

INDEPENDENT INTERNATIONAL CONNECTIVITY COMMISSION REPORT

February 2017



AN INDEPENDENT REPORT COMMISSIONED BY TRANSPORT FOR THE NORTH

The Independent International Connectivity Commission was established to examine the economic role of international connectivity for the North of England. This report includes the Commission’s assessment of the current role of the North’s airports and ports in providing the required global connectivity for passengers and freight. The Commission has identified the actions that are necessary to improve connectivity to support a more global approach to business and the visitor economy. It has also identified the potential role of both public and private sectors in delivering key drivers for international connectivity. This will support the required transformational growth of the Northern Powerhouse economy.

Seldom has there been a more significant time to focus on the North’s global opportunities. The need for the North to exploit its global potential and ensure it maximises its contribution to the UK as a whole is more important than ever. **Transport for the North (TfN) is playing a unique role in developing a Strategic Transport Plan, building on the findings of the Northern Powerhouse Independent Economic Review (NPIER)¹, to support the needs and opportunities of the North.**

The North has demonstrated its potential to be a performer on the world stage and, by stimulating the right infrastructure growth, we can support our key business capabilities and assets, as well as our people, to connect to global markets and locations.



¹ <http://www.sqw.co.uk/insights-and-publications/northern-powerhouse-independent-economic-review/>

I would like to thank the members of the International Connectivity Commission who gave their time and expertise to guide this report. Their collective and substantial experience has been used to critically examine the opportunities for enhanced global connectivity and establish the value this will bring. The Commission were clear at the outset that this report would be evidence based, taking a thorough analysis of both the current baseline and potential latent opportunities.

The Independent Commission has identified the key actions necessary for international connectivity to enable transformational economic growth. To make this possible, we need to foster greater global links across the North of England, offering improved access to worldwide markets, with our airports and ports acting as international hubs to the North for passenger (business and visitors) and freight economies.

The North’s airports handle 15% of the UK’s airport passengers (39.6 million air passengers per year up to October 2016). International passenger connectivity contributes £5.5 billion towards the North’s GVA. This is 1.7% of the £317 billion GVA contributed by the North (when compared to sub-National figures published by ONS in December 2015).²

Achieving economic transformation will require the economic contribution of international connectivity to grow and air connectivity to become more important in future, reaching £13 billion or 2.1% of

today’s GVA. To deliver this step change, we will need to create the conditions where the volume of international airport passengers can grow to 75 million passengers per year in 2050, which is 12 million higher than currently forecasted by DfT.

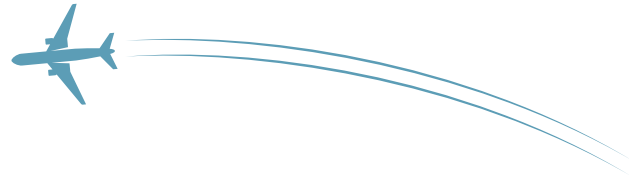
If global connectivity is properly supported, the latent capacity available at the North’s key airports and ports is capable of delivering an additional 60 million passengers per annum, based on current airport master plans and Department for Transport (DfT) assessments.

The IPPR North report³ states that Northern Ports directly contributed (through both global and domestic freight) £1.5 billion, or 20% of all GVA generated by UK ports (£7.7 billion) in 2014. This is a 0.5% contribution to the North’s total GVA in 2016.

Freight and logistics is evidenced as one of three key economic enablers which will support the North’s global capabilities. As set out by the NPIER, Northern ports handled 56% of UK rail and 35% of road tonnage and distribution onto the network. To maximise the strengths and opportunities the Northern ports present, TfN’s challenge is to ensure the strategic infrastructure is in place to deliver any additional capacity that ports such as Liverpool generate. The North’s ports also offer passenger transportation options to both Continental Europe and Irish markets, as well as long haul cruise options more globally.



² <https://www.ons.gov.uk/economy/grossvalueaddedgva/bulletins/regionalgrossvalueaddedincomeapproach/december2016>
³ <http://www.ippr.org/publications/gateways-to-the-northern-powerhouse>



It is important that we seize opportunities that may result from our exit from the European Union, to ensure that the UK as a whole remains the best place in Europe to invest and grow a business. In overall terms, the region's airports are importers of passengers, with their catchment areas extending beyond the boundaries of the North, whilst the Northern ports contribute by moving the majority of freight across the North and beyond. By enhancing the region's international connectivity, we will realise the benefits of increased agglomeration, exploit the wealth of growth opportunities in the North and improve economic productivity.

Enhancing global connectivity starts on the ground, which is why this report sets out the key landside enablers for ports and airports. Our ambitious but vital plans for improved global connections can only be achieved by making it easier and quicker for passengers to travel to and from the North.

By increasing the proportion of trips which can connect globally direct from the region's airports and ports, as well as improving surface access to these key hubs, we can ensure that the potential of the North's airports is exploited for the benefit of the wider economy.

Additionally, the North needs to have access to strong rail freight connections and make the best use of the network that exists now. There need to be improvements to the heavily congested rail network and TfN needs to work with Network Rail to ensure that freight paths are optimised, particularly where they serve the global connectivity offered through the ports.

I believe it is a key priority to increase the range and frequency of global destinations served by airports and ports across the North, taking advantage

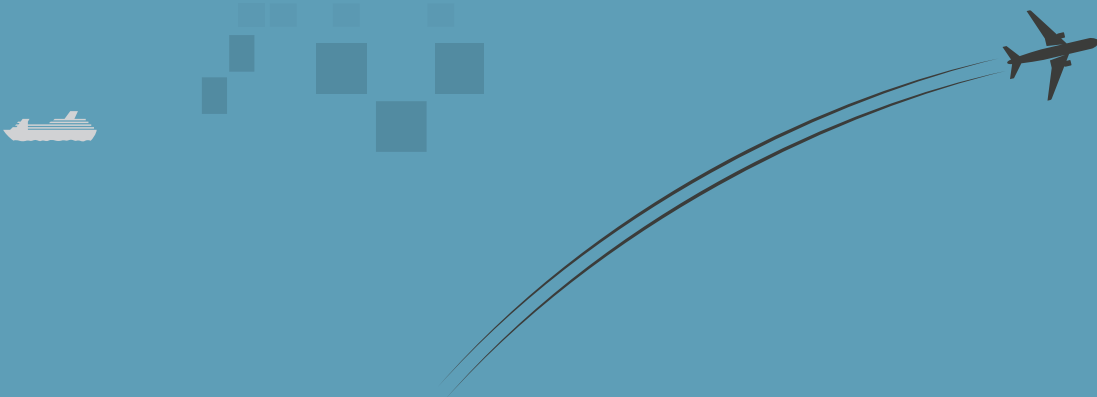
of the capacity available now to reach new markets and secure innovation and investment. I look forward to working with partners and the Government to develop the options outlined in this report.

John Cridland



Contents

1. Executive summary	7
2. What does international connectivity contribute to the economy of the North today?	10
3. How does international connectivity support transformational economic growth?	17
4. Development of international connectivity	18
5. Delivering global connectivity	21
6. The visitor economy	32
7. Sustainability and quality of life	33
8. Recommendations	34
9. Commission Biographies	43



1. Executive summary

In June 2016, TfN and its partners, supported by the Government, launched the Northern Powerhouse Independent Economic Review (NPIER). This important document set out the clear potential for transformational economic performance, which would see the North close its economic prosperity gap, exceed the average UK growth rate, increase GVA by £97 billion and add 850,000 jobs compared to the forecast performance if the North continued on a ‘business as usual’ trajectory. Importantly, the NPIER demonstrated that the North had a set of global capabilities in advanced manufacturing, digital technology, health innovation and energy.

Delivering economic transformation of the North and closing the economic performance gap with the rest of England requires a step change in productivity, which will benefit not only the North but the UK as a whole. This means that the North must pull on all the levers for growth and that includes exploiting the potential of its airports and ports to deliver more direct international connections.

Making travelling to and from the North more direct, easier and cheaper, supports the North becoming a more attractive place in which to invest, do business,

visit and trade. ‘Business as usual’ activity will simply not be good enough for the North to meet the ambitions of economic rebalancing. However, with the right support, a transformed Northern economy with increased international connectivity would provide nationally significant impacts which would benefit the country as a whole.

As the Government said in supporting the construction of a third runway at Heathrow: *“International flights matter. They support trade, inward investment and exports. They create jobs and economic growth, and they give UK citizens the freedom to fly across the world – whether for business, leisure or to visit friends and family.”*

TfN supports this announcement and welcome the additional Northern routes that further Heathrow capacity would provide.

David Brown, Chief Executive of TfN, said:
“Certainty in terms of planning and investment is an important step for market confidence. It’s also good to see that the Government is making decisions on strategically significant transport infrastructure crucial to economic growth and performance.”



The Independent International Connectivity Commission considers the timing of this report to be of significant importance, given the requirement for the UK to position itself on a global stage. If we are to realise opportunities for broad scale economic ‘internationalisation’, which Brexit may provide, international connectivity needs to become a priority. We can deliver this by ensuring that the full potential of our airport and port infrastructure, delivered by the private sector, is exploited through targeted interventions by the public sector.

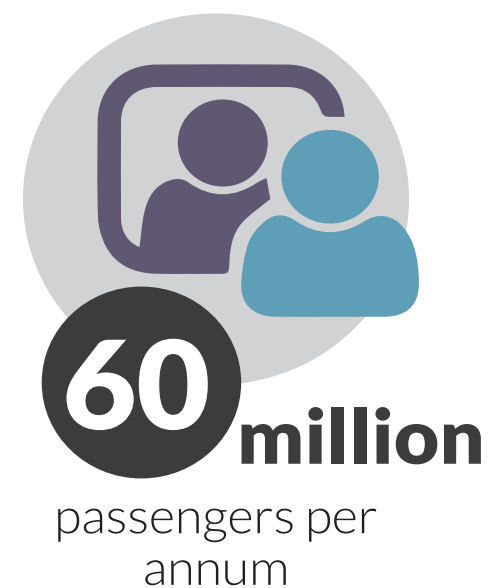
The North has the potential to make it easier, cheaper and faster to travel to key airports and ports across the North. Increasing the ease of connectivity will drive an increased demand for services. This means, if supported by the right infrastructure, our airports and ports could make an increased material contribution to international connectivity. The North has potential capacity for an additional 60 million air passengers per annum based on current airport master plans and DfT assessment. If properly supported through improved surface access, the capacity at the North’s key airports and ports means that they could deliver improved global connectivity over a short timeframe, helping to achieve the target for the North to narrow the economic performance gap and the country as a whole to improve international connectivity.

Freight and logistics are a key enabling capability within the North, which TfN recognised from an early stage in its development. In 2016, the first pan-Northern Freight and Logistics Report identified the need for additional freight paths across the Pennines to strengthen East - West connectivity. Led by Hull University through the Liverpool - Humber Optimisation of Freight Transport (LHOFTs) project, ports on the Humber, Tyne and Tees and on Merseyside are working together to look at how an enhanced network could generate economic opportunity across the North.

This report demonstrates how reducing the real cost and time of passengers and freight using the North’s airports and ports will boost demand for additional services.

This will in turn increase business efficiency, encourage entrepreneurship, facilitate trade, attract Foreign Direct Investment (FDI) and encourage tourism, as well as retaining skilled workforce.

The North’s key **airports** are capable of delivering an additional



Based on the evidence, the Commission believes that the potential benefits delivered through enhanced international connectivity can be a lever to drive growth, rather than simply a response to it.

This report sets out a series of recommendations to the TfN Partnership designed to facilitate and support greater international connectivity, which will create conditions for growth across the North.

The Commission believes global connectivity starts on the ground and has set out the following recommendations:

- Improve surface transport connections to the North’s airports and ports by better integrating them into the pan-Northern strategic infrastructure network. This will extend their catchment areas, making more routes and services viable. This recommendation illustrates the importance of key investments such as Northern Powerhouse Rail;
- Improve the quality and efficiency of access to airports and ports, therefore reducing costs and time constraints to businesses; improving access for the local population and visitors (tourist or business) and delivering benefits for freight and logistics;
- Develop a ‘Team North’ approach to securing new air and sea connections for the benefit of the North as a whole, working with the public and private sector to ensure that improved international connectivity delivers for businesses and plays a role in promoting increased international tourism to the whole region;
- Ensure that the North’s airports can attract more global air services, and explore policy options to reduce dependence on the London airports, such as reducing the impact of Air Passenger Duty (APD) on the commercial viability of services compared to other regions of Europe.



