Borders Transport Corridors - Pre-Appraisal Executive Summary

March 2019

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TRANSPORT SCOTLAND
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Background

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1.1 Context

The Programme for Government (2016-2017) stated that Transport Scotland will examine the case for an extension to the railway along with improvements to the A1, A7 and A68 with a study to identify Borders transport requirements.

The Scottish Borders Railway Feasibility Study was prepared for The Scottish Executive in February 2000. This comprehensive study explored the viability of reopening the former Waverley Line between Edinburgh and Carlisle, and considered route option development along with the socio-economic impacts and cost benefit analysis as part of the study.

The Borders Rail Scheme was granted parliamentary powers to proceed in 2006 and the line between Edinburgh and Tweedbank was completed in September 2015 and is now fully operational. It is the UK's longest newly-constructed railway for more than 100 years. In the lead up to the 2016 elections, the Scottish Government made a manifesto commitment to "examine the feasibility of extending the Borders Railway to Hawick and Carlisle." There have also been ongoing calls for general transport improvements across all transport modes in the Scottish Borders. The success to date of the Borders Rail Line has understandably strengthened this.

The Programme for Government (2016-2017) stated that Transport Scotland will examine the case for an extension to the railway along with improvements to the A1, A7 and A68 with a study to identify Borders transport requirements and report by the end of 2017. To satisfy this, Transport Scotland commissioned the Scottish Transport Appraisal Guidance (STAG) Pre-Appraisal stage of the Borders Transport Corridors Study in April 2017, This document acts as an executive summary of the Pre-Appraisal Study.

1.2 Purpose and Aims

The specific aims of the Borders Transport Corridors Study were to:

- Identify cross modal problems and opportunities within the transport provision between the Scottish Borders and its key markets of Edinburgh, Newcastle and Carlisle;
- Highlight where there is a need for further investigation of issues; and
- Recommend transport options which could be subjected to more detailed appraisal in Scottish Transport Appraisal Guidance (STAG) Part I.

Methodology

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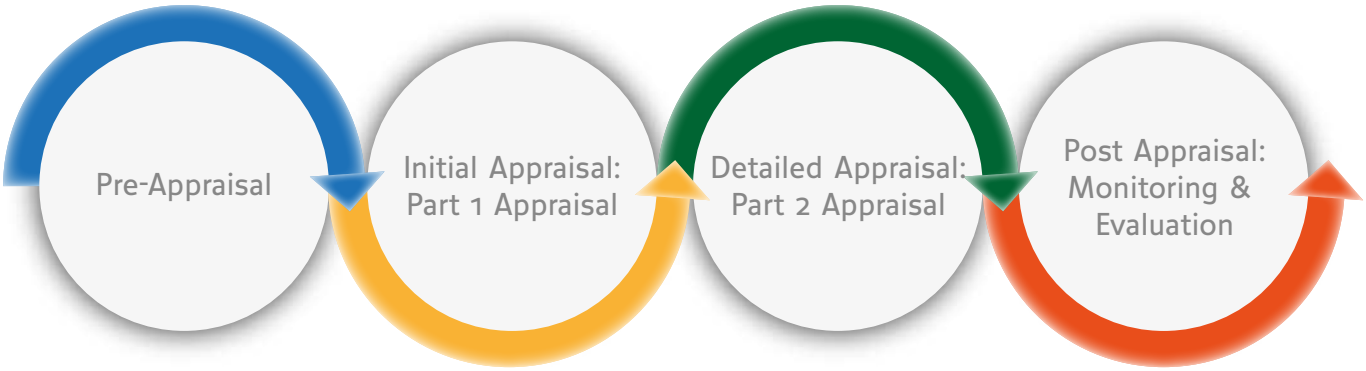
2.1 Overview

The study has been undertaken using Scottish Transport Appraisal Guidance (STAG). STAG supports the Scottish Government's purpose, which is to "focus Government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth," by providing a clear framework to assess evidence-based transport problems, challenges and opportunities, including objective-led analysis that can be consistently applied in all transport appraisal contexts.

STAG is one process comprising four phases as shown below:



The focus for this study is Pre-Appraisal; this first phase is the essential starting point and sets the rationale for undertaking an appraisal in accordance with STAG – participation and consultation is vital to the process. It is important to note however that this is the earliest stage of appraisal, with several more detailed stages to follow.

