

Trans-Pennine Tunnel Study
Stakeholder Reference Group Conference
Monday 20 July 2015

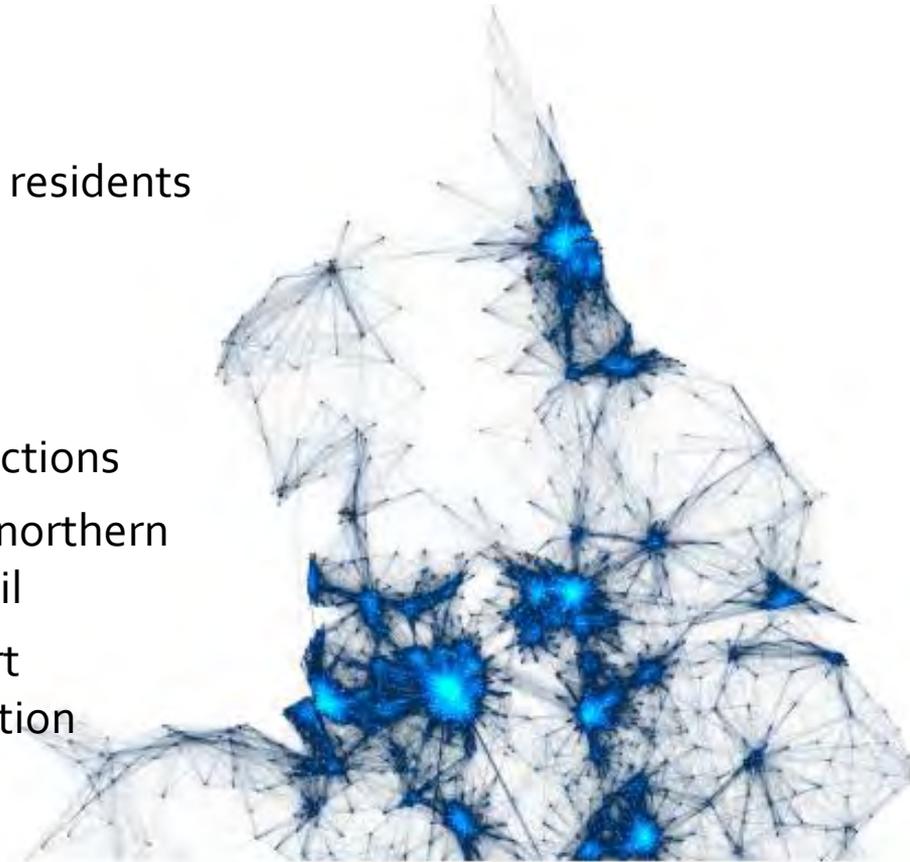
Welcome

Transport for the North: Investing in the Northern Powerhouse

Dr Jon Lamonte, Chief Executive, TfGM

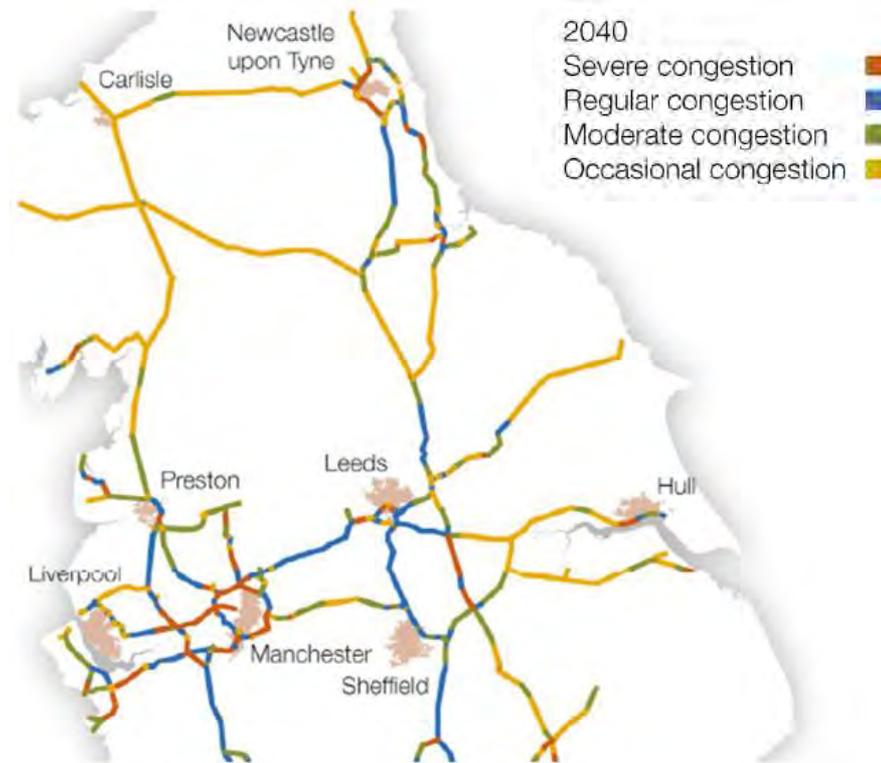
Policy Context

- One economy, worth £290bn GVA with 15m residents
- Northern Transport Strategy proposes transformational multimodal investment
- Plans include:
 - Developing new east-west road connections
 - Cutting journey times between major northern cities with investment in high speed rail
 - Introducing simplified integrated smart ticketing and enhanced travel information across the North



Overview and Opportunity

- Creating one single economy could generate additional £44 billion (£1,600 per individual)
- Rebalancing growth to the North and adding value to UK companies
- A vision of a North as a coherent, productive network of modern city regions, rich in job opportunities for all.
- Driven by co-ordinated activity over a 20 year investment period.

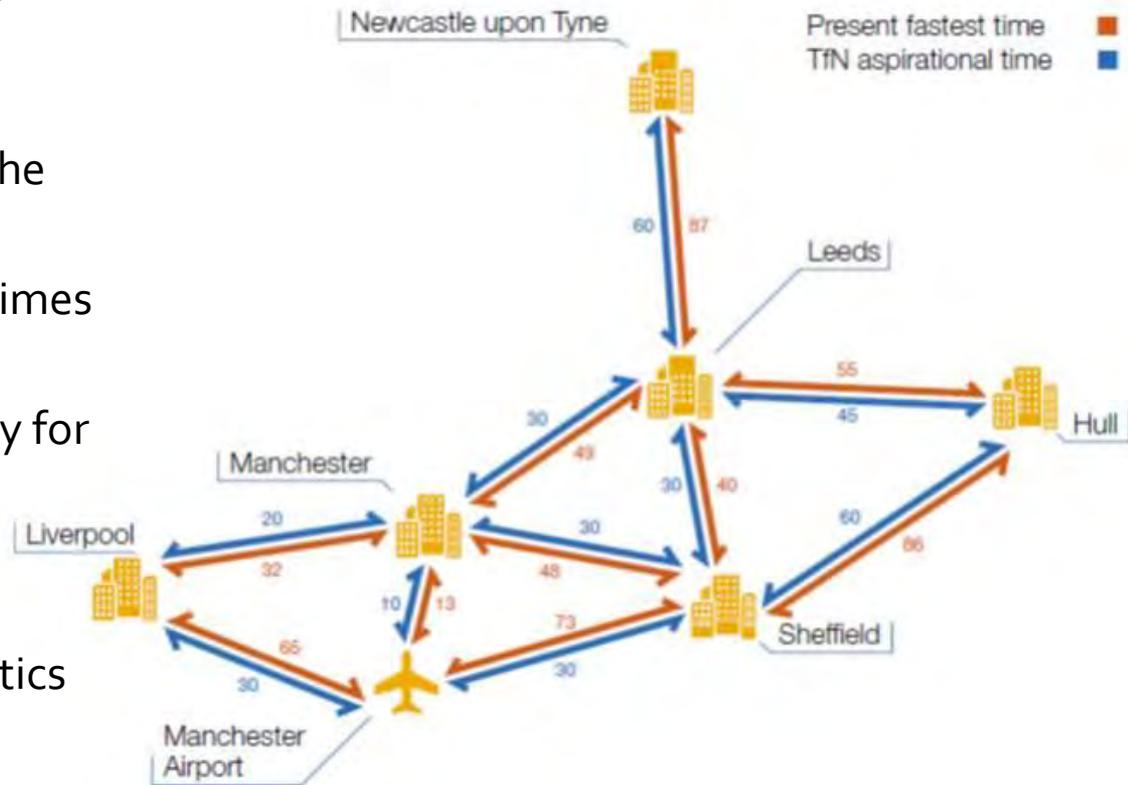


Transport Objectives

- Better connections between economic centres stimulating agglomeration
- Better commuting connectivity allowing:
 - businesses to access wider labour markets;
 - people to access the job opportunities they need to prosper;
 - communities across the North to retain and attract talented people
- Better capacity and reliability for freight and logistics
- Multiplying the benefits offered by infrastructure through better travel information and ticketing systems

