

At a glance...

Strategic Transport Plan



Our Vision: A thriving North of England, where world class transport supports sustainable economic growth, excellent quality of life and improved opportunities for all.

About Transport for the North

We are England's first Sub-National Transport Body, representing 20 transport authority members from across the North. With statutory status, we have the mandate to advise the Government on the transport priorities required to drive inclusive, sustainable economic growth across the North.



The role of Transport for the North

Our work complements that of existing local transport authorities, and our powers are devolved down from central government, rather than up from local government.

Our role is to add value, ensuring that funding and strategic decisions about transport in the North are informed by our local knowledge, expertise and needs.

Local Transport Authorities

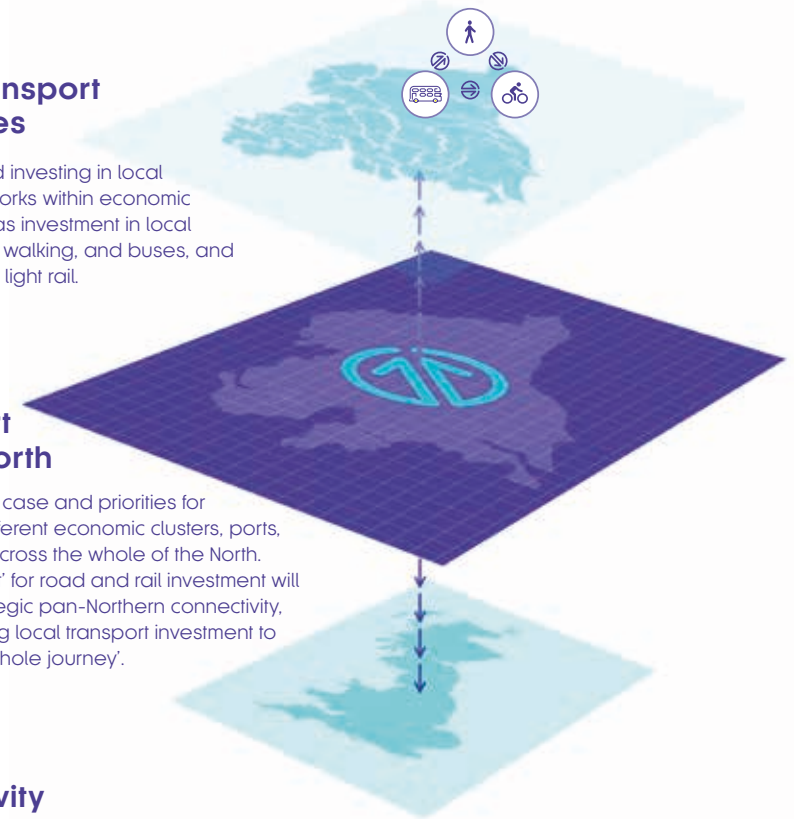
Managing and investing in local transport networks within economic clusters, such as investment in local roads, cycling, walking, and buses, and in some cases light rail.

Transport for the North

Setting out the case and priorities for connecting different economic clusters, ports, and airports across the whole of the North. TfN's 'blue print' for road and rail investment will enhance strategic pan-Northern connectivity, complementing local transport investment to improve the 'whole journey'.

National connectivity

Working with the Department for Transport and the North's cross-border authorities, the pan-Northern investments will support enhanced connectivity across the UK.



The Strategic Transport Plan

The Strategic Transport Plan outlines the need for investment in transport across the North and identifies the priority areas for improved connectivity. Working together, with elected politicians, business leaders, and listening to feedback from our public consultation, we have outlined our vision for the future.

The objectives of the Strategic Transport Plan are:

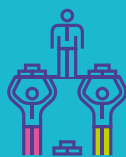
- ⇒ Transforming economic performance
- ⇒ Increasing efficiency, reliability, integration, and resilience in the transport system
- ⇒ Improving inclusivity, health, and access to opportunities for all
- ⇒ Promoting and enhancing the built, historic, and natural environment

Aims of the Strategic Transport Plan



Connecting people

Improving access to leisure and tourism assets and work opportunities, whilst widening the labour market for businesses.



