HITRANS Regional Transport Strategy

Preliminary Options Appraisal

On behalf of the **Highlands and Islands Transport Partnership**

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For and on behalf of Stantec UK Limited				

Revision	Date	Description	Prepared	Reviewed	Approved
V2.0	25/08/23	2nd draft to account for HITRANS and internal comments	Stephen Canning	Scott Leitham	Scott Leitham
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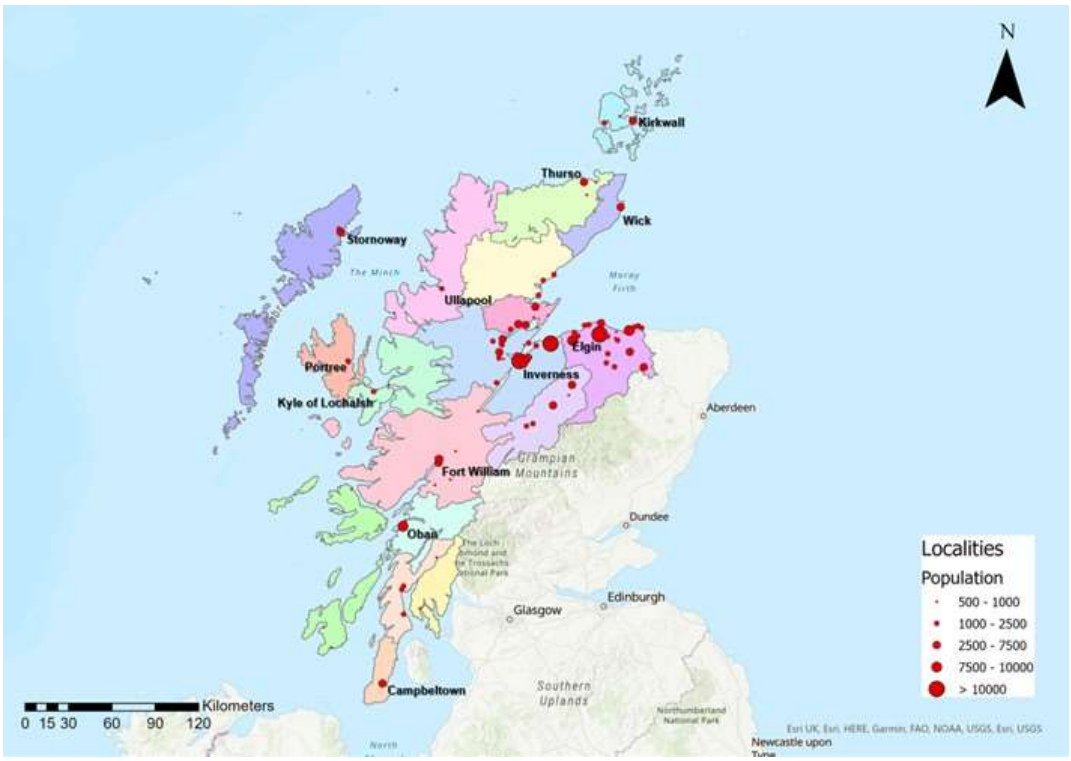
Executive Summary

The Transport (Scotland) Act 2005 created the framework for Regional Transport Partnerships (RTPs), effectively recognising the need for cross-boundary transport strategy, planning and delivery. This was intended to address the long-running issue whereby, following the abolition of regional government, there was a gap between national and local transport planning, leading to inefficiencies at the regional level.

HITRANS is the statutory RTP for much of the Highlands and Islands covering the entire council areas of Comhairle nan Eilean Siar, Orkney Islands Council, Moray Council, The Highland Council and much of Argyll & Bute Council (Helensburgh and Loch Lomond excepted, which are covered by Strathclyde Partnership for Transport). A map of the region is shown below in which it is divided into **18 '**travel-to-work areas' (TTWAs) defined by the Office of National Statistics, together with the main localities in the region in gradations from **500 persons** upwards:



HITRANS Region geographic coverage – TTWAs and localities populations (Source: Office for National Statistics)

The current HITRANS RTS was first published in 2008 and was refreshed in 2017 (although it was never formally adopted due to changes in the wider policy environment). The Transport (Scotland) Act states that RTPs should keep their RTS under review and modify or create a new one as necessary. Given wider socio-economic changes and the evolving policy environment, there is a recognition that a new RTS is now required.

The new RTS will set the strategic framework for the development of transport in the HITRANS region over the next 20 years with the aim of delivering a transport system that reduces inequalities, takes climate action, helps deliver inclusive economic growth, and improves the health and wellbeing of people in the region.

This report sets out the Preliminary Options Appraisal.

Strategy Objectives

The Initial Appraisal - 'Case for Change' Report set out six RTS Strategy Objectives which define the outcomes sought through the RTS – these are as follows:

- **Strategy Objective 1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.
- **Strategy Objective 2:** To transform and provide safe and accessible connections between and within our city, towns and villages, to enable walking, wheeling and cycling for all.
- **Strategy Objective 3:** To widen access to public and shared transport and improve connectivity within and from / to the region.
- **Strategy Objective 4:** To improve the quality and integration of public and shared transport within and from / to the region.
- **Strategy Objective 5:** To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.
- **Strategy Objective 6:** To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.

Strategy Themes

The RTS will be built around **11 Strategy Themes**, which are summarised in the table below:

RTS Strategy Themes

	Description	Comment
1	Transforming our communities and reducing the impact of transport upon them	Improving the public realm and mobility within settlements by reducing the dominance of the private car and maximising opportunities for walking, wheeling and cycling.
2	Connecting our communities	Facilitating walking, wheeling and cycling within settlements and improving active travel connections between them.
3	Enhancing public transport connectivity to / from: (i) Inverness; (ii) our sub-regional centres; and (iii) Scotland's other cities and beyond	Distance, topography, geography and low population density currently limit public transport connectivity within much of the region. This Strategy Theme is focused on improving public transport connectivity for journeys within, to and from the region. Widening the network, providing more connections, making journeys quicker
4	Improving the integration, quality of and access to public and shared transport	Addressing the barriers to travel by public transport, including interchange within and between modes, physical barriers for those less able and poor-quality facilities and travel information.
5	Providing connectivity that supports our island and peninsular communities	Improving the connectivity and reducing the peripherality of island and peninsular communities through improved ferry and air services, and potentially fixed links.
6	Improving the efficiency of transport networks and supply-chains and reducing their impact on our communities	Many supply-chains in the region are marginal and face challenges not found elsewhere in Scotland, working around ferry connections for example. This Strategy Theme is focused on enhancing the efficiency of supply-chains and identifying means for improving their environmental sustainability.
7	Improving the safety, reliability and resilience of our road and rail networks	Weather, geological instability and very limited diversion opportunities make resilience a key issue in the region, whilst safety is a primary concern on many of the main road routes. This Strategy Theme is therefore focused on improving the safety, reliability and resilience of transport networks within the region.
8	Facilitating sustainable visitor travel demand	Responding to the challenges arising from the significant seasonal influx of tourists to the region, often in the areas least well-placed to accommodate it.
9	Decarbonising our transport, mitigating the effects of climate change	Supporting the decarbonisation of transport through the adoption of zero emission vehicles, vessels, and aircraft.
10	Embracing new technologies	Capitalising on innovations in new technology.
11	Reducing the cost of travel, particularly for those most in need	Reducing the cost of travel for residents of the region, which is a primary contributor to 'transport poverty'

The themes will be used to shape the content of the new RTS, with narrative, policies, and actions, which will be informed by this appraisal, set out under each theme. To ensure consistency between the appraisal and the ultimate RTS, the option generation and appraisal process is structured around the above themes, with relevant options included under each heading. This provides a clear linkage between the appraisal process and the ultimate RTS document.

Option Generation and Packaging

The problems identified through the 'Case for Change' stage, along with the underlying supply-side causes of these problems, were used as a basis for generating an initial long-list of options. For each of the problems identified, at least one associated option was developed to create an options long-list. However, as this project has a strategic focus, it is important to ensure that the options are similarly strategic in nature. An option packaging exercise was therefore undertaken to collate similar and complementary options together and to assign them under the appropriate RTS Theme.

Options Appraisal

A summary of the options appraisal is provided in the table overleaf with respect to the performance of each option package against the Strategy Objectives and STAG criteria based on a seven-point scoring scale of ✗✗✗ to ✓✓✓. The table also indicates whether the option has been selected or rejected for further consideration in the RTS:

Options appraisal summary

ID	Option Package	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility	Strategy Objective 1	Strategy Objective 2	Strategy Objective 3	Strategy Objective 4	Strategy Objective 5	Strategy Objective 6	Retain / Reject
Strategy Theme 1: Transforming our communities and reducing the impact of transport upon them													
1A	Reallocation of road space to active travel	✓	✓	✓✓	×	✓✓	✓✓	✓✓✓	✓	○	○	○	**Retain**
1B	Implementation of measures to reduce traffic levels and the impact of that traffic	×/✓	×/✓	×/✓✓✓	×	✓✓	○	✓✓✓	○	○	○	✓	**Retain**
1C	Management of parking demand through parking restrictions and enforcement	✓	○	✓✓	✓	✓✓	○	✓✓	○	○	○	✓	**Retain**
1D	Land-use planning measures	✓✓	✓✓	✓✓	✓	✓✓	✓✓	✓	✓	○	○	○	**Retain**
Strategy Theme 2: Connecting our communities													
2A	Improvements to existing walking and wheeling routes	✓	✓	✓✓	○	✓✓	✓	✓	○	○	○	○	**Retain**
2B	Improvements to existing cycling routes	✓	✓	✓✓	○	✓✓	✓	✓✓	○	○	○	○	**Retain**
2C	Invest in new 'greenfield' active travel routes	×/✓	✓	✓✓	✓	✓✓	✓✓	✓✓	○	○	○	○	**Retain**
2D	Widen the availability of cycling through reducing cost and improving bicycle availability	✓	✓	✓✓	✓✓	✓✓	✓✓	✓	○	○	○	○	**Retain**
2E	Promote walking, wheeling and cycling as a means of travel	✓	✓	✓	○	✓	✓	✓	✓	○	○	○	**Retain**
Strategy Theme 3: Enhancing public transport connectivity to / from: (i) Inverness; (ii) our sub-regional centres; (iii) Scotland's other cities and beyond													
3A	Reduce bus journey times	✓	✓	✓	✓	✓✓	✓	○	✓✓	✓	✓	○	**Retain**

ID	Option Package	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility	Strategy Objective 1	Strategy Objective 2	Strategy Objective 3	Strategy Objective 4	Strategy Objective 5	Strategy Objective 6	Retain / Reject
3B	Additional timetabled bus services	✓	✓	✓✓	✓✓	✓✓✓	✓✓	○	✓✓✓	✓✓	✓✓	○	**Retain**
3C	DRT or EDRT to enhance fixed routes	×/✓	×/✓	✓	✓	✓✓	×/✓	○	✓✓	✓	✓	○	**Retain**
3D	DRT or EDRT to replace fixed routes	×/✓	×/✓	✓	✓	✓✓	×/✓	○	✓	✓	✓	○	**Retain**
3E	Reduce rail journey times	✓	✓✓	✓	✓✓	✓✓	✓✓	○	✓✓✓	✓✓	○	○	**Retain**
3F	New railway stations	×/✓	×/✓	✓	✓	✓✓	✓	○	✓	✓	○	○	**Retain**
3G	New heavy rail routes	××/✓✓	× / ✓✓	✓✓	✓✓✓	✓✓✓	✓✓	○	✓✓✓	✓✓✓	○	○	**Reject**
3H	Increased rail service frequency	✓	✓✓	✓	✓✓	✓✓	✓✓	○	✓✓	✓✓	○	○	**Retain**
3I	Discounted / quota taxi journeys	×	×	✓✓	✓	✓	×	○	✓	○	○	○	**Retain**
Strategy Theme 4: Improving the integration, quality of and access to public and shared transport													
4A	Introduce a single and easily recognisable brand for transport and travel in the HITRANS region	✓	✓	○	✓	○	✓	✓	✓	✓✓	○	○	**Reject**
4B	Improve access to public transport for those travelling with a bicycle	✓	✓	✓	✓	✓	✓	✓✓	✓✓	✓	○	○	**Retain**
4C	Improve bus-to-bus integration	✓	✓	✓	✓	✓✓	✓	○	✓✓	✓✓	○	○	**Retain**
4D	Improve bus / rail integration	✓	✓	✓	✓	✓✓	✓	○	✓✓	✓✓	○	○	**Retain**
4E	Improve bus / ferry integration	✓	✓	✓	✓	✓✓	✓✓	○	✓✓	✓✓	✓✓	○	**Retain**

ID	Option Package	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility	Strategy Objective 1	Strategy Objective 2	Strategy Objective 3	Strategy Objective 4	Strategy Objective 5	Strategy Objective 6	Retain / Reject
4F	Improve bus / air service integration	✓	✓	✓	✓	✓	✓	○	✓	✓	✓	○	Retain
4G	Improve the quality of facilities at bus stations and bus stops	✓	✓	✓✓	✓	✓✓✓	✓	✓	✓✓	✓✓	✓	✓	Retain
4H	Improve access to and the quality of the onboard experience on existing buses	○	○	✓	✓	✓✓✓	○	○	✓	✓✓✓	○	○	Retain
4I	Improve rail / ferry integration	✓✓	✓✓	✓	✓	✓✓	✓✓	○	✓✓	✓✓	✓✓	○	Retain
4J	Improve access to and the quality of the on-train experience	✓✓	✓✓	✓✓	✓	✓	✓✓	✓	✓	✓✓✓	✓	○	Retain
4K	Improve the quality of facilities at railway stations	○	○	✓	○	✓✓	○	✓	○	✓	○	○	Retain
4L	Improve access to and the quality of ferry services	○	○	✓	○	✓✓	○	✓	○	✓	✓	○	Retain
4M	Improve physical access to inter-island air services	○	○	✓	○	✓✓	○	○	○	✓	○	○	Reject[1]
4N	Improve the customer experience for those less able	○	○	✓✓	○	✓✓✓	○	○	✓	✓✓✓	○	○	Retain
4O	Improve public transport information	✓	✓	○	✓	✓	✓	✓	✓	✓✓	✓	○	Retain
4P	Improve ferry-to-ferry and ferry-to-air integration	○	○	✓	✓	✓✓	○	○	○	✓	✓✓✓	○	Retain
4Q	Improve digital coverage in the region	○	○	✓	○	✓✓✓	○	○	○	✓	✓	○	Retain

[1] Whilst the RTS supports the principle of improving physical access to inter-island air services, any such solution is likely to be commercially driven at a much greater scale than for the HITRANS region alone.

ID	Option Package	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility	Strategy Objective 1	Strategy Objective 2	Strategy Objective 3	Strategy Objective 4	Strategy Objective 5	Strategy Objective 6	Retain / Reject
4R	Increase the number of disabled parking bays	○	○	○	○	✓✓	○	○	○	○	○	○	Retain
4S	Improve the quality and safety of taxi travel	○	○	✓	✓	✓✓	○	○	✓	✓	○	✓	Retain
4T	Mobility hubs	✓✓	✓✓	✓✓	✓	✓✓	✓✓	✓✓✓	✓✓	✓✓✓	✓	✓✓	Retain
Strategy Theme 5: Providing connectivity that supports our island and peninsular communities													
5A	Convert Lo-Lo routes to Ro-Ro	×	○	✓✓	✓✓	✓✓	○	✓	○	✓✓✓	✓✓✓	✓✓✓	Retain
5B	Reduce ferry journey times	×	×	○	✓✓	○	×	○	○	○	✓✓	○	Retain
5C	Improve ferry booking and ticketing arrangements	○	○	○	○	✓	○	○	○	✓	✓	○	Retain
5D	Demand management measures – fares-based	○	○	○	✓✓	✓ / ×	○	○	○	○	✓✓	○	Retain
5E	Make the most efficient use of existing vessels	✓	✓	✓	✓✓	✓✓	✓	○	○	○	✓✓	○	Retain
5F	Additional sailings with existing vessels or additional vessels	×	×	×	✓✓	✓	×	○	✓	✓	✓✓	○	Retain
5G	New vessels (excluding harbour works)	×/✓✓✓	✓✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓	✓	✓✓	○	✓✓✓	✓✓✓	Retain
5H	7-day a week ferry and / or inter-island air services	×	×	✓	✓✓	✓✓✓	×	○	○	○	✓✓	○	Retain
5I	Work towards a 'meaningful day' on-mainland and on-island	×	×	✓	✓✓	✓✓✓	×	○	○	○	○	○	Retain
5J	Improve ferry service reliability (assuming no harbour works)	×	○	✓	✓✓✓	✓	○	○	○	○	✓✓✓	✓✓✓	Retain

ID	Option Package	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility	Strategy Objective 1	Strategy Objective 2	Strategy Objective 3	Strategy Objective 4	Strategy Objective 5	Strategy Objective 6	Retain / Reject
5K	Provide additional seat capacity on PSO air services	○	×	✓	✓✓	✓	×	○	○	○	✓✓	○	**Retain**
5L	Work with commercial airlines to provide additional flights	×	××	✓	✓✓	✓	××	○	○	✓	✓✓	○	**Retain**
5M	Develop new air routes	××	××	✓	✓✓	✓	××	○	○	✓✓	✓✓	○	**Retain**
5N	Improve the reliability of inter-island air services	×	○	○	✓	○	○	○	○	○	✓	○	**Retain**
5O	Island and peninsular fixed links	×××	××/✓✓	✓	✓✓✓	✓✓✓	××/✓✓	✓ / ×	✓	✓	✓✓✓	✓✓✓	**Retain**
Strategy Theme 6: Improving the efficiency of transport networks and supply-chains and reducing their impact on our communities													
6A	Reduce ferry freight fares	×/○	×/○	×/○	✓✓	○	○	○	○	○	✓✓	✓	**Retain**
6B	New freight-only vessels / new vessels with an increased freight capacity	×	×	×/✓	✓✓	○	○	○	○	○	✓	✓✓	**Retain**
6C	Prioritise ferry capacity for freight / demand management to provide additional freight capacity	○	○	○	✓✓	○	○	○	○	○	✓	✓✓	**Retain**
6D	Dedicated freight sailings	×	×	×	✓✓	○	○	○	○	○	✓	✓	**Retain**
6E	Support the growth in rail freight	✓✓	✓✓	✓✓	✓✓	○	✓	○	○	○	○	✓✓	**Retain**
6F	Support the growth in waterborne freight	✓✓	✓✓	✓✓	✓✓	○	✓	○	○	○	✓	✓✓	**Retain**
Strategy Theme 7: Improving the safety, reliability and resilience of our road and rail networks													
7A	Improve road maintenance	○	○	✓	✓	○	○	✓	○	○	○	✓	**Retain**
7B	Improve the resilience of the road network	×	✓	✓	✓✓✓	✓✓	○	○	○	○	✓	✓✓✓	**Retain**

ID	Option Package	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility	Strategy Objective 1	Strategy Objective 2	Strategy Objective 3	Strategy Objective 4	Strategy Objective 5	Strategy Objective 6	Retain / Reject
7C	Introduce measures to improve road safety	××	×	✓✓✓	✓✓	✓✓	×	✓	○	✓	✓	✓✓✓	**Retain**
7D	Improve rail service reliability	○	○	○	✓✓	✓	○	○	○	○	✓	✓	**Retain**
7E	Improve rail network resilience	○	✓	✓✓	✓	✓	○	○	○	○	✓	✓✓	**Retain**
7F	Improve travel information for motorists and ferry passengers	○	○	✓	✓	○	○	○	○	✓	○	✓✓	**Retain**
7G	Reduce road-based journey times to / from: (i) Inverness; (ii) our sub-regional centres; and (iii) Scotland's other cities and beyond	××	××	×	✓✓✓	✓	××	✓ / ×	○	○	✓✓	✓✓	**Retain**
Strategy Theme 8: Facilitating sustainable visitor travel demand													
8A	Improve active travel options for those travelling to / from tourist destinations	✓	✓	✓✓	✓	✓	✓	✓✓	✓	✓	○	○	**Retain**
8B	Improve public transport interchange experience for visitors	○	○	✓	✓✓	✓	○	○	✓	✓	○	○	**Retain**
8C	Provide additional rail service capacity in peak season	✓	✓	✓	✓✓	✓	○	○	✓	✓	○	○	**Retain**
8D	Improve parking provision, management and enforcement at key tourism destinations	×	×	×/✓✓	✓✓	✓	○	✓	○	○	○	✓	**Retain**
8E	Targeted road improvements where there is high seasonal demand	×	×	✓✓	✓✓	○	×	✓	○	○	○	✓	**Retain**
8F	Bus-based Park &Ride to 'honeypot' tourist sites	✓	✓✓	✓✓	✓✓	✓	✓✓	✓✓	✓✓	✓✓	○	✓✓	**Retain**

ID	Option Package	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility	Strategy Objective 1	Strategy Objective 2	Strategy Objective 3	Strategy Objective 4	Strategy Objective 5	Strategy Objective 6	Retain / Reject
Strategy Theme 9: Decarbonising our transport and mitigating the effects of climate change													
9A	Zero emission buses	✓✓	✓✓✓	✓✓	○	✓✓✓	✓✓✓	○	○	✓✓✓	○	✓	**Retain**
9B	Decarbonisation of the railway network	✓✓	✓✓✓	✓✓	✓	✓	✓✓✓	○	○	✓✓✓	○	✓	**Retain**
9C	Decarbonisation of the aviation network within the HITRANS region	✓✓	✓✓✓	✓	✓	✓	✓✓✓	○	○	✓	○	✓	**Retain**
9D	Vehicle pooling or vehicle sharing	✓	✓	✓	✓	×/✓	✓	○	✓✓	✓✓	○	○	**Retain**
9E	Encourage zero emission vehicle uptake and use	×/✓✓✓	✓✓✓	✓✓	✓	✓✓	×/✓✓✓	○	○	✓	○	○	**Retain**
Strategy Theme 10: Embracing new technologies													
10A	Micromobility	✓	✓	✓	✓	✓✓	✓	✓	✓	✓	○	○	**Retain**
10B	Mobility-as-a-service	✓	✓	✓	○	×/✓	✓	✓	✓✓	✓✓	○	○	**Retain**
10C	Connected and Autonomous Vehicles	×/✓	×/✓	✓✓	×/✓	✓	×/✓	○	○	○	○	✓✓✓	**Retain**
10D	Autonomous buses	✓	✓	×/✓	✓	✓✓	✓	○	✓✓	✓	○	✓✓✓	**Retain**
Strategy Theme 11: Reducing the cost of travel, particularly for those most in need													
11A	Reduce bus fares	✓	✓	✓	✓	✓✓	✓	○	✓✓	○	✓	○	**Retain**
11B	Reduce rail fares	✓	✓	✓	✓✓	✓✓	✓	○	✓✓✓	○	✓	○	**Retain**
11C	Reduce ferry foot passenger fares	✓	✓	✓	✓	✓✓	✓	○	✓	○	✓✓✓	○	**Retain**
11D	Reduce ferry car fares	×	×	×	✓✓	✓✓	×	○	○	○	✓✓✓	○	**Retain**

ID	Option Package	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility	Strategy Objective 1	Strategy Objective 2	Strategy Objective 3	Strategy Objective 4	Strategy Objective 5	Strategy Objective 6	Retain / Reject
11E	Reduce ferry accommodation fares (Northern Isles Ferry Services)	○	○	✓	✓	✓✓	○	○	○	○	✓✓	○	**Retain**
11F	Reduce or remove the cost penalty for interchange between operators and modes	✓	✓	✓	✓	✓✓	✓	○	○	✓✓	✓✓	○	**Retain**
11G	Extend the scope and / or geographic coverage of national fares and funding policies	○	○	✓	✓	✓✓✓	○	○	○	✓✓	✓✓✓	○	**Retain**
11H	Reduce the cost of air travel on PSO routes	○	○	✓	✓	✓✓	○	○	✓✓	○	✓✓✓	○	**Retain**
11I	Reduce the cost of air travel on commercially operated routes	○	○	○	✓	✓✓	○	○	✓✓	○	✓✓✓	○	**Retain**

1 Introduction

1.1 Overview

1.1.1 The Transport (Scotland) Act 2005 created the framework for Regional Transport Partnerships (RTPs), effectively recognising the need for cross-boundary transport strategy, planning and delivery. This was intended to address the long-running issue whereby, following the abolition of regional government, there was a gap between national and local transport planning, leading to inefficiencies at the regional level. The guidance for the development of a Regional Transport Strategy (RTS) states, in summary, that the RTP must *seek to identify the present and future transport needs of the region, practical means of addressing these needs, and set out how transport in the region will be provided, developed, improved and operated so as to: promote safety; enhance social and economic well-being; promote sustainability; conserve and enhance the environment; promote social inclusion and equal opportunities; improve access to healthcare; and foster integration between modes and with cross-boundary routes*.

1.1.2 HITRANS is the statutory RTP for much of the Highlands and Islands covering the entire council areas of Comhairle nan Eilean Siar, Orkney Islands Council, Moray Council, The Highland Council and much of Argyll and Bute Council (Helensburgh and Loch Lomond excepted, which are covered by Strathclyde Partnership for Transport). A map of the region is shown below in which it is divided into **18 '**travel-to-work areas' (TTWAs) defined by the Office of National Statistics, together with the main localities in the region in gradations from **500 persons** upwards:

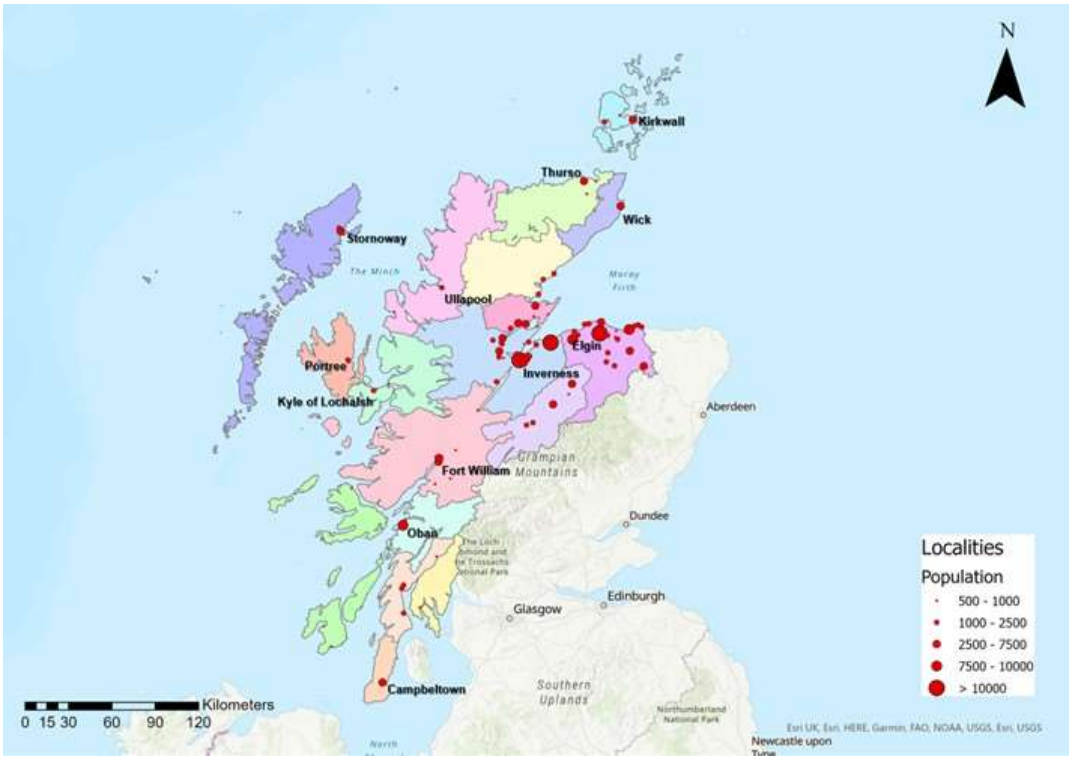


Figure 1.1: HITRANS region geographic coverage – TTWAs and localities populations (Source: Office for National Statistics)

1.1.3 The current HITRANS RTS was first published in 2008 and was refreshed in 2017 (although it was never formally adopted due to changes in the wider policy environment). The Transport (Scotland) Act states that RTPs should keep their RTS under review and modify or create a new one as necessary. Given wider socio-economic changes and the evolving policy

environment, there is a recognition that a new RTS is now required. HITRANS has therefore commissioned Stantec UK Ltd and our partner Eyland Skyn to produce this new RTS.

1.1.4 The new RTS will set the strategic framework for the development of transport in the HITRANS region over the next 20 years with the aim of delivering a transport system that reduces inequalities, takes climate action, helps deliver inclusive economic growth, and improves the health and wellbeing of people in the region.

1.2 Preliminary Appraisal Report

1.2.1 At the 'Case for Change' stage of the RTS (the first step in the process), the focus was entirely on the transport problems and opportunities in the region, their underlying supply-side cause(s) and their societal consequences, together with an expression of the outcomes sought through the new RTS (the RTS Strategy Objectives). Having defined this case, the next step in the appraisal process involves generating, developing and appraising (at a high-level) options, thereby identifying a shortlist of options which could contribute positively to the RTS Strategy Objectives. This process is set out in this Preliminary Appraisal Report.

1.2.2 This report consists of five further chapters, as follows:

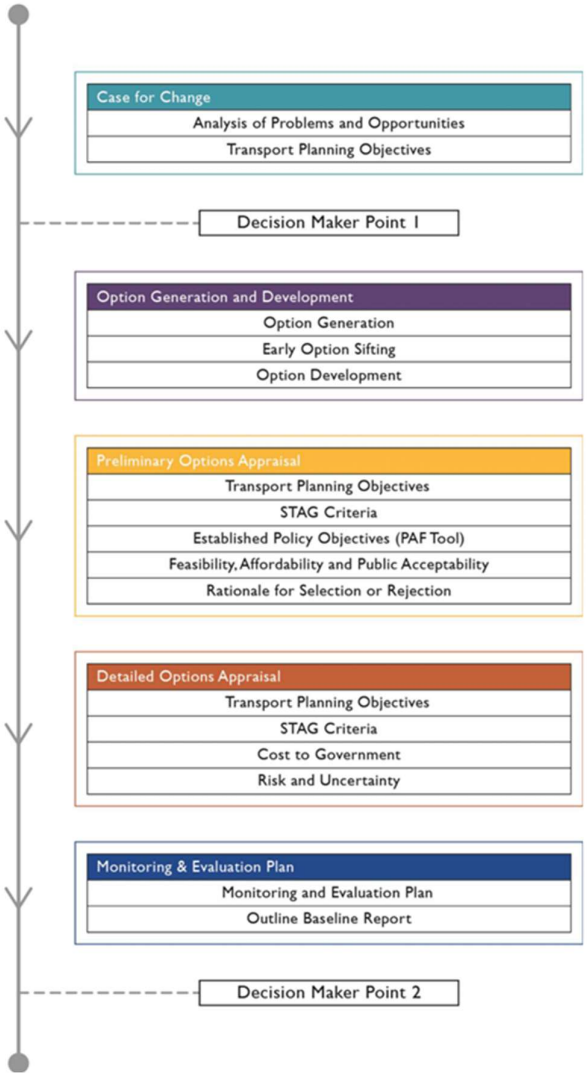
- **Chapter 2** summarises the methodology adopted in undertaking the Preliminary Options Appraisal, including the criteria and scoring scale used.
- **Chapter 3** defines the RTS Themes which have been used to structure the appraisal and which will ultimately form the structure of the RTS document.
- **Chapter 4** sets out the initial option generation process and subsequent option packaging which was undertaken. This provides the starting point for the Preliminary Options Appraisal undertaken in Chapter 5.
- **Chapter 5** appraises the options generated within Chapter 4 against the Strategy Objectives, STAG criteria and equalities duties.
- **Chapter 6** sets out the appraisal of the options against the Strategic Environmental Assessment (SEA) framework.

2 Appraisal Methodology

2.1 Overview

2.1.1 The new RTS is being developed in line with the principles of the refreshed Scottish Transport Appraisal Guidance. The STAG process is split into five stages as follows (and as shown in the figure on the right):

- Initial Appraisal: The 'Case for Change'
- Option Generation and Development
- Preliminary Options Appraisal
- Detailed Options Appraisal
- Monitoring and Evaluation Plan



2.1.2 This report incorporates both the **Option Generation and Development** and **Preliminary Options Appraisal** stages. Given the focus is on developing a new RTS rather than on individual interventions, a Detailed Options Appraisal stage will not be undertaken as part of the RTS, although this will be required to assess any specific projects progressed within the context of the RTS.

2.1.1 In line with STAG, each option has been **qualitatively appraised** against both the RTS Strategy Objectives and the STAG criteria, as follows:

- STAG Criteria
  - Environment
  - Climate Change
  - Health, Safety and Wellbeing
  - Economy
  - Equality and Accessibility
- Established Policy, including the *Sustainable Investment Hierarchy* and the *Sustainable Travel Hierarchy*

  Feasibility, Affordability and Public Acceptability criteria
- Risk and uncertainty (where appropriate given the strategic nature of the appraisal)

2.1.2 In addition to the above criteria, the options have also been appraised against the Strategic Environmental Assessment (SEA), equalities duties and their impact on island communities.

2.2 Appraisal Criteria

STAG criteria

2.2.1 The table below sets out the five STAG criteria and their associated sub-criteria. These were used to guide the appraisal of each of the RTS options. It should be noted that, as this study is at Preliminary Appraisal stage and the options are strategic in nature in any case, the options will not be appraised specifically against each individual sub-criterion, although specific points of relevance will be drawn out.

Table 2.1: STAG appraisal criteria and sub-criteria

STAG Criteria	Sub-criteria
Environment	• Biodiversity and habitats • Geology and soils • Land-use (including agriculture and forestry) • Water, drainage and flooding • Air quality • Historic environment • Landscape • Noise and vibration
Climate Change	• Greenhouse gas emissions • Vulnerability to the effects of climate change • Potential to adapt to the effects of climate change
Health, Safety & Wellbeing	• Accidents • Security • Health outcomes • Access to health and wellbeing infrastructure • Visual amenity
Economy	• Transport Economic Efficiency (TEE), which covers the benefits ordinarily captured by standard cost-benefit analysis – including traffic volumes, journey times, driver frustration or travel time reliability • Wider Economic Impacts (WEIs), which refer to any economic impacts which are additional to transport user benefits.
Equality and Accessibility	• Public transport network coverage • Active travel network coverage • Comparative access by people group • Comparative access by geographic location • Affordability

Feasibility, affordability and public acceptability criteria

2.2.2 The table below outlines the 'Feasibility', 'Affordability' and 'Public Acceptability' criteria as defined by STAG and applied to the appraisal of the options.

Table 2.2: Feasibility, Affordability and Public Acceptability Criteria

Criteria	Description
Feasibility	The feasibility of construction or implementation and operation (if relevant) of an option and the status of its technology (e.g., proven, prototype, in development, etc.) as well as any cost, timescale or deliverability risks associated with the construction or operation of the option, including consideration of the need for any departure from design standards that may be required.

Criteria	Description
Affordability	The scale of the financing burden on the promoting authority and other possible funding organisations and the risks associated with these. The level of risk associated with an option's ongoing operating or maintenance costs and its likely operating revenues (if applicable).
Public Acceptability	An assessment of the likely public response to an option. It should be noted that options have not been subject to a public consultation exercise.

Strategy Objectives

2.2.3 The 'Case for Change' set out six RTS Strategy Objectives which define the outcomes sought through the RTS – these are as follows:

- **Strategy Objective 1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.
- **Strategy Objective 2:** To transform and provide safe and accessible connections between and within our city, towns and villages, to enable walking, wheeling and cycling for all.
- **Strategy Objective 3:** To widen access to public and shared transport and improve connectivity within and from / to the region.
- **Strategy Objective 4:** To improve the quality and integration of public and shared transport within and from / to the region.
- **Strategy Objective 5:** To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.
- **Strategy Objective 6:** To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.

Scoring

2.2.4 The STAG seven-point scoring scale, as illustrated in the table below, has been used to assess the relevant scale of the impacts against both the STAG criteria and the RTS Strategy Objectives.

Table 2.3: STAG Seven-point scoring scale

Impact	Description	Score
Major Positive	These are benefits or positive impacts which, depending on the scale of benefit or severity of impact, the practitioner feels should be a principal consideration when assessing an option's eligibility for funding.	✓✓✓
Moderate Positive	The option is anticipated to have only a moderate benefit or positive impact. Moderate benefits and impacts are those which taken in isolation may not determine an option's eligibility for funding but taken together do so.	✓✓
Minor Positive	The option is anticipated to have only a small benefit or positive impact. Small benefits or impacts are those which are worth noting, but the practitioner believes are not likely to contribute materially to determining whether an option is funded or otherwise.	✓
No benefit or impact	The option is anticipated to have no or negligible benefit or negative impact.	○
Minor Negative	The option is anticipated to have only a small cost or negative impact. Small costs/negative impacts are those which are worth noting, but the practitioner believes are not likely to contribute materially to determining whether an option is funded or otherwise.	x
Moderate Negative	The option is anticipated to have only a moderate cost or negative impact. Moderate costs / negative impacts are those which taken in isolation may not determine an option's eligibility for funding but taken together could do so.	xx
Major Negative	These are costs or negative impacts which, depending on the scale of cost or severity of impact, the practitioner should take into consideration when assessing an option's eligibility for funding.	xxx

2.2.5 A descriptive appraisal against the other criteria will also be undertaken, with key points summarised where relevant within the text covering each option.

3 Defining the RTS Themes

3.1 Developing a Draft RTS

3.1.1 The RTS drafting process does not commence until the Preliminary Options Appraisal has been undertaken. However, it is important to begin to consider the form and structure of the Strategy to help guide and shape the option generation and to ensure that the appraisal and Draft RTS are closely related. On this basis, a series of RTS Themes have been identified which will ultimately form the foundation of the RTS, as well as providing the outline of its structure. These RTS Themes are closely related to the problems and Strategy Objectives defined in the 'Case for Change' and are set out below.

3.2 Regional Transport Strategy Themes

3.2.1 The RTS will be built around **11 Strategy Themes**, which are summarised in the table below:

Table 3.1: RTS Strategy Themes

	Description	Comment
1	Transforming our communities and reducing the impact of transport upon them	Improving the public realm and mobility within settlements by reducing the dominance of the private car and maximising opportunities for walking, wheeling and cycling.
2	Connecting our communities	Facilitating walking, wheeling and cycling within settlements and improving active travel connections between them.
3	Enhancing public transport connectivity to / from: (i) Inverness; (ii) our sub-regional centres; and (iii) Scotland's other cities and beyond	Distance, topography, geography and low population density currently limit public transport connectivity within much of the region. This Strategy Theme is focused on improving public transport connectivity for journeys within, to and from the region. Widening the network, providing more connections, making journeys quicker
4	Improving the integration, quality of and access to public and shared transport	Addressing the barriers to travel by public transport, including interchange within and between modes, physical barriers for those less able and poor-quality facilities and travel information.
5	Providing connectivity that supports our island and peninsular communities	Improving the connectivity and reducing the peripherality of island and peninsular communities through improved ferry and air services, and potentially fixed links.
6	Improving the efficiency of transport networks and supply-chains and reducing their impact on our communities	Many supply-chains in the region are marginal and face challenges not found elsewhere in Scotland, working around ferry connections for example. This Strategy Theme is focused on enhancing the efficiency of supply-chains and identifying means for improving their environmental sustainability.
7	Improving the safety, reliability and resilience of our road and rail networks	Weather, geological instability and very limited diversion opportunities make resilience a key issue in the region, whilst safety is a primary concern on many of the main road routes. This Strategy Theme is therefore focused on improving the safety, reliability and resilience of transport networks within the region.
8	Facilitating sustainable visitor travel demand	Responding to the challenges arising from the significant seasonal influx of tourists to the region, often in the areas least well-placed to accommodate it.
9	Decarbonising our transport, mitigating the effects of climate change	Supporting the decarbonisation of transport through the adoption of zero emission vehicles, vessels, and aircraft.
10	Embracing new technologies	Capitalising on innovations in new technology.
11	Reducing the cost of travel, particularly for those most in need	Reducing the cost of travel for residents of the region, which is a primary contributor to 'transport poverty'

3.2.2 The themes will be used to shape the content of the new RTS, with narrative, policies, and actions, which will be informed by this appraisal, set out under each theme. To ensure consistency between the appraisal and the ultimate RTS, the option generation and appraisal as set out in Chapter 5 is structured around the above themes, with relevant options included under each heading. This provides a clear linkage between the appraisal process and the ultimate RTS document.

3.3 Mapping the RTS Themes to the Strategy Objectives

3.3.1 The table below maps the RTS Themes to the Strategy Objectives:

Table 3.2: Mapping of RTS Themes to Strategy Objectives

Strategy Theme	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network	**SO2:** To transform and provide safe and accessible connections between and within our city, towns and villages, to enable walking, wheeling and cycling for all	**SO3:** To widen access to public and shared transport and improve connectivity within and to / from the region	**SO4:** To improve the quality and integration of public and shared transport within and from / to the region	**SO5:** To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities	**SO6:** To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.
1. Transforming our communities and reducing the impact of transport upon them	✓	✓				
2. Connecting our communities	✓	✓		✓		
3. Enhancing public transport connectivity to / from: (i) Inverness; (ii) our sub-regional centres; and (iii) Scotland's other cities and beyond	✓		✓	✓	✓	
4. Improving the integration, quality of and access to public and shared transport	✓		✓	✓	✓	
5. Providing connectivity that supports our island and peninsular communities	✓		✓	✓	✓	
6. Improving the efficiency of transport networks and supply-chains and reducing their impact on our communities	✓				✓	✓
7. Improving the safety, reliability and resilience of our road and rail networks					✓	✓
8. Facilitating sustainable visitor travel demand	✓	✓	✓	✓	✓	✓

Strategy Theme	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network	**SO2:** To transform and provide safe and accessible connections between and within our city, towns and villages, to enable walking, wheeling and cycling for all	**SO3:** To widen access to public and shared transport and improve connectivity within and to / from the region	**SO4:** To improve the quality and integration of public and shared transport within and from / to the region	**SO5:** To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities	**SO6:** To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.
9. Decarbonising our transport, mitigating the effects of climate change	✓		✓		✓	✓
10. Embracing new technologies	✓	✓	✓	✓	✓	✓
11. Reducing the cost of travel, particularly for those most in need	✓		✓	✓	✓	

4 Option Generation

4.1 Overview

4.1.1 This chapter outlines the process which was undertaken to develop the long-list of options as well as the subsequent option packaging which was undertaken. As set out below, the option generation process drew upon the user-focussed **'Transport Problems Framework'** which was set out in the 'Case for Change' and used to identify the transport problems, Transport Planning Objectives, and RTS Strategy Objectives. This approach provides both a logical flow and auditable trail from initial transport problem through to the RTS itself.

4.2 Transport Problems Framework

4.2.1 Every STAG-based project starts from a set of transport problems. These are the foundations of any study and STAG notes that as well as the problems themselves, the analysis should "*explore the root causes and consequences of problems".*

4.2.2 At the 'Case for Change' stage, a **Transport Problems Framework** was specified. This defined a transport problem as *a problem experienced by a user, or potential user of the transport network* and set out a concise range of parameters which could be used to categorise such problems, namely:

- **All modes** of travel:
  - Awareness of travel options
  - Cost of travel and affordability
  - Fuel / power issues
  - Integration of travel between modes (e.g., bus to ferry)
  - Journey information, including for those with protected characteristics who may find accessing information particularly difficult
  - Journey quality
  - Journey times
  - Personal security (fear of crime)
  - Personal Accessibility – being able to access transport networks and services specifically including people with disabilities or other protected characteristics which affect accessibility
  - Reliability of journey times (including public transport service punctuality)
  - Safety (transport)
  - Travel emissions
- **Public transport** services specifically:
  - Capacity
  - Comfort
  - Connectivity (availability of services)
  - Ease of use / convenience
  - Integration between services (within mode, e.g., bus to bus)
  - Service reliability (cancellations)
  - Timetables (first and last / frequency)

4.2.3 Drawing on the data analysis, policy review, and stakeholder and public engagement undertaken, the above list was then used as a 'checklist' to develop a set of evidenced transport problems for each mode of transport in the region.