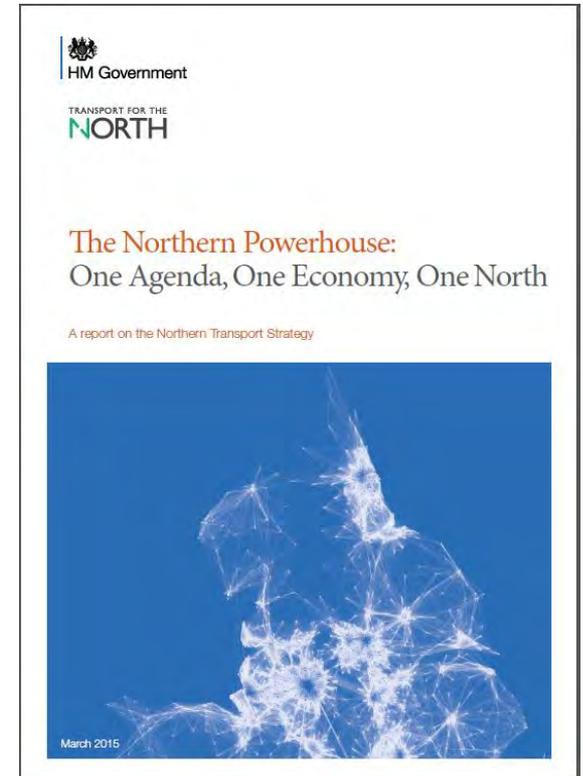
How will we do this?

- Reliability and resilience of the strategic highway network in the longer-term
- Achievable faster rail journey times between 6 city centres
- Increase in commuting capacity for each of the cities
- A reduction in the North's trading costs through investment in freight and logistics



Northern Transport Strategy

- Update to Northern Transport Strategy in **Spring 2016**.
The updated strategy will cover:
 - The outcomes from work completed on rail, road, freight and smart options;
 - Prioritised investment across all modes; and
 - Appraisal and analytical assurance methodologies.
- Together, this will re-state the role of transport in delivering a transformed Northern economy



Road

- TfN is working with Highways England on the three northern Strategic Studies as part of the Road Investment Strategy (RIS) process.
- **Trans-Pennine Tunnel Study between Manchester and Sheffield (and considering the synergy with new rail options through the Pennines)**
- Northern Trans-Pennine Study - A66/A69
- M60 North West Quadrant Study

As with the other workstreams, these studies will inform the update of the NTS in Spring 2016 and then the TfN Partnership Board submission to the development of RIS2



Links to other workstreams

- A multimodal approach. Aims to further develop the TransNorth network for passengers and freight services;
 - Rail – a priority to enhance rail services between the northern cities, including improved trans-Pennine connectivity
 - Freight – improvements to the North’s freight network will be investigated by the Northern Freight Strategy
 - Strategic Economic Case – A holistic approach to appraisal to understand growth expectations and prioritise transport schemes



Expectations for the trans-Pennine Tunnel

- Thorough exploration of the options of road investment across the Pennines
- Need to develop a solution which provides resilience to the A57, A628 and M62
- We need a commitment to invest in East-West connections and develop the next generation road network
- Improve road links to the major ports, Manchester Airport and enable easier transportation of freight
- We need a solution to which all stakeholders can support



Questions?

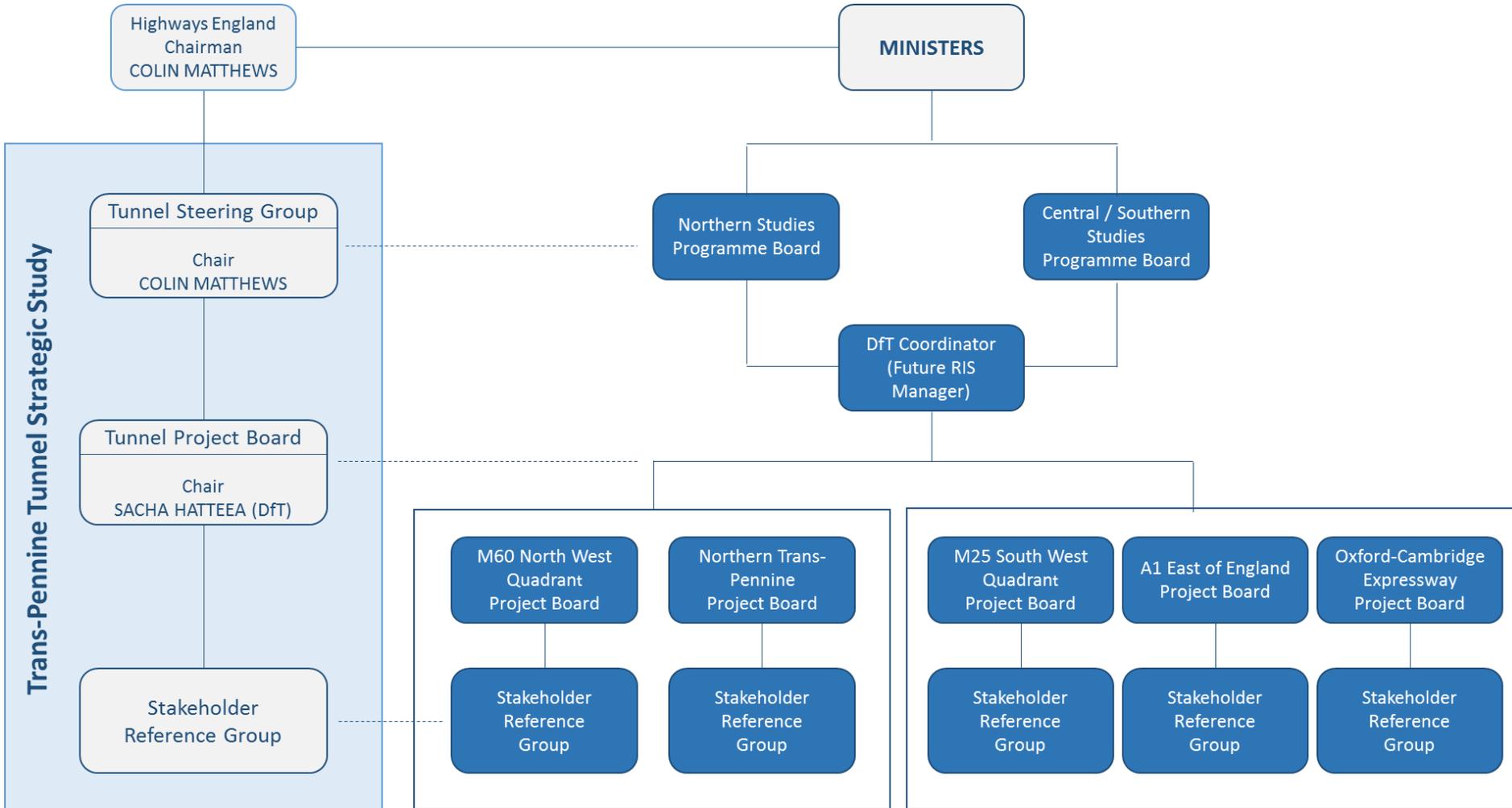
Trans-Pennine Tunnel Study Aims and Objectives

Ian Parker – Project Director

The Trans-Pennine Tunnel Study

- Strategic Study announced in Roads Investment Strategy
- One of three studies in the North of England
- Sponsored by Department for Transport and Transport for the North
- Delivered by Highways England

Study Governance



Project Team

Project Sponsor

SHONA JOHNSTONE
Department for
Transport

MATTHEW REYNOLDS
Transport for the
North

Highways England

GINNY CLARKE
Senior Responsible
Officer (SRO)