There are many key principles which underpin the STAG process, including:

- **Robust Pre-Appraisal provides the foundation to the whole process** since it promotes the analysis of opportunities in parallel to the identification of transport problems.
- **Objective-led rather than solutions-led** which avoids pre-conceived solutions being brought forward without considering other options which may meet the identified problems or opportunities.
- **Does not prioritise between options** but rather it is an aid to decision makers to allow them to make informed choices. STAG may provide an initial rationale for investment and it is important that the STAG outcomes are revisited as the Business Case for an intervention develops.

2.2 Key Tasks

Six key tasks were undertaken as shown below. Task outcomes are described in subsequent chapters:

Data Collation and Collection

To gain a comprehensive understanding of the study area, including the geographic, social, economic and transport context, as well as the Scottish Borders transport system and its linkages and connectivity to key external markets of Edinburgh, Newcastle and Carlisle

Stakeholder Engagement

To engage with a wide range of appropriate stakeholders in the identification of problems and opportunities, and the development and assessment of potential solutions

Analysis of Problems & Opportunities

To undertake an assessment of problems and opportunities across the Scottish Borders transport and land use system

Objective Setting

To develop Transport Planning Objectives that reflect the problems and opportunities, and express the outcomes sought for the study

Option Generation, Sifting & Development

To generate the widest possible set of options which could alleviate the identified or perceived problems and address the potential opportunities across the Scottish Borders transport and land use system. Sift the option long list down to a short list for further work.

Reporting

To clearly document and present the analysis and outcomes from the study, including recommendations on transport options which could be subjected to more detailed appraisal

Data Content

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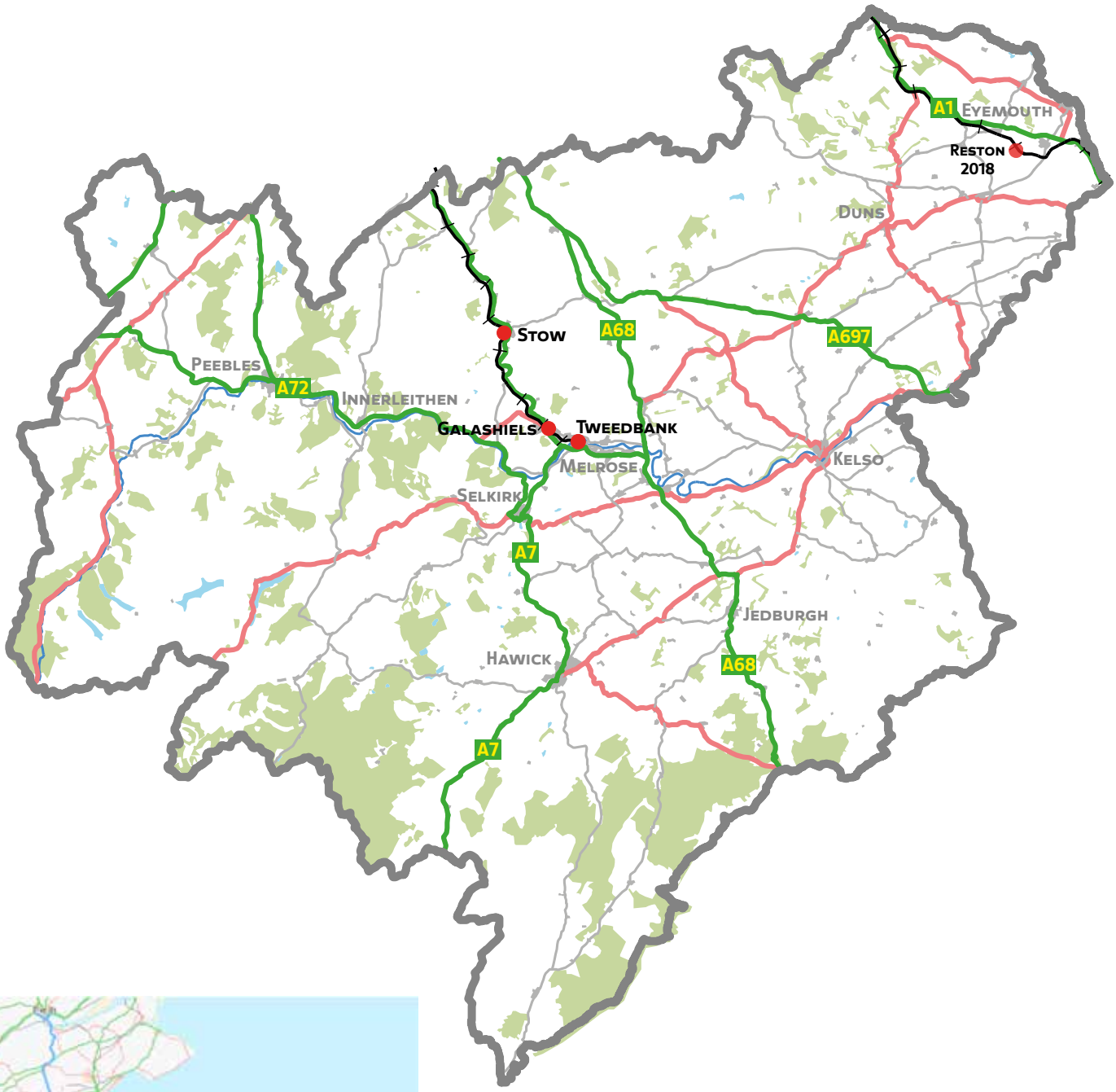

