

## Draft Borders Region Appraisal Summary Table

A draft Appraisal Summary Table (AST) has been developed for each of the eleven STPR Regions alongside the National AST. The ASTs are set out to provide:

- Regional/National Context, Problems and Opportunities - drawing on data presented in the Initial Appraisal: Case for Change reports<sup>1</sup> this summarises geographic, social, economic, environmental and transport matters in the region as well as the identified problems and opportunities. In line with STAG, appraisals are expected to explore location-specific problems and opportunities. Local problems and opportunities have been considered and presented to gain a full understanding of the regional and national issues, however some options to address these may not be within the scope of this strategic study.
- Package description – this presents the groupings (interventions) that were included in the detailed appraisal for the region.
- Fit with Policy – provides a summary of how well the appraised packages fit with key national policies including the second National Transport Strategy, Climate Change Plan Update, the draft National Planning Framework 4 and relevant regional policies.
- Transport Planning Objectives (TPO) Assessment - An assessment against each of the five TPOs is provided with quantified metrics provided, where appropriate, under the low traffic / emissions demand and high traffic / emissions demand scenarios (further information about these scenarios is provided in Appendix F). A seven point scoring scale is adopted for each TPO which is:
  - + + + = major positive (3 plus signs)
  - + + = moderate positive
  - + = minor positive
  - 0 = neutral
  - - = minor negative
  - - - = moderate negative
  - - - - = major negative (3 minus signs)
- STAG Criteria assessment - as above for the TPO assessment, key points regarding the performance of the package against each of the STAG criteria is presented with quantified metrics provided where appropriate.
- Deliverability – commentary is provided on the assessment of the package in terms of its feasibility, affordability and public acceptability. Note that due to the nature of a number of the STPR2 interventions, and this presenting the Strategic Case it has not been possible to derive cost estimates on a regional basis. However, broad capital spending ranges have been estimated over the period 2022 to 2042 at a national level.

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<sup>1</sup> <https://www.transport.gov.scot/our-approach/strategy/strategic-transport-projects-review-2/>  
<https://www.transport.gov.scot/publication/borders-transport-corridors-pre-appraisal/>  
<https://www.transport.gov.scot/publication/north-east-region-option-sifting-update-report-feb-2021-stpr2/>  
<https://www.transport.gov.scot/publication/south-west-scotland-region-option-sifting-update-feb-2021-stpr2/>

- Other Criteria Assessment – a summary of the performance of the packages against the Strategic Environment Assessment (SEA), the Equalities Impact Assessment (EqIA), Island Communities Impact Assessment (ICIA), Fairer Scotland Duty Act (FSDA), Child Rights and Wellbeing Impact Assessment (CRWIA) is provided. The seven-point scale is adopted in these assessments where appropriate.

The assessments contained in the ASTs assume all interventions in the packages are progressed. However, it should be noted that not all interventions taken through the detailed appraisal will form a recommendation within STPR2.

The National AST is broadly similar to the regional documents, but presents the performance of the full package of interventions taken through detailed appraisal, relying on a combination of quantitative and qualitative information.

### **Summary of Assumptions**

Quantification of the costs and benefits in the packages has been provided through a modelling exercise. Further information has been provided in Appendix F to Technical Report on the modelling scenarios that have informed the assessment of the STPR2 interventions. A summary of key assumptions is provided here:

- Population projections are based on the NRS Population Projections (2018-based).
- Economic projections are a combination of projections by Oxford Economics bought in 2019, the Scottish Fiscal Commission forecasts and more recently the OBR post-COVID estimates
- Land-use plans are based on data collected for Transport Scotland's Assembly of Planning Policy Inputs in 2018 from Scotland's 34 Planning Authorities.
- Permitting of vacant office and retail floorspace to be converted or redeveloped as housing post 2030.
- Working age is taken to be 16-64 (as a constant) to avoid difficulties with changing state pension age (and to reflect non-mandatory retirement)
- The economic results are presented, as is standard within appraisal as discounted values in 2010 prices. As a simple rule of thumb, presenting the numbers in current (2022) prices and discounted to 2022 only would cause the values to approximately double.

### **Modelling Tools**

For the purposes of modelling accessibility by public transport, NaPTAT (National Public Transport Accessibility Tool) has been used. This allows an assessment of journey time to be compared between with and without STPR package.

Due to the strategic and national nature of STPR2, the national Transport Model for Scotland (TMfS) has been used. TMfS is a national scale mode with a focus on inter-urban trips. As such, whilst TMfS provides a suitable level of robustness at this stage of the appraisal for the larger infrastructure based interventions, there are limitations associated with modelling of smaller/discrete

interventions and those that are more urban in nature. As the recommended interventions are developed through the business case process, more detailed modelling will be undertaken using regional and / or local models as appropriate.

When considering the outputs presented in this AST the following should be considered

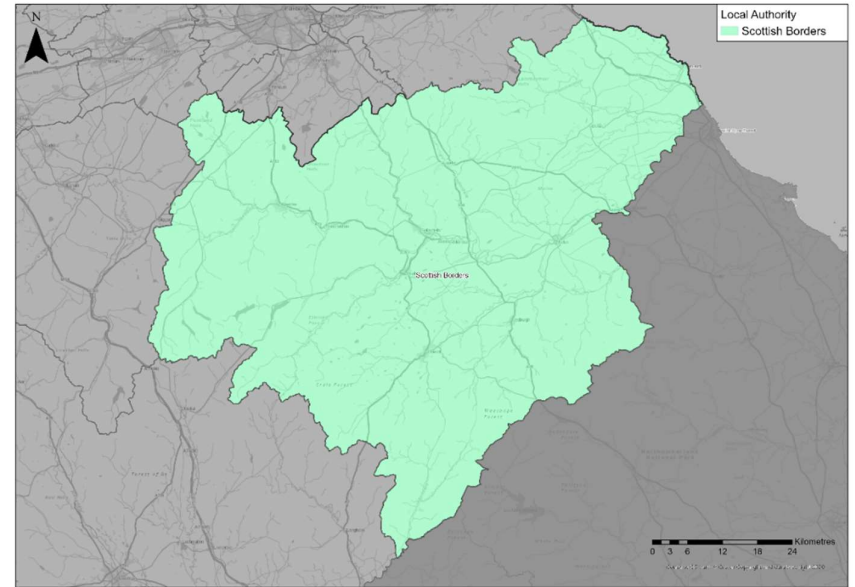
Metric	Comment/Consideration
CO <sub>2</sub> emissions	Likely to underestimate the benefits associated with public transport interventions due to the more limited representation of transport systems in urban areas and a degree of insensitivity to mode shift in TMfS.
Mode Share	Likely shift to public transport modes underestimated in the urban areas due to the more limited representation of urban transport systems and a degree of insensitivity to mode shift mode in TMfS.
Change in veh-km travelled	Likely to underestimate the benefits of reducing vehicle-kilometres travelled particularly for short distance journeys due to the more limited representation of urban transport systems and the relative coarseness of the model zone system.
Lost Time due to congestion	Likely to underestimate the benefits associated with interventions that would reduce roadspace due to the under-representation of the local/secondary road network in TMfS
Change in accidents	Likely to underestimate the benefits associated with mode shift to public transport interventions due to the more limited representation of urban transport systems and a degree of insensitivity to mode shift in TMfS.
Present Value of Benefits	Likely to underestimate the benefits to public transport users due to the more limited representation of urban transport systems. Likely to overestimate the dis-benefits to car-based trips due to the under-representation of the junctions and local/secondary road network in TMfS.

## DRAFT: Detailed Appraisal Summary Table

**Region:** Borders Region

### Regional Context

**Overview:** The Borders Region (herein referred to as “The Region”) is one of three ‘advanced regions’ to have had their Case for Change studies undertaken in advance of STPR2. In these regions the Case for Change was established based on Pre/Initial Appraisal studies, which included identification of problems and opportunities as well as option generation and sifting (which were informed by significant stakeholder engagement and data analysis). To ensure consistency with the other Case for Change exercises, the option sifting exercise for the three ‘advanced regions’ was revisited in 2020 through the STPR2 option sifting framework to cross-check the results; this confirmed broadly the same list of options to be recommended for further appraisal through STPR2. To assist with this further appraisal, the baseline data gathered during the ‘advanced studies’ was updated to match that used for all other regions for STPR2. In order to align with the wider process for establishing the Case for Change across Scotland, and to update the context for the Region, this Appraisal Summary Table therefore refers to some of this more recent data – this does not, however, affect the problems and opportunities established, or options generated and sifted, during the ‘advanced studies’.



**Geographic Context:** The Borders Region covers the Scottish Borders Local Authority area, and is a mix of urban and rural settlements and rural areas. The Scottish Government Urban Rural Six-Fold Classification identifies the regional population residing in each category as follows: Other Urban Areas (25%), Accessible Small Towns (22%), Remote Small Towns (6%), Accessible Rural (36%) and Remote Rural (11%).<sup>i</sup> Larger settlements within the Region include Hawick, Galashiels and Tweedbank. The Region contains areas of geographical remoteness and of rural nature. A number of ‘accessible small towns’ are spread across the Region, for example Innerleithen, Peebles, Melrose, Selkirk, Kelso and Eyemouth.

The Region’s transport offering comprises active travel, bus, rail and road networks - with the main strategic corridors being those served by the A1, A68 and A7 trunk roads; The East Coast Mainline (construction started on a new station at Reston in 2021) and the Borders Railway with stations located at Tweedbank, Galashiels and Stow.