Connecting business

Improving connections to collaborators, clients and competitors, including those within the prime and enabling capabilities.



Moving goods

Supporting businesses to move freight and goods efficiently and across modes.



Connecting People



Connecting Businesses



Moving Goods

WHY



£ Northern Powerhouse & UK Economy



Aims of the Plan



Inclusive & Sustainable Growth

WHAT

Strategic Development Corridors



Major Road Network



Integrated and Smart Travel



Northern Powerhouse Rail



Strategic Rail

HOW



Innovation



Funding



Skills



Spatial Planning



Analysis & Appraisal



Investment Programme

By 2050



£100bn increase in GVA



850,000 additional jobs

Why | The need for change?

The North is home to around 1.1 million businesses, more than 7.7 million jobs, and over 15 million people, with population growth of 6.7%. The North's economy is around £343 billion, 19% of the UK total. If the North were a country, it would be the 27th largest in the world.

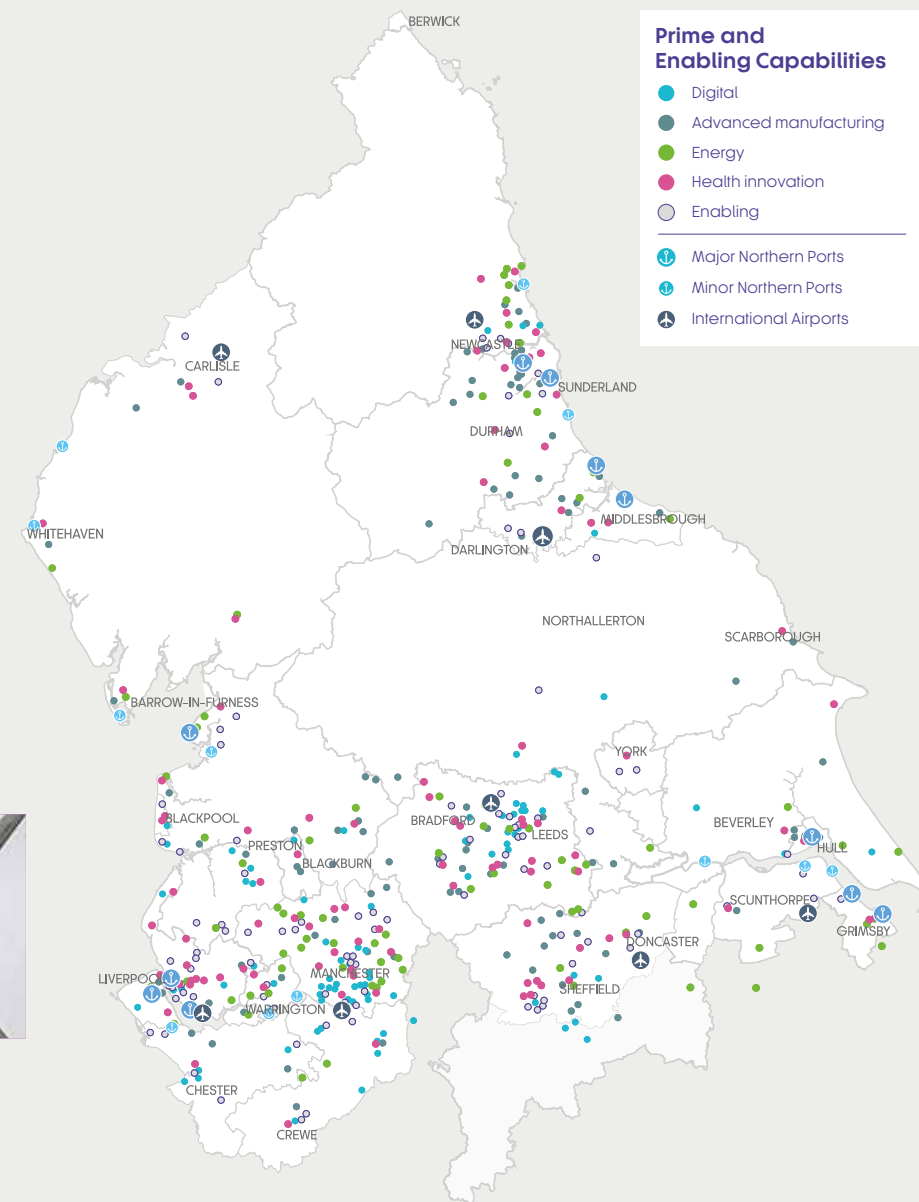
However, overall productivity in the North still trails behind the UK average. The North's economic value per person (measured as GVA) has been consistently around 15% below the average for the rest of the UK. More recent data reveals that gap has widened further, with the economic value (GVA) per person in the North now 18% below the UK average.