4.2.4 For **each problem identified**, the following were also set out:

- The underlying **transport supply-side cause(s)** of the problem

  The **impact of the problem** on travel – three categories of impacts were identified:

  - Adding cost or inconvenience to any trip
  - People traveling by a different (often less sustainable) mode
  - People not making trips
- The potential range of **societal consequences** of the above travel impacts
- Data and analysis **evidencing the transport problem**
- A linked **Transport Planning Objective (TPO)** - these TPOs were developed in response to each problem and were subsequently used as the **basis for setting the RTS Strategy Objectives**.

4.2.5 Using the above framework, the 'Case for Change' identified a wide range of potential problems. These were split into modal categories which broadly align with the National Transport Strategy 2 (NTS2) *Sustainable Travel Hierarchy*, as follows:

- Walking and wheeling
- Cycling
- Bus
- Train
- Ferry – personal travel
- Ferry - freight
- Air travel
- Other road-based travel

4.3 Option Generation

4.3.1 The problems identified through the above process at the 'Case for Change' stage, along with the underlying supply-side cause(s) of each problem, was used as a basis for generating an initial long-list of options. For each of the problems identified, at least one associated option was developed. The resulting long list of transport options is set out in the tables which follow.

Table 4.1: Problems framework – walking and wheeling: problems, supply side causes and options

Problem Theme	Transport Problem *Walking and Wheeling*	Supply-Side Cause(s)	Options
Integration	Walking and wheeling links to my local bus stop / railway station / ferry terminal / airfield / between communities are poor	▪ Absence of connections between paths / absence of any paths requiring the user to walk on the road ▪ Absence of lighting ▪ Absence of paths or footways to connect communities ▪ Lack of suitable road crossing facilities ▪ Obstacles on footway ▪ Quality of streetscape ▪ Quality of surfacing ▪ Road sightlines ▪ Road width ▪ Steps on routes	▪ Improve existing walking and wheeling routes, including improved crossing facilities ▪ Improve / provide lighting on existing walking and wheeling routes ▪ Improve the surfacing of existing walking and wheeling routes, including the provision of tactile paving where required ▪ Provide new secure walking and wheeling routes which are well-lit and incorporate CCTV where appropriate ▪ Deliver physical accessibility improvements on existing routes (e.g., Equality Act compliant ramps) ▪ Introduce additional pedestrian or zebra crossings in settlements ▪ Rationalise street furniture and other obstructions ▪ Widen walking and wheeling routes / provide footways through the reallocation of road space away from general traffic and parking ▪ Enforce pavement parking regulations ▪ Enforce / prevent parking at bus stops ▪ Reduce junction widths in in settlements, to tighten turn radiuses and slow down traffic ▪ Mobility hubs

Problem Theme	Transport Problem *Walking and Wheeling*	Supply-Side Cause(s)	Options
Journey quality	I don't think my local environment is suitable for walking and wheeling	▪ Absence of connections between paths requiring the user to walk on the road ▪ Absence of paths or footway to connect communities ▪ Absence of recreational walking opportunities ▪ High traffic speeds and intimidation by traffic ▪ Lack of suitable road crossing facilities ▪ Obstacles on footway ▪ Quality of streetscape ▪ Quality of surfacing ▪ Road sightlines ▪ Road width ▪ Steps on routes	▪ Improve / provide lighting on existing walking and wheeling routes ▪ Improve / provide CCTV on walking and wheeling routes ▪ Improve the surfacing of existing walking and wheeling routes, including the provision of tactile paving where required ▪ Deliver physical accessibility improvements on existing routes (e.g., Equality Act compliant ramps) ▪ Rationalise street furniture and other obstructions ▪ Widen walking and wheeling routes / provide footways through the reallocation of road space away from general traffic and parking ▪ Provide new direct segregated walking and wheeling routes between settlements and along strategic routes (e.g., the A9) ▪ Enforce pavement parking regulations ▪ Enforce / prevent parking at bus stops ▪ Reduce junction widths in in settlements, to tighten turn radiuses and slow down traffic 20mph speed limits ▪ Traffic speed enforcement ▪ Introduce parking restrictions to: manage demand and turnover; reduce pavement and inappropriate parking which restricts access; and reduce the impact of the car on the local environment ▪ Workplace parking levy to reduce overall parking demand ▪ Traffic calming ▪ Low traffic neighbourhoods ▪ Land use planning measures ▪ Requirement to pre-book parking at 'honeypot' [tourist] locations (e.g., as per the requirement to pre-book a parking space at Pen y Pass car park for climbing Yr Wyddfa (Snowdon) ▪ Introduce parking restrictions and enforcement at key tourism destinations to: manage demand and turnover; reduce inappropriate parking which restricts access; and reduce the impact of the car on local communities. ▪ Increased visitor parking where improved management and enforcement would not make a material difference

Problem Theme	Transport Problem *Walking and Wheeling*	Supply-Side Cause(s)	Options
Journey times	Walking takes too long	▪ Community severance caused by major roads ▪ Indirect routes compared to crow fly	▪ Upgrade existing walking and wheeling routes to make them more direct ▪ Introduce additional pedestrian or zebra crossings in settlements ▪ Provide new direct segregated walking and wheeling routes between settlements and along strategic routes (e.g., the A9) ▪ Ensure journey times / level of directness considered during walking and wheeling route scheme design ▪ Land use planning measures
Lack of awareness of travel options	I do not know where walking routes are / do not feel confident using them	▪ Lack of information regarding walking and wheeling opportunities ▪ Lack of signing on routes to provide comfort to users	▪ Improve / provide signage on walking and wheeling routes ▪ Improve / provide accessible promotional material on walking and wheeling routes ▪ Incorporate mapping / walking options within the GO-HI and others apps ▪ Introduce a single easily recognisable HITRANS brand for travel and transport in the region ▪ Promote and further develop long distance walking routes
Personal accessibility	Walking is not a realistic option for me because of a disability	▪ Absence of suitable paths or footways for those with a disability ▪ Lack of appropriate infrastructure including tactile paving etc ▪ Obstacles on footway, visibility of obstacles ▪ Steps and other interruptions (e.g., gates) on routes	▪ Improve existing walking and wheeling routes, including improved crossing facilities ▪ Improve / provide lighting on existing walking and wheeling routes ▪ Improve / provide CCTV on walking and wheeling routes ▪ Improve the surfacing of existing walking and wheeling routes, including the provision of tactile paving where required ▪ Deliver physical accessibility improvements on existing routes (e.g., Equality Act compliant ramps) ▪ Consider the gradient when making changes / enhancing existing routes ▪ Rationalise street furniture and other obstructions ▪ Widen walking and wheeling routes / provide footways through the reallocation of road space away from general traffic and parking ▪ Enforce pavement parking regulations ▪ Enforce / prevent parking at bus stops ▪ Reduce junction widths in in settlements, to tighten turn radiuses and slow down traffic Apply the principles of inclusive design in the design and delivery of any new walking and wheeling routes ▪ Low traffic neighbourhoods

Problem Theme	Transport Problem *Walking and Wheeling*	Supply-Side Cause(s)	Options
Personal security	I sometimes do not think it is secure enough for me to walk	▪ Fear of crime in local environment ▪ Lack of safe, well-lit, welcoming routes ▪ Low levels of pedestrians	▪ Improve / provide lighting / CCTV on walking and wheeling routes ▪ Provide new secure walking and wheeling routes which are well-lit and incorporate CCTV where appropriate ▪ Seek additional Police Scotland patrols in urban areas ▪ Land use planning measures
Travel safety	I sometimes do not think it is safe enough for me to walk	▪ Absence of connections between paths requiring the user to walk on the road ▪ Absence of paths or footways to connect communities ▪ Lack of segregation from traffic ▪ Poor quality footways ▪ Requirement to cross major routes such as the A9, A82, A96 etc running through many settlements ▪ Road crossing facilities on stretches of road and at roundabouts ▪ Traffic volumes and speeds	▪ Improve existing walking and wheeling routes, including improved crossing facilities ▪ Widen / provide footways through the reallocation of road space ▪ Introduce additional pedestrian or zebra crossings in settlements ▪ Introduce measures to reduce car use and improve perceptions of safety, including traffic speed enforcement; parking restrictions; and traffic calming ▪ 20mph speed limits ▪ Provide new walking and wheeling routes which are segregated from traffic ▪ Low traffic neighbourhoods

Table 4.2: Problems framework – cycling: problems, supply-side causes and options

Problem Theme	Transport Problem Cycling	Supply-Side Cause(s)	Options
Cost of travel and affordability	I cannot afford to own / maintain / use a bike suitable for me	▪ Cost of buying and maintaining a bike ▪ High cost of electric bikes	▪ Cycle hire schemes / Micromobility ▪ Grants / loans to aid the purchase of bikes ▪ Grants / loans to aid the purchase of adaptive bikes ▪ Grants / loans to aid the purchase of electric bikes ▪ Maintenance workshops
Integration of travel	Cycling links to my local railway station / ferry terminal / airfield are poor	▪ Absence of dedicated cycling facilities ▪ Limited signage ▪ The roads are not appropriate for cycling because of factors including traffic levels, mix of traffic, traffic speeds, speed limits, road width, road sightlines, lighting etc	▪ New dedicated on-road cycle lanes – these could range from unprotected cycle lanes to fully segregated cycleways reflecting *Cycling by Design* ▪ Provide new direct cycling links to railway stations / ferry terminals / airfields ▪ Undertake cycle route action plans to identify opportunities for e.g., widening, straightening out blind bends, improved crossing facilities etc. ▪ Advanced stop lines at traffic lights ▪ Installation of smart traffic lights ▪ Improve / provide signage on cycling routes to railway stations / ferry terminals / airfields ▪ Improve / provide lighting on cycling routes to railway stations / ferry terminals / airfields ▪ Traffic calming ▪ 20mph speed limits ▪ Land-use planning measures ▪ Mobility hubs
	I cannot use my bike to take the bus	▪ Absence of secure bike parking at bus stops ▪ Carriage of bikes on buses at operator discretion and therefore not possible in all cases / guaranteed ▪ No specialised ‘bike buses’ operating in the region	▪ New buses with dedicated bike storage areas / racks / trailers ▪ Additional or new covered bicycle parking at high volume bus stations / stops ▪ Cycle hire schemes / Micromobility ▪ Introduction, where practical, of bike buses, particularly in areas where leisure cycling is prominent
	I cannot always take my bike on the train	▪ Limited capacity for taking bikes on rail services. Whilst the West Highland Line has modified Class 153 stock for bike carriage purposes, no other lines in the Highlands & Islands have such an offer and space tends to be very limited	▪ Deployment of additional rolling stock for bicycle carriage where practicable ▪ Adaptation of other rolling stock - i.e., Class 156, 158, 170 and HSTs – to accommodate additional bicycles ▪ Provision of additional bicycle storage on future rolling stock, focusing in particular on replacements for Class 15x stock. A ‘rural’ specification for future units will be required

Problem Theme	Transport Problem Cycling	Supply-Side Cause(s)	Options
			▪ New / upgraded bicycle parking at railway stations to accommodate bicycles being left behind – this could range from simple 'Sheffield Stands' through to enclosed and secure bicycle storage ▪ Integration of train bicycle booking into the GO-HI and other apps ▪ Facilitate 'just before departure' on-train bike bookings
	Cycle parking options at the stations / ferry terminal / airport I use are poor	▪ Absence of secure and weatherproofed bike parking at many stations / ferry terminals / airports ▪ Quality of secure and weatherproofed bike parking at many stations / ferry terminals / airports	▪ New / upgraded bicycle parking at railway stations / ferry terminals / airports – this could range from simple 'Sheffield Stands' through to enclosed and secure bicycle storage ▪ Maintenance of up-to-date information on bicycle provision at railway stations / ferry terminals / airports (this is particularly important at railway stations where published information is often out-of-date or incorrect). ▪ Improved CCTV at railway stations / ferry terminals / airports
	I do not think my local environment is suitable for cycling	▪ Absence of traffic free paths to connect communities ▪ Advisory cycle lanes not fit for purpose in places ▪ Quality of cycle routes, continuity of standard, fragmentation, gaps in routes, lack of segregation etc. ▪ Routes are poorly maintained ▪ The road surface is poor in places ▪ Traffic levels and speeds are intimidating	▪ New dedicated on-road cycle lanes – these could range from unprotected cycle lanes to fully segregated cycleways reflecting *Cycling by Design* ▪ Provide new direct cycling links to railway stations / ferry terminals / airfields ▪ Support extension of the National Cycle Network in the HITRANS region ▪ Promote and further develop long-distance walking routes ▪ Undertake cycle route action plans to identify opportunities for e.g., widening, straightening out blind bends, improved crossing facilities etc. ▪ Advanced stop lines at traffic lights ▪ Installation of smart traffic lights ▪ Improve the surfacing of existing cycling routes, including for those using adapted bicycles ▪ Improve / provide signage on cycling routes to railway stations / ferry terminals / airfields ▪ Improve / provide lighting on cycling routes to railway stations / ferry terminals / airfields ▪ Active and preventative road maintenance ▪ Traffic calming ▪ 20mph speed limits in urban areas ▪ Reduced speed limits in peri-urban areas ▪ Enhanced Police Scotland enforcement of inappropriate driver

Problem Theme	Transport Problem Cycling	Supply-Side Cause(s)	Options
			behaviour ▪ Provision of 'quiet routes' with associated speed limit reductions ▪ Low traffic neighbourhoods ▪ Land-use planning measures
	There is nowhere for me to securely park a bicycle	▪ There is a lack of bike parking facilities at my home and I cannot keep a bike in my home ▪ There is a lack of bike parking facilities when I use my bike away from my home	▪ New / upgraded bicycle parking at key locations, including in town centres, key employment sites and transport interchanges ▪ Improved CCTV at the above locations ▪ Maintenance of up-to-date information on bicycle provision at above locations ▪ Inclusion of reliable and up-to-date cycle parking on the GO-HI and other apps ▪ Provide changing facilities at all new employment sites ▪ Encourage existing employers to provide changing facilities ▪ Land use planning measures ▪ Cycle hire schemes / Micromobility
	I do not like cycling up hills	▪ Costs and availability of electric bikes ▪ Cycling routes which are not defined to minimise the impact of gradients ▪ Topography	▪ Provide cycle hire schemes which includes electric bikes ▪ Ensure gradient considered during cycle route design
	I need to be presentable at work	▪ There is a lack of facilities (e.g., showers, lockers, cycle parking etc) at my workplace	▪ Provide changing facilities at all new employment sites ▪ Encourage existing employers to provide changing facilities ▪ Provide cycle hire schemes which include electric bikes ▪ Land use planning measures
Journey times	Journey times by bike are too long	▪ Indirect cycling routes required to avoid busy roads unsuitable for cycling ▪ Dwell times at traffic lights in main urban areas	▪ Provide new direct cycling routes ▪ Advanced stop lines at traffic lights ▪ Installation of smart traffic lights ▪ Grants / loans to aid the purchase of electric bikes ▪ Land use planning measures
Lack of awareness of travel options	I am not aware of cycling opportunities in the HITRANS area	▪ Lack of information, promotion of and signing of cycling routes	▪ Improve / provide promotional material (e.g., leaflets, info on HITRANS website) on cycling routes ▪ Incorporate mapping / cycle options within the GO-HI and other apps ▪ Promote the GO-HI and other apps ▪ Partnership with public transport operators and public and third sector partners to promote cycling opportunities ▪ Promote and further develop long-distance cycling routes, including the National Cycle Network

Problem Theme	Transport Problem Cycling	Supply-Side Cause(s)	Options
Personal Accessibility	I cannot use a standard bicycle due to disability	▪ Cost of buying and maintaining a bespoke bike ▪ Route constraints ▪ Steps and other interruptions (e.g., gates) on routes	▪ Provide cycle hire schemes which include adaptive bikes ▪ Apply the principles of inclusive design in the design and delivery of any new cycling routes
Personal security	I do not think it is secure enough for me to travel by bike	▪ Absence of other cyclists can lead to intimidation ▪ Fear of crime or anti-social behaviour in local environment ▪ Lack of safe, well-lit, welcoming routes ▪ Poorly maintained routes (broken glass etc.) add to low amenity and an intimidating environment	▪ Upgrade / provide new secure cycling routes which are well-lit and incorporate CCTV where appropriate
Travel safety	I do not think it is safe enough for me to travel by bike	▪ Absence of dedicated cycling facilities ▪ Intimidation by vehicular traffic ▪ Lack of segregation from general traffic ▪ Requirement to cross major routes such as the A9, A82, A96 etc ▪ Roundabouts on routes ▪ The roads are not appropriate for cycling because of factors including traffic levels, mix of traffic, traffic speeds, speed limits, road width, road sightlines, lighting etc ▪ Unprotected right turns	▪ New dedicated on-road cycle lanes – these could range from unprotected cycle lanes to fully segregated cycleways reflecting *Cycling by Design* ▪ Provide new direct cycling links to railway stations / ferry terminals / airfields ▪ Support extension of the National Cycle Network in the HITRANS area ▪ Undertake cycle route action plans to identify opportunities for e.g., widening, straightening out blind bends, improved crossing facilities etc. ▪ Advanced stop lines at traffic lights ▪ Installation of smart traffic lights ▪ Improve the surfacing of existing cycling routes, including for those using adapted bicycles ▪ Active and preventative road maintenance ▪ Traffic calming ▪ 20mph speed limits in urban areas ▪ Reduced speed limits in peri-urban areas ▪ Enhanced Police Scotland enforcement of inappropriate driver behaviour ▪ Introduce additional cycle crossings in settlements which trunk or major A roads run through ▪ Land-use planning measures ▪ Low traffic neighbourhoods

Table 4.3: Problems framework – bus-based travel: problems, supply-side causes and options

Problem Theme	Transport Problem Bus	Supply-Side Cause	Options
Concern over environmental impact of travel	I am concerned about the environmental impact of travelling by bus	▪ The bus fleet in the HITRANS area is generally diesel-powered affecting greenhouse gas emissions and local air quality	▪ Invest in fuel efficient / alternative fuel vehicles and associated support services – in the commercial bus market, this may require the provision of incentives from the public sector ▪ Re-powering of existing diesel vehicles (ScotZev Stream 3)
Cost of travel and affordability	I cannot afford to travel regularly by bus	▪ Concessionary travel entitlement regime means that some low-income groups do not benefit ▪ Level of fares, including arrangements for regular bus users in the HITRANS area vary by operator	▪ Free / nominal fares for all ▪ Reduced fares / fares caps ▪ Free / nominal / discounted fares for specific groups in need ▪ Cross-operator ticket acceptance ▪ Daily or monthly fare capping ▪ Multi journey / season tickets
	Travelling by bus uses a high proportion of my disposable income	▪ Concessionary travel entitlement regime means that some low-income groups do not benefit ▪ Level of fares, including arrangements for regular bus users in the HITRANS area vary by operator	▪ Extension of National Concessionary Travel Scheme and Under-22s Concessionary Travel Scheme to rail, ferry and air services, where these are the main / only travel mode in an area ▪ Free / nominal fares for all ▪ Reduced fares / fares caps ▪ Free / nominal / discounted fares for specific groups in need ▪ Cross-operator ticket acceptance ▪ Daily fare capping ▪ Multi journey / season tickets
Integration of travel between modes	I cannot realistically take a bus to catch the train	▪ Competition between rail and bus services means that services often compete rather than provide a complementary service ▪ Low frequency and long route distances makes reliable integration between rail and bus services difficult	▪ Redesign of the supported bus network to act as feeders to rail services ▪ Enhanced Demand Responsive Transport (EDRT) services to connect with rail services

Problem Theme	Transport Problem Bus	Supply-Side Cause	Options
	I have to buy two tickets to travel by bus and rail	▪ Competition between rail and bus services limits the incentives to provide combined offering, although the GO-HI and other apps helps to address this to some degree ▪ Limited availability of, and or lack of awareness of integrated PlusBus bus / train tickets (Elgin, Fort William and Inverness only)	▪ Extension of National Concessionary Travel Scheme and Under-22s Concessionary Travel Scheme to rail services, where these are the main / only travel mode in an area ▪ Mobility-as-a-service ▪ Cross-operator ticket acceptance / through ticketing, either specified in contracts or via commercial agreements ▪ Increased promotion of PlusBus options in the Elgin, Fort William and Inverness areas
	Integration between my local bus and train services is poor	▪ Competition between rail and bus services means that services often compete rather than provide a complementary service ▪ Low frequency and long route distances make reliable integration between rail and bus services difficult	▪ Redesign of the supported bus network to act as feeders to rail services ▪ Enhanced Demand Responsive Transport (EDRT) services to connect with rail services ▪ Dedicated 'rail buses'
	I have to buy two tickets to travel by bus and ferry	▪ Competition between bus and ferry on some peninsular routes ▪ Different ticketing system with little crossover between bus and ferry operators ▪ Very few buses operate over the ferry service	▪ Extension of National Concessionary Travel Scheme and Under-22s Concessionary Travel Scheme to ferry and air services where these are the main / only travel mode in an area ▪ Mobility-as-a-service ▪ Cross-operator ticket acceptance / through ticketing, either specified in contracts or via commercial agreements ▪ Dedicated 'ferry buses', which travel on a sailing and provide a single end-to-end price for the passenger ▪ Dedicated 'ferry buses' which are scheduled to meet a ferry sailing at either end and for which the passenger pays a single end-to-end price

Problem Theme	Transport Problem Bus	Supply-Side Cause	Options
	Integration between buses and ferries is poor	▪ First bus of the day arrives after first ferry has departed ▪ Last bus of the day leaves before last ferry arrives ▪ Low volumes and infrequent ferry services affect bus service viability ▪ No bus route to ferry terminals ▪ Requirement to change buses to get to ferry terminal ▪ Bus has limited catchment, so would require interchange between bus services to provide meaningful connectivity to ferry terminal – timetables not well aligned ▪ Buses generally cannot wait for long enough for a delayed ferry due to the requirement to maintain their timetable ▪ Ferry arrival and departure times can vary by day, making it difficult to plan bus services, where the requirement is generally for a 'clockface' arrangement ▪ 'Thin' / seasonal markets mean that bus companies cannot profitably connect with every ferry service	▪ Dedicated 'ferry buses', which travel on a sailing and provide a single end-to-end price for the passenger ▪ Dedicated 'ferry buses' which are scheduled to meet a ferry sailing at either end ▪ Enhanced Demand Responsive Transport (EDRT) services to connect with arriving ferry services, particularly on islands. ▪ Provide EDRT services in place of timetabled routes where the frequency of timetabled routes is low ▪ Increase bus service frequency *Note – 'dedicated' in this context means operated for the specific purpose of the conveyance of ferry passengers. Services would operate direct to their destination and / or the timetable would be flexed to account for ferry delays, timetable changes etc.*
	Integration between buses and air services is poor	▪ First bus of the day arrives after first flights have departed ▪ Last bus of the day leaves before last flights arrive ▪ Low volumes and infrequent flights affect bus service viability ▪ No bus route to airports / airfields ▪ Requirement to change buses to get to airports / airfields ▪ Bus has limited catchment, so would require interchange between bus services to provide meaningful connectivity to airport – timetables not well aligned	▪ Dedicated air service buses' which are scheduled to meet a flight arrival (this already happens in several places, e.g., Kirkwall) ▪ Enhanced Demand Responsive Transport (EDRT) services to connect with departing or arriving air services. EDRT could be particularly useful in facilitating connections with very early morning or late evening flights ▪ Provide EDRT services in place of timetabled routes where the frequency of timetabled routes is low ▪ Increase bus service frequency

Problem Theme	Transport Problem Bus	Supply-Side Cause	Options
	Switching between modes is difficult for me due to disability	▪ Alighting and boarding arrangements are not accessible to all ▪ Physical barriers such as steps ▪ Short connecting times between services ▪ The absence of appropriately skilled staff to assist	▪ Improve / provide seating at bus stops ▪ Improve / provide dropped kerbs at bus stops ▪ Improve / provide footways around bus stops ▪ Improve / provide CCTV / lighting at bus stops and at interchange locations ▪ Improve the quality of bus stations in the HITRANS region ▪ Improve the accessibility of existing vehicles ▪ Provide accessibility / disability awareness training to drivers ▪ Offer escorting / chaperoning for vulnerable users ▪ Provide accessibility / disability awareness training for drivers, including dementia training ▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis ▪ Provide discounted / quota taxi journeys for those unable to use bus services due to a disability ▪ Mobility hubs
Journey information	I do not know if my bus is going to be on time	▪ Absence of real time journey bus information at bus stops and via apps etc. ▪ Lack of mobile phone signal, data or Wi-Fi	▪ Provide additional real time information at selected high volume bus stops ▪ Incorporate real time information / bus tracking within the GO-HI and other travel apps ▪ Promote the GO-HI and other travel apps ▪ Investment in 4G / 5G ▪ Scottish Government 4G infill project ▪ Increased free wi-fi provision ▪ Additional mobile phone masts
	I cannot access bus service information	▪ Bus journey information is not in a format which is accessible to all	▪ Ensure all online content is an accessible format and kept up-to-date ▪ Ensure that all published material is available on request in multiple formats (e.g., braille, large print, different languages etc) ▪ Ensure that all travel centres offer appropriate staff training and facilities for those with a disability ▪ Continue to provide physical timetable information at bus stops, travel centres and community facilities (for those without access to the internet) and remove out-of-date information – particularly important for tourists and more occasional bus users

Problem Theme	Transport Problem Bus	Supply-Side Cause	Options
Journey quality	I am exposed to weather at bus stops	▪ Inadequate availability / quality of bus shelters across the HITRANS area	▪ Improve / provide bus shelters at bus stops
	Travelling by bus does not feel like a high-quality experience	▪ Absence of bus stop signs in places ▪ Absence of onboard toilets on longer routes ▪ Absence of other facilities such as Wi-Fi and plug points on some longer routes ▪ Age and quality of some vehicles ▪ Customer experience ▪ On board temperatures can be too hot or too cold ▪ Quality of bus stop infrastructure	▪ Improve / provide bus shelters at bus stops ▪ Improve / provide digital and / or paper information at bus stops / stations ▪ Improve / provide seating at bus stops ▪ Improve / provide CCTV / lighting at bus stops and at interchange locations ▪ Where possible, position bus stops in locations which are overlooked / well-lit etc. ▪ Provide waiting facilities at bus stations across the region ▪ Improve vehicle quality e.g., through the provision of enhanced seating, lighting, Wi-Fi, USB charging etc ▪ Provide driver training and performance monitoring to support the delivery of a high-quality passenger experience for all

Problem Theme	Transport Problem Bus	Supply-Side Cause	Options
Journey times	It takes a long time to travel by bus, particularly compared to travel by car	▪ Circuitous service routeing ▪ Congestion in main settlements, particularly Inverness, Fort William and Elgin ▪ Frequency of bus stops, particularly on some long-distance services which are serving both local and long-distance movements ▪ Road formation, use of bus lay-byes, alignment and quality means that average speeds are low	▪ Provide additional services ▪ Provide conventional DRT or EDRT services ▪ Restructure the supported bus network to act as feeder services to railway stations ▪ Integrate bus timetables / increase bus frequency to reduce wait times ▪ Rationalise bus stops where frequent stopping adds unduly to journey times ▪ Reduce bus stop dwell time through the use of ticketing systems which reduce or remove interaction time with drivers ▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis ▪ Support measures to reduce congestion in the main settlements across the region, including selected town bypasses, bus priority, improved parking enforcement etc ▪ Tolling / road pricing ▪ Workplace parking levy to reduce overall parking demand ▪ Support targeted road improvements such as addressing sections of poorly aligned carriageway, converting single track to single carriageway where appropriate etc. ▪ Bus priority measures (bus lanes, bus gates, queue relocation systems, traffic signal vehicle detection etc)
	I have to change buses or between bus and train which makes my journey long	▪ Current timetables and routeing options ▪ Low frequency and long route distances mean that there can be a long wait when interchanging	▪ Provide additional services ▪ Provide conventional DRT or EDRT services ▪ Restructure the supported bus network to act as feeder services to railway stations

Problem Theme	Transport Problem Bus	Supply-Side Cause	Options
Journey time reliability / punctuality	Journey times by bus are not reliable	▪ Climate change leading to more frequent severe weather events with associated disruption ▪ Delays due to driver availability issues ▪ Delays due to incidents on the road ▪ Delays due to traffic congestion and absence of bus priority in and around the main settlements ▪ Delays due to vehicle mechanical issues, sometimes associated with older vehicles ▪ Long route distances for many services – adds to scope for delay ▪ Seasonal variations in journey time as a result of high volumes of tourist traffic	▪ Support measures to reduce congestion in the main settlements across the region, including selected town bypasses, bus priority, improved parking enforcement etc ▪ Tolling / road pricing ▪ Workplace parking levy to reduce overall parking demand ▪ Support measures to improve journey time reliability, particularly for key inter-urban routes. These could include e.g., climbing lanes, and sections of dual carriageway where there are low average speeds / large variances in journey times etc ▪ Support targeted road improvements such as addressing sections of poorly aligned carriageway, converting single track to single carriageway where appropriate etc. ▪ Invest in new vehicles which are less likely to experience mechanical failures and contribute to delay ▪ Bus lanes on trunk roads and other arterial roads ▪ Bus priority measures (bus lanes, bus gates, queue relocation systems, traffic signal vehicle detection etc)
	The bus is sometimes late to arrive and I have a longer wait at the stop	▪ Buses not punctual due to incidents on the network or operational reasons	
Lack of awareness of travel options	I am not aware of the bus services available	▪ A particular issue for occasional or infrequent users, including visitors to the HITRANS region for whom information has to be readily accessible, understandable and reliable ▪ Level of, accessibility of, and promotion of bus routes, fares and vehicle information by all stakeholders in the HITRANS region ▪ Cruise passengers may not be aware of local bus services when disembarking	▪ Improve / provide accessible information on bus services (e.g., at stop, leaflets, info on the HITRANS and Council website) ▪ Continue to provide hard copy travel information at bus stops, travel centres etc ▪ Work with air, ferry and rail operators to promote onward active and public transport opportunities ▪ Promote the GO-HI and other travel apps ▪ Land use planning measures ▪ Enhanced Cruise 'welcome ashore' provision ▪ Awareness raising of public transport options / itineraries amongst tourists

Problem Theme	Transport Problem Bus	Supply-Side Cause	Options
Personal Accessibility	I find it difficult to, or am unable to travel on the bus due to a disability	▪ Absence of journey assistance offer for those unable to travel unaccompanied ▪ Access and egress routes to / from bus stops ▪ Combination of bus station / stop location and design, and bus design ▪ Issues with driving standards ▪ Not all bus stops are fully accessible ▪ Smaller buses (under 22 seats) are more common in rural parts of the region and are exempt from Public Service Vehicle Accessibility Regulations 2000	▪ Improve / provide bus shelters at bus stops ▪ Improve / provide seating at bus stops ▪ Improve / provide dropped kerbs at bus stops ▪ Improve / provide footways around bus stops ▪ Improve / provide CCTV / lighting at bus stops and at interchange locations ▪ Where possible, position bus stops in locations which are overlooked / well-lit etc. ▪ Improve the quality of bus stations across the region ▪ Improve the accessibility of existing vehicles ▪ Provide accessibility / disability awareness training to drivers ▪ Offer escorting / chaperoning for vulnerable users ▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis ▪ Provide discounted / quota taxi journeys for those unable to use bus service due to a disability
Personal security	I do not feel secure travelling on the bus	▪ Anti-social behaviour on buses ▪ Infection control measures in the wake of the COVID-19 pandemic ▪ Lack of CCTV on board buses ▪ Low bus occupancy in places can make people feel vulnerable	▪ Improve / provide CCTV / lighting on board vehicle ▪ Where possible, position bus stops in locations which are overlooked / well-lit etc. ▪ Additional Police Scotland patrols where anti-social behaviour is common ▪ Enhanced cleaning and hygiene measures
	I do not feel secure waiting at bus stops	▪ Absence of formal bus stations with facilities in some places ▪ Absence of other people passing in area of bus stops ▪ Anti-social behaviour on transport and in the vicinity of bus stops ▪ Combination of bus station and bus stop location and design, lighting ▪ Lack of CCTV coverage ▪ Majority of bus stops in deep rural areas and are thus very isolated	▪ Where possible, position bus stops in locations which are overlooked / well-lit etc. ▪ Improve / provide CCTV / lighting at bus stops and at interchange locations

Problem Theme	Transport Problem Bus	Supply-Side Cause	Options
Travel safety	The walking route to my bus stop does not feel safe	▪ Some stops require people to walk along verges of busy roads where there are no footways	▪ Improve existing walking and wheeling routes to bus stops ▪ Widen / provide footways through the reallocation of road space ▪ Introduce additional pedestrian or zebra crossings in settlements ▪ Introduce measures to reduce car use and improve perceptions of safety, including traffic speed enforcement; parking restrictions; and traffic calming ▪ 20mph speed limits ▪ Provide new walking and wheeling routes which are segregated from traffic ▪ Mobility hubs
Comfort	I do not find bus travel comfortable	▪ Some of the bus fleet is ageing which will impact on ride comfort, noise, temperature control etc.	▪ Improve vehicle quality e.g., through the provision of enhanced seating, lighting, Wi-Fi, USB charging etc ▪ Invest in new vehicles
Connectivity and network coverage	There are no bus services where I live	▪ Coverage provided by current scheduled bus and DRT network ▪ Large parts of the region are very rural affecting service provision	▪ Provide additional timetabled bus services between locations where there is no bus service, providing a new direct connection ▪ Earlier first departure from settlements ▪ Later last departure to settlements ▪ Provide DRT and / or EDRT services between locations where there is no bus service ▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis ▪ Provide discounted / quota taxi journeys for those without access to a bus service – this could be to the end destination or the nearest railway station ▪ Bus-based Park & Ride to honeypot tourist sites ▪ Land use planning measures
	There are bus services, but they do not go where / when I want to go	▪ Absence of buses at the times people want to travel ▪ Absence of Sunday services ▪ Coverage provided by current scheduled bus and DRT network ▪ Lack of connections to key locations	

Problem Theme	Transport Problem Bus	Supply-Side Cause	Options
Integration between services	I have to change buses to get where I want to go	▪ Extent of current scheduled bus and DRT network ▪ Many services are arranged on a 'hub-and-spoke' basis, with a need to change in e.g., Inverness, Kirkwall, Stornoway etc	▪ Provide additional timetabled bus services between locations where there is no bus service, providing a new direct connection ▪ Provide DRT and / or EDRT services between locations where there is a limited bus service ▪ Integrate bus timetables / increase bus frequency to reduce wait times ▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis ▪ Improve the quality of bus stations across the region ▪ Additional bus station staff, particularly in peak tourism season
	I have to buy two tickets to travel by different bus operators	▪ Absence of multi-journey or multi-day tickets across different operators	▪ Free fares ▪ Extension of National Concessionary Travel Scheme and Under-22s Concessionary Travel Scheme to ferry and air services where these are the main / only travel mode in an area ▪ Mobility-as-a-service ▪ Cross-operator ticket acceptance / through ticketing, either specified in contracts or via commercial agreements
	Integration between my local and long-distance bus is poor	▪ Bus timetables and absence of multi-operator tickets ▪ Sparse services in rural areas make this more difficult	▪ Provide additional timetabled bus services to connect local areas with long-distance services ▪ Provide DRT and / or EDRT services to connect local areas with long-distance services ▪ Integrate bus timetables / increase bus frequency to reduce wait times
Service reliability / cancellations	The bus sometimes does not show up	▪ Cancellations due to driver shortages ▪ Cancellation due to vehicle issues ▪ Cancellations due to incident on the road network caused by traffic incident or weather	

Problem Theme	Transport Problem Bus	Supply-Side Cause	Options
	The school bus sometimes doesn't show up	▪ Cancellations due to driver shortages ▪ Cancellation due to vehicle issues ▪ Cancellations due to incident on the road network caused by traffic incident or weather	▪ Support measures to reduce congestion in the main settlements across the region, including selected town bypasses, bus priority, improved parking enforcement etc ▪ Tolling / road pricing ▪ Workplace parking levy to reduce overall parking demand ▪ Support measures to improve journey time reliability, particularly for key inter-urban routes. These could include e.g., climbing lanes, and sections of dual carriageway where there are low average speeds / large variances in journey times etc ▪ Support targeted road improvements such as addressing sections of poorly aligned carriageway, converting single track to single carriageway where appropriate etc. ▪ Invest in new vehicles which are less likely to experience mechanical failures and contribute to delay ▪ Bus priority measures (bus lanes, bus gates, queue relocation systems, traffic signal vehicle detection etc)
Timetables	The bus service is not frequent enough	▪ Extent of the commercial bus network is limited away from the more populated areas ▪ Extent of current scheduled bus timetable ▪ Limited network in more sparsely populated parts of the region	▪ Provide additional timetabled bus services between locations where there is no bus service, providing a new direct connection ▪ Provide DRT and / or EDRT services between locations where there is no bus service ▪ Restructure the supported bus network to act as feeder services to railway stations ▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis ▪ Provide discounted / quota taxi journeys for those without access to a bus service – this could be to the end destination or the nearest railway station ▪ Land use planning measures
	There is no bus at the time I want to travel	▪ Extent of the commercial bus network is limited away from the more populated areas ▪ Extent of current scheduled bus timetable ▪ Limited network in more sparsely populated parts of the region	
	I can't travel by bus for a regular working day	▪ Extent of the commercial bus network is limited away from the more populated areas ▪ Extent of current scheduled bus timetable ▪ Limited network in more sparsely populated parts of the region	
	I can't get to early morning appointments / shift work or attend late night social events / shift work by bus	▪ Extent of the commercial bus network is limited away from the more populated areas ▪ Extent of current scheduled bus timetable ▪ Limited network in more sparsely populated parts of the region	

Problem Theme	Transport Problem Bus	Supply-Side Cause	Options
	I cannot travel by bus on one or more days per week	▪ Extent of the commercial bus network is limited away from the more populated areas ▪ Extent of current scheduled bus timetable ▪ Limited network in more sparsely populated parts of the region	

Table 4.4: Problems framework – train-based travel: problems, supply side causes and options

Problem Theme	Transport Problem Train	Supply Side Cause	Options
Concern over environmental impact of travel	I am concerned about environmental impacts when I travel by train	▪ All trains used in the HITRANS region are diesel. Furthermore, the High Speed Train (HST) stock (or more accurately the Class 43 power cars) date from the late 1970s and the Class 15x stock from the late 1980s and thus will need to be replaced at an appropriate juncture ▪ LNER Azuma rolling stock and Caledonian Sleeper run as diesel services to Haymarket / Edinburgh Waverley	▪ Support rolling programme of electrification where appropriate ▪ Delivery of appropriate traction decarbonisation solution(s) as HST and Class 15x stock is cascaded or retired
Cost of travel and affordability	I can't afford to travel regularly by train	▪ Differentials between Scotland's Railway and LNER pricing ▪ Even discounted fares can be prohibitive for some ▪ Level of fares set by Scotland's Railway ▪ Low awareness of discount products such as the Highland Railcard ▪ In Argyll & Bute, some stations sit just outwith the SPT fares zone (e.g., Ardlui) leading to increased fares ▪ Variable fares for some long-distance travel, with high prices for walk-up / short notice travel	▪ Free / nominal fares for all ▪ Reduced fares / fares caps ▪ Free / nominal / discounted fares for specific groups in need ▪ Daily or monthly fare capping ▪ Multi journey / season tickets ▪ Promotion of discount products, in particular the Highland Railcard ▪ Account-based ticketing ▪ Extension of National Concessionary Travel Scheme and Under-22s Concessionary Travel Scheme to rail, ferry and air services, where these are the main / only travel mode in an area
	Travelling by train uses a high proportion of my disposable income	▪ Differentials between Scotland's Railway and LNER pricing ▪ Level of fares set by Scotland's Railway ▪ Low awareness of discount products such as the Highland Railcard ▪ In Argyll & Bute, some stations sit just outwith the SPT fares zone (e.g., Ardlui) leading to increased fares ▪ Variable fares for some long-distance travel, with high prices for walk-up / short notice travel	
Integration of travel between modes	I have to buy two tickets to travel by rail and bus	▪ Competition between rail and bus services means bus / train through ticketing is limited ▪ Limited availability of, and or lack of awareness of integrated PlusBus bus / train tickets (Elgin, Fort William and Inverness only)	▪ Extension of National Concessionary Travel Scheme and Under-22s Concessionary Travel Scheme to rail services, where these are the main / only travel mode in an area ▪ Mobility-as-a-service ▪ Cross-operator ticket acceptance / through ticketing, either specified in contracts or via commercial agreements ▪ Increased promotion of PlusBus options in the Elgin, Fort William and Inverness areas

Problem Theme	Transport Problem Train	Supply Side Cause	Options
	Integration between my local train and bus services is poor	▪ Competition between rail and bus services means that services often compete rather than provide a complementary service ▪ Low frequency and long route distances make integration between rail and bus services difficult	▪ Redesign of the supported bus network to act as feeders to rail services ▪ Enhanced Demand Responsive Transport (EDRT) services to connect with rail services ▪ Dedicated 'rail buses' ▪ Additional railway station staff, particularly in peak tourism season
	Ferry arrival / departure times do not align with rail services	▪ Ferry departure and arrival times determined by customer demand, berth availability, vessel overnight location, crewing hours and, in some cases, tides ▪ Rail timetabling is complex, particularly on the West Highland, Far North and Kyle Lines. Need for trains to meet in loops and, for West Highland, split and join at Fort William and Crianlarich and peak hour unit availability in the Central Belt ▪ There are many constraints which make this difficult in places	▪ Where practicable, retiming of ferry services to better integrate with rail services (rail services could also be retimed to better integrate with ferry services, but the constraints associated with rail services are more significant) ▪ Ferry infrastructure investment to allow more vessels to be in port at the same time, allowing more sailings to integrate with connecting rail services ▪ Improved and / or co-located waiting facilities which facilitate an easier transition from ferry to train
	Switching between modes is difficult for me due to disability	▪ Alighting and boarding arrangements are not accessible to all ▪ Physical barriers such as steps ▪ Short connecting times between services ▪ The absence of appropriately skilled staff to assist	▪ Where practicable, retiming of ferry services to better integrate with rail services (rail services could also be retimed to better integrate with ferry services, but the constraints associated with rail services are more significant) ▪ Improved and / or co-located waiting facilities which facilitate an easier transition from ferry to train ▪ Improved staff training ▪ Cross-operator staffing arrangement supporting e.g., getting from the ferry at Mallaig to the railway station, and vice versa ▪ Mobility hubs ▪ Additional railway station staff, particularly in peak tourism season

Problem Theme	Transport Problem Train	Supply Side Cause	Options
Journey quality	Travelling by train does not feel like a high-quality experience	▪ Far North Line and Kyle Line trains are Class 158 DMUs, which also date from the late 1980s / early 1990s. They have however recently been refurbished to a higher standard ▪ HST (125) trains now suffering reputation damage after the Stonehaven accident and are also high emission and expensive to operate ▪ Occasional use of Class 158 / Class 170 trains between Inverness – Aberdeen and Inverness – Perth / Edinburgh Waverley / Glasgow Queen Street not considered of an equivalent standard to 125 or LNER Azuma stock ▪ West Highland Line trains are Class 156 + Class 153 diesel multiple units (DMUs) which are over 30 years old so are not state of the art	▪ Ongoing refurbishment / replacement of Class 15x and Class 170 stock ▪ Cascade of HSTs to replace all Class 158 and Class 170 stock on services between Perth and Inverness or replacement with a new inter-city fleet ▪ Progressive replacement of current rolling stock at life expiry - a 'rural' specification for future units will be required ▪ On-train catering
	My local station has poor facilities	▪ Closure of facilities in the evening ▪ Island platforms can lead to use of unattractive underpasses / steep steps ▪ Many stations do not have ticket offices, pre-purchase collection, ticket machines, toilets, shops etc. ▪ Staffing levels	▪ Longer station ticket office opening hours ▪ For unmanned stations, a rolling programme of staff visits ▪ Improved real time information, provision of ticket vending machines, customer help points, waiting areas, lighting, toilets, Wi-Fi etc ▪ 'Access for all' improvements to stations where practicable ▪ Automated train calls at request stops ▪ Improved information on onward travel options, especially local bus services, at all railway stations
Journey times	I find journey times by train across the region to be too long	▪ Circuitous routeing to avoid natural barriers (e.g., Moray, Cromarty and Dornoch Firths) ▪ Dwell times for split and join operations (e.g., at Fort William and Crianlarich) ▪ Indirect services to Thurso (i.e., via Wick) ▪ Low line speeds on all lines, but particularly the Far North, Kyle and West Highland Lines ▪ Scheduled dwell times in passing loops ▪ Station stopping patterns – almost all services 'all-stop' and rural lines have a large number of stations	▪ Infrastructure improvements eg electrification, doubling, level crossing enhancements / removal and signalling to reduce journey times, e.g., increased line speeds and have higher capability rolling stock ▪ Timetable planning improvements to reduce journey times, e.g., shorter station dwell times (although this would have to align with the timetable planning rules and wider) ▪ Split and join operations for Wick and Thurso ▪ Alternative rolling stock solution for Wick and Thurso, with a railhead at Georgemas Junction ▪ Conversion of some scheduled calling points to request only (note that several stations already have this designation)