**Social Context:** The total population in the Borders Region was 115,510 in 2019, making up 2.2% of Scotland’s total.<sup>ii</sup> The Region’s population has increased by 1.4% since 2011.<sup>iii</sup> The largest settlements are Galashiels and Hawick. In terms of age structure (2019 mid-year estimate), 16% of regional residents were children (15 and under), 59% were of working age (aged 16 to 64), and 25% were 65 and over. The proportion of people

aged 65 and over within the Region was 6% higher than the national benchmark, whilst the proportion of people within working age (assumed here to be 16 – 64, in line with census) was 5% lower than the national benchmark.<sup>iv</sup>

Performance against socio-economic indicators varies across the Region. Overall, the proportion of households with access to a car is higher in the Region compared to Scotland as a whole (79.5% compared to 69.4%, based on 2011 Census), and travel to work by car is the dominant mode with 65.2% of people commuting by car. Bus carries a total of 3.2% of commuting trips, and rail carries 0.6%, whilst 13.4% of people walk and less than 2% of people cycle.<sup>v</sup> The majority of travel for work in the Borders Region is within the Scottish Borders local authority area; and the majority of movements outwith the Region are to the City of Edinburgh and the Lothians.<sup>vi</sup> It should be noted these values are obtained from 2011 census (which is the latest census data available) and, as such, will not include any impacts resulting from the Borders Railway which opened to passengers in 2015.<sup>vii</sup>

Within the Region, 8.2% of people had no qualifications in 2019; which was 1.6% lower than the national benchmark.<sup>viii</sup> The Region has the eighth-equal lowest share of the most-deprived data zones. There are small pockets of deprivation across the Region, most notably around Galashiels, Selkirk and Hawick. Within the Region 6% of SIMD data zones are within the 20% most deprived and 2% are within the 10% most deprived. SIMD Health rankings indicate that 9% of data zones in the Borders Region are ranked within the lowest quintile (20% most deprived) for health in Scotland.<sup>ix</sup>

**Economic Context:** Economic activity refers to an estimation of whether usual residents aged 16 to 64 were in work or actively looking for work. The Borders Region makes up 2.2% of the Scottish population and contributes approximately 1.6% of the Scottish GVA.<sup>x</sup> The Region benefits from a lower number of benefit claimants, higher educational attainment and higher levels of economic activity compared to other regions. Economic activity was 78.8% in 2019, compared to 77.5% nationally, and the Region had a slightly lower rate of unemployment (3.0% compared to 3.5% nationally). The Region accounted for 1.6% of Scotland's total benefits claimants (based on April 2019 data).<sup>xi</sup> The Region's economy has a wide spread of activity with high levels of employment in health, manufacturing, retail, and accommodation and food services.<sup>xii</sup>

**Environmental Context:** Within the Region, there are many areas classified as environmentally sensitive, with varying levels of statutory protection. Environmental designations within the Region include biodiversity, landscape and heritage designations which fall either wholly or partly within the Region. In addition, the Region contains a large number of Category A-C Listed buildings. The greatest noise levels in the Region are primarily associated with the main road corridors, such as the A1, A68, A7, A6091, A72 and A707.<sup>xiii</sup> Settlements at greatest risk of coastal flooding are located along the coastline to the northeast of the Region. Areas at medium and high risk of river flooding include those located in the vicinity of the River Tweed, St Mary's Loch, Kale Water and Gala Water. Areas at high and medium risk of surface water flooding are scattered throughout the Region. There are no Air Quality Management Areas (AQMAs) within the Borders Region.<sup>xiv</sup> In 2018, CO2 emissions from transport within the Borders Region equated to 2.4% of Scotland's total transport emissions overall.<sup>xv</sup>

Linked to the above context and extensive stakeholder engagement exercise undertaken for the Borders Transport Corridors Study in 2017, the following key problems and opportunities were identified for the Region. As highlighted earlier, the Region's Case for Change was undertaken in advance of STPR2, and therefore in advance of the full scope of STPR2 being known. Therefore some of the problems and opportunities identified for the Region are outwith the scope of STPR2 but repeated here for consistency:

## Problems:

- **Public Transport:** limited accessible public transport service provision, a large geographic rural area makes efficient coverage of the Region a challenge. Lack of rail capacity, services perceived to be busy and desire to see frequencies increased against a backdrop of capacity constraints on the Borders Rail Line. Local geography constrains the ability to create efficient transport system overall, lack of public transport ticket integration and interchange opportunities.
- **Road:** network resilience, incidents and accidents on key routes can cause significant disruption and long diversionary routes can be exacerbated by a lack of high quality standard of roads; away from the trunk routes roads many roads are considered poor which can be a challenge particular when there are incidents on main routes causing diversion via secondary routes. High volume of goods vehicles can cause journey time and journey time reliability issues, particularly where routes pass through urban areas.
- **Connectivity:** lack of internal connectivity between key settlements throughout the Region and lack of east-west connectivity, both by road and rail. A lack of access to digital and internet services and the high cost of travelling, as perceived against other regions of Scotland due to typically longer journey distances.
- **Socio-economic:** the socio-economic problems in the Region 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 available in the area.
- **Active Travel:** lack of active travel infrastructure provision; whilst there are examples of very high standard facilities these are often associated with tourism infrastructure rather than coverage for everyday trips across the Region. Also local geography can be rural and hilly which makes it a challenge to provide an efficient transport network. A perceived lack of safety measures, particularly across more secondary roads throughout the Region.

## Opportunities:

- **Socio-political:** high quality of life in the Scottish Borders, collaboration and co-operation and external funding opportunities.
- **Accessibility and Connectivity:** increased interest in rail infrastructure/service improvements, build upon Borders Railway success and digital connectivity.
- **Leisure and Tourism:** Scottish Borders is attractive for active travel and tourism. There is a high quality of life in the Scottish Borders and scope to significantly develop the tourism market.
- **Economy and Development:** neighbouring employment opportunities, Local Development Plan aspirations, skilled local workforce and recent private investment in the bus network.

## Detailed Appraisal Package Description

### Package Groupings: Refer to Annex A for further grouping details

Active Travel	<ul style="list-style-type: none"> <li>Improving Access to Bikes</li> <li>Improving Active Travel on Trunk Roads through Communities</li> </ul>	<ul style="list-style-type: none"> <li>Connected Neighbourhoods</li> <li>Increasing Active Travel to School</li> <li>Village – Town Active Travel Connections</li> </ul>	<ul style="list-style-type: none"> <li>Connecting Towns by Active Travel</li> <li>Long-Distance Active Travel Network</li> </ul>
Bus	<ul style="list-style-type: none"> <li>Bus Priority Infrastructure</li> <li>Decarbonisation of the Rail Network</li> </ul>	<ul style="list-style-type: none"> <li>Demand Responsive Transport (DRT) / Community Transport</li> </ul>	
Rail	<ul style="list-style-type: none"> <li>Regional Passenger Facilities/Station Enhancements</li> <li>Decarbonisation of the Rail Network</li> <li>New Rail Lines: Extending Borders Railway</li> </ul>	<ul style="list-style-type: none"> <li>Corridor Enhancements: Central Belt</li> <li>High Speed Rail</li> </ul>	
Interchange	<ul style="list-style-type: none"> <li>Mobility Hubs and Multi-modal Interchanges</li> </ul>		
Behaviour Change	<ul style="list-style-type: none"> <li>Behaviour Change Initiatives</li> <li>Expansion of 20mph limits and zones</li> </ul>		
Freight	<ul style="list-style-type: none"> <li>Decarbonisation of Freight Deliveries</li> <li>Railway Freight Terminals and Facilities</li> <li>Rail Freight Enhancements</li> </ul>	<ul style="list-style-type: none"> <li>Freight reliability, resilience and efficiency improvements</li> <li>Freight Consolidation and Last-Mile Logistics</li> <li>Freight Incentives and Freight Best Practice</li> </ul>	
Resilience	<ul style="list-style-type: none"> <li>Trunk Road and Motorway Network: Renewal for Reliability, Resilience and Safety</li> </ul>	<ul style="list-style-type: none"> <li>Trunk Road and Motorway Network: Climate Change Adaption and Resilience</li> </ul>	
Technology	<ul style="list-style-type: none"> <li>Incident Management Software (IMS) Upgrade</li> <li>Control Centre of the Future</li> </ul>	<ul style="list-style-type: none"> <li>Intelligent Transport Systems (ITS) Roadside Infrastructure</li> <li>Integrated Public Transport Ticketing</li> </ul>	
Road	<ul style="list-style-type: none"> <li>South East Trunk Road and Motorway Network Improvements</li> <li>Changing Road User Behaviour</li> </ul>	<ul style="list-style-type: none"> <li>National Action Plan to support the transition to Low Emission/Ultra Low Emission/Electric Vehicles</li> </ul>	

## Fit with Established Policy

### Package Performance Against NTS2 Priorities and Outcomes:

Reduces inequalities	Reduces inequalities	Moderate Positive
	Will be easy to use for all	Moderate Positive
	Will be affordable for all	Minor Positive
Takes climate action	Will help deliver our net-zero target	Moderate Positive
	Will adapt to the effects of climate change	Minor Positive
	Will promote greener, cleaner choices	Major Positive
Helps deliver inclusive economic growth	Will get people and goods where they need to get to	Moderate Positive
	Will be reliable, efficient and high quality	Major Positive
	Will use beneficial innovation	Major Positive
Improves our Health and Wellbeing	Will be safe and secure for all	Major Positive
	Will enable us to make healthy travel choices	Moderate Positive
	Will help make our communities great places to live	Major Positive

The interventions included within this package support a wide range of national, regional and local policy documents in which transport improvements play a key role in both the enabling and delivery of outcomes.

Key policies supported include the Programme for Government, Infrastructure Investment Plan, NTS2, the Climate Change Plan Update 2018 - 2032, SEStran's Regional Transport Strategy, the SESPlan Strategic Development Plan, the Scottish Borders Local Access and Transport strategy, as well as non-transport-specific plans, such as the Scottish Borders Economic strategy and Borderlands Inclusive Growth Deal.

