CBA) suggests that the whole NPR programme would raise annual GVA in the Northern Powerhouse area by only 2%, or some £14.4bn by 2060. This fails to recognise the vast potential of levelling-up that will come by taking simultaneous action across skills, planning, utility provision, education, tourism, leisure and industrial policy, alongside transport. All are essential and need to be viewed holistically. Improved transportation is vital for realising the full benefit of investment in all of these other areas – for many it is an enabler.

A new economic paradigm is needed that harnesses the market forces of the whole economy, supported by a ‘decide and provide’

policy shift from elected leaders and investors: the Northern Powerhouse requires clear vision to guide investment in infrastructure provision that will deliver socially inclusive growth.

In fact, as our assessment in this paper will explain, just one element of NPR, the connection between Leeds, Bradford and Manchester, can alone potentially increase productivity by 6%, raise the employment rate by 1.5% and increase gross value added (GVA) in the north by about 8% over 10 years.

That is equivalent to a £22bn uplift in GVA by 2060, from just one effect of the NPR programme, vastly more than is identified by standard cost-benefit analyses for the whole project.

8%

**Uplift in GVA over 10 years
resulting from the Leeds-
Bradford-Manchester connection**

£22bn

**Economic uplift by 2060 from
increased productivity (£16.5bn)
and employment (£5.5bn)**

Further connections to the other major urban centres of the north will bring additional gains as the economic specialisms of Liverpool, Hull, Sheffield and many other places are allowed to flourish as part of a new ecosystem. We will return to these benefits in more detail in future papers.

If our proposed approach is adopted and leads to provision of new rail connectivity, a vast, prosperous, polycentric region will be created in the north of England. Connecting a region with a population greater than London will create a social and economic dynamism that would close productivity, unemployment and GVA gaps with the rest of the UK.

As the UK seeks to build back better from COVID-19 and to realise the promised benefits of Brexit, investing to improve connectivity across the Northern Powerhouse region is essential. It is the cornerstone of levelling-up.

But first we must overcome the empty debate about the benefit to cost ratio of the NPR network to establish a new economic paradigm to harness the power of the market, supported by a ‘decide and provide’ policy shift from elected leaders and investors.

What is needed is strategic vision and strong political leadership. This paper provides the evidence to underpin that new, bold, approach.



A new economic paradigm – the ‘productive’ city-region

Most developed world cities have optimised density and are now emphasising development to improve social inclusion, with improved connectivity, green space, digital infrastructure, climate resilience, and other enhancements.¹ However, greater emphasis is required on economic infrastructure.

In an interview with Wired magazine, urbanist Bruce Katz notes:

“There is a legitimate case for service-sector communities, but it is far wiser to embrace tech, manufacturing, and exports. This would bring more shared and sustainable growth as cities shift from consumption and service reliant economies toward economies built on innovation and production.

“If you look at New York right now, what Mayor (Michael) Bloomberg focused on for the last decade was building stadiums for use

in the Olympics. That has changed to focus on the applied sciences to attract Cornell (University) and other institutions to build and diversify New York’s economy from the service and financial sectors of the economy. In other cities and regions, such as northeast Ohio, they are focused on retooling the industrial sector for the green economy because they are a powerhouse for manufacturing. This builds on their history, including the automotive industry. Seattle has the potential to be a hub of big, clean information technology due to the firms already in the region, such as Microsoft.”



The Northern Powerhouse Independent Economic Review (NPIER)² identifies four ‘prime capabilities’ for the north:

1. Advanced manufacturing
2. Energy
3. Life sciences, medical technologies and devices
4. Digital

These can be the bedrock for improvements in economic, social and environmental wellbeing, it says, mirroring Katz’s view and the theory of clusters and competitive advantage advanced by Michael Porter.³



1. Urbanist Bruce Katz: ‘Better Economic Structure Will Save the City’, www.wired.com/2012/02/bruce-katz/
2. Northern Powerhouse Independent Economic Review www.transportforthenorth.com
3. Business clusters are geographic concentrations of interconnected businesses, suppliers and associated institutions. Clusters increase the productivity with which companies can compete, nationally and globally. Michael Porter is a consultant and academic specialising in economics, business strategy and social progress.