IAN PARKER
Project Director

MARK CORBIN
Project Manager

Study Consultant

DARREN OLDHAM
Project Director

ANDY CAIRNS
Project Manager

Study Objectives

- Transport
- Economic
- Environmental

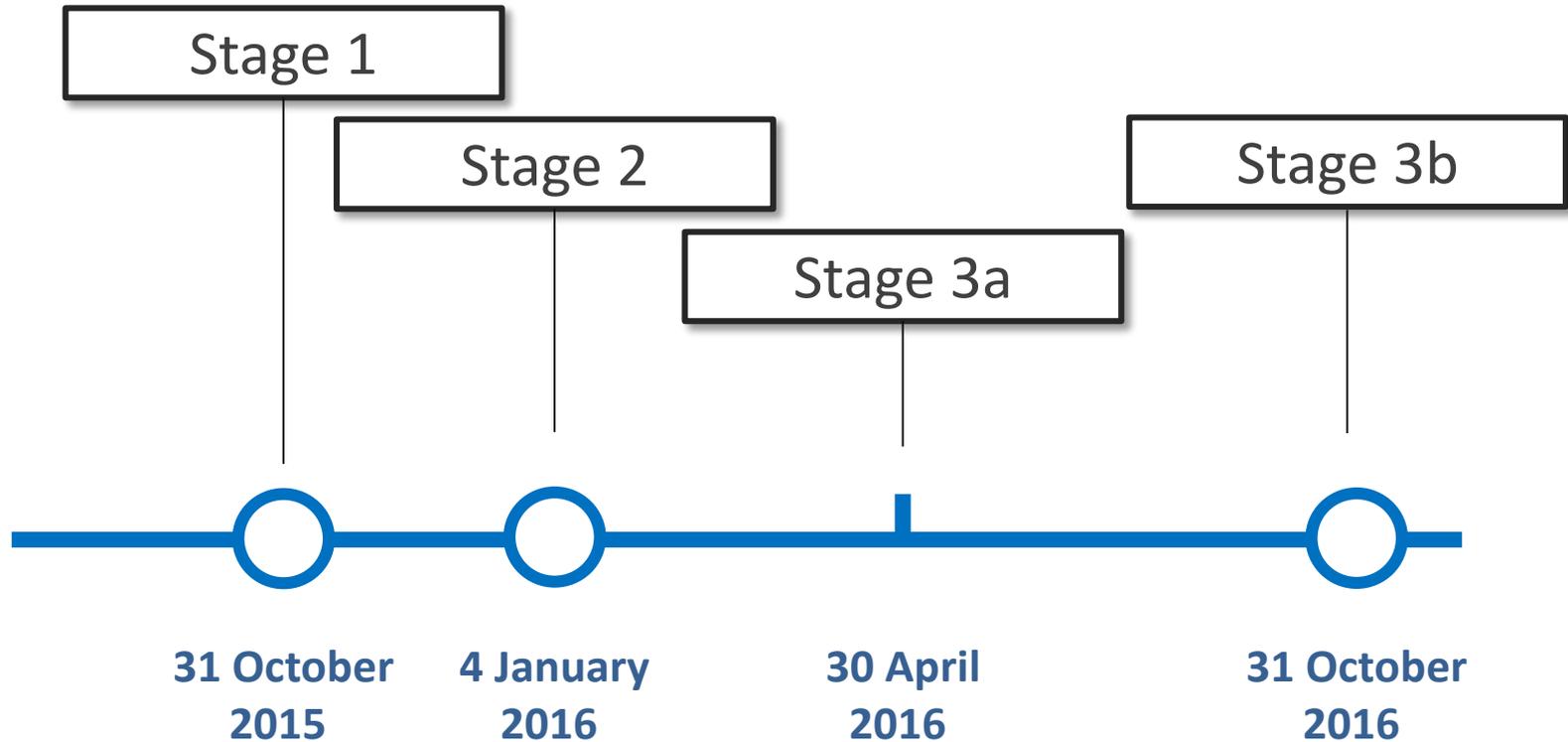
Study Objectives (1)

- Review of existing work, investment plans, etc.
- Identify options for a new strategic road link
- Assess operational issues and benefits and standard of road link
- Prepare strategic and economic case for investment

Study Objectives (2)

- Explore synergies for integrating with rail / light rail
- Assess environmental and economic impacts / benefits
- Align with other trans-Pennine studies and assess interdependencies
- Align with wider Northern Transport strategy

Project Timeline



Stage 1

- Review existing information and models
- Establish strategic and economic need
- Verify overall technical feasibility
- Initial report setting criteria for assessment

Stage 2

- Engineering and environmental issues
- Operational and maintenance issues
- Interconnectivity with surrounding network
- Driver behaviours, safety and security
- Interim report

Stage 3a

- Identify long-list of route options
- High-level assessment of Value-for-Money
- Develop short-list of options
- Report to Project Steering Group

Stage 3b

- Assessment of short-listed options
- Impacts on M62 and other routes
- Impacts on labour markets, wages, skills, costs
- Impacts on land use and the environment
- Impact on regional investment

Stage 3b (continued)

- Potential synergies with rail
- Scheme cost estimates for each option
- Potential impacts of tolling and scheme economics
- Constructability and operability
- Final report

The Role of the Stakeholder Reference Group

Mark Corbin – Project Manager



Connectivity and the Trans-Pennine Route

Nicola Kane, Transport Strategy Manager
Transport for Greater Manchester

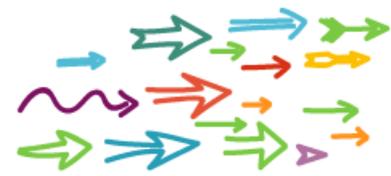


Transport for Greater Manchester oversees transport and travel across Greater Manchester – home of the UK's largest city region economy outside London.

We keep Greater Manchester moving.





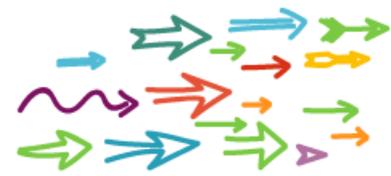


Role of Transport & Connectivity in Supporting the Economy

Transport's role in supporting the economy:

1. labour market connectivity
2. business-to-business connectivity: increase trade, shared ideas, reduce costs

Fast Track to Growth Report, 2014 (Centre for Cities):



“Britain’s future is as a knowledge-based economy, whether it is in high-tech manufacturing, the creative industries, finance, or law. These are the businesses in which we as a country have a competitive edge globally. But knowledge based companies need connectivity to succeed.”

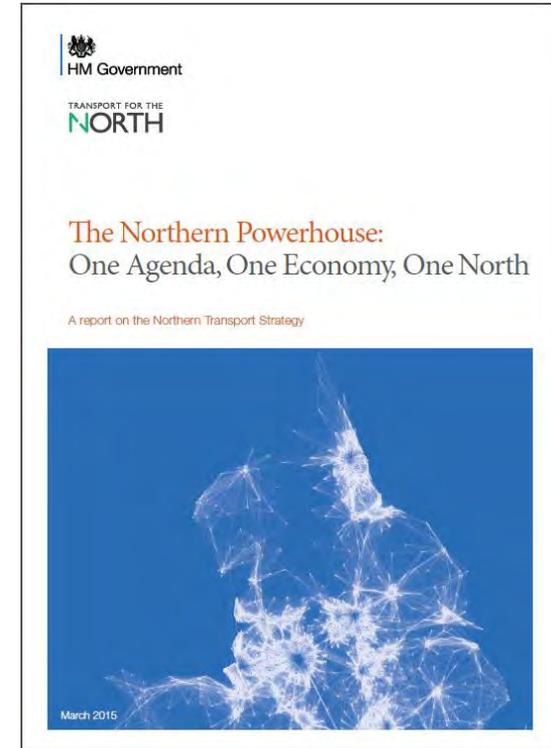
Rebalancing Britain (Sir David Higgins)

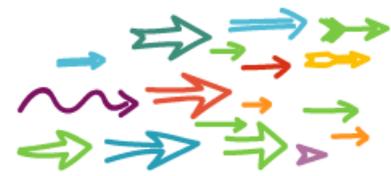




*“Excellent connectivity across
the North will take the city
regions’ individual
performance to the next level,
bringing them together to help
create the critical mass to
compete globally.”*

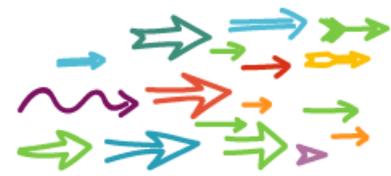
Transport for the North





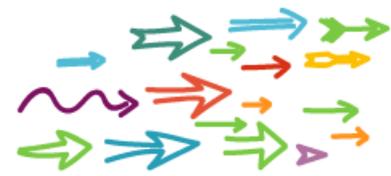
What will Improved Connectivity Deliver?