2. What does international connectivity contribute to the economy of the North today?

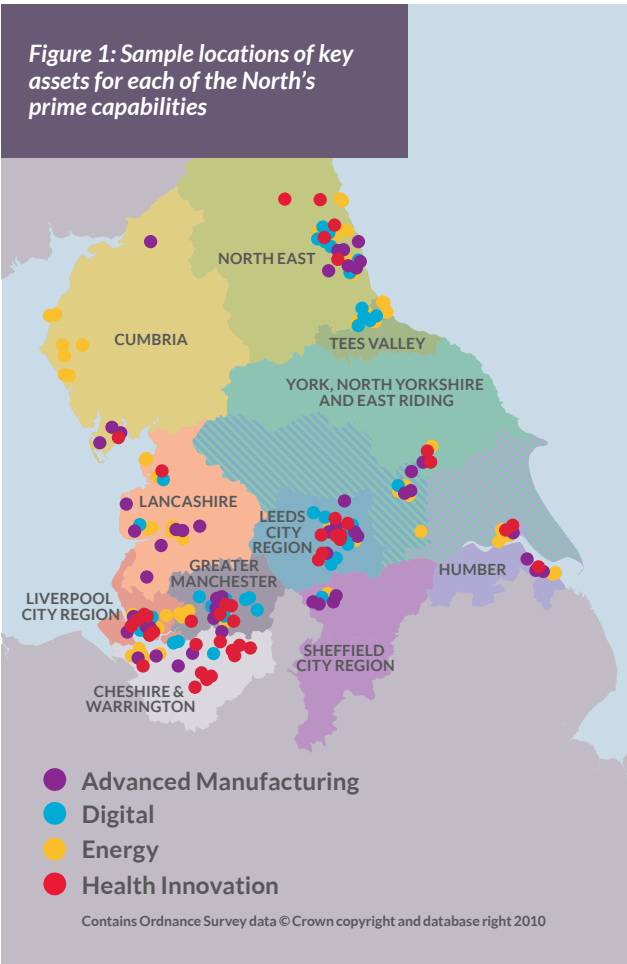
International connectivity in the North is delivered by its airports and ports across the region. Analysis indicates that the North’s ports handle high volumes of freight, whereas Northern airports mainly serve passengers, alongside lower volumes of freight (which is higher in value per tonne). However, there are opportunities to deliver further international connectivity growth, with capacity available via both the region’s airports and ports.

The ‘One Agenda, One Economy, One North’ Report⁴ sets out the vision for transformational growth in the North. TfN Partners, with support with aviation expertise from York Aviation, developed a baseline analysis for international connectivity of Northern airports and ports. This research provides a wealth of evidence on how well international connectivity serves the needs of the North today and has been used to support the Independent Commission in their thinking.

£ Economic analysis

The NPIER identified that, today, the North of England is home to nearly 16 million people (almost one quarter of the UK population) and around 7.2 million jobs. The wider region generated an economic output of around £317 billion GVA in 2015, about one fifth of the UK’s total. The area has a wealth of high profile and growing businesses, expertise, creativity, and assets. But there remain persistent gaps in GVA per capita and productivity performance compared to the rest of the UK. As the Government’s Northern Powerhouse Strategy highlighted, the North is an excellent place to start and grow a business and steps should be taken to ensure the Northern Powerhouse is recognised worldwide for the trade and investment opportunities it offers. If the Northern economy was performing as it should at the UK average, it would be £37 billion bigger today.

The NPIER set out the role of a distinct set of Northern capabilities which support both productivity and jobs growth. These consist of four prime capabilities (advanced manufacturing; energy; health innovation; and digital) and three enabling capabilities (financial and professional services, logistics; and education). These strengths were identified due to their global potential and where transport alongside other factors such as skills are considered critical to enable the full potential of the North to be realised.



Passengers

Up to October 2016 the usage of the international passenger connectivity provided by the North’s airports contributed over £5.5 billion towards the North’s GVA (1.7% of the £317 billion⁵ GVA contributed by the North when compared to sub-National figures published by ONS in December 2015). Overall, some 39.6 million air passengers were carried on all flights to/from the North’s airports in a rolling year ending October 2016, around 15% of the UK total. The largest proportion of air passengers consists of outbound leisure trips, which contributed around £0.5 billion to GVA in 2016.

The bulk of the GVA contribution from passengers (£5 billion) comes from the boost to business productivity brought about through direct international air connections to/from the North’s airports. In total, there were around 2 million return business related air trips to/from the region in 2016, of which around 60% were by UK residents and the rest foreign business visitors.

There is a strong concentration of demand in and around the core cities. Up to October 2016, total airport passengers in the North increased by 9.1% from 2015, compared to a 6.1% increase in the UK total during the same period. Significant growth has

been seen across the North, including at Doncaster Sheffield (40.6%), Liverpool (10.3%) and Manchester (8.6%). There are a number of factors for this growth, including the new deliveries of aircraft and capacity; low oil prices resulting in lower air fares; and strong economic indicators in the first half of 2016.

In overall terms, the region’s airports were also importers of passengers with their catchment areas extending beyond the boundaries of the North, with Manchester and Liverpool in particular serving part of the North Midlands and North Wales, Newcastle and southern Scotland, while Doncaster Sheffield draws passengers from the East Midlands.

However, whilst the North currently accounts for around 25% of the UK’s population, its seven airports handle around 15% of all airport passengers in the UK (up to October 2016) and the ports around 6% of all ferry passengers⁶. This suggests a degree of underperformance in the connectivity provided given the relative scale of the population and economic base. If the North was performing as it should, we would expect the number of international air passengers travelling to/from the North to be over 4 million or 10% higher than the 39.6 million passengers per year now. Around 90% of these passengers would be expected to use international services from the North’s airports, so supporting

Figure 2: International passenger demand to/from Northern Powerhouse region (Civil Aviation Authority 2015)

LEP area	Total passengers (millions)	Business passengers (millions)	Inbound leisure passengers (millions)	Overall propensity to fly (total passengers per head of population)	Business Passenger propensity to fly (per head of population)
Greater Manchester CA	6.93	1.00	1.38	2.51	0.36
Leeds CR	4.32	0.50	0.60	1.43	0.16
Liverpool CA	3.51	0.33	0.82	2.30	0.22
North East CA	3.38	0.45	0.41	1.73	0.23
Cheshire & Warrington CA	2.56	0.46	0.32	2.79	0.51
Lancashire	2.45	0.22	0.26	1.66	0.15
Sheffield CR	2.30	0.19	0.25	1.25	0.10
North Yorkshire	2.29	0.27	0.33	2.00	0.24
Tees Valley CA	1.15	0.12	0.11	1.72	0.19
Cumbria	0.87	0.09	0.09	1.74	0.19
Hull & Humber CA	0.41	0.04	0.05	0.45	0.05

⁴ <https://www.gov.uk/government/publications/northern-transport-strategy>

⁵ This is distinct from the GVA contribution made directly by the region’s airports through their operation and supply chains, which is in addition.
⁶ Based on CAA Passenger Statistics (October 2016) and DfT Sea Passenger Statistics (provisional)

the enhanced connectivity required to deliver a stronger economic performance and helping to create a virtuous circle where connectivity and growth go hand in hand.

The size of the international travel market to and from the North of England today is some 34.3 million air passengers (of the total 39.6 million up to October 2016), which is about a third of the size of the air travel market in London and the South East of England. For the North to punch above its weight economically, the size of the aviation market should be closer to 50% (rather than the current 30%) of the size of the market in the South East.

Under the transformational agenda, set out in the NPIER, we need to use connectivity to drive economic growth rather than simply to follow it. Businesses and visitors to/from the North require the same quality of direct connectivity as those in the South and in many cases (airports and ports), the capacity exists to deliver this growth.

Whilst the North acts as a global gateway for some passengers from outside the area, it still experiences a substantial loss of passengers to the South East, which largely reflects a lower availability of destinations to meet demand. Many visitors have to first enter the UK through the London airports, making it less likely that they will visit the North or limiting the time that they spend in the region. Of the 4 million business related air passengers, around 73% were able to use direct services from the region's airports with the remainder using the London airports or connecting at hubs overseas, particularly those seeking to reach global destinations beyond Europe. Using the London airports or overseas hubs, whilst valuable in terms of the breadth of global air connections offered, adds to the time and cost of doing business, both for companies based in the North and for those seeking to do business with the North. This increased cost of doing business is one of the factors which reduces productivity of regional businesses and makes it more difficult and expensive to trade globally, contributing to economic underperformance.

Overall, the role of shipping in international passenger connectivity is more limited, with relatively few business visitors using ferries and the numbers of inbound tourists also being small compared to the numbers travelling by air. In total, just under 2 million ferry passengers use the region's ports on short sea routes to/from the North, with a contribution of £0.2 billion of GVA in 2016.

The North's ports offer passenger options to both continental Europe and Irish markets, as well as long haul cruise options more globally. Some 1.5 million passengers were transported from the Tyne and Humber ports to the European continent, with key routes to Ijmuiden, Rotterdam, and Zeebrugge. Liverpool saw over 120,000 passengers use the port to make short sea trips to nearby Ireland and the Isle of Man. The majority of passengers arriving through the North's ports are travelling for leisure purposes, with onward journeys by either car, foot or public transport.

The cruise ship industry also makes a small but growing contribution. The two main cruise ports in the North of England are Liverpool and the Port of Tyne. Data from Cruise Europe suggests that between 2010 and 2014 the Tyne, Liverpool and Barrow have doubled the number of calls from 54 to 108 and the number of passengers from 74,000 to 113,000 between 2013 and 2014. The majority of Cruise passenger ship calls are described as Port of Call which is where passengers can embark and disembark a ship whilst it fuels and takes on supplies. There is an increasing number of turnaround calls in ports at both Ports of Tyne and Liverpool. These ports provide for cruise ships to change a full complement of passengers and the associated supplies required on board.

We believe strongly that if more of the region's international business and tourist trips can be made directly from the region's airports and ports, with access made easier, this will contribute towards the target improvement in productivity and GVA as set out in the NPIER. This improved international connectivity will make it easier for business and leisure passengers to access key capabilities and destinations across the North.

Figure 3: Total passengers per annum and % of airport/port UK totals

(Based on UK Civil Aviation Authority - figures for rolling year ending October 2016; and DfT Ports report 2015)