The draft NPF4 includes the Region within the Southern Action Area (with Dumfries and Galloway) with priorities including creating liveable and connected places which benefit from further investment and innovation. This has the potential to link with the Borderlands Inclusive Growth Deal which involves English local authorities close to the border and NPF4 aims to bring these visions together to set out a coherent plan that addresses the collective strengths and challenges for the area and set out strategic priorities of national significance.

The policy framework for the Region has a strong emphasis on improved connectivity, addressing inequality, and addressing barriers to employment, to help deliver well-connected, sustainable communities, promote modal shift away from private car, increase walking and cycling opportunities, and provide an attractive place for visitors and for businesses to invest and grow. Therefore, the package closely aligns with established policy directives.



## STPR2 Transport Planning Objectives (TPOs) Assessment

STPR2 TPOs	Appraisal Metrics			Performance Summary
	Metric	Low	High	
<p>A sustainable strategic transport system that contributes significantly to the Scottish Government's net-zero emissions target.</p>	<p>Change in CO<sub>2</sub>eq (non-traded and traded emissions from regional road transport inc. grid emissions from charging light-duty vehicles).</p>	<p>27,700 tonnes decrease of 0.5% in 2030</p> <p>21,600 tonnes decrease of 2.8% in 2045.</p> <p>1.3m tonnes reduction, of which -1.1m were traded, for the 60-year appraisal period from 2030 to 2089.</p> <p>The net economic benefits for the 60-year appraisal period in 2010 prices and values would be in the range £10m to £25m for the Low Travel Demand scenario.</p>	<p>31,300 tonnes decrease of 0.4% in 2030</p> <p>65,300 tonnes decrease of 1.3% in 2045.</p> <p>3.7m tonnes reduction, of which 452,000 were traded, for the 60-year appraisal period from 2030 to 2089.</p> <p>The net economic benefits for the 60-year appraisal period in 2010 prices and values would be in the range £100m to £250m for the High Travel Demand scenario.</p>	<p>CO<sub>2</sub>eq is treated as a nationally important pollutant so it has not been appraised for individual regions.</p> <p>National CO<sub>2</sub>eq emissions decrease year-on year. This is due to decreasing vehicle exhaust (non-traded) emissions as numbers of internal combustion engine vehicles reduces. This is reflected in increasing traded grid emissions from charging increased numbers of battery-electric vehicles, and specifically in the Low Travel Demand scenario.</p> <p>The electricity grid is expected to be using predominantly renewable sources in the future and so increasing adoption of electric vehicles and a shift from direct, non-traded, emission to traded grid-based technology (i.e. battery) will support reducing CO<sub>2</sub>eq emissions.</p>

<p>Change in mode share by active travel for all journeys</p>	<p>The package will increase the proportions of journeys undertaken by active modes. If all the active travel and behaviour change interventions were fully implemented in every relevant location in the Region, rates of walking and cycling are anticipated to increase by around the following proportions:</p> <table border="1" data-bbox="579 448 1241 591"> <thead> <tr> <th></th> <th>Without Package</th> <th>With Package</th> </tr> </thead> <tbody> <tr> <td>Walking</td> <td>16%</td> <td>20%</td> </tr> <tr> <td>Cycling</td> <td>0.4%</td> <td>10%</td> </tr> </tbody> </table> <p>Note that the cycling and walking growth forecasts have been developed independently. Growth in use of one active mode is likely to abstract at least some trips from the other, but this effect is not accounted for within these forecasts.</p>			Without Package	With Package	Walking	16%	20%	Cycling	0.4%	10%	<p>Across both scenarios the interventions would reduce emissions of CO<sub>2</sub>eq.</p> <p>There are predicted to be significantly higher overall emissions in the High Travel Demand scenario, either with, or without, the package.</p> <p>There is a relatively smaller overall reduction of emissions due to the interventions in the Low Travel Demand scenario due to the lower overall emissions.</p> <p>The economic impacts associated with air quality were assessed using the Department for Environment Food &amp; Rural Affairs (DEFRA) Damage Costs Appraisal Toolkit. The larger benefit from the High Travel Demand scenario is due to the greater overall emissions with, or without, the package, although the proportional change is lower.</p>
	Without Package	With Package										
Walking	16%	20%										
Cycling	0.4%	10%										
<p>Change in motorised veh-kms travelled</p>	<p>8 million veh km 1% decrease (see Annex C)</p>	<p>9 million veh km 1% decrease (see Annex C)</p>	<p>The package overall will contribute significantly to the net-zero emissions target by:</p> <ul style="list-style-type: none"> <li>• Enabling more passenger journeys to be made by active modes and public transport</li> <li>• Decarbonising most if not all public transport operations</li> <li>• Facilitating uptake of electric vehicles</li> <li>• Enabling road freight to switch to rail or other low carbon modes</li> </ul>									
<p><b>Scoring</b></p>	<p><b>++</b></p>	<p><b>++</b></p>										

An inclusive strategic transport system that improves the affordability and accessibility of public transport.	Change in transport poverty risk	Although the STPR2 interventions do not impact on the direct costs of travel (e.g. fares, fuel price), the package of interventions would see a small reduction in transport poverty, due to the overall improvements to access and connectivity between modes.		The package will improve the overall inclusiveness of the transport system by: <ul style="list-style-type: none"> <li>Improving conditions for people walking, wheeling and cycling, the most inclusive transport modes, with particular benefits for people most often excluded (including children, older and disabled people, and people on low incomes)</li> <li>Improving inclusive accessibility to public transport stops/stations</li> <li>Seeking to promote public transport use and reduce operating costs, hence enhancing network sustainability</li> </ul>
	Change in Accessibility - population catchments increases to key services by journey time by public transport.	<p>The changes in population accessibility of all the destination types considered was observed for major hospitals and higher education sites, whereby:</p> <ul style="list-style-type: none"> <li>approximately 650 additional people in the Region would be able to access their nearest major hospital by public transport in under a journey time of 30 minutes, representing a 1% increase compared to that in the without Package; and</li> <li>approximately 650 additional people in the Region would be able to access their nearest higher education site within a 90 minute public transport journey, representing a small increase compared to that in the without Package.</li> <li>Accessibility to High Schools, Major Food stores, GPs and Major Shopping Centres were also assessed but the impacts were found to be negligible.</li> </ul>		
	<b>Scoring</b>	<b>++</b>	<b>++</b>	
A cohesive strategic transport system that enhances communities as places, supporting	Change in mode share by active travel for all journeys	<p>Potential increase in working 16% mode share to 20% mode share (4 percentage points)</p> <p>Potential increase in cycling from 0.4% mode share to 10% mode share (over 9 percentage points)</p>		The package will improve communities as places, supporting health and wellbeing by enabling more journeys to be made by active and sustainable modes, and by improving road safety. This will: <ul style="list-style-type: none"> <li>Improve many people's physical health and mental wellbeing, with particular benefits for people most often excluded (including</li> </ul>

health and wellbeing.	Potential for Change in 'Place'	<p>The package will tend to improve the quality of the Region's places by improving local accessibility and reducing the adverse impacts of road traffic.</p> <p>Particular benefits may arise in increasing the number of residents travelling actively throughout the Region. This will reduce the visual impact from vehicles and improve the overall perception of Place.</p>		<p>children, older and disabled people, and people on low incomes)</p> <ul style="list-style-type: none"> <li>• Reduce the adverse impacts of car use on communities and health (including reduced air pollution, noise, accident risk and perceived road danger)</li> <li>• The analysis shows that through improved uptake of walking and cycling, there would be a forecast reduction of 3 premature deaths per annum due to the health benefits arising from active travel.</li> </ul>
	Change in Health Benefits	<p>The health benefits of increased rates of walking and cycling as a result of the package have been quantified using the WHO's HEAT tool. This shows that approximately 3.2 premature deaths would be prevented per annum.</p>		
	<b>Scoring</b>	<b>++</b>	<b>++</b>	