Problem Theme	Transport Problem Train	Supply Side Cause	Options
	I have to change trains or between train and bus which makes my journey long	▪ Absence of stations in settlements with a railway line, e.g., Evanton ▪ Extent of bus and rail network (and low frequency of service, which can lead to long interchange times)	▪ New stations – e.g., HMNB Faslane, Evanton etc ▪ Redesign of the supported bus network to act as feeders to rail services ▪ Enhanced Demand Responsive Transport (EDRT) services to connect with rail services ▪ Dedicated 'rail buses'
Journey time reliability / punctuality	Journey times by train are not reliable	▪ Extended station dwell times in peak season ▪ Knock-on delay caused by large stretches of single line working ▪ Knock-on delay imported from the Central Belt, or further afield for LNER and Caledonian Sleeper services ▪ Rolling stock reliability issues ▪ Staffing issues ▪ Weather events, some of which are linked to climate change	▪ Increased performance margins to allow for recovery from delay (although note that, without a corresponding reduction in journey times as described above, the overall journey time would increase if performance margins are increased) ▪ Platform level boarding to reduce station dwell time ▪ Progressive replacement of current rolling stock at life expiry - a 'rural' specification for future units will be required ▪ Improvements to key pinch points in the Central Belt network, Aberdeen to Inverness and on the East Coast Mainline, minimising reactionary delay in the HITRANS area ▪ Recruitment of additional staff, particularly in the peak tourism season to ensure on-time departures ▪ Infrastructure improvements to improve resilience, e.g., reduced risk of flooding, landslips, vegetation clearance etc.
	The train sometimes leaves and arrives late	▪ Extended station dwell times in peak season ▪ Knock-on delay caused by large stretches of single line working ▪ Knock-on delay imported from the Central Belt, or further afield for LNER and Caledonian Sleeper services ▪ Rolling stock issues ▪ Staffing issues ▪ Weather events, some of which are linked to climate change	
	The train is sometimes cancelled	▪ Knock-on cancellations caused by large stretches of single line working ▪ Knock-on cancellations imported from the Central Belt, or further afield for LNER and Caledonian Sleeper services ▪ Rolling stock reliability issues ▪ Staffing issues ▪ Weather events, some of which are linked to climate change	

Problem Theme	Transport Problem Train	Supply Side Cause	Options
Personal Accessibility	I find it difficult to, or am unable to travel by train due to a disability	▪ Absence of journey assistance offer for those unable to travel unaccompanied ▪ Many stations have poor access routes to / from and at stations – e.g., absence of step free access, ramps for train access etc. This is a particular issue for island platform stations. ▪ Some station locations are not convenient for the communities they serve	▪ Improve waiting areas at stations ▪ Where practicable, 'Access for all' improvements, particularly where there is no step free access to the station ▪ Platform level-boarding ▪ Provision of clear information on where access to a station is not step free and advice on alternative arrangement ▪ CCTV and station help points on the platform, particularly in isolated rural stations ▪ Additional station staff, particularly in peak tourist season ▪ Provide accessibility / disability awareness training to drivers ▪ Offer escorting / chaperoning for vulnerable users ▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis to provide connections to the nearest accessible station ▪ Provide discounted / quota taxi journeys for those unable to use train service due to a disability
Personal security	I do not feel secure travelling by train	▪ Low train usage in places can make people feel vulnerable ▪ Onboard staffing levels	▪ Visible staff presence on-train and at stations where these are manned ▪ Additional British Transport Police patrols where anti-social behaviour is common ▪ Enhanced cleaning and hygiene measures
	I do not feel secure at railway stations	▪ Quality / absence of lighting, CCTV etc ▪ Low station usage levels can make users feel vulnerable ▪ Remote and isolated rural stations can make users feel vulnerable ▪ Unstaffed stations can make users feel vulnerable	▪ CCTV and station help points on the platform, particularly in isolated rural stations ▪ Visible staff presence on-train and at stations where these are manned ▪ Additional British Transport Police patrols where anti-social behaviour is common ▪ Enhanced cleaning and hygiene measures
Comfort	I don't find train travel comfortable	▪ Despite recent refurbishment, Class 156 / 153 DMUs used on the WHL are relatively old and of a poorer standard than would perhaps be expected for a circa five-hour journey from Glasgow Queen Street – Mallaig. Refurbished Class 158s are of a comparatively higher standard although still ageing. ▪ Use of Class 158 and Class 170 stock below passenger expectations for longer distance journeys from Inverness	▪ Ongoing refurbishment / replacement of Class 15x and Class 170 stock ▪ Cascade of HSTs to replace all Class 158 and Class 170 stock on services between Perth and Inverness or replacement with a new inter-city fleet ▪ Progressive replacement of current rolling stock at life expiry - a 'rural' specification for future units will be required

Problem Theme	Transport Problem Train	Supply Side Cause	Options
Capacity	I occasionally cannot get a seat on the train	▪ Significant seasonal peak variation in use of lines in the HITRANS area. ▪ The West Highland and Kyle lines are particularly susceptible to this.	▪ Strengthened peak season (i.e., additional carriages) services where practicable ▪ Real time capacity information when booking (as per air services) ▪ Additional tourist targeted services ▪ Additional open access and charter operations such as the West Coast Railways *Jacobite*
	There is limited capacity for rail freight	▪ Poor route availability ▪ Poor gauge clearance for inter-modal freight ▪ Lack of rail freight terminals and available land for new freight terminals ▪ Limited line capacity ▪ Short loops limiting train freight train length ▪ Lack of suitable adapted wagons	▪ Improved route availability ▪ Improved gauge clearance ▪ New rail freight terminals ▪ Improvements to the efficiency of existing rail freight terminals ▪ Longer passing loops for larger freight trains ▪ Procurement of adapted wagons to run on the region's railway network ▪ Infrastructure improvements to reduce journey times, e.g., increased line speeds ▪ New connections to emerging industrial sites ▪ Facilitate city centre break bulk / last mile low carbon deliveries
Connectivity and network coverage	There are no railway stations near where I live	▪ Absence of railway lines in larger settlements (e.g., Buckie, Grantown-on-Spey, Fort Augustus, Dornoch etc) ▪ Absence of stations in settlements with a railway line (e.g., Evanton)	▪ Restored / new heavy rail routes ▪ New stations ▪ Redesign of the supported bus network to act as feeders to rail services ▪ Enhanced Demand Responsive Transport (EDRT) services to connect with rail services ▪ Provide a Caledonian Sleeper service to Oban
	There are train services, but they do not go where I want to go	▪ Absence of railway lines in larger settlements (e.g., Buckie, Grantown-on-Spey, Fort Augustus, Dornoch etc) ▪ Absence of stations in settlements with a railway line (e.g., Evanton)	
Timetables	The train service is not frequent enough		
	I can't travel by train for a regular working day		

Problem Theme	Transport Problem Train	Supply Side Cause	Options
	I can't get to early morning appointments / shift work or attend late night social events / shift work by train	▪ All HITRANS area routes are constrained to some degree by single line working ▪ Cost / value for money considerations impact on service provision and new investment ▪ Platform capacity at Glasgow Queen Street and Edinburgh Waverley ▪ Supply-side infrastructure and rolling stock constraints	▪ Provide additional timetabled train services (whole-route or part-route) – this could include a longer day. ▪ Provide connecting bus, DRT or EDRT from train terminating / starting points early in the morning or late in the evening (for example, on the Far North Line, the first train to Inverness starts at Ardgay and the last train terminates at Tain, so a bus would be required to get back from Ardgay to Tain) ▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis ▪ Provide discounted / quota taxi journeys for those without access to a train service – this could be to the end destination or the nearest railway station
	I cannot travel by train on a Sunday	▪ Allowances for extended Saturday night into Sunday morning possessions ▪ Cost / value for money considerations ▪ No Caledonian Sleeper service on a Saturday evening into Sunday morning in either direction ▪ Timetables operated by Scotland's Railway	▪ Operate Sunday ScotRail services on the same timetable as every working day ▪ Operate a Saturday evening Caledonian Sleeper service in both directions ▪ Change the balance between weekend / weekday services to reflect changing demand for travel *Note that any additional services would need to account for required possessions to facilitate engineering work.*

Table 4.5: Problems framework – ferry (personal travel): problems, supply-side causes and options

Problem Theme	Transport Problem Ferry – Personal travel	Supply Side Cause(s)	Options
Concern over environmental impact of travel	I am concerned about the environmental impact of travelling by ferry	▪ Most vessels are currently only replaced when they are 30+ years old, so this is a long-term problem ▪ The construction of ferries and ferry terminal infrastructure has environmental impacts ▪ The large majority of vessels in the HITRANS region use fossil fuels, generating significant greenhouse gases and other pollutants	▪ Investment in newer zero emission vessels – included within this would be minimising the environmental impact of vessel construction and associated landside civil engineering works ▪ Modifications to existing vessels to reduce emissions, e.g., carbon scrubbers, low friction paint, conversion to lower carbon fuels etc ▪ Fixed links to reduce emissions associated with travel (although relative contribution to emissions of fixed links / ferries would need to be established)
Cost of travel and affordability	It is too expensive to travel as a foot passenger	▪ Commercially set fares / fares benchmark on the Pentland Firth ▪ Fare levels set by A&BC, Highland and Orkney for services under their control – fares balance passenger needs with a degree of cost recovery ▪ Fare levels set by Transport Scotland for Clyde and Hebridean Ferry Services (CHFS) and Northern Isles Ferry Services (NIFS) – fares balance passenger needs with a degree of cost recovery ▪ Fare types and concessionary arrangements ▪ Limited range of income-based concessions ▪ Multi-journey books require significant up-front outlay	▪ Free / nominal fares for all foot passengers ▪ Reduced foot passenger fares ▪ Reduced foot passenger fares for residents ▪ Season tickets for residents ▪ Extension of National Concessionary Travel Scheme and Under-22s Concessionary Travel Scheme to rail, ferry and air services, where these are the main / only travel mode in an area ▪ Payment plans for multi-journey tickets ▪ Completion of roll-out of Road Equivalent Tariff (RET) on NIFS routes
	It is too expensive to take my car / vehicle on the ferry	▪ Commercially set fares / fares benchmark on the Pentland Firth and Gourock-Dunoon ▪ Fare levels set by A&BC, Highland and Orkney for services under their control – fares balance passenger needs with a degree of cost recovery ▪ Fare levels set by Transport Scotland for CHFS and NIFS – fares balance passenger needs with a degree of cost recovery ▪ Fare types and concessionary arrangements ▪ Limited range of income-based concessions ▪ No regular user / season ticket fares on CHFS and NIFS ▪ Multi-journey books require significant up-front outlay	▪ Free / nominal car fares for all ▪ Reduced car fares for all ▪ Reduced car fares for residents ▪ Season tickets for residents ▪ Payment plans for multi-journey tickets ▪ Improved public transport connections to / from ferry terminal. This could include connecting bus services and / or shared mobility ▪ Improved public transport connections to / from ferry terminal combined with free / minimal or reduced fares for passengers. This could include connecting bus services and / or shared mobility ▪ Increased secure long-stay parking at ferry terminals ▪ Improved active travel connections (limited scope) ▪ Fixed links to reduce cost of ferry travel assuming not tolled / tolled cheaper than the ferry for those travelling by car On the NIFS routes:

Problem Theme	Transport Problem Ferry – Personal travel	Supply Side Cause(s)	Options
			▪ Encourage the Scottish Government to reduce car fares. This may include options to (i) Introduce a modified version of the Road Equivalent Tariff (RET) fares system for passengers and cars as per the current policy commitment; (ii) Lower off-peak fares when capacity is less pressured
	It is too expensive to book accommodation onboard (Kirkwall – Aberdeen and Kirkwall - Lerwick only)	▪ Cabin charges, which are required to support both some cost recovery and balance demand ▪ These are overnight sailings only which necessitate the use of a cabin for many people	▪ Encourage the Scottish Government to reduce the cost of onboard accommodation. ▪ Lower off-peak fares when capacity is less pressured
Integration of travel between modes	I have to pay multiple fares for one journey	▪ Fares are paid individually to the ferry operator(s) and connecting transport companies (with some exceptions) ▪ Very few bus services operate over the ferry service	▪ Free travel on ferry and / or bus and / or rail service ▪ Extension of National Concessionary Travel Scheme and Under-22s Concessionary Travel Scheme to rail, ferry and air services, where these are the main / only travel mode in an area ▪ Bus / ferry through ticketing – could be paper based or electronic (e.g., smartcards, mobile devices – would need to be developed to ITSO specification)
	Ferry arrival / departure times do not align with rail services	▪ Ferry departure and arrival times determined by customer demand, berth availability, vessel overnight location, crewing hours and, in some cases, tides ▪ Rail timetabling is complex, particularly on the West Highland, Far North and Kyle Lines. Need for trains to meet in loops and, for West Highland, split and join at Fort William and Crianlarich and peak hour unit availability in the Central Belt ▪ There are many constraints which make this difficult in places	▪ Where practicable, retiming of ferry services to better integrate with rail services (rail services could also be retimed to better integrate with ferry services, but the constraints associated with rail services are more significant) ▪ Ferry infrastructure investment to allow more vessels to be in port at the same time, allowing more sailings to integrate with connecting rail services ▪ Improved and / or co-located waiting facilities which facilitate an easier transition from ferry to train
	Ferry arrival / departure times do not align with bus and coach services	▪ Buses generally cannot wait for a delayed ferry due to the requirement to maintain their timetable ▪ Ferry arrival and departure times can vary by day, making it difficult to plan bus services, where the requirement is generally for a 'clockface' arrangement ▪ 'Thin' / seasonal markets mean that bus companies cannot profitably connect with every ferry service	▪ Dedicated 'ferry buses', which travel on a sailing and provide a single end-to-end price for the passenger ▪ Dedicated 'ferry buses' which are scheduled to meet a ferry sailing at either end ▪ DRT or EDRT services to connect with arriving ferry services, particularly on islands. ▪ Provide DRT or EDRT services in place of timetabled routes where the frequency of timetabled routes is low ▪ Increase bus service frequency ▪ *Note – 'dedicated' in this context means operated for the specific purpose of the conveyance of ferry passengers. Services would operate direct to their destination and / or the*
	The bus does not wait if my ferry is late	▪ Bus company has to maintain timetable to avoid possible sanction by the Traffic Commissioner ▪ This would cause a knock-on delay from late running service (e.g., next service delayed or cancelled).	

Problem Theme	Transport Problem Ferry – Personal travel	Supply Side Cause(s)	Options
			timetable would be flexed to account for ferry delays, timetable changes etc.
	I can't leave my car at the ferry terminal	▪ Limited long-stay parking provision ▪ Parking on street in the surrounding area is less secure or limited waiting restrictions apply	▪ Increased secure long-stay parking at ferry terminals ▪ Alternative public transport provision to the ferry terminal, as described previously ▪ Mobility hubs
	I cannot take my car on the ferry	▪ Lo-Lo vessel with deadweight or crane weight restriction ▪ Passenger only vessel	▪ Conversion of Lo-Lo routes to Ro-Ro
Journey times	The journey time is too long	▪ Check in times at ferry terminals ▪ Ferry routes and ports ▪ Vessel operating speed ▪ Services shared between multiple islands, making for circuitous routes and long journey times	▪ New vessels with an improved design speed (but dependent on whether that speed can be maintained) ▪ Establishment of shorter crossings ▪ Splitting of indirect routes ▪ Fixed links to reduce journey times
Journey time reliability	The route(s) I use has a tidal timetable	▪ Choice of vessel ▪ Location of ports / routes	▪ New / alternative vessel not subject to tidal constraints (note on some routes this is simply not possible) ▪ Infrastructure enhancements and dredging in existing harbours ▪ Development of new harbours
Personal accessibility	I find it difficult / am unable to travel on the ferry due to a disability	▪ Lack of step free access to passenger lounge on some vessels ▪ Variable standards of provision with waiting rooms and accessible toilets ▪ NorthLink - availability of suitable accommodation on a sailing.	▪ New vessels / port infrastructure which meet Equality Act 2010 requirements ▪ Retrofit of existing vessels, with lifts, ramps etc to enhance accessibility ▪ Fixed links to overcome personal accessibility challenges of vessels, although dependent on having a car / accessible buses ▪ Improve / provide accessible information on ferry services (e.g., leaflets, operator websites, GO-HI and other apps etc)
Booking and journey planning	I find travel disruption information poor / unreliable / out-of-date	▪ Operational choices in fast moving environment ▪ Insufficient real time information boards at strategic points on the road network ▪ Lack of Wi-Fi and / or 3/4/5G in remote rural areas to access disruption information	▪ Introduction of / improved mobile disruption updates through e.g., Apps, Twitter, websites etc ▪ Provision of additional real time information boards on trunk road network to highlight disruption when an alternative route choice is available ▪ Provision of ferry information on Traffic Scotland website ▪ Investment in 4G / 5G ▪ Scottish Government 4G infill project ▪ Increased free wi-fi provision ▪ Additional mobile phone masts

Problem Theme	Transport Problem Ferry – Personal travel	Supply Side Cause(s)	Options
	I am unable to book ferry trips far enough in advance	▪ Current timetable production and approval process ▪ In house sign off (e.g., Transport Scotland, Orkney Islands Council etc) for timetables required before publication	▪ Earlier opening of the booking system for all ▪ Earlier opening of the booking system for residents only ▪ Fixed links to overcome inconvenience of booking ferry tickets
	I find it problematic booking ferry tickets regularly	▪ Lack of electronic tickets ▪ Lack of vehicle capacity means booking is often required ▪ Short duration of multi-journey tickets ▪ Lack of user-friendly online booking systems – with ease of making changes / cancellations etc.	▪ Increased mobile and electronic ticketing, including integrated ferry-bus and ferry-rail ticketing ▪ Increased duration of multi-journey tickets ▪ On RET routes, option to buy a multi-journey ticket book (i.e., with no cost saving but for increased convenience) ▪ Longer opening hours for booking offices / phone lines ▪ Fixed links to overcome inconvenience of booking ferry tickets
	I cannot book combined ferry and bus / rail tickets	▪ Lack of integrated ticketing – different ticketing systems, revenue reconciliation etc	▪ Bus / rail and ferry through ticketing – could be paper based or electronic (e.g., smartcards, mobile devices – would need to be developed to ITSO specification and approach to revenue reconciliation agreed ▪ Improve range and marketing of 'Rail & Sail' products
Capacity	I sometimes find it difficult to book a passenger space on the ferry (note that this is on the whole very rare – concentrated on very occasional peak season sailings or event related issues on a handful of routes)	▪ Demand exceeds vessel passenger certificate	▪ Increased crew to enable vessel to sail with a higher passenger certificate (although note that there remains a maximum number of passengers permitted on the vessel) ▪ New vessels with a larger passenger capacity ▪ Increase the number of sailings with existing vessels ▪ Increase the number of sailings using additional vessels ▪ Changing the time of sailings in order to improve capacity during peak times ▪ Reserved space for local residents ▪ Fixed links to overcome ferry vehicle capacity issues
	I sometimes find it difficult / am unable to book my vehicle on the ferry	▪ Imbalance between demand for and supply of space for cars on the vehicle deck on some sailings ▪ Restrictions in the deployment of mezzanine decks ▪ Shared vessel with other islands ▪ Vehicle deck capacity	▪ New vessels with a larger vehicle deck and / or deadweight capacity ▪ Increase the number of sailings with existing vessels ▪ Increase the number of sailings using additional vessels ▪ Change the time of sailings in order to improve capacity during peak times ▪ Review of first come / first served approach to booking, including quota systems for visitors / residents ▪ Fares differentials to incentivise passenger travel at the expense of a car (although note that current ticketing systems do not differentiate between foot passengers and passengers in a car) ▪ Fares differentials to incentivise the use of quieter sailings (by

Problem Theme	Transport Problem Ferry – Personal travel	Supply Side Cause(s)	Options
			time of day, week or season) ▪ Provide price incentives to move commercial traffic onto freight sailings (Aberdeen – Kirkwall / Lerwick and Stornoway – Ullapool only) ▪ Improved management of block bookings ▪ Improved management of commercial vehicles and motorhomes that prevent the deployment of mezzanine decks on certain routes ▪ Reserved space for local residents ▪ Improved public transport connections to / from ferry terminal. This could include connecting bus services and / or shared mobility ▪ Improved public transport connections to / from ferry terminal combined with free / nominal or reduced fares for passengers. This could include connecting bus services and / or shared mobility ▪ Improved active travel connections to / from ferry terminals ▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis ▪ Coordination of different traffic types to minimise conflicts ▪ Fixed links to overcome ferry vehicle capacity issues ▪ Mobility hubs Specifically, on the NIFS routes: ▪ Provide price incentives for a customer to move their car separately on the freighter. ▪ Incentivise Orkney traffic to use the Stromness – Scrabster rather than Kirkwall – Aberdeen route ▪ Incentivise the use of the 'land bridge' offer on the Stromness – Scrabster to release space on Kirkwall – Aberdeen sailings
	I sometimes find it difficult / am unable to book a cabin on the ferry (Kirkwall – Aberdeen / Lerwick only)	▪ Imbalance between demand for and supply of cabins on some sailings ▪ Number of cabins ▪ Preference for sole use cabins can mean low bed / cabin occupancy rates	▪ Provide locations for people to lie flat on the vessel other than via purchased accommodation / cabins ▪ Replace the current NIFS freighters with 'freight plus' vessels with the scope for carrying passengers with cabins, sleeping pods and reclining seats to reduce demand on the Ro-Pax vessels ▪ Replace the current Ro-Pax vessels with larger cabin capacity vessels ▪ Provide additional 'freight plus' vessels with the scope for carrying passengers with cabins, pods and reclining seats to

Problem Theme	Transport Problem Ferry – Personal travel	Supply Side Cause(s)	Options
			reduce demand on the Ro-Pax ▪ Provide additional larger vessels with increased cabin capacity so that all passengers can get a bed in a sole-use cabin to lie down
	I find it difficult / am unable to book my car on the ferry and a cabin	▪ As above	▪ Options as above
Comfort	I don't find the ferry comfortable	▪ Sea conditions ▪ Vessel design (internal and external) ▪ 'Heritage' fleets not to modern standards for passenger comfort	▪ Travel at a lower speed ▪ Newer vessels of modern design to improve passenger comfort ▪ Fixed links to overcome issues with passenger comfort Specifically, on the NIFS routes: ▪ Provide locations for people to lie flat on the vessel other than via purchased accommodation / cabins ▪ Replace the current Ro-Pax with larger vessels with increased cabin capacity so that all passengers can get a bed in a sole-use cabin to lie down in ▪ Replace the current NIFS freighters with 'freight plus' vessels with the scope for carrying passengers with cabins, pods, and reclining seats to reduce demand on the Ro-Pax
Integration between services	I cannot connect between two ferry services on the same day	▪ Drydock / refit period timetables ▪ Lack of 7-day sailings ▪ Timetable design and vessel overnight location ▪ Value for money decision by operator / funder ▪ Vessel availability and crew resourcing	▪ Increase the number of sailings with existing vessels ▪ Increase the number of sailings using additional vessels ▪ Change the time of sailings in order to improve integration with connecting ferry (and air) services
Reliability	The ferry is sometimes cancelled	▪ Absence of replacement vessels ▪ Ageing vessels leading to more frequent breakdowns and longer refit periods ▪ Tidal-related disruptions ▪ Climate change leading to increasing weather events ▪ Crewing issues ▪ Weather	▪ New vessels which are less likely to experience mechanical failures and contribute to cancellations ▪ New vessels with a modern design to improve seakeeping and hence punctuality ▪ New vessels of a common design to fit with common terminal infrastructure ▪ Enhanced preventative maintenance ▪ Conversion of Lo-Lo routes to Ro-Ro to improve service reliability ▪ New / alternative vessel not subject to tidal constraints (note on some routes this is simply not possible) ▪ Infrastructure enhancements and dredging in existing harbours ▪ Development of new harbours to improve reliability ▪ Fixed links

Problem Theme	Transport Problem Ferry – Personal travel	Supply Side Cause(s)	Options
	The ferry is sometimes diverted to another port	▪ Ship-shore interface (mainly an issue on CHFS during drydock period or when fleet is cascaded to deal with a breakdown) ▪ Weather	▪ New / alternative vessel not subject to tidal constraints (note on some routes this is simply not possible) ▪ New vessels of a common design to fit with common terminal infrastructure ▪ Infrastructure enhancements and dredging in existing harbours ▪ Development of new harbours to improve reliability ▪ Fixed links
	The ferry is sometimes leaves and arrives late	▪ Ageing vessels leading to more frequent breakdowns and longer refit periods ▪ Climate change ▪ Crewing issues ▪ Tidal-related disruptions ▪ Turnaround times, particularly in peak season ▪ Weather	▪ New vessels which are less likely to experience mechanical failures and contribute to cancellations ▪ New vessels with a modern design to improve seakeeping and hence punctuality ▪ Enhanced preventative maintenance ▪ Conversion of Lo-Lo routes to Ro-Ro to improve adherence to timetable ▪ New / alternative vessel not subject to tidal constraints (note on some routes this is simply not possible) ▪ Infrastructure enhancements and dredging in existing harbours ▪ Development of new harbours to improve reliability ▪ Improved management of turnaround times to improve punctuality ▪ Fixed links
Timetables	I can't travel on the day I want to travel	▪ Timetable – absence of 7-day service ▪ Drydock / refit periods ▪ Value for money decision by operator / funder ▪ Vessel availability and crew resourcing	▪ 7-day ferry service ▪ Improved coordination between ferry and internal air services where appropriate ▪ Fixed links – ensure that any fixed link is served by a high-quality public transport offer
	I can't travel at the time I want to travel - weekday	▪ Timetable design and vessel overnight location ▪ Vessel availability and crew resourcing ▪ Drydock / refit periods ▪ Value for money decision by operator / funder	▪ Increase the number of sailings with existing vessels ▪ Increase the number of sailings using additional vessels ▪ Fixed links to overcome issues with ferry service frequency. Ensure that any fixed link is served by a high-quality public transport offer
	I can't travel at the time I want to travel - weekend	▪ Timetable design and vessel overnight location ▪ Vessel availability and crew resourcing ▪ Drydock / refit periods ▪ Value for money decision by operator / funder	▪ Increase the number of sailings with existing vessels ▪ Increase the number of sailings using additional vessels ▪ Fixed links to overcome issues with ferry service frequency. Ensure that any fixed link is served by a high-quality public transport offer

Problem Theme	Transport Problem Ferry – Personal travel	Supply Side Cause(s)	Options
	I can't get to / return from early morning / late evening flights, shift-work, social events etc	▪ Timetable design and vessel overnight location ▪ Length of ferry operating day, driven by crew hours ▪ Value for money decision by operator / funder	▪ Increase the number of sailings with existing vessels ▪ Increase the number of sailings using additional vessels ▪ Fixed links to overcome issues with length of ferry operating day. Ensure that any fixed link is served by a high-quality public transport offer
	There is insufficient time between sailings to enable a meaningful day return trip between my community and the nearest major service centre	▪ Timetable design and vessel overnight location ▪ Vessel and crew resourcing ▪ Crossing time / vessel speed ▪ Onward transport connections	▪ Ensuring that some ferry services provide a meaningful day in a major service centre would require additional revenue funding and crew ▪ Timetable amendments ▪ Island based vessels to reduce morning and evening 'dead-legging' and to provide the flexibility to work in weather windows ▪ Improved coordination between ferry and internal air services where appropriate ▪ Fixed links to overcome issues with ferry service frequency. Ensure that any fixed link is served by a high-quality public transport offer
	I cannot travel from Orkney to Aberdeen or Shetland when I want to / the departure times are unsociable	▪ No daily connections between Shetland and Orkney ▪ No daily connections between Orkney and Aberdeen ▪ Late evening departures from Hatston a product of the timetable ▪ Requirement for a cabin for many when travelling from Orkney	▪ More / all services call at Kirkwall ▪ Day return sailing to Orkney from Shetland (and sub options therein) ▪ Day return sailing to Orkney from Aberdeen (and sub options therein)

Table 4.6: Problems framework – ferry (freight): problems, supply-side causes and options

Problem Theme	Transport Problem Ferry - Freight	Supply-Side Cause(s)	Options
Concern over environmental impact of travel	I am concerned about the environmental impact of travelling by ferry	▪ The majority of vessels in the HITRANS region use fossil fuels, generating greenhouse gases and other pollutants. This includes the two dedicated NorthLink freighters ▪ Most vessels are currently only replaced when they are 30+ years old, so this is a long-term problem ▪ The construction of ferry terminal infrastructure has environmental impacts	▪ Investment in newer zero emission vessels – included within this would be minimising the environmental impact of vessel construction and associated landside civil engineering works ▪ Modifications to existing vessels to reduce emissions, e.g., carbon scrubbers, low friction paint, conversion to lower carbon fuels etc ▪ Fixed links to reduce emissions associated with travel (although relative contribution to emissions of fixed links / ferries would need to be established)

Problem Theme	Transport Problem Ferry - Freight	Supply-Side Cause(s)	Options
Cost of travel and affordability	It is too expensive to take freight on the ferry	▪ Freight schedule of rates specified by Scottish Government ▪ Freight schedule of rates specified by A&BC, Highland and Orkney Islands Councils ▪ Lack of drop-trailers ▪ Lack of bulk and / or commodity related discounts	▪ Encourage the Scottish Government to reduce freight fares as part of the next CHFS and NIFS contracts / an updated Ferry Freight Fares Review ▪ Reduce freight fares on local authority services ▪ Support the operation of drop trailer services on a wider range of routes ▪ Consider specific bulk and / or commodity discounts and / or surcharges where there is a justifiable case for doing so ▪ Consider the current classification of freight and whether there is a case or otherwise for consistent application of this definition across Scotland or otherwise ▪ Consider the merit or otherwise or reviewing the freight tariff for any route converted from Lo-Lo to Ro-Ro
	It costs more on a per mile or per lane metre basis to take freight from my island on the ferry than it does from other islands	▪ Freight schedule of rates specified by Scottish Government – contains historic legacy fares ▪ Freight schedule of rates specified by A&BC, Highland and Orkney Islands Councils – contains historic legacy fares ▪ Differing basis of tariff ▪ Inconsistent application of drop trailers ▪ Differing classifications of 'freight' ▪ Differing discounts and surcharges ▪ Remaining Lo-Lo routes – commodity-based fares	
Journey time reliability	The NorthLink freighters sometimes leave and arrive late	▪ Weather disruption ▪ Operational issues ▪ Freight vessels more prone to disruption due to inferior seakeeping	▪ Replace the current NIFS freighters with new and more reliable freight vessels
Capacity	There is insufficient capacity for freight	▪ Vehicle deck size ▪ Imbalance between demand for and supply of space for commercial vehicles and freight on the vehicle deck on some sailings ▪ Inability to fit comemrcial vehicles under the mezzanine decks on some vessels ▪ On NorthLink, Ro-Pax vessels the preferred service for time sensitive freight ▪ Deadweight constraints on the vessel ▪ Crane capacity limitations on Lo-Lo routes	▪ New vessels (Ro-Pax and freight) with a larger vehicle deck and / or deadweight capacity ▪ Convert remaining Lo-Lo routes to Ro-Ro ▪ Increase the number of sailings with existing vessels ▪ Increase the number of sailings using additional vessels ▪ Introduce dedicated freight-only vessels ▪ Change the time of sailings in order to improve capacity during peak times ▪ Review of first come / first served approach to booking and / or reservation of deck space for time sensitive / all freight on capacity pressured routes ▪ Improved management of block bookings ▪ Scottish Government permit pricing flexibility to balance demand across freight services ▪ Fares differentials to incentivise the use of quieter sailings (by time of day, week or season) ▪ Increase non-freight vehicle fares to discourage taking cars on the ferry. This could be coordinated with reductions in passenger fares and improvements in public transport and active travel to encourage mode shift and create more deck space for cars

Problem Theme	Transport Problem Ferry - Freight	Supply-Side Cause(s)	Options
			▪ Fares differentials to incentivise the use of quieter routes ▪ Provide price incentives to move commercial traffic onto freight sailings (Aberdeen – Kirkwall / Lerwick and Stornoway – Ullapool only) ▪ Improved management of passenger bookings ▪ Coordination of different traffic types to minimise conflicts ▪ Fixed links to overcome ferry vehicle capacity issues Specifically, on the NIFS routes: ▪ Operate additional freight sailings to increase capacity ▪ Operate additional day passenger services to reduce car demand from the overnight sailings and increase capacity for freight ▪ Incentivise Orkney traffic to use the Stromness – Scrabster rather than Kirkwall – Aberdeen route (although note that most freight – livestock excepted – moves over the Pentland Firth anyway
Reliability	The ferry is sometimes cancelled	▪ Weather ▪ Climate change leading to increasing weather events ▪ Crewing issues ▪ Tidal-related disruptions ▪ Ageing vessels leading to more frequent breakdowns and longer refit periods	▪ New vessels which are less likely to experience mechanical failures and contribute to cancellations ▪ New vessels with a modern design to improve seakeeping and hence punctuality ▪ New vessels of a common design to fit with common terminal infrastructure ▪ Enhanced preventative maintenance ▪ Conversion of Lo-Lo routes to Ro-Ro to improve service reliability ▪ New / alternative vessel not subject to tidal constraints (note on some routes this is simply not possible) ▪ Infrastructure enhancements and dredging in existing harbours ▪ Development of new harbours to improve reliability ▪ Fixed links
	The ferry is sometimes diverted to another port	▪ Weather ▪ Ship-shore interface (mainly an issue on CHFS during drydock period or when fleet is cascaded to deal with a breakdown)	▪ New / alternative vessel not subject to tidal constraints (note on some routes this is simply not possible) ▪ New vessels of a common design to fit with common terminal infrastructure ▪ Infrastructure enhancements and dredging in existing harbours ▪ Development of new harbours to improve reliability ▪ Fixed links

Problem Theme	Transport Problem Ferry - Freight	Supply-Side Cause(s)	Options
	The ferry is sometimes leaves and arrives late	▪ Weather ▪ Climate change ▪ Tidal-related disruptions ▪ Turnaround times, particularly in peak season ▪ Crewing issues ▪ Ageing vessels leading to more frequent breakdowns and longer refit periods	▪ New vessels which are less likely to experience mechanical failures and contribute to cancellations ▪ New vessels with a modern design to improve seakeeping and hence punctuality ▪ Enhanced preventative maintenance ▪ Conversion of Lo-Lo routes to Ro-Ro to improve adherence to timetable ▪ New / alternative vessel not subject to tidal constraints (note on some routes this is simply not possible) ▪ Infrastructure enhancements and dredging in existing harbours ▪ Development of new harbours to improve reliability ▪ Improved management of turnaround times to improve punctuality ▪ Fixed links
Timetable	I can't move freight on the day I want to	▪ Timetable – absence of 7-day service ▪ Vessel availability and crew resourcing ▪ Drydock / refit periods ▪ Value for money decision by operator / funder	▪ 7-day ferry service ▪ Fixed links
	I can't move freight at the time I want to	▪ Timetable design and vessel overnight location ▪ Vessel availability and crew resourcing ▪ Drydock / refit periods ▪ Value for money decision by operator / funder	▪ Increase the number of sailings with existing vessels ▪ Increase the number of sailings using additional vessels ▪ Operate dedicated freight sailings ▪ Fixed links to overcome issues with ferry service frequency
	There is insufficient time between sailings to enable a day return trip between the ferry terminal and the freight distribution centre	▪ Timetable design and vessel overnight location ▪ Vessel and crew resourcing ▪ Crossing time / vessel speed	▪ Ensuring that some ferry services provide a meaningful day for a freight operator would require additional revenue funding and crew ▪ Timetable amendments ▪ Operate dedicated freight sailings ▪ Island based vessels to reduce morning and evening 'dead-legging' and to provide the flexibility to work in weather windows (note this could have implications for inbound freight movements) ▪ Fixed links

Table 4.7: Problems framework – air travel: problems, supply-side causes and options

Problem Theme	Transport Problem Air travel	Supply-Side Cause(s)	Options
Concern over environmental impact of travel	I am concerned about the environmental impact when I travel by air	▪ All of the aircraft serving the HITRANS region (for inter-island and longer distance flights) use fossil fuels, generating greenhouse gases	▪ Replacement of the current aircraft fleet with low or zero emission aircraft. For the commercially operated airlines, this is a commercial decision, for the Orkney and Argyll & Bute internal services, this could be delivered through the PSO contracting system
Cost of travel and affordability	I find that the air fares are too expensive / unpredictable, particularly for short notice trips	▪ For inter-island PSO services (Orkney and Argyll & Bute), maximum fares set by the local authority – fares balance passenger needs with a degree of cost recovery – in Orkney fares are set to offer preferential rates for isle-based journeys, so much higher fares starting a journey from the Orkney Mainland. Also preferential fares for staying over in the isles that do not have an equivalent daily ferry service (North Ronaldsay and Papa Westray). ▪ For Transport Scotland PSO routes, maximum fare set by Transport Scotland – reflects a balance of passenger needs with a degree of cost recovery ▪ For Highland PSO route, maximum fare set by The Highland Council – reflects balance of passenger needs and a degree of cost recovery whilst trying to grow the demand for the service. ▪ For all other flights, commercially set fares reflecting a yield management approach ▪ Only one provider at present on almost all routes so there is a monopoly	For PSO specified services: ▪ Free / nominal fares for all ▪ Reduced passenger fares ▪ Free / nominal / discounted fares for residents ▪ Multi-journey / season tickets For commercial air services: ▪ Increase the level of discount with the Air Discount Scheme (ADS) ▪ Reinstate ADS for business.
	As a third sector organisation / business, we do not have access to the Air Discount Scheme	▪ Regulatory issues (state aid)	▪ Widen the ADS ▪ Reinstate ADS for business.
	If I cancel / change my booking I incur a cost	▪ Commercial decisions of operator	▪ Engage with commercial airlines to provide refund options for particular high use groups (e.g., sports teams)
Integration of travel between modes	There is no direct bus connection between my home and the airport / airfield I use most regularly.	▪ No dedicated airport bus (vehicles and service) and / or connections to the airport bus service	

Problem Theme	Transport Problem Air travel	Supply-Side Cause(s)	Options
	The bus connection between my home and the airport / airfield I use most regularly does not reliably align with flight times, including first and last departures	▪ Commercial decisions of operator or other use for vehicle and driver set by Public Service Contract (e.g., school transport) ▪ Single driver operating day ▪ Non-clockface bus timetable ▪ Short-notice changes to air timetables	▪ Dedicated air service buses' which are scheduled to meet a flight arrival (this already happens in several places, e.g., Kirkwall) ▪ Enhanced Demand Responsive Transport (EDRT) services to connect with departing or arriving air services. EDRT could be particularly useful in facilitating connections with very early morning or late evening flights ▪ Provide EDRT services in place of timetabled routes where the frequency of timetabled routes is low ▪ Increase bus service frequency ▪ Mobility hubs
	I find it difficult to connect for onward travel from my destination airfield / airport	▪ No dedicated airport bus ▪ Limited active travel options from airport / airfield	
Journey information	For inter-island services, I do not know if my flight is going to be on time	▪ Flights can be affected by weather / visibility and the schedule altered / services cancelled at short notice to ensure that the flight can be undertaken (e.g., North Ronaldsay) ▪ Climate change leading to increasing weather events ▪ Information is provided by personal phone calls, rather than apps etc. given the low travel volumes ▪ Lack 3G/4G/5G connectivity and poor mobile phone reception	▪ Incorporate real time information and notifications within the GO-HI and other travel apps ▪ Maintain current notification practices, which work well given the small volumes in question ▪ Investment in 4G / 5G ▪ Scottish Government 4G infill project ▪ Increased free wi-fi provision ▪ Additional mobile phone masts
Personal accessibility	I find it difficult / am unable to travel on the local authority inter-island air services due to mobility issues	▪ Design of aircraft used to provide the service ▪ Infrastructure and operational constraints which drive the aircraft specification	▪ Invest in larger aircraft which are more accessible for Persons of Reduced Mobility (PRM)
Capacity	I am unable to get a seat on the plane at the time / on the day I want to travel	▪ Orkney and Argyll & Bute inter-island services: ▪ The aircraft which operate the service can carry a maximum of eight passengers and there are also weight restrictions which can reduce this number when carrying cargo to the islands ▪ School travel (children on Sundays and Monday AMs and teachers daily to Sanday, Stronsay and Westray and weekly to Eday, North Ronaldsay and Papa Westray) and service providers to the islands use a significant proportion of the available capacity ▪ Routes in Orkney are indirect (due to two islands sharing much of the departures), which can lead to the flight overall being fully booked but empty seats on specific legs` Other air services ▪ Combination of timetables and aircraft used insufficient to meet demand ▪ Commercial decision - operators should respond to this problem	For Argyll & Bute and Orkney internal air services: ▪ Operate the current service more intensively where practicable ▪ Reduce the number of indirect flights, particularly in Orkney where such flights have both capacity challenge and consume available flying hours, thus limiting the overall service that can be offered ▪ Additional aircraft ▪ Larger aircraft to improve capacity External air services – commercial decision but options include: ▪ Provide additional flights using existing aircraft to provide more capacity in existing timetable ▪ Provides additional flights with additional aircraft to provide more capacity in existing timetable ▪ Replacement larger aircraft to provide more capacity in existing timetable

Problem Theme	Transport Problem Air travel	Supply-Side Cause(s)	Options
Comfort	I don't find the Argyll & Bute and / or Orkney inter-island flights comfortable	▪ Design of aircraft used to provide the service ▪ Infrastructure and operational constraints which drive the aircraft specification	▪ New aircraft to improve comfort
Connectivity	My island no longer has an air connection (e.g., Skye, Hoy etc) The air connection on my island is threatened (e.g., Eday)	▪ Landside human resources on island ▪ Low demand ▪ Difficulty in securing air crew on the island in the context of such an infrequent service and other service constraints	▪ Reinstate and / or develop new air routes to islands across the region ▪ Commit to protect any existing air services which are under threat
	The range of destinations available from the airport I most regularly use is limited	▪ Commercial decisions of operators ▪ Route specifications in public service contracts	▪ Work with airlines to support the development of new routes ▪ Lobby Scottish Government for reductions in Air Passenger Duty for flights from Inverness ▪ For PSO routes, specify additional connections in the tender, e.g., Kirkwall - Wick
Reliability	Flights are sometimes cancelled	▪ Weather disruption / poor visibility ▪ Operational issues ▪ Crewing issues	▪ Operate the aircraft under Instrument Flight Rules (IFR) to enable operation of the service when visibility is poor ▪ Runway lighting ▪ Adopt Global navigation satellite systems (GNSS) or other navigational aids
	Flights are sometimes late	▪ Weather disruption / poor visibility ▪ Operational issues ▪ Crewing issues	
	Inter-island flights are sometime brought forward	▪ Proactive response of operator to avoid cancellations due to poor weather or visibility	▪ Incorporate real time information and notifications within the GO-HI and other travel apps ▪ Maintain current notification practices, which work well given the small volumes in question
Timetables	I am unable to make a day return trip by air to / from all Scottish Mainland Airports in all timetable periods	▪ COVID-19 is affecting timetables in the short-term ▪ Commercial decisions of operator on services provided ▪ Day returns to Inverness have been particularly scaled back and have been borderline viable for a number of years, and pre-dating COVID - e.g., Orkney presently has a single rotation some days of the week.	▪ Change timetable to enable return day trip by air to all Scottish mainland airports in all timetable periods
	I can't travel on the day I want to travel	▪ Lack of seven-day services on some routes ▪ Aircraft, pilot and island human resources	▪ 7-day a week inter-island air services
	I can't undertake a meaningful day trip to / from Orkney mainland / Argyll & Bute on the inter-island air service on some days	▪ Current timetable ▪ Aircraft, pilot and island human resources	▪ Provide sufficient flights within the timetable to enable a day-return between each island and the Orkney / Scottish mainland seven days per week ▪ Provide sufficient flights within the timetable to enable a day-return between each island and the Orkney / Scottish mainland five days per week