A1
Eyemouth
Reston
2018
Duns
A68
A697
Stow
Peebles
A72
Innerleithen
Galashiels
Tweedbank
Melrose
Kelso
Selkirk
A7
Jedburgh
Hawick
A68
A7

3.1 Introduction

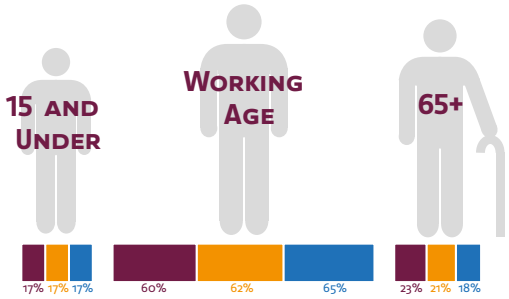
As part of setting the data context, a wide range of existing data sources were collated and analysed to understand the geographic, socio-economic and transport context of the study area. Data for the Scottish Borders was compared against the National 'Scotland' level and a Scottish Rural Average (SRA) comparator which was specifically developed for this study. The following sections summarise some of the key trends in the Scottish Borders.

3.2 SocioEconomic

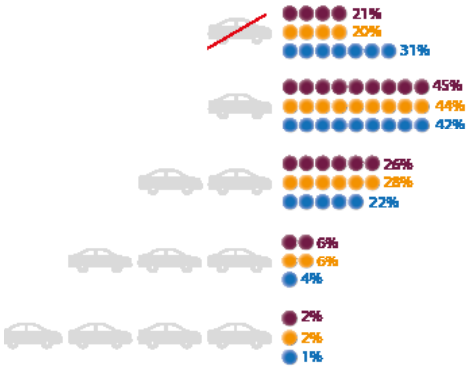
3.2.1 Population Age

Since 2011, only the over 65 age category has shown an increase in the Scottish Borders area with a 12% increase compared to a 10% increase at the national level. This suggests a decline in the working age population and, should this continue, it could affect political ambitions of increasing economic growth within the Scottish Borders. Furthermore, an increasing ageing population could put a strain on local services, such as health, in the future.

The population age structure of the Scottish Borders is similar to the SRA comparator area and national figures. However, it is worth noting that there are more people in the over 65 age category.



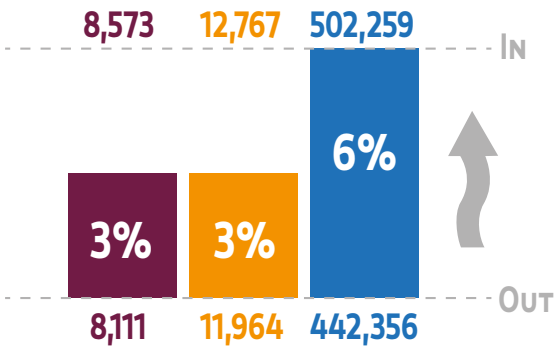
3.2.2 Car availability



Households in the Scottish Borders have high car availability (34% of households having access to two or more cars) similar to the SRA comparator area (36%) – this is in line with expectations. 27% of households in Scotland as a whole have access to two or more cars. These trends suggest that the Scottish Borders could be experiencing public transport connectivity problems, or equally residents have higher levels of disposable income.