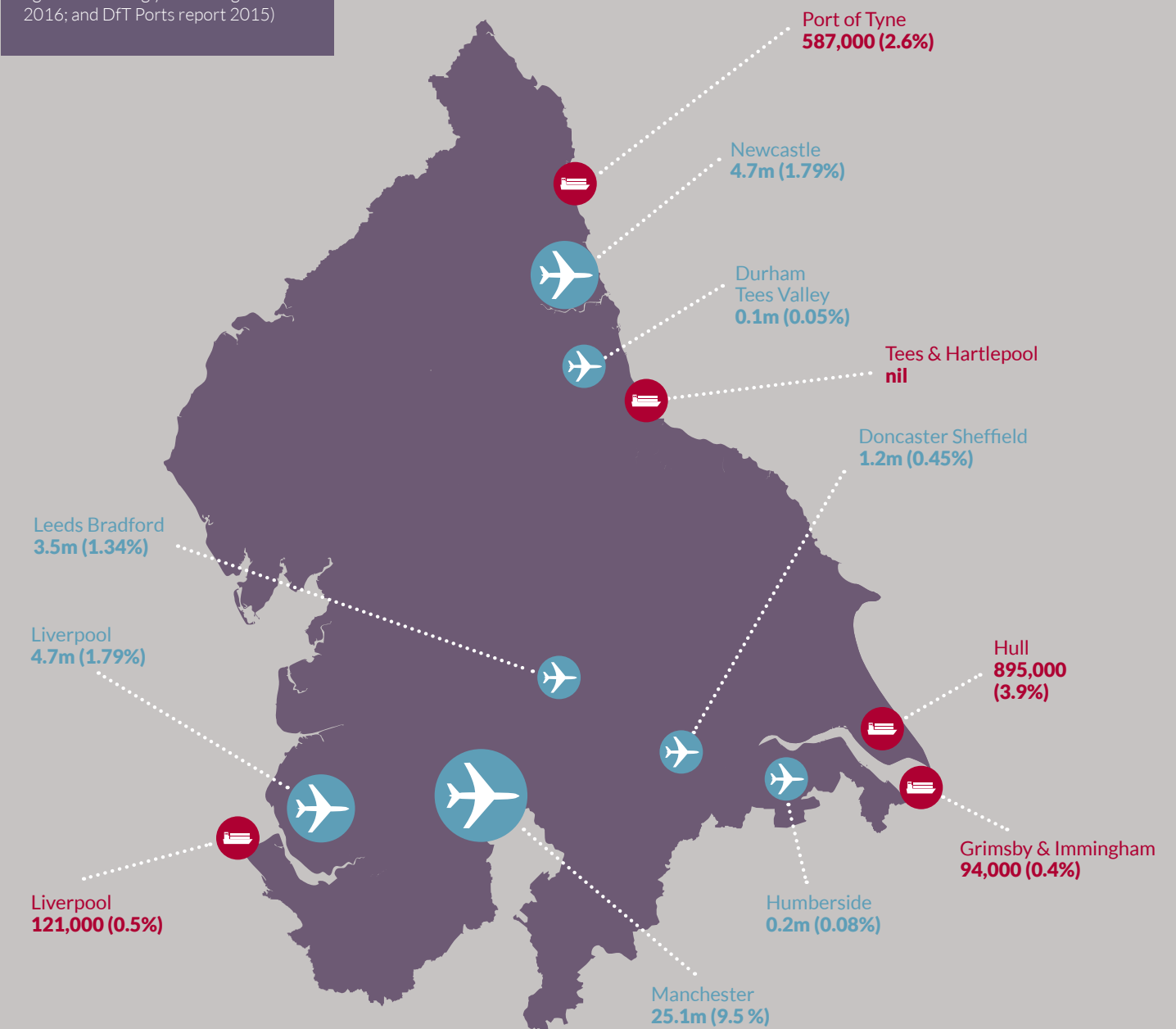
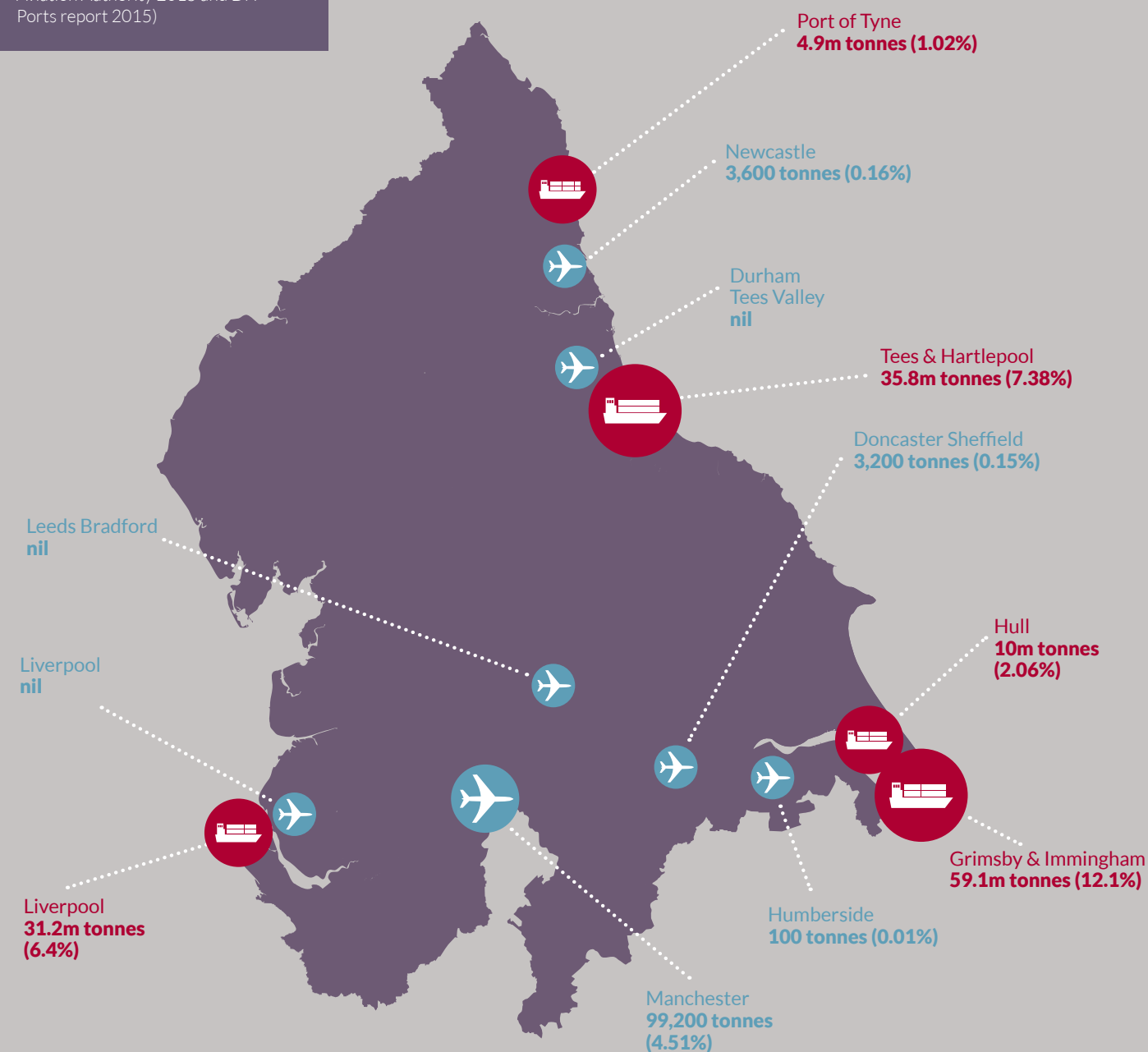


Figure 4: Total international freight per annum and % of airport/port UK totals

(Based on airports figures UK Civil Aviation Authority 2015 and DfT Ports report 2015)



International freight

Whilst shipping plays a relatively limited role in providing international connectivity for passengers in the North, it plays a much more significant role in providing the international connectivity required for the movement of goods.

At the UK level, approximately 33% of freight tonnage uses ports in the North, while just under 480 million tonnes of international freight move through the UK's seaports. In contrast to the heavy volumes of port goods, the volume of high value air freight makes up only a very small percentage of freight to/from the UK (around 2.3 million tonnes of freight). Of this tonnage, some 71% of air freight to/from the UK is flown in the bellyhold of passenger aircraft.

The North has the ability to increase its capacity to move goods. Additional rail freight path requirements were identified within the TfN Freight and Logistics Report⁷ that are broadly in line with Network Rail assumptions from their Freight Market Studies.

However, it will be important for TfN to ensure that the proposals within their Strategic Transport Plan align to the type of transformational forecasting within the NPIER and that infrastructure investments are considered accordingly. TfN has commissioned research into how the carbon impact of moving freight is understood on road and sea routes. This will result in further analysis towards maximising the opportunity to move freight with a reduced carbon footprint. Additionally, short sea shipping routes will be explored to ensure imported and exported goods remain on land-based transport for as little time as possible.

Although carrying lower tonnage than the ports, air freight can be of significant economic value. At the global level, the International Air Transport Association (IATA) reports that air freight could account for around 35% of world trade by value, which demonstrates the vital role which air freight capability can have for industries reliant on transporting high value goods quickly around the globe. Time is the key factor for some goods,



⁷ <http://www.transportforthenorth.com/publications/>

for example fresh food, as they can decay in longer transits. Air is also the main way of moving goods where quantities are small but the customer is willing to pay high prices for timely deliveries.

11% of air freight in the UK was customs cleared (in air freight distribution centres) at an airport in the North. However, only around 4% of air freight was flown from one of the North's airports, with the remainder being trucked to other airports such as Heathrow⁸. Of the 4%, 94% of that small proportion was flown from Manchester. This means that much of the air freight originating in or destined for the North was trucked mainly to airports in the South of England, contributing to the congestion on our roads.

Heathrow carries 65% of all air freight entirely on passenger aircraft. This reflects its dominance of long haul passenger flights, which provide most of the freight carrying capacity. Furthermore, the vast majority of dedicated freighter services operate through specialist facilities at East Midlands and Stansted airports. **A key issue for air freight is the extent to which freight is trucked from the North to be consolidated into viable loads at Heathrow, which is the main centre of freight consolidation in the UK. Increasing the opportunity for air freight in the North would reduce the need to truck goods across the UK and the potential for congestion on North - South motorways.**

There is capability across the North for increased long haul bellyhold freight and airports such as Manchester and Doncaster Sheffield are capable of supporting large freight specific carriers such as the Antonov 225. Freight can be trucked to airports in the North for carriage by air where this offers the cheapest air freight rates. Other than for highly urgent consignments, using integrators such as DHL, UPS or Fedex with hubs at East Midlands and Stansted airports, the relative cost of road transport means that goods are often transported substantial distances by road in order to ensure end to end delivery for the shipper at the lowest possible price.

There are two reasons why most air freight, including that originating in or destined for the North, is flown from Heathrow:

- the scale of the freight market to and from the South East means that it is possible to consolidate larger loads resulting in lower freight rates per tonne; and
- the sheer scale of bellyhold capacity available on the wide range of long haul services means that freight rates are, in the main, cheaper than can be achieved directly from the airports in the North.

This highlights the relationship between the support for passenger services in the North and improved access for air freight, particularly the importance of securing more direct long haul passenger services, with bellyhold capacity for freight. This will increase the ability to see more of the high value, time-sensitive air freight goods shipped to/from the North, enabling businesses in the North to secure the same advantages in terms of speed of goods transport as those in the South.



⁸ Some 153,000 tonnes of air freight were cleared at Northern airports, but only 99,000 tonnes were actually flown in and out of Northern airports. At the same time, only 868,000 tonnes of air freight were cleared at Heathrow Airport, while 1.50 million tonnes were flown in and out of the airport.

3. How does international connectivity support transformational economic growth?

We are clear that improving international connectivity is essential in delivering this transformational and global economic performance. For example, improvements to airport international connectivity can contribute 4% of the required £97 billion increase in economic performance to deliver the transformational scenario, when compared to 'business as usual'. This implies that steps will need to be taken to improve the level of international connectivity over and above that which would be delivered by the market alone. In other words, improved connectivity will need to lead economic change rather than simply reacting to the market in terms of delivering new connections. This point is critical to our overall findings and recommendations to TfN.

Achieving the NPIER's transformational growth requires the North to move forward on a number of fronts, particularly:

- supporting the North's highly productive, internationally regarded assets, such as the four prime and three enabling capabilities identified by the NPIER, comprising advanced manufacturing, energy, health innovation and digital, financial and professional services, logistics and education respectively;
- enabling the supply chain in the North to support these assets;
- encouraging agglomeration with faster connections within key areas of employment;
- improvements in both productivity and a higher employment rate;
- improving the North's position in the global market place through profile raising activity; and
- leveraging the benefits of a higher income population into private and public services.

Improving international connectivity can make a substantial contribution to increasing productivity and supporting effective agglomeration through global proximity. This is particularly important to the North where a set of global capabilities has been identified to drive economic growth. Many of the sectors that will drive growth have a higher dependency on international connectivity and travel than more traditional sectors. International collaborative research and development, led by our universities, will also be critical to securing economic transformation.

The Independent Commission believe that transformation will not be achieved by simply continuing to trade with our traditional partners and markets. A key issue for the North is how to secure innovation and open up new markets, as well as attracting new sources of foreign direct investment FDI. Particularly in the context of Brexit, achieving transformational growth will require businesses to maintain important links to traditional core partners in Europe and North America, but also be able and willing to trade with more distant markets which are forecasted to see growth in trade, FDI and business travel. The Government's Northern Powerhouse Strategy set out the potential of the Northern Powerhouse, stating that *"The Northern Powerhouse will provide fresh opportunities to drive improvements in connectivity and skills throughout the region and strengthen the cross-border economy"*. By increasing the North's international connectivity, we can boost entrepreneurship and encourage businesses and knowledge intensive sectors to enter new markets which are easier to reach.

Both airports and ports in the North support strong trade links with foreign investors across the globe. In light of Brexit, TfN should support clear messages around the global capability of the North's trade links to use as the shop window for the North on the international stage.

New inbound tourism markets will also need to be opened up. Creating the conditions for this to happen will require the cost and ease of global travel to be reduced, particularly to key emerging markets such as China and the Far East, Central Asia, Latin America and Africa. This means that the direct international connectivity offer needs a step change to drive the transformation the Northern economy requires.

Aviation and shipping can play their part in improving the supply chain flow of goods to/from the region and contribute to broader transformational growth for example, freeing road and rail capacity for other users such as commuters and leisure users by reducing the congestion caused by transported goods.

The North will need to do business on a global scale, including trade, inward and outward investment, to deliver transformational growth. Improving international connectivity will be vital to achieving that goal.