<p>An integrated strategic transport system that contributes towards sustainable inclusive growth in Scotland.</p>	<p>Increased labour catchment by sustainable travel (PT/Active Travel)</p>	<p>Local employment accessibility, which represents accessibility of employment located in the surrounding area of an origin within a 40 minute public transport journey. The model showed there were minor localised improvements, with outputs indicating areas such as Selkirk seeing a 7% increase in the number of local jobs accessible by public transport compared to that in the without Package.</p> <p>Regional employment accessibility (employment located in Edinburgh – subject to area within the Region) showed improvement particularly to the north of the Region and therefore more associated with employment movements to Edinburgh. The model shows that:</p> <ul style="list-style-type: none"> <li>• At the regional level, Scottish Borders reported a negligible change in the average number of jobs that can be accessed within 60 minutes journey time by public transport. Localised improvements were observed, for example Stow saw an increase of approximately 8,000 regional jobs now accessible within a 60 minute public transport journey.</li> <li>• Greater increases were seen in for the two hour public transport journey time band, whereby on average approximately 2,000 more regional jobs could be accessed. Settlements observing the greatest increases of around 8% to 10% included Lauder (approx. 27,000), Innerleithen (approx. 19,000) and Walkerburn (approx. 20,000) additional jobs accessible. Peebles also saw an increase of approximately 4% of the number of regional jobs accessible within a two hour public transport journey, compared to that in the without Package.</li> </ul>	<p>The package will contribute to sustainable inclusive growth in Scotland by:</p> <ul style="list-style-type: none"> <li>• Improving integration of transport modes (especially between active modes and public transport) and between transport and major developments</li> <li>• Improving journey time reliability</li> <li>• Enabling more people to travel by improving the accessibility and affordability of the transport system, so enabling more people to access local retail and services, and opportunities for employment and education/training</li> </ul> <p>Encouraging modal shift to sustainable modes and reducing the volume of vehicles on network is anticipated to improve journey time reliability for all vehicles, providing benefits to businesses across the regions. A reduction in vehicles hours of between 3,400 and 3,800 hours is anticipated in the respective growth scenarios for business and commercial travel, contributing towards sustainable inclusive growth in Scotland.</p>
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		<p>The rural population observed little change in journey times to the nearest employment site by public transport, when compared to that in the without Package.</p> <p>(See Annex B for Mapping)</p>		
	Change in lost time due to congestion (for business/commercial transport)	Reduction of approximately 3,000 hours 3% decrease	Reduction of approximately 4,000 hours 3% decrease	
	<b>Scoring</b>	<b>+</b>	<b>++</b>	
<p>A reliable and resilient strategic transport system that is safe and secure for users.</p>	Change in accident numbers (PIA and 'damage only')	<p>Accident reduction related to motorised veh km 1%</p> <p>Whilst the number of accidents involving motorised vehicles is anticipated to reduce following the introduction of the interventions within this package, it is anticipated that it would increase walking and cycling journeys. The number of accidents involving these modes is therefore anticipated to increase, although each individual journey is anticipated to be significantly safer.</p>	Accident reduction related to motorised veh km 1%	<p>The package will improve reliability, safety and personal security on the transport system by:</p> <ul style="list-style-type: none"> <li>Improving journey time reliability, including through reduced likelihood of significant network disruptions</li> <li>Reducing the risk of road accidents at hotspot locations on the trunk road network</li> <li>Reducing perceived risks to road safety and to personal security, so enabling more people (particularly children, women and older people) to travel independently</li> <li>Improving active travel provision and providing more dedicated and segregated routes for walking, cycling and wheeling</li> </ul>
	Percentage accident change for Targeted Infrastructure Improvements over 60 years, using default accident rate (PIA only)	<p>Sections of Realignment/Widening - reduction of 23% to 59%</p> <p>Sections of Overtaking Opportunities -reduction of 35% to 73%</p> <p>Locations of Junction Improvements – change of 42% (increase) to 64% (decrease)</p>		

	Change in lost time due to congestion	Reduction of 6,000 hours 3% decrease (see Annex C)	Reduction of 11,000 3% decrease (see Annex C)	
	Journey Time Reliability/Availability of alternatives (modes/routes)	Targeted road infrastructure improvements at key 'issue points' on the trunk road network will improve journey time reliability. Undertaken across the three trunk roads in the Region this will improve resilience and availability of alternative routes should incidents occur. However it is not within the remit of STPR2 to improve non-trunk routes of which there is wide coverage across the Region.		
	<b>Scoring</b>	<b>++</b>	<b>++</b>	

## STAG Assessment

STAG Criteria	Sub Criteria	Scoring		Performance Summary
		Low	High	
Environment	Air Quality	+	+	<p>Total emissions of NO<sub>x</sub> were predicted to decrease in future in both the High and Low scenario.</p> <p>Total emissions of NO<sub>x</sub> were predicted to be effectively zero in 2045 in the Low scenario, and 2051 in the High scenario either with, or without, the proposed package.</p> <p>Total emissions of PM were predicted to increase in future predominantly due to non-exhaust emissions from road, tyre and brake-wear.</p> <p>However, the package will reduce harmful emissions slightly. Over the 60-year appraisal period there was a predicted 100% reduction in NO<sub>x</sub>, 2.3% reduction in PM<sub>10</sub> and 2.5% reduction in PM<sub>2.5</sub> in the Low scenario, and a 2.5% reduction in PM<sub>10</sub> and a 2.7% reduction in PM<sub>2.5</sub> in the High scenario.</p>
	Noise and Vibration	+	+	<p>The anticipated modal shift is also expected to reduce levels of noise and vibration associated with the transport network. There is potential for a localised negative effects on noise and vibration due to the construction and operation of specific interventions including rail, however the magnitude of effect will depend on the design and location of the intervention.</p>
	Biodiversity and Habitats Geology and Soils Land Use (including Agriculture and Forestry)	See SEA performance summary text in the 'Other Criteria Assessment' section below. Please note, the scoring has been based on the SEA methodology for scoring, which has been agreed with the SEA Consultation Authorities.		



	Water, Drainage and Flooding			
	Historic Environment			
	Landscape			
Climate Change	Greenhouse Gas Emissions	+	+	CO <sub>2</sub> eq is treated as a nationally important pollutant so it has not been appraised for individual regions.
	Vulnerability to Effects of Climate Change	+	+	National CO <sub>2</sub> eq emissions decrease year-on year, with decreasing direct (non-traded) exhaust emissions and increasing traded grid emissions associated with increased adoption and charging of battery-electric vehicles, and specifically in the Low Travel Demand scenario.
	Potential to Adapt to Effects of Climate Change	+	+	<p>Across both scenario's the package will reduce emissions of CO<sub>2</sub>eq, although the change is greater in the High scenario due to overall higher emissions.</p> <p>The package provides an opportunity to adapt the transport network to the predicted effects of climate change, with one intervention specifically focused on adaptation.</p>
Health, Safety & Wellbeing	Accidents	<p>Accident reduction related to motorised vehicles km 1% (630)</p> <p>Sections of realignment/widening - reduction of 23% to 59%</p> <p>Sections of overtaking opportunities - reduction of</p>	<p>Accident reduction related to motorised vehicles km 1% (700)</p> <p>Sections of realignment/widening - reduction of 23% to 59%</p> <p>Sections of overtaking opportunities - reduction of 35% to 73%</p>	<p>The package will reduce the number and severity of accidents through targeted infrastructure improvements and by encouraging modal shift away from private car, resulting in reduced accident risk due to reduced conflicts. Mode shift to sustainable modes will, by improving natural surveillance, make paths, stops, stations and services less isolated and this, accompanied by improved quality of facilities will improve perceived security.</p> <p>The package will improve communities as places, supporting health and wellbeing, by encouraging modal shift away from private car and towards active travel. This will improve placemaking through reduced noise and better air quality due to reduced traffic, and reduced accident risk. It will also benefit many people's physical health and mental wellbeing.</p>

		35% to 73%	Locations of junction improvements – change of 42% (increase) to 64% (decrease)	
	Security	The package will, by increasing the number of people travelling actively, tend to improve natural surveillance and will, through improvements to lighting and urban realm, tend to reduce the number of locations at which security is a concern.		
	Health Outcomes	The package will, by increasing rates of active travel and hence physical activity, improve both health and wellbeing outcomes. The estimated value of health benefits to the Region's population, appraised over a 60-year period, is in the range £100m to £250m.		
	Access to Health and Wellbeing Infrastructure	The largest change in population accessibility of all the destination types considered was observed for major hospitals, with approximately 650 additional people in the Region able to access a major		

		<p>hospital by public transport in under a journey time of 30 minutes, representing a 1% increase compared to the without package.</p> <p>Journey times to major hospitals with the regional package showed little change across the Scottish Borders as a whole, however data zones representing Cockburnspath and Ayton to the east saw journey time decreases of approximately 30 minutes and 12 minutes respectively; whilst smaller decreases were found in Selkirk of approximately 4 minutes for public transport times to their nearest major hospital.</p> <p>No change was observed with the regional package for population accessibility or journey time by public transport to the nearest GP, compared to the without package.</p>	
	<p>Visual Amenity</p>	<p>The package should have a positive impact on visual amenity through improvements to walking and cycling infrastructure and an improved sense of 'place'.</p> <p>Care would be required in the development of any rail freight facilities to ensure they did not</p>	

		detrimentally impact nearby communities.		
Economy <i>(Transport Economic Efficiency)</i>	User Benefits (2010 prices and values for a 60 year appraisal period)	Present Value of Benefits (PVB) of approximately £25m to £50m  Accidents Present Value of Benefits (PVB) of approximately £1m to £10m	Present Value of Benefits (PVB) of approximately £10m to £25m  Accidents Present Value of Benefits (PVB) of approximately £1m to £10m	<p>The relatively modest economic benefits that accrue are as a result of the sustainable transport interventions in the Region's package to enable and encourage mode shift to public transport modes. The Bus Priority Infrastructure intervention, and to a lesser extent the Interchange intervention, are the main contributors to the public transport user benefits in the Low scenario. These are however offset by a slight disbenefit to road users. The remainder of the benefits are largely due to the increase in public transport operator revenue as a result of the increased patronage levels arising from the mode shift away from car.</p> <p>The level of public transport user benefits are reduced slightly in the High scenario, and this is accompanied by a larger disbenefit to road users due to the higher levels of car-based demand. Nevertheless, even under this high motorised travel demand scenario the sustainable transport interventions contribute to the majority of user benefits.</p> <p>In terms of accident savings, the level of benefits is similar in both planning demand scenarios. This is due to the reduction in road-based vehicle-kilometres travelled in the Region, as a result of the active travel and public transport interventions encouraging a mode shift away from private car.</p> <p>Note that due to the nature of a number of the STPR2 interventions it has not been possible to derive indicative cost estimates on a regional basis.</p>
Equality & Accessibility	Public Transport Network Coverage	The Region is expected to see minor benefits from public transport coverage; providing improvements to key services such as hospitals, higher education, as well as better connections to employment. Improving the active travel network and interchanges may provide users with access to a wider public transport network, by		<p>The package will improve accessibility to public transport by improving the coverage of the walking, cycling and public transport networks. This will provide particular benefits for people often excluded from transport, including older and young people, women, disabled people, and people living in more deprived communities.</p> <p>The package will also improve affordability by reducing forced car ownership, and situations where taxi is the only viable mode for people without access to a car.</p>

		enabling easier access to multi-modal trips.	By encouraging modal shift to more sustainable modes, the package has the potential to increase demand for public transport, improving commercial performance/viability, which could indirectly reduce ticket costs.
	Active Travel Network Coverage	Improvements to the Region's active travel network, both within and between settlements, mean that many more people will have convenient, high-quality and safe infrastructure for walking, wheeling and cycling journeys.	
	Comparative Access by People Group	Improvements to active travel networks and public transport will provide positive impacts on groups who are less likely to have access to car and more likely rely on public transport, walking and cycling for their journeys. This includes women, children and young people, older people, some ethnic minority groups and disabled people.	
	Comparative Access by Geographic Location	In terms of population accessibility to key destinations by public transport, no change was observed between the without and regional packages for the 20% most deprived areas in Scotland located in the Scottish Borders.  For access to employment, the only change observed for the 20% most deprived areas in	