- Business investment and innovation.
 - Agglomeration economies
 - Improved labour market access and efficiency
 - Increase competitiveness
 - Improved domestic and international trade
 - Attract globally mobile activity
-



A Plan for Growth and Reform in Greater Manchester

“Greater Manchester has consistently placed connectivity and transport investment at the heart of our economic strategy. We will continue to focus investment on the city region’s strategic transport network to further enhance local, national and international connectivity.”



Sheffield City Region Growth Plan

“Our Ambition: to improve Sheffield City Region’s external connectivity, nationally and internationally, by air, road and rail, including maximising the benefits of high-speed rail.”



Northern Transport Strategy

- Key road link between the Sheffield and GM City Regions
- Key connection in the SRN between the M1 and M67/M60
- Provides access for local communities along the Corridor to jobs and services.





What will an improved Trans-Pennine Route Deliver for Connectivity?

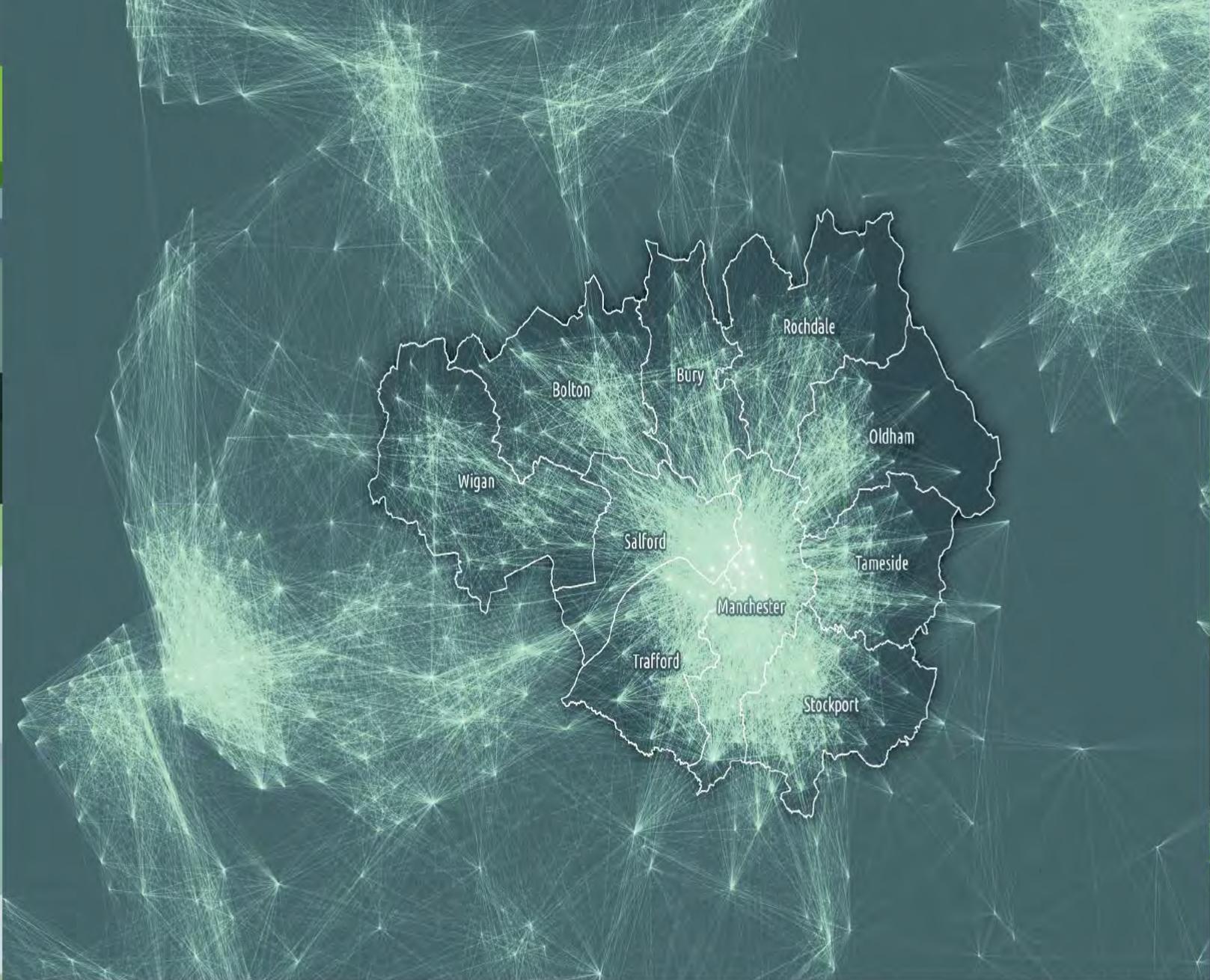
- More reliable journey times and shorter journey times
- Increased resilience
- Increased flexibility for travellers
- Reduced pressure on other Trans-Pennine Routes, especially the M62



 Transport for
Greater Manchester

GMCA GREATER
MANCHESTER
COMBINED
AUTHORITY

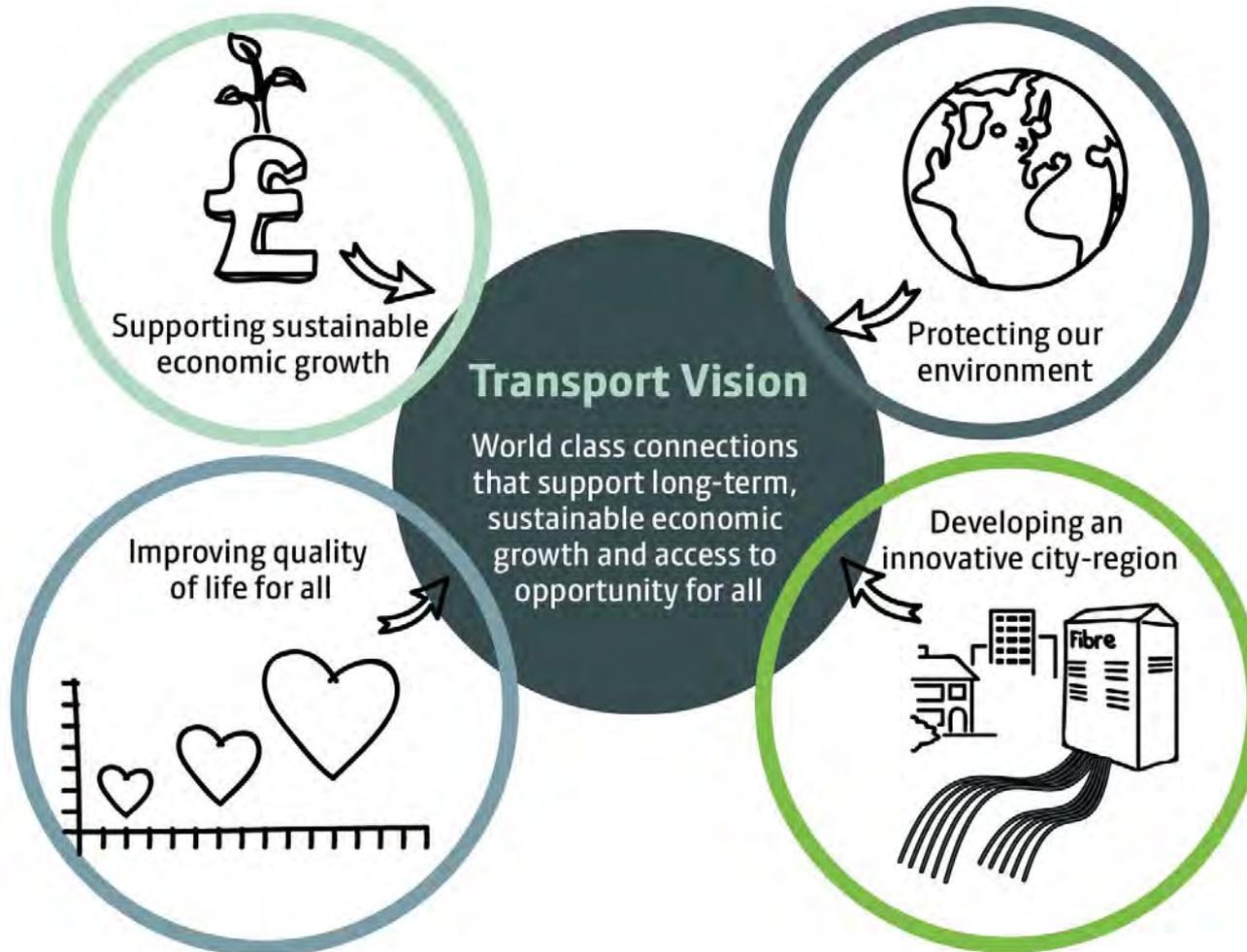
 Greater Manchester
Local Enterprise Partnership