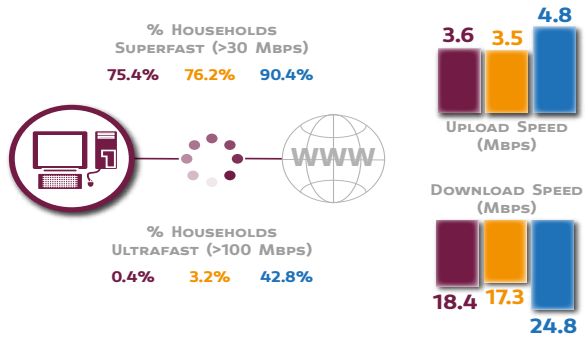
3.2.3 Migration

The population migration statistics for the Scottish Borders showed a net increase in population of 462 (3%) in 2011. This trend is consistent with the SRA comparator area (3%) but 3% lower than the national trend. The workforce migration statistics indicate that there is a higher proportion of the workforce travelling to work outside of the region. than those travelling to work within the Scottish Borders from other regions.



3.2.4 Broadband

Analysis of broadband connectivity statistics indicates that the Scottish Borders has relatively good upload and download speeds, compared to the SRA, however, the number of households with Superfast and Ultrafast broadband provision lags behind Scotland as a whole. This most likely reflects a lack of broadband infrastructure in the region and highlights a problem area where further investment may be required to help the Scottish Borders achieve its economic growth objectives.

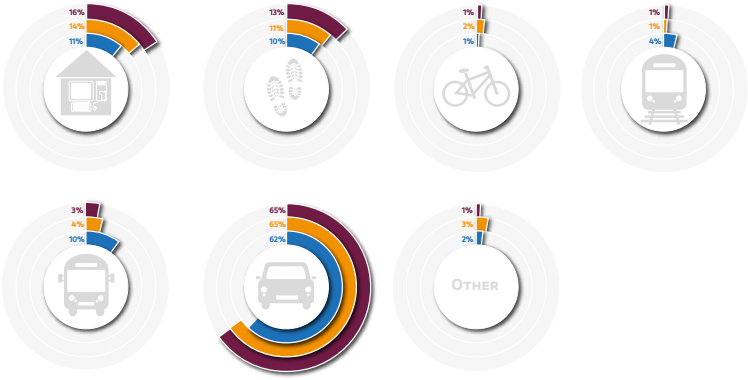


3.3 Transport

3.3.1 Mode Share

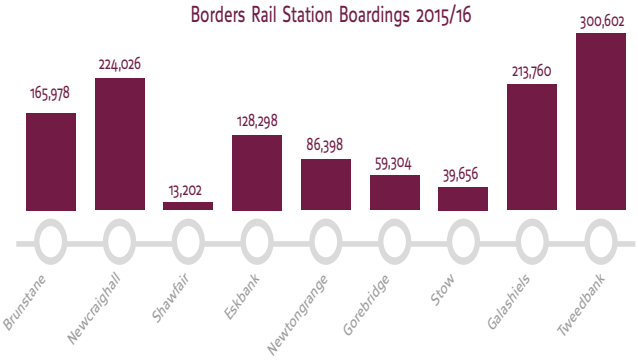
When considering mode share, the Scottish Borders and SRA comparator area have much lower levels of public transport usage compared to Scotland as a whole, with only 5% using bus or rail compared to 14% at the national level. It is worth noting these values are obtained from 2011 census and, as such, will not include any impacts resulting from the Borders Railway.

It can also be seen that the number of people who work at home is higher than both the SRA comparator area and national averages. This potentially highlights the longer distances the workforce may need to travel to access their desired employment and so they have elected to not travel. This indicates the value placed on broadband connectivity, as highlighted in the socio-economic analysis.

