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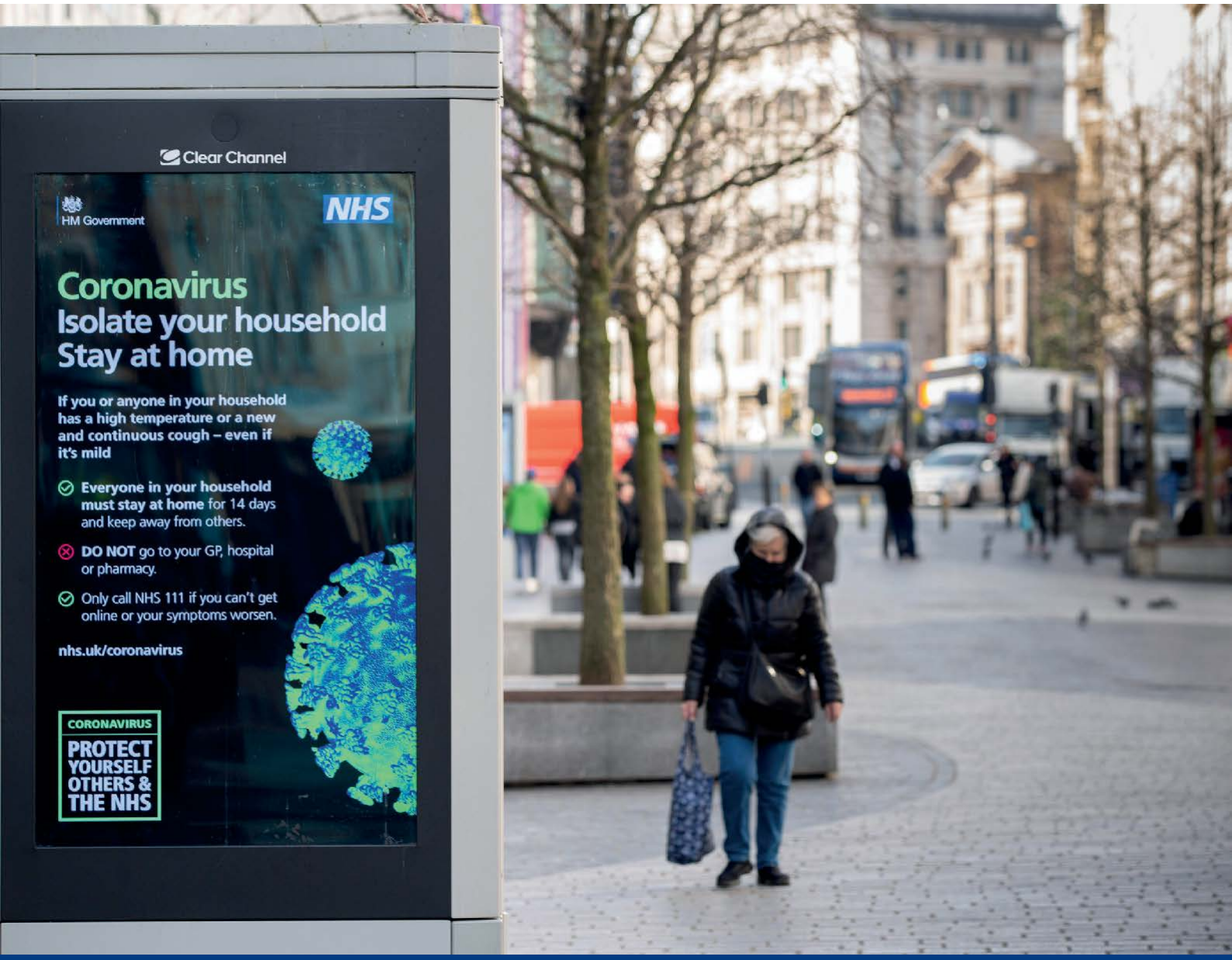

Responding to COVID-19 in the Liverpool City Region

Pan-Northern Transport After COVID-19: Future Scenarios and Alternative Directions

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Map of Liverpool City Region Combined Authority (LCRCA) boundary (in red) and constituent local authorities

Data sources: Westminster parliamentary constituencies (December 2018 - ONS), local authority districts (December 2018 - ONS), and combined authorities (December 2018 - ONS)

Pan-Northern Transport After COVID-19: Future Scenarios and Alternative Directions

Key takeaways

1. Transport for the North's (TfN) Strategic Transport Plan reflects an ambitious goal to transform Northern England's strategic transport network. However, the COVID-19 pandemic and the severe recession which looks likely to follow will put political and financial pressure on TfN's proposals.
2. Plans for Northern Powerhouse Rail / High Speed North represent a long-standing need to increase capacity and reduce times for journeys across the Pennines. The UK Government should press ahead with the proposals as a cost-effective way to stimulate demand and build for the future.
3. However, as travel patterns continue to evolve, plans for further investment in the Northern transport network should focus less singularly on home-to-work commuting and more on the multiple needs of people using the transport networks; for work, leisure, and care.
4. The digital-centric scenarios developed by TfN as part of its 2019 Strategic Plan are now a reality for millions of workers in Northern England and elsewhere. Planners will need to reflect on how the potentially permanent growth in widespread home working will impact on the transport network of the future.
5. The current period of crisis also offers an opportunity to reflect on the sustainability of proposals for expansion of the pan-Northern transport network in the context of the UK's climate change obligations under the Paris Climate Agreement.