The success of the UK in the global marketplace depends on rebalancing the national economy and transforming the North.

The Northern Powerhouse Independent Economic Review identified some of the key factors that contribute towards the economic gap between the North and the South, including: poor links and under investment in transport, a lack of collaboration between Northern economic centres, and underuse of innovation and technology. The Strategic Transport Plan aims to address these factors by ensuring people and businesses are well connected.

The Review sets out a bold vision of economic transformation for the North that will rebalance the UK economy and increase international competitiveness. A transformed North in 2050 could generate:

- ⇒ £97 billion (15%) increase in GVA.
- ⇒ 850,000 additional jobs.
- ⇒ 4% higher productivity than in a business as usual scenario.



The Northern Powerhouse Independent Economic Review identified four areas where the North is highly skilled and globally competitive. The North stands on the cusp of the fourth industrial revolution and is ready to lead the world in modern industries, such as our four 'prime capabilities' and three 'enabling capabilities'. The Strategic Transport Plan aims to enhance connectivity between these economic clusters.

Future transport demand for a transformed North

East-West connectivity is a significant barrier for future growth in the North, and a key constraint to agglomeration and transforming the North's economy. Transformational economic growth in the North would also be expected to lead to far-reaching changes in transport demand and travel patterns compared to today.

We are promoting a 'vision and validate' approach, where alongside local transport authorities and Government, we can actively shape and influence how people travel to meet our joint economic, transport, environmental, and social objectives.

By 2050:

- ⇒ Total demand for rail travel could be four times higher, with up to around 760 million trips per year.
- ⇒ Total demand for road travel could be 54% higher, with around 193 billion vehicle kms travelled per year.



Inclusive and sustainable growth

Transport is social infrastructure which provides opportunities for all users. We recognise that successfully delivering inclusive, healthy and sustainable growth is dependent upon protecting and renewing the high quality environment in the North. We aim to minimise the impact of transport on the historic and natural environment and will seek to deliver enhancements and environmental net gain where possible.

The transport network must be decarbonised to support a shift to a low carbon economy. We support the series of Government policies and proposals for a greener and cleaner transport network in order to meet the UK's legislated carbon emission reduction targets. We want to work with the public and private sector to see:

- ⇒ A zero carbon public transport network by 2050.
- ⇒ Decarbonisation of rail by 2040.
- ⇒ A rapid increase in the number of public charging points for electric vehicles across the North.

We cannot achieve a carbon reduction from transport on our own; this is a collaborative effort. As part of our commitment to develop an Inclusive and Sustainable Growth Framework, we will lead the scoping, development and implementation of a 'Pathway to 2050'.

What | Key areas of delivery

Rail

Northern Powerhouse Rail

A transformational programme of rail investment that will radically improve journey times and service frequencies between some of the larger economic centres in the North, which unlocks capacity and capability to deliver a much more effective rail network overall.

Long Term Rail Strategy

Investment in lines, stations, services and franchises to deliver greater connectivity, capacity and cost effectiveness. Sets out why change is needed, what that change should be and how that change should be delivered, with an ambitious vision for the transformation of the North's rail network.

Roads

Major Road Network for the North

Through the Major Road Network, we have identified the roads across the North that are vital for economic growth and are evaluating how best to strengthen this network and facilitate access to our most important economic places and gateways.



Smart

Integrated and Smart Travel

The introduction of contactless payment for travel on public transport across the North. Bringing enhanced real time service information, journey planning tools and a simplified pricing structure, the programme is transforming the passenger experience by working in partnership with the rail, bus and light rail sectors, and key transport organisations.