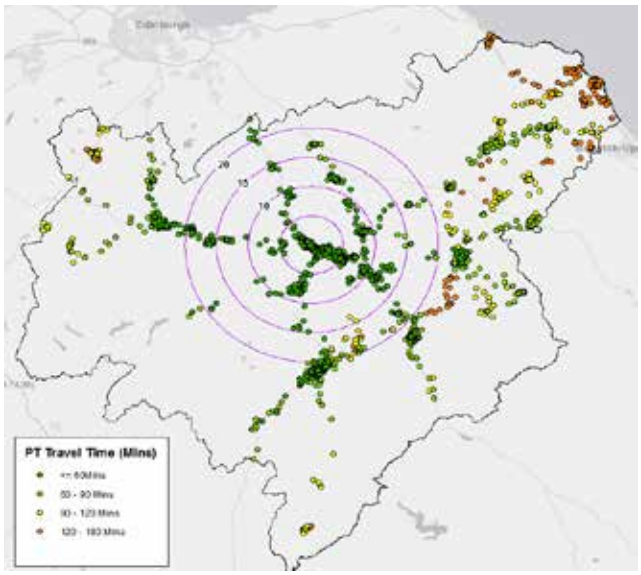


3.3.2 Border Rail Station Patronage / Boardings

According to station patronage levels, stations on the north section of the rail line [i.e. stations closest to Edinburgh] and stations towards the south end of the rail line in Galashiels and Tweedbank have the highest patronage levels. One of the many contributing factors to high patronage levels in Galashiels and Tweedbank could be rail users travelling from further afield within the Scottish Borders to use the Borders Railway.



3.3.3 Public Transport Journey Times



It is clear that there is an east-west public transport accessibility problem. Postcodes in the east towards the A1 are anywhere between 120 and 180 minutes by public transport from the Galashiels Transport Interchange. The map opposite also clearly highlights much better PT journey time accessibility along the main north-south corridors, including the A7 and A68, suggesting that there could be a problem with public transport service provision / frequency travelling east to west.

At least one fifth of all Scottish Borders postcodes have “no accessibility” or are unable to complete a journey within the 360-minute time period to either Edinburgh, Newcastle and Carlisle during any time of the day.

3.3.4 Road Traffic Volumes 2010-2016 (DfT Estimates)

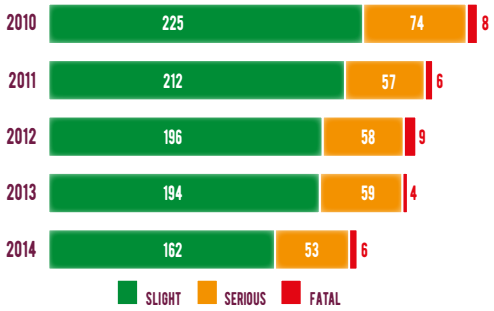
Cars: There were some large increases in car volumes around Selkirk, Galashiels and on the A6089 from Kelso. Additionally, there were also some increases in the east around Eyemouth and on the A1107. Combining all counts along each of the main road corridors (A1, A7 and A68), indicates a marginal change over the years, with car traffic decreasing by 1% on both the A1 and A7 and increasing by 1% on the A68.

Light Goods Vehicles (LGVs): DfT estimates showed increases throughout the Scottish Borders and at significant levels [i.e. increases above 25%]. This probably reflects the growth in home-based internet shopping and home deliveries. At the corridor level, all three main routes experienced significant average increases; the A1 (approximately 20% increase); and the A68 and A7 (approximately 35% increase).

Heavy Goods Vehicles (HGVs): Much of the HGV traffic growth between 2010 and 2016 occurred on the A7 and A702 (+7%). HGV traffic has also increased on the A68 (2%) but decreased on the A1 by 2%.

Accidents: In general, the number of road traffic accidents in the Scottish Borders have reduced over time, from 307 in 2010 to 221 in 2014, an approximate 30% reduction.

The main clustering of accidents is around the 'horseshoe' between Selkirk, Galashiels and Melrose, and south to St. Boswells.