		<p>Scotland located in the Scottish Borders was for public transport access to local employment – specifically in Selkirk. With the regional package in place, an additional ~900 local jobs can be accessed from deprived areas in Selkirk, meaning an increase from approximately 8,200 to 9,100 local jobs accessible within a 40 minute journey by public transport. No changes were observed for the other deprived areas located in Galashiels and Hawick.</p> <p>No changes were observed either for deprived areas in the Scottish Borders for access to regional jobs within either a one hour or two-hour journey time by public transport.</p> <p>(See Annex B for mapping)</p>	
	<p>Affordability</p>	<p>Although the STPR2 interventions do not impact on the direct costs of travel (e.g. fares, fuel price), the package of interventions would see a small reduction in transport poverty, due to the overall improvements to access and connectivity between modes.</p>	

## Deliverability

Criterion	Summary Assessment
Feasibility	The package has been developed with feasibility considerations in mind. The package mostly makes use of existing, proven technology and would generally be expected to largely operate inside existing design standards. Overall the package is expected to have a minor positive impact against this criterion.
Affordability	The package would require substantial capital and operational funding. Some aspects of the package may generate revenue, which could be used to offset some of these costs. Overall the package is expected to have a moderate negative impact against this criterion.
Public Acceptability	Public acceptability of the package is likely to be mixed. The package is expected to improve accessibility, connectivity, choice and make transport cleaner, more efficient and more attractive, which would be positively received. There may be concerns in areas of congestion where road space reallocation or priority measures are proposed, particularly in urban areas, however the behavioural change elements of the package should also help to mitigate this. There may also be acceptability concerns or where construction works are expected to cause disruption or require land-take. Overall the package is expected to have a minor positive impact against this criterion.

## Other Criteria Assessment

Criterion	Performance Summary
SEA	<p>The package supports modal shift to more sustainable modes of transport. Enhanced rail network and the creation of mobility hubs/interchanges and the improvements to passengers' services and facilities seeks to encourage modal shift, and, as a result, reduce levels of transport related air pollution and carbon emissions. The decarbonisation of the rail and bus network and freight deliveries will also support a reduction in greenhouse gas emissions and improvement in air quality.</p> <p>The package provides an opportunity to adapt the transport network to the predicted effects of climate change, with one intervention focused on this adaptation and promotes a more sustainable usage of the existing transport network</p> <p>Positive effects are anticipated on population and human health due to an expected increase in sustainable access to essential services, increased travel choice and improved connectivity and planning for the future capacity of public transport. Active travel interventions will have positive outcomes for population and human health - for example through expected improvements in air quality and increased uptake of physical exercise through walking, wheeling and cycling.</p> <p>Road interventions are anticipated to have positive effects on safety. Trunk road improvements which are focused on junction improvements, realignment / widening and overtaking opportunities are also not anticipated to have a notable impact on traffic volumes or mode share and subsequently transport-based emissions in the majority of locations. The construction and operation of these interventions may result in result in minor negative effects on population and human health with the potential for an increase in noise and vibration during construction and operation. This is dependent on the location and design of individual schemes. There is also potential for a negative effect on material assets due to the use of natural resources.</p> <p>There is potential for negative environmental effects during construction and operation of the rail network enhancement including Borders Railway Extension and High Speed Rail interventions on the population and human health (noise and vibration, public realm, safety), the water environment, biodiversity, soil, historic environment and landscape and visual amenity. In addition, significant quantities of materials and construction related trips would be required. Depending on the source and type of materials/natural resources used, there is the potential for negative effects on material assets.</p> <p>The freight interventions are anticipated to result in minor negative effects on material assets as several interventions proposed involve enhancements to rail freight, terminals and facilities and therefore will require the use of natural resources.</p> <p>Where any new infrastructure is required this could result in negative effects on biodiversity, soil, landscape, water, historic environment and material assets however the magnitude of effect is uncertain at this stage and will be determined by the design (and physical footprint) of the interventions.</p>



EqIA	<p>The package will improve public transport and active travel accessibility to key destinations and services including employment, education, healthcare and shopping for people living in the area. This will have a major positive impact on certain protected characteristic groups who are less likely to have access to a car and more likely to depend on public transport and active travel to make their journeys. This includes women, children and young people, older people, disabled people and people from certain ethnic minority groups.</p> <p>By encouraging modal shift to more sustainable modes, this package could also contribute to improving local air quality. Improved health outcomes as a result of better air quality are of particular benefit to those who are more vulnerable to air pollution, including children, older people, disabled people and pregnant women. The package will reduce the severity of accidents through targeted infrastructure improvements and by encouraging modal shift away from private car, resulting in reduced accident risk due to reduced conflicts. Some protected characteristic groups are more likely to be involved in road accidents, for example, children as pedestrian casualties and young males involved as car drivers and as such would have positive impacts on these groups.</p> <p>Mode shift to sustainable modes will reduce the perception of isolation on paths, bus stops, stations and services, and this, accompanied by improved quality of facilities will improve perceived security. This is likely to provide some benefit to those for whom security is of particular concern including women, the LGBTQ+ community and those from religious backgrounds most subject to hate crime.</p> <p>The package would therefore be anticipated to have a minor positive impact on addressing this criterion.</p>
ICIA	<p>The package is not relevant to islands and would therefore have a negligible impact on addressing this criterion. However, there could be a minor positive impact for those from island communities visiting the mainland for services through improved accessibility to key services within the Region.</p>
CRWIA	<p>By encouraging modal shift to more sustainable modes, this package could contribute to improving local air quality. Improved health outcomes as a result of better air quality are of particular benefit to those who are more vulnerable to air pollution, including children.</p> <p>The package will also improve public transport and active travel accessibility to higher education institutions and employment opportunities for young people living in the area.</p> <p>Safety is a key issue for children with regards to transport with child pedestrian casualties recorded in Scotland in 2019, accounting for 44% of all pedestrian casualties. In particular children from deprived areas and certain ethnic groups are more at risk.</p> <p>The package will reduce the severity of accidents through targeted infrastructure improvements and by encouraging modal shift away from private car, resulting in reduced accident risk due to reduced conflicts.</p> <p>The package would therefore be anticipated to have a minor positive impact on addressing this criterion.</p>

FSDA	<p>The package will improve public transport connectivity including through rail corridor enhancements and High Speed Rail. This could help to support regeneration and economic development and reduce inequalities caused by socio-economic disadvantage by improving accessibility to employment and other services for deprived communities or communities where transport options are limited. Modelling shows that in terms of population accessibility to key destinations by public transport, no change was observed between the without and regional packages for the 20% most deprived areas in Scotland located in the Scottish Borders. Deprived areas located in Selkirk were the only to indicate an increase in the number of jobs, whereby an additional ~900 local job could be accessed within a 40 minute public transport journey with the regional package in place.</p> <p>The package would therefore be expected to have a moderate positive impact on addressing this criterion.</p>
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## Annex A: Grouping Interventions