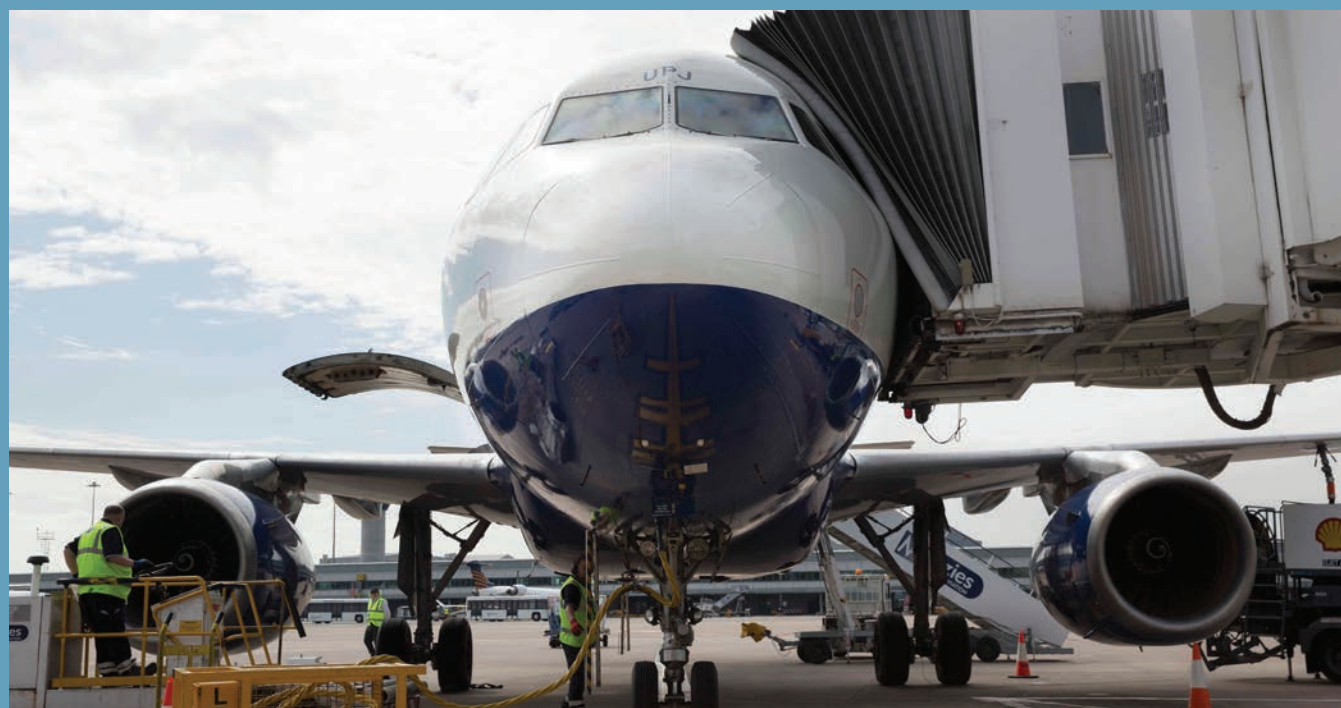
4. Development of international connectivity

We are clear that both airports and ports play a key role in the strategic context of international connectivity to the North. Looking at the volume of international travel that will need to be facilitated if transformational growth is to be achieved, the number of international air passengers travelling to/from the North will need to be some 12 million a year higher by 2050 than it is forecast to deliver on the current economic trajectory, reaching a total of 75 million passengers per annum by 2050, which equates to more than double today's numbers. The size of the market would be similar to that in the South East of England today.

Achieving the targeted transformational growth will require the economic contribution of international connectivity to grow and air connectivity to become more important in future than it is today, reaching £13 billion or 2.1% of GVA. Around £4 billion of the additional transformational growth in annual GVA required would be at risk if we do not deliver improved international connectivity.

This ambitious but critical aspiration for transformational economic growth can only be achieved by making it easier and quicker for passengers and freight to travel to and from the North. This will mean increasing the number of destinations which can be reached directly from one of the region's airports and improving surface access to the key ports and airports. This will ensure that the capacity of the North's international connections is exploited for the benefit of the wider economy.

Importantly, within this growth, diversifying our markets will not only include traditional trading partners in Europe and the USA. It is vital that the North accesses wider global markets such as China, the Indian sub-continent and Latin America by connecting directly with them, which will require a step change in availability in long haul air passenger travel. By 2050, long haul travel is expected to make up 36% of the total air travel market to/from the North compared to 25% today, which would be of equivalent economic significance for the North as the economic uplift that the third runway at Heathrow will deliver⁹. This change in the focus of the market has been given greater emphasis by the imperative to adapt to changes in international markets post-Brexit and embrace opportunities to deliver the transformational economic scenario.



⁹ Based on 2015 CAA data

Delivering the required improvement to connectivity, in terms of lower journey times and costs, will require a substantial increase in the proportion of the long haul market able to fly directly from the North's airports; as well as improved efficiency of access to its ports. The change required is significant, moving from today's 50% of the long haul passenger market using airports in the North, to 90% of a larger market using them by 2050.

Improved connectivity as a driver of trade and productivity – cost of doing business

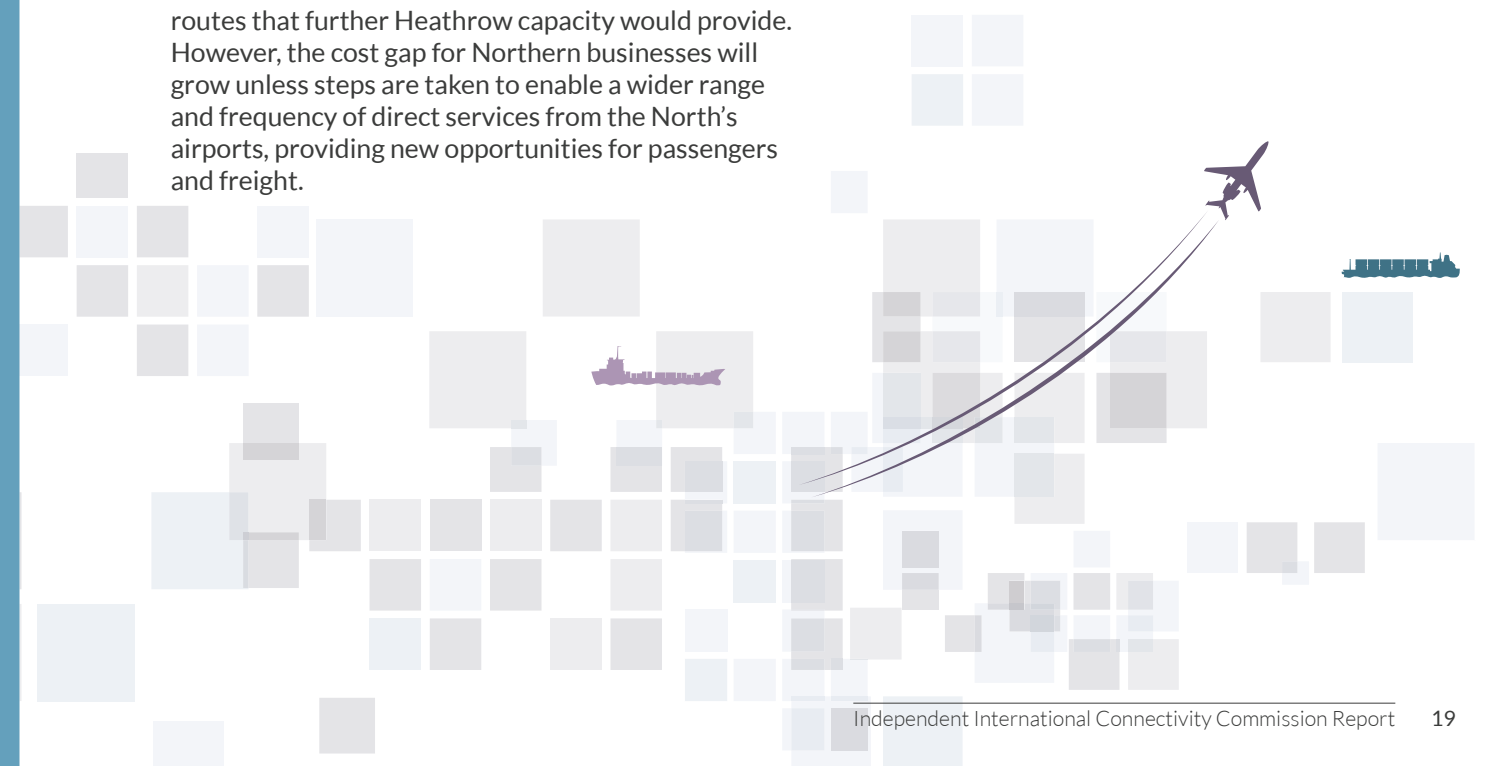
Why does improved connectivity matter?

The current level of connections facilitates 'business and usual', but the lack of quality connections to many countries acts as a deterrent to the opening up of new markets. Improving the connectivity of both ports and airports will deliver growth and productivity benefits as part of a transformed transport network.

Despite there being available capacity at the North's airports, the reliance on the London airports and hub connections increases the cost of travel and impacts on productivity for businesses in the region compared to those in the South of England. The relative disparity of trading and investment costs between the North and the South becomes a larger gap, impacting productivity and competitiveness for businesses in the North and limiting the attractiveness for inward investment. We welcome the additional Northern routes that further Heathrow capacity would provide. However, the cost gap for Northern businesses will grow unless steps are taken to enable a wider range and frequency of direct services from the North's airports, providing new opportunities for passengers and freight.

The use of hub airports to connect to global flights will continue to play a key role where the demand from the North to travel to certain destinations is too small to support direct connections or where a flight via a hub offers the quickest and cheapest option. A key priority is to increase the range and frequency of destinations served directly from the main airports across the North over time in order to reduce the travel time and costs for the region's businesses.

In a commercially led market, such as air transport, airlines typically respond to markets when deciding whether to initiate new routes or increase the frequency of service, responding to demand that already exists rather than using flights to stimulate demand. Increasing levels of demand, or making larger pools of demand available to the North's airports through improved surface access, would result in airlines being more willing to initiate new routes and increase frequencies on existing routes. This is inherently the same for ports. Securing improved connectivity as a driver for economic growth will require the conditions to be created which effectively extend the market or lower the costs to an airline or port of operating, making more routes and higher frequencies of service viable. Improving access to airports and ports is a key tool towards achieving this and will have the benefit of also ensuring that more of the North is within easy access to the main airports and able to benefit from their proximity, allowing greater FDI and increasing trading opportunities.



Airports and Sea Ports as Economic Clusters

Over and above their role in providing vital connectivity, airports and ports are important economic clusters, delivering local jobs and GVA outside of their wider connectivity impact. Our airports provide over 30,000 full-time equivalent jobs, including air crew and aviation support activities on-site. The GVA value of this employment is of the order of £1.33 billion, reflecting the relatively higher value of aviation related jobs. The number of jobs supported and value added across the region as a whole is more than double when the aviation supply chain is taken into account. This is a significant contribution in its own right. This also doesn't include the much wider employment benefits that happen around airports as a result of the clustering effect.

Realising the connectivity potential of our airports will see passenger numbers grow considerably – around 2½ times by 2050 with transformational economic growth. Employment at the airports is likely to double, with an equivalent increase in GVA, which in itself will make a contribution towards achieving transformational economic growth.

By acting as regional growth magnets, airports can use land around their core facilities to support the attraction of other activities which value proximity to an airport or seek to benefit from the high quality surface access links. Examples of this include the development of 'Airport City' at Manchester, which offers 5 million square feet of business, manufacturing and logistic facilities to attract global inward investment; and Great Yorkshire Way in the Sheffield City Region, which includes the airport, specialist manufacturing and aviation businesses, as well as logistical hubs such as Amazon UK.

Airports have the potential to position themselves as linchpins for a wider economic hubs, supporting the attraction of FDI. This may be through focusing on activities related to the core business, such as logistics or aircraft maintenance, or may be through more general business park activities, allowing companies to benefit from locating immediately adjacent to an airport. These clusters can add significant economic value locally. Income from such developments can help airports enhance their facilities and services to assist in delivering core growth in connectivity. This is



typically acknowledged locally through the planning system, for example by granting approval for the use of land adjacent to airports for a broad range of economic uses, to ensure that the benefits can be realised.

The TfN Freight and Logistics Report was published in September 2016. It was the first time that a pan-northern view was taken of the Freight and Logistics Sector. TfN is now working on a more detailed programme of work to begin to distil key strategic opportunities for investment that will support the growth of the economy as outlined in the NPIER. This investment will be delivered by both the public and private sectors both separately and in partnership.