Problems and Opportunities

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4.1 Overview

The identification and definition of Problems and Opportunities was the fundamental basis for deriving Transport Planning Objectives (TPOs) and the subsequent development of options for this study. A two phased approach was undertaken as part of this process:

Phase 1: Stakeholder engagement

A wide range of stakeholders with a vested interest in the transport network contributed significantly to the study. The stakeholder engagement programme consisted of the following:

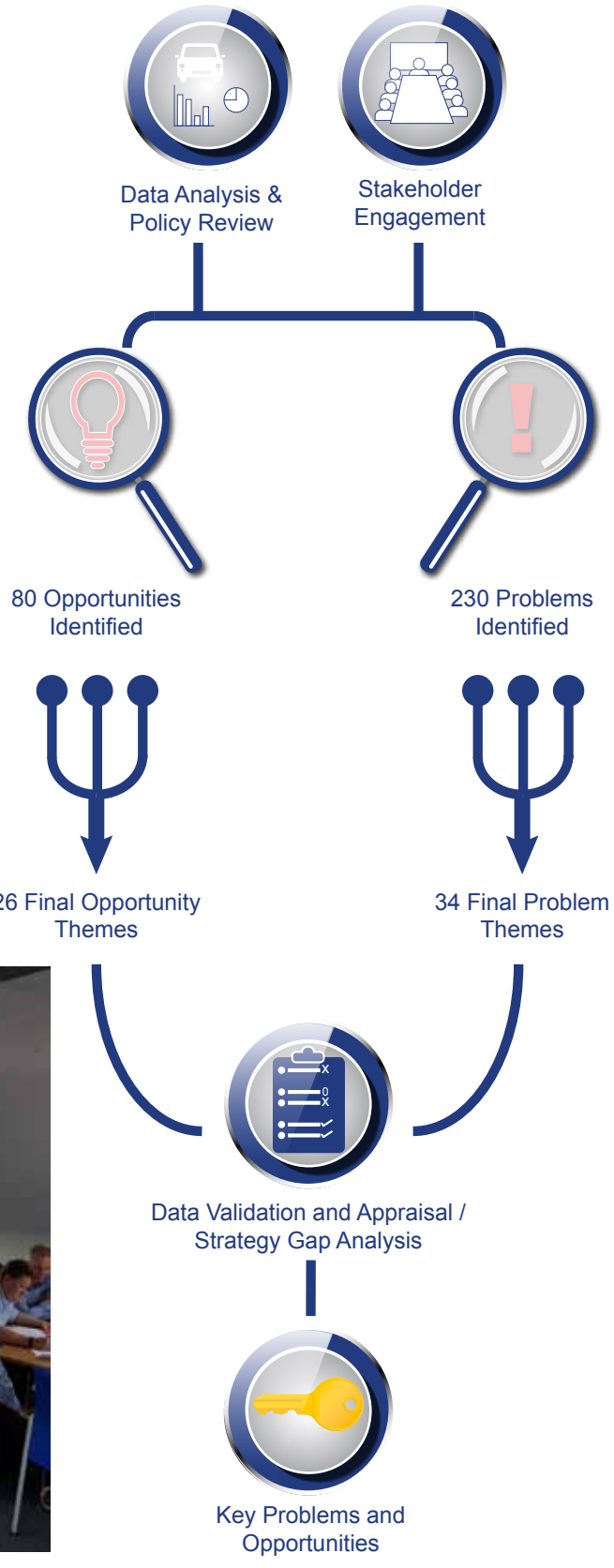
- Stakeholder Workshops
- Structured Telephone Interviews
- Wider Online Engagement (On-line Community Council Survey and On-line Public Survey)

Phase 2: Data Analysis

This involved using the two sources listed below to undertake gap analysis and validation of the identified problems and opportunities from phase one:

- Data Analysis
- Policy Review

The stakeholder engagement programme and the data and policy analysis both contributed to the identification of final Problems and Opportunities. This process is illustrated in the diagram to the right.



4.2 Key Problems & Opportunities

Problems

Public Transport

- Limited accessible public transport service provision
- Lack of rail capacity
- Local geography constrains ability to create efficient transport system
- Lack of public transport ticket integration and interchange opportunities

Road

- Network Resilience
- Lack of high quality standard of roads
- High Volume of Goods Vehicles

Connectivity

- Lack of internal connectivity
- Lack of east-west connectivity
- Lack of access to digital and internet services
- High cost of travelling

SocioEconomic

- The Socio-Economic problems are largely interlinked, with the main problems relating to the high number of people travelling out with the Scottish Borders to work and study - mostly to Edinburgh. This is believed to impact on the amount of employment opportunities available due to perceived 'brain-drain' and resulting social and economic deprivation as less money and funding are available in the area.