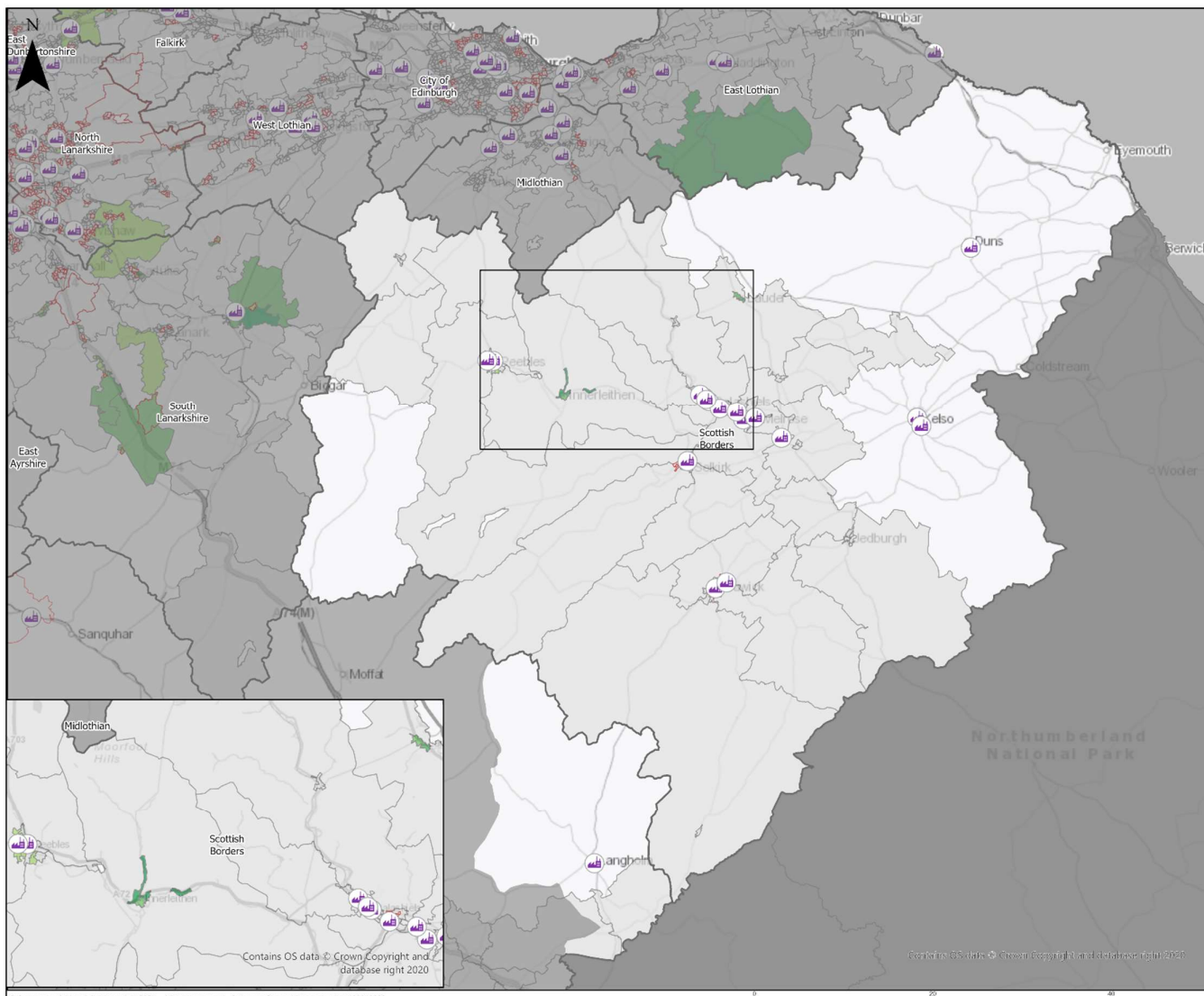
### Borders Region

Grouping Title	Regional Description
Improving Access to Bikes	Improve access to bikes through a multi-faceted programme of interventions to enable people to cycle (and also to support walking/wheeling as appropriate), and to give them confidence and skills to do so, such that they can make use of new or existing active travel infrastructure. Measures would be designed to meet local community needs, and address inequality.
Connected Neighbourhoods	The transport components of 20-minute neighbourhoods within towns and cities. This would include, for example, packages of improvements to footways, road crossings and urban realm, aiming to make walking, wheeling and cycling more attractive, inclusive and safe.
Improving Active Travel on Trunk Roads through Communities	Packages of measures to reduce the adverse effects of trunk road traffic on people walking, wheeling and cycling in those communities that have a trunk road passing through them (for example by reducing traffic speed and improving footways and road crossing facilities).
Increasing Active Travel to School	Improved and safer walking, wheeling and cycling routes to schools, accompanied by traffic speed reduction measures and School Streets schemes where appropriate, as well as behaviour change measures. The types of interventions would often be the same as those of Connected Neighbourhoods, but this intervention is distinct because not all schools are within/close to town/neighbourhood centres.
Village – Town Active Travel Connections	Active travel routes, segregated from busy roads but making use of quiet roads where appropriate, to connect smaller communities to nearby towns.
Long-Distance Active Travel Network	Interurban active travel routes, segregated from busy roads but making use of quiet roads where appropriate, connecting Scotland's cities and regions. The grouping would enhance the existing National Cycle Network to create a strategic national network of active travel routes mirroring in part the trunk road and rail networks.
Connecting Towns by Active Travel	Segregated active travel routes on interurban connections between adjacent towns in locations where demand is expected to be high. Complements the Long-Distance Network and existing links on the National Cycle Network.
Behaviour Change Initiatives	Delivery of activities which provide encouragement, enablement and incentivisation for more people to make use of active and sustainable transport choices more often. The initiatives would complement many other interventions being considered for implementation by STPR2 by raising awareness of, and encouraging individuals to use, the most appropriate transport choice for their journey.
Expansion of 20mph limits and zones	Provision of new or expanded 20mph schemes across Scotland on appropriate roads in cities, towns and villages. This would reduce traffic speeds and create safer environments which promote and encourage active travel choices.
Bus Priority Infrastructure	Bus priority to deliver faster and more reliable journey times for bus passengers, particularly within towns where congestion is highest. Support for local/regional schemes to improve bus priority, funding for initial appraisal in some areas is currently being provided through the Bus Partnership Fund
Decarbonisation of the Bus Network	Support decarbonisation of the bus network through continuation of support funding schemes to introduce zero emission vehicles. May include use of funding to further stimulate rapid commercial investment in the roll out of

	zero-emission buses and associated infrastructure, including for vehicles used by the home to school and community transport sectors.
Demand Responsive Transport (DRT) / Community Transport:	Consideration of whether the outcomes from pilot studies funded through Phase 1 of STPR2 would enable capital funding to be used to support Demand Responsive Transport/Community Transport in providing improved public transport connectivity in rural, island and peripheral areas.
Decarbonisation of Freight Deliveries	Decarbonisation of Freight Deliveries: Interventions to support the decarbonisation of freight deliveries, including awareness and education activities, alternative fuel infrastructure and alternative fuel HGV trials.
Railway Freight Terminals and Facilities	Improving the modal shift of freight from road to rail primarily for trunk haul movements (but not exclusively) through a network of rail freight terminals and facilities to include direct connections to manufacturing facilities and warehousing. In the region analysis of new opportunities on ECML, Oxwellmains electrification trial
Freight reliability, resilience and efficiency improvements	Freight reliability, resilience and efficiency improvements sets out options on how the road freight industry can be supported by implementing a variety of hard and soft measures that will reduce overall disruption, improving journey times and reducing costs for operators, such as: strengthening bridges, 50mph speed limits, implementing freight route signage
Freight Consolidation and Last-Mile Logistics	Introduction of measures to improve freight connectivity within urban and rural areas, such as improved access to cargo bikes, approaches to consolidation centres to aid 'last-mile' logistics and use of innovative technologies.
Freight Incentives and Freight Best Practice	Evaluation of future of Freight Facilities Grant and Mode Shift Revenue Support to encourage more efficient, environmentally friendly practices within the freight industry, including promoting sustainable transport options
Rail Freight Enhancements	Rail freight enhancements required as outlined as part of the Scottish Strategic Freight Network (SSFN) by the Scotland Freight Joint Board in 2017. This infrastructure enables more efficient mode shift from road to rail. Specifically in the region East Coast Mainline: Increased train length, improved route availability (axle weight), better freight schedules and overhead power supply increase
Trunk Road and Motorway Network Renewal for Reliability, Resilience and Safety	Continued and increased investment in strengthening of the trunk road and motorway network over and above current maintenance levels. Potential measures would include carriageway and structure schemes as well as other roadside infrastructure, such as signage and safety barriers.
Trunk Road and Motorway Climate Change Adaptation and Resilience	This focuses on the areas on the trunk road and motorway network most at risk of disruption due to weather events. This would involve identification of priorities and measures to strengthen the resilience of Scotland's trunk road and motorway network to adapt to a changing climate and unplanned events.
Mobility Hubs and Multi-modal Interchanges	Construction of new or upgrades to existing mobility hubs, P&R sites and other multi-modal interchanges to improve interchanges between modes.
Regional Passenger Facilities/Station Enhancements	Building on the Phase 1 recommendation, improvements to public transport passenger facilities, focusing on bus stations seeking to improve passenger facilities both in terms of improved quality and in terms of improved accessibility for those with reduced mobility.
South East Trunk Road and Motorway Network Improvements	Improving trunk and motorway network road safety and strategic access to National Developments and Key Gateways.

	Road safety improvements will focus on route sections where calculated local KSI and/or PIA accident rates are over 2 times greater than the national rates for routes of a similar nature and standard, over the period 2015 to 2019. Improvements are anticipated to include widening / realignment on single carriageway sections, targeted overtaking opportunities and junction improvements, with a primary focus on helping to achieve the Scottish Government's Target of 'Vision Zero' by 2050.
A National Action Plan to support the transition to Low Emission/Ultra Low Emission/Electric Vehicles	A National Action Plan to support the transition to Low Emission/Ultra Low Emission/Electric Vehicles: A National Action Plan to support the transition to Low Emission/Ultra Low Emission/Electric Vehicles to support the delivery of the Scottish Government's net zero targets through a multi-faceted programme of interventions. Measures include funding streams to support the delivery of infrastructure and innovative schemes to allow an equitable transition across the country.
Changing Road User Behaviour	Implementation of speed enforcement technology and national road safety behaviour change campaigns, education and training initiatives to enable all road users to understand their road safety responsibilities, allowing them to improve their attitudes and behaviours for the safety of themselves and others.
Corridor Enhancements: Central Belt	Provision of a platform for rail network enhancements within the Central Belt and on cross-border routes. This covers the Central Belt of Scotland (Glasgow-Edinburgh), communities within a commutable distance of these city regions and the two main rail routes for cross-border travel to England (East and West Coast Mainlines). Could include enhancements to reduce capacity constraints on the East Coast Main Line
Decarbonisation of the Rail Network	Delivery of a continued, rolling programme of rail decarbonisation, including consideration of batteries and alternative fuel sources, in line with Transport Scotland's Rail Services Decarbonisation Action Plan (DAP).
High Speed Rail	Investment in measures to complement the introduction of cross border High Speed Rail, including options which are required to facilitate Scotland to England rail journeys including HS2 services and options which will facilitate new HSR services within Scotland. Will support the introduction of higher speed connections to reduce journey time between Glasgow/Edinburgh and London
New Rail Lines: Extending Borders Railway	Review of the feasibility of Borders rail extension to Hawick, Carlisle or Berwick upon Tweed.
Incident Management Software (IMS) Upgrade	New Incident Management System (IMS) Software to maintain and improve the current level of service across the network
Control Centre of the Future	This would involve investment enhancement of the capabilities of the Traffic Scotland National Control Centre, and how to plan for the future renewal and replacement of equipment, systems and services to maximise network operations.
Intelligent Transport Systems (ITS) Roadside Infrastructure	Investment in ITS which helps to ensure the availability, resilience, safety and quality of the transport infrastructure that is used to actively manage and control traffic during incidents and hazardous weather conditions.
Integrated Public Transport Ticketing	Integration of ticketing across public transport (bus, rail and ferries).