1. Introduction

Transport for the North's (TfN) proposals for £70bn of investment in pan-Northern rail and road infrastructure are based on predictions that increasing numbers of people will travel between Northern England's largest cities for work over the coming decades. The COVID-19 pandemic and associated decline in commuting has led some to question whether this investment is now needed, with predictions that the rapid growth in home working in recent months will lead to a new normal in our patterns of work.

This policy briefing argues that investment in high speed rail infrastructure is still required to address long-standing capacity and speed issues, and represents an opportunity to stimulate demand over coming years across Northern England. However, as the way we travel continues to change, so must the way we plan future transport infrastructure. Emphasis on home-to-work commuting patterns must make way for a more nuanced representation of the changing ways we utilise the transport network for work, leisure and care. In addition, the present crisis represents an opportunity to embed sustainability into our transport systems.

2. The end of commuting?

In 2019, Transport for the North (TfN) published its Strategic Transport Plan; a broad-ranging and ambitious proposal for public and private investments in rail, road and freight infrastructure in Northern England amounting to around £70bn by 2050.

At the heart of the plan are two fundamental assumptions. First, that over the next 30 years more people will travel between the North's largest cities for work.

And second, for this travel to be environmentally and socially sustainable, the bulk of these additional journeys should be taken by rail, not road. Northern Powerhouse Rail (or NPR, alternatively known as High Speed North, High Speed Three and Crossrail for the North), a new east-west network spanning the Pennines, is designed to facilitate this modal shift.

The coronavirus pandemic and its effects on the functioning of the UK and global economy have led some to question whether such assumptions remain sound. Transport consultant Jarrett Walker, for example, has predicted the "collapse of rush hour", highlighting the fall in peak-time commuting worldwide since March and suggesting that a return to "normal" levels of public transport passenger numbers may be years away (Walker 2020).

Others have heralded the death of the office, hypothesising that many knowledge and service sector workers that populate our city centres during weekdays may continue to work largely from home even after the current crisis is over (Mance 2020). In Merseyside, according to Google Mobility data, travel to workplaces was still 55% down on normal levels at the end of May.

3. Future scenarios in Northern transport

Were these prophecies on commuting and home working to be fulfilled, the impact on plans to improve the inter-city transport network in Northern England would be significant. TfN's plans identified four scenarios reflecting diverging potential approaches to residential development, changes to the types of journey people would make in the region, the development of digital technology, and changes to energy costs (see Figure 1 overleaf).

The *Compact & Digital* scenario, for example, envisages a future in which development is focused on brownfield sites in and around city centres; improvements to technology make working from home easier, but the cost of energy rises – so transport becomes more expensive. Conversely, in the *Dispersed & Travel Friendly* scenario, urban sprawl increases, but energy costs stay low and transport remains affordable.

Under all four scenarios, travel demand is expected to increase over the next 30 years. However, there are significant differences between the various scenarios. In a *Dispersed & Digital* scenario, for instance, the number of rail trips is expected to increase by 60%, while in a *Compact & Travel Friendly* future, that figure rises to 327%.

Northern Powerhouse Rail is central not only to Liverpool City Region Combined Authority's (LCRCA) Transport Plan, but also its approach to economic development. The Combined Authority estimates that the network will provide 24,000 new jobs and 3.6 million more visitors per year, and free up crucial freight capacity for the Port of Liverpool (LCRCA 2019).

However, the question transport planners in Liverpool City Region (LCR) and beyond must now grapple with is whether the economic assumptions underlying these forecasts remain sound. For many workers, the digital-centric scenarios described here have already arrived. Employees used to the perks and foibles of the office have had a three-month crash course in video conferencing facilities. Will this shift to home working be permanent, leading to far fewer people commuting into city centres on a daily basis? Or are reports of the demise of the urban office job greatly exaggerated?