Commuting Flows in Greater Manchester and Beyond, 2011 (all modes)



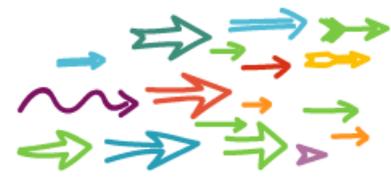
The Greater Manchester 2040 Vision





Drivers of Future Travel Demand





Our Spatial Themes





What will an improved Trans-Pennine Route Deliver for Connectivity?

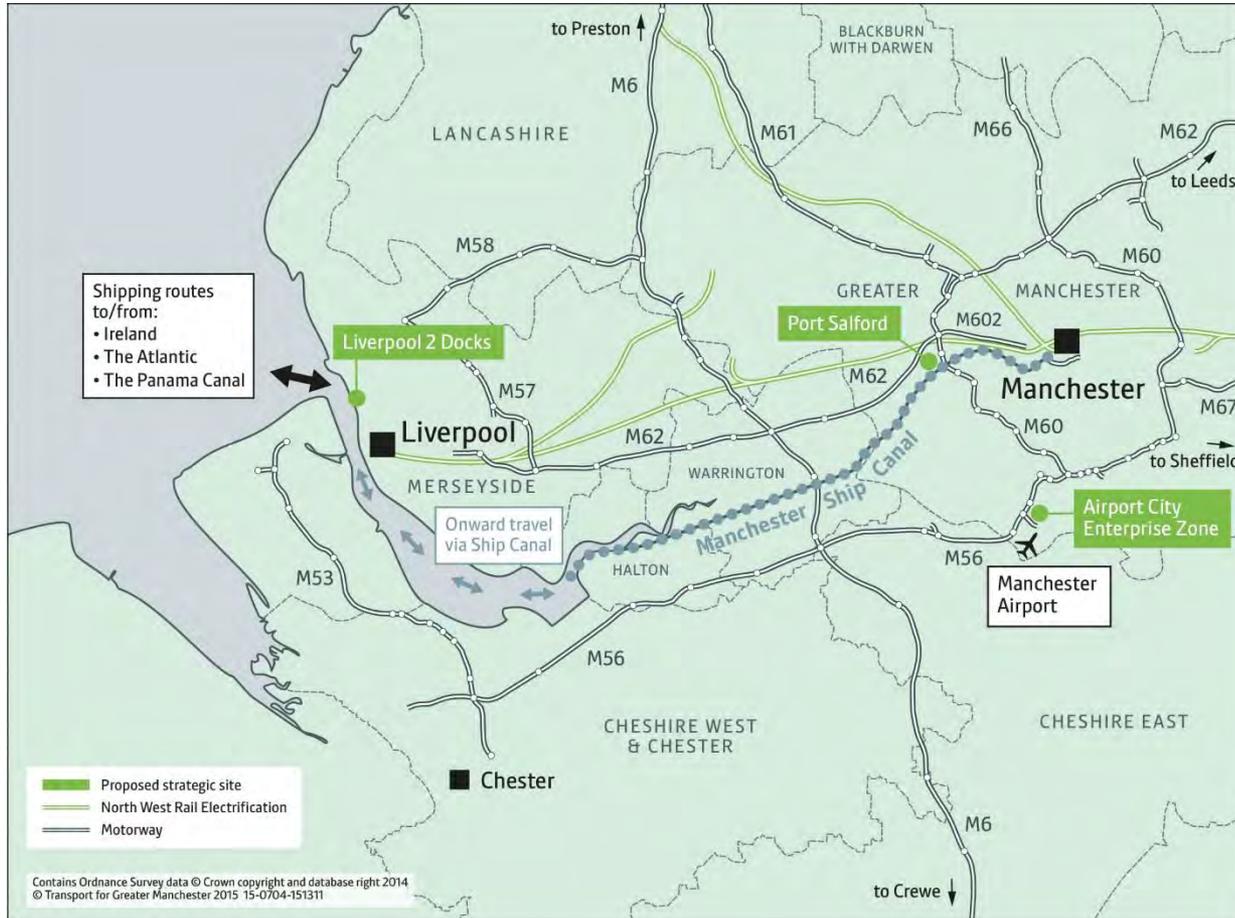
- **Global Connectivity:**
 - Access to Airports – Manchester, Robin Hood, Humberside
 - Access to Ports – Humber and Mersey Ports, Port Salford
- **City-to-City Connectivity:**
 - Liverpool-Manchester-Sheffield-Leeds-Hull
 - Manchester CR- Sheffield CR
- **Travel Across the Wider City Region & Local Connectivity**

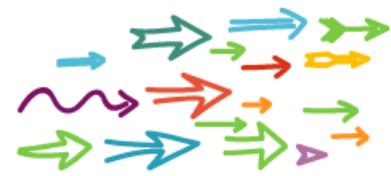
Improved connectivity between local communities across the Pennines (east and west) and

 - Key employment growth areas
 - Educational opportunities and health care
 - Transport interchanges