Polycentric powerhouse

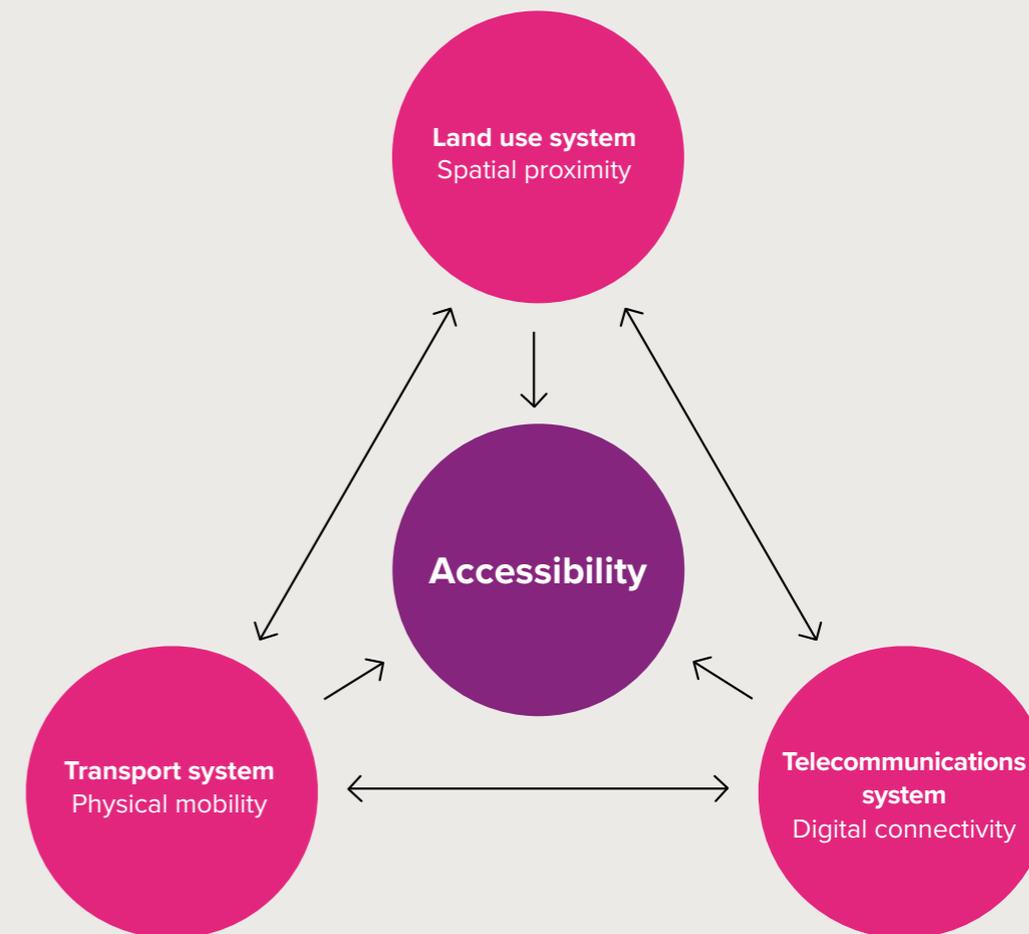
Across the north are regional and local economies that will collectively benefit from their various specialisms being brought together. NPR will enable the creation of a polycentric powerhouse and should be undertaken as part of a 'triple access' approach to economic and social development.



Triple access entails improved physical connectivity (transport), digital connectivity (information and communications technology) and spatial proximity (better land use planning).

Together, a focus on economic infrastructure, business clusters and triple access shift the NPR investment case toward improved connectivity for:

- access to work for a new mega labour market of the megatropolis
- access to the economic specialisms of Sheffield, Hull, Newcastle, Liverpool and other towns and cities
- business and commerce
- freight movement
- access to education and training
- access to heritage, culture, retail, leisure and tourism
- access to essential services



Northern Powerhouse Rail: investment and appraisal

The case for northern transport investment was first presented soon after the Second World War (Trans-Pennine and Northern Way): the post-war requirement to attract and connect investment and trade echoes the current challenge to ‘build back better’ from COVID-19 and fulfil the promise of Brexit.

Why are we still waiting?

Part of the answer lies in the limited scope of the appraisal exercises on which investment decisions are based. In their paper on the economic impacts of HS2, Bridget Rosewell

and Tony Venables⁴ are among those suggesting that major rail investment projects deliver benefits well beyond those captured by CBA. They do so by connecting cities, relieving congestion and enabling expansion. “The new rail system to be put in place by HS2 is sufficiently different from the current network to be extra-marginal and potentially disruptive of existing patterns of social and economic behaviour,” they note. HS2 is a ‘connecting’ project, while London’s Elizabeth Line (Crossrail) is a ‘constraint-removing’ project. In the north, Leeds-Newcastle would be a connector, and Manchester-Warrington a constraint-remover.

The Manchester-Bradford-Leeds line would be both connecting and constraint-removing.