The opportunity for clustering activity around sea ports in the North and the agglomeration benefits this generates are important. The Humber has generated a wealth of knowledge within Offshore Wind Power Generation and food processing – both of which developed due to proximity to ports. Teesport has a logistical hub for the North East of England Process Industry Cluster. There are many specialist industries operating in the cluster including refining, petrochemicals, speciality and fine chemicals, plastics, biotechnology and pharmaceuticals. The Port of Tyne is the second largest car port in the UK, supported by Nissan investments in the automotive industry. The warehousing that has developed along the M62 is a direct result of investment in Liverpool Port alongside the growth in fulfilment activity following the ever increasing consumer demand for same and next day delivery.

Port connectivity gives the North a truly global reach for goods and materials. TfN has commissioned further work to truly understand the reach of this opportunity. The Independent Commission has recommended that TfN further develop its understanding of future growth and demand forecasts for ports.

5. Delivering global connectivity

How can this uplift in global connectivity best be achieved?

The increased global connectivity required will need to be provided by a range of improvements, including greater connectivity to all Northern airports and ports as global gateways to create economic clusters around airports and ports; and the exploitation of the shipping and freight potential of the North.

Realising the full potential of Northern Airports as Gateways

Of the total passengers in the North currently, around 50% of long haul passengers to/from the North travel via the London airports or other European hubs to reach their destinations. This simply adds to travel time and costs and reduces business productivity and makes the North a less competitive region than competitors such as Catalonia and Bavaria, where the main regional airports have developed a greater range of global connections, underpinned by airline hubs.

As set out by the The 'One Agenda, One Economy, One North' Report, achieving transformational growth across the full Northern Powerhouse geographical area requires us to exploit the potential for improved international connectivity across all of our international airports. Delivering improved connectivity is potentially a significant lever to entrepreneurship, supporting business and driving the visitor economy.

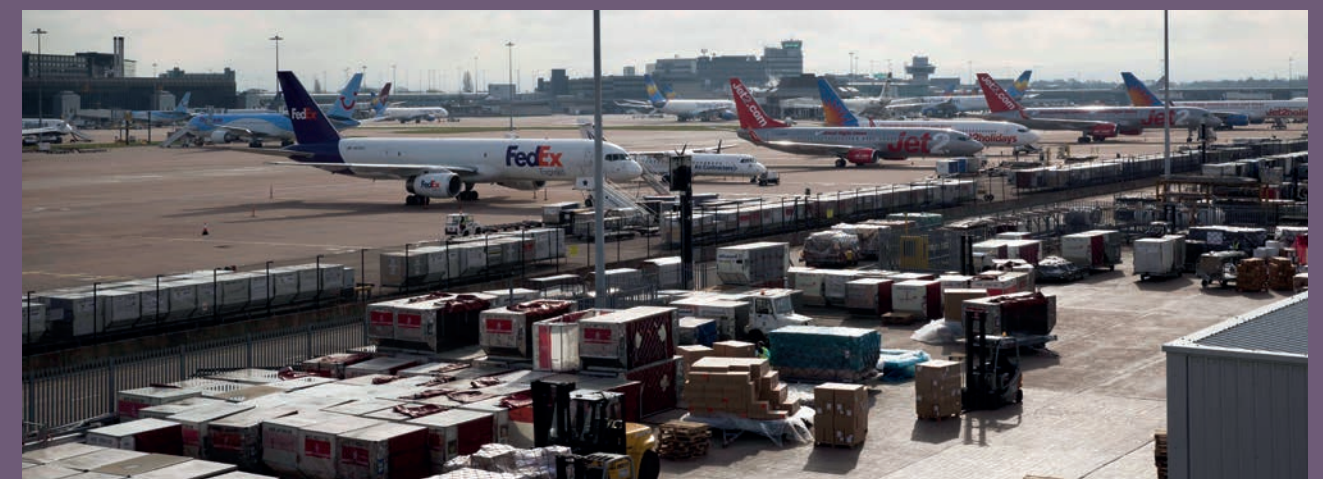
Manchester as a Global Air Gateway

Manchester handles the highest volume of passengers (25.1m per year) and air freight (103,000 tonnes

per year) in the North, with it offering a 94% share of direct long haul passengers (i.e. those not using Heathrow or European hubs) travelling to/from the North today. Manchester has potential to significantly drive the aggregate level of improved global connectivity, through both new route options and better access to existing long haul routes.

Manchester currently serves an area with the highest levels of international demand in the North. The North West has a higher propensity to fly both for business and leisure purposes than much of the rest of the North. By this, we mean the general economics of the demographic result from a higher demand for international travel. Some 27% of international business related air travel originates in or is destined for Greater Manchester today (23% of all international demand, including leisure passengers). Overall, Manchester Airport's immediate catchment area (Greater Manchester; Cheshire and Warrington) accounts for 40% of business related air travel demand across the whole of the North.

A key aim should be to deepen these international links and spread the area of influence more widely through improving surface connectivity to this key global gateway. Improving surface connectivity will allow more access to existing long haul routes and increase demand for both business and leisure connections to this gateway. In turn, a denser demand base would enable airlines to operate routes at higher frequencies of service to facilitate critical day return trips to European cities. Hence, supporting Manchester to grow its route network and expand its frequency of service will be an important part of the international connectivity proposition for the North as a whole.



Manchester Airport international connectivity

By 2050, Manchester will need to provide a route network to a much wider range of global destinations and carry a similar number of local passengers (excluding connecting passengers) to long haul destinations as Heathrow does today to provide the underpinning support to economic transformation.

Through its analysis and stakeholder engagement, the Commission assessed what new routes from each airport could be delivered to provide the global connectivity required to support economic transformation. Figure 5 sets out the potential new and existing long haul routes (both business and leisure) we would look for Manchester to have regular services to by 2050, under the transformational scenario, provided that we are able to create the conditions to attract the airlines to put on new services, primarily through improved surface access links. Manchester provides significant direct connections at present (i.e. the second highest frequency flights between Europe and the Middle East), and we would expect the reliance on other long haul hubs to lessen over time, as more direct routes become available. Other long haul connections from Manchester, such as Denver, Dallas, Seoul, Durban, Lagos and Sao Paulo may be served at a lower frequency also.

We also expect additional connections to Europe which are not mapped on Figure 5.

This will improve the quality and efficiency of access to the North, reducing the costs and time constraints to business, as well as access for the local population, visitors and freight. We would expect an expansion of the European network in parallel, notwithstanding the emphasis on global growth.



Figure 5: Map to show high frequency long haul international connections (5 per week minimum) through new and existing routes to/ from Manchester Airport under the transformational scenario by 2050

Manchester								
Abu Dhabi	Beirut	Chicago	Guangzhou	Johannesburg	Manila	Muscat	San Francisco	Tokyo
Atlanta	Boston	Colombo	Hong Kong	Kuala Lumpur	Mauritius	New York	Shanghai	Toronto
Auckland	Calgary	Delhi	Houston	Lahore	Melbourne	Philadelphia	Singapore	Vancouver
Bangkok	Cape Town	Doha	Islamabad	Las Vegas	Miami	Rio De Janeiro	Sydney	Washington DC
Beijing	Charlotte	Dubai	Jeddah	Los Angeles	Mumbai	Riyadh	Tel Aviv	

Achieving this will require Manchester's catchment area to be extended to bring more areas to within two hours' travel time of the airport, largely through improved strategic surface access links. These include Northern Powerhouse Rail; significant road journey time improvements between Manchester, Sheffield and Leeds; and links to HS2 and the West Coast Mainline. This will reduce surface access times by 30 minutes or more across the North, increasing demand within the current catchment area, and so making it viable and attractive to the airlines to operate a broader range of routes.

This will also widen Manchester Airport's catchment area, cementing the role which the airport plays in providing global connectivity to a wider region and ensuring that the benefits of being close to a major global gateway airport are shared more widely across the North, enabling more of the region to benefit from the global connectivity which Manchester offers.

Increasing and improving ground transport links will allow Manchester to significantly improve its long haul route network, increasing global connections to China, the Far East, the Indian sub-continent, Latin America as well as the USA and Canada.



Newcastle Airport international connectivity

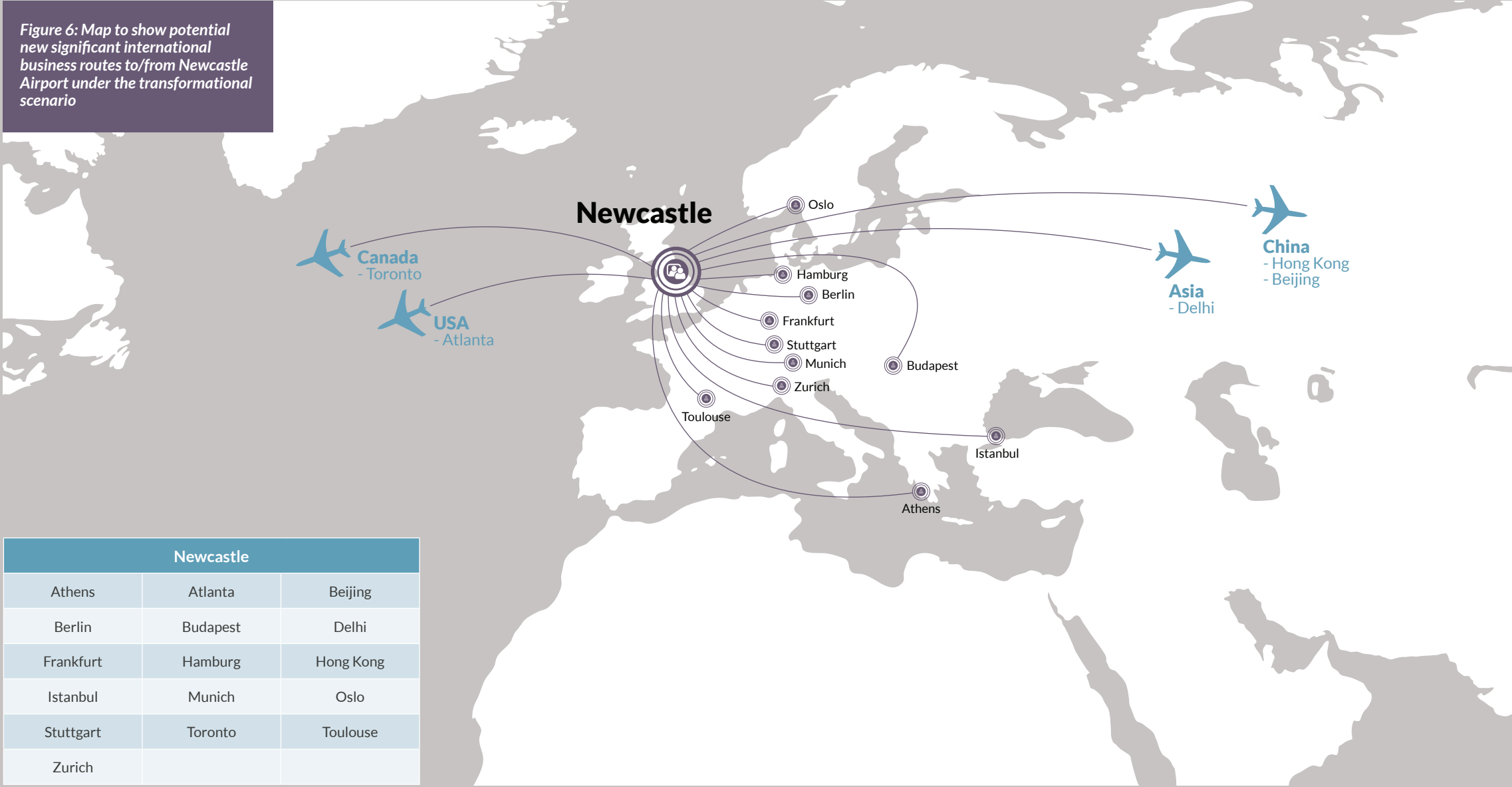
Newcastle: a key part of the North's connectivity offer

Given the distance of the North East to other Northern airports, even with surface access improvements, journey times of over two hours and passenger leakage from the North to airports in Scotland and the South of England are likely. Newcastle Airport, with its distinct catchment area therefore has a particularly important role within the North's wider offer in providing international connectivity for businesses/entrepreneurs based in the North-East, Cumbria and Southern Scotland, as well as for potential inward investors and inbound visitors/outbound tourists.

Newcastle already provides global access via Dubai and has previously had a service to New York.