Atlantic Gateway

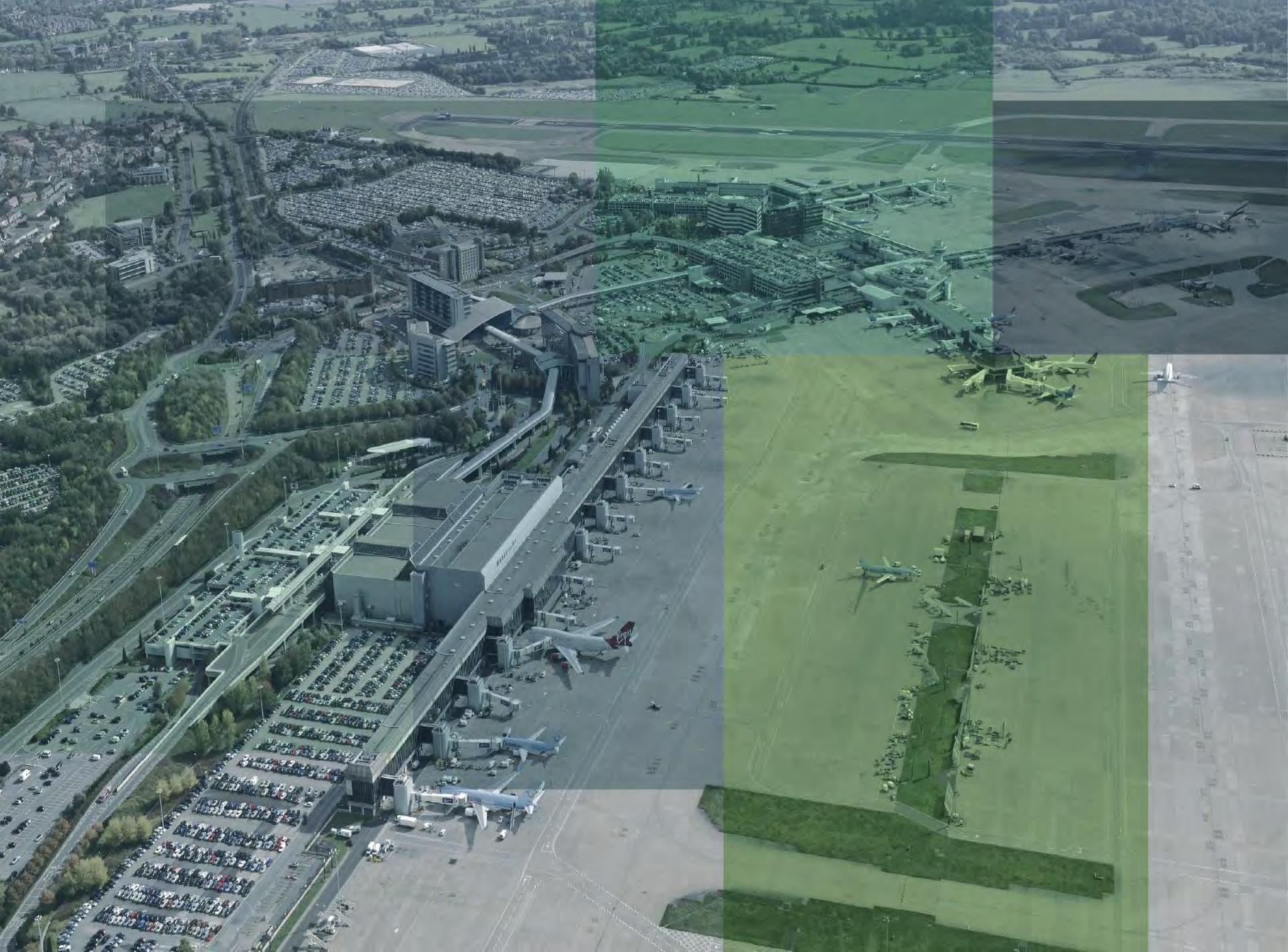




Airport Access

- High quality surface access links to the North's airports:
 - support growth and help the Northern Powerhouse maximise the benefit it draws from its airport capacity.
 - ensure the North is a competitive location for multi-national businesses.







Thank you!

Nicola Kane

Transport Strategy Manager

nicola.kane@tfgm.com

www.tfgm.com/2040





Trans-Pennine Tunnel Study Conference

David Parker

Area Operations Manager

July 2015

Natural England's Starting Point:



- We are the Government's statutory conservation adviser for England:
- We are responsible for internationally and nationally designated nature conservations sites;
- For nationally protected landscapes including National Parks
- And we are responsible for granting licence applications for protected species licenses.

The Study Starting Point:



- National Planning Policy Framework
- National Networks - National Policy Statement
- Highways England Roads Investment Strategy
- Treasury Green Book, Supplementary Guidance 'Accounting for Environmental Impacts'

What do we mean by Ecosystem Services?

NATURAL
ENGLAND



Potential Impacts and Opportunities:



- Natural England has experience of working with many major transport infrastructure projects, including bored tunnel schemes
- The schemes offer opportunities as well as posing risks
- In any such situation, the key to success lies in **Early Engagement**

Business as Usual
not 'above and beyond'

**TRANS-PENNINE TUNNEL STUDY:
Connecting Northern Ports**

20th July 2015



Warren Marshall MRTPI CMILT
Group Planning Director
Peel Ports Group

Peel Ports Group



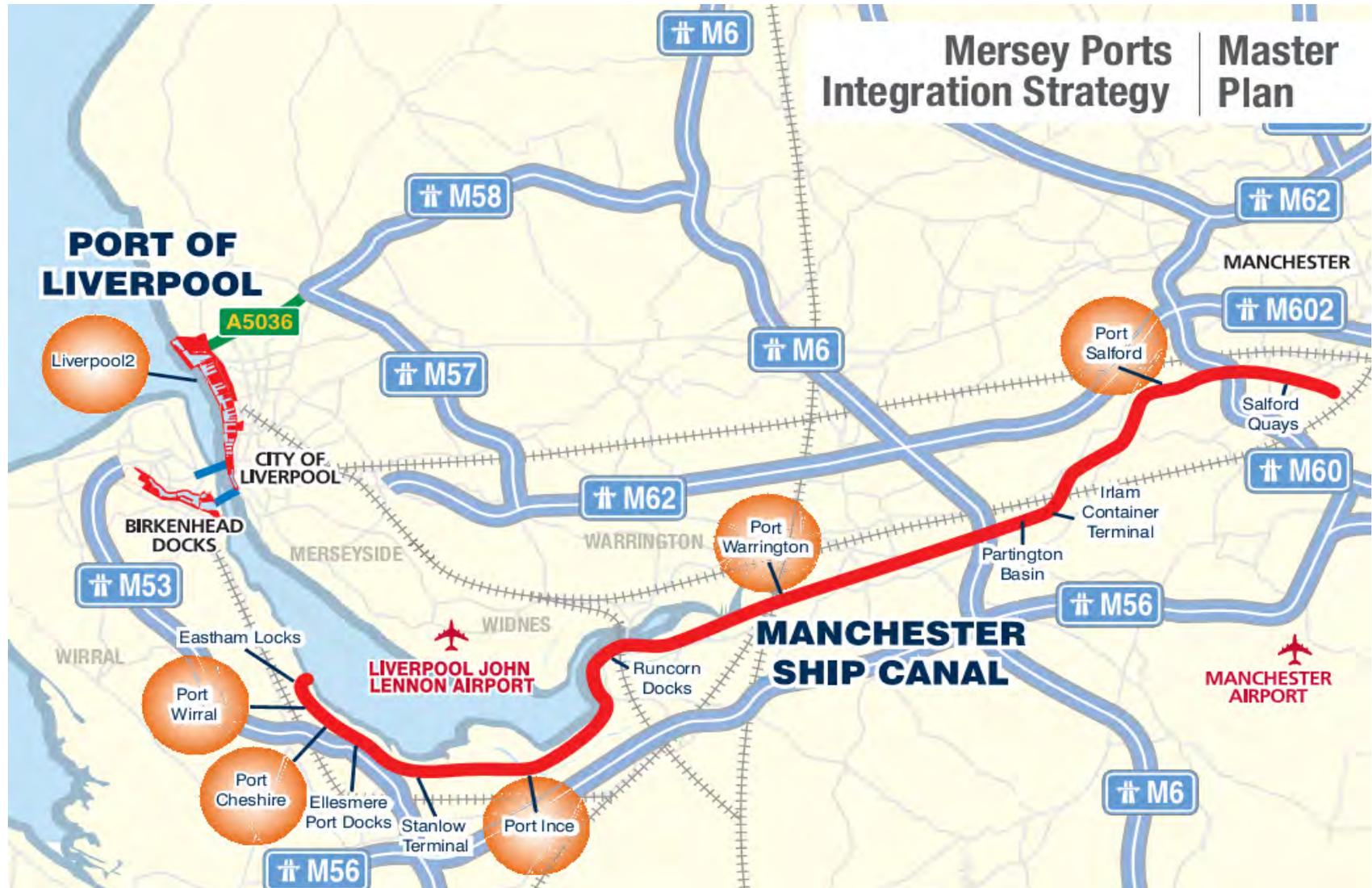
- One of the largest Port Groups in the UK
- 6 Statutory Port Authorities
- 65 million Tonnes of Cargo per annum
- 26,000 Vessels movements per annum

The Northern Powerhouse



- ❑ “Major” Northern Ports tonnage 164 million tonnes
- ❑ Handling 33% of the UK’s annual 503 million tonnes
- ❑ Port of Liverpool largest northern container port
- ❑ Grimsby/Immingham UK’s largest port complex by tonnage
- ❑ Humber & Mersey are 1st and 3rd busiest estuaries by shipping nos.