Local and Sustainable Transport

Delivering transformational, inclusive economic growth will require complementary and supporting investment at a local as well as a pan-Northern level for the 'whole journey'. This means targeting short trips that could be undertaken by public transport, cycling or walking, thereby reducing localised congestion, improving the environment, and supporting an improved transport system.

We fully endorse the National Infrastructure Commission's proposals for a significant uplift in funding from 2025 onwards for Devolved Cities and Non-Urban local transport, and also potentially National Parks, that will go some way to closing the current gap between the need for local transport investment.

Northern Powerhouse Rail

Northern Powerhouse Rail is a transformational programme of rail investment that will radically improve journey times and service frequencies between some of the major cities and economic areas in the North, which unlocks capacity and capability to deliver a much more effective rail network overall.

Our analysis shows that the wider benefits of Northern Powerhouse Rail include:

- ⇒ Bring millions more people, and hundreds and thousands of businesses within reach of each of the key economic centres of the North by public transport. By 2050 in a transformed North, nearly 10 million people in the North will be within 90 minutes reach of multiple economic centres in the North.
- ⇒ Help treble the number of businesses able to access four or more cities or Manchester Airport within 90 minutes, from 70,000 today to 260,000 with Northern Powerhouse Rail.
- ⇒ Deliver significant benefits to the North's economy and rebalance the UK by closing the productivity gap between the North and the rest of the country.
- ⇒ Ensure that growth is delivered sustainably, building the market for rail travel by around four times the level seen today and taking up to 64,000 car trips off the road – equivalent to 800 million km per year.

We firmly believe HS2 will be transformational for the North. It will be a key piece of world class infrastructure integral to the expansion of the existing rail network and it will support the regeneration of railway stations and their surrounding areas. It will also support the delivery of Northern Powerhouse Rail, which will free up much-needed North-South and East-West capacity in a system that is struggling to perform.



Northern Powerhouse Rail junctions with HS2:

- 1 Junction on HS2 mainline for Leeds – North East services
- 2 Junction on HS2 Leeds spur to facilitate through services via existing Leeds station
- 3 Junction on HS2 mainline for Sheffield – Leeds services
- 4 Junction at Manchester Piccadilly to support Northern Powerhouse Rail platforms
- 5 Junction on HS2 Manchester spur for Manchester – Liverpool services
- 6 South facing junction on HS2 mainline for London – Liverpool services

Alternative concepts will continue to be assessed between Liverpool – Manchester, Manchester – Sheffield and Manchester – Leeds as part of taking forward the Strategic Outline Business Case for the programme.

Map shows only railway lines which interact with Northern Powerhouse Rail. The Department for Transport and HS2 Ltd are also assessing concepts for a HS2 parkway serving South Yorkshire.

- Northern Powerhouse Rail - upgrade line
- Northern Powerhouse Rail - new line
- Linking Liverpool to HS2
- HS2 line
- TransPennine Route Upgrade
- Existing line
- Northern Powerhouse Rail hub station
- Largest Intermediate Stations

Long Term Rail Strategy

The Long Term Rail Strategy sets out our guiding principles for transforming the rail network.

- ⇒ **Connectivity** – Major improvements in connectivity including frequency and journey time improvements for both passenger services and freight, combined with better integration of services.
- ⇒ **Capacity** – Providing longer trains and additional services to meet existing and future passenger demand, with improvements to the infrastructure and signalling capability to accommodate these additional services.
- ⇒ **Customer** – A passenger network that is easy to navigate, accessible and predictable, with consistent information available before and throughout journeys.
- ⇒ **Community** – A railway that supports the social fabric of the communities it serves, providing journey opportunities which enable access to education, training and leisure opportunities as well as employment, and plays a full part in addressing transport poverty, isolation, and deprivation across the North.
- ⇒ **Cost Effectiveness** – Growing revenue and minimising the unit cost of operating and maintaining the North's railway without compromising the quality of the services offered.