Figure 1. Summary of four future scenarios for pan-Northern transport

	TfN Scenario 1: Compact & Digital	TfN Scenario 2: Compact & Travel Friendly	TfN Scenario 3: Dispersed & Digital	TfN Scenario 4: Dispersed & Travel Friendly
Land use	Brownfield development increases urban density	Brownfield development increases urban density	Mix of greenfield and brownfield development in suburbs and urban fringes	Mix of greenfield and brownfield development in suburbs and urban fringes
Digital infrastructure	Broadband speeds and improvements to other digital infrastructure facilitate home working	Travel to the workplace remains more appealing than working from home	Broadband speeds and improvements to other digital infrastructure facilitate home working	Travel to the workplace remains more appealing than working from home
Cost of transport	Energy costs increase, causing cost of transport to rise	Low energy and travel costs	Energy costs increase, causing cost of transport to rise	Low energy and travel costs
City-region infrastructure	Local transport systems focus on radial movements	Local transport systems focus on radial movements	Emphasis on all types of local movement, not just radial	Emphasis on all types of local movement, not just radial
Pan-Northern infrastructure	Improvements to road and rail infrastructure facilitate short and medium distance commuting	Improvements to road and rail infrastructure facilitate short and medium term commuting	Improvements to pan-Northern rail and road infrastructure facilitates long-distance commuting	Improvements to pan-Northern rail and road infrastructure facilitates long-distance commuting

(Source: Adapted from TfN 2019)

4. All change?

It may be that the rapid increase in home working in the first half of 2020 accelerates and makes permanent a longer-term shift in our approach to travel. Even before the pandemic, we were travelling less in the UK than we did 25 years ago.

The first report of the Commission on Travel Demand, published in 2018, found that, annually, we make 16% fewer trips in the UK now than in 1996; travel 10% fewer miles than in 2002; and spend 22 hours less per year travelling than we did in 2008. Young people in particular are travelling less, especially by car. Men aged 18-30 are travelling 50% fewer miles than they did in 1995 (Marsden et al. 2018).

The biggest contributor to this decrease in travel demand is the shift in our commuting habits: recent years have seen more people working from home either occasionally or regularly, and there has been a growth in freelance, part-time and flexible working.

While the door-to-door commute has declined, other types of trip have grown in popularity. Even before the COVID-19 lockdown, online deliveries of groceries, technology and hot food had begun to alter the shape of our high streets. All forms of rail travel have increased, even during and following the Global Financial Crisis of 2008-09. Cycling has surged in popularity, with my University of Liverpool colleagues noting in our Heseltine Institute Covid-19 Policy Briefing 010 that there is widespread support for active travel measures and a major long-term rollout of safe, segregated cycle lanes in LCR (Nurse and Dunning 2020).

5. A different kind of transport system

These changes to the way we travel are underappreciated in our political discourse. Debates about the benefits of transport infrastructure often conjure images of an office worker travelling daily by car or train from their home to a workplace in a city centre. The language of agglomeration, Gross Value Added (GVA) uplift and labour pools permeates the transport policy literature.

The lived reality for millions in the UK is more complex than the traditional door-to-door commute implies, and may involve multiple trips on a variety of modes throughout the day for purposes of work, family, and leisure. These nuances have come to the fore over recent weeks as our lives have become more geographically contained.

Questions will inevitably be asked about whether an expensive new rail network, in the form of Northern Powerhouse Rail, is still needed (see Figure 2). “Why Aren’t We Spending This On The NHS?” has become something of a battle cry for a particular kind of anti-infrastructure campaigner in recent years, and these pressures will inevitably increase as the UK attempts to rebuild after the biggest economic shock in almost a century.

There are three key reasons why these arguments must be pushed back against, and why investment in a high quality, high speed pan-Northern rail network is still needed.

First, the current network is not fit for purpose regardless of whether demand for rail decreases in the coming years. Journey times for the 40 miles between Manchester and Leeds are around one hour. The 35 miles from Manchester to Liverpool is similarly ponderous, with journeys ranging from a relatively speedy ‘direct’ service of 38 minutes to a more scenic one hour 15 minutes.

Figure 2. Current proposals for Northern Powerhouse Rail / High Speed Three

(Credit: TfN 2019)

Improvements to capacity and speed are required simply to bring Northern England into line with journey times in most of Western Europe.

Second, borrowing costs are currently low and spending on long-standing infrastructure needs represents good public investment. While public sector net debt has risen significantly since 2007, the cost of the UK's debt interest payments are close to historically low levels.

Third, Northern Powerhouse Rail and HS2 are long-term projects that require long-term demand projections. Planning infrastructure that will still be operational in a century on the basis of events that have happened in the last three months does not represent good planning.

6. Opportunities for a post-COVID Northern transport network

Nevertheless, while there is a strong case to bring forward plans for Northern Powerhouse Rail and other, more immediate investments in rail infrastructure, the current crisis does represent an opportunity to reflect on other priorities for Northern England's strategic transport network.

TfN's aspiration to increase by 12 million a year the number of passengers travelling by air to the North of England could be reassessed. This proposed growth in air travel, according to an independent report commissioned by TfN itself, is incompatible with the UK's commitment to reduce carbon emissions from transport in line with the Paris Climate Agreement (Atkins 2019).

More thought also needs to be given to how the pan-Northern strategic network connects with plans for expanding safe cycling routes being developed by local and combined authorities across the North, including in LCR.

More fundamentally, perhaps, we must plan for a post-COVID world in which the office-based 9-5 is rarer than it is today (if not eliminated entirely), where the transport network pays more attention to parents, children and carers, and where environmental and social aspirations have equal status to transport-based economic targets.

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