We would expect Newcastle to expand its European and global network, with the potential to add services to destinations such as those shown on the map over the period to 2050, as well as expanding its range of leisure routes. Figure 6 sets out new significant international business routes we would look for Newcastle to have regular services to, by 2050, under the transformational scenario. For an area such as the North East, hub connections like Heathrow are also likely to remain important to provide a broader range of international connectivity without lengthy surface access journeys.

To achieve this growth Newcastle will need improvements to the A696 and associated junctions that connect it to the A1, regional rail access with an improved interchange at Newcastle Central Station and improvements to the existing Metro network and its rolling stock.



Pan-Northern airports’ international connectivity



Hence, there is a particular role for the airports in serving their local city regions, in relation to providing enhanced international connectivity focusing on the needs of their local areas, particularly in allowing day return business trips to key European cities, as well as a broader function to act as growth nodes as part of LEP level strategic growth priorities.

The airports at Leeds Bradford, Liverpool and Doncaster Sheffield also have potential to develop some long haul connections, principally to hubs in the USA and Middle East, over the period to 2050. Competition between these airports and catchment area overlap may mean that not all of the routes are realised at all of the airports but this will be a market-led response. These airports have the potential to gain key routes to enhance the range and frequency of connections to leisure destinations. In this way, they can support connectivity for both business and the visitor economy.

These airports will also need improvements to their surface access, not least to ensure that they remain competitive within their local catchment areas. Liverpool seeks improved rail connections via Liverpool South Parkway, with a direct rail link a longer term prospect. An eastern link road is also required to provide improved access to the M62. For Leeds Bradford, the priority is the development of a parkway station on the Leeds to Harrogate line and improved road connections to the Leeds ring road. Road access to Doncaster Sheffield has been substantially improved through the Great Yorkshire Way link. As growth opportunities develop, a direct rail connection would be beneficial to stimulate this potential.

Doncaster Sheffield		Leeds Bradford		Liverpool	
Barcelona	Dusseldorf	Athens	Knock	Abu Dhabi or Dubai	Milan
Brussels	Frankfurt	Berlin	Madrid	Basel	Munich
Budapest	Geneva	Brussels	Milan	Brussels	New York
Copenhagen	Leipzig	Chicago	New York	Budapest	Oslo
Delhi or Mumbai	Munich	Copenhagen	Oslo	Copenhagen	Philadelphia or Boston
Dubai or Abu Dhabi	Nice	Cork	Stockholm	Dusseldorf	Rome
Dublin	Prague	Dubai	Shannon	Frankfurt	Stockholm
		Frankfurt	Vienna	Helsinki	Toronto
		Istanbul	Warsaw	Istanbul	
		Hong Kong	Zurich		
		Keflavik			

Regional airports delivering vital connectivity

Having easy access to airports regionally is important for businesses across the North, enabling them to trade more easily and open up new markets. Enabling the main airports in the North to develop their route networks is important alongside facilitating the expansion of global connectivity which Manchester and, to a lesser extent, Newcastle can offer. Whilst the catchment areas of the pan-Northern airports overlap to a greater or lesser degree with Manchester’s, the local connectivity that they can bring is highly valued at a more local level.

¹⁰ Subject to completion of works to its runway.

Figure 7 sets out the new significant international business routes we would look for these airports to have by 2050, under the transformational scenario. We would not expect all routes to be served from all airports but they indicate the range of additional destinations which might be served from at least one of the airports.

Further to the key international airports in the North, local airports such as Durham Tees Valley, Humberside and Carlisle¹⁰ could potentially develop some leisure-focused services. The services offered by these airports are valued locally and activity at the airports can deliver local employment benefits.

Air freight

A key message emerging from TfN's work on freight and logistics is the importance of making freight movements more efficient across the North. Data regarding air freight leakage from the North is currently limited and TfN should further develop its understanding of air freight connections in order to identify opportunities for efficiency improvements.

First of all, securing more bellyhold capacity through the development of the long haul route networks at the North's airports, as discussed earlier, is important to ensure that more of the air freight originating in or destined for the North can be flown to/from the region's airports. In turn, the availability of more cargo to be flown from the North, drawing on the exploitation of the core economic capabilities identified by the NPIER, would enhance the viability of these global air services so ensuring that more routes are operated and at a higher frequency. However, benefits arising for air freight are likely to be a by-product of new services, with airline decision making remaining driven by passenger potential.

Further work should be completed to understand the regulatory environment for air freight, which dictates operators' requirements for night flights to transport goods. Any development to expand dedicated freight capabilities will require interaction with the wider community and regulators to ensure full sustainability and agreement of opportunities.



The development of logistics hubs in the North, as outlined in the Freight and Logistics Report, would also contribute to improving efficiency and minimising the leakage of freight to ports and airports in the South by encouraging consolidation within the region.

Exploiting the international connectivity potential of ports for shipping and freight

The Northern ports contribute nearly 20% of the GVA from freight and logistics in the UK. The estimated GVA added by the operation of sea ports, including their supply chain and induced impacts through the economy, is around £4.4 billion¹¹. There are high value industries making significant contributions in manufacturing, wholesale and retail which depend on international freight and logistics.

Northern ports benefit from good connectivity to the rest of the world utilising short sea shipping routes and maximising the reach of the North. For example, the opening of the major development at Liverpool 2 grows the port's ability to handle 97% of the world's shipping. There is strong international connectivity with the North's Eastern ports specialising in short sea shipping routes into Europe. There is also strong growth in roll on roll-off (RORO) activity. This opens up markets to the North, which in turn presents a challenge to match the road and rail infrastructure to utilise the opportunity.

In September 2016 Peel Ports, ABP Humber, Tees Port and Port of Tyne signed a memorandum of understanding to the Northern Ports Association. This body has committed to working together for better East-West connectivity across the Pennines to enhance freight connectivity from the key ports in the North.

The North has the largest deep water port opportunity yet to be developed at the ABLE site on the River Humber. Already, the Port of Grimsby is growing new industries in off-shore wind operations and maintenance, generating more employment opportunities in the North. The Port of Tyne serves the car industry as the second largest car port in the UK, which supports a strong automotive industry.



Biomass represents a significant market for the Northern ports, with Port of Tyne, Liverpool and Immingham handling large volumes to support Drax, which generates 8% of the UK's electricity. Teesport's Process Industry Cluster requires large quantities of bulk cargo. This equates to around 70% of the cargo used in the port, due to the specialised nature of the industries and the large bulk materials that are required. Liverpool 2 has recently seen significant private sector-led investment in the container terminals. The port used to be able to handle just over 3% of the world's ships due to constraints in handling ship sizes. It can now handle up to 97%.

To see the Northern ports' opportunities maximised, there needs to be strong connectivity to and from them via the strategic road network. This is achievable in many cases, but the 'last mile' into the port often suffers from congestion, resulting in infrastructure improvements being needed – such as Hull and Castle

Street. This last mile of freight journey often dictates whether the cargo will meet its interchange with another mode of transport, thus affecting the efficient running of the port operation.

The Northern and Southern ports (accessed by the English Channel) handled the same proportion of tonnage in 2015 (33% each). A key aim of Northern ports is to see the development of an east-west 'super corridor', making the North a linchpin for the movement of freight from North America to/from Europe. This will require TfN to add value by working to improve the infrastructure surrounding the Northern ports themselves and to ensure they are fully connected to the strategic transpennine road and rail links. There are opportunities for the development of a chain of multi-modal logistics parks adding value to the distribution chain. In this way, connectivity for freight will be leveraged to add significant value to the Northern economy.

¹¹ Oxford Economics May 2015.

6. The visitor economy

At least 11% of overseas visitors to the North enter through an airport outside of the region and Northern ports currently handle only 6% of all UK ferry passengers. Improved connectivity would allow more tourists to travel directly to the North, increasing the likelihood of them spending more time in the region.

The strength of the tourist offer in the North with five national parks, five core cities, major historic towns and centres and major sporting venues, means that, with improved connectivity, the number of tourist visits could be greatly increased. New routes that support the needs of business can also generate new opportunities for inbound tourism.

This will require investment in the tourism industry, particularly in terms of the development of easy and accessible transport connections to enable visitors arriving at one of the Northern gateways to access attractions across the region. In this way,

the benefits of improved international connectivity can be leveraged into the tourism sector. It will also require stronger promotional activities to distinguish the offer in the North of England from the London centric UK offer. Examples of promotional activities underway include the collaboration of the Northern Destination Marketing Organisations, supported by Discover England, to develop a joint offer.

In turn, increased tourist flows will help to improve the viability of the new air and sea route opportunities by increasing demand for inbound visits, helping to create a virtuous circle of growth to support the achievement of economic transformation. The importance of tourism as a quality of life indicator is high on the NPIER agenda and tourism itself is a significant contributor to GVA growth. An important theme is the linkage between a vibrant tourism sector and the attractiveness of the region as a place to live and work.



7. Sustainability and quality of life



For most of this report, we have focused on international connectivity for passengers and freight as a means of improving the prospects for businesses based in the North, enabling them to exploit new markets driven by the region's core capabilities and to deliver improved productivity and growth. This is the most significant economic contribution made by international connectivity. But by transforming economic performance, more people will also experience the high quality built and environmental assets of the North.

Improving international connectivity in the Northern Powerhouse also plays an important role in the quality of life in the region, making a more attractive place to live and work through ensuring that residents have the ability to travel easily and conveniently. The results of increased international connectivity are not restricted solely to the North, they are symbiotic with national developments and its benefits will be felt across the UK.

Reducing road and rail congestion

Improving the international connectivity offered by the region's ports and airports will help to reduce long surface access journeys to use facilities located in the South of England, thereby reducing congestion on the road and rail network. In 2014, there were 2 million air passenger journeys made to the London airports for which travellers use surface transport from the North. Enabling more services to be offered from the North's airports would reduce the necessity for these journeys and relieve the environmental and social impacts of concentrating national international connectivity and the necessary ground infrastructure in Southern England.

Attracting and retaining labour

A key issue for achieving transformational growth is delivering improved productivity. Although we have focused on improved international connectivity as a means of encouraging business and trade growth in the North, improved connectivity helps to attract and retain skilled labour in the region. This will in turn increase prosperity in the North, adding to the transformational growth required, as well as also having a positive impact on broader national and local demands such as tax and the social welfare system.

Our educational institutions have an important role to play in developing a pool of skilled labour and our universities, in particular, are highly dependent on the flow of overseas students, for whom international connectivity is key. Of particular importance are links to home for skilled migrant workers as well as the opportunities for leisure travel as a contributor to quality of life and productivity in helping to ensure that the North is an attractive place to live and work.

Improving the international connectivity offer will enable businesses in the North to attract skilled workers from across a broader pool of talent. The new air routes and services which we envisage will add greatly to the ability to travel for the North's citizens, as well as those travelling from other parts of the UK and internationally.

8. Recommendations

Airports and ports in the UK, as well as the provision of air and sea services, are largely run by the private sector, so, to a large extent, improved international connectivity is for the private sector to deliver on commercial terms. Our airports and ports have latent capacity which can be exploited to the benefit of the economy as a whole and we would expect their owners to respond to growth by further investment in core facilities.

The Commission sees it very much as the role of the private sector to deliver improved capacity at our airports and ports, and for airlines and shipping lines to deliver the required improvements in international connectivity. The role for the public sector is in creating the market conditions which allow these improvements to be delivered. This is particularly so given that achieving transformational economic growth will require connectivity to lead rather than follow growth in the demand for travel, at least to a greater extent than today. The Commission recognises that this will not be delivered without pulling on all the levers for growth, including improved connectivity.

Figure 8: Diagram to indicate the recommended interventions and their affect on capacity supply and demand



The role for the public sector is to work with the private sector, particularly to ensure that the right surface access is in place and the conditions for the industry to thrive and deliver the required growth are created. The Commission believes that, if implemented, the recommendations in this report will create the necessary platform for the private sector to deliver and enable the North to leverage the economic benefit from improved international connections.

Examples of infrastructure developments delivered in this manner include upgrades to the Tees Valley - Darlington rail line through partnership of PD Ports and national and local Government. Other infrastructure expected to be delivered by 2017 through private and public support include the construction of the second River Mersey crossing; the Manchester Airport relief road; and the new Wear Bridge and approach roads as part of the Sunderland Strategic Corridor.

Delivering improved international air connectivity and the sustainability of this improvement requires a large reduction in the real cost and time¹² of using the North's airports compared to the alternatives; by up to 31% for long haul passengers travelling globally and by up to 16% for passengers travelling to Europe compared to today. In the first instance, improved surface access will reduce journey times so extending the size of the catchment area market which each airport can serve which therefore makes more services viable. In turn, this will lower the cost of travelling to/from the North and contribute to productivity growth, so reducing dependence on the London airports and the southern ports.