We want to see as a minimum:

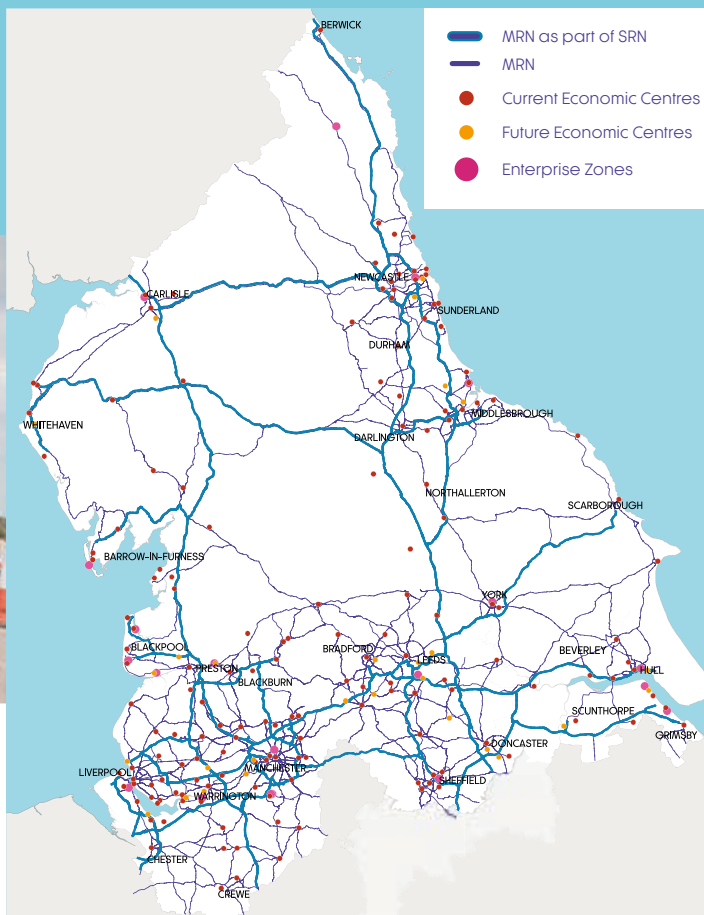
- ⇒ All passenger routes to be served by a minimum two trains per hour.
- ⇒ Long distance services to achieve average journey speeds of at least 80mph.
- ⇒ Inter-urban services to achieve average journey speeds of at least 60mph.
- ⇒ Local and suburban services to achieve average journey speeds of at least 40mph.
- ⇒ Rail to directly serve each of the North's international airports.
- ⇒ Infrastructure to be available to enable a weekday inter-peak level service on Sundays and public holidays.
- ⇒ Major ports in the North to be served by a network that will support movement and future growth of rail freight.
- ⇒ A 50% improvement in the average speed of freight services by 2028.

Roads – Major Road Network for the North

Over 80% of commuting trips and 87% of freight movements use the road network in the North, which equates to more than 120 billion km travelled across the North's road network every year.

We have identified a Major Road Network which includes the North's economically important roads. This network, which includes both strategic and important local roads, represents about 7% of the roads in the North, and links the North's important centres of economic activity.

The Major Road Network for the North is larger in scale than the Major Road Network proposed by the Department for Transport. This is primarily because it is based on improving connectivity to deliver economic growth and improved opportunities for all, whereas the Department for Transport has chosen to define the England-wide Major Road Network on a more quantitative basis, primarily based on a measure of traffic flow and proportions of heavy good vehicles.



The ambition is for the Major Road Network in the North to act as a seamless network of roads, enabling safe, reliable and resilient multi-modal journeys.

We have agreed that the performance of the Major Road Network will be measured against outputs, including:

⇒ **Journey reliability** – journey reliability where 90% of journeys of 15 miles or more on the Major Road Network should not be delayed by more than 15 minutes for a journey of 60 minutes expected travel time.

⇒ **Network efficiency** – aiming to optimise the efficient flow of passengers and goods on the Major Road Network and through the improved flow of traffic, and support for new technologies to reduce emissions of pollutants and greenhouse gases.

⇒ **Network resilience** – aiming to reduce the number of incidences of closure of Major Road Network routes leading to severe journey delay.