Table 4.8: Problems framework – other road-based travel: problems, supply-side causes and options

Problem Theme	Transport Problem Other Road-Based Travel	Supply-Side Cause(s)	Options
Concern over environmental impact of travel	I am concerned about the environmental impact when I travel by car or taxi	▪ High ongoing use of fossil fuelled vehicles generating greenhouse gases and other pollutants ▪ Embedded carbon in EVs ▪ Absence of alternatives to car use for many	▪ Incentives to support the uptake of EVs or other low emissions cars ▪ Battery, hydrogen and synthetic fuels for road freight ▪ Investment in new / improved active travel connections ▪ Operate additional bus routes / services ▪ Operate additional DRT / EDRT services ▪ Investment in new railway heavy rail routes and stations ▪ Operate additional train services ▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis ▪ Mobility-as-a-Service ▪ Inverness Low Emissions Zone
	I am concerned about environmental impacts when I move freight by road	▪ High ongoing use of fossil fuelled vehicles generating greenhouse gases and other pollutants ▪ Embedded carbon in EVs ▪ Absence of alternatives to car use for many	▪ None at present but technology may address this problem over the lifetime of the strategy / encourage Scottish Government to support any future opportunities ▪ Support the growth of rail freight through investment in facilities and services ▪ Support the development of short-sea shipping for moving commodities by sea rather than road ▪ Remove bulk waste from major construction projects (e.g., Coire Glas) by water (canal or sea)
Cost of travel and affordability	The cost of driving is too high for me	▪ Higher fuel prices in rural areas, particularly islands ▪ Higher fuel consumption and car maintenance costs due to single track roads and the prevailing climate	▪ Investment in new / improved active travel connections ▪ Operate additional bus routes / services ▪ Operate additional DRT / EDRT services ▪ Investment in new heavy rail routes and stations ▪ Operate additional train services ▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis ▪ Mobility-as-a-Service
	I cannot afford an electric vehicle	▪ New EV prices are higher than petrol / diesel equivalent and low supplies of second hand EVs mean they are unaffordable for many at present	▪ Do nothing and wait for market to respond ▪ Provide short-term access to EVs on an on-demand basis through a car club
	The cost of using a taxi is too high for me	▪ Tariff structure set by respective local authorities (covering mainland areas) ▪ Higher costs during travel at anti-social hours ▪ Absence of competition to traditional taxi model in much of the HITRANS area – e.g., Uber-type operations	▪ Provide / improve alternatives to taxis ▪ Provide discounted / quota taxi journeys for those without access to a bus service ▪ Provide discounted / quota taxi journeys for those on lower incomes

Problem Theme	Transport Problem Other Road-Based Travel	Supply-Side Cause(s)	Options
			▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis
Fuel / power issues	I cannot charge an electric vehicle	▪ Lack of off-street parking at home / flat based accommodation makes home charging difficult ▪ Absence of suitable public EV charging infrastructure	▪ Increase the number of available public EV chargers in the HITRANS region (including via the Scottish Government's new Electric Vehicle Charging Fund) ▪ Introduce measures to increase the electric grid capacity to support increased EV use ▪ Improve maintenance of public EV chargers to provide greater reliability to the user, ▪ Introduce measures to increase the electric grid capacity to support increased EV use ▪ Mobility hubs
	I have no alternative but to use petrol / diesel vehicles	▪ Cost of EVs ▪ Lack of alternative fuel technologies on heavier vehicles ▪ Absence of suitable public EV charging infrastructure	▪ Provide short-term access to EVs on an on-demand basis through a car club ▪ Increase the number of available public EV chargers in in the HITRANS region (including via the Scottish Government's new Electric Vehicle Charging Fund) ▪ Introduce measures to increase the electric grid capacity to support increased EV use ▪ Pricing strategies which do not disadvantage those unable to charge their vehicle at home ▪ Mobility hubs
Journey information	I do not know if there are incidents on the road when I set off	▪ Limited real time traffic information other than that provided by app, local radio etc ▪ Android Auto / Apple CarPlay can be affected by poor / no phone signal	▪ Introduce additional variable messaging signs at strategic points on the road network to advise on diversionary options ▪ Publicise the Scottish Road Works Register to raise awareness of planned road works and possible delays ▪ Incorporate road closure and weekly road works report / an alert system into the GO-HI and other travel apps ▪ Work with Transport Scotland to ensure that the Traffic Scotland website is kept up-to-date ▪ Investment in 4G / 5G ▪ Scottish Government 4G infill project ▪ Increased free wi-fi provision ▪ Additional mobile phone masts
Journey quality	I cannot park where I want to park	▪ Lack of disabled parking bays and increasing number of blue badge holders ▪ Limited enforcement of parking regulations restricts peoples' ability to park	▪ Provide / improve alternatives to car-based travel ▪ Increase number of disabled parking bays ▪ Parking charges and enforcement to manage demand and turnover

Problem Theme	Transport Problem Other Road-Based Travel	Supply-Side Cause(s)	Options
		▪ Limited parking for motorhomes ▪ Limited parking in peak visitor season	▪ Specific parking for camper vans and motorhomes, including 'aires' ▪ Management of overnight parking in laybys, including clarification for potential users ▪ Introduce parking restrictions and enforcement at key tourism destinations to: manage demand and turnover; reduce inappropriate parking which restricts access; and reduce the impact of the car on local communities. ▪ Use of app-based technology to monitor and provide information about parking hotspots ▪ Improved signing and lining
	I find the quality of the road surfaces poor	▪ Level of road maintenance ▪ Increasing weather incidents linked to climate change ▪ Many roads not designed for high volumes of summer visitation	▪ Increased preventative road maintenance ▪ Enhanced vegetation clearance ▪ Targeted road improvements where there are known safety, resilience or peak capacity problems
	I do not think there are enough rest areas on the roads I use	▪ Few formal HGV parking / rest areas with appropriate facilities	▪ Increase the number of HGV rest areas
Journey times	Journey times by road are long across the region with low average speeds	▪ Low average speeds on the main routes, relative to comparable A class roads ▪ Lengthy sections of single-track roads with passing places ▪ Limited overtaking opportunities due to single-carriageway roads and poor sightlines, road alignment and geometry ▪ Seasonal tourist traffic ▪ Several of the main trunk routes (e.g., A82, A96, A85, A9 north of Inverness etc) have stretches of 30mph passing through communities ▪ Mix of local and strategic traffic, high proportions of HGVs, and platooning (or convoys) of vehicles often associated with ferry traffic ▪ Congestion around Inverness	▪ Targeted road improvements developed through Route Action Plans to address known issues of e.g., geometry, gradient, width etc (e.g., the A82 upgrade between Tarbet and Inverarnan is a good example of this) ▪ Support measures to reduce congestion in the main settlements across the region, including selected town bypasses, bus priority, improved parking enforcement etc ▪ Increase HGV speed limits to 50mph ▪ Provide climbing lanes and sections of 2+1 in areas with low average speeds / unreliable speeds ▪ Upgrade existing single carriageway roads (or sections of such roads) to dual carriageway where appropriate ▪ Upgrade existing single track roads (or sections of such roads) to single carriageway specifically in areas of high tourism demand ▪ Upgrade existing single-track roads to single carriageways ▪ Additional / larger passing places on single track roads ▪ Improved / greater provision of passing places in areas of high tourist demand ▪ Formalisation of informal passing places in areas of high tourism demand ▪ Targeted town bypasses

Problem Theme	Transport Problem Other Road-Based Travel	Supply-Side Cause(s)	Options
			▪ Targeted congestion relief schemes in Inverness ▪ Congestion charging or equivalent measures in Inverness ▪ Tolling / road pricing ▪ Support the growth of rail freight through investment in facilities and services ▪ Incentivise water-borne freight to move traffic off of the region's road network ▪ Coordination and / or restrictions on abnormal / slow loads
Journey time reliability	Journey times by road are variable even when there are no incidents	▪ Limited overtaking opportunities due to single-carriageway roads and poor sightlines, road alignment and geometry ▪ Mix of local and strategic traffic, high proportions of HGVs, and platooning (or convoys) of vehicles often associated with ferry traffic ▪ Lengthy sections of single-track roads with passing places ▪ Congestion around Inverness ▪ Seasonal tourist traffic	▪ Support measures to reduce congestion in the main settlements across the region, including selected town bypasses, bus priority, improved parking enforcement etc ▪ Support measures to improve journey time reliability, particularly for key inter-urban routes. ▪ Targeted road improvements developed through Route Action Plans to address known issues of e.g., geometry, gradient, width etc (e.g., the A82 upgrade between Tarbet and Inverarnan is a good example of this) ▪ Increase HGV speed limits to 50mph ▪ Provide climbing lanes and sections of 2+1 in areas with low average speeds / unreliable speeds ▪ Upgrade existing single carriageway roads (or sections of such roads) to dual carriageway where appropriate ▪ Upgrade existing single-track roads to single carriageways ▪ Additional / larger passing places on single track roads ▪ Tolling / road pricing ▪ Support the growth of rail freight through investment in facilities and services ▪ Incentivise water-borne freight to move traffic off of the region's road network ▪ Bus-based Park & Ride to honeypot tourist sites
	Journey times by road can be very long when there is an incident / road works that require a diversion	▪ Long diversionary routes due to local geography / sparse road network, particularly for key trunk routes such as the A82 ▪ Use of these routes as a diversion impacts regular users of these routes ▪ Climate change leading to increasing weather events ▪ Geological weaknesses lead to rock and debris falls, e.g., A83 Rest & Be Thankful, A890 Stromeferry etc	▪ Introduce additional variable messaging signs at strategic points on the road network to advise on diversionary options ▪ Incorporate road closure and weekly road works report / an alert system into the GO-HI and other travel apps ▪ Work with Transport Scotland to ensure that the Traffic Scotland website is kept up-to-date ▪ Targeted road improvements where there are known safety problems ▪ Targeted road improvements where there are known resilience problems

Problem Theme	Transport Problem Other Road-Based Travel	Supply-Side Cause(s)	Options
			▪ Development of emergency diversions, equivalent to e.g., the Old Military Road at the A83 Rest and be Thankful and the Kyle Line at Stromeferry
Personal accessibility	I am unable to access taxi services due to disability	▪ Availability of fully accessible taxis, particularly in rural areas and towns ▪ Lack of text-based booking options for those with hearing difficulties	▪ Increase the number of fully accessible taxis ▪ Introduce a text booking option for those with hearing difficulties
Personal security	I do not feel secure travelling by taxi	▪ Perception of taxi drivers	▪ Provide in-car CCTV in taxis ▪ Provide training in customer care for taxi drivers ▪ Increased regulation of app-based mobility providers
Travel safety	I am concerned about the risk of road accidents	▪ Traffic speeds and enforcement of speed limits ▪ High volumes of (platooned) HGVs, particularly on main trunk roads into the HITRANS area and near ferry terminals ▪ Presence of unprotected right turns and right turns from side road onto busy A roads ▪ Road geometry – horizontal and vertical alignment ▪ Road surfacing ▪ Winter road treatment regime (including early morning / late night) ▪ Animals (deer) on the roads ▪ HGVs using inappropriate roads ▪ Junctions perceived as dangerous ▪ Dangerous overtaking by other road users, in part due to limited overtaking opportunities ▪ High speeds when 'racing' to catch a ferry ▪ Limited understanding of how to use single track roads amongst visitors to the region	▪ Reduced speed limits, including the introduction of a mandatory 20mph limit in urban and residential areas ▪ Increased traffic enforcement ▪ Targeted road improvements developed through Route Action Plans to address known issues of e.g., geometry, gradient, width etc (e.g., the A82 upgrade between Tarbet and Inverarnan is a good example of this) ▪ Improve / remove priority junctions on higher speed trunk roads, especially for right turning vehicles ▪ Average speed cameras ▪ Increase HGV speed limits to 50mph ▪ Provide climbing lanes and sections of 2+1 in areas with low average speeds / unreliable speeds ▪ Upgrade existing single carriageway roads (or sections of such roads) to dual carriageway where appropriate ▪ Upgrade existing single-track roads to single carriageways ▪ Additional / larger passing places on single track roads ▪ Improved / additional motorist services ▪ Increased winter roads treatment programme ▪ Improved maintenance where road conditions are severely affected by a rapid increase in tourism ▪ Increased advisory signage (e.g., risk of deer, roads unsuitable for satellite navigation systems etc) ▪ Ongoing public information campaigns around the use of single track roads, promoted in partnership with local authorities, ferry operators, commercial airlines and HIAL. ▪ Level crossing closures / improved management
	I find driving on the region's roads intimidating	▪ High volumes of (platooned) HGVs, particularly on main trunk roads into the HITRANS area and near ferry terminals ▪ Presence of unprotected right turns and right turns from side road onto busy A roads ▪ Winter road treatment regime (including early morning / late night) ▪ Dangerous overtaking by other road users, in part due to limited overtaking opportunities ▪ High speeds when 'racing' to catch a ferry ▪ Limited understanding of how to use single track roads amongst visitors to the region	

Problem Theme	Transport Problem Other Road-Based Travel	Supply-Side Cause(s)	Options
Connectivity and network coverage	There is a lack of taxis, including accessible taxis, where I live / want to travel	▪ Council licencing arrangements, including lack of licencing arrangements covering the isles ▪ Economics of operating taxi services in rural areas	▪ Consistent taxi licencing and enforcement programme ▪ Operate additional DRT / EDRT services ▪ Provide short-term access to shared vehicles like cars, bikes, scooters, etc. on an on-demand basis ▪ Mobility-as-a-Service ▪ Mobility hubs

4.4 Option Packaging

4.4.1 The options tables presented in Section 4.3 provide a robust means of developing an options long-list which is reflective of the problems identified and which would address the supply-side cause(s) of each problem. However, as this project has a strategic focus, it is important to ensure that the options are similarly strategic nature. An option packaging exercise has therefore been undertaken to collate similar and complementary options together and to assign them under the appropriate RTS Themes.

4.4.2 Each individual option has only been assigned to one option package to ensure a concise option set for the purposes of the RTS development. However, many of the individual options could in reality appear in several different option packages or could collectively be introduced to deliver e.g., a 20-minute neighbourhood. In practice, this is something of an illustrative exercise as options progressed through the RTS would be considered as individual projects / business cases at a later stage. The outcomes of this process are set out in the table below:

Table 4.9: Option packages and component options

ID	Option Package	Component Options
Strategy Theme 1: Transforming our communities and reducing the impact of transport upon them		
1A	Reallocation of road space to active travel	- Widen walking and wheeling routes / provide footways through the reallocation of road space away from general traffic and parking - Reduce road widths at junctions in settlements, to tighten turn radiuses and slow down traffic - New dedicated on-road cycle lanes – these could range from unprotected cycle lanes to fully segregated cycleways reflecting Cycling by Design - Low traffic neighbourhoods
1B	Implementation of measures to reduce traffic levels and the impact of that traffic	- Introduce additional pedestrian or zebra crossings in settlements - Introduce additional cycle crossings in settlements which trunk or major A-roads run through - Introduce measures to reduce car use - Introduce measures to reduce the impact of car use in settlements and improve perceptions of safety, including traffic speed enforcement, traffic calming and mandatory 20mph speed limits - Reduced speed limits in peri-urban areas - Enhanced Police Scotland enforcement of inappropriate driver behaviour - Inverness Low Emission Zone
1C	Management of parking demand through parking restrictions and enforcement	- Introduce parking restrictions and enforcement to: manage demand and turnover; reduce pavement and inappropriate parking which restricts access; and reduce the impact of the car on the local environment - Introduction of Workplace Parking Levy
1D	Land-use planning measures	- New development is located in a manner that enables it to be served by sustainable transport and prevents car dependency from becoming entrenched - New active and sustainable transport options provided to support new developments - 20-minute neighbourhoods / 'Living Well Locally'
Strategy Theme 2: Connecting our communities		
2A	Improvements to existing walking and wheeling routes	- Improve existing walking and wheeling routes including improved crossing facilities - Upgrade existing walking and wheeling routes to make them more direct, coherent, comfortable ad attractive - Improve / provide signage on walking and wheeling routes - Improve / provide lighting on existing walking and wheeling routes - Improve existing walking and wheeling routes to and facilities at bus stops - Improve / provide CCTV on existing walking and wheeling routes and at railway stations / ferry terminals / airports - Improve the surfacing of existing walking and wheeling routes, including the provision of tactile paving where required - Deliver physical accessibility improvements on existing routes (e.g., Equality Act 2010 compliant ramps) - Rationalise street furniture and other obstructions - Seek additional Police Scotland patrols in urban areas

ID	Option Package	Component Options
2B	Improvements to existing cycling routes	- Undertake cycle route action plans to identify opportunities for e.g., widening, straightening out blind bends, improved crossing facilities etc - Advanced stop lines at traffic lights - Installation of smart traffic lights - Improve / provide signage on cycling routes to railway stations / ferry terminals / airfields / bus stations and key interchanges - Improve / provide lighting on cycling routes to railway stations / ferry terminals / airfields / bus stations and key interchanges - Improve / provide CCTV on existing cycling routes and at railway stations / ferry terminals / airports / bus stations and key interchanges
2C	Invest in new 'greenfield' active travel routes	- Provide new direct segregated walking and wheeling routes between settlements and along trunk roads and other strategic routes - Provide new secure walking and wheeling routes which are well lit and incorporate CCTV where appropriate - Provide new walking and wheeling routes which are segregated from traffic - Provide new direct cycling links to railway stations / ferry terminals / airfields - Apply the principles of 'inclusive design' in the design and delivery of any new walking and wheeling routes - Ensure gradients are considered during cycle route design - Provision of 'quiet routes' with associated speed limit reductions - Support the reinstatement and extension of the National Cycle Network in the HITRANS region
2D	Widen the availability of cycling through reducing cost and improving bicycle availability	- Cycle hire schemes, which include electric and adaptive bikes - Grants / loans to aid the purchase of bikes - Grants / loans to aid the purchase of adaptive bikes - Grants / loans to aid the purchase of electric bikes - Free or reduced cost bike maintenance workshops - Provide changing facilities at all new employment sites - Encourage existing employers to provide changing facilities
2E	Promote walking, wheeling and cycling as a means of travel	- Improve / provide accessible promotional material on walking, wheeling and cycling routes - Incorporate mapping of walking, wheeling and cycling options within the GO-HI and other travel apps - Partnership with public transport operators and public and third sector partners to promote cycling opportunities
Strategy Theme 3: Enhancing public transport connectivity to / from: (i) Inverness; (ii) our sub-regional centres; (iii) Scotland's other cities and beyond		
3A	Reduce bus journey times	- Integrate bus timetables / increase bus frequency to reduce wait times - Bus priority measures (bus lanes, bus gates, queue relocation systems, traffic signal vehicle detection etc.) - Bus lanes on trunk and other arterial roads - Invest in new vehicles which are less likely to experience mechanical failures and contribute to delay - Rationalise bus stops where frequent stopping adds unduly to journey times - Reduce bus stop dwell time through the use of ticketing systems which reduce or remove interaction time with drivers

ID	Option Package	Component Options
		- Provision of additional direct / limited stop services.
3B	Additional timetabled bus services	- Increased scheduled bus service frequency - Provide additional timetabled bus services between locations where there is no bus service providing a new direct connection - Provide additional timetabled bus services between locations where there is a limited bus service - Provide additional timetabled bus services from train starting / terminating points early in the morning or late in the evening (for example, on the Far North Line, the first train to Inverness starts at Ardgay and the last train terminates at Tain so a bus would be required to get back to Ardgay from Tain) - Earlier first departure from settlements - Later last departure to settlements
3C	DRT or EDRT to **enhance** fixed routes	- Provide CT, DRT or EDRT services in addition to timetabled routes where the frequency of timetabled bus routes is low - Provide CT, DRT or EDRT services to connect local areas with long-distance services - Provide CT, DRT or EDRT services to connect with rail services - Provide CT, DRT or EDRT services from train starting / terminating points early in the morning or late in the evening
3D	DRT or EDRT to **replace** fixed routes	- Provide CT, DRT or EDRT services in place of timetabled routes where the frequency of timetabled routes is low - Replace existing timetabled routes with CT, DRT or EDRT services which operate over a longer day
3E	Reduce rail journey times	- Infrastructure improvements to reduce journey times, e.g., electrification, track doubling, level crossing enhancements / removal, signally improvements, increased line speeds and higher capability rolling stock - Timetable planning improvements to reduce journey times, e.g., shorter station dwell times (although this would have to align with the timetable planning rules and timetables elsewhere on the network) - Split and join operations for Wick and Thurso - Pilot alternative rolling stock solution for Wick and Thurso - Conversion of some scheduled calling points to request only (note that several stations already have this designation)
3F	New railway stations	- New railway stations, e.g., HMNB Faslane, Evanton etc.
3G	New heavy rail routes	- Restored / new heavy rail routes
3H	Increased rail service frequency	- Provide additional timetabled train services (whole route or part route) – this could include extending the length of the operating day every day - Change the balance between weekend / weekday services to reflect changing demand for rail travel - Operate Sunday ScotRail services on the same timetable as every working day - Operate a Saturday evening Caledonian Sleeper service in both directions (note that any additional services would need to account for required possessions to facilitate engineering work) - Provide a Caledonian Sleeper service to Oban
3I	Discounted / quota taxi journeys	- Provide discounted / quota taxi journeys for those unable to use bus services due to a disability

ID	Option Package	Component Options
		- Provide discounted / quota taxi journeys for those without access to a bus service – this could be to the end destination or the nearest railway station
Strategy Theme 4: Improving the integration, quality of and access to our public and shared transport		
4A	Introduce a single and easily recognisable brand for transport and travel in the HITRANS region	- Introduce a single easily recognisable HITRANS brand for travel in the region
4B	Improve access to public transport for those travelling with a bicycle	- New buses with dedicated bike storage areas / racks / trailers - Deployment of additional rolling stock for bicycle carriage where practicable - Adaptation of other rolling stock – i.e., Class 156, 158, 170 and HSTs – to accommodate additional bicycles - Provision of additional bicycle storage on future rolling stock, focusing in particular on replacements for Class 15x stock. A 'rural' specification for future units will be required - New / extended / upgraded bicycle parking at railway stations to accommodate bicycles being left behind – this could range from simple 'Sheffield stands' through to enclosed and secure bicycle storage at key commuter rail stations - Integration of train bicycle booking on the GO-HI app - Additional or new covered bicycle parking at high volume bus stations / stops - New / extended / upgraded bicycle parking at railway stations / bus stations / ferry terminals / airports and other key interchanges - Maintenance of up-to-date information on bicycle provision at railway stations / bus stations / ferry terminals / airports and other key interchanges (this is particularly important at railway stations where published information is often out-of-date or incorrect) - New / extended / upgraded bicycle parking at key locations including in town centres, major employment sites and transport interchanges - Inclusion of up-to-date cycle parking on the GO-HI and other apps - Facilitate 'just before departure' on-train bike bookings
4C	Improve bus-to-bus integration	- Integrate bus timetables / increase bus frequency to reduce wait times - Provide additional timetabled bus services to connect local areas with long-distance coach services - Cross-operator ticket acceptance
4D	Improve bus / rail integration	- Restructure the supported bus network to act as feeder services to railway stations - Enhanced Demand Responsive Transport (EDRT) services to connect with rail services - Dedicated 'rail buses' - Increased promotion of PlusBus options in the Elgin, Fort William and Inverness areas
4E	Improve bus / ferry integration	- Dedicated[2] 'ferry buses' which travel on a sailing and provide a single end-to-end price for the passengers

[2] Note – 'dedicated' in this context means operated for the specific purpose of the conveyance of ferry passengers. Services would operate direct to their destination and / or the timetable would be flexed to account for ferry delays, timetable changes etc.

ID	Option Package	Component Options
		- Dedicated 'ferry buses' which are scheduled to meet a ferry sailing at either end and for which the passenger pays a single end-to-end price - DRT or EDRT services to connect with arriving ferry services, particularly on islands - Work with bus and ferry operators to promote connecting bus services - Cross-operator ticket acceptance
4F	Improve bus / air service integration	- Dedicated air services buses which are scheduled to meet a flight arrival (this already happens in several places, e.g., Kirkwall) - EDRT services to connect with departing or arriving air services. EDRT could be particularly useful in facilitating connections with very early morning or late evening flights - Work with bus and air operators to promote connecting bus services.
4G	Improve the quality of facilities at bus stations and bus stops	- Improve the quality of bus stations in the region - Provide waiting facilities at bus stations across the region - Improve / provide shelters at bus stops - Improve / provide digital and / or paper information at bus stops / stations - Improve / provide seating at bus stops - Improve / provide dropped kerbs at bus stops - Improve / provide footways around bus stops - Improve / provide CCTV / lighting at bus stops and interchange locations - Where possible, position bus stops in locations which are overlooked, well-lit etc
4H	Improve access to and the quality of the onboard experience on existing buses	- Improve the physical accessibility of existing vehicles - Provide driver training and performance monitoring to support the delivery of a high-quality passenger experience for all - Improve vehicle quality, e.g., through the provision of enhanced high-quality seating, lighting, Wi-Fi and or USB charging etc - Improve / provide CCTV and lighting onboard the vehicle - Enhanced cleaning and hygiene measures - Additional Police Scotland / British Transport Police patrols where anti-social behaviour is common
4I	Improve rail / ferry integration	- Where practicable, retiming of ferry services to better integrate with rail services (rail services could also be retimed to better integrate with ferry services, but the constraints associated with rail services are more significant) - Ferry infrastructure investment to allow more vessels to be in port at the same time, allowing more sailings to integrate with connecting rail services - Improved and / or co-located waiting / interchange facilities which facilitate an easier transition from ferry to train - Cross-operator staffing arrangement supporting e.g., getting from the ferry at Mallaig to the railway station and vice versa - Improve range and marketing of Rail and Sail products
4J	Improve access to and the quality of the on-train experience	- Ongoing refurbishment / replacement of Class 15x and Class 170 stock - Cascade of HSTs to replace all Class 158 and Class 170 stock on services between Perth and Inverness or replacement with a new inter-city fleet - Progressive replacement of current rolling stock at life expiry - a 'rural' specification for future units will be required

ID	Option Package	Component Options
		- Visible staff presence on-train - British Transport Police presence on-train on services where anti-social behaviour is common - Enhanced cleaning and hygiene measures - Provision of on-train catering
4K	Improve the quality of facilities at railway stations	- Longer station ticket office opening hours - For unmanned stations, a rolling programme of staff visits - Improved real time information, provision of ticket vending machines, customer help points, waiting areas, lighting, toilets etc - Improve information on onward travel especially local bus services at all rail stations - Where practicable, 'Access for all' improvements, particularly where there is no step free access to the station - Provision of clear information on where access to a station is not step free and advice on alternative arrangements - Improve waiting areas at stations - Platform level boarding - Automated train calls at request stops - CCTV and station help points on the platform, particularly in isolated rural stations - Visible staff presence at manned stations - Additional British Transport Police patrols where anti-social behaviour is common
4L	Improve access to and the quality of ferry services	- New vessels / port infrastructure which meet Equality Act 2010 requirements - Retrofit of existing vessels, with lifts, ramps etc to enhance accessibility Specifically on the NIFS routes: - Provide locations for people to lie flat on the vessel other than via purchased accommodation / cabins
4M	Improve physical access to inter-island air services	- Invest in larger aircraft which are more accessible for Persons of Reduced Mobility (PRM) - New aircraft to improve comfort
4N	Improve customer experience for those less able (e.g., training, chaperone service etc)	- Provide accessibility / disability awareness training for drivers, including dementia training - Offer escorting / chaperoning for vulnerable users - Ensure all online content is in an accessible format and kept up-to-date - Ensure that all published material is available on request in multiple alternative formats (e.g., Braille, large print, different languages etc) - Ensure that all travel centres offer appropriate staff training and facilities for those with a disability - Improve / provide accessible information on transport services (e.g., leaflets, operator websites, GO-HI and other apps etc)
4O	Improve public transport information	- Provide additional real-time information at selected high volume bus stops - Incorporate real-time information and notifications for all public transport modes within the GO-HI travel and other apps - Incorporate real-time bus tracking within the GO-HI and other travel apps - Promote the GO-HI and other travel apps

ID	Option Package	Component Options
		- Provide physical service number and timetable information at bus stops, travel centres and community facilities (for those without access to the internet) and remove out of date information – particularly important for tourists and more occasional bus users - Improve / provide accessible information on bus services (e.g., at stop, leaflets, info on the HITRANS and Council website) - For inter-island air services, maintain current notification practices, which work well given the small volumes in question
4P	Improve ferry-to-ferry and ferry-to-air integration	- Change the time of sailings in order to improve integration with connecting ferry (and air) services - Improved coordination between ferry and internal air services where appropriate
4Q	Improve digital coverage in the region	- Investment in 4G / 5G - Scottish Government 4G infill project - Increased free wi-fi provision - Additional mobile phone masts - Radio signal
4R	Increase the number of disabled parking bays	- Increase number of disabled parking bays
4S	Improve the quality and safety of taxi travel	- Provide / improve alternatives to taxis - Increase the number of fully accessible taxis - Provide in-car CCTV in taxis - Include a text booking option for those with hearing difficulties - Provide training in customer care for taxi drivers - Increased regulation of app-based mobility providers - Consistent taxi licencing and enforcement programme
4T	Mobility hubs	- Mobility hubs
Strategy Theme 5: Providing connectivity that supports our island and peninsular communities		
5A	Convert Lo-Lo routes to Ro-Ro	- Conversion of Lo-Lo routes to Ro-Ro
5B	Reduce ferry journey times	- New vessels with an improved design speed (but dependent on whether that speed can be maintained) - Establishment of shorter crossings - Splitting of indirect routes
5C	Improve ferry booking and ticketing arrangements	- Earlier opening of the booking system for all - Earlier opening of the booking system for residents only - Review of first come / first served approach to booking, including quota systems for residents / visitors - Increased mobile and electronic ticketing, including integrated ferry-bus and ferry-rail ticketing - Increased duration of multi-journey tickets - On RET routes, option to buy a multi-journey ticket book (i.e., with no cost saving but for increased convenience)

ID	Option Package	Component Options
		- Longer opening hours for booking offices / phone lines
5D	Demand management measures – fares based	- Scottish Government permit pricing flexibility to balance demand across sailings - Fares differentials to incentivise passenger travel at the expense of the car (although note that current ticketing systems do not differentiate between foot passengers and passengers in a car) - Fares differentials to incentivise the use of quieter sailings (by time of day, week or season) - Provide price incentives to move commercial traffic onto freight sailings (Aberdeen – Kirkwall / Lerwick and Stornoway – Ullapool only) Specifically, on the NIFS routes: - Provide price incentives for a customer to move their car separately on the freighter. - Incentivise Orkney traffic to use the Stromness – Scrabster rather than Kirkwall – Aberdeen route - Incentivise the use of the 'land bridge' offer on the Stromness – Scrabster to release space on Kirkwall – Aberdeen sailings
5E	Make the most efficient use of existing vessels	- Change the time of sailings in order to improve capacity during peak times - Reserved space for local residents - Advertised freight only sailings - Improved management of block bookings - Improved management of commercial vehicles and motorhomes that prevent the deployment of mezzanine decks on certain routes - Coordination of different traffic types to minimise conflicts - Improved public transport connections to / from ferry terminal. This could include connecting bus services and / or shared mobility - Improved public transport connections to / from ferry terminal combined with free / minimal or reduced fares for passengers. - This could include connecting bus services and / or shared mobility - Increased secure long-stay parking at ferry terminals - Improved active travel connections to ferry terminals
5F	Additional sailings with existing vessels or additional vessels	- Increased crew to enable vessel to sail with a higher passenger certificate (although note that there remains a maximum number of passengers permitted on any vessel) - Increase the number of sailings with existing vessels - Increase the number of sailings using additional vessels
5G	New vessels	- New vessels with a larger passenger capacity - New vessels with a larger vehicle deck and / or deadweight capacity - New vessels of modern design to improve passenger comfort - New vessels of a common design to fit with common terminal infrastructure - Investment in newer zero emission vessels – included within this would be minimising the environmental impact of vessel construction and associated landside civil engineering works

ID	Option Package	Component Options
		- Modifications to existing vessels to reduce emissions, e.g., carbon scrubbers, low friction paint, conversion to lower carbon fuels etc Specifically on the NIFS routes: - Replace the current NIFS freighters with 'freight plus' vessels with the scope for carrying passengers with cabins, sleeping pods and reclining seats to reduce demand on the Ro-Pax vessels - Provide additional 'freight plus' vessels with the scope for carrying passengers with cabins, sleeping pods and reclining seats to reduce demand on the Ro-Pax vessels - Replace the current Ro-Pax with larger vessels with increased cabin capacity so that all passengers can get a bed in a sole-use cabin to lie down in
5H	7-day a week ferry and / or inter-island air services	- 7-day ferry service - 7-day a week inter-island air service Specifically on the NIFS services: - More / all services call at Kirkwall - Day return sailing to Orkney from Shetland (and sub options therein) - Day return sailing to Orkney from Aberdeen (and sub options therein)
5I	Work towards a 'meaningful day' on-mainland and on-island	- Ensuring that some ferry services provide a meaningful day in a major service centre would require additional revenue funding and crew - Timetable amendments - Island-based vessels to reduce morning and evening 'dead-legging' and to provide the flexibility to work in weather windows - Work with commercial airlines to deliver a timetable that enables a day-return between each island and the Orkney / Scottish mainland **five** days per week; or - Work with commercial airlines to deliver a timetable that enables a day-return between each island and the Orkney / Scottish mainland **seven** days per week
5J	Improve ferry service reliability	- Improved management of turnaround times to improve punctuality - New / alternative vessel not subject to tidal constraints (note that, on some routes, this is simply not possible) - Infrastructure enhancements and dredging in existing harbours - Development of new harbours to improve weather reliability - New vessels which are less likely to experience mechanical failures and contribute to cancellations - New vessels with a modern design to improve seakeeping and hence punctuality - Enhanced preventative maintenance
5K	Provide additional seat capacity on PSO air services	- Operate the current service more intensively where practicable - Reduce the number of indirect flights, particularly in Orkney where such flights have both capacity challenges and consume available flying hours, thus limiting the overall service that can be offered - Additional aircraft

ID	Option Package	Component Options
		- Larger aircraft to improve capacity
5L	Work with commercial airlines to provide additional flights	- Provide additional flights using existing aircraft to provide more capacity in existing timetable - Provide additional flights with additional aircraft to provide more capacity in existing timetable - Replacement larger aircraft to provide more capacity in existing timetable
5M	Develop new air routes	- Reinstate and / or develop new air routes to islands across the region, e.g., Skye - Commit to protect any existing air services which are under threat - Work with airlines to support the development of new routes - For PSO routes, specify additional connections in the tender, e.g., Kirkwall - Wick
5N	Improve the reliability of inter-island air services	- Operate the aircraft under Instrument Flight Rules (IFR) to enable operation of the service when visibility is poor - Runway lighting - Adopt Global navigation satellite systems (GNSS) or other navigational aids - Construct cross-runways where these do not exist
5O	Island and peninsular fixed links	- Fixed links to reduce cost of ferry travel assuming not tolled / tolled cheaper than ferry, for those travelling by car - Fixed links to reduce journey times - Fixed links to overcome ferry vehicle capacity issues - Fixed links to overcome personal accessibility challenges of vessels, although dependent on having a car / accessible buses - Fixed links to overcome issues with internal ferries running late - Fixed links to overcome issues with passenger comfort - Fixed links to overcome inconvenience of booking ferry tickets - Fixed links to overcome issues with length of ferry operating day - Fixed links to overcome issues with ferry service frequency - Fixed links to reduce emissions associated with travel (although relative whole-life contribution to emissions of fixed links / ferries would need to be established) - Ensure that any fixed link is served by a high-quality public transport offer
Strategy Theme 6: Improving the efficiency of transport networks and supply-chains and reducing their impact on our communities		
6A	Reduce ferry freight fares	- Encourage the Scottish Government to reduce freight fares as part of the next CHFS and NIFS contracts / an updated Ferry Freight Fares Review - Reduce freight fares on local authority services - Support the operation of drop / unaccompanied trailer services on a wider range of routes - Consider specific bulk and / or commodity discounts and / or surcharges where there is a justifiable case for doing so - Consider the current classification of freight and whether there is a case or otherwise for consistent application of this definition across Scotland or otherwise - Consider the merit or otherwise of reviewing the freight tariff for any route converted from Lo-Lo to Ro-Ro

ID	Option Package	Component Options
6B	New freight only vessels / new vessels with an increased freight capacity	- New dedicated freight-only vessels - New 'freight plus' vessels
6C	Prioritise ferry capacity for freight / demand management to provide additional capacity for freight	- Reservation of deck space for time-sensitive / all freight on capacity-pressured routes - Scottish Government permit freight pricing flexibility to balance demand across sailings - Fares differentials to incentivise the use of quieter sailings (by time of day, week or season) - Increase non-freight vehicle fares to discourage taking cars on the ferry. This could be coordinated with reductions in passenger fares and improvements in public transport and active travel to encourage mode shift and create more deck space for cars - Fares differentials to incentivise the use of quieter routes - Coordination of different traffic types to minimise conflicts - Carriage of unaccompanied trailers Specifically, on the NIFS routes: - Operate additional day passenger services to reduce car demand from the overnight sailings and increase capacity for freight - Incentivise Orkney traffic to use the Stromness – Scrabster rather than Kirkwall – Aberdeen route (although note that most freight – livestock excepted – moves over the Pentland Firth anyway)
6D	Dedicated freight sailings	- Operate dedicated freight sailings - Operate additional freight sailings to increase capacity
6E	Support the growth in rail freight	- Support the growth of rail freight through investment in facilities and services - Improved Route Availability - Improved gauge clearance - New rail freight terminals - Improvements to the efficiency of existing rail freight terminals - Longer passing loops for larger freight trains - Procurement of adapted wagons to run on the region's railway network - New connections to emerging industrial sites - Facilitate city centre break bulk/last mile low carbon deliveries
6F	Support the growth in waterborne freight	- Support the development of short-sea shipping for moving commodities by sea rather than road - Remove bulk waste from major construction projects (e.g., Coire Glas) by water (canal or sea)
Strategy Theme 7: Improving the safety, reliability and resilience of our road and rail networks		
7A	Improve road maintenance	- Active and preventative road maintenance - Enhanced vegetation clearance
7B	Improve the resilience of the road network	- Targeted road improvements where there are known resilience problems

ID	Option Package	Component Options
		- Development of emergency diversions, equivalent to e.g., the Old Military Road at the A83 Rest and be Thankful and the Kyle Line at Stromeferry
7C	Introduce measures to improve road safety	- Support targeted road improvements such as addressing sections of poorly aligned carriageway, converting single track to single carriageway where appropriate etc - Increase the number of HGV rest areas - Increased winter roads treatment programme - Increased advisory signage (e.g., risk of deer, roads unsuitable for satellite navigation systems etc) - Ongoing public information campaigns around the use of single-track roads, promoted in partnership with local authorities, ferry operators, commercial airlines and HIAL. - Improve / remove priority junctions on higher speed trunk roads, especially for right-turning traffic - Average speed cameras - Level crossing closures / improved management of level crossings - Improved / additional motorist services - Targeted road improvements where there are known safety problems
7D	Improve rail service reliability	- Increased performance margins to allow for recovery from delay (although note that, without a corresponding reduction in journey times, the overall journey time would increase if performance margins are increased) - Platform level boarding to reduce station dwell times - Improvements to key pinch points in the Central Belt network, Aberdeen to Inverness and on the East Coast Mainline, minimising reactionary delay in the HITRANS region - Recruitment of additional staff, particularly in the peak tourism season to ensure on-time departures
7E	Improve rail network resilience	- Infrastructure improvements to improve resilience, e.g., reduced risk of flooding, landslips, vegetation clearance etc.
7F	Improve travel information for motorists and ferry passengers (driving to the ferry)	- Introduce additional variable messaging signs at strategic points on the road network to advise on diversionary options - Publicise the Scottish Road Works Register to raise awareness of planned road works and possible delays - Incorporate road closure and weekly road works reports / an alert system into the GO-HI and other travel apps - Work with Transport Scotland to ensure that the Traffic Scotland website is kept up-to-date - Introduction of / improved mobile disruption ferry updates through e.g., Apps, Twitter, websites etc - Provision of ferry information on Traffic Scotland website
7G	Reduce road-based journey times to / from (i) Inverness; (ii) our sub-regional centres; and (iii) Scotland's other cities and beyond	- Targeted road improvements developed through Route Action Plans to address known issues of e.g., geometry, gradient, width etc (e.g., the A82 upgrade between Tarbet and Inverarnan is a good example of this) - Increase HGV speed limits to 50mph - Provide climbing lanes and sections of 2+1 in areas with low average speeds / unreliable speeds - Upgrade existing single carriageway roads (or sections of such roads) to dual carriageway where appropriate - Upgrade existing single-track roads to single carriageways - Additional / larger passing places on single track roads - Incentivise water-borne freight to move traffic off of the region's road network - Coordination and / or restrictions on abnormal / slow loads

ID	Option Package	Component Options
Strategy Theme 8: Facilitating sustainable visitor travel demand		
8A	Improve active travel options for those travelling to / from tourist destinations	- Introduction, where practical, of 'bike buses', particularly in areas where leisure cycling is prominent - Promote and further develop of long-distance walking routes - Promote and further develop of long-distance cycling routes, including the National Cycle Network
8B	Improve public transport interchange experience for visitors	- Additional railway and bus station staff, particularly in peak tourism season - Enhanced cruise 'welcome ashore' provision - Awareness raising of public transport options / itineraries
8C	Provide additional rail service capacity in peak season	- Strengthened peak season services (i.e., additional carriages / units) where practicable - Additional tourist targeted rail services - Additional open access and charter operations such as the West Coast Railways *Jacobite*
8D	Improve parking provision, management and enforcement at key tourism destinations	- Introduce parking restrictions and enforcement at key tourism destinations to: manage demand and turnover; reduce inappropriate parking which restricts access; and reduce the impact of the car on local communities - Requirement to pre-book parking at 'honeypot' locations (e.g., as per the requirement to pre-book a parking space at Pen y Pass car park for climbing Yr Wyddfa (Snowdon) - Use of app-based technology to monitor and provide information about parking hotspots - Specific parking for camper vans and motorhomes, including 'aires' - Management of overnight parking in laybys including clarification for potential users - Increased visitor parking provision where improved management and enforcement would not make a material difference
8E	Targeted road improvements where there is high seasonal demand	- Improved maintenance where road conditions are severely affected by a rapid increase in tourism - Improved / greater provision of passing places in areas of high tourist demand - Formalisation of informal passing places in areas of high tourism demand - Upgrade existing single-track roads (or sections of such roads) to single carriageway specifically in areas of high tourism demand - Improved signing and lining - Safety Issues related to left-hand drive vehicles
8F	Bus-based Park & Ride to 'honeypot' tourist sites	- Bus-based Park & Ride / stride to honeypot tourist sites
Strategy Theme 9: Decarbonising our transport and mitigating the effects of climate change		
9A	Zero emission buses	- Invest in fuel efficient / alternative fuel vehicles and associated support services – in the commercia bus market, this may require the provision of incentives from the public sector, particularly for smaller operators - Re-powering of existing diesel vehicles (ScotZev Stream 3)
9B	Decarbonisation of the railway network	- Support rolling programme of electrification where appropriate - Delivery of appropriate traction decarbonisation solution(s) as HST and Class 15x stock is cascaded or retired

ID	Option Package	Component Options
9C	Decarbonisation of the aviation network within the HITRANS region	- Replacement of the current aircraft fleet with low or zero emission aircraft. *Note - for commercially provided services, this is a commercial decision, for the Orkney and Argyll & Bute internal services and the Transport Scotland and THC funded PSOs, this could be delivered through the PSO contracting system*
9D	Vehicle-pooling or vehicle sharing	- Provide short-term access to shared vehicles like cars, bikes, scooters etc on an on-demand basis
9E	Encourage zero emission vehicle uptake and use	- Incentives to support the uptake of EVs or other low emissions cars - Provide short-term access to EVs on an on-demand basis through a car club - Increase the number of available public EV chargers in the HITRANS region (including via the Scottish Government's new Electric Vehicle Charging Fund) - Improve maintenance of public EV chargers to provide greater reliability to the user - Introduce measures to increase the electric grid capacity to support increased EV use - Battery, Hydrogen and synthetic fuels for road freight - Pricing strategies which do not disadvantage those unable to charge their vehicles at home
Strategy Theme 10: Embracing new technologies		
10A	Micromobility	Micromobility (including e-bikes, electric scooters, shared bicycle fleets, and electric pedal assisted (pedelec) bicycles)
10B	Mobility-as-a-Service	Mobility-as-a-Service
10C	Connected and Autonomous vehicles	Connected and autonomous vehicles
10D	Autonomous buses	Autonomous buses
Strategy Theme 11: Reducing the cost of travel, particularly for those most in need		
11A	Reduce bus fares	- Free / nominal fares for all - Reduced fares / fares caps - Free / nominal / discounted fares for specific groups in need - Multi-journey / season tickets
11B	Reduce rail fares	- Free / nominal fares for all - Reduced fares / fares caps - Free / nominal / discounted fares for specific groups in need - Daily or monthly fare capping - Multi-journey / season tickets - Promotion of discount products, in particular the Highland Railcard - Account based ticketing
11C	Reduce ferry foot passenger fares	- Free / nominal fares for all foot passengers - Reduced foot passenger fares for all - Reduced foot passenger fares for residents

ID	Option Package	Component Options
		- Season tickets for residents - Payment plans for multi-journey tickets - Completion of roll-out of Road Equivalent Tariff on NIFS and other routes
11D	Reduce ferry car fares	- Free / nominal car fares for all - Reduced car fares for all - Reduced car fares for residents - Season tickets for residents - Payment plans for multi-journey tickets - On the NIFS routes, Encourage the Scottish Government to reduce car fares. This may include options to (i) Introduce a modified version of the Road Equivalent Tariff (RET) fares system for passengers and cars as per the current policy commitment; (ii) Lower off-peak fares when capacity is less pressured
11E	Reduce ferry accommodation fares (Northern Isles ferry services)	- Encourage the Scottish Government to reduce the cost of onboard accommodation. - Lower off-peak fares when capacity is less pressured
11F	Reduce or remove the cost penalty for interchange between operators and modes	- Cross operator ticket acceptance / through ticketing, either specified in contracts or via commercial arrangements - Bus / rail to ferry through ticketing – could be paper-based or electronic (e.g., smartcards, mobile devices – would need to be developed to ITSO specification and the approach to revenue reconciliation agreed) - Daily or monthly fare capping - Free travel on ferry and / or bus and / or rail service
11G	Extend the scope and / or geographic coverage of national fares and funding policies	- Extension of the National Concessionary Travel Scheme and Under-22s Concessionary Travel Scheme to rail, ferry and air services where these are the main / only mode of travel in an area
11H	Reduce the cost of air travel on PSO routes	- Free / nominal fares for all - Reduced passenger fares - Free / nominal / discounted fares for residents - Multi-journey / season tickets
11I	Reduce the cost of air travel on commercially operated roues	- Increase the level of discount with the Air Discount Scheme (ADS) - Reinstate ADS for business. - Engage with commercial airlines to provide refund options for particular high use groups (e.g., sports teams) - Lobby Scottish Government for reductions in Air Passenger Duty for flights from Inverness

5 Option Development and Appraisal

5.1 Overview

5.1.1 This chapter appraises each option against the appraisal criteria as set out in Chapter 2. A description of each option is provided along with a summary of the appraisal against the STAG criteria and RTS Strategy Objectives in the form of an 'Option Appraisal Table'. Key issues in terms of feasibility, affordability, public acceptability deliverability, fit with policy and risk are also set out in the text where relevant.