The same fundamental drivers apply to the port sector and to international freight transport. We believe the North's aim for global connectivity should be to create a virtuous circle whereby airlines and ship operators are attracted to operate new services and higher frequencies of service, leading to lower air fares and reduced overall journey times. The aim is to create the conditions where achieving improved international connectivity and transformational economic growth are mutually supportive as illustrated below.

Recommended joint actions for the TfN Partnership and industry

Our report has shown that there are no easy fixes for improved global connections in the North, but has highlighted that there is a range of strategic opportunities which have a very real potential to create an aggregated uplift in performance, resulting in enhanced connectivity and improved market conditions. We believe if the Northern Partners pursue the recommendations below and are appropriately supported by Government, there will be a nationally significant benefit.



The Commission recommends the following actions:

Significantly improve surface access to the North's airports

- Fundamentally, creating the right conditions for the North's airports to deliver improved international connectivity is all about ensuring that they can draw on the widest possible catchment area, so making it attractive for airlines to expand global connections.
- Manchester Airport plays an important role in delivering global connectivity. In order to extend the catchment area within two hours surface journey of Manchester Airport, so enabling it to support more strategically important long haul services, the Airport needs to be linked directly into the Northern Powerhouse Rail, HS2 and the West Coast Mainline. Significant road journey time improvements are required between Manchester, Sheffield and Leeds; as well as improved road and rail journey times to Lancashire, Cumbria and Cheshire; and improvements to cross Northern boundary access to Wales and the Midlands. In this way, the benefits of proximity to the services offered to/from Manchester can be spread more widely across the North, acting as a springboard to economic growth.

¹²The reduction of generalised costs which can come about through, inter alia, reduced surface access time/cost, reduced air fares and higher frequencies of service.

- Newcastle Airport needs to expand its catchment area through local road links and connections to the strategic highway network (including improvements to the A696 and the associated junctions that connect it to the A1), regional rail access (with improved interchange at Newcastle Central Station) and improvements to the existing Metro network and its rolling stock.
- TfN should support LEPs to pursue improved surface access to other key international connectivity hubs across the North. This should include 'last mile connections' to the main ports, improved rail connections to Doncaster Sheffield, Leeds Bradford, and Liverpool Airports, improved road connections to Liverpool and Leeds Bradford Airports and improved links into the strategic highway network. It is also important to recognise the importance that these airports play as regional centres and growth clusters and the respective infrastructure that supports surface access also plays a wider role in supporting the growth of business and services around the airports.

Significantly improve surface access to the North's ports

- TfN should further develop its understanding of sea freight and passenger connections, including its catchment areas and mechanisms for expanding these. This work should develop an understanding of future growth and demand forecasts for Northern port capacity and sea routes.
- Improvements to the capacity and resilience of surface access to the North's ports are vital. Interventions should be sought to reduce journey times (of passenger and freight) to and from ports through access such as the A63 Castle Street in Hull and the A5036 access to the Port of Liverpool.
- TfN should clearly present a plan for landside activity supporting the global potential for ports, with particular consideration of transport access.

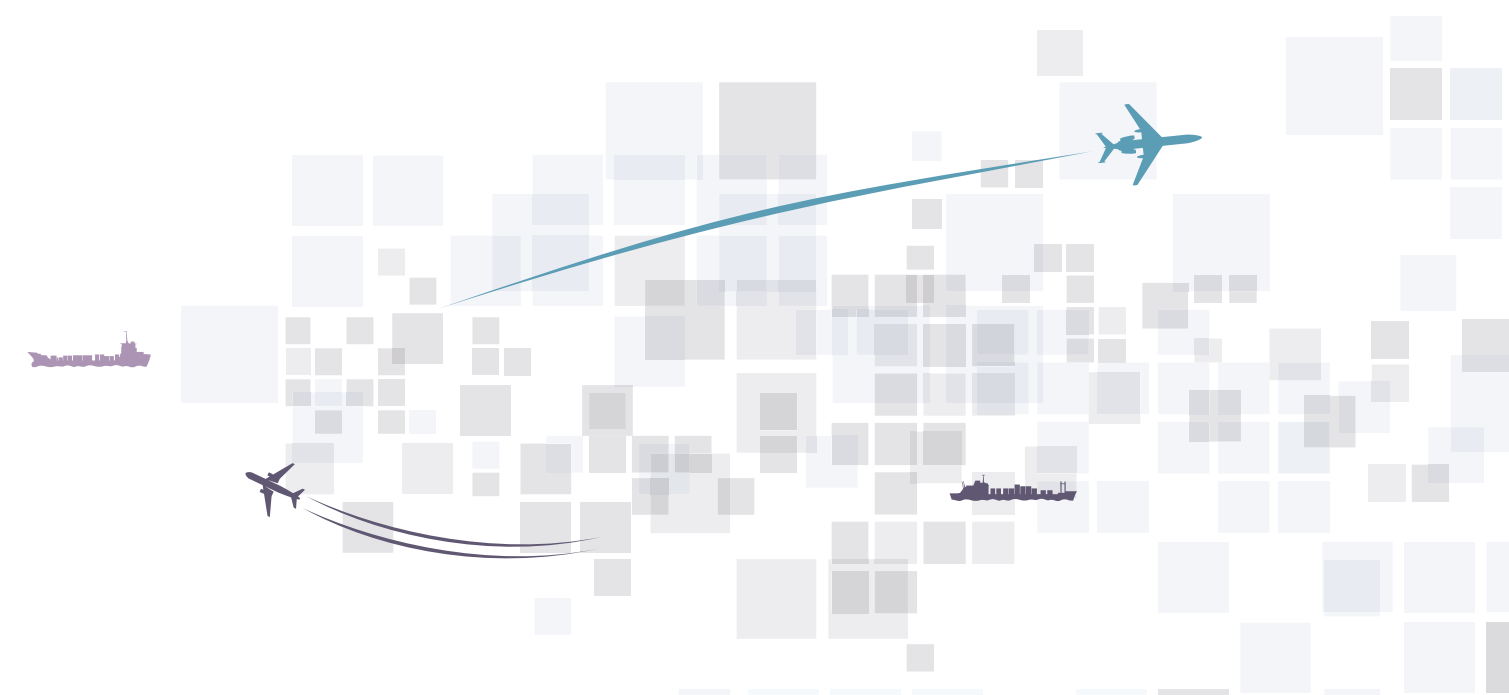


Support air route development (Team North)

- Following the successful model in Scotland, there are benefits in a coordinated regional approach to encouraging airlines to develop new strategic air routes to deliver economic benefit. There is potentially a key role for TfN in coordinating activity with airports to develop new strategically important air routes. This would include:
 - marketing the North to airlines, including attendance at key route development events
 - encouraging businesses to fly directly from their local or regional airports
 - marketing support/destination marketing to promote new services (subject to future rules on state aid to airlines)
 - promoting the North as a place to invest, working with local business to develop new trading links based around the air connectivity offer
 - promoting the North as a tourist destination and coordinating the tourism product.
- These activities are additional to LEP level activity which already takes place to support a particular airport and should be focused to pan-Northern activity.

Air passenger duty (APD)

- Currently, airlines earn less revenue per passenger on routes from the North of England compared to the South. The effect of APD is to reduce the money they can earn still further. Whereas, the higher revenues earned at the London airports give the airlines some cushion in terms of absorbing the cost of APD, the high cost of the tax is a deterrent to airlines starting new routes from the North, particularly to long haul destinations. Hence, airlines are more likely to start such routes from airports in other European countries where the tax burden is much lower.
- The effect of the tax is making the North's airports uncompetitive in terms of attracting new air services. The situation will be made worse if the planned reduction in APD goes ahead in Scotland. There is a risk to routes from Newcastle Airport in particular, and Manchester is at further risk of losing out in the race to attract new global air services. APD can also be a deterrent to the development of new European services from airports across the North.
- TfN should work with the Government to find a solution which reduces the burden of APD in the North as part of a package to promote the competitiveness of the North.



Planning and capacity

- The scale of growth envisaged for our airports means that many of them will require improvements to their infrastructure in the medium to long term, either to add terminal capacity or to enhance the capability to handle long haul services. Whilst delivering these improvements will be for the private sector, expanding airport capacity can often be controversial and there is a role for TfN and the North's business community, to highlight the important role of ports and airports, in delivering vital connectivity to support economic growth.
- Airport growth clusters also play an important part in delivering economic benefit at the local level through the businesses they can attract to locate within them. There is a role for LEPs in supporting the use of land in the vicinity of airports for employment and value creating activities.

Developing market intelligence

- Our research has identified the limitations in market information available about international freight movements to and from the North. To a lesser extent, the information about how tourists travel around the North is limited. TfN should consider how to address these data gaps to ensure that the work of 'Team North' is fully effective.
- The vote to leave the EU presents new opportunities and challenges, in particular to maintain and take advantage of openness to trade, investment, and competition. The North's economy will need to adjust to build new relationships with the EU and the rest of the world, in order to attract sources of FDI. To this end, TfN should work in partnership with the public sector, including Local enterprise Partnerships and Government departments such as International Trade and Foreign Commonwealth Office.

- TfN should work in partnership with the private sector to improve the understanding of how passengers and freight travel globally to/from the North.

The global opportunities for freight and logistics

- The North has a naturally competitive advantage for its ports and use of rail connectivity for national freight movements as well as some clear opportunities around potential increased sea freight and air freight through the development of an East-West 'super corridor' linked to a series of multimodal logistics hubs.
- Coordinated activity focused on supporting the potential of the four main Northern Sea Ports should be a prominent feature of the TfN Strategic Transport Plan.
- Clear consideration of air freight opportunities should be explored.
- TfN should work closely with the freight and logistics market to marry policy aspirations with commercial practicalities to ensure success.