⇒ **Journey quality** – improving the customer experience of using the Major Road Network, including the quality and availability of travel information.

We will also explore options for reducing the impact of road-based travel on the environment, air quality and carbon emissions. Through influencing travel behaviour, supporting higher quality design and adapting to innovative technologies, such as electric vehicles, the Major Road Network can be improved, managed and adapted to support a sustainable Northern economy.

Integrated and Smart Travel

The Integrated and Smart Travel programme is an ambitious four-year programme to widely introduce contactless payment for travel on public transport across the North. This programme will transform the passenger experience in the North by working in partnership with the rail, bus and light rail sectors, and key transport organisations.

At the moment, four out of every five travellers use paper tickets, while only one in ten use tickets on their mobile phone. Meanwhile, 78% of all debit cards are now contactless, and nine out of ten passengers use rail travel primarily to commute to work on a

regular basis. These facts highlight the opportunity for this ambitious programme.

Customers can already use a smartcard, contactless bank card or their smartphone to pay for travel on some public transport in the North. Using emerging technologies, the Integrated and Smart Travel programme will deliver modern payment methods and mobile travel information right across the North, in line with what passengers now want and expect from today's public transport system. Paying for journeys will become quicker, easier and more convenient.



Key phases

Phase 1

Smart cards for rail by December 2018

Part of a nationwide programme to roll out smart ticketing on all rail travel.



Phase 2

Customer information, collaboration and innovation

Provision of integrated customer information, disruption messaging and fare information to make journey planning quicker and easier.



Phase 3

Account-based ticketing via contactless payments

Back office integration that will let travellers make contactless payments across all forms of public transport, while delivering the best on-the-day price for customers and public transport operators.



Our overall goal for the programme is a simpler and easier end-to-end customer journey



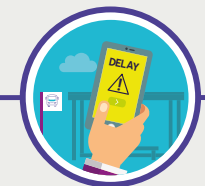
Journey planning

First the customer decides which journey to make.



Ticket selection

Then they decide whether to buy a ticket in advance, a ticket for multiple journeys, or simply pay as they go.



Planned disruption

If there's any disruption they'll know about it, and be able to plan around it by using an alternative transport mode with the same payment method.



Tap on

They then hop on their chosen public transport with a tap.



Tap off

When they arrive, they simply tap again and carry on with their day.