5.1.2 In addition to the RTS Strategy Objectives and STAG criteria, the appraisal also considers the potential impact of each option on the SEA and the relevant equalities duties established at Scoping Stage. Text covering the potential impact in relation to equalities is provided in each 'Option Appraisal Table' and a summary of the potential impact with respect to the SEA objectives is provided in Chapter 6.

5.1.3 It should be noted that, combining some options together may provide increased benefits (e.g., manging parking demand and investing in new active travel routes) while other options may conflict with each other (e.g., reducing ferry car fares and enhancing multi-modal public transport connections). At this stage, however, each option is appraised on an individual basis. The extent to which options that progress through the appraisal are subsequently combined into packages will be addressed within the RTS itself.

5.2 Strategy Theme 1: Transforming our communities and reducing the impact of transport upon them

5.2.1 The options appraised under this theme are as follows:

- **Option 1A:** Reallocation of road space to active travel
- **Option 1B:** Implementation of measures to reduce traffic levels and the impact of that traffic
- **Option 1C:** Management of parking demand through parking restrictions and enforcement
- **Option 1D:** Land-use planning measures

Option 1A: Reallocation of road space to active travel

5.2.2 The provision and quality of walking, wheeling and cycling infrastructure varies significantly across the HITRANS region. Given the geographic expanse of the region, it is evident that only a subset of journeys can be made by active modes. However, this is often difficult, even at settlement level, where walking and wheeling routes are frequently interrupted by busy road crossings and the absence of footways, whilst there is also a lack of dedicated cycle infrastructure, including both on-road and segregated provision. This is exacerbated both by trunk roads running through the heart of many settlements (e.g., Elgin, Lochgilphead etc) and high volumes of seasonal traffic, often concentrated on the roads least well-suited to accommodate it.

5.2.3 This option therefore focuses on improving active travel provision at the settlement-level through the reallocation of road space and / or parking provision and engineering-based solutions, such as reducing junction widths. This could also include new mandatory and advisory cycle lanes.

Option 1A	Reallocation of road space to active travel				
STAG Criteria	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility
	✓	✓	✓✓	×	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓✓✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓✓
	Island Communities Impact Assessment				✓
	Measures to improve active travel routes and capacity have the potential to enhance opportunities for protected characteristics groups and people in each equalities framework provided they are designed to meet requirements for access for all.				

5.2.4 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The reallocation of road space to active travel at a settlement level would evidently contribute particularly strongly to **SO2**, with respect to providing safe and accessible walking, wheeling and cycling opportunities within Inverness and towns and villages across the region. It would also support the wider transition to a more environmentally sustainable transport network, **SO1**. A consequential benefit of this measure would be to improve access to public transport interchange points (e.g., bus and railway stations, bus stops etc), particularly in settlements which are dissected by busy trunk and major A roads, thus contributing to **SO3**.
- Where the option leads to people choosing to walk / wheel rather than travel by car, it would reduce greenhouse gas emissions, resulting in a minor benefit with respect to **climate change**. Reallocation of existing road space could prevent / reduce impacts such as biodiversity loss and impacts to heritage assets when compared to providing the same facilities within verges or similar greenfield spaces. When allied with air quality improvements, this option would also record an **environment** benefit.
- Reallocating road space / parking to active travel could also result in positive **health, safety, and wellbeing** outcomes through improved safety as a result of reduced conflicts and improved health outcomes associated with the higher levels of active travel. There would also be **equality and accessibility** benefits as a result of opening up opportunities for certain equalities groups as above.
- The option may have a minor negative impact on the **economy** (as measured by conventional Transport Economic Efficiency, TEE) associated with an increase in journey

times and increased driver frustration where road capacity for vehicular traffic is reduced. This could be a particular issue on long trunk roads such as the A82, A85, A96 etc where multiple sections of the route could be affected. When delivering schemes, consideration would also need to be given to the need for access for e.g., deliveries in some locations.

- This option aligns strongly with the ***Sustainable Travel Hierarchy***.
- From a **deliverability** perspective, any individual scheme would need to be assessed in terms of what could be achieved within the physical confines of a given route.
- There may also be a challenge with regards to **public acceptability** as measures aimed at reducing car use may be contentious amongst certain groups. Indeed, there has been significant recent publicity around objections to e.g., reallocating road space for dedicated cycle lanes, low traffic neighbourhoods etc.

Recommendation: Given the focus of the *Sustainable Travel Hierarchy* and the significant environmental, health and wellbeing benefits associated with this option, it **should be considered further in the RTS**.

Option 1B: Implementation of measures to reduce traffic levels and the impact of that traffic

5.2.5 As alluded to in relation to Option 1A, a problem in the HITRANS region is high traffic flows through settlements, particularly on trunk roads and in the peak summer season. Major settlements such as Elgin, Oban and Fort William experience significant challenges in this respect, but it is common across the region. Outwith these larger settlements, traffic speeds through towns and villages can be an issue, particularly on strategic routes and also on routes to ports, where drivers can be 'racing' to catch a ferry.

5.2.6 This option therefore focuses on traffic speed enforcement and traffic calming measures such as speed cushions, road humps, road narrowing, pedestrianisation and the establishment of mandatory 20mph zones in settlements (which could potentially be split into tiers). Indeed, the Welsh Government introduced a blanket 20mph speed limit in all settlements in autumn 2023.

Option 1B	Implementation of measures to reduce traffic levels and the impact of that traffic				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×/✓	×/✓	×/✓✓✓	×	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓✓✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓
Equalities	Public Sector Equality Duty				✓

Option 1B	Implementation of measures to reduce traffic levels and the impact of that traffic	
	Fairer Scotland Duty	✓✓
	Child Rights and Wellbeing Duty	✓✓
	Island Communities Impact Assessment	✓
	Measures to reduce traffic speeds would potentially benefit all equalities groups. Enhanced, safer and healthier neighbourhoods would benefit the health, wellbeing and access to opportunities for most protected characteristics groups, communities with socio-economic disadvantage and young people. It would though be important that any negative air quality impacts are mitigated if the equalities benefits are to be fully realised.	

5.2.7 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would make a strong contribution to **SO2** as it would address several of the safety risks associated with excess traffic in settlements in the region. If delivered in a manner that supported improved traffic flow, it would also enhance the efficiency and safety of the transport network, contributing to **SO6**.
- There is a risk that the reduction in vehicle speeds may increase the emission of carbon dioxides (CO_2) and nitrogen oxides (NO_x), which would lead to a reduction in air quality, and thus a negative score in relation to the **environment** and **climate change** criteria. On the other hand, such measures could support improvements to the landscape and visual amenity, whilst there could be an offsetting benefit if this measure led to reduced vehicle kilometres.
- From the perspective of the STAG criteria, this option would evidently record a major benefit in relation to **health, safety and wellbeing**, directly addressing the risks associated with high traffic levels within and through settlements. However, the potential for reduced air quality could have a negative health impact. The extent to which this is the case would need to be determined on a scheme-by-scheme basis.
- There would also be positive **equality and accessibility** impacts, with reduced traffic / lower speeds particularly beneficial for several equality groups, including school children and older people.
- This option may have a minor negative impact on the **economy** associated with an increase in journey times and increased driver frustration if journey times are extended. This could again be a particular issue on long trunk roads such as the A82, A85, A96 etc where multiple sections of the route could be affected, although note that the Welsh Government has accepted this 'cost' as part of their national 20mph scheme. When delivering schemes, consideration would also need to be given to the need for access for e.g., deliveries in some locations.
- This option aligns well with the ***Sustainable Travel Hierarchy***.
- There may again be a challenge with regards to **public acceptability** as measures aimed at reducing traffic levels may be contentious amongst certain groups. It would be important that, for any individual measures introduced, the benefits are clearly elaborated to the public.

Recommendation: Given the focus of the *Sustainable Travel Hierarchy* and the potential benefits associated with this option, it should be **considered further in the RTS**. Careful consideration would though have to be given as to how it is implemented on strategically important trunk roads.

Option 1C: Management of parking demand through parking restrictions and enforcement

5.2.8 Parking provision, management and enforcement varies across the region and between authorities. In many smaller settlements, much of the provision is on-street or indeed informal. In most settlements throughout much of the year, the ready availability of free or low-cost parking can encourage car use for some shorter journeys which could potentially be undertaken by active modes, with resultant negative impacts such as traffic intimidation, emissions and noise.

5.2.9 However, as with most other elements of the transport system in the region, there exists the dual challenge of managing day-to-day parking requirements and peak season visitor parking, particularly at 'honeypot' sites such as Glenfinnan and the Fairy Pools. Traffic management around ferry terminals can also be an issue (e.g., at Port Ellen and Oban), particularly in peak season.

5.2.10 The mixed approach to both provision and enforcement can lead to inappropriate parking. Consequences of this include degradation of the public realm, lost trade for local businesses and footpaths being blocked, a particular issue for certain equality groups such as those in wheelchairs or pushing a pram.

5.2.11 This option therefore involves implementing and / or (better) enforcing parking regulations. This would support improved management of parking demand and turnover, reduce inappropriate parking which restricts access and address the blight issue on local communities caused by inappropriate visitor parking in peak season. The means by which this option is delivered could vary between both locations and local authorities and would feature in an RTS Delivery Plan if taken forward.

Option 1C	Management of parking demand through parking restrictions and enforcement				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	○	✓✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓
Equalities	Public Sector Equality Duty				✓

Option 1C	Management of parking demand through parking restrictions and enforcement	
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓
	Some benefits for equalities groups provided blue badge spaces and access for disabled people is maintained / enhanced. Addressing pavement parking issues as well as peak tourist demand at 'honeypot' sites would also be advantageous. Measures are not predicted to significantly benefit people with socio-economic disadvantage and would need to be implemented carefully to avoid unintended consequences for people reliant on car transport due to lack of other (rural) services. Islands would benefit from improved parking management at tourist honeypots and ferry terminals.	

5.2.12 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- From the perspective of the Strategy Objectives, this option would contribute most significantly to **SO2**. Its effects would however vary by geography and time of year. For example, provision and management of parking in the likes of Inverness and Elgin is a daily necessity in ensuring that these settlements function as efficiently as possible. However, in other parts of the region, parking management is a much more seasonal issue and the benefits would be concentrated in the summer months (and care would need to be taken to avoid disproportionate enforcement in the winter months when there is less of a problem).
- This option could also contribute to **SO6** by reducing the implications of traffic circulating to find a space because provision is insufficient or turnover is low. In addition, there are numerous ferry ports around the region where traffic management is sub-optimal which affects both ferry operations (i.e., leading to delays associated with extended turnaround times) and safety in the adjacent community (e.g., Ullapool, Port Ellen etc).
- As has been noted, indiscriminate parking can have a blight issue on communities, where summer demand is such that it can swamp small settlements (and tourist sites), impacting negatively on those who live there. There would therefore be a minor **environment** benefit (and potentially a major benefit in the worst affected communities like Glenfinnan) associated with improved visual amenity and reductions in e.g., noise.
- There would also be **health, safety and wellbeing** and **equality and accessibility** benefits as a result of improved access and reduced external impacts associated with excess / circulating traffic. This may be a particular benefit for those in wheelchairs or with mobility issues. Any parking charges would affect affordability for some though, particularly during a period when real incomes are being eroded by inflation.
- If delivered effectively, there would be a minor **economy** benefit associated with improved parking space turnover and mitigation of the negative impacts outlined previously.
- **Public acceptability** could be an issue, with there likely to be some opposition to parking restrictions and enforcement, particularly parking charges, amongst the public and businesses. The benefits of such measures would need to be clearly identified and carefully communicated to the public.
- **Affordability** could also be challenging with regards to enforcement. The geographic expanse of the HITRANS region (and the local authority areas therein) means that revenue collected may not cover management and enforcement costs. There would likely be more success in delivering this option if it were implemented alongside a wider package of measures aimed at enhancing public and active travel opportunities, particularly to tourist sites.

Recommendation: Given the significant parking challenges faced throughout the region, at least in summer, it is recommended that this option is **considered further in the RTS**.

Option 1D: Land-use planning measures

5.2.13 This option focuses on ensuring that new development is sustainably located close to services and community facilities to reduce the need to travel. For necessary journeys, they should be served by high quality active and sustainable transport, which prevents car dependency from becoming entrenched. In addition, the planning process can be used to deliver sustainable transport measures to support new developments through mechanisms such as 'Section 75 Agreements', which define developer contributions to infrastructure. These could include contributions to supporting new bus services or ancillary on-site facilities such as showers and changing areas to enable people to get ready for work after walking, wheeling or cycling to the development.

5.2.14 This option also incorporates the '20-minute neighbourhood' model which is intended to allow people to live, work and learn within 20 minutes of their home using active travel and public transport. By locating and designing developments with this concept in mind, planning focuses on walking, cycling and wheeling in the first instance rather than car-travel, helping to align spatial planning and transport planning at a local scale.

Option 1D	Land-use planning measures				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓✓	✓✓	✓✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓✓
	In the longer term, land-use change measures offer benefits for protected characteristics groups and people in each equalities framework to access local services more easily and without requiring private transport. This option also offers potential benefits for the sustainability of island communities and businesses through reducing the need for expensive and time consuming air and / or ferry journeys.				

5.2.15 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- By better aligning transport and land-use planning, this option would contribute positively to several of the Strategy Objectives. It would evidently support a just transition to a post-carbon and environmentally sustainable transport network **(SO1)** by co-locating development and required amenities, reducing the need to travel overall. Effective land-use planning creates the opportunity to increase the provision of and opportunities for walking, wheeling and cycling **(SO2)** and public transport **(SO3)**.
- This option would have a positive impact with respect to the **environment** and **climate change** criteria as it would reduce the need to travel and encourage the use of sustainable and active travel modes from the outset and therefore prevent car use from becoming entrenched. It is therefore highly positive with respect to the ***Sustainable Travel Hierarchy***.
- This option could also result in positive **health, safety, and wellbeing** impacts through improved safety and enhanced health outcomes associated with higher levels of active travel and improved wellbeing. The delivery of the 20-minute neighbourhood concept in particular could lead to enhanced social cohesion for example.
- There would also be **equality and accessibility** benefits as a result of enhanced access to key services by public and sustainable modes, with particular benefits for those without access to a car or who would prefer not to use one.
- The option could also have a minor **economy** benefit as a result of helping people enter the labour market / access employment opportunities they could not otherwise access.

Recommendation: One of the main drivers of transport demand is the physical distance between residential developments and the employment and services required by residents of those developments. As a long-term strategic measure, it is important that the RTS considers how transport in the region can be better aligned with development planning, including through the adoption of 'Triple Access Planning'[3]. The **RTS should therefore consider this option further**.

5.3 Strategy Theme 2: Connecting our communities

5.3.1 Whilst Strategy Theme 1 was predominantly focused on connections within settlements, Strategy Theme 2 is focused on active travel connections **between** communities. The options appraised under this theme are as follows:

- **Option 2A:** Improvements to existing walking and wheeling routes
- **Option 2B:** Improvements to existing cycling routes
- **Option 2C:** Invest in new 'greenfield' active travel routes
- **Option 2D:** Widen the availability of cycling through reducing cost and improving bicycle availability
- **Option 2E:** Promote walking, wheeling and cycling as a means of travel

Option 2A: Improvements to existing walking and wheeling routes

5.3.2 There is significant variation in the provision, scale and quality of walking and wheeling in the HITRANS region, which is a reflection of its geography and low population density. Where provision is poor or non-existent, it can directly reduce access for certain groups, including

[3] Triple Access Planning is where the transport system (physical mobility), the land-use system (spatial proximity) and telecommunications system (digital connectivity) are in delivered in an integrated manner known as a Triple Access System.

disabled people, the elderly, young people and women. This option therefore focuses on improving the standard of existing walking and wheeling routes to help ensure access for all and encourage greater levels of walking and wheeling for both leisure and transport purposes.

Option 2A	Improvements to existing walking and wheeling routes				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓✓	○	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓✓
	Island Communities Impact Assessment				✓
	Measures to improve active travel routes have the potential to enhance opportunities for protected characteristics groups and people in each equalities framework, including the disabled, elderly, young people, and women, provided they are designed to meet requirements for access for all.				

5.3.3 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Improvements to existing walking and wheeling routes would support the provision of a more environmentally sustainable transport network **(SO1)** and strengthen active connections between settlements in the region **(SO2)**. It is important though to acknowledge that, overall, the geography of the region limits to some degree the opportunities to walk and wheel between settlements.
- If this option led to people choosing to walk / wheel rather than travel by car, it would reduce greenhouse gas emissions and other harmful effects of motorised traffic such as noise, resulting in a minor benefit (given the overall scale of change would be marginal) with respect to the **climate change** and the **environment**.
- An improved standard of walking and wheeling routes could also result in positive **health, safety and wellbeing** outcomes through enhanced personal security and improved health outcomes associated with higher levels of physical exercise. There would also be **equality and accessibility** benefits as a result of opening up opportunities for certain equality groups, particularly for those without access to a car or who would prefer not to drive one.

- **Affordability** may be a potential barrier to large scale change given the expansive geography of the region.

Recommendation: The **RTS should consider this option further**, but it is also important to recognise that the geography of the region does to some degree limit the scope for increased walking and wheeling between settlements.

Option 2B: Improvements to existing cycling routes

5.3.4 As with walking and wheeling, the extent and quality of cycling provision across the region is highly variable. From a route kilometres perspective, the vast majority of cycling will simply be on-road, which can be a particular challenge on higher-speed trunk roads such as the A82. This option would focus on improving existing cycling routes, either through formalising provision or improving provision that already exists. This would clearly be a major exercise and would need to be subject to its own studies and associated business cases.

Option 2B	Improvements to existing cycling routes				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓✓	○	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓✓
	Island Communities Impact Assessment				✓
	Measures to improve active travel routes have the potential to enhance opportunities for protected characteristics groups and people in each equalities framework, including the disabled, elderly, young people, and women, provided they are designed to meet requirements for access for all.				

5.3.5 The appraisal of this option against both the Strategy Objectives and STAG criteria is broadly similar to that for Option 2A: Improvements to existing walking and wheeling routes. The key point of difference is that there is greater opportunity to connect settlements by cycling than there is by walking and wheeling given the differentials in speed. Nonetheless, the geographic expanse of the HITRANS region and the often long distances between settlements does present a challenge that would need to be overcome.

Recommendation: The **RTS should consider this option further.**

Option 2C: Invest in new 'greenfield' active travel routes

5.3.6 As noted above, many active travel routes, and in particular cycling routes, in the region are on or alongside major roads. This gives rise to a range of issues such as safety risks, traffic intimidation, noise etc, creating an unattractive environment for active journeys. This is particularly the case in winter when hours of daylight are shorter and the weather is often inclement.

5.3.7 To this end, in addition to improving existing walking, wheeling and cycling infrastructure, there would be benefit in investing in new 'greenfield' active travel routes. Dependent on location, these routes could also facilitate an increase in active journeys by visitors to the region.

Option 2C	Invest in new 'greenfield' active travel routes				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×/✓	✓	✓✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓✓
	Island Communities Impact Assessment				✓✓
	Measures to promote new active travel routes and capacity have the potential to enhance opportunities for protected characteristics groups and people in each equalities framework (including reduced island differential impacts) provided that they are designed to meet requirements for access for all.				

5.3.8 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Improvements to existing walking and wheeling routes would support the provision of a more environmentally sustainable transport network **(SO1)** and strengthen active connections between settlements in the region **(SO2)**. Whilst geography will again act as a limitation in developing active connections between settlements, new 'greenfield' routes would be much more attractive and likely to attract additional users.

- Where modal shift occurs, this option could help reduce car kilometres, resulting in a minor benefit with respect to the **environment** and **climate change** as a result of reducing the negative impacts associated with car travel e.g., greenhouse gas emissions, poor air quality, noise and vibration etc. There is though a risk of negative environmental impacts associated with the construction (and any lighting) of these routes, particularly in environmentally sensitive areas such as the Cairngorms National Park, the Flow Country, West Harris etc. To avoid or minimise negative environmental impacts, consideration should be given to (but not limited to): the impact on peat and other carbon rich soils; biodiversity; archaeology; light pollution; and opportunities to enhance the physical environment (such as peatland restoration).
- This option could also deliver positive **health, safety and wellbeing** impacts through improved safety, personal security, and enhanced health outcomes associated with higher levels of active travel. There would also be **equality and accessibility** benefits where infrastructure is designed for use by all, as set out above.
- The option could also have a minor **economy** benefit through widening and improving the quality of tourism opportunities, including green / eco-friendly tourism which is an established and growing sector in the region.
- **Affordability** is an issue that would need to be overcome. 'Greenfield' active travel routes, particularly where land acquisition and environmental mitigation measures are required, tend to be expensive. Moreover, the climate and ground conditions (e.g., on Islay) together with geographic remoteness could make construction and ongoing maintenance more expensive.

Recommendation: Given the aspirations to grow active travel mode share, its place at the apex of the *Sustainable Travel Hierarchy* and the ancillary tourism opportunities, it is recommended that the **RTS should consider this option further**.

Option 2D: Widen the availability of cycling through reducing cost and improving bicycle availability

5.3.9 The cost of purchasing a bicycle can be a deterrent to cycling, with the cost of e-bikes and adaptive bikes particularly prohibitive, especially for new or infrequent users. The 'Case for Change' highlighted the prominence of transport poverty in the HITRANS region, particularly in more remote areas distant from Inverness and other larger settlements. The absolute cost of a bicycle may therefore represent a higher proportion of disposable income then elsewhere in Scotland, particularly where there is also a requirement to own one or more cars ('forced' car ownership).

5.3.10 In order to help encourage cycling and overcome some of the above issues, this option focuses on widening the availability of cycling through grants to help support people to purchase a bike and or the expansion of the HI-Bike cycle hire scheme in which people can access a pool of communal bikes in Fort William and Inverness from a network of bike stations. In order to maximise access and the benefits provided, the latter should include a range of e-bikes, cargo bikes, and adaptive bikes for those with a disability.

Option 2D	**Widen the availability of cycling through reducing cost and improving bicycle availability**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓✓	✓✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓

Option 2D	Widen the availability of cycling through reducing cost and improving bicycle availability	
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.	✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.	○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓✓
	Child Rights and Wellbeing Duty	✓✓
	Island Communities Impact Assessment	✓✓
	Bicycle hire / share schemes and financial support would enhance opportunities for protected characteristics groups and people in each equalities framework provided they are designed to meet requirements for access for all.	

5.3.11 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Widening access to cycling would generate both additional cycling journeys and mode switch from motorised modes (but also potentially from walking). This would make a positive contribution to delivering a more environmentally sustainable transport network **(SO1)** and, as a secondary impact, has the potential to strengthen active connections between settlements in the region **(SO2)**.
- Where positive modal shift occurs, the option could help reduce greenhouse gas emissions and other harmful effects of motorised vehicles such as noise, resulting in a minor benefit with respect to the **climate change** and **environment** criteria**.** In addition, fewer car kilometres would result in a reduction in car pollutants, which would have minor benefits to air quality where this is a problem.
- The wider availability and greater uptake of cycling could also result in positive **health outcomes** and enhanced levels of **wellbeing** amongst the population.
- This option could also have a moderate **economic** benefit as a result of opening up tourism opportunities, including green / eco-friendly tourism which has been identified as a potential growth area for the region, and helping people access employment opportunities they could not otherwise access.
- There would also be **equality and accessibility** benefits as the delivery of a coordinated bike share scheme would help overcome some of the economic and other barriers which prevent people from taking up cycling as well as addressing accessibility challenges where adaptive bikes are made available.
- In terms of **deliverability**, public sector funding – either at the national or local level – would almost certainly be required to underwrite the capital costs of any scheme to widen access to cycling. With respect to bicycle hire schemes specifically, there would likely be a requirement for ongoing subsidy given the challenges of operating such schemes on a purely commercial basis.

Recommendation: Whilst the provision of new or improved cycling infrastructure would increase uptake, cost may remain a barrier for many. This option, which is focused on widening availability, should therefore be **considered further in the RTS.**

Option 2E: Promote walking, wheeling and cycling as a means of travel

5.3.12 A prominent barrier to encouraging walking, wheeling and cycling is perception and a lack of information. Moreover, many visitors to the HITRANS region are interested in outdoor pursuits and thus ensuring that they have the information on available walking, wheeling and cycling possibilities provides an opportunity for mode shift amongst visitors. This option therefore incorporates technology and conventional travel information solutions combined with working with public transport operators to widen awareness of active travel opportunities.

Option 2E	Promote walking, wheeling and cycling as a means of travel				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	○	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓✓
	Island Communities Impact Assessment				✓✓
	Measures to improve travel information and encourage mode shift to active travel have the potential to enhance opportunities for protected characteristics groups and people in each equalities framework (including reduced island differential impacts) provided that they are designed to meet requirements for access for all.				

5.3.13 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Whilst the impacts of this option would perhaps be at the margin (at least for active travel alone), it would make a positive contribution to: promoting a more environmentally sustainable transport network **(SO1)**: improving local connectivity within and between settlements **(SO2)**; and improving integration with public and shared transport **(SO3)**. Benefits would however be maximised by incorporating improved active travel within a wider programme of public transport information improvements.

- From a STAG perspective, this option would record minor **climate change** and **environment** benefits if it facilitates mode shift from the private car. It would also record **health, safety and wellbeing** and **equality and accessibility** benefits associated with both mode shift and any new journeys generated which were not previously made.
- It is important to note that, if this option was implemented, it would be essential to ensure that travel information is up-to-date if the public is to have confidence in it.

Recommendation: Promotion of walking, wheeling and cycling is essential if the region is to fully support the delivery of national vehicle kilometres and carbon reduction targets. This option should therefore be **considered further in the RTS**.

5.4 Strategy Theme 3: Enhancing public transport connectivity to / from: (i) Inverness; (ii) our sub-regional centres; (iii) Scotland's other cities and beyond

5.4.1 This Strategy Theme is focused on connectivity within, to and from the HITRANS region. The options appraised under this theme are as follows:

- **Option 3A:** Reduce bus journey times
- **Option 3B:** Additional timetabled bus services
- **Option 3C:** DRT or EDRT to enhance fixed routes
- **Option 3D:** DRT or EDRT to replace fixed routes
- **Option 3E:** Reduce rail journey times
- **Option 3F:** New railway stations
- **Option 3G:** New heavy rail routes
- **Option 3H:** Increased rail service frequency
- **Option 3I:** Discounted / quota taxi journeys

Option 3A: Reduce bus journey times

5.4.2 As detailed in the 'Case for Change', bus journey times in the HITRANS region are long – whilst this is obviously to some degree reflective of the distances involved, the commercial realities mean that buses need to make several diversions off of the main routes and multiple stops, slowing down journeys even further. In larger settlements such as Inverness, Elgin and Fort William, bus services are also affected by more conventional congestion associated with peak commuting periods and seasonal tourist traffic.

5.4.3 For many residents of the region, the bus is the only available means of public transport and thus long journey times compound the issues of low frequency and short operating days. Options to reduce bus journey times therefore have to be considered.

5.4.4 A particular feature of the HITRANS region is that contracted bus services often run on parallel routes to rail services. For the most rural parts of the region, there may therefore be a case for restructuring the supported bus network to act as a feeder to railway stations, as is currently happening in at least one large rural English local authority. This could allow the intensity of bus services to be increased and would reduce overall journey times to main settlements such as Inverness, Fort William and Elgin. It is though important to note that, in this instance, passengers who are currently able to use their concessionary pass to provide free travel to their final destination would need to pay a rail fare.

Option 3A	Reduce bus journey times				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓
	Measures to reduce bus journey times would reduce the sense of peripherality experienced by many of the most remote communities in the region, providing an improved opportunity to access employment, business and leisure opportunities, as well as connecting transport services. It would though be important to mitigate any negative impacts associated with the recasting of the bus network, particularly for the most remote areas.				

5.4.5 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The impact of this option would evidently depend on the scale of reduction in bus journey times that could be achieved and any unintended consequences for communities. Overall however, reducing bus journey times would make an important contribution to improving regional connectivity **(SO3)**, effectively bringing settlements closer together. At the margin, this option would contribute positively to increasing bus mode share, with a consequential benefit in terms of emissions reductions **(SO1)**.
- From a STAG perspective, this option would facilitate mode shift from the private car, which would benefit the **climate change** and **environment** criteria. However, reducing bus journey times may increase CO_2 and NO_x emissions (from increased speeds and the requirement for more services to call at intermediate stops), which could reduce the benefit of mode shift if a hydrocarbon fuelled bus was used. The extent to which this is the case would need to be determined on a case-by-case basis.
- The primary benefit of this option is that it would reduce the peripherality (actual and perceived) of some of the most remote communities in the region. This would in-principle have a positive **equality and accessibility** impact, although the extent of this benefit would be dependent on mitigating any unintended consequences (e.g., reduced bus service frequency for some stops).

- By bringing settlements within the region 'closer' together, this option would have a minor **economy** benefit in conventional TEE terms. However, it would also have a positive wider economic impact through better connecting jobs and labour.
- Given a significant proportion of bus travel from the most remote areas is also for health purposes, this option could be expected to have a positive **health and wellbeing** impact.
- Clearly, the key challenge in relation to this option is **affordability**, both in terms of capital funding for bus priority and, perhaps even more challenging, revenue funding to scale-up and maintain a larger supported bus network (which by definition would be required as reduced bus journey times means fewer stops – any stops omitted would require an alternative service if the creation of new inequalities was to be avoided).
- There would also be a **deliverability / feasibility** challenge associated with recruiting additional drivers given emerging and, in some cases existing, acute shortages of bus drivers.

Recommendation: Long bus journey times combined with urban congestion are a significant barrier to bus use in the HITRANS region. This option should therefore be **considered further in the RTS**.

Option 3B: Additional timetabled bus services

5.4.6 Bus service frequency across the HITRANS region, and in particular outwith the Inner Moray Firth and Fort William is low. In the most remote areas, there is sometimes only one bus service per day, with the return journey slotted in between school transport requirements thus limiting meaningful time at the destination. For some communities, the school bus operates the only service of the day, whilst in other communities there are simply no bus services at all. This option therefore involves strengthening existing timetables, adding new services and providing connections with train starting points early in the morning or later in the evening (for example, on the Far North Line, the first train to Inverness starts at Ardgay and the last train terminates at Tain).

5.4.7 Additional timetabled services could increase the frequency, extend the operating day or both.

Option 3B	Additional timetabled bus services				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓✓	✓✓	✓✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓

Option 3B	Additional timetabled bus services	
	Fairer Scotland Duty	✓✓
	Child Rights and Wellbeing Duty	✓✓
	Island Communities Impact Assessment	✓✓
	For those without access to a car or who do not wish to drive, low bus service frequency is a major barrier to accessing employment, business, education and leisure opportunities, particularly for those in the most remote areas. Moreover, limited bus service provision means that many residents of the HITRANS region derive fewer benefits from national schemes such as the National Concessionary Travel Scheme. Increasing bus frequency would therefore contribute highly positively towards reducing inequalities for a range of groups with protected characteristics.	

5.4.8 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The option would make a highly positive contribution to several of the Strategy Objectives. Low bus service frequencies and short operating days are a severely limiting factor for those living outwith larger settlements, distant from a railway line and without access to a car. Improving bus service frequency and, ideally, the length of the operating day would therefore make a major positive contribution to **SO3**.
- Increasing choice through expanding bus service frequency would also support the transition to a more environmentally sustainable transport system **(SO1)** and improve the quality and integration of public transport within the region **(SO4)**.
- From a STAG perspective, this option would facilitate mode shift from the private car, which would benefit to **climate change** and **environment** criteria. However, increasing bus frequencies to reduce wait times may increase CO_2 and NO_x emissions, which could reduce the benefit of mode shift if a hydrocarbon fuelled bus is used. The extent to which this is the case would need to be determined on a case-by-case basis.
- For islands **(SO5)**, higher frequency bus services would reduce the need to take a car on the ferry, alleviating capacity pressures and reducing the cost burden on island residents. Moreover, it would improve the ability to make intra-island journeys by public transport, including chained trips using bus and ferry, e.g., travelling from Balivanich to Stornoway for a medical appointment.
- Improved bus service frequency would have a major positive impact on **equality and accessibility**. It would allow those without access to a car to have greater equivalence of access to employment, education, health, leisure etc. It would also provide HITRANS region residents with increased opportunities to use the National Concessionary Travel Scheme more frequently, helping to tackle transport poverty in the region.
- By bringing settlements within the region 'closer' together, this option would have a moderate **economy** benefit in conventional TEE terms (in relative terms at least). However, it would also have a positive wider economic impact through better connecting jobs and labour, in particular creating opportunities for shift work or a conventional 09:00-17:00 job for which there are no suitable services currently.
- Given a significant proportion of bus travel from the most remote areas is also for health purposes, this option could be expected to have a positive **health and wellbeing** impact.
- Clearly, the key challenge in relation to this option is again **affordability**, and indeed it represents a much larger ramp-up in provision than Option 3A. There would also be a **deliverability** challenge given emerging bus driver shortages and recruitment difficulties, as well as ensuring that sufficient vehicles are available.

Recommendation: Very low bus service frequencies and short operating days are a major cause of car dependency in the HITRANS region. Addressing this would require a significant scaling-up of bus service frequency and length of operating day. This option should be **considered further in the RTS**.

Option 3C: DRT or EDRT to enhance fixed routes

5.4.9 Demand Responsive Transport (DRT) is a flexible bus service which operates according to demand. There are several DRT operating models with various degrees of flexibility, with some operating a semi-fixed route and fixed timetable and others zonally based with no fixed start or end point. Providers include the public sector and charities. Reflecting the commercial challenges of delivering scheduled bus services to areas of low and sometimes very low population density, DRT has been a long-term feature of the transport network in the HITRANS region. There are several well-established operators include Dial M in Moray and the Badenoch and Strathspey Community Transport Company.

5.4.10 More recently, 'Enhanced' DRT services have emerged, which are technology-led DRT solutions using an app-based booking system, direct messaging, dynamic vehicle scheduling, and GPS vehicle tracking. Transport for Wales has been developing and deploying this model through their Fflecsi scheme in recent years and now offer it in eleven areas of the country. This includes rural areas where population density is low, such as Pembrokeshire, the Conwy Valley and the Llŷn Peninsula.

5.4.11 DRT and Enhanced DRT could provide public transport solutions across the region where there is insufficient demand or funding to justify a traditional timetabled bus service or a timetabled bus service at a meaningful level of frequency. The focus of this option is therefore the provision of additional DRT services or the introduction of an EDRT service in areas where there is currently no fixed timetable route or where the fixed timetable route operates at a low frequency. It is assumed here that no fixed-route services would be removed with the introduction of the (E)DRT, but this could be a cost saving option.

Option 3C	DRT or EDRT to enhance fixed routes				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×/✓	×/✓	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×/✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓
	Fairer Scotland Duty				✓

Option 3C	DRT or EDRT to enhance fixed routes	
	Child Rights and Wellbeing Duty	○
	Island Communities Impact Assessment	✓
	Increased availability and capacity of (E)DRT services would be beneficial for many people with protected characteristics and groups in each of the equalities frameworks as they would be provided with enhanced connectivity from a flexible bus service. It would though be important to ensure that access to EDRT services did not exclude equalities groups either through lack of familiarity with technology-based solutions or lack of internet / mobile coverage.	

5.4.12 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The (E)DRT concept aligns well with the Strategy Objectives as it would deliver an improvement in regional public transport connectivity **(SO3)** and, by virtue of its flexibility, support improved integration within and between modes **(SO4)**. This could be especially beneficial for island communities (particularly small island communities), supporting **SO5**.
- This option could result in a negative or positive impact with respect to **SO1** and the **climate change** and **environment** criteria. On the one hand, it could lead to reduced emissions if there is modal shift to public transport. On the other hand, it may lead to an increase in emissions if vehicle kilometres increase. The extent to which this is the case would need to be determined on a case-by-case basis.
- There would be a moderate benefit in terms of **equality and accessibility** as this option would enhance access for those in isolated locations where public transport connectivity is particularly poor, with corresponding high transport costs and affordability issues. This would result in enhanced access to employment, education, healthcare and leisure opportunities which in turn could result in a wide range of **economic** and **health, safety and wellbeing** benefits, including reduced social exclusion, enhanced independence, and better health outcomes. For EDRT, there is though a risk that some groups may be excluded from app-based approaches and a phone-based booking system could still be required.
- Delivering additional DRT services would likely require substantial subsidy and there may therefore be issues with **affordability**. This would be an even more prevalent issue with an EDRT approach, where capital expenditure and ongoing operating costs would be required to set-up and maintain the back-office systems. It should be noted that Aberdeenshire Council has recently discontinued its EDRT pilot due to concerns around the financial sustainability of the scheme.
- From a **deliverability** perspective, whilst there is a sufficient number of bus drivers to deliver current bus services, securing the required drivers to deliver any additional (E)DRT services may be challenging.

Recommendation: DRT has proven itself to be an integral component of the transport system in the HITRANS region over many years, whilst EDRT is emerging as an effective (if occasionally expensive) means of serving sparsely populated areas elsewhere in the UK. This option should therefore be **considered further in the RTS**.

Option 3D: DRT or EDRT to replace fixed routes

5.4.13 This option is similar to Option 3C above, but the focus here is the introduction of additional DRT or EDRT services ***in place*** of existing fixed route services where there is the potential for (E)DRT to provide an equivalent or enhanced level of service.

Option 3D	DRT or EDRT to replace fixed routes				
STAG Criteria	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility
	×/✓	×/✓	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×/✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	Increased availability and capacity of (E)DRT services would be beneficial for many people with protected characteristics and groups in each of the equalities frameworks as they would benefit from enhanced connectivity from a flexible bus service. It would though be important to ensure that access to EDRT services did not exclude equalities groups either through lack of familiarity with technology-based solutions or lack of internet / mobile coverage.				

5.4.14 The benefits of this option would be broadly equivalent to Option 3C above. However, there may be issues with **public acceptability** where an (E)DRT service is introduced to replace an existing fixed timetable service due to concerns / perceptions that the level of service provided would fall below that of the removed fixed timetable service. This option would though be lower cost than Option 3C as it would replace rather than supplement existing routes.

Recommendation: This option should be **considered further in the RTS**. However, the benefits or otherwise of replacing any fixed link bus service with an (E)DRT service would need to be assessed on a case-by-case basis to ensure no diminution in connectivity or service.

Option 3E: Reduce rail journey times

5.4.15 Rail journey times across the HITRANS region are long, with average speeds much slower than in the Central Belt and indeed much of the UK generally. This is largely a product of the very limited physical infrastructure – even the Highland Mainline between Inverness and Perth is almost entirely single track – and, in some cases such as the Far North Line, physical constraints imposed by the terrain e.g., major river firths.

5.4.16 The consequence of these journey times is that the train is uncompetitive with the car for many journeys, for example Glasgow Queen Street – Fort William and Inverness – Wick / Thurso. Rail typically enjoys significant journey time advantages for long-distance inter-urban

connections (e.g., Edinburgh – London, Manchester - Cardiff etc) but the road-based journey times from Inverness to Aberdeen, Edinburgh, Glasgow and Perth are all competitive with rail. Long journey times are compounded by low frequency, often making the train unattractive for time critical journeys.

5.4.17 This option is therefore focused on reducing rail journey times between settlements within the region and between the region and the Central Belt (as a proxy for all other destinations). In most cases, journey time improvements can only be delivered through investment in e.g., track, signalling etc, but there are more modest improvements such as automating request stop calls which could be implemented to reduce journey times or improve journey time reliability.

Option 3E	**Reduce rail journey times**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓✓	✓	✓✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓
	Reduced rail journey times would improve connectivity to a range of opportunities, better connecting settlements within the region and indeed the region to the Central Belt. It would improve opportunities for both long distance travel and the ability to use the train for e.g., travel to school. It would also reduce overall journey times for island residents connecting with onward rail services. This would benefit a range of equalities groups.				