Figure 9: Independent International Connectivity Commission recommendations

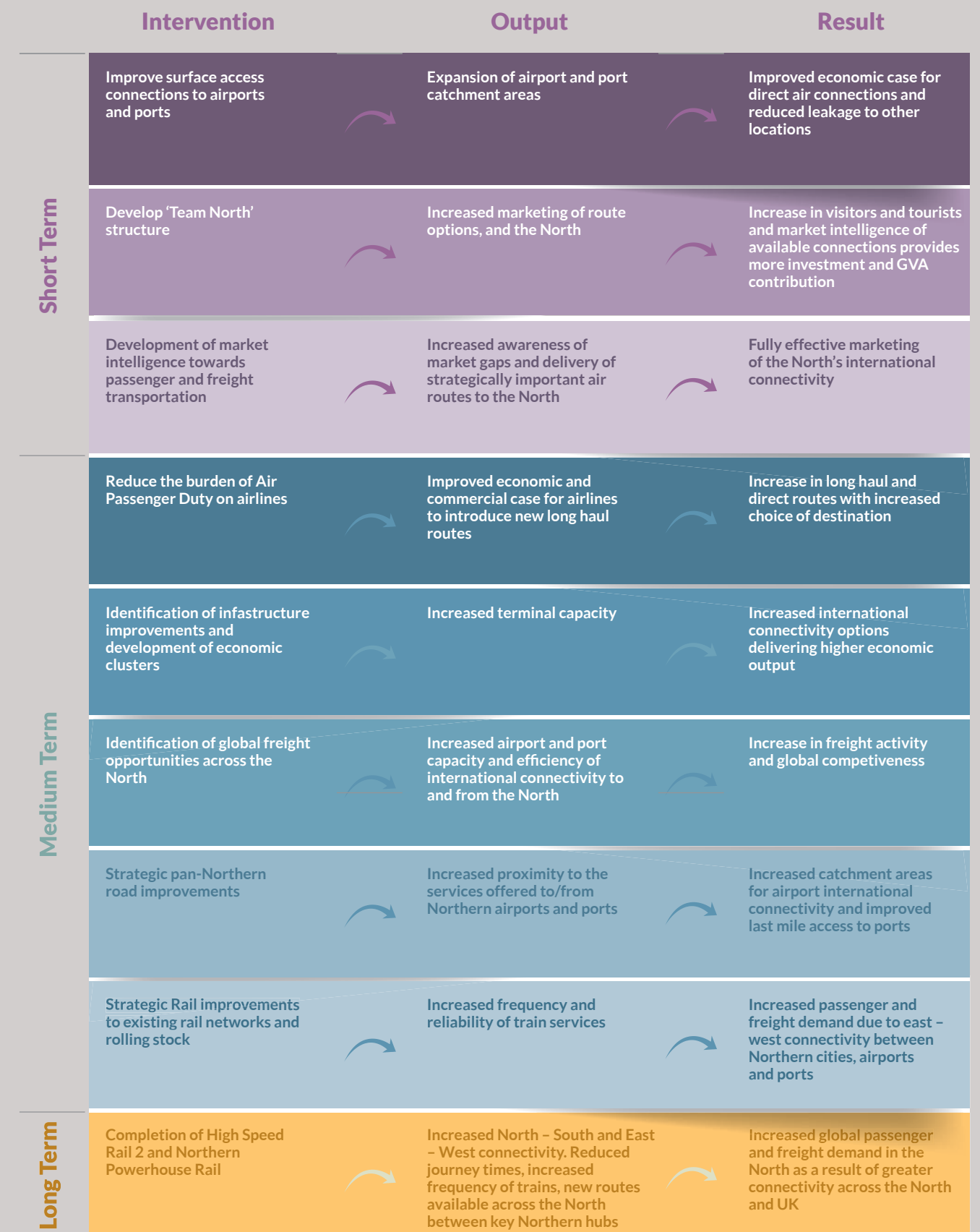
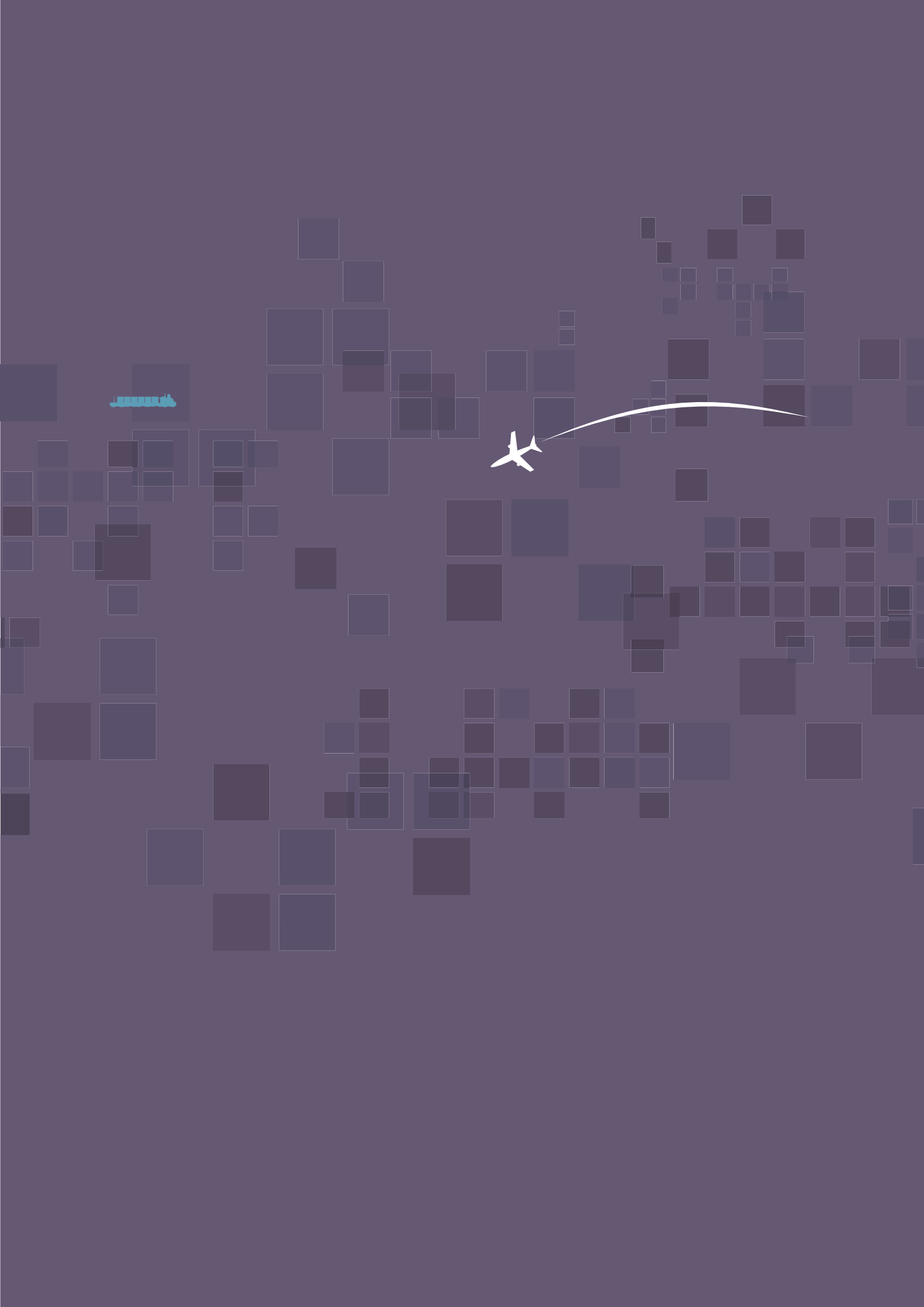


Figure 10. List of proposed surface access interventions to improve international connectivity

Category of intervention	Intervention	Impact	Policy fit	Timescale	Conclusion
Surface access to airports					
Strategic surface access to Manchester Airport	Ensure that Manchester Airport is fully connected to HS2, Northern Powerhouse Rail and the TransPennine Tunnel	Expand Manchester Airport's catchment area to support increased global air connections	Good	Medium to Long term	Recommended intervention
Surface access – Manchester Airport general improvements	Ensure that congestion bottlenecks on the immediate road network are overcome	Maintain existing local surface access journey times and improve resilience	Good	Ongoing	Recommended intervention
Surface access – Newcastle Airport A696 and associated junctions improved	Upgrade and improvement of the link road between the Airport and the A1	Improved connections between the Airport and the sub-region	Good	Short term	Recommended intervention
Surface access – Newcastle Airport Metro	Upgraded Metro rolling stock and network extensions	Improved image and public transport access to the Airport	Good	Medium term	Recommended intervention
Surface access – Newcastle Airport wider improvements	Provision of a heavy rail connection to the airport with improved interchange between modes at Newcastle Central Station	Improved accessibility within the North East	Good	Long term	Recommended intervention
Surface access – Liverpool Airport Eastern Link Road	Direct road connection into the Airport from the East to provide direct access to the M62	Improved access to the Airport from North and East of the city centre. Reduce congestion on Speke Boulevard	Good	Medium term	Recommended intervention
Surface access – Liverpool Airport Rail	Provision of a direct rail link from Parkway station connection to the Merseyrail network.	Improved public transport access from the city centre.	Good	Long term	Recommended intervention
	Ensuring that Liverpool South Parkway is recognised as a gateway to the Airport in franchise renewal	Better connections across the North	Good	Short term	Recommended intervention
Surface access – Leeds Bradford Parkway Station	Provision of a Parkway Station serving Leeds Bradford Airport	Improved public transport access between Leeds Station and the Airport and to the North, with onward connections	Good	Medium term	Recommended intervention
Surface access – Leeds Bradford Link Road	Link road connecting Leeds Bradford Airport to the A65 and A658	Provides improved road connections to the North and to the Leeds Outer Ring Road	Good	Long term	Recommended intervention
Surface access – other airports	Local action to improve public transport access to airports	Local benefits to accessibility and sustainability	Good	Ongoing	Local level intervention to be supported

Category of intervention	Intervention	Impact	Policy fit	Timescale	Conclusion
Surface access to ports					
Surface access schemes – road	A63 Castle Street Stage 2: Programme entry being – 1.5km improvement at A63 Castle Street, including a new split level junction	Reduce journey times for car passengers to/from Port of Hull's ferry terminals	Good	Medium term	Recommended intervention
Surface access schemes – road	A5036 Princess Way - Port of Liverpool Access Stage 0: Committed Scheme (ground investigations/surveys conducted summer 2015) - comprehensive upgrade to improve access to the Port of Liverpool from the A5036	Reduce journey times for car passengers to/from Port of Liverpool's ferry terminal in Gladstone Dock	Good	Medium term	Recommended intervention
Surface access schemes – road	Improvements to the capacity and resilience of the strategic network across the North e.g. M60 Quadrant, North, on-going management schemes for the M60/M62	Reduce journey times for car passengers to/from northern ferry and cruise ports	Good	Medium term	Recommended intervention
Surface access schemes – rail	Improvements to the capacity and frequency of rail services across the North, particularly East-West across the Pennines	Reduce journey times for, in particular, cruise passengers embarking and disembarking cruise ships in the North	Good	Medium term	Recommended intervention
Surface access schemes – rail	Review of public transport connections between railway stations and cruise/ferry terminals	Increase convenience of using public transport for, in particular, cruise passengers embarking or disembarking cruise ships in the North	Good	Short term	Recommended intervention
Port infrastructure schemes	Develop second in-river terminal at Hull for the Hull-Zeebrugge service	Enhances economics of the ferry service by allowing a faster crossing time and greater utilisation of the vessels; reduces congestion through locks for the port operator	May not be in line with UK ports policy	Medium term	May need to be funded by the private sector, but public sector should investigate potential for using Local Growth Fund
Port infrastructure schemes	Develop in-river ferry terminal at Liverpool for Liverpool-Dublin service	Enhances economics of the ferry service by allowing a faster crossing time and greater utilisation of the vessels; reduces congestion through locks for the port operator	May not be in line with UK ports policy	Medium term	May need to be funded by the private sector, but public sector should investigate potential for using Local Growth Fund

Category of intervention	Intervention	Impact	Policy fit	Timescale	Conclusion
Surface access to ports					
Port infrastructure schemes	Public sector support for Liquid Natural Gas (LNG) bunkering and cold ironing infrastructure at ports	Provides bunkering infrastructure for low sulphur and lower cost fuel; also allows ships to have a power supply in port without damaging air quality	In line with EU policy to assist the shipping industry to adapt to the SECA regulatory environment	Medium term	Recommended intervention



9. Commission Biographies

The Independent International Connectivity Commission was brought together by Transport for the North's Independent Chair, John Cridland and consisted of Chris Davis, Mark Parsons, Andrew Sentance and Sarah Stewart.

John Cridland, CBE

John was appointed independent Chair of Transport for the North in November 2015, where he plays a leading role in transforming northern connectivity, working with business leaders and northern transport authorities, along with Highways England, Network Rail, HS2 Ltd and the Department for Transport (DfT).

Formerly Director-General of the Confederation of British Industries, a post which he held for five years, John has been a major voice for the business community for over a decade and was awarded a CBE for services to business in 2006.



Chris Davis

Chris has amassed almost 35 years professional experience in commercial, general management and board roles across 4 continents. Currently Chief Operating Officer at PZ Cussons plc, Chris previously worked in senior sales and marketing roles in various consumer goods companies including BTR Nylex Group before joining PZ Cussons in 1993. After holding various senior posts, Chris was appointed as Managing Director of the Group's Australian operations in 2001. In 2006, Chris relocated to the UK joining the PZ Cussons plc board.



Mark Parsons

As Chief Customer Officer for DHL Supply Chain, UK and Ireland, Mark Parsons is responsible for the commercial growth of DHL Supply Chain, focused on the strategic development of customer relationships to drive both retention and new business opportunities. Mark heads up a team of over 100 sales and account managers embedded within the wider business, plus a small central team leading DHL Supply Chain's customer experience, strategic development, innovation and sales efficiency agendas. Mark joined DHL Supply Chain in 2004, where he held the role of Development Director, Retail and Consumer. Prior to joining DHL he worked for a variety of global organisations including Accenture, Electrolux and Schneider Electric, formally Invensys.



Andrew Sentance, CBE

Dr Andrew Sentance is a senior business economist based in the UK, now working with PwC as their Senior Economic Adviser. Before joining PwC, he served for five years (2006-11) on the Bank of England Monetary Policy Committee (MPC), through the global financial crisis and its aftermath. Prior to the Bank of England, Andrew held senior positions at the CBI, London Business School and British Airways, where he was Chief Economist and Head of Environmental Affairs.



Sarah Stewart, OBE

Sarah is the Chief Executive of NewcastleGateshead Initiative, the destination marketing organisation responsible for inspiring people to visit, live, learn, work and invest in and around Newcastle Gateshead. Sarah graduated from Cambridge University in 1981 with a degree in history and law and spent her early career with Procter & Gamble (Brand Manager), Price Waterhouse (Partner) and Sage Group plc (Marketing Director). Prior to joining NewcastleGateshead Initiative in May 2010, she worked freelance in marketing and brand development for a wide range of national and international organisations including Greggs plc, Shell International, One North East and Newcastle Science City.



Website
transportforthenorth.com

Write to
Transport for the North
2nd Floor
4 Piccadilly Place
Manchester
M1 3BN

General enquiries
0161 244 0888

Connect