Fair Price Promise

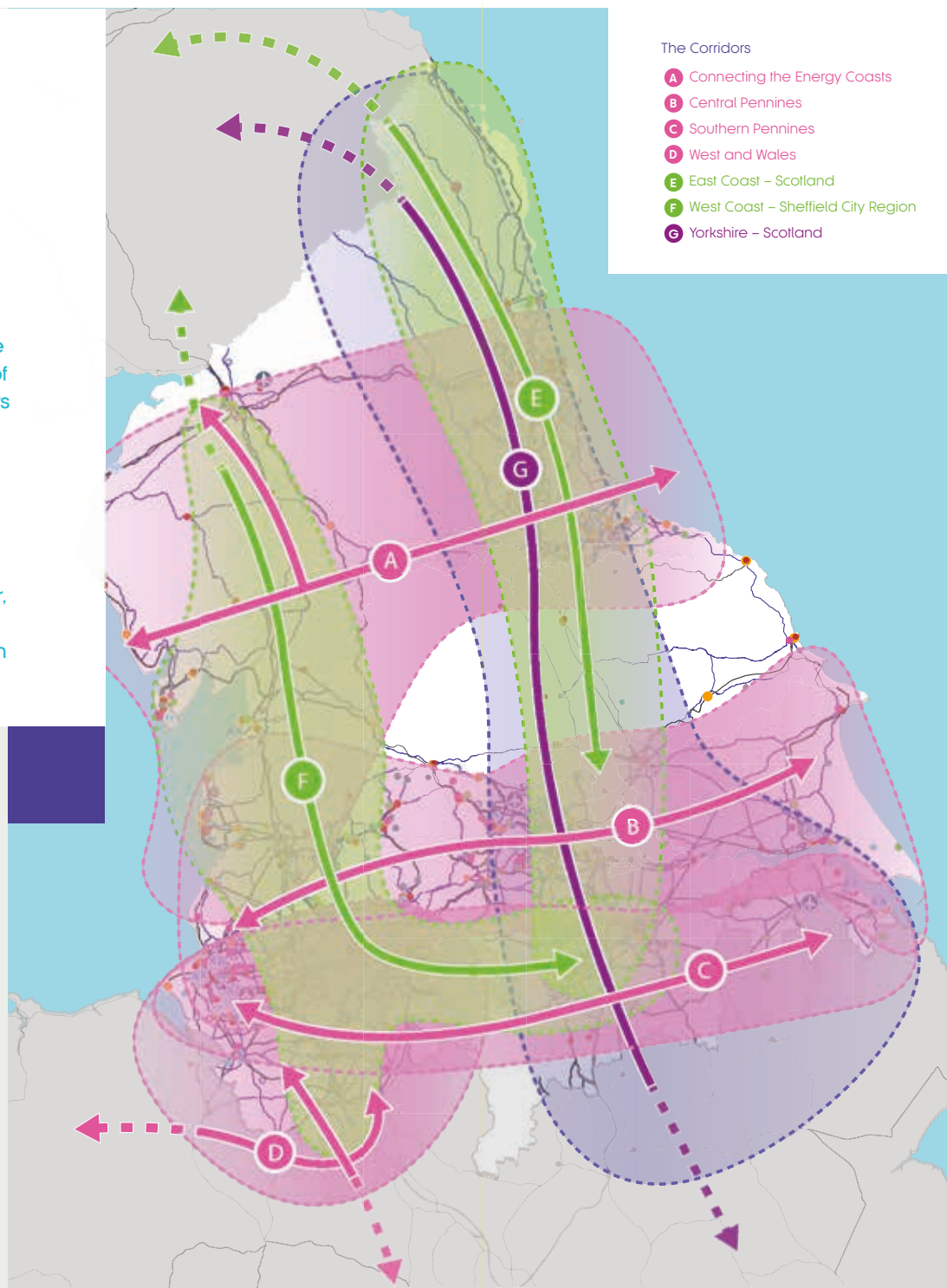
They can trust they'll be charged the best price for all their journeys when it's calculated at the end of the day or week.

Strategic Development Corridors

Using an innovative approach, we've identified seven strategic development corridors that reflect economic links across the North. They are not traditional transport corridors but represent where the largest gaps between demand and performance currently exist, and where there is likely to be the most potential for realising the benefits of connecting the economic assets and clusters of the North.

Each of the Strategic Development Corridors will have a different scale of contribution towards achieving the outcomes of transformational economic growth and therefore different transport needs. However, investment in all the corridors is critical to the collective ambitions of Transport for the North and Partners.

- ⇒ **Connecting the Energy Coasts**, improving connectivity between some of the UK's important non-carbon energy, advanced manufacturing, research assets and economic centres in Cumbria, Lancashire, North Yorkshire, the North East, the North of Tyne, and Tees Valley;
- ⇒ **Central Pennines**, driving strategic east-west connectivity for some of the North's important economic centres and assets in North Yorkshire, West Yorkshire, East Riding, and Hull through to Greater Manchester, Lancashire and the Liverpool City Region;



- ⇒ **Southern Pennines**, linking the economic centres, industries and ports within Liverpool City Region, Greater Manchester, Cheshire, Sheffield City Region, Hull and northern Lincolnshire. Also considering connections with the Midlands;
- ⇒ **West and Wales**, moving people and goods, to, from and through the important economic centres and assets of Cheshire West and Chester, Cheshire East, the Liverpool City Region and Greater Manchester with strategic connectivity in to North Wales and the Midlands;
- ⇒ **East Coast - Scotland**, improving rail reliability, speed and reach along the East Coast Main Line and other key lines to provide enhanced strategic and local connectivity in the North East, the North of Tyne, Tees Valley, Sheffield City Region, City of York, and North Yorkshire as well as onward connections into Scotland;
- ⇒ **West Coast - Sheffield City Region**, strengthening rail links along the West Coast corridor between the advanced manufacturing sites in Cheshire East, Warrington, Cumbria, Lancashire, Greater Manchester and Sheffield City Region, with improved connectivity from the North in to Scotland;
- ⇒ **Yorkshire - Scotland**, building on existing road investment commitments to further strengthen road connectivity between the Midlands, Sheffield City Region, East Riding, West Yorkshire, North Yorkshire, Tees Valley, the North East, the North of Tyne, and Scotland.