Mersey Ports Master Plan



Liverpool2 – Deep Sea Container Terminal



Liverpool2 – Opening December 2015



Port Cheshire – Multi Modal Logistics Hub



- Unique Road, Rail and Water Connected Facility
- 1.0 million sq.ft. consented warehousing
- Linkages with Automotive Sector (Vauxhall Motors)

Port Salford – Multi Modal Logistics Hub



- Unique Road, Rail and Water Connected Facility
- 1.6 million sq.ft. consented warehousing
- Phase 1 – 300,000 sq.ft. on-site (Culina Logistics)

Port of Liverpool Biomass Import Terminal



- £100m investment in state of the art storage facilities
- Capable of handling 3 million tonnes per annum (Drax Power)
- Utilises 100% rail - Due to open in early 2016

Port of Liverpool Rail Strategy

Rail Freight aspirations **daily** services as follows:

- ❑ Containers - 15
- ❑ Coal - 3
- ❑ Biomass - 12
- ❑ Steel - 1
- ❑ Scrap Metal - 3
- ❑ Automotive - 2
- ❑ Inter Modal - 2
- ❑ **Total = 38**



Freight by Water – Manchester Ship Canal



Container (TEU) Moves:

- ❑ 2009 ~ 3,000
- ❑ 2010 ~ 7,000
- ❑ 2011 ~ 10,000
- ❑ 2012 ~ 18,000
- ❑ 2013 ~ 26,000
- ❑ 2014 ~ 30,000
- ❑ 2020 ~ 100,000

Surface Access Agenda

- Criticality of road and rail connections to Ports
- Ease of movement of freight (and passengers)
- National Networks National Policy Statement (NPS) - applicable to road/rail schemes and SRFI's (December 2014)
- Interface with Ports NPS and Port Master Planning interventions
- Private sector infrastructure investment matched by public sector investment in road and rail connections
- Overcoming “Bottlenecks” – Access to the Port of Liverpool
- Infrastructure Delivery – Heysham/M6 Link Road – 1948!!!
- Delivery – Projects, Funding & Timescales



Trans Pennine Tunnel Study

Stakeholder Conference

20th July 2015

Transport and the Economy



Context and background



- Transport is essential for economic growth – unequivocal support from various studies (SACTRA, TIEP, etc)
- The DfT's WebTAG approach is best-in-class and fit-for-purpose for most transport interventions
- However, there is wide acknowledgement that there are some challenges when the approach is applied to certain cases
- In this context, the DfT have commissioned work to look into the issues with the current approach and propose some update to future guidance (TIEP, December 2014) and published its response (UVITI)
- HMT issued supplementary guidance to the Green Book in March 2015 that also supported this view



Context and background

The benefits of non-marginal schemes are difficult to measure using WebTAG



Some observations from TIEP



- **One size doesn't fit all:** The mechanisms through which transport impacts on the economy can differ for different types of projects, which means that applying the same formula to all circumstances will not capture the impacts of these different projects;
- **The world is not fixed:** Large projects can impact on the patterns of private sector investment and employment which are not captured adequately by the current appraisal framework;
- **Land use is impacted by transport:** Land use changes should be reported in a wider range of projects given that transport can impact on the spatial pattern of investment;
- **Risk and uncertainty:** The uncertainties inherent in the future state of the world and the fact that there are synergies between different government policies (both transport and non-transport) mean that the appraisal of transport projects should in certain circumstance consider a range of future scenarios; and
- **Linking different parts of the business case:** The strategic and economic cases should be better integrated, with the strategic case used to inform the development of the techniques used in the economic case and with the same standards for rigour applied to the strategic case itself.

HMT Green Book Supplementary Guidance



1

Re-states key principles: Collaboration, Iteration, Materiality, Proportionality, Communication, Attribution

2

Incorporating interdependence and resilience in valuations: this covers cross sector national projects and those concentrated geographically

3

Risk and uncertainty: recognises future uncertainties and guidance for incorporating these within the formal appraisal

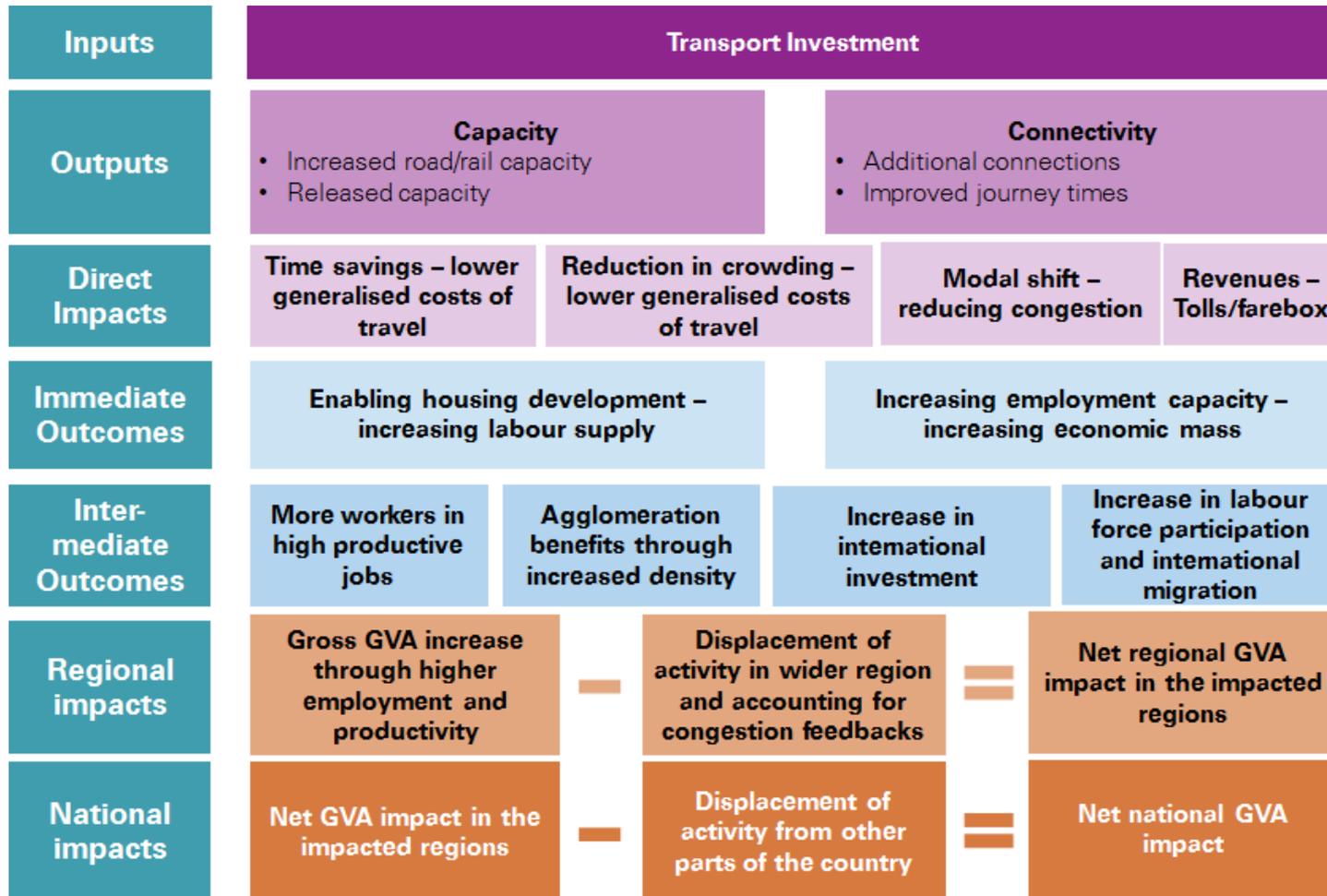
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Scale effects: large projects and integrated programmes could have large scale effects that should be valued