Active Travel

- Lack of active travel infrastructure provision
- Local geography
- Lack of safety measures

Opportunities

Socio-political

- High Quality of life in the Scottish Borders
- Collaboration and co-operation
- External funding opportunities

Accessibility & Connectivity

- Increased interest in rail infrastructure / service improvements
- Build upon Borders Railway success
- Digital connectivity

Leisure & Tourism

- Scottish Borders is attractive for active travel and tourism
- High quality of life in the Scottish Borders
- Develop the tourism market

Economy & Development

- Neighbouring employment opportunities
- Local Development Plan aspirations
- Skilled local workforce
- West Coast Motors investment

4.3 Issues

The following issues have been identified:

Issue 1: Transport and Land Use in neighbouring Local Authorities

Issue 2: Internet / Broadband Connectivity

Issue 3: Government Funding and Cuts

4.4 Constraints

The following issues have been identified:

Constraint 1: Physical Constraints

Constraint 2: Institutional Boundary Constraints - Policies, Revenue & Funding

Constraint 3: Bus Deregulation and Funding

Objectives

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5.1 Overview

The Transport Planning Objectives (TPOs) derived for this study are focussed on reflecting the identified problems and opportunities. The objectives have been developed and expressed with SMART principles in mind, such that they will be Specific, Measurable, Attainable, Relevant and Timed.

The process followed to derive these Objectives was as follows:

5.2 Transport Planning Objectives

TPO1 : Improve interchange with and between sustainable transport modes.

Focus is on alleviating the problems and addressing the opportunities, including those affecting the overall public transport network, connecting bus & rail and further integrating active travel in the Scottish Borders.

TPO 2: Improve journey times, reliability and safety to employment, key services and leisure.

Focus is on alleviating problems related to connecting travel modes, road network performance, as well as providing more reliable and efficient travel for tourists and residents to access key services and employment opportunities.

TPO 3: Integrate transportation and land use opportunities to capitalise on the built and natural environment.

Focus is on alleviating problems that act as barriers to linking key development areas with a good transport network while maintaining the high quality natural environment of the Scottish Borders, which is a key attractor of visitors to the area.

TPO 4: Reduce business transport costs for economically competitive sectors.

In line with the identified problems and opportunities, this objective is focussed on improving the competitiveness of local businesses in the Scottish Borders, by helping to alleviate key problems such as transport related costs and transport network integration. The outcome could be one that promotes the local economy by providing improved accessibility to the transport network for businesses to efficiently and effectively access key markets and high skilled workforce.

Options

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6.1 Overview

The next step in the STAG Pre-Appraisal process was to generate a wide range of options which could meet the Transport Planning Objectives, alleviate the identified problems and address the potential opportunities across the Scottish Borders transport and land use system.

As stipulated in STAG, the Option Generation process should not be unreasonably constrained at the start of the process. As such, option generation has been informed by three key tasks helping to encourage new potential options in addition to those which have been proposed for some time:

- stakeholder engagement;
- outcomes from a comprehensive review of relevant policy documents; and
- discussions with the Project Working Group.

270 individual options were generated from the tasks listed above, some of which were not linked to specific locations or routes / corridors but rather more representative of the Scottish Borders transport network as a whole.

A review of the individual options was undertaken and this showed that many were very similar and, as such, were grouped into single options. Further refinement was undertaken removing generic options which were not considered transport options. Approximately 100 individual options were retained.

6.2 Methodology

The Option Sifting process was undertaken using a three-staged approach, which is outlined in the figure below.