# Annex B: NAPTAT Mapping



### Showing Percentage Change in Regional Jobs that can be Accessed

For Urban and Accessible Geographies for Journeys under 120 minutes

Difference between Regional Package and Without Package

- Non significant change
- 1%-5% more jobs that can be accessed
- 5%-10% more jobs that can be accessed
- 10%-15% more jobs that can be accessed
- >15% more jobs that can be accessed
- Employment Centre
- 20% Most Deprived Data Zones

**JACOBS AECOM**

Client  

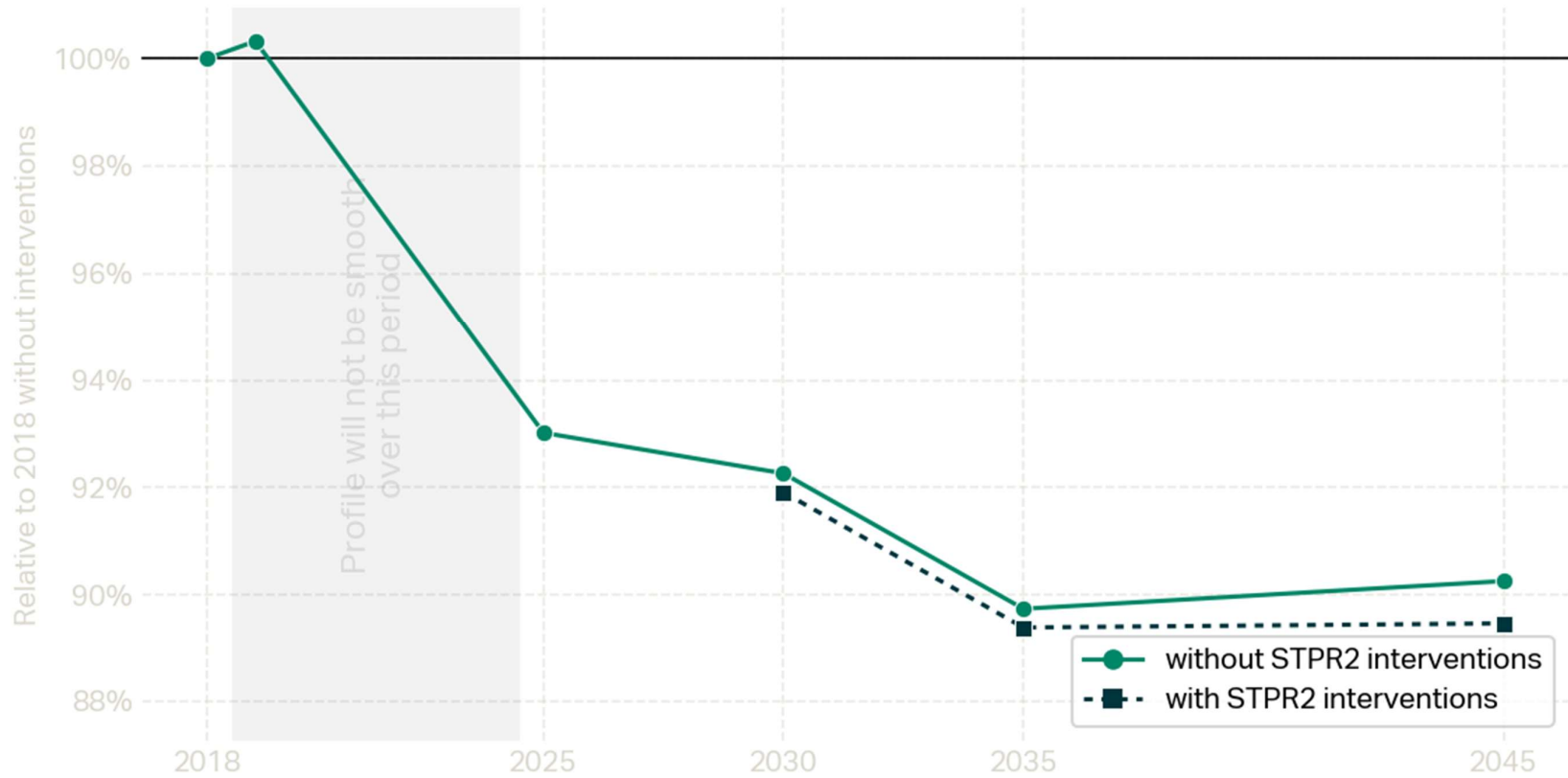

Project  


Drawing title  
**Scottish Borders Region - Access to Employment Destinations (i.e. jobs) located Regionally for Urban and Accessible Geographies Difference between Regional Package and Without Package**

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# Scottish Borders Low Motorised Traffic / Emission Demand

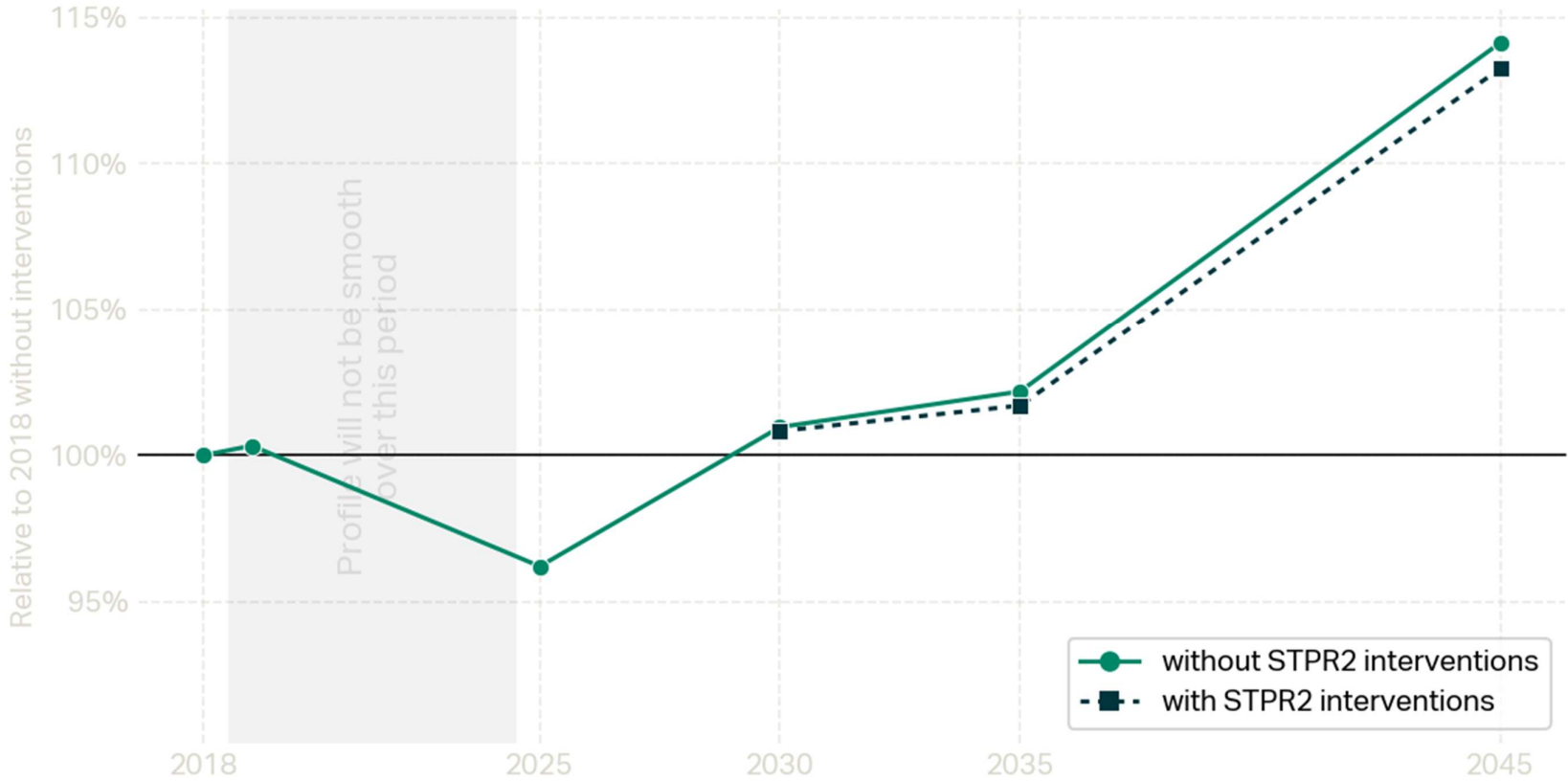
Modelled Annual Road Traffic (vehicle-kilometres)



Analysis undertaken January 2022. "Road" includes both Car and Goods Vehicle trips.