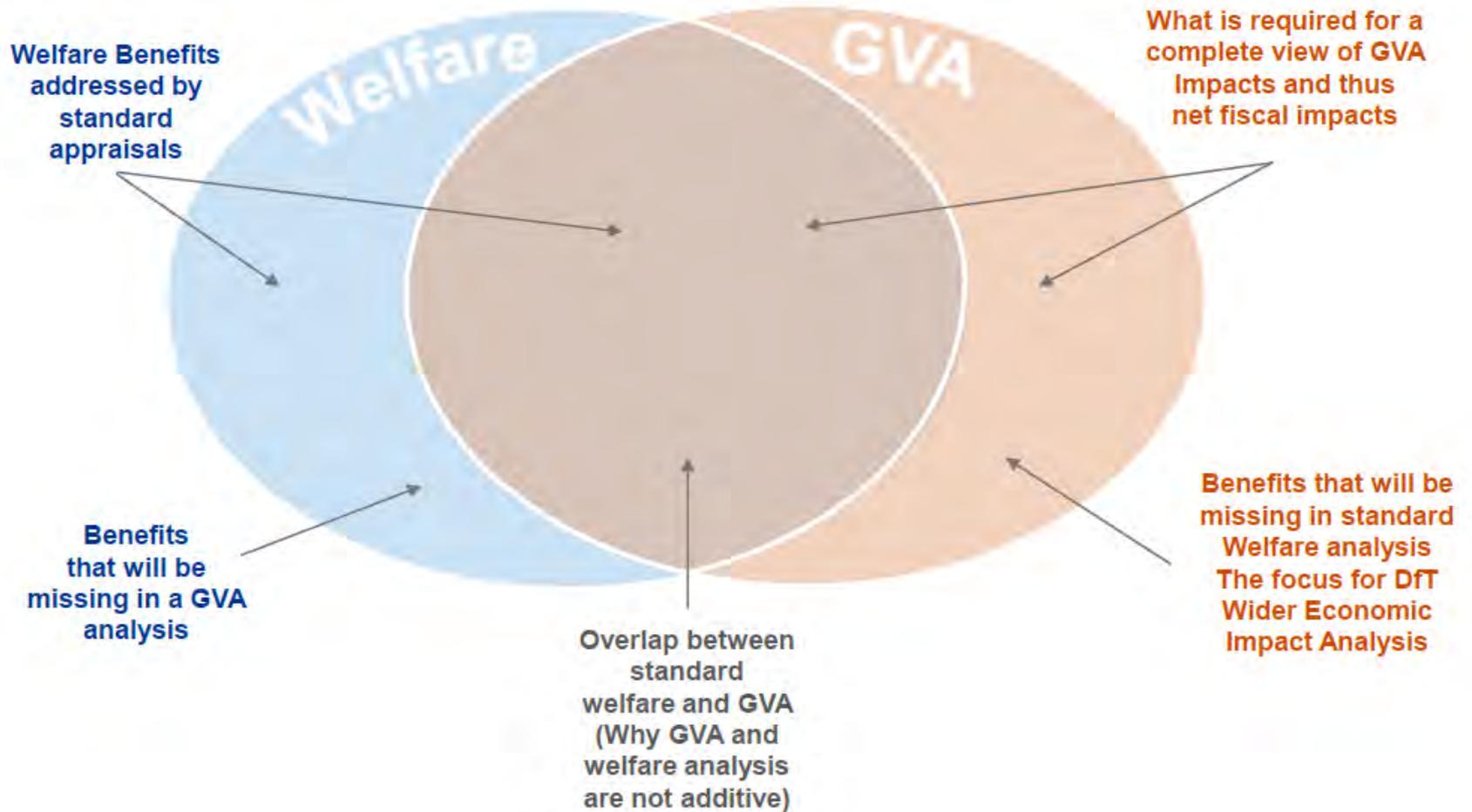
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Non-marginal effects: recognition that large scale interventions could impact on economic activity and output that could not have otherwise been possible, these should be valued

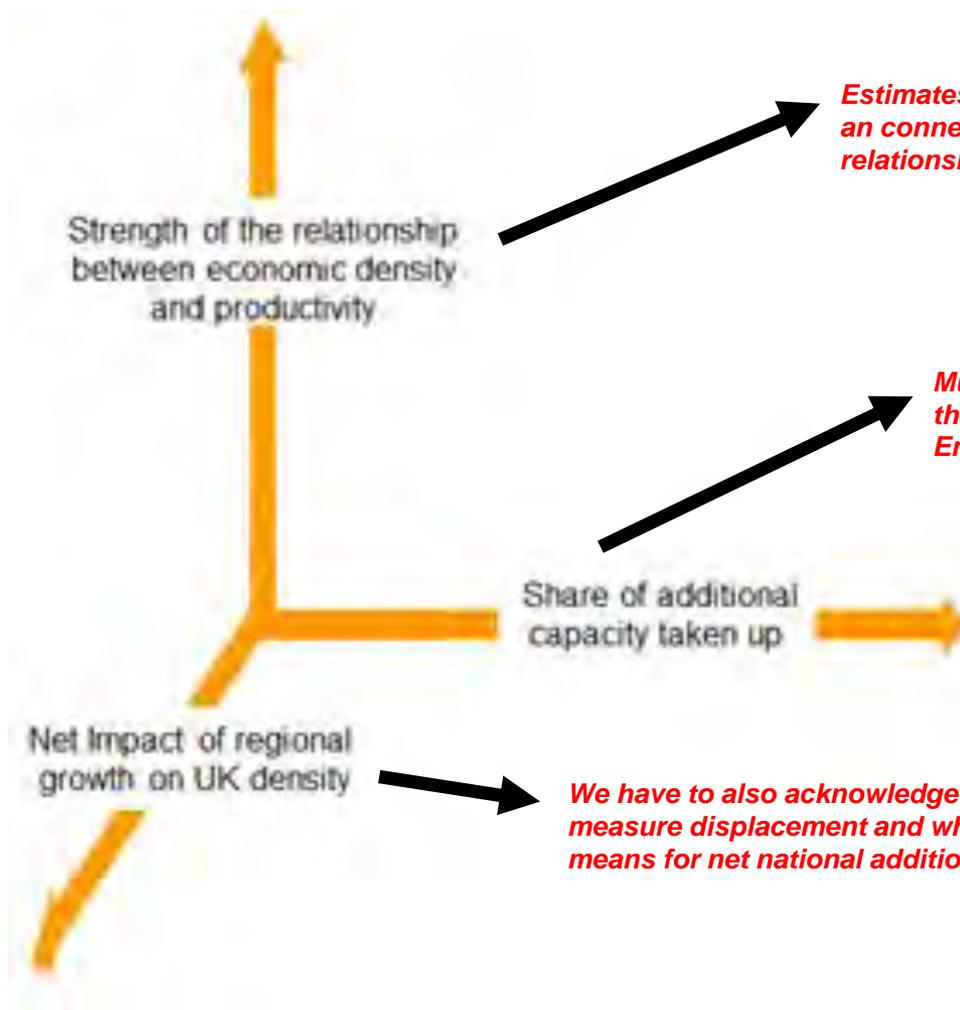
How transport impacts the economy



Relationship between the measures



Risk and uncertainty



Estimates of the relationship between productivity and connectivity vary, with evidence of non-linear relationships

Much also depends on traffic demand and what that means for economic activity (population and Employment capacity)

We have to also acknowledge and try to measure displacement and what that means for net national additionality



Challenges and Opportunities

Andrew Cairns

Project Manager

Study Consultant



- What are the challenges involved in carrying out the Trans-Pennine Tunnel study.
- What are the key economic issues?
- What are the key environmental issues?
- What technological factors will impact on proposed solutions?
- How will we ensure that the study conclusions are properly robust?
- What are the wider opportunities?





Trans-Pennine Tunnel Study Conference

Planning for Freight

Malcolm Bingham

Head of Road Network Management Policy

Freight Transport Association



Freight Transport Association

Delivering safe, efficient, sustainable logistics



Impacts of Traffic on the National Park and Opportunities of a Tunnel

Emily Fox – Transport Policy & Climate Change Manager
Peak District National Park Authority



Outline

- National Park setting
- Impacts of traffic
 - National Park Users
 - National Park Environment
- Potential opportunities
 - For A628 corridor
 - For sustainable travel
- Conclusions

National Park Setting



Impacts – National Park Users

- National Park users
 - Residents
 - Recreational user
 - Visitors

Impacts - Environment

- Visual / landscape
 - Direct
 - Indirect
- Ecology & air quality
- Noise & tranquillity

Potential Opportunities

- Many potential opportunities
- Study at early stages so many uncertainties
- High level potential opportunities
- Premise that
 - tunnel removes all strategic journeys
 - Tunnel entrance and exit are outside the National Park
- Not an exhaustive list

Potential Opportunities

- Removal of cross-Park traffic
- Strategic opportunities
 - Opportunities for A628 corridor
 - Sustainable provision for local travel
- Opportunities influences
 - Tunnel start and finish locations
 - Highway authorities as well as Highways England
 - Details of any proposals

A628 Corridor Opportunities

- Detrunk road
- Reduce significance & infrastructure
 - Reduce speed limit
 - Remove signage & crash barriers
 - Remove dualled sections
 - Remove passing lanes or reconfigure as parking
- Improved crossings for Trans Pennine Trail & Pennine Way
- All enhance the landscape & public enjoyment of valley

Sustainable Travel Opportunities

- Removal of strategic traffic provides opportunities for local travel
- Measures to make route unattractive to through traffic
- Priority to & sustainable travel opportunities
- Traffic calming
- Measures could improve sustainability and severance

Conclusions

- Traffic has significant impacts on the National Park users and environment
- Many opportunities for the National Park if through traffic is removed