6.3 Recommended Options

Option 1
Type of Option: Accessibility
Title: Increase Bus Services to Strategic Health Service Facilities
Description: Increase bus service provision between Scottish Borders and Borders General Hospital and other strategic health facilities [e.g. Edinburgh Royal Infirmary]

Option 2
Type of Option: Accessibility
Title: Improve Physical Access to Strategic Public Transport Services
Description: Improve physical accessibility to public transport through infrastructure and on public transport vehicles for people with mobility or sensory impairment on strategic routes

Option 3
Type of Option: Active Travel
Title: Strategic Active Travel Network
Description: Implement a strategic active travel network and cross-boundary active travel measures [e.g. Peebles - Edinburgh], including provision around key services and public transport interchanges

Option 4
Type of Option: Freight
Title: Freight Route
Description: Implement a freight route signage strategy, including the provision of specific real time Satnav route information

Option 5
Type of Option: Freight
Title: Develop Forestry Route Network
Description: Improve network of internal forestry tracks as well as its connections to roads and railway, including 'low-tech' timber pickup facilities

Option 6
Type of Option: Park-and-Ride
Title: Increase Park and Ride Provision
Description: Increase capacity of existing Park-and-Ride sites and implement new Park-and-Ride schemes for all modes at strategic locations [e.g. Interchanges and Key Employment Areas]

Option 7
Type of Option: Public Transport
Title: Express Bus Services
Description: Provision of express bus services to key external markets (Edinburgh, Newcastle and Carlisle, including airports)

Option 8
Type of Option: Public Transport
Title: East-West Bus Services
Description: Increase number and frequency of east-west bus services, including extending timetable into evening

Option 9
Type of Option: Public Transport
Title: Borders Railway Extension - South/West
Description: Extend the Borders Railway to Hawick and / or Carlisle

Option 10
Type of Option: Public Transport
Title: Borders Railway Extension - South/East
Description: Extend the Borders Railway towards East Coast Main Line (ECML) via Berwick-upon-Tweed

Option 11
Type of Option: Public Transport
Title: Enhanced Rail Services
Description: Increase the frequency, capacity and service quality of the existing Borders Railway [e.g. service capacity, bike storage, Wi-Fi, reliability and punctuality]

Option 12
Type of Option: Public Transport
Title: New Rail Stations
Description: New rail stations on the existing Borders Railway

Option 13
Type of Option: Public Transport
Title: Extension of Borders Railway Services
Description: Link Borders Railway and Fife Circle, providing interchange at Edinburgh Gateway; West Edinburgh; and potential future link to Glasgow

Option 14
Type of Option: Road
Title: A1 Dualling
Description: Complete the dualling of the A1 south of Edinburgh to the Scottish Border

Option 15
Type of Option: Road
Title: A1 Safety Measures
Description: A1 package of safety measures and improvements [e.g. average speed cameras, climbing lanes and junction improvements]

Option 16
Type of Option: Road
Title: A68 Capacity Enhancement
Description: A68 capacity enhancement measures, such as partial dualling, bypass and overtaking lanes

Option 17
Type of Option: Road
Title: A68 Safety Measures
Description: A68 package of safety measures and improvements [e.g. average speed cameras, climbing lanes and junction improvements]

Option 18
Type of Option: Road
Title: A7 Capacity Enhancement
Description: A7 capacity enhancement measures, such as partial dualling, bypass and overtaking lanes

Option 19
Type of Option: Road
Title: A7 Safety Measures
Description: A7 package of safety measures and improvements [e.g. average speed cameras, climbing lanes, junction improvements and appropriate diversionary routes]

Option 20
Type of Option: Road
Title: Secondary Network Safety Measures
Description: Package of safety measures and improvements to secondary road network performing strategic function

Option 21
Type of Option: Road
Title: Enhanced Service and Rest Areas
Description: Service areas to include facilities for HGV rest stops, electric vehicle charging points, tourist facilities and coach layover

Summary

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7.1 Summary

The Pre-Appraisal report set the context for the appraisal of transport options for the Scottish Borders and for its key strategic connections to Edinburgh, Newcastle and Carlisle.

In line with STAG guidance, it has identified the key transport problems, opportunities, issues and constraints within the study area, which have formed the basis for objective setting and the generation of a wide range of options to be appraised.

This will inform the next stage, an Initial Appraisal, which will involve an initial qualitative appraisal of the recommended options from Pre-Appraisal. This would include an assessment of:

- the likely impacts of the options against the Transport Planning Objectives;
- the likely impacts of the options against STAG criteria [i.e. Environment, Safety, Economy, Integration, and Accessibility and Social Inclusion];
- options against established policy directives; and
- feasibility, affordability and public acceptability of the options