5.4.18 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- A reduction in rail journey times would make a major positive contribution to **SO3**, particularly in terms improving connectivity to Inverness and the Central Belt. With the exception of tourists keen to enjoy the scenery, slow journey times can contribute to an overall perception of poor quality and peripherality, and thus reducing them would have a positive impact with regards to **SO4**.
- Faster rail journey times also offer an opportunity to reduce emissions **(SO1)** and the harmful effects of road transport through mode switch, thus contributing to the **environment** and **climate change** criteria. This is particularly the case for long-distance

travel to Aberdeen, the Central Belt and beyond, where rail does not currently enjoy the journey time advantage that it does over road elsewhere in the country.

- Reduced rail journey times would contribute to both the STAG **economy** and **equality and accessibility criteria**. Improving journey times to Inverness (i.e., from Kyle of Lochalsh, Thurso and Wick) and to Aberdeen and the Central Belt would enhance the regional economy and access to opportunities elsewhere in the country.
- Improvements to the rail network would engender a high level of **public acceptability**, and indeed improvements to the Highland Mainline are included within STPR2 (whilst there is an ongoing programme of work on the Aberdeen – Inverness Line). Major reductions in rail journey times will however be expensive to deliver and will require investment from national government if they are to be **affordable**.

Recommendation: This option presents an important opportunity to transfer journeys from road to public transport, particularly for long-distance trips. Improvements to the Aberdeen – Inverness Line and the Highland Mainline already have the support of Transport Scotland and thus this option should be **considered further in the RTS**.

Option 3F: New railway stations

5.4.19 HITRANS has a strong track record in delivering new railway stations which support the local travel needs of communities, with good examples of this being Beauly and Conon Bridge stations. There are several such proposals in the pipeline at present including Evanton, Faslane (for H.M. Naval Base Clyde), Torlundy (for the settlement and Nevis Range) and Carr's Corner (for Lochaber High School and Fort William). Given that, in many parts of the region, the train plays an essential role in supporting local bus services (or acting as the 'local bus service'), there is a case for exploring new railway stations in the RTS.

5.4.20 Given the generally low travel volumes, it is important that any such stations are delivered in a proportionate manner that minimises costs. For example, Beauly and Conon Bridge were both delivered with short platforms at which only one set of carriage doors can open. This was however entirely appropriate for the level of demand and ensured that a viable outcome could be realised.

Option 3F	New railway stations				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×/✓	×/✓	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓

Option 3F	New railway stations	
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	○
	New railway stations improve travel opportunities for communities and support a range of essential travel purposes, including journeys to employment, education and health. They would be of benefit to all equalities groups providing that they are accessible to all.	

5.4.21 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Whilst the impacts of new stations will always be largely local in nature (particularly in the context of the HITRANS region), they would contribute towards reduced emissions **(SO1)**, improved connectivity **(SO3)** and improved quality and integration **(SO4)**. An important opportunity in this respect is to ensure that travel by public transport is 'locked-in' to new developments, as will be the case with Inverness Airport Station relative to the new development at Tornagrain.
- The performance of this option against the STAG criteria largely reflects its contribution to the objectives. New railway stations can support mode shift (**climate change** and **environment**), improved **equality** of access to services and **economy** benefits associated with reduced journey times, new journey opportunities and development. However, a new station could be an environmentally intrusive construction project and would incorporate significant embodied carbon, whilst also generating additional construction vehicle kilometres. The balance of embodied carbon versus vehicle emissions reductions would need to be determined on a case-by-case basis.
- To be both **affordable** and **deliverable**, new stations must be designed in a proportionate manner, reflecting the markets that they serve.

Recommendation: HITRANS has demonstrated the wide range of benefits that can be delivered through realising new stations in a proportionate manner. This option should therefore be **considered further in the RTS**.

Option 3G: New heavy rail routes

5.4.22 Much of the structure of the UK economy and the spatial distribution of the population in the modern day can be traced back to the advent of the railway in 1825, and in particular the 'railway mania' period of the 1840s when the network expanded exponentially. The network in Argyll and Bute, Moray and Highland is no different, emerging as it did to serve interests as varied as fishing, the Royal Navy and leisure travel to landed estates. The reopening of the Borders Railway in 2015 has highlighted the benefits that new lines can bring to rural areas and this option therefore considers new heavy rail routes in the HITRANS region.

5.4.23 It is important to note that, given both the topography of the region and low population densities, there are few live and realistic propositions for new heavy rail routes at present. STPR2 considered a link between the Highland Mainline and the West Highland Line, whilst there has been a long-term local campaign for the Dornoch Rail Link, which would significantly reduce end-to-end journey times on the Far North Line through a new crossing of the Dornoch Firth. The principle of new lines does however remain, even if it is a very long-term proposition. New spur lines into rail freight sites also remain a shorter term proposition.

Option 3G	New heavy rail routes				
STAG Criteria	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility
	××/✓✓	× / ✓✓	✓✓	✓✓✓	✓✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓✓
	Island Communities Impact Assessment				○
	New railway stations improve travel opportunities for communities and support a range of essential travel purposes, including journeys to employment, education and health. They would be of benefit to all equalities groups providing that they are accessible to all.				

5.4.24 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows (it should be noted that, without specific propositions to consider, this option is reported in the generality):

- New heavy rail routes would evidently contribute strongly to the Strategy Objectives through creating an entirely new connection. There would be particular benefits in relation to **SO1**, **SO3** and **SO4**
- Whilst a new railway line could have highly positive **climate change** and **environment** benefits, it would also involve physical works which would be environmentally intrusive. This would increase to a major disbenefit if such a scheme impacted on e.g., the Cairngorms National Park or the many protected sites around the region. Any new line would also include embodied carbon and would generate construction related vehicle kilometres. The balance of embodied carbon / additional construction vehicles emissions versus vehicle emissions reductions during operation would need to be determined on a case-by-case basis.
- Again, a new railway line could be expected to contribute strongly to the **economy** and **equality and accessibility** criteria within STAG with respect to supporting growth and the redistribution of economic activity to / within the area. It should though be noted in relation to the **economy** criterion that it is highly unlikely that any new railway line in the HITRANS region would return a positive Net Present Value or Benefit-Cost Ratio.
- Any new railway line would face significant **affordability** and **deliverability** issues, and potentially **public acceptability** issues depending on its environmental impacts.

Recommendation: There are few realistic prospects of new heavy rail routes at present (i.e., with a supporting STAG / well-developed business case). Any new heavy rail route would therefore be a very long-term proposition and certainly beyond the period which the new RTS will cover. This option **should not therefore be considered further in the RTS**.

Option 3H: Increased rail service frequency

5.4.25 Rail service frequency within and to / from the HITRANS region is low across the board, in part due to the operational constraints imposed by the infrastructure. Whilst **Option 3E** seeks to deliver infrastructure improvements that would support increased frequency, it is important to recognise that there are revenue-based measures which could make more modest but immediate improvements to service frequency. HITRANS has demonstrated a successful track-record in this respect having played a lead role in establishing the highly successful 'Invernet' commuter services in the Inverness area. They are also currently exploring the case for improved cross-Fort William services to enhance travel opportunities for residents, visitors and school travel.

5.4.26 Within this option, it is also important to recognise that rail travel behaviour has evolved as a result of the COVID-19 pandemic, with a reduction in commuting and a growth in leisure travel. The picture does of course vary geographically but the HITRANS region is likely to be one where there are opportunities to support the growth in leisure and visitor traffic through improvements to rail service frequency, particularly on Sundays and public holidays (and potentially in the peak summer months).

Option 3H	Increased rail service frequency				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓✓	✓	✓✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓✓
	Island Communities Impact Assessment				✓
	Improved rail service frequency would improve connectivity to a range of opportunities, better connecting settlements within the region and indeed the region to the Central Belt. It would improve opportunities for both long distance travel and the ability to use the train for e.g., travel to school. Improved frequency at weekends and on public holidays would				

Option 3H	Increased rail service frequency
	be particularly beneficial as bus-based connections can be extremely limited or not operate at all on these days. Additional services would be of benefit to all equalities groups providing that they are accessible to all.

5.4.27 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Improved rail service frequency would make a moderate positive contribution to **SO3**, particularly in terms improving connectivity to Fort William, Inverness and the Central Belt. This could potentially be increased to a 'major benefit' if it made a meaningful improvement to frequency on Sundays and public holidays.
- The long wait times between services combined with slow journey times can contribute to an overall perception of poor quality and peripherality - increasing frequency would therefore have a positive impact on **SO4**.
- Increased rail service frequency also offers an opportunity to reduce the harmful effects of motorised transport through mode switch and would contribute to the **climate change** and **environment** criteria. Increased frequency would also contribute to the STAG **economy** criterion through enhancing the local and regional economy by improving access to employment, education and business opportunities, as happened with the development of the 'Invernet'.
- From an **equality and accessibility** perspective, increased rail service frequency would to some extent reduce the peripherality of both: (i) the HITRANS region overall, through providing increased opportunities to travel by rail to Aberdeen and the Central Belt; and (ii) rural settlements adjacent to the main railway lines within the region, through improving connectivity to regional service centres such as Elgin, Fort William, Inverness, Wick and Thurso. This would particularly be the case If services on Sundays and public holidays were improved.
- Improvements to rail service frequency would engender a high level of **public acceptability**, particularly where 'meaningful' connections could be delivered, e.g., providing a half-day in Inverness or supporting school travel in Lochaber. There would be a revenue cost associated with operating additional services as fares revenue is unlikely to cover marginal cost, so **affordability** would be a challenge.

Recommendation: This option presents an important opportunity to transfer journeys from road to public transport and to improve the connectivity of rural communities adjacent to the region's railway lines. It should therefore be **considered further in the RTS**.

Option 3I: Discounted / quota taxi journeys

5.4.28 It is not always feasible to provide public transport services to meet the needs of all users. In some isolated locations, public transport provision may be limited, and it may not be possible to make the journeys or make them at the time of day required. This can mean people are dependent on private cars or taxi services which can result in high costs. This in-turn can lead to restricted access where transport services become unaffordable.

5.4.29 Introducing discounted or quota taxi journeys may offer an alternative as an affordable transport solution for those who need it and have no alternative due to a lack of transport options.

Option 3l	Discounted / quota taxi journeys				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	×	✓✓	✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	Discounted or quota taxi systems have the potential to improve accessibility in remote locations. Where provision enhances connectivity, it is predicted there would be benefits for some people with protected characteristics and potentially other groups in the equalities frameworks.				

5.4.30 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would make minor contributions to **SO3** through widening access to shared transport, although the impacts would be at the margin to some degree.
- The option could result in minor negative impacts with respect to the **climate change** and **environment** criteria as it may lead to additional journeys being made which would not have been made otherwise. Conversely however, there could be a minor **economic** benefit as a result of people being able to actively participate in the labour market who were previously unable to do so due to a lack of transport options.
- There would be a moderate benefit in terms of **equality and accessibility** as the option would enhance access for those in isolated locations where public transport connectivity is particularly poor resulting in high transport costs and affordability issues. This would result in enhanced access to employment, education, healthcare, and social opportunities. There would be **health, safety and wellbeing** benefits in the form of improved access to health and wellbeing infrastructure and better health outcomes.
- In terms of **feasibility** and **affordability**, discounted taxis / quotas for taxi journeys would require a public sector subsidy to implement and thus a procurement architecture would need to be developed around this.

Recommendation: It is recommended that this option should be **considered further in the RTS**.

5.5 Strategy Theme 4: Improving the integration, quality of and access to public and shared transport

5.5.1 This Strategy Theme is focused on improving both interchange between modes, which is a prevalent feature of travel within the region, and the quality of journeys which are offered. The options appraised under this theme are as follows:

- **Option 4A:** Introduce a single and easily recognisable brand for transport and travel in the HITRANS region
- **Option 4B:** Improve access to public transport for those travelling with a bicycle
- **Option 4C:** Improve bus-to-bus integration
- **Option 4D:** Improve bus / rail integration
- **Option 4E:** Improve bus / ferry integration
- **Option 4F:** Improve bus / air service integration
- **Option 4G:** Improve the quality of facilities at bus stations and bus stops
- **Option 4H:** Improve access to and the quality of the onboard experience on existing buses
- **Option 4I:** Improve rail / ferry integration
- **Option 4J:** Improve access to and the quality of the on-train experience
- **Option 4K:** Improve the quality of facilities at railway stations
- **Option 4L:** Improve access to and the quality of ferry services
- **Option 4M:** Improve physical access to inter-island air services
- **Option 4N:** Improve the customer experience for those less able
- **Option 4O:** Improve public transport information
- **Option 4P:** Improve ferry-to-ferry and ferry-to-air integration
- **Option 4Q:** Improve digital coverage in the region
- **Option 4R:** Increase the number of disabled parking bays
- **Option 4S:** Improve the quality and safety of taxi travel
- **Option 4T:** Mobility hubs

Option 4A: Introduce a single and easily recognisable HITRANS brand for transport and travel in the region

5.5.2 A strong, coherent and consistent brand is important in attracting people to use active travel and public transport. The market leading example of this is of course Transport for London, which has adapted the ubiquitous London Underground roundel to cover all modes of transport in the city, with a different colour palette being used for different modes. The development and application of consistent branding has assumed increasing prominence in recent years with, for example, the development of the 'Bee Network' in Greater Manchester and the significant recent extension of the Transport for Wales brand.

5.5.3 Over the duration of the previous RTS period, HITRANS has implemented several initiatives to develop a region-wide brand. These have included physical projects such as the installation of HITRANS bus shelters and bus timetable leaflets as well as more recent technology

measures like the GO-HI app. There is scope for HITRANS to expand this brand recognition (in partnership with its constituent local authorities and the Cairngorms National Park), providing a degree of commonality for travel branding and information across the region. This would help bring consistency and ensure quick identification for passengers. Consistent branding could also be used across all travel information and timetables, including the GO-HI App, other web-based sources and paper-based information.

Option 4A	**Introduce a single and easily recognisable HITRANS brand for transport and travel in the region**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	○	✓	○
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				○
	Fairer Scotland Duty				○
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				○
	Consistent branding of transport services may aid identification of public transport for some equalities groups (and visitors) but is not predicted to have material equalities impacts.				

5.5.4 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The main benefit of this option is that it would improve the recognition and understanding of the public transport and active travel network in the region, making it easier to access and use services and to travel without a car **(SO1-SO4)**.
- There is potential for positive benefits with respect to the **climate change** and **environment** criteria where the option results in modal shift away from the car. This is particularly the case where lack of familiarity with the public transport network is a barrier to its use.
- There would also be **economic** benefits associated with people making trips they otherwise would not have made / did not realise were possible.
- The key challenge in relation to this option is **deliverability** – designing, procuring, implementing and maintaining all aspects of the brand to a consistent standard would be challenging given the small size of the organisation (a dedicated team would need to be formed), the geographic expanse of the region and the range and diversity of operators.

It would also be important not to cut across established brands such as Caledonian MacBrayne, ScotRail and the Caledonian Sleeper, otherwise there is an *increased* risk of confusion for the customer. With such complexities, establishing and maintaining a region-wide brand could also have **affordability** challenges.

Recommendation: Almost all public transport services in the region are operated by recognised brands, including national brands such as ScotRail and Caledonian MacBrayne. The role of HITRANS is perhaps more to provide a common repository for travel information rather than to act as an overt brand for services. This option **should not therefore be considered further in the RTS**.

Option 4B: Improve access to public transport for those travelling with a bicycle

5.5.5 As well as the core cycling market, there is an influx of bicycle-based visitors to the HITRANS region in the summer months. However, cycling provision at public transport interchanges is patchy outwith the main settlements, whilst the bus fleet and rail rolling stock used in the area is not always conducive to carrying a bicycle (although foldable bicycles can be more readily accommodated). Moreover, information on cycle parking, booking etc is often non-existent or out-of-date. This option is therefore focused on improving both information provision and access to public transport for those travelling with a bicycle.

Option 4B	**Improve information provision and access to public transport for those travelling with a bicycle**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓
	Uncertainty over the ability to park a bicycle at a transport interchange or to take it onto a bus or train limits the scope for connecting active travel journeys. This fosters increased dependence on the car for short connecting journeys that could easily be cycled, imposing a cost on households. It may also act as a barrier for those with a protected characteristic, who may be less confident turning up for a train / bus without absolute				

Option 4B	Improve information provision and access to public transport for those travelling with a bicycle
	certainty that they will not be denied carriage. This option would therefore have positive equalities impacts.

5.5.6 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- There is at present a significant barrier to taking a bike on the bus / train, limited or no cycle parking at many interchange points (bus stations / stops, railway stations, ferry terminals and airports / airfields) and out-of-date or incorrect information. This option would make a positive contribution to several of the Strategy Objectives, most notably **SO2** and **SO3**, through increasing opportunities to use a bicycle to connect with a public transport service.
- Promoting the bicycle as a means of access to bus, rail, ferry and air services would support several of the STAG criteria. Most notably, it would have positive **climate change**, **environment** and **health, safety and wellbeing impacts** if it reduced the number of short journeys or drop-offs / pick-ups at transport interchange points. It would also have an **equality and accessibility** benefit associated with widening non-car based access to public transport.
- From a **deliverability** perspective, it is likely that the greatest short-term benefits could be gained from focusing on increasing secure bicycle parking provision and ensuring that information for cyclists is up-to-date. Changes to the bus fleet and rail rolling stock are longer-term propositions, although it is important that HITRANS works with stakeholders to help specify future vehicle requirements. This is particularly the case for the railway, where Transport Scotland will control the specification for future rail rolling stock and where the turnover of vehicles is much longer-term (i.e., if not resolved in the next round of rolling stock replacement, this issue could remain unaddressed for circa 30-40 years).

Recommendation: This option should be **considered further in the RTS** as an important opportunity to encourage 'first' and 'last' mile trips to and from transport interchanges to be made by bicycle.

Option 4C: Improve bus-to-bus integration

5.5.7 As alluded to in Strategy Theme 3, many bus routes and networks in the HITRANS region are 'thin' – outwith the main settlements, services are generally infrequent and run over a short operating day. Another feature of bus travel is that interchange between bus services is often required when making a journey, including between local buses and long-distance coach services. This requirement to interchange is a major deterrent to travel by bus and thus this option is focused on improving bus-to-bus integration. A good example of where this is done well is in the Shetland Islands, where feeder buses from the smallest and most remote communities are timed to connect with trunk bus routes in both directions.

Option 4C	Improve bus-to-bus integration				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○

Option 4C	Improve bus-to-bus integration	
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.	✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓
	The requirement to change bus can act as a barrier to travel, particularly for those with certain protected characteristics. In particular, there is a risk of isolation or indeed being stranded as well as exposure to inclement weather when waiting for a connecting service. This option would seek to reduce these risks around bus-to-bus interchange and thus would be positive from an equalities perspective.	

5.5.8 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would make a moderate positive contribution to **SO3** and **SO4** by both widening access to public transport (by increasing the number of journeys that can realistically be made) and improving the quality of existing journeys. This in-turn would support increased use of the bus at the expense of the private car, supporting **SO1.**
- The **equality and accessibility** benefits of this option have been set out with regards to the equalities framework in the table above. It is though worth reiterating that the need to change buses can either prevent a journey being made altogether due to the length of the wait or deter a person with a protected characteristic from making that journey.
- Increased bus usage would also record a **climate change** benefit through encouraging mode shift. It would also support the **economy** of the areas affected and reduce journey times for individuals (the journey time savings would be captured through TEE).
- There would be a **health, safety and wellbeing** benefit from reducing the amount of time bus passengers have to wait between connecting services, particularly at isolated locations or where waiting provision is minimal and personal security may be a concern.
- It is important to acknowledge that this option would require a redesign of much of the bus network in the region, thus presenting a **deliverability** challenge. Added to this would be trying to influence the practices of commercial providers, particularly coach companies, who may be serving different market.

Recommendation: This option should **be considered further in the RTS** as a means of increasing bus market share in the HITRANS region.

Option 4D: Improve bus / rail integration

5.5.9 In much of the HITRANS region, bus and rail services compete for passengers rather than offering an integrated product that best meets the needs of passengers. Moreover, physical interchange is often sub-optimal and there is limited cross-operator ticket acceptance beyond

PlusBus schemes in Elgin, Fort William and Inverness. This option is therefore focused on measures to improve bus / rail integration.

Option 4D	Improve bus / rail integration				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓
	Improvements to bus / rail integration would open-up a wider range of travel choices for those in the region through reducing wait times between connecting services and addressing the cost barrier of switching between bus and rail (and vice versa). This would be particularly beneficial for those facing socio-economic disadvantage.				

5.5.10 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would make a moderate positive contribution to **SO3** and **SO4** by both widening access to public transport (by increasing the number of journeys that can realistically be made), improving the quality of existing journeys and reducing the cost of these journeys. This in-turn would support increased use of the bus at the expense of the car, supporting **SO1.**
- The **equality and accessibility** benefits of this option have been set out with regards to the equalities framework in the table above. Increased public transport usage would also record a **climate change** and **environment** benefit through mode shift and would support the **economy** of the areas affected (the journey time savings would be captured through TEE).
- There would be a **health, safety and wellbeing** benefit from reducing the amount of time bus passengers have to wait between connecting services, particularly at isolated locations or where waiting provision is minimal and personal security may be a concern.
- It is important to acknowledge that this option would have commercial **deliverability** challenges. These would include trying to influence the practices of commercial providers, particularly coach companies, who would want to serve long-distance markets

independently and also the development revenue allocation agreements for any shared tickets.

Recommendation: This option should **be considered further in the RTS** as a means of increasing bus and rail market share in the HITRANS region.

Option 4E: Improve bus / ferry integration

5.5.11 Across the HITRANS region, the market for ferry travel is dominated by residents and visitors alike travelling with a car. In many cases, taking a car is essential because the passenger is e.g., travelling with luggage or a pet or is seeking to bring goods back from the mainland. However, there is also a segment of the market which takes the car because the public transport connectivity at both ends is so poor that there is little choice but to do so. Low bus service frequency, long wait times, short operating days and the bus not being able to wait for a late running ferry all leads to a sub-optimal passenger experience. The focus of this option is therefore on improving bus / ferry integration.

Option 4E	Improve bus / ferry integration				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓✓
	The barriers to bus / ferry interchange can often lead to both island residents and visitors having little choice but to take a car, which has several equalities implications, including making journeys more expensive. This option would therefore support a range of positive equalities outcomes including widening choice and reducing the cost of travel.				

5.5.12 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- As noted, journeys to and from island communities are often made by taking the car on the ferry and can thus be less sustainable than an equivalent journey on the mainland. Moreover, the requirement to take a car significantly increases the cost of travel,

particularly on longer routes. Improvements to bus / ferry integration would therefore record a benefit in relation to **SO5**.

- This option would make a moderate positive contribution to **SO3** and **SO4** by both widening access to public transport (by increasing the number of journeys that can realistically be made) and improving the quality of existing journeys. This in-turn would support increased use of the bus at the expense of the private car, supporting **SO1** and the **climate change** and **environment** criteria**.**
- The **equality and accessibility** benefits of this option have been set out with regards to the equalities framework in the table above. It is worth reiterating however that this option would address both the cost and (on occasions) capacity challenges that island residents and visitors face when they are forced to make a journey by car. It would also support the **economy** of island communities by widening choice and reducing cost.
- Providing improved bus connections to ferry terminals would also reduce the prevalence of car-based pick-up and drop-off at ferry terminals, many of which are often in constrained sites and with traffic managements issues (e.g., Port Ellen, Oban etc). This option would therefore record a benefit in relation **health, safety and wellbeing.**
- There are several examples of good practice for providing high-quality bus connectivity to and from ferry ports. For example, HITRANS has in the past underwritten the cost of a coach from Ullapool to Inverness, which is operated if forecast passenger numbers are expected to exceed the capacity of the scheduled bus service which meets the ferry. However, such measures come at a cost, and thus **affordability** is a key issue which would have to be addressed if such measures were adopted more widely and regularly.

Recommendation: This option should **be considered further in the RTS** as a means of providing increased travel choice for island residents and visitors and reducing vehicle deck utilisation pressures on ferry services.

Option 4F: Improve bus / air service integration

5.5.13 Whilst a lesser issue in volume terms than connecting with ferry services, most travel to island airports and airfields is by car. This creates a range of pressures for the airport / airfield operator in terms of parking provision, but also adds to the cost of travel at several HIAL airports, where parking is charged. One of the reasons for this is that bus service provision is often limited – this can include long wait times, the first bus arriving after the first flight departure and the last bus leaving before the last flight arrival. This option would therefore involve improving bus and air service integration, specifically at island and rural airports and airfields.

Option 4F	Improve bus / air service integration				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓

Option 4F	Improve bus / air service integration	
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓
	Limitations with connecting bus services at island and rural airports / airfields can limit travel choices or impose a cost on those making a journey. Improving bus-based connections to airports and airfields would therefore support a range of positive equalities outcomes, including reducing the cost of travel for island residents and visitors.	

5.5.14 The benefits associated with this option would be largely similar to those associated with improving bus / ferry service integration. However, the scale of benefits would be much smaller given the lower overall volumes.

5.5.15 An example of best practice is the Kirkwall Travel Centre to Kirkwall Airport bus service, which is operated by Stagecoach on behalf of Orkney Islands Council. This service operates on a half-hourly basis and the departure of the last bus is ten minutes after the arrival of the last flight. Moreover, the bus is held for up to 20-minutes if the flight is late.

5.5.16 It should be noted that this option could give rise to concerns from the taxi industry for which hires to and from the airport are often a core part of their business.

Recommendation: This option should **be considered further in the RTS** as a means of providing increased travel choice for island residents and visitors when travelling by air.

Option 4G: Improve the quality of facilities at bus stations and stops

5.5.17 As would be expected given the diversity of the region, the quality of bus stops and stations varies enormously. There are many stops without appropriate infrastructure, including a complete lack of shelter / seating; shelter / seating which does not meet accessibility standards; and a lack of footways and dropped kerbs. A lack of or inaccessible shelters can be a particular deterrent to using the bus given the frequent inclement weather in the region, whilst a lack of accessible seating and / or dropped kerbs can prevent access for certain groups, such as persons of reduced mobility and older people. Where such groups are unable to travel by another mode, this can lead to social and economic exclusion. Similar issues can also arise due to security concerns where bus stops are in isolated or in locations which are not overlooked. This can be a particular concern for more vulnerable users, including women, older people, and those concerned about potential hate crimes.

5.5.18 The focus of this option is therefore to improve the quality and accessibility of waiting facilities at bus stations and bus stops across the region to ensure bus services are accessible to all members of society. This may include implementing a range of improvements, including the provision of dropped kerbs, footways, accessible shelters, lighting, and CCTV where appropriate.

Option 4G	Improve the quality of facilities at bus stations and stops				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓✓	✓	✓✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓
Equalities	Public Sector Equality Duty				✓✓✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓✓
	Island Communities Impact Assessment				✓
	Improvements to the quality and accessibility of bus stations and stops would directly benefit people with protected characteristics, particularly elderly people and those with disabilities and travelling with children.				

5.5.19 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would make a strong contribution across the Strategy Objectives. As well as widening access to public transport **(SO3)** and improving its quality **(SO4)**, it also would improve safety **(SO6)** and access to the bus by active modes **(SO2)**, contributing to the growth of bus travel and thus reduced emissions achieved through mode shift **(SO1, climate change and environment)**.
- There would be a major benefit in terms of **equality and accessibility** as this option would enhance access for those in society who may otherwise have been excluded from using public transport / travel more generally. This would result in enhanced access to employment, education, healthcare, and social opportunities, which would support the **economy** of the areas affected. There would also be **health, safety and wellbeing** benefits in the form of improved security and better access to health and wellbeing infrastructure and thus health outcomes.

Key Point: The variation in the quality of and facilities at bus stations and bus stops across the region is a potential barrier to travel, particularly for those with a protected characteristic. This option should therefore be **considered further in the RTS**.

Option 4H: Improve access to and the quality of the onboard experience on existing buses

5.5.20 As with waiting facilities, the quality of bus vehicles across the region is very mixed, which has an impact on both access to the bus and the quality of the journey. As is common across most of the UK, all vehicles in the region are privately owned, with operators providing a mix of commercial and contracted services. The variation in operators across the region is particularly stark from small 'one-man band' operators through to successful local firms such as Shiel Buses and national operators such as Stagecoach.

5.5.21 As much of the network is operated in highly rural areas where there are no emissions controls, older buses cascaded from city centre networks are also often used.

5.5.22 Security on board public transport services can also be a concern for some users, particularly given the low passenger volumes on some services. As above, such issues can be a particular concern for more vulnerable users, including women, older people, and those concerned about potential hate crimes.

5.5.23 The focus of this option is therefore to improve the quality and accessibility of existing vehicles in order to provide a high-quality service and ensure the bus network is open to all members of society.

Option 4H	**Improve access to and the quality of the onboard experience on existing buses**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓	✓	✓✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓✓
	Island Communities Impact Assessment				✓✓
	Improvements to the quality and safety of bus vehicles would directly benefit people with protected characteristics, particularly elderly people and those with disabilities and				

Option 4H	Improve access to and the quality of the onboard experience on existing buses
	travelling with children. There would also be beneficial impacts for people using bus services across the equalities frameworks.

5.5.24 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option is predominantly focused on improving the quality of bus travel across the region and it thus contributes most strongly to **SO4**. By addressing specific barriers to using bus services, this option would also contribute to **SO3**.
- There would be a major benefit in terms of **equality and accessibility** as the option would enhance access for those in society who may otherwise have been excluded from using public transport / travel more generally. This would result in enhanced access to employment, education, healthcare, and social opportunities, which would support the **economy** of the areas affected. There would also be a **health, safety and wellbeing** benefit in the form of improved on-bus security.
- Given the commercial nature of vehicle provision, public subsidy would be required if change is be delivered. This could take the form of grants for new vehicles (although this would need to be delivered within the confines of the Subsidy Control Act 2022) or funding new vehicles through the contracting process. Both measures would come at a cost for the public sector and thus could raise **affordability** challenges.

Key Point: The variation in the quality of bus vehicles across the region is a potential barrier to travel, particularly for those with a protected characteristic. This option should therefore be **considered further in the RTS**.

Option 4I: Improve rail / ferry integration

5.5.25 The railway network connects with sailings from several of the main ferry ports in the region – Wemyss Bay (Bute), Gourock (Cowal), Oban (Inner Hebrides and Barra), Mallaig (Skye, Small Isles and South Uist) and Aberdeen and Thurso (Orkney Islands). Connecting travel by rail is popular amongst both island residents and visitors as journey times are generally shorter than travelling by bus and several of the journeys are very scenic. However, as with bus / ferry integration, the connections are such that it is not an option for many residents, thus taking the car on the ferry becomes the preferred option. The focus of this option is therefore on improving rail / ferry integration.

Option 4I	Improve rail / ferry integration				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓✓	✓✓	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓

Option 4I	Improve rail / ferry integration	
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓✓
	The barriers to rail / ferry interchange can often lead to both island residents and visitors having little choice but to take a car on the ferrt, which has several equalities implications, including making journeys more expensive and reducing available ferry capacity for essential short notice travel. This option would therefore support a range of positive equalities outcomes through widening choice and reducing the cost of travel.	

5.5.26 The performance of this option against the Strategy Objectives and STAG criteria is broadly similar to that of **Option 4E: Improve bus / ferry integration,** except that the increase in rail usage would not create the marginal emissions which would be generated by operating additional bus services. However, it is important to acknowledge that the physical constraints of the railway lines in the HITRANS region combined with the constraints imposed by the Central Belt end of the routes makes it difficult to fundamentally change rail services from ports, particularly on the West Highland and Far North Lines.

Recommendation: This option should **be considered further in the RTS** as a means of providing increased travel choice for island residents and visitors and reducing vehicle deck utilisation pressures on the ferry services. It is though important to acknowledge the significant challenges of scaling-up or retiming rail services to / from ports in the region.

Option 4J: Improve access to and the quality of the on-train experience

5.5.27 Whilst the HITRANS region offers some of the most scenic rail journeys in the world (which are popular with visitors as an attraction in their own right), the quality of the on-train experience is variable. Services on the Highland Mainline and Aberdeen – Inverness Line are often operated by Class 158 or 170 diesel multiple unit stock more suited to urban routes or shorter distance regional routes or 1970s-built (although significantly refurbished) HST stock.

5.5.28 On the West Highland and Far North Line, services are operated by 1980s built Class 156 or 158 stock. These units, particularly Class 156 trains, are not ideal for the length of the journey and offer limited space for e.g., bicycles, luggage etc (although the addition of modified Class 153s for cycle carriage has addressed this issue to some degree).

5.5.29 On train-provision in terms of e.g., catering, toilets, wi-fi etc is also often less than would perhaps be expected relative to the length of the journey, particularly for visitors who will naturally make comparisons with services in other countries.

5.5.30 This option is therefore focused on improving the quality of the on-train experience, and in particular reflects the opportunity to develop a new rural rolling stock specification as the Class 15x stock approaches the end of its economic life.

Option 4J	Improve access to and the quality of the on-train experience				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓✓	✓✓	✓✓	✓	✓

Option 4J	Improve access to and the quality of the on-train experience	
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.	✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.	✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.	✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	✓✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓
	Improvements to access to and the quality of the on-train experience would have positive equalities impacts. The scale of benefits would likely be less than an equivalent intervention in the bus market however as the gap between current practice and standards is wider in that industry.	

5.5.31 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The quality of the on-train experience in the HITRANS region – and in particular on the more scenic lines – is often below that which would perhaps be expected. This option would therefore make a major positive contribution to **SO4**.
- The provision of new rolling stock would specifically support: **SO1** (and by extension the **climate change** and **environment** criteria), in terms of replacing fully diesel units with a 'green' traction solution such as bi-mode or hydrogen trains; **SO2** and **SO3** through developing bespoke 'rural' units to run the service; and **SO6** through replacing old rolling stock with modern reliable units.
- Improvements to the quality of the on-train experience would have **equality and accessibility** benefits and would also provide an opportunity to maximise the tourism benefits of the scenic lines in the region, supporting the **economy** criterion. Reduced emissions delivered by a 'green' traction solution would also have public **health** benefits.
- The delivery of new rail rolling stock during the RTS period will in all likelihood be essential given the age of the current units and if emissions reductions targets are to be met.

Recommendation: Improving access to and the quality of the on-train experience will be important in maximising the benefits that rail travel can bring to the region. In particular, the opportunity to introduce new rolling stock as the current units reach the end of their economic life is an important one. This option should therefore **be considered further in the RTS**.

Option 4K: Improve the quality of facilities at railway stations

5.5.32 The HITRANS region incorporates a diverse set of railway stations, ranging from conventional city and town centre stations such as Inverness and Elgin to small unmanned rural halts such as Beasdale and Scotscalder. By dint of this, facilities and manning levels also vary significantly. In most cases, the level of facilities provided is proportionate to patronage. Nonetheless, facilities at several stations are sub-optimal, particularly in terms of level access to both the platform and the trains. In addition, rural stations can also feel isolated and passengers can on occasions have long waits with limited facilities. This option is therefore focused on improving the quality of facilities at railway stations.

Option 4K	Improve the quality of facilities at railway stations				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓	○	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				○
	Improvements to the quality of facilities at railway stations could be beneficial to those with a protected characteristic. This would particularly be the case for access improvements for those with a disability. It would also improve personal security at isolated stations.				

5.5.33 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The key benefit that this option could realise is improving access for all to stations across the region. The section of the West Highland Line between Fort William and Crianlarich in particular has several island platforms with stone chipping surfaces. Such stations are difficult (and for some impossible) to access. Improved travel information and security

would also make travel by rail more attractive. This option would therefore contribute positively to **SO2** and **SO4**.

- This option would also contribute positively towards **health, safety and wellbeing** and **equality and accessibility** for the reasons outlined above.
- Whilst this option is unlikely to have any impact with regards to the **environment** criterion, it is essential that any upgrade works at picturesque rural stations avoid creating an 'industrial' appearance (e.g., long steel walkways and prefabricated structures).
- There would **affordability / value for money** challenges associated with significant investment in very lightly used stations.

Recommendation: This option should be **considered further in the RTS** as a means of improving the physical accessibility and safety of railway stations across the region.

Option 4L: Improve access to and the quality of ferry services

5.5.34 Many of the ferries which ply the waters around the HITRANS region and the ports which accommodate them are old and fall well below modern accessibility standards, their continued operation protected by 'grandfather rights'. This issue is perhaps most extreme on lift-on, lift-off routes in Orkney (Graemsay, North Ronaldsay and Papa Westray) but can be found across the network. Passengers regularly experience having to board ferries over steep gangways and linkspans and face other obstacles onboard the vessels including steep stairs and door sills.

5.5.35 Passenger comfort on some routes (e.g., the CFL Gourock – Dunoon route) can be an issue for some, but it is a much less prevalent problem than physical access.

5.5.36 This option is therefore focused on improving access to and the quality of ferry services. To some degree, this issue will be naturally addressed by fleet and infrastructure turnover, but there may be a case for accelerating this in some instances.

Option 4L	Improve access to and the quality of ferry services				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓	○	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓

Option 4L	Improve access to and the quality of ferry services	
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓
	Access arrangements on many vessels and at several ferry terminals across the region can create a significant barrier to access, particularly for those with a disability or limited mobility. Providing level access to vessels and generally improving the quality of ferry infrastructure and services would therefore evidently be positive from an equalities perspective.	

5.5.37 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The key benefit that this option could realise is improving access for all to vessels and ferry terminals. Improved travel comfort would also be of benefit. Measures to improve these aspects of service quality would support **SO2**, **SO4** and **SO5**, with the most significant benefits likely to accrue where the problems are most stark, e.g., the aforementioned Lo-Lo routes; where passenger accommodation is below the waterline (e.g., Houton – Lyness / Flotta); and routes where passenger access is sub-optimal, e.g., the CFL Dunoon – Gourock route.
- This option would also contribute positively towards **health, safety and wellbeing** and **equality and accessibility** for the reasons outlined above.
- Whilst this option is unlikely to have any impact with regards to the **environment** criterion, it is important that any upgrade works at historic piers and harbours avoid as far as practically possible creating an 'industrial' appearance (e.g., long steel walkways to access ferries).

Recommendation: The process of improving access to and the quality of ferry services is already taking place as life-expired assets are replaced. However, the pace of this is perhaps too slow, whilst some areas have seen more investment than others. This option should therefore be **considered further in the RTS**.

Option 4M: Improve physical access to inter-island air services

5.5.38 Inter-island air services in the HITRANS region are exclusively operated by 8-9 seat single pilot Britten-Norman Islander aircraft (the exception being Stornoway – Benbecula, but that is part of a wider route network). These aircraft are ideally suited to the operating environment in the Inner Hebrides and the Orkney Islands but are challenging to access for Persons of Reduced Mobility – indeed, any passengers carried must be able to self-evacuate. This option would therefore seek to replace the Islanders with aircraft with improved accessibility.

Option 4M	Improve physical access to inter-island air services				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓	○	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○

Option 4M	Improve physical access to inter-island air services	
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓✓
	This option would make a highly positive equalities contribution, removing a physical barrier to travel for PRM and those with a disability. The alternative is often a long, uncomfortable and, on occasions, infrequent sea crossing.	

5.5.39 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The key benefit that this option could realise is improving access for all to inter-island aircraft, which would support **SO4**.
- This option would also contribute positively towards **health, safety and wellbeing** and **equality and accessibility** for the reasons outlined above. Moreover, one of the primary reasons for travelling by air from the islands is to access health services, and this option would clearly assist in this regard.
- It is important to note that there are significant **deliverability** issues associated with this option. The Islander aircraft is ideally suited to the Orkney and Inner Hebrides operating environment. Previous studies in Orkney and neighbouring Shetland have failed to identify any obvious short-term replacement aircraft type without the requirement for major capital investment and a ramp-up in subsidy. Therefore, the long-term replacement of the Islander is likely to be commercially driven, and at a much greater scale than for the HITRANS region alone.

Recommendation: Whilst the RTS supports the principle of improving physical access to inter-island air services, any such solution is likely to be commercially driven at a much greater scale than for the HITRANS region alone. It is therefore recommended that **this option is not considered further in the RTS**.

Option 4N: Improve customer experience for those less able

5.5.40 Accessing public transport services can be challenging for some users because of physical barriers. In addition, the tasks and experiences inherent in undertaking independent public transport travel can also pose challenges for particular groups in society, such as those with autism and cognitive impairments, such as dementia. Such issues can be particularly challenging for island residents for which the use of multiple modes of transport operating on irregular timetables may be required. This results in people either choosing to travel by car or not making journeys at all which in turn can limit their access to employment, education, and social opportunities as well as key services.

5.5.41 The focus of this option is therefore to enhance the customer experience for such users through enhanced staff training and the provision of a chaperoning service in order to widen access to public transport services.

Option 4N	Improve customer experience for those less able				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓✓	○	✓✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓
	Improvements to staff training and chaperoning would directly benefit people with protected characteristics, particularly elderly people and those with disabilities. There would be some wider beneficial impacts for other people using public transport services across the equalities frameworks.				

5.5.42 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option is predominantly focused on improving the quality of travel across the region for those less able and it thus contributes most strongly to **SO4**. By addressing specific barriers to travel, this option would also contribute to **SO3**.
- There would be a major benefit in terms of **equality and accessibility** as this option would enhance access for those in society who may otherwise be excluded from using public transport / travel more generally. There would also be a **health, safety and wellbeing** benefit for vulnerable passengers.
- From an **affordability** perspective, there would be a cost associated with training and funding escorts and chaperones.

Recommendation: Given the aging population across the region, it is important that transport staff are appropriately trained to ensure equal access for all to services. It is therefore recommended that this option is **considered further in the RTS**.

Option 4O: Improve public transport information

5.5.43 The range of modes (walking, wheeling, cycling, bus, rail, ferry and air), diversity of the geography and the number of public transport operators across the region can make journeys difficult to plan, particularly for visitors, who will be less familiar with the region. This option is therefore focused on improving hard copy, online and app-based public transport information in the HITRANS region.

Option 4O	Improve public transport information				
STAG Criteria	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility
	✓	✓	○	✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓
	Improved travel information, particularly if presented in an accessible format, would support a range of journeys, including for those with a protected characteristic.				

5.5.44 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Improved travel information, particularly where this is real-time, would support several of the Strategy Objectives by addressing barriers to travel which the lack of or out-of-date travel information presents. This would particularly be the case for **SO4** in terms of improving the quality and integration of public and shared transport.
- Improved travel information is also one of a package of measures which would support both mode shift and address some of the barriers to travel currently experienced. This option would therefore contribute to the STAG **climate change**, **environment**, **economy** and **equality and accessibility** criteria.

- It is important to note however that this is not a 'one-off' option rather it would require a long-term commitment from HITRANS and its partners to maintain up-to-date travel information in various formats.

Recommendation: High quality and up-to-date travel information can be the thread that weaves together different service-based options and should thus be an essential component of the new RTS. It is therefore recommended that this option is **considered further in the RTS**.

Option 4P: Improve ferry-to-ferry and ferry-to-air integration

5.5.45 For a small number of islands in the HITRANS region, there is occasionally a requirement or desire to make two over-water connections for journeys to the Scottish mainland. For example, those living in the isles of Orkney must travel through Orkney mainland to get to the Scottish mainland, whilst Jura residents travel via Islay. Similarly, some ferry passengers in the Outer Hebrides will use the Sound routes to connect with an onward service to the mainland, e.g., South Uist residents travelling to Oban via Barra. However, connecting ferry and air services often do not align well leading to long waits, frequent overnight stays or the decision not to make the journey at all. This option is therefore focused on improving the integration of ferry-to-ferry and ferry-to-air services where appropriate.

Option 4P	Improve ferry-to-ferry and ferry-to-air integration				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓✓✓
	Several island communities experience significant disadvantage associated with their requirement to make two connections to get to mainland Scotland. Whilst this option would not address the double-connection issue, it would reduce the time and cost implications for communities where wages are on average lower and the cost of living higher.				