How?



Funding

The Investment Programme which accompanies this Strategic Transport Plan identifies a funding requirement of £60-£70 billion to 2050, or £2-£2.3 billion a year, to be spent on strategic transport infrastructure to deliver the interventions required to support transformational economic growth. Considering current projected spend, primarily through the Highways England Road Investment Strategy and by Network Rail, this equates to an additional £21-£27 billion investment to achieve the improvements set out in the Investment Programme over the lifetime of the Strategic Transport Plan. The interventions within the Investment Programme are ambitious but realistic.

In the short term, we will need to work with current processes. We are seeking to move to the position where we become responsible for a combined regulatory settlement for strategic transport investment in the North.

Analysis and Appraisal

As the Strategic Transport Plan sets out, we require strong evidence and analysis to make the case for transformational investment in the North's strategic transport network. Working with Partners and the Department for Transport, we've made significant progress in developing a new Analytical Framework. The new framework combines a series of existing analytical models and new tools to enable us to undertake a broader, more comprehensive analysis including an examination of multi-year uncertainty and wider economic impacts.

This framework can be applied across the North, so that there is one voice for data, forecasting and investment decisions. We also want to embed sustainable return on investment and social value in the procurement and development of on any transport intervention.



Spatial Planning

We want to build a collaborative and constructive relationship with the 72 planning authorities across the North to ensure that the right sustainable developments, spaces and places are unlocked and delivered across the North to support Local Planning Authorities as they develop their local plans and strategies. The principle of joined-up planning for new homes and infrastructure has long been acknowledged at a national level and is a key element of the Government's Industrial Strategy. We will also work through

existing partnerships and networks to ensure that there is long-term and coordinated strategic infrastructure investment in the North, linked to spatial planning priorities and their infrastructure needs.

Part of the success of the Strategic Transport Plan and the Investment Programme will be how it supports sustainable settlement patterns and urban centres, and how they contribute to the creation of inclusive, healthy and productive spaces and places.

Innovation

We want to harness innovative measures and encourage smart technology to support the delivery of our pan-Northern objectives. By embracing innovative solutions now, we can influence future infrastructure and transport connectivity captured by long term planning.

Future mobility will likely be achieved through the combination of technology trends such as shared mobility, automated and connected systems and electrification (or other low carbon energy options), with a focus on integration of energy systems, public transport, and infrastructure.

To ensure our plans are informed, challenged, and pro-active but flexible to the latest innovation changes and uncertainties, we will continue to collaborate with a variety of stakeholders.



Skills

Improving education and skills to support economic prosperity is a priority at a national and local level. Based on the current educational pipeline there will be an estimated annual shortfall in engineering skills. There will be high demand across some key skills sets and high competition across sectors.

We will work closely with delivery agencies as well as the broader transport industry to ensure a joined-up approach to skills. In delivering the Investment Programme, the focus will be on maximising social value for local areas, a sustainable pipeline of skills, and diversity within the workforce.



Investment Programme

The Investment Programme comprises our advice to the Government on what the long term, multimodal transport priorities are.

The initial Investment Programme identifies the interventions that we believe will address the current challenges on the transport network, future proofing for where transport demand is envisaged, and where the interventions will stimulate inclusive, sustainable and transformational economic growth.

The successful delivery of the Investment Programme will require continuous close working with our Constituent Authority Partners, the national Delivery Partners (Highways England, Network Rail, and HS2 Ltd) and the Government. It will be dependent on the approval of funding at the appropriate time.

The Investment Programme will be an evolving document, beyond this initial version. Future iterations will outline the progress on the current schemes and projects and could include additional interventions should future evidence identify they are required. The Investment Programme can be found at transportforthenorth.com/onenorth





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