# Scottish Borders High Motorised Traffic / Emission Demand

Modelled Annual Road Traffic (vehicle-kilometres)

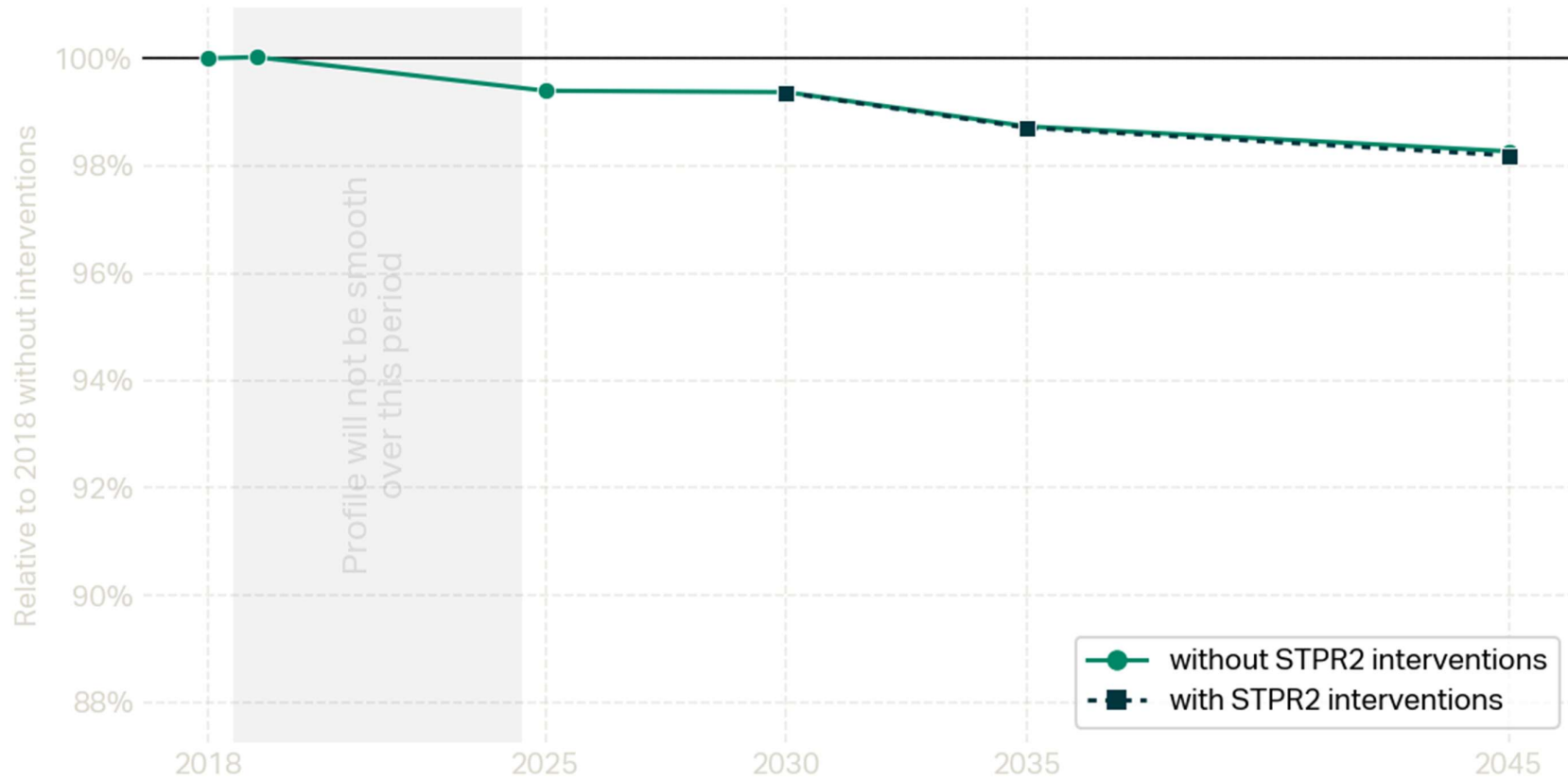


Analysis undertaken January 2022. "Road" includes both Car and Goods Vehicle trips.



# Scottish Borders Low Motorised Traffic / Emission Demand

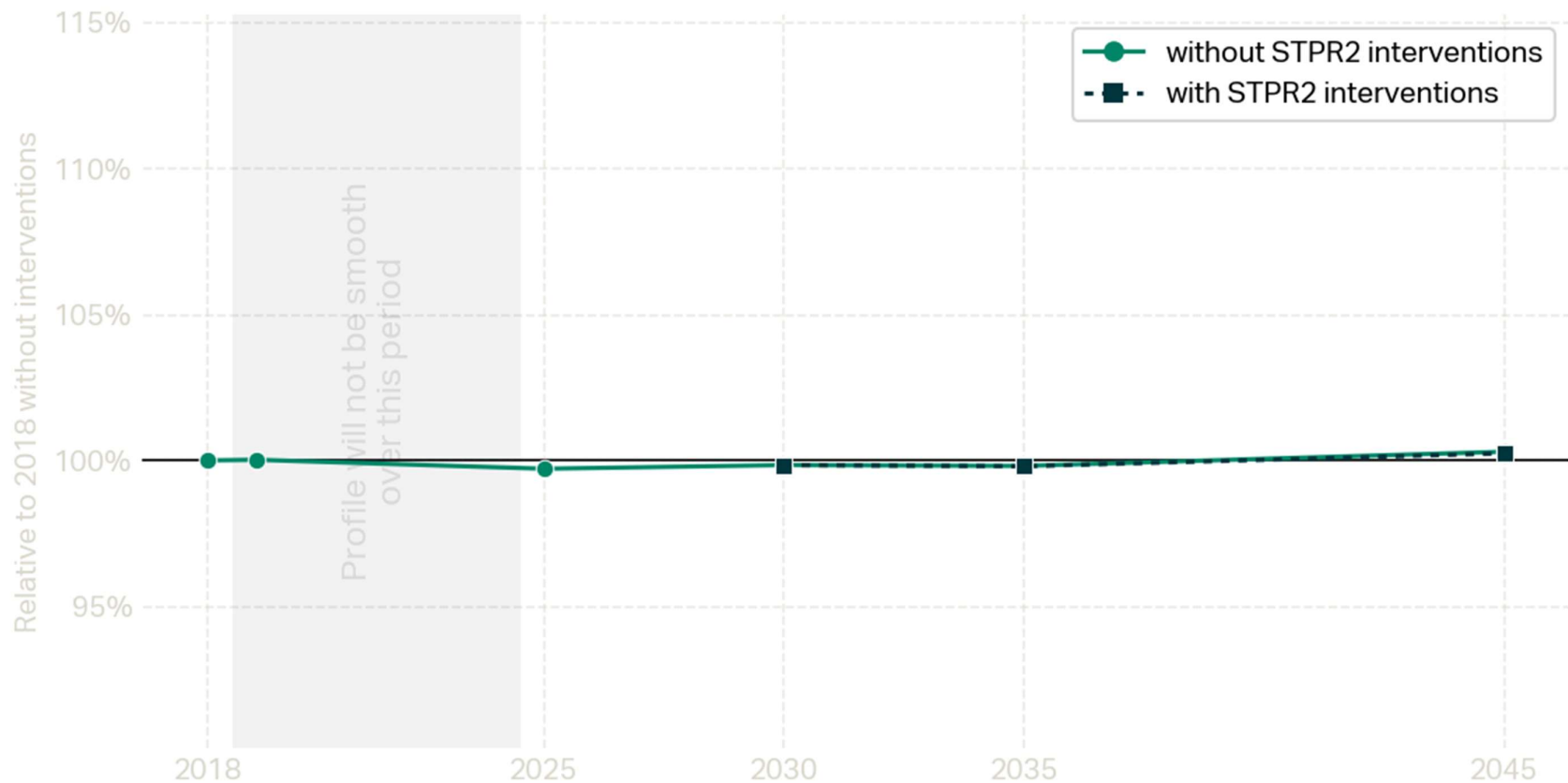
Modelled Road Journey Time (minutes per km)



Analysis undertaken January 2022. "Road" includes both Car and Goods Vehicle trips.

# Scottish Borders High Motorised Traffic / Emission Demand

Modelled Road Journey Time (minutes per km)



Analysis undertaken January 2022. "Road" includes both Car and Goods Vehicle trips.

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- <sup>i</sup> Scottish Government, Urban Rural Classification, 2016, <https://www.gov.scot/publications/scottish-government-urban-rural-classification-2016/pages/5/>
- <sup>ii</sup> National Records of Scotland, Mid-Population Estimates Scotland, 2019, <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2019>
- <sup>iii</sup> Scottish Government, Scotland's Census, 2011, <https://www.scotlandscensus.gov.uk/search-the-census#/explore>
- <sup>iv</sup> National Records of Scotland, Mid-Population Estimates Scotland, 2019, <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2019>
- <sup>v</sup> Scottish Government, Scotland's Census, 2011, <https://www.scotlandscensus.gov.uk/search-the-census#/explore>
- <sup>vi</sup> Scottish Government, Scotland's Census Travel to Work Data, 2011
- <sup>vii</sup> Transport Scotland, Jacobs, Borders Transport Corridors Pre-Appraisal, See Mode Share analysis on Pg51; and analysis of Borders Railway on Page 45, 2019, <https://www.transport.gov.scot/media/44271/borders-transport-corridors-pre-appraisal-report.pdf>
- <sup>viii</sup> NOMIS, Local Authority Profile, 2019, <https://www.nomisweb.co.uk/reports/lmp/la/contents.aspx>
- <sup>ix</sup> Scottish Borders Council, Scottish Index of Multiple Deprivation 2020: Scottish Borders, 2020, [https://www.scotborders.gov.uk/download/downloads/id/7849/simd\\_2020\\_scottish\\_borders\\_summary\\_report\\_march\\_2020.pdf](https://www.scotborders.gov.uk/download/downloads/id/7849/simd_2020_scottish_borders_summary_report_march_2020.pdf)
- <sup>x</sup> ONS, Regional Gross Domestic Product: Local Authorities, 2019, <https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/regionalgrossdomesticproductlocalauthorities>
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