5.5.46 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The primary benefit with regards to the Strategy Objectives is in relation to **SO5** – this option could provide a major benefit for island communities affected, particularly in terms of improving the affordability of travel.
- This would support reduced inequalities **(equality and accessibility)** and support the **economy** of these communities, many of which are amongst the most fragile in Scotland. In some circumstances, this option could also provide a better balance of supply and demand for ferry vehicle deck space (e.g., the previously referenced South Uist and Barra link).
- A significant proportion of travel from the aforementioned island communities to mainland Scotland is for specialist health purposes, and this travel demand may increase as the population ages. This option would therefore record a minor **health, safety and wellbeing** benefit.
- It should be noted that one of the reasons for the lack of integration between services is the short operating day of both air and ferry services. Any options that emerge from **Strategy Theme 5: providing connectivity that supports our island and peninsular communities** which extend ferry operating days would directly support the implementation of this option. Fixed links **(Option 5O)** would also assist in this respect.

Key Point: This option **should be considered further in the RTS** as a means of reducing the geographic and economic peripherality of several of Scotland's island communities.

Option 4Q: Improve digital coverage in the region

5.5.47 Over the last decade, digital connectivity has assumed an increasingly prominent role in transport and travel. From a customer perspective, this has taken the form of web and app-based travel information, electronic ticketing (e.g., smartcards, mobile tickets, car parking etc) and assistive technology such as Apple Car Play. For transport providers, the provision of travel information and ticket retailing has significantly shifted towards digital media, whilst wireless technology has become operationally essential, e.g., for bus ticket machines.

5.5.48 The expansion of digital connectivity is a national and indeed global trend. In order to take advantage of the opportunities offered, high-quality digital connectivity is essential, including 4G / 5G, wireless coverage, broadband speeds, radio and phone signal. By dint of its rural nature and sparse population, coverage in the HITRANS region varies enormously. In some of the most rural areas of the region, phone signal can be limited to a single provider, even 3G coverage is sparse and broadband speeds can be limited to ADSL (an old form of broadband with very low download speeds). Conversely, other areas have been used to pilot the likes of ultrafast broadband and 5G mobile networks. Whilst not directly a transport issue, patchy digital connectivity will limit the benefits of modern technology in the region and will cause inequalities and social exclusion where connectivity is at its poorest.

5.5.49 This option is focused on HITRANS working with its constituent local authorities and other bodies such as Highlands and Islands Enterprise to make the case for improving digital connectivity in the region. This could range from the expansion of mobile network and ultrafast broadband coverage to targeted interventions such as expanding the reach of the Scottish Government's 4G Infill Programme.

Option 4Q	Improve digital coverage in the region				
STAG Criteria	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility
	○	○	✓	○	✓✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○

Option 4Q	Improve digital coverage in the region	
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.	○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.	○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓✓✓
	Fairer Scotland Duty	✓✓✓
	Child Rights and Wellbeing Duty	○
	Island Communities Impact Assessment	✓✓✓
	This option would make a highly positive contribution to reducing inequalities through working towards consistency of digital provision across the region. It could be a particularly beneficial option for island communities, where digital coverage is often very poor.	

5.5.50 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- As alluded to above, improved digital connectivity would deliver a highly positive **equality and accessibility** impact – indeed, it has a key role to play in preventing new inequalities from arising as information and ticket retailing increasingly migrates towards digital platforms. For this reason, it would also contribute towards **SO1** and **SO3**, through improving the quality of public transport provision across the region, particularly in islands.
- There would also be a **health, safety and wellbeing** benefit for the region. When a person's car breaks down, weather impacts travel or a public transport connection is missed or cancelled, this can often be in extremely isolated areas. The ability to contact a breakdown company, the emergency services, a transport provider or family members is therefore crucial.
- From a **deliverability** perspective, HITRANS has no formal role in the provision of digital infrastructure. However, it is well-placed to communicate the needs of communities and coordinate the activities of its local authority members from a transport perspective.
- Whilst this option is specifically focused on the provision of new digital infrastructure to support travel, it is important to recognise that high-quality digital connectivity more generally offers opportunities for reduced travel. Where realised, this can have particularly positive impacts with respect to **climate change**.

Recommendation: Digital technology offers enormous potential benefits for the region, effectively reducing the barriers presented by physical distance and geographic features. However, its provision is patchy across the region and thus there is scope for existing inequalities to be perpetuated and new inequalities to emerge as digital platforms become increasingly integral to everyday travel. This option should be **considered further in the RTS** and should be focused on HITRANS making the case for increased investment in digital infrastructure in the region.

Option 4R: Increase the number of disabled parking bays

5.5.51 Whilst the RTS will generally have a presumption against new parking provision, it is important that an appropriate number of disabled parking bays are provided, particularly as the region's population is forecast to age. Disabled parking availability is of particular importance at 'honeypot' tourist locations if equitable access is to be enjoyed.

Option 4R	Increase the number of disabled parking bays				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	○	○	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				○
	This option would ensure that motorists with a disability are afforded equal access to opportunities.				

5.5.52 The principal benefit of this option is that it would reduce the disparity in **equality and accessibility** for motorists with a disability, supporting positive equalities outcomes for this protected characteristic.

Recommendation: It is recommended that this option is **considered further in the RTS** as a means of ensuring that those with a disability have equivalent access to parking as those without.

Option 4S: Improve the quality and safety of taxi travel

5.5.53 The taxi industry across the constituent HITRANS authorities is commercial in nature, with Councils fulfilling a licencing role. It is however an essential industry, providing connections to transport interchange points such as railway stations, ferry terminals and airports / airfields, whilst also providing connectivity where public transport is limited or non-existent. The focus of this option is therefore on expanding and enhancing the taxi fleet and progressively improving the safety of taxi travel, making it accessible to all users.

Option 4S	Improve the quality and safety of taxi travel				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓
Equalities	Public Sector Equality Duty				✓✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	Improvements to the taxi fleet, particularly to enhance accessibility and use by disabled people and others with protected characteristics, would have beneficial outcomes for some groups.				

5.5.54 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would contribute to widening access and improving the quality and safety of shared transport (**SO3**, **SO4** and **SO6**).
- There would be a moderate benefit in terms of **equality and accessibility** as this option would enhance access for those currently unable to access taxis or who experience difficulty accessing taxis. This would result in enhanced access to employment, education, healthcare, and social opportunities which in turn could result in **economy** and **health, safety and wellbeing** benefits.

- A key **deliverability** issue with respect to the taxi industry is the extent of change that can be driven by the public sector given that it is a commercially provided service. Whilst the licencing regimes of local authorities allow some control to be exerted, excessive regulation can lead to companies or individual drivers withdrawing from the market, reducing supply. This would create its own connectivity and equalities issues.

Recommendation: The taxi industry plays and important role in the HITRANS region. The **RTS should consider this option further** albeit acknowledging that there are limits to the extent of any intervention in what is a commercially provided market.

Option 4T: Mobility hubs

5.5.55 Mobility hubs bring together shared transport with public transport and active travel in spaces designed to improve the public realm for all. They offer a range of benefits for the customer (convenience, safety, accessibility), transport providers and policy makers. There are already a number of mobility hubs in the region, including at University of the Highlands and Islands' Inverness Campus. This option would involve increasing the number of mobility hubs in the region.

Option 4T	Mobility hubs				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓✓	✓✓	✓✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓✓✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓✓
Equalities	Public Sector Equality Duty				✓✓✓
	Fairer Scotland Duty				✓✓✓
	Child Rights and Wellbeing Duty				✓✓✓
	Island Communities Impact Assessment				✓
	Mobility hubs offer a range of potentially beneficial equalities impacts, including increased space for adapted and inclusive modes of transport, widening transport supply more generally and the provision of a safer and more comfortable environment for vulnerable users.				

5.5.56 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Mobility hubs would contribute strongly to the Strategy Objectives. Firstly, they make the use of active travel and public transport more attractive and thus can contribute towards

reducing vehicle kilometres. There would therefore be positive impacts with respect to **SO1** and the **climate change** criterion.

- By co-locating transport services, mobility hubs also improve quality, choice, convenience, safety and accessibility. They therefore contribute strongly to **SO2**, **SO3**, **SO4** and **SO6**, as well as the **health, safety and wellbeing** and **equality and accessibility criteria**.
- For island communities **(SO5)**, the presence of a mobility hub at airports or ferry terminals (at one or both ends of the journey) provides increased opportunities for onward travel by public transport and active travel. This is particularly important with respect to ferry services, where they could reduce the need to take a car on the ferry, reducing the cost of the journey and alleviating capacity pressures.
- Key **deliverability** challenges relate to securing sites with sufficient space to accommodate a mobility hub and, perhaps more pressingly, meeting the **affordability** challenge of providing and maintaining the necessary infrastructure and services.

Recommendation: Mobility hubs are an established and growing solution to meeting the multiple travel needs of communities, including within the HITRANS region. This option should therefore be **considered further in the RTS**.

5.6 Strategy Theme 5: Providing connectivity that supports our island and peninsular communities

5.6.1 This island and peninsular communities Strategy Theme is focused on reducing the comparative disadvantage faced by island communities from a transport and travel perspective. The options appraised under this theme are as follows:

- **Option 5A:** Convert Lo-Lo routes to Ro-Ro
- **Option 5B:** Reduce ferry journey times
- **Option 5C:** Improve ferry booking and ticketing arrangements
- **Option 5D:** Demand management measures – fares-based
- **Option 5E:** Make the most efficient use of existing vessels
- **Option 5F:** Additional sailings with existing vessels or additional vessels
- **Option 5G:** New vessels
- **Option 5H:** 7-day a week ferry and / or inter-island air services
- **Option 5I:** Work towards a 'meaningful day' on-mainland and on-island
- **Option 5J:** Improve ferry service reliability
- **Option 5K:** Provide additional seat capacity on PSO air services
- **Option 5L:** Work with commercial airlines to provide additional flights
- **Option 5M:** Develop new air routes
- **Option 5N:** Improve the reliability of inter-island air services
- **Option 5O:** Island and peninsular fixed links

Option 5A: Convert Lo-Lo routes to Ro-Ro

5.6.2 A small number of ferry routes in the HITRANS region continue to operate on a lift-on, lift-off (Lo-Lo)basis, where cargo is craned or physically handled from the vessel onto the quayside (and vice versa). This imposes limitations on the types of goods that can be moved and also increases the costs of doing so by adopting what is now an outdated and inefficient practice.

5.6.3 The main islands which fall into this category are Graemsay, North Ronaldsay and Papa Westray in the Orkney internal network. The latter two islands are also part of the Outer North Isles mini-network of services and their Lo-Lo operations impose constraints on the other four islands in that network (Eday, Sanday, Stronsay and Westray). Through their 'Inter-Island Transport Study' business case work, Orkney Islands Council has identified the replacement of Lo-Lo with Ro-Ro on these islands as a priority. There are a small number of other island and peninsular communities, such as Knoydart and Ulva, which are also served in this way.

5.6.4 The benefits of a Lo-Lo to roll-on, roll-off (Ro-Ro) conversion have been demonstrated over several decades, with almost all Scottish routes making this change. However, perhaps the most pertinent recent example was the introduction of Ro-Ro to the Small Isles in the early 2000s, an investment which fundamentally changed and significantly improved the way in which these four islands are served.

Option 5A	**Convert Lo-Lo routes to Ro-Ro**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	○	✓✓	✓✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓✓✓
Equalities	Public Sector Equality Duty				✓✓
	Fairer Scotland Duty				✓✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓✓
	Conversion of ferry routes from Lo-Lo to Ro-Ro would significantly improve equality of access to ferry services, particularly for older people and those with a disability. Businesses and communities would also benefit significantly (assuming no increase in fares) through efficiency improvements, supporting the sustainability of these fragile island communities.				

5.6.5 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Lo-Lo operations have progressively been phased out in Scotland since the 1960s. Operational inefficiency, the inability to take advantage of economies of scale and safety and regulatory risks in terms of cargo handling have promoted a shift to Ro-Ro. Converting the remaining Lo-Lo routes to Ro-Ro would therefore offer major benefits in terms of the quality of service **(SO4)** and efficiency, safety and resilience **(SO6)**.

- Bicycle access to Lo-Lo services can also be problematic as they have to be physically handled onto the vessel. Ro-Ro would allow cyclists to cycle onto the ferry over a linkspan or slipway, thus contributing to **SO2**. When combined with the other benefits outlined above, this option would have a major positive impact for islands where this improvement is made **(SO5)** and would also have benefits for other islands served as part of the same network or mini-network.
- For the reasons outlined above, this option would have positive **health, safety and wellbeing**, **economy** and **equality and accessibility** impacts. Ro-Ro conversion may lead to a slight **environmental** disbenefit associated with the required harbour works and the potential expansion of the harbour footprint, but such effects should be minimal and the risks mitigated through the consenting process.

Recommendation: The evidence suggests that Ro-Ro conversions have generally been highly positive for most islands. This option should therefore be **considered further in the RTS.**

Option 5B: Reduce ferry journey times

5.6.6 A reduction in ferry journey times would reduce the comparative disadvantage faced by island communities, particularly those distant from the Scottish mainland or where two crossings are required to reach the mainland. Reductions in ferry journey times will in some cases be delivered by the introduction of new vessels with marginally higher design speeds or through vessel cascades, such as when MV *Isle of Lewis* was redeployed to the Castlebay – Oban run. However, any such changes are likely to be marginal, with the real opportunity lying in the splitting of indirect routes (such as the Orkney Outer North Isles) network or establishing new, shorter crossings where there is an opportunity to do so.

Option 5B	Reduce ferry journey times				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	×	○	✓✓	○
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				○
	Fairer Scotland Duty				○
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓

Option 5B	Reduce ferry journey times
	Reductions in ferry journey times would benefit all members of an island or peninsular community and are unlikely to have specific equalities impacts.

5.6.7 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- For most islands, marginal changes in vessel speeds will offer little in the way of benefit. However, where an indirect route is split, there would be at least moderate benefits for island communities **(SO5)**. This is particularly the case for the Orkney Outer North Isles network during the annual 10-week refit period, where a vessel can serve up to three islands on a single run, leading to significant increases in journey times and the contraction of meaningful time in Kirkwall.
- From a conventional TEE perspective, reduced journey times would result in an **economy** benefit, although the extent of this benefit in quantified / monetary terms would be minimal given the small numbers of people that it would affect.
- In the event that vessels were operated at higher speeds or additional vessels added to the fleet, this would record a minor negative with respect to **SO1** and the **climate change** criterion, associated with an increase in emissions (at least as long as vessels are hydrocarbon fuelled). Any harbour works required to develop shorter routes could have a negative **environmental** impact associated with the development of a new site and associated construction works.

Recommendation: The scope for this option overall is limited across much of the network. However, there would be benefits associated with splitting indirect routes, particularly in the Orkney Islands. This option should therefore be **considered further in the RTS.**

Option 5C: Improve ferry booking and ticketing arrangements

5.6.8 The growing pressure on ferry capacity in the summer months, particularly on parts of the CHFS network and in Orkney, means that the efficiency of the ferry booking process and ticketing arrangements is becoming increasingly important. Whilst booking and ticketing arrangements vary across Scotland, there is a general desire to see booking systems opened earlier and for island residents to have access to more convenient ticketing options, such as longer duration multi-journey books and greater use of mobile and electronic ticketing. This option is therefore focused on the generality of improving ferry booking and ticketing arrangements (acknowledging that CFL has recently introduced its new booking and ticketing system, Ar Turas).

Option 5C	Improve ferry booking and ticketing arrangements				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	○	○	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓

Option 5C	Improve ferry booking and ticketing arrangements	
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	○
	Island Communities Impact Assessment	✓
	There is potential for improvements in ferry booking and ticketing arrangements to have positive equalities impacts. Such impacts could be derived from measures such as extending the duration of multi-journey books (supporting those who travel less frequently such as older people) and creating payment plans for books of tickets, supporting those on low incomes.	

5.6.9 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Improving ferry booking and ticketing arrangements would support **SO4** and **SO5**, providing island communities with a more convenient and potentially more affordable journey.
- As noted in the table above, this option has the potential to offer **equality and accessibility** benefits associated with reducing the barrier to travel amongst groups with a protected characteristic.
- It is important to note from a **deliverability** perspective that ferry booking and ticketing arrangements often represent a balance between competing demands, for example tourism and resident travel. Moreover, developing new booking arrangements can be complex and expensive, particularly where multiple needs have to be accommodated within the booking system.

Recommendation: The principle of improving ferry booking and ticketing arrangements should be **considered further in the RTS**. However, the implications of specific changes or investments would need to be considered in a standalone study / studies or business case(s), as this is a complex area.

Option 5D: Demand management measures – fares-based

5.6.10 A key challenge for most ferry operators in Scotland is adjusting supply to reflect demand – winter carryings are typically low and summer carryings high, with some routes such as Uig – Tarbert / Lochmaddy, Oban – Craignure and Houton – Lyness / Flotta experiencing particular summer peaks. The fleet with which each operator works is largely fixed and there is little flexibility in pricing to manage demand, as is found in the airline and railway industries. This option is therefore focused on fares-based measures to manage demand – these could include price incentives to e.g., travel on a quieter sailing.

5.6.11 It is important to note that:

- On most routes, the capacity pressure relates to the carriage of vehicles (and cabin capacity on NorthLink). With some limited exceptions (e.g., certain sailings to Mull, Westray etc), passenger capacity is almost always sufficient.

- This option does not cover general changes / reductions in fares, which are addressed in **Strategy Theme 11**.

Option 5D	Demand management measures – fares-based				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	○	✓✓	✓ / ×
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓ / ×
	Fairer Scotland Duty				✓ / ×
	Child Rights and Wellbeing Duty				✓ / ×
	Island Communities Impact Assessment				✓ / ×
	This option provides an opportunity to address the constraints on travel faced by island residents due to ferry vehicle-deck capacity, providing equality of travel opportunities with those on the mainland. However, there is a risk that price incentives favour those with the greatest flexibility in their travel plans and conversely could impact negatively on certain groups with a protected characteristic who have less journey flexibility, e.g., young people travelling to education and older people travelling to hospital appointments.				

5.6.12 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Vehicle deck capacity issues have been an ongoing concern for island residents in recent years, particularly on the Clyde and Hebrides Ferry Services network since the introduction of Road Equivalent Tariff. This option therefore could support **SO5** if it smoothed peak demand on ferry services, reducing the number of potential journeys frustrated by lack of capacity.
- The economy of several island communities has also been constrained to some degree by lack of vehicle-deck capacity, particularly in terms of growing the visitor market. This option could therefore deliver **economy** benefits if it led to an increase in journeys to / from an island.
- Price-based demand management is a pejorative term for many and this option may therefore have **public acceptability** issues, particularly if it involved increasing some fares on peak services (there would evidently be less of an issue if this option only involved reducing fares on more lightly used services). If this option was progressed, both the specifics of the scheme(s) and its anticipated benefits would need to be carefully communicated.

- If the model adopted involved measures which reduced fares or set fares caps to incentivise behavioural change, there could be an **affordability** issue if the additional revenue generated did not cover the fares revenue foregone.

Recommendation: This option should be **considered further in the RTS**. However, the mechanics of how it could be implemented on any given route or network of routes would need to be carefully considered and communicated.

Option 5E: Make the most efficient use of existing vessels

5.6.13 Whilst **Option 5D** is focused on price-based measures to manage demand, an alternative approach would be to implement measures that widen travel opportunities though making the most efficient use of existing vessels. These could include the operation of additional sailings, retiming of sailings, better management of block bookings and quotas for certain vehicle types.

5.6.14 The impact of this option would be enhanced if supported by **Options 4E**: **improve bus / ferry integration** and **4I: improve rail / ferry integration** as this would create an opportunity for more journeys to be made as a foot passenger.

Option 5E	Make the most efficient use of existing vessels				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	✓✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓✓
	This option provides an opportunity to address the constraints on travel faced by island residents due to ferry vehicle-deck capacity, providing equality of travel opportunities with those on the mainland. Unlike fares-based measures, this option is less likely to create new inequalities which would be detrimental for island communities or certain protected characteristic groups.				

5.6.15 The benefits of this option are broadly similar to those of **Option 5D**, but with a reduced risk of creating new inequalities, or widening existing inequalities. There could also be a minor benefit in relation to **SO1** and the **climate change and environment** criteria if some journeys

which would previously have been made by car switch to being made as a foot passenger. Any decrease in vehicle-kilometres would also improve **health, safety and wellbeing**.

Recommendation: This option provides a means of better managing peak vehicle demand on ferry routes and should be **considered further in the RTS**. The mechanics of how it could be implemented on any given route or network of routes would need to be carefully considered and communicated.

Option 5F: Additional sailings with existing or additional vessels

5.6.16 As noted above, the supply-side in relation to ferry service provision is largely fixed, in-turn fixing the total number of people and vehicles that can be moved on a route in a day. However, there are opportunities at the margin to increase the passenger certificate or number of services operated by existing vessels through increasing the crew complement, as for example happens with MV *Hebrides* in the summer months.

5.6.17 There are also opportunities (albeit limited) to strengthen certain routes in the peak season through the deployment of additional vessels. For example, certain Clyde and Hebrides routes operate with an extra vessel in the summer months, whilst there is precedent for chartering additional passenger and vehicle ferries (e.g., MV *Alfred*) or freight vessels (e.g., MV *Arrow*) to provide extra peak capacity.

Option 5F	Additional sailings with existing or additional vessels				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	×	×	✓✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓✓
	This option would not specifically impact any group with a protected characteristic but would reduce the general inequality imposed on island residents by capacity constraints and low frequency.				

5.6.18 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The addition of supplementary capacity on the busiest routes would contribute positively to **SO5**. Moreover, where additional sailings or vessels are added to a route, frequency increases, thus supporting wider regional connectivity **(SO3)** and opportunities for integration with other modes of transport **(SO4)**.
- With almost all of the current ferries used in Scotland operating on hydrocarbon fuels, additional sailings will generate increased emissions, and potentially also increased vehicle kilometres associated with reducing the constraint on car travel. This option therefore records a minor negative in relation to **SO1** and the **climate change** and **environment** criteria. The extent of this negative will though reduce over time as the turnover of vessels gradually leads to a more environmentally friendly fleet. Any increase in vehicle kilometres would have a negative **health, safety and wellbeing** impact.
- Relieving some of the capacity pressures at peak periods would support the **economies** of islands across the region, particularly where this supports growth in tourism demand.
- From a **deliverability** perspective, it is important to recognise that there are very few spare vessels available at present. Even with new tonnage due to enter service in the CMAL fleet, older vessels will gradually be retired. Chartering does provide an opportunity but operating conditions and fit with shoreside infrastructure will always limit this to some extent (the recent issues associated with accommodating MV *Alfred* being illustrative of this).
- For almost all sailings, revenue does not cover cost. Therefore, operating additional sailings and / or increasing the number of vessels in the fleet (even on a short-term basis) could have **affordability** challenges.

Recommendation: This option should be considered further in the RTS. However, it is important to recognise that materially increasing the number of sailings is challenging and potentially expensive.

Option 5G: New vessels

5.6.19 The recent and well-publicised reliability problems on several Scottish ferry routes highlight the need for new vessels. The 'rule of thumb' in relation to vessels operating in Scottish waters is that they should be replaced when they are circa 30-years old. However, there are now a considerable number of vessels which are older than this, with many others between 20 and 30 years old. The most extreme example of the aging fleet is the relief Corran Narrows vessel MV *Maid of Glencoul*, which entered service in 1971, 53-years ago at the time of writing. Some networks, such as the Orkney[4] and Argyll & Bute internal networks have not seen a newbuild vessel introduced to their fleet this century.

Option 5G	New vessels				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×/✓✓✓	✓✓✓	✓✓	✓✓✓	✓✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓

[4] It should though be noted that Orkney Ferries purchased the 2012-built passenger ferry MV *Nordic Sea* in April 2020 to operate the Pierowall to Papa Westray route.

Option 5G	New vessels	
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	✓✓✓
Equalities	Public Sector Equality Duty	✓✓✓
	Fairer Scotland Duty	✓✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓✓✓
	The introduction of new vessels across Scotland would have a highly positive equalities impact. As well as supporting the sustainability of island communities, new vessels would also provide level boarding for passengers, supporting older people and those with a disability.	

5.6.20 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- New vessels and the modernisation of the fleet would make a highly positive contribution to the Strategy Objectives, particularly **SO5**. Aging vessels have also become a weak link from a reliability and resilience perspective, something which modern tonnage would address, supporting **SO6**.
- A further consequence of having an aging fleet is that almost all vessels operate on hyrdrocarbon fuels and also do not benefit from modern design standards that reduce fuel burn. New vessels would therefore offer a major benefit in terms of **SO1** and the **climate change** and **environment** criteria. The decrease in emissions due to the new vessels would also improve **health.**
- Much of the current vessel fleet in Scotland is beginning to impose constraints on island communities. Poor reliability and its impacts have been well-documented, whilst the stated vehicle carrying capacity of older vessels has been eroded by growth in the size of the average car. There would therefore be major **economy** benefits from introducing new vessels, which in many cases would directly address constraints on economic activity in the islands.
- The majority of vessels are also not compliant with current disability access regulations, benefitting from 'grandfather rights' reflecting prevailing regulations in the year in which they were built. In many cases, access to the passenger lounge is not step free and, in a handful of instances, passenger accommodation is below the waterline, which is against current regulations. New vessels would offer fully compliant access and would therefore record a major **equality and accessibility** benefit.
- For a number of reasons, not least the increase in the average size of a car, new vessels would have to be physically larger to provide an equivalent car-carrying capacity. The requirement for larger vessels therefore drives a need for harbour works, which can generate short-term **environmental** disbenefits and a longer-term change in the landscape and visual amenity.
- **Affordability** is a major challenge with respect to introducing news vessels, particularly for local authorities, where a single vessel project could consume the entire transport capital budget for one or more years. Both The Highland Council and Orkney Islands Council have well-developed business cases for new tonnage, but no immediate means of funding them.

Recommendation: An aging and increasingly unreliable ferry fleet is one of the major economic and resilience threats faced by island and peninsular communities across the region. It is therefore essential that this option is **considered further in the RTS**.

Option 5H: 7-day a week ferry and / or inter-island air services

5.6.21 There are still several island communities in the HITRANS region which do not have seven-day connectivity to the Scottish mainland (or island mainland in the case of Orkney), whilst some communities have this in summer but not winter.

5.6.22 Whilst the decision as to whether seven-day connectivity is desirable is one for communities to take, there is evidence from various studies showing how days with no connections can impact island residents and its economy. These negative impacts range from reduced tourism, the occasional requirement for a costly two-night off-island stay and vehicle deck capacity shortages either side of the non-sailing day.

5.6.23 This option therefore promotes seven-day a week connectivity by ferry and / or inter-island air service where this is wanted by the communities in question.

Option 5H	7-day a week ferry and / or inter-island air services				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	×	✓	✓✓	✓✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓✓
	Fairer Scotland Duty				✓✓✓
	Child Rights and Wellbeing Duty				✓✓✓
	Island Communities Impact Assessment				✓✓✓
	The absence of connectivity on one or more days per week can act as a hard barrier on island residents accessing employment, services and leisure opportunities, or can increase the cost of doing so where additional overnight stays are required. This option would address this inequality.				

5.6.24 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- From the perspective of the Strategy Objectives, the provision of seven-day connectivity would support the resilience and sustainability of island communities **(SO5)**. It would do

this through expanding economic opportunity and reducing the cost and inconvenience of off-island travel for residents, supporting the **economy** and **health, safety and wellbeing** criteria.

- This option would make a major positive contribution to the **equality and accessibility** criterion, removing an island-specific barrier to engaging in a wide range of activity, as most residents of the Scottish or island mainland can do.
- In the event that extra sailings or flights were operated, this could lead to a marginal increase in emissions and noise. This option therefore records a minor disbenefit in relation to both **SO1** and the **climate change** and **environment** criteria.
- On the whole, providing seven-day connectivity is likely to have a high degree of **public acceptability**, although it is important to acknowledge that some communities may not want this for e.g., religious reasons or because it imposes an additional burden on the population (e.g., providing additional fire cover at airfields). It is important to note that, if seven-day connectivity was provided at the expense of connections on other days (or times of year where annualised hours contracts operate), this option may be less publicly acceptable.
- Any increase in the number of connections would come at cost, unless there was a compensating reduction in service levels on another day. Many ferry and air routes currently operate towards the limit of their operating envelopes in terms of crew hours and thus the increase in cost may be a step rather than a linear change. This therefore suggests that **affordability** could also be a challenge.

Key Point: The significant equalities benefits associated with this option suggest that it should be **considered further in the RTS**.

Option 5l: Work towards a 'meaningful' day on-mainland and on-island

5.6.25 Whilst most islands have a daily connection to and from the Scottish or 'island' mainland, it is in many cases not a 'meaningful' connection in terms of allowing the desired activities to be undertaken in a day. The term 'meaningful' varies by island type – for example, for islands close to the mainland, this may be a service which facilitates commuting whilst, for more distant islands, this may be the ability to travel for a medical appointment, a tradesperson visit or shopping and return in the same day.

5.6.26 The absence of 'meaningful' time on-mainland or on-island can constrain an island economy and society or increase the cost of doing business there. For example, it is not possible for a fuel supplier to make a meaningful day return trip to some islands in the winter months as the last ferry departure leaves 30-45 minutes after the first arrival. This leads to significant standing time for the vehicle and driver and cost to the business / customer. Similarly, residents of Colonsay cannot make a day-return trip to Oban – if the resident needs to take a vehicle, a minimum of one overnight stay would therefore be required, and this would be at their cost. This option is therefore focused on providing a 'meaningful' day on-mainland and on-island for all communities, either by ferry, air or a combination of the two.

Option 5l	Work towards a 'meaningful' day on-mainland and on-island				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	×	✓	✓✓	✓✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○

Option 5I	Work towards a 'meaningful' day on-mainland and on-island	
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.	○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓✓✓
	Fairer Scotland Duty	✓✓✓
	Child Rights and Wellbeing Duty	✓✓✓
	Island Communities Impact Assessment	✓✓✓
	The inability to make a meaningful day return to the mainland or an island can act as a hard barrier on island residents accessing employment, services and leisure opportunities, or can increase the cost of doing so where additional overnight stays are required. This option would address this inequality.	

5.6.27 The benefits and disadvantages of this option are broadly similar to **Option 5H**, in that they address a connectivity gap that adversely affects island communities. It is important to again note that providing the level of connectivity expressed through this option for all communities would come at a significant cost and could therefore have **affordability** issues.

Key Point: The significant equalities benefits associated with this option suggest that it should be **considered further in the RTS**.

Option 5J: Improve ferry service reliability

5.6.28 The reliability issues associated with ageing vessels were set out in relation to **Option 5G – new vessels**. However, reliability challenges extend beyond the need for vessel replacement, with issues such as port and harbour constraints (physical dimensions, draught, tidal conditions etc), management of turnaround times, ship-shore interface etc all having an impact. Cancellations, punctuality and resilience are issues on numerous routes across the ferry networks in the region.

5.6.29 This option is therefore focused on measures to improve reliability, including but not limited to port and harbour improvements, improved preventative maintenance and improved management of turnaround times.

Option 5J	Improve ferry service reliability				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	○	✓	✓✓✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○

Option 5J	Improve ferry service reliability	
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.	○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	✓✓✓
Equalities	Public Sector Equality Duty	✓✓✓
	Fairer Scotland Duty	✓✓✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓✓✓
	Performance issues on ferry networks within the region – be that cancellations or punctuality – impose sometimes major inequalities on communities. For example, recent disruptions to e.g., the Corran ferry or services between Mallaig and Lochboisdale have imposed significant economic costs on these communities and have also affected people with protected characteristics. Improving ferry service reliability would therefore record positive equalities impacts.	

5.6.30 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Addressing issues with ferry service reliability would evidently contribute strongly to **SO5** through tackling one of the most prominent issues facing island and peninsular communities at present. Poor reliability, weather cancellations or late running also impact significantly on efficiency – many of the products moved from islands (in particular) are time sensitive due the risk of product deterioration (e.g., fresh fish) or regulation (e.g., animal welfare). Improved reliability would therefore contribute strongly to **SO6**.
- Poor ferry service reliability imposes major economic costs on island communities, including but not limited to lost or reduced value stock; fewer tourists and cancelled bookings; and the prevention of economically valuable journeys such as travel for business or commuting. Late running services can also lead to missed public transport connections, which on some occasions can render a journey pointless. This option would therefore contribute strongly towards the **economy** criterion.
- This option would also be advantageous from an **equality and accessibility** and **health, safety and wellbeing** perspective, as it would address (or at least reduce) the inability to access employment and essential services such as health. For example, the press in recent months has carried stories of island residents having their cancer care disrupted due to extended periods of ferry service suspension.
- It should be noted that any physical works to improve reliability could have minor negative **environment** impacts, at least in relation to construction periods.

Recommendation: Poor ferry service reliability has been the major issue affecting several island communities in recent months. Improving reliability is a long-term and multi-faceted project, and it should therefore be **considered further in the RTS**.

Option 5K: Provide additional seat capacity on PSO air services

5.6.31 Inter-island air services in Argyll and Bute and Orkney together with PSO services to Glasgow from Barra, Campbeltown, Islay and Tiree and to Aberdeen from Wick John O'Groats fulfil an important role in connecting these communities to services. However, a perennial challenge is lack of seat capacity, which can frustrate essential journeys. This can be a result of several different factors such as demand from island / remote rural residents, use of flights to deliver on-island services (e.g., in Orkney air services are used for itinerant teacher cover, GP visits and mobile banking amongst other things) and 'bucket list' tourism (e.g., the beach landing at Barra and the world's shortest scheduled flight between Papa Westray and Westray).

5.6.32 In most cases, operational constraints prevent the scaling-up to larger aircraft. However, increased seat capacity could be delivered via a range of measures including but not limited to: operating the current aircraft more frequently; the introduction of additional aircraft; and splitting indirect journeys.

Option 5K	Provide additional seat capacity on PSO air services				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	×	✓	✓✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓✓
	For several islands, air travel accounts for the majority of journeys, but can be frustrated by a shortage of seat capacity. This option would offer a positive equalities impact through reducing barriers to travel faced by island communities.				

5.6.33 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would contribute positively to **SO5** and would be particularly beneficial in communities such as North Ronaldsay and Papa Westray where air accounts for 95% of

total off-island travel. Increasing seat capacity would help to ensure that essential journeys by island residents are not frustrated but would also support increased inbound tourism.

- By dint of removing the occasional restrictions on travel, this option would contribute to the **economy**; **health, safety and wellbeing**; and **equality and accessibility** criteria. Moreover, where frequency increases and / or the number of indirect flights is reduced, there would be conventional **TEE benefits**, albeit they would be very small in scale.
- The operation of additional flights would record a minor negative in relation to **SO1** and the **climate change** criterion through increasing global emissions, but the marginal impact would be extremely minor.
- As alluded to at the outset of this section, scaling-up to larger aircraft is likely to be problematic from a **deliverability** perspective, at least in the short-term. However, introducing additional aircraft is less problematic and indeed the most recent Orkney PSO tender included passive provision for a third aircraft if funding allowed.

Recommendation: Air travel is a comparatively low cost means of connecting island residents to services and facilitating visits to islands by service providers. The option of increasing seat capacity through providing additional connections or more direct connections should therefore be **considered further in the RTS**.

Option 5L: Work with commercial airlines to provide additional flights

5.6.34 Whilst there are three PSO air networks in the HITRANS region, the majority of services are provided commercially. HITRANS and indeed the public sector generally has no direct control over the level of service provided. However, the size of the region and sea and land-based journey times to other Scottish and UK cities means that air connectivity is essential.

5.6.35 This option would therefore involve working with commercial operators to develop the case for additional flights, including from Inverness. Where there is clear evidence of a market failure, as on the routes to Barra, Campbeltown, Islay, Tiree and Wick, there may also be a case for introducing a PSO to secure an appropriate level of service for communities.

Option 5L	Work with commercial airlines to provide additional flights				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	××	✓	✓✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				××
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓

Option 5L	Work with commercial airlines to provide additional flights	
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	○
	Island Communities Impact Assessment	✓
	Additional flights may increase opportunities for island and peninsular residents to access key mainland services and, dependent on demand, could stimulate some new visitor trips and tourism. Some people with protected characteristics who are able to access aircraft may benefit slightly.	

5.6.36 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would evidently make a strong contribution to **SO5** and the **economy criterion**. Improved air connections from island and peninsular communities widens the range of opportunities to which residents can travel or the frequency at which they travel. Just as importantly however, it helps to reduce the perception of peripherality from which some communities suffer and makes them more attractive to tourists and investors. Of particular importance in this respect is connections between Inverness and London.
- It should though be noted that increasing the number of flights to and from the region would record a disbenefit with regards to **SO1** and the **climate change** and **environment** criteria through increases in e.g., emissions, noise etc. These routes are generally operated by larger and thus higher emission aircraft than PSO routes and thus the negative impact would be greater.
- If there was a commercial market for these flights, an airline would be expected to provide a service. This option is therefore not **deliverable** under the current operating environment unless an airline feels there is a market to justify a service. It is therefore likely that a clear market failure would need to be demonstrated and the case for a PSO made. This would likely give rise to the requirement for a subsidy and thus would have an **affordability** consideration related to it.

Recommendation: The deliverability challenges associated with this option mean that the scope for operating additional flights is limited unless a clear commercial case can be established. Whilst this option should be **considered further in the RTS**, this should only be in the context of establishing a PSO where there is a clear market failure in relation to commercial provision.

Option 5M: Develop new air routes

5.6.37 Given the importance of air connectivity to the region (as outlined in **Option 5L**), developing new air routes has the potential to deliver social and economic benefits. Indeed, the HITRANS region has benefitted significantly in recent months from the development of new routes (e.g., Kirkwall – London Heathrow) and new code share agreements (e.g., Emirates, Aer Lingus etc) to open-up a wider range of destinations for island residents where inter-lining is possible.

5.6.38 There are two elements to this:

- Directly supporting the case **for (re)-establishing PSO air routes** – for example, HITRANS has long made the case for the restoration of air services to Skye, whilst Kirkwall – Wick could be another option.
- Working with airlines to make the case for new **commercial route development**, promoting the region.

Option 5M	Develop new air routes				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	××	××	✓	✓✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				××
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	Additional flights may increase opportunities for residents of the region to access a wider range of services and destinations directly and, dependent on demand, could stimulate some new visitor trips and tourism. Some people with protected characteristics who are able to access aircraft may benefit slightly.				

5.6.39 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- It is self-evident that expanding the route network would be beneficial for residents of the region. More widely however, air route networks are often an important consideration for businesses when making investment decisions and thus enhanced air connectivity could support increased business investment in the region. This option would therefore support **SO4**, **SO5** and the **economy** criterion.
- For PSO routes, such as that proposed for Skye, the economic benefits would be supplemented by benefits in relation to **equality and accessibility** and **health, safety and wellbeing** through providing access to a wider range of services, including health care.
- It should though be noted that increasing the number of flights to, from and within the region would record a disbenefit with regards to **SO1** and the **climate change** and **environment** criteria associated with e.g., increased emissions, noise etc. There would also be environmental impacts associated with reopening any currently closed airfields.
- From a **deliverability** perspective:
  - There is little HITRANS can directly do to facilitate new commercial air services beyond working with airlines to promote the region and ensuring that connecting public transport services to and from the airport are of a high quality.
  - HITRANS can play a much more direct role in making the case for PSO services, although it should be noted that any such services would require a subsidy and

potential capital works. There would therefore be an **affordability** challenge to be overcome.

Recommendation: This option should be **considered further in the RTS** as means of expanding the region's connectivity and reducing the perception of peripherality that can exist, particularly for island and remote rural communities. The practical limitations in relation to the commercial airline market do however have to be recognised.

Option 5N: Improve the reliability of inter-island air services

5.6.40 The Argyll and Bute and Orkney inter-island air services are both single pilot Visual Flight Rules (VFR) operations. They can therefore only be operated in daylight (unless runway lighting is provided) and within certain visibility and wind thresholds. This can lead to reliability issues and also imposes a much shorter flying day in the winter. Compared to the neighbouring Shetland Islands, these services are relatively reliable due to more favourable terrain and, at some Orkney airfields, cross-runways. This option nonetheless focuses on how reliability could be improved or the operating day lengthened through investment in navigation aids and additional cross runways.

Option 5N	Improve the reliability of inter-island air services				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	○	○	✓	○
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				○
	Fairer Scotland Duty				○
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	This option would have minimal equalities impacts beyond reducing the comparative disadvantage faced by some islands due to issues around flight reliability.				

5.6.41 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Given that the Argyll and Bute and Orkney networks are reliable for the best part, this option would have only a minimal impact on the RTS Strategy Objectives and STAG criteria.
- It is worth noting that any capital investment in runway provision could record a minor negative with respect to the **environment** criterion, although this would be an island-specific issue.
- From a **deliverability** perspective, it is important note that switching to Instrument Flight Rules (IFR) and poor weather / night flying would significantly increase the burden on a single pilot. As part of their safety case, it is possible that an airline would insist on a second pilot if flying IFR, which would increase cost to government and could give rise to **affordability** issues given the minimal revenues generated by these services.
- It should also be noted that, in North Ronaldsay, the introduction of runway lighting has actually worsened reliability. The final North Ronaldsay flight of the day, which operates during the hours of darkness in winter, is frequently brought forward as the visibility threshold reduces when making a landing in darkness. This has given rise to **public acceptability** issues in that community.

Recommendation: It is understood that Argyll and Bute Council is specifically considering Global Navigation Satellite Systems (GNSS) as a navigation aid for its inter-island air service and thus this option should **be considered further in the RTS.** More widely, the general principle of improved reliability is supported and HITRANS should keep abreast of new technological developments which could offer opportunities to change the way in which inter-island air services are delivered.

Option 5O: Island and peninsular fixed links

5.6.42 One means of improving the connectivity of island and peninsular communities in the region is through a programme of fixed link construction. Over the last 50-years, the construction of bridges and causeways (although not yet tunnels) has been instrumental in improving connectivity in the HITRANS region – these include the Kessock, Dornoch, Cromarty, Skye, Scalpay and Kylesku bridges and the chain of causeways in the Outer Hebrides. There are three potential opportunities in relation fixed links:

- **Island-to-mainland:** there are several proposals of this nature, with a fixed link between Mull and the mainland being included as an STPR2 recommendation.
- **Island-to-island:** Whilst there are fewer proposals in this category, those such as that to connect Rousay with Egilsay in Orkney would offer significant efficiencies in the operation of ferry services. Proposals for fixed links across the Sound of Harris and Sound of Barra were also included as STPR2 recommendations.
- **Intra-mainland:** These are fixed links which would cross major sea lochs or river firths – there are several longstanding aspirations in this respect including at Corran and Stromeferry, where there are existing proposals.

Option 5O	Island and peninsular fixed links				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×××	××/✓✓	✓	✓✓✓	✓✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				××/✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓ / ×

Option 5O	Island and peninsular fixed links	
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.	✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	✓✓✓
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓✓
	The construction of fixed links has the potential for beneficial equalities impacts where connectivity to key services and facilities is enhanced. There is potential to tackle socio-economic disadvantage particularly for outlying communities where employment opportunities are improved and through reduced differential impacts compared with other locations. However, unless accompanied by bus service improvements, fixed links could be disadvantageous for those without access to a car or who would prefer not to drive one.	

5.6.43 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Evidence from other fixed links in the region highlight that they have the potential to fundamentally transform the connectivity of island and peninsular communities. A fixed link would provide a more reliable and affordable (if there were either no tolls or the level at which tolls were set was less than the prevailing ferry fare (where applicable)) connection for island and peninsular opportunities **(SO5)**.
- Fixed links would also improve the efficiency and resilience of the transport network, reducing disruption risks to ferries from wind and sea conditions and mechanical breakdowns. In specific areas like Stromeferry, fixed links could also provide a means of bypassing areas of geological instability **(SO6)**. However, it would also represent a single point of failure in the way that a ferry service does not necessarily do so.
- Fixed links would also provide an opportunity to enhance active travel connections between communities. However, in the event that active travel infrastructure was not incorporated into the design, they would increase the dominance of motorised transport and could actually lead to severance for those making active travel journeys **(SO1)**.
- A fixed link represents a trade-off between negative **environmental** and (potentially) **climate change** impacts (a trade-off captured in the appraisal against **SO1**) against potentially very positive societal impacts.
    - A fixed link would clearly be an environmentally intrusive construction project, would incorporate significant embodied carbon and would generate additional vehicle kilometres. It would though in many cases offset the emissions from the ferry operations that they would replace, although the adoption of green propulsion systems in future rounds of ferry replacement should ensure this is less of an issue for future vessels. The balance of embodied carbon versus ferry fleet emissions reductions would need to be determined on a case-by-case basis.
    - On the other hand, providing fixed connections to islands or across sea lochs / river firths could offer significant **economic** and **equality and accessibility** benefits in

terms of providing unfettered access to employment, business opportunities, services and leisure opportunities. This could assist in stemming population out-migration and attracting new residents to an area. It does though have to be acknowledged in the context of island fixed links that effectively making an island part of the mainland could lead to a need to consider different and more distant service delivery models for e.g., health, education etc. and would also expose island businesses such as local shops to increased competition (although in-turn potentially providing island residents with lower prices).