Better access between cities and their hinterlands raises their economic ‘mass’ – the number of people able to access work and available as workers. Research cited by Rosewell and Venables suggests that a doubling of mass may increase productivity by 4-8%. Connecting Leeds, Bradford and Manchester would effectively create a joined-up labour market of more than double its present mass. Relatively deprived but immensely entrepreneurial Bradford in particular would benefit.

4. Rosewell, B and Venables, T ‘High speed rail, transport investment and economic impact’, a paper written for HS2 Ltd



Better access between cities and their hinterlands raises their economic mass – the number of people able to access work and available as workers. Connecting the cities of the Northern Powerhouse would create a joined-up labour market of more than double its present mass.



The purpose of connectivity

Connectivity drives productivity gains by allowing centres of specialisation to concentrate effort on what they do best.

Stronger logistics and supply chains enable specialists to outsource non-core activities efficiently. Connectivity also opens new opportunities – to create freeports in Liverpool and Humber/Tees Valley, for example, that provide wider logistics, supply chain and other facilitating and commercial services.

Connectivity also brings the benefits of scale and agglomeration. NPR brings all of these elements together, securing a win-win for the new north's social and economic agenda. However, CBA emphasises benefits associated with the journey itself, and neglects the purpose (or access) facilitated by the journey.

The need to focus on strategy is a feature of 'Radical uncertainty', a recent work by economist John Kay and former Bank of England governor Mervyn King.⁵ Using the phrase 'what's going on here?' they criticise and condense government

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investment appraisals: the questions asked should not be 'can we do it/afford it?' but 'why should we do it and what benefits will it bring?'.

Those involved in infrastructure planning and delivery too rarely ask the second question – which is one of the reasons why we at Mott MacDonald have placed social outcomes at the heart of our corporate purpose.

Roughly summarised, King and Kay's alternatives to CBA and probability models are experienced judgment informed by credible and consistent 'narratives' articulated through a collaborative decision-making process. Changes made in 2020 by the Treasury to Green Book appraisal guidance place greater emphasis on the strategic case. For NPR this means enabling the creation of a stronger northern economy based on a mega-city region, connected to specialist centres of excellence.

5. Kay, J and King, M 'Radical Uncertainty: Decision-Making Beyond the Numbers', Norton: 2020

Higher productivity, employment and GVA

The case for the NPR network is simple: connected cities are the future, supporting a tradable economy and sustained growth. Wealth-generating tradable sectors drive everything else.

By supporting specialisation, connectivity will nurture individuality between the different cities in the polycentric model, each playing to its strengths, and trading with each other for mutual benefit.

Leeds-Bradford-Manchester should be one of the critical focuses of investment in NPR to generate economic growth that both proves the case for and affords further investment.

Connecting these three centres can potentially increase productivity by 6% and raise the employment rate by 1.5% (50,000 jobs), closing the joblessness gap between the region and the British average.

These uplifts would increase GVA by about 8% over 10 years, yielding some £22bn by 2060 – the horizon used in the existing CBA.

In other words, just one effect (agglomeration) for one project in one area could have a greater effect on GVA than that estimated by the traditional cost-benefit analysis for the whole of the NPR programme across the north.⁶

That would be just the start.

Economic development across all areas of the north will best be secured by addressing all dimensions of 'triple access' – transport, ICT and land use – as well as through skills training and industrial policies. Working in all of these areas will yield benefits far greater than those attributable to agglomeration alone and offers a good prospect of dramatically narrowing the economic gap between the north and the UK as a whole.

That is how we can deliver the vaunted and much needed levelling-up agenda.

Just one effect (agglomeration) for one project in one area could have a greater effect on GVA than that estimated by the traditional cost-benefit analysis for the whole of the NPR programme across the north.



6. Mott MacDonald calculations based on official statistics and an assumed UK growth rate of 2%

Conclusion

To deliver radical change we need vision-led decision-making. And we need to be bold.

Transport investment is the key to a wider strategic plan that enables social and economic levelling-up. And NPR is the key catalyst for change.

Our view is that building the link between Leeds, Bradford and Manchester, more than doubling the size of the available labour market and unleashing the productive economic potential of towns and cities along the route, is critical. The programme will also dramatically improve connectivity with Liverpool, Sheffield, Hull, Newcastle and many other cities and communities too, whilst also plugging the entire region into the world via Manchester Airport.

In this context it is important to note that large parts of NPR are already well developed, with parts of the line already benefiting from safeguarding and advanced scheme development.

If we are serious about building back better from the pandemic and realising the promise of Brexit, visionary thinking is required. The Green Book review has shifted thinking. Now we must once and for all challenge traditional modes of investment appraisal and show leadership to get NPR done.

Now is the moment to be bold – for the good of the region and the country, for the future.





Opening opportunities
with connected thinking.

Talk to us.

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