- In terms of **economy** a fixed link would generate significant TEE and Wider Impacts. It also scores highly against **equality and accessibility** in terms of comparative access by geographic location.
- Fixed links are an emotive subject in most communities and each individual proposal would merit a comprehensive study in its own right, covering costs, deliverability, public acceptability, environmental and climate change effects and island social and economic impacts.
- For most of the fixed links proposed, there is little in the way of cost or engineering certainty, and a significant package of work would be required to reach the stage where greater certainty is obtained. There are therefore both **affordability** and **deliverability** issues that would need to be considered on a case-by-case basis.

Recommendation: Fixed links could address several of the connectivity, reliability and resilience problems faced by communities in the region and thus should be **considered further in the RTS**. It is though important to note that the cost, environmental and socio-economic implications of fixed links would need to be considered on a case-by-case basis.

5.7 Strategy Theme 6: Improving the efficiency of transport networks and supply-chains and reducing their impact on our communities

5.7.1 Despite its size, the HITRANS region is home to less than 10% of Scotland's population. The small scale of the local market means that many businesses have a strong outward focus, selling goods and services outside of the region, ranging from whisky to textiles. Moreover, the area is well-endowed with natural resources such as timber and has a significant primary sector. This means that the efficiency and environmental sustainability of transport links with other parts of Scotland and beyond are as important as those within the region itself.

5.7.2 This Strategy Theme is focused on **ferry**, **rail-based and water-based** supply-chains. Issues related to road freight are addressed in **Strategy Theme 7**. The options appraised under this theme are as follows:

- **Option 6A:** Reduce ferry freight fares
- **Option 6B:** New freight-only vessels / new vessels with an increased freight capacity
- **Option 6C:** Prioritise ferry capacity for freight / demand management to provide additional capacity for freight
- **Option 6D:** Dedicated freight sailings
- **Option 6E:** Support the growth in rail freight
- **Option 6F:** Support the growth in waterborne freight

Option 6A: Reduce ferry freight fares

5.7.3 The approach to the setting of ferry freight fares on most publicly supported networks in Scotland is inconsistent, archaic and, in many cases, simply born of history. There are

significant inconsistencies even within networks in terms of the basis of the charge and the absolute tariff level, whilst there are a plethora of discounts and surcharges that apply to individual routes or small bundles of routes. This creates inefficiencies in the movement of freight, some of which is already marginal, and inequalities between islands.

5.7.4 Transport Scotland recognised this issue and undertook a *Ferry Freight Fares Review* (FFFR) in 2014-15 for the Clyde and Hebrides and Northern Isles (NorthLink) networks. This was not progressed due to a range of complexities around equity and affordability. Constituent local authorities within the HITRANS region have also undertaken wider ferry fares reviews but have not progressed these beyond concept stage.

5.7.5 Whilst this is an undeniably complex issue, it is important that it is resolved, either through progressing with a new fares system(s) or accepting the inbuilt inequalities and inconsistencies within the current framework. The appraisal of this option which follows is based on the principle of **reduced** ferry freight fares.

Option 6A	**Reduce ferry freight fares**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×/○	×/○	×/○	✓✓	○
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓
Equalities	Public Sector Equality Duty				○
	Fairer Scotland Duty				○
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	Given the freight focus of this option, it would not impact on any groups with a protected characteristic. However, it could, depending on the design of the fares reduction, serve to reduce inequalities between island communities.				

5.7.6 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The absolute cost of ferry freight fares can be problematic for island communities, particularly where bulk low margin goods are being moved (e.g., timber) and for small communities which do not generate the demand for full load movements. This option would therefore generate positive impacts in relation to **SO5** and **SO6**, whilst also supporting the **economy** criterion.

- On the Clyde and Hebridean Ferry Services network, the RET-based redefinition of the length at which a vehicle is defined as a commercial vehicle (CV) from 5 metres to 6 metres led to a reduction in economies of scale and a growth of van traffic at the expense of conventional CVs. This led to increased vehicle kilometres. The **climate change** and **environmental** implications of any change in freight fares would therefore be dependent on how it changed haulier behaviour at the margin. Reduced fares / fares caps may however generate additional traffic and lead to an increase in vehicle kilometres, recording negative **climate change** and **environment** impacts.
- The complex **deliverability** and **affordability** implications associated with changes to ferry freight fares were set out in the preamble to this option. It is also worth noting that fares-related issues are fraught with **public acceptability** challenges. Whilst reducing freight fares may be viewed positively overall, this perception would nonetheless depend on whether any cost reductions are passed on to the end customer and whether there were implications for ferry vehicle-deck capacity.

Recommendation: The establishment of a firm, coherent and agreed position (even if that is 'no change') on ferry freight fares is necessary. Given its regional role, it is important that HITRANS works with both Transport Scotland and its constituent members to work towards this position (or a position for each network). Therefore, this option should be **considered further in the RTS**.

Option 6B: New freight-only vessels / new vessels with an increased freight capacity

5.7.7 Since the advent of Ro-Ro on Scottish ferry networks, the focus has primarily been on building vessels to support car travel, with freight often something of a (unintentionally) secondary consideration. For example, there are several vessels on freight intensive routes which are restricted in terms of weight, height, use of mezzanine decks and carriage of dangerous goods. This can be to the disadvantage of both freight customers and car passengers.

5.7.8 There is precedent in Scotland for freight-only vessels (e.g., as operated by NorthLink Ferries). 'Freight plus' vessels – i.e., predominantly freight vessels but with some passenger and car capacity - are also common throughout the world, and indeed this solution is being considered as part of the next investment in the NorthLink fleet.

Option 6B	New freight-only vessels / new vessels with an increased freight capacity				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	×	×/✓	✓✓	○
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓

Option 6B	New freight-only vessels / new vessels with an increased freight capacity	
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	✓✓
Equalities	Public Sector Equality Duty	○
	Fairer Scotland Duty	○
	Child Rights and Wellbeing Duty	○
	Island Communities Impact Assessment	✓
	Given the freight focus of this option, it would not impact on any groups with a protected characteristic. However, it would reduce some of the challenges faced by island supply-chains in terms of the movement of freight.	

5.7.9 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The provision of additional freight capacity would support the **economy** of island communities and thus would also contribute to **SO5** and **SO6**. This would particularly be the case where ferry capacity is acting as a constraint on an island, Islay for example.
- From an **environment** and **climate change** perspective, new freight vessels may generate additional vehicle kilometres, whilst the vessels themselves would have embodied carbon. Additional vehicle kilometres could also have a negative impact on **health, safety and wellbeing**, although the safety of freight handling at ports could be improved.
- The procurement of additional freight-only vessels would provide a much greater degree of flexibility as they could be moved around the network to support specific peaks (e.g., livestock season in Orkney and Shetland, mart days in Tiree etc) or could support on high-volume tourist routes in the summer, providing additional space for cars on the main ferry (e.g., on Stornoway – Ullapool). This is of course predicated on the vessels being able to 'fit' multiple ports. However, it is important to recognise that building additional freight vessels would add significantly to cost and thus could have **affordability** implications. It is therefore likely that this could only be justified on routes where there is high year-round freight demand (e.g., Islay, Aberdeen – Kirkwall / Lerwick etc)

Recommendation: The previously discussed ferry vehicle-deck capacity issues around the network suggest that this option should be **considered further in the RTS**, helping to inform future fleet replacement plans.

Option 6C: Prioritisation of ferry capacity for freight / demand management to provide additional capacity for freight

5.7.10 With vehicle deck capacity pressures on many routes, particularly in the summer months, there is a frequent tension between deck space for personal vehicles and freight. The approach to managing this tension varies by route and network – on some routes, it is first-come, first-served whilst on others it is possible for freight customers to make block bookings or there is reserved space for CVs on the ferry. However, the approach adopted can be haphazard and operators are often constrained by what is permitted in Public Service Contracts.

5.7.11 This option promotes different means of prioritising ferry capacity for freight, recognising that it would be inappropriate to apply a 'one size fits all' approach across the network. Measures which could be adopted include:

- **Contractual stipulations**, such as acceptance of unaccompanied vehicles and the guaranteed provision of space for a set number of commercial vehicles on a sailing, as occurs with the 18 reserved spaces for time sensitive traffic on the NorthLink Ro-Pax vessels.
- Providing operators with greater **pricing and operational flexibility** to manage demand.

Option 6C	**Prioritisation of ferry capacity for freight / demand management to provide additional capacity for freight**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	○	✓✓	○
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓✓
Equalities	Public Sector Equality Duty				○
	Fairer Scotland Duty				○
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	Given the freight focus of this option, it would not impact on any groups with a protected characteristic. However, it would reduce some of the challenges faced by island supply-chains in terms of the movement of freight.				

5.7.12 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- The efficient handling of freight is integral to an island's prosperity, both in terms of exporting island products and importing almost every consumable of day-to-day life. Prioritisation of freight traffic and / or improved overall management of demand would therefore contribute to **SO5**, **SO6** and the **economy** criterion.
- There would be complexities with this option from a **deliverability** perspective as the application of a 'one size fits all' approach would be inappropriate, particularly on highly diverse networks like the Clyde and Hebrides Ferry Services and that operated by Orkney Ferries. Implementing, managing and evolving measures to prioritise freight or better manage overall demand would therefore be resource intensive.
- Any measure which prioritised freight at the expense of other traffics could have **public acceptability** issues, whilst tourism interests would register concern if this impacted on visitors travelling to or from an island. These issues could however be addressed to some degree where operators can demonstrate that they are effectively managing freight

demand through e.g., working closely with customers, proactive management of block bookings etc.

Recommendation: This option should be **considered further in the RTS** as part of an overall package of measures to more effectively plan and manage vehicle deck capacity on ferry services within the region.

Option 6D: Dedicated freight sailings

5.7.13 The Aberdeen – Kirkwall / Lerwick and Stornoway – Ullapool routes benefit from dedicated overnight freight sailings. These sailings provide significant extra vehicle deck capacity but are also well attuned to the supply-chain needs of Shetland, Orkney and Lewis. This option therefore considers the case for dedicated freight sailings where there is potential demand, Islay being the obvious candidate in this respect. This could either be on existing vessels operating overnight or through the provision of dedicated freight sailings.

Option 6D	Dedicated freight sailings				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	×	×	✓✓	○
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓
Equalities	Public Sector Equality Duty				○
	Fairer Scotland Duty				○
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	Given the freight focus of this option, it would not impact on any groups with a protected characteristic. However, it would reduce some of the challenges faced by island supply-chains in terms of the movement of freight.				

5.7.14 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- It is important to note at the outset that this option would only realistically apply to a very small number of islands where volumes could justify the expense of dedicated freight sailings. Its overall impact from an RTS perspective would therefore be modest, but it could have significant benefits for specific islands, particularly in relation to **SO5**, **SO6** and the **economy** criterion.

- The operation of additional sailings would record a minor negative **climate change,** and **environment** impact associated with increased emissions, noise etc. Additional vehicle kilometres associated with released capacity for additional cars could also lead to a minor negative **health, safety and wellbeing** impact.
- From an **affordability** perspective, this option would best be delivered by existing vessels operating overnight rather than by additional freight-only vessels. Most routes in Scotland operate on a 'day-basis' with the vessel tied-up overnight, although it should be noted that the operating day of certain vessels (e.g., MV *Hebrides* and MV *Clansman*) is increased considerably in the summer months, limiting the scope for additional sailings when they are most needed. More generally, there would be **deliverability** challenges associated with operating existing vessels more frequently in terms of the crewing model, availability of crew accommodation and ensuring that sufficient time is allocated for maintenance and drills.
- It is likely that this option would have a high degree of **public acceptability** so long as the additional sailings did not impact on punctuality, reliability or resilience.

Recommendation: This option should be **considered further in the RTS** as one potential means of reducing capacity pressures on freight intensive routes and improving overall supply-chain efficiency.

Option 6E: Support the growth in rail freight

5.7.15 Rail freight offers significant opportunities for the HITRANS region. One of the key public / societal benefits from rail freight is removing HGVs from the road – this would be a particular benefit in the HITRANS region where heavily-laden HGVs extend journey times and increase driver frustration on the region's predominantly single carriageway roads. Moreover, rail freight is well-suited to handling bulk and homogenous products such as timber, oils and waste which are features of the region's supply-chain.

Option 6E	Support the growth in rail freight				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓✓	✓✓	✓✓	✓✓	○
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓✓
Equalities	Public Sector Equality Duty				○
	Fairer Scotland Duty				○
	Child Rights and Wellbeing Duty				○

Option 6E	Support the growth in rail freight	
	Island Communities Impact Assessment	○
	Given the freight focus of this option, it would not materially impact on any groups with a protected characteristic.	

5.7.16 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Growth in rail freight would make a positive contribution to **SO6** through enhancing supply-chain efficiency and improving road safety on routes such as the A9 and A82. It would also record a benefit against **SO1** with respect to transferring road freight to rail.
- The impact of this option with respect to the STAG criteria broadly echoes that of the Strategy Objectives. Transferring freight from road to rail (and indeed growing rail freight more generally) would support the **climate change** and **environment** criteria; reduced road accidents **(health, safety and wellbeing)**; and improved supply-chain efficiency **(economy)**.
- The primary challenge with respect to this option is **deliverability**. The rail freight market is entirely commercial, and any growth will therefore reflect commercial realities rather than public policy decisions, outwith infrastructure works to promote freight growth. The focus from an RTS perspective therefore has to be on measures which reduce the physical and operational limitations of the railway in the region (e.g., improved route availability and gauge clearance, increased sections of double track, more and longer passing loops etc), whilst also lobbying government for funding to encourage freight mode shift to rail.

Recommendation: This option should be **considered further in the RTS**, with the prospective role of HITRANS being to make the case for investment that reduces the physical and operational limitations of the railway in the region and for funding to encourage freight mode shift.

Option 6F: Support the growth in waterborne freight

5.7.17 Every local authority in the HITRANS region has an extensive coastline and numerous harbours, whilst the Caledonian and Crinan Canals provide 'shortcuts' for coastal traffic, albeit with clear vessel size limitations (particularly with respect to the Crinan Canal). Supporting the growth of waterborne freight, and in particular coastal shipping, is an important opportunity for the RTS. Moreover, there are several major construction projects proposed in the region, including the Coire Glas pumped hydro scheme where there is an opportunity to move construction materials and waste products by canal. Growth in waterborne freight therefore presents an important opportunity for the region.

Option 6F	Support the growth in waterborne freight				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓✓	✓✓	✓✓	✓✓	○
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○

Option 6F	Support the growth in waterborne freight	
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	✓✓
Equalities	Public Sector Equality Duty	○
	Fairer Scotland Duty	○
	Child Rights and Wellbeing Duty	○
	Island Communities Impact Assessment	○
	Given the freight focus of this option, it would not materially impact on any groups with a protected characteristic.	

5.7.18 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Growth in waterborne freight would make a positive contribution to **SO6** through enhancing supply-chain efficiency and improving road safety on routes such as the A83, as has been demonstrated through the TimberLINK service[5]. It would also record a benefit against **SO1** with respect to transferring road freight to water. There is also an opportunity to improve the efficiency of island freight flows through taking advantage of economies of scale associated with bulk freight, supporting **SO5**.
- The impact of this option with respect to the STAG criteria broadly echoes that of the Strategy Objectives. Transferring freight from road to water (and indeed growing waterborne freight more generally) would support the **climate change** and **environment** criteria; reduced road accidents **(health, safety and wellbeing)**; and improved supply-chain efficiency **(economy)**.
- Like rail freight, the primary challenge with respect to this option is **deliverability** in terms of making the commercial proposition stack-up without subsidy. Despite the opportunities, low volumes mean that coastal shipping around the region is relatively limited in scale.

Recommendation: This option should be **considered further in the RTS**, particularly with respect to the sustainable delivery of major construction projects like Coire Glas.

5.8 Strategy Theme 7: Improving the safety, reliability and resilience of our road and rail networks

5.8.1 The extremes of geography, terrain and weather together with limited road and rail diversion routes mean that the HITRANS region is singularly lacking in network resilience. At the extreme end of the scale, closures of routes such as the A83 Rest and Be Thankful and A890 at Stromeferry can leave communities with a sense of isolation. However, even at a day-to-day level, short-term road and rail closures can lead to lengthy delays and diversions, whilst there is a significant backlog in road maintenance. Similarly, the accident rate on several roads in the region is well in excess of the national average, a risk heightened by the large

[5] https://forestry.gov.scot/forestry-business/timber-transport/timberlink

summer visitor influx, many of whom will be unfamiliar with the particulars of the road network in the region.

5.8.2 This Strategy Theme therefore generates and appraises options to improve the safety, reliability and resilience of transport networks in the region. It should be noted that the focus is on **road and rail**, as active travel is covered in Strategy Themes 1 and 2 and ferries and aviation in Strategy Theme 5.

5.8.3 The options included within Strategy Theme 7 are as follows:

- **Option 7A:** Improve road maintenance
- **Option 7B:** Improve the resilience of the road network
- **Option 7C:** Introduce measures to improve road safety
- **Option 7D:** Improve rail service reliability
- **Option 7E:** Improve rail network resilience
- **Option 7F:** Improve travel information for motorists and ferry passengers (driving to the ferry)
- **Option 7G:** Reduce road-based journey times to / from: (i) Inverness; (ii) our sub-regional centres; and (iii) Scotland's other cities and beyond

Option 7A: Improve road maintenance

5.8.4 A combination of the sheer size of the HITRANS region together with the very low traffic flows on most roads make prioritising and funding road maintenance difficult. This issue is heightened by the cost and logistical challenges of undertaking even routine maintenance in some islands and the most remote communities. A consequence of this is that a significant length of the road network is in a poor state of repair with potholes, degraded carriageways and damaged verges to name but a handful of the problems. This option is therefore concerned with improved road maintenance.

Option 7A	Improve road maintenance				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓	✓	○
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓
Equalities	Public Sector Equality Duty				○

Option 7A	Improve road maintenance	
	Fairer Scotland Duty	○
	Child Rights and Wellbeing Duty	○
	Island Communities Impact Assessment	○
	This option would have no material bearing on equalities.	

5.8.5 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Addressing the road maintenance backlog and thereafter proactively managing the maintenance programme would contribute towards **SO6** through reduced wear and tear on vehicles and the costs associated with this. This would also contribute positively to the **economy** criterion.
- Potholes and poor road surfaces can be a deterrent to wheeling and cycling, particularly on busier and faster roads. This option would therefore have a positive impact on **SO2** and more generally would support improved **health, safety and wellbeing** of all road users.
- **Affordability** would be a key issue with this option given the extent of the maintenance backlog and the downward pressure on central and local government budgets. This is a particular issue in the HITRANS region where the geography makes maintenance more expensive relative to elsewhere in Scotland. **Deliverability** would also be an issue with respect to supply-chain capacity, at least in the short-term.
- Given the high-profile of road maintenance backlogs, any effort to tackle these backlogs would be **publicly acceptable**, roadworks notwithstanding. However, it does have to be realised that this could detract from other revenue funds.

Recommendation: This option should be **considered further in the RTS**.

Option 7B: Improve the resilience of the road network

5.8.6 As explained in the preamble to this Strategy Theme, road network resilience is a major issue in the HITRANS region. Whilst resilience is a national issue, the HITRANS region is particularly vulnerable to disruption due to a combination of severe weather (e.g., snow gate closures); geological instability (e.g., A83 Rest and Be Thankful); and flooding / sea level rises (e.g., the Outer Hebrides Spinal Route).

5.8.7 This vulnerability to disruption is compounded by the length of diversions in the event of disruption. For many settlements in the region, the terrain means that there is one road in, and one road out, even for regional centres such as Fort William. Diversions can take several hours and sometimes require a ferry crossing, such as when the A83 Rest and Be Thankful or A830 west of Lochailort are closed. This option is therefore focused on improving the resilience of the road network in the region:

Option 7B	Improve the resilience of the road network				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	✓	✓	✓✓✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○

Option 7B	Improve the resilience of the road network	
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.	○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.	○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	✓✓✓
Equalities	Public Sector Equality Duty	✓✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓✓
	The resilience issues on several principal roads in the HITRANS region impose significant costs on communities, including those living in islands. They also negatively impact those with protected characteristics, for example age (e.g., children travelling to school) and pregnancy and maternity (e.g., for travelling to ante natal appointments or into hospital for labour).	

5.8.8 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would make a highly positive contribution to **SO6**. Lack of resilience in the road network seriously compromises the efficiency of supply-chains and the economies of communities affected. There are also evident safety issues associated with extended journeys and re-routing on inappropriate roads. There would also be positive benefits for islands **(SO5)**, both in terms of resilience within the island or island-chain (e.g., the Outer Hebrides Spinal Route) and for onward travel on the mainland.
- For the reasons outlined above, this option would make a highly positive contribution to the **economy**, **equality and accessibility** and **health, safety and wellbeing** criteria.
- The improvement work would reduce vulnerability to the effects of **climate change.** There would also be a positive **climate change** impact associated with reducing lengthy diversions. It is important to acknowledge that the solutions to some of the road-based resilience problems in the region will require major engineering works, the A83 Rest and Be Thankful for example. These measures would have a negative **environment** impact associated at least with the construction work.
- Connected with the above point, a combination of the **affordability**, terrain and environmental designations make the **deliverability** of major schemes to improve resilience challenging.

Recommendation: The resilience of the road network in the HITRANS region is a major issue which can leave communities isolated and cause major disruption to personal travel and supply-chains. This option should therefore be **considered further in the RTS.**

Option 7C: Introduce measures to improve road safety

5.8.9 The 'Case for Change' set out in some detail the safety issues with the road network in the HITRANS region. Measures to improve road safety including carriageway upgrades, speed management, new / enhanced services and rest areas and improved signage are therefore important considerations for the RTS.

Option 7C	Introduce measures to improve road safety				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	××	×	✓✓✓	✓✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓✓✓
Equalities	Public Sector Equality Duty				✓✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓✓
	Poor road safety is an issue across the HITRANS region and impacts on several groups with protected characteristics, such as age and disability. Measures to improve road safety would thus have a positive equalities impact.				

5.8.10 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would again make a highly positive contribution to **SO6**, addressing the safety issues on the region's roads for all user types. By extension, this option also makes a highly positive contribution to **health, safety and wellbeing**.
- Physical improvements to the road network provide an opportunity to incorporate active travel provision or at the very least improve the safety of walking, wheeling and cycling alongside the road, thus contributing to **SO2**.
- In addition to the **health, safety and wellbeing** and **economy** benefits associated with fewer accidents (e.g., fewer fatalities and injuries, reduced costs to the NHS etc), road safety improvements would also improve journey time reliability through fewer accident-related delays. Poor road safety also imposes inequalities on communities within the

region and thus investment in improving this would have positive **equality and accessibility** impacts.

- It is important to note that any physical road improvements would have negative **environmental** impacts, particularly for larger schemes such as the A9 and A96 dualling. Improved roads would also generate additional vehicle kilometres and thus would have a negative **climate change** impact.

Recommendation: Road safety is a key problem within the HITRANS region and it is therefore important that this option is **considered further in the RTS**.

Option 7D: Improve rail service reliability

5.8.11 Whilst rail service reliability in the region overall was not identified as a major problem in the 'Case for Change', limited infrastructure, aging rolling stock and imported delay from elsewhere in the country do cause some challenges in this respect. This option is therefore focused on improved rail service reliability.

Option 7D	Improve rail service reliability				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	○	✓✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓
	Improved rail service reliability would have positive equalities impacts, in particular supporting non-car available and rural communities to better access opportunities in Inverness and elsewhere.				

5.8.12 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would contribute to **SO6** through improving the reliability / efficiency of the rail network. Given that several of the railway lines in the region connect with ferry ports, this option would also contribute to **SO5**. Improved rail service reliability would have **economy** benefits and would also have positive **equality and accessibility** impacts.

- From an **affordability** and **deliverability** perspective, it is important to recognise that delivering major improvements in rail service reliability would likely require significant expenditure.

Key Points: This option should be **considered further in the RTS** as part of a wider package of measures to improve and further develop the railway network in the region.

Option 7E: Improve rail network resilience

5.8.13 Like the road network, the rail network in the HITRANS region is highly susceptible to disruption due to weather and geological instability. Indeed, three sections of the West Highland Line were damaged in June 2023 during heavy rain, with one of the sections having to be rebuilt after 400 tonnes of material was swept away. Improving network resilience would support rail travel across the region.

Option 7E	Improve rail network resilience				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	✓	✓✓	✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓✓
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	Improved rail service resilience would assist in addressing inequalities within the HITRANS region, particularly for those without a car and who are dependent on public transport for essential journeys.				

5.8.14 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- As with **Option 7B: improved resilience of the road network**, this option would support **SO6** and also **SO5** in terms of supporting journeys to and from island communities. This option though records a lower score relative to **Option 7B** because the scale of the resilience problem is smaller.

- The scoring of the options against the STAG criteria is also similar to that for Option 7B, although the scale of impacts is again smaller. It should though be noted that this option records a more significant **health, safety and wellbeing** benefit given the potential consequences of e.g., a landslip on a railway line. The improvement work would reduce the vulnerability to the effects of **climate change. Environment** impacts would also be less given the scale of rail resilience works would be more modest.
- Whilst any major resilience works on the railway could perhaps present **affordability** challenges, it should be noted that simple and low-cost measures such as vegetation clearance and enhanced monitoring can be delivered more easily and at a much lower cost.

Recommendation: This option should be **considered further in the RTS** as a means of improving overall network resilience within the region.

Option 7F: Improve travel information for motorists and ferry passengers

5.8.15 As outlined in the 'Case for Change', there is limited road network resilience in the HITRANS region, with weather, geological instability, roadworks and accidents all having the potential to lead to delays and diversions. Limited fuelling and EV charging infrastructure is also an issue for those less familiar with the region or parts of it. In most cases, there is no diversion route available, or the diversion is extremely lengthy, often on less suitable roads. These issues are compounded by delays and cancellations to ferry services, which are effectively part of the road network.

5.8.16 A feature of the lack of diversion routes is the requirement to provide travel information as quickly as possible and at strategic points on the road network. Virtual information on websites such as Traffic Scotland and the CalMac App is essential but given limited mobile connectivity in much of the region, traditional methods of imparting information such as Variable Messaging Signs (VMS) are necessary. This is particularly the case at strategic points on the network, e.g., at Tyndrum where the A82 and A85 diverge. This option therefore is focused on continuing to develop and improve travel information for motorists (including freight).

Option 7F	Improve travel information for motorists and ferry passengers				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓	✓	○
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓✓
Equalities	Public Sector Equality Duty				○

Option 7F	Improve travel information for motorists and ferry passengers	
	Fairer Scotland Duty	○
	Child Rights and Wellbeing Duty	○
	Island Communities Impact Assessment	✓
	This option would be broadly neutral from an equalities perspective, as it is predominantly focused on improved network management. It would though support island communities through improving information on ferry services, potentially negating the need for long diversions or missed connections altogether.	

5.8.17 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would contribute strongly to **SO6** by improving the efficiency, safety and resilience of transport networks in the region through the timely imparting of travel information. It would also reduce / mitigate the perceptions of poor quality with respect to the region's road network **(SO4)**.
- Improved travel information would have an **economy** benefit through reducing lost time and fuel consumption. It would also potentially allow freight operators to work around closures and disruption, reducing the cost impact on their business. This option would also have a minor **health, safety and wellbeing** benefit associated with minimising inappropriate (re)routing.

Recommendation: The susceptibility of the region's road network to disruption together with the impact of such disruption to motorists and freight means that this option should be **considered further in the RTS**.

Option 7G: Reduce road-based journey times to / from: (i) Inverness; our sub-regional centres; and (iii) Scotland's other cities and beyond

5.8.18 Whilst policy has largely moved away from major road-building schemes, it is important to highlight the importance of road-based travel for residents and businesses in the HITRANS region. As detailed in the 'Case for Change', journey times on the region's road network are long and unreliable, whilst there is also limited resilience in the event of an incident. This option recognises the need to improve road-based journey times on strategic routes.

Option 7G	Reduce road-based journey times to / from: (i) Inverness; (ii) our sub-regional centres; and (iii) Scotland's other cities and beyond				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	××	××	×	✓✓✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				××
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓ / ×
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○

Option 7G	Reduce road-based journey times to / from: (i) Inverness; (ii) our sub-regional centres; and (iii) Scotland's other cities and beyond	
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	✓✓
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓
	Measures to reduce road-based journey times have potential for beneficial equalities impacts where connectivity to key services and facilities is enhanced or the negative impacts imposed by current roads is addressed. There is potential to tackle socio-economic disadvantage where employment opportunities are improved and through reduced differential impacts compared with other locations. However, any road-based measures would have to be implemented in such a way that they do not widen inequalities, such as increasing physical severance or undermining the commercial viability of essential bus services.	

5.8.19 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- It is important to recognise that any measures to reduce road-based journey times will likely lead to an increase in emissions and other harmful effects associated with motorised travel **(SO1, climate change** and **environment** criteria**)**. Whilst such measures would benefit bus services, the journey time advantages offered by car against both rail and bus does suggest a degree of mode-shift to the car is likely. The positive however is that such measures would improve the efficiency of transport networks for people and freight **(SO6)**, reducing the comparative disadvantage faced by those living, working and doing business in the region.
- Reduced road-based journey times would be beneficial for island communities **(SO5)** as they would: (i) provide a longer period of meaningful time on mainland; and (ii) improve the efficiency of island-based hauliers and by extension the movement of time sensitive goods.
- The impacts of such measures on active travel would depend on the extent to which any option integrated enhanced active travel connectivity and / or safety within the option package **(SO2)**.
- Any capital improvements to the road network such as new stretches of dual carriageway or targeted town bypasses would evidently have negative **environmental** impacts, potentially including on landscape, visual amenity and biodiversity and habitats. The trade-off in this respect would be the improved **economic** performance associated with reduced journey times.
- Increased emissions and vehicle speed would have negative impacts on **health, safety and wellbeing**.

Recommendation: The strategic road network in the HITRANS region was evidenced in the 'Case for Change' as a drag on economic performance and a barrier to growth. There is therefore a continued case for investment in the road network where it demonstrably improves strategic journey times, reliability, safety or reduces inequalities or emissions (e.g., on strategic single track roads like the Outer Hebrides Spinal Route). However, the rationale for investment would need to be considered on a case-by-case basis with a view to establishing whether there is a more appropriate way to deliver the desired outcome (in line with the *Sustainable Investment Hierarchy*) and whether it supports the RTS Strategy Objectives. This option should therefore be **considered further in the RTS** but new road projects should only be progressed where all other options have been explored and the negative impacts of any scheme mitigated as far as reasonably possible.

5.9 Strategy Theme 8: Facilitating sustainable visitor travel demand

5.9.1 The region experiences extreme winter-summer differentials in the size of its population, with a large but transient summer tourism influx. In the summer months, the network overall has to accommodate daytrippers, staying visitors, motorhomes and cruise passengers, whilst traffic has to be managed at 'honeypot' locations such as Skara Brae. A particular feature of tourism in the region is that much of it is drawn towards where the transport infrastructure is least well-placed to support it, e.g., the North Coast 500; the islands, where visitors can consume a significant amount of ferry vehicle capacity; and 'honeypot' locations such as the Fairy Pools on Skye.

5.9.2 This Strategy Theme is therefore focused on facilitating sustainable visitor travel demand across the region. It is important to acknowledge here however that addressing tourism pressures in the region is a much wider issue and will require a coordinated approach across a range of organisations and policy areas. The options considered under this theme are as follows:

- **Option 8A:** Improve active travel options for those travelling to / from tourist destinations
- **Option 8B:** Improve public transport interchange experience for visitors
- **Option 8C:** Provide additional rail service capacity in peak season
- **Option 8D:** Improve parking provision, management and enforcement at key tourism destinations
- **Option 8E:** Targeted road improvements where there is high seasonal demand
- **Option 8F:** Bus-based Park & Ride to 'honeypot' tourist sites

Option 8A: Improve active travel options for those travelling to / from tourist destinations

5.9.3 Whilst investing in and promoting active travel will be a central theme of the RTS, it is important to differentiate between leisure and 'travel for a purpose' journeys. Active travel planning and funding is conventionally targeted at the latter. However, leisure-based active travel to and from tourist destinations as well as cycling and walking holidays more generally are prominent in the region. An important feature of many of these trips is that they are linear (e.g., cycling the Hebridean Way) or concentrate high volumes of cars at specific nodal points (e.g., Glenfinnan) or mountains, Munros, lochs and river access car parks.

5.9.4 This option therefore promotes active travel connections as means of accessing attractions (e.g., connecting Fort William with Ben Nevis) and supporting more sustainable tourism in the region.

Option 8A	Improve active travel options for those travelling to / from tourist destinations				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓✓	✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓
	Measures to enhance active travel routes and capacity have the potential to enhance opportunities for protected characteristics groups and people in each equalities framework provided they are designed to meet requirements for access for all.				

5.9.5 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would make a positive contribution to **SO2** in terms better connecting settlements to tourist sites and improving the quality of infrastructure for those undertaking a walking or cycling holiday. There is an opportunity therein to widen access to public and shared transport **(SO3)** through introducing measures such as 'bike buses' and DRT or EDRT to help walkers and cyclists return to their point of origin on linear trips.
- This option would also contribute to **SO1** (and by extension the **climate change** and **environment** criteria) by providing active options for accessing tourist sites.
- There would be **health, safety and wellbeing** benefits for visitors to the region making journeys, whilst communities negatively affected by an influx of visitor traffic would also benefit. Moreover, there would be local **economy** and **equality and accessibility** benefits for communities associated with both better management of and (potentially) increased visitor numbers.
- A **deliverability** challenge with this option is that many of the active travel funding streams are focused on functional rather than leisure journeys. A change in this focus or the identification of alternative funding streams may be required to deliver outputs related to this option.

Recommendation: Many visitor attractions in the region are close to settlements and thus public transport interchange points or plentiful car parking. It is important that opportunities for onward active travel connections to these sites is explored and this option should therefore be **considered further in the RTS**.

Option 8B: Improve the public transport interchange experience for visitors

5.9.6 A priority for visitors to the region is maximising their 'holiday' / leisure time, thus reducing transport-related 'dead time'. This is a particular concern for cruise passengers who are not on organised tours and who typically have a maximum of 8-10 hours in port. This option is therefore focused on measures to improve the public transport interchange experience through a combination of increased seasonal staffing and the provision of high-quality information.

5.9.7 It is again important to note here that partnership working would be required to deliver this option and thus it is not an issue for the RTS alone. Multi-agency delivery from local authorities, port authorities, Visit Scotland, HIE and other partners would be integral to realising the component parts of this option.

Option 8B	Improve the public transport interchange experience for visitors				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓	✓✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				○
	Fairer Scotland Duty				○
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	This option is predominantly focused on improving public transport interchange for those visiting the region rather than those resident in it, so the equalities impacts are likely to be limited. There would however potentially be positive benefits for island and also more remote communities which can be overwhelmed when large cruise liners are in port.				

5.9.8 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would contribute to two of the RTS Strategy Objectives in terms of widening access to, and improving the quality of, public transport for visitors to the region (**SO3** and **SO4**). This would support the **economy** of the region through improving the quality of the visitor experience and encouraging repeat visitation.
- As previously noted, **deliverability** of this option would require a multi-agency approach. Central to this would be securing and administering funding that facilitates a ramp-up of staff, published travel information etc to cater for seasonal increase in demand.

Recommendation: This option should be **considered further in the RTS** but would require a multi-agency approach to be delivered successfully.

Option 8C: Provide additional rail service capacity in peak season

5.9.9 As previously noted, the railway network in the HITRANS region, and in particular the scenic West Highland, Kyle and Far North lines, experience a major uplift in passenger numbers in the summer. For many of those travelling, the attraction is the journey itself, whilst for others the train is a means of reaching their destination, either on a day-trip or where there is one or more overnight stays involved. This puts pressure on seat capacity, but also increases demand for the carriage of bicycles, luggage, equipment etc on what are essentially urban diesel multiple units.

5.9.10 Whilst the infrastructure constraints on the region's railway network limit the scope for a major ramp-up in services, there are opportunities to operate some additional services, such as in the Fort William area. Similarly, there are options to strengthen peak services with additional carriages (such as the Class 153 bicycle carriages), whilst the *Jacobite* open access service has demonstrated a successful commercial approach to meeting tourist needs.

Option 8C	Provide additional rail service capacity in peak season				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	✓✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓

Option 8C	Provide additional rail service capacity in peak season
	This option is predominantly focused on improving public transport interchange for those visiting the region rather than those resident in it, so the equalities impacts are likely to be limited. However, capacity issues on rail services at peak periods of the year can crowd out local travel, particularly as visitors can generally book further ahead, which can negatively affect those with a protected characteristic. This option would alleviate some capacity issues and would thus have a positive equalities impact.

5.9.11 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would again contribute to **SO3** and **SO4** through widening access to rail services and improving the quality of the journey during peak periods.
- It would also have **climate change, environment** and **health, safety and wellbeing** benefits through encouraging mode shift from the private car, whilst there would be **economy** benefits associated with increased visitor numbers and, potentially, a wider geographic distribution of those visitors.
- The conventional approach to rail timetabling focused on regular and repeated services (i.e., clockface timetabling) is somewhat at odds with this approach of flexing services to respond to irregular / seasonal demand. This is a **deliverability** challenge which would therefore need to be worked through with the railway industry.

Recommendation: There have been some notable recent successes in flexing rail services to meet seasonal demand, such as the converted Class 153 bicycle carriages and the *Jacobite* service. This option should therefore be **considered further in the RTS.**

Option 8D: Improve parking provision, management and enforcement at key tourism destinations

5.9.12 Parking provision, management and enforcement is another area where the seasonal influx of visitors presents a challenge. Throughout Scotland, parking management and enforcement resources tend to be focused on urban centres and settlements and is concentrated on managing compliance and turnover. It can be difficult to flex this model to incorporate both specific tourist attractions (e.g., the Italian Chapel) and large areas of high seasonal demand (e.g., the Cairngorms National Park). Added to conventional parking problems is campervan and motorhome parking, coach parking at tourist sites and other problematic practices such as parking in passing places.

5.9.13 Improving parking provision, management and enforcement at tourist sites and other areas of high demand is essential if the full benefits of tourism are to be realised and the negative impacts mitigated as far as reasonably possible.

Option 8D	Improve parking provision, management and enforcement at key tourism destinations				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	×	×/✓✓	✓✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓

Option 8D	Improve parking provision, management and enforcement at key tourism destinations	
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.	○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	✓
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓
	This option is predominantly focused on improving parking for those visiting the region rather than those resident in it, so the equalities impacts are likely to be limited. However, indiscriminate and illegal parking can have a negative impact on communities, including for those with a protected characteristic. This option would alleviate some of these problems and would thus have a positive equalities impact.	

5.9.14 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would support **SO2** by reducing the extent to which indiscriminate and illegal parking impact negatively on walking, wheeling and cycling in settlements amongst both residents and visitors. It would also support **SO6** by improving the efficiency and safety of access to, from and within areas of high tourism demand.
- Parking problems impact negatively on the **economy**, **health, safety and wellbeing** and **equality and accessibility** of areas. The recent problems at specific sites such as Glenfinnan and the Fairy Pools have been well publicised, whilst parking behaviour in the islands is a regular source of complaint, particularly with regards to motorhomes. This option would assist in alleviating this problem and would thus record benefits with respect to these categories.
- It should be noted that any expansion of car parking provision would have negative **environment**, **climate change** and **health** impacts if it led to increased vehicle kilometres.
- As with several options in this theme, the **deliverability** challenge is flexing 'year-round' models to account for seasonal demand. This requires either additional resource (which could have an **affordability** constraint) or the redeployment of existing resources, thus reducing enforcement in settlements.

Recommendation: This option should be **considered further in the RTS**, with a view to ensuring that communities obtain the maximum benefits from tourism in the region.

Option 8E: Targeted road improvements where there is high seasonal demand

5.9.15 A growing challenge posed by tourism is the pressure that it puts on roads which are simply not designed to accommodate it. The most high profile example of this is the North Coast 500, but other obvious examples include the Outer Hebrides Spinal Route in Uist, the roads

between Craignure and Tobermory / Fionnphort and the Applecross road. Whilst the presumption of the RTS is against new road building, the focus of this option is more on small and targeted improvements such as improved / greater provision of passing places, formalisation of passing places and improved signing and lining. However, the case for more significant investments such as the long-proposed conversion of the Craignure to Tobermory route to single carriageway should not be ruled out.

Option 8E	**Targeted road improvements where there is high seasonal demand**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×	×	✓✓	✓✓	○
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓
Equalities	Public Sector Equality Duty				○
	Fairer Scotland Duty				○
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	As this option is predominantly focused on marginal improvements to the road network to support improved traffic flow and safety, it would have little in the way of equalities impacts. It could however be beneficial for island communities in terms of managing the impacts of seasonal traffic on resident travel.				

5.9.16 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option is predominantly targeted at improving safety and journey time reliability in the summer months and would thus contribute to **SO6**. An ancillary benefit would be to improve the safety of cycling and, to a lesser degree, walking connections between settlements, thus contributing to **SO2**.
- Journey time reliability on routes with high tourism volumes worsens significantly in the summer months, particularly in and around ferry arrival and departure times in islands. This option would therefore have a positive **economy** impact in terms of reduced journey times and improved journey time reliability.
- There would also be **health, safety and wellbeing** benefits associated with this option. As well as ensuring that visitors understand how to use single track roads and passing places, there would also be a reduction in driver frustration, particularly when trying to catch a ferry. Moreover, a regular complaint in island and deep rural areas is that tourists

do not allow users familiar with the road to pass on occasions preventing e.g., doctors attending emergency calls. This option would address this.

- There is a risk of negative **environmental** and **climate change** impacts associated with this option, although any such impacts should be relatively minor, except where larger scale improvements are made or significant additional vehicle kilometres generated.
- From a **deliverability** perspective, partnership working and funding would be required to concentrate investment in roads / areas which would not normally be prioritised in conventional transport appraisal.
- The majority of improvements envisaged under this option would be relatively minor in scale. **Affordability** of individual measures should not therefore be a major issue, although cumulative costs of improving long routes may be more challenging. Larger scale improvements such as upgrading the Craignure to Tobermory route to single carriageway would be more substantial undertakings and would require their own business case to assess affordability.

Recommendation: The over-use and misuse of low standard roads by visitors to the region is an ongoing problem for communities living alongside them. This option should therefore be **considered further in the RTS**.

Option 8F: Bus-based Park & Ride to 'honeypot' tourist sites

5.9.17 Even with proactive management of traffic and parking, many visitor sites in the region are regularly overwhelmed by vehicular traffic. Moreover, many of these sites are popular because of their natural beauty or historic , and it is difficult to expand parking without having a disproportionately negative impact on the site itself. There is also a risk that increased parking provision simply releases suppressed demand such that the problem quickly resurfaces.

5.9.18 Several areas of the UK, particularly National Parks, have started to create bus-based Park & Ride (P&R) sites for visiting 'honeypot' tourist sites. This has typically been aligned with higher parking charges and tighter parking controls at the site itself. For example, Eryri (Snowdonia) National Park has recently introduced the requirement to pre-book parking at Pen y Pass (one of the most popular access sites to the mountain for walkers), where there is a £40 per day charge. This restriction of parking has been introduced alongside the Sherpa'r Wyddfa bus network, which offers unlimited travel on multiple routes (including to Pen y Pass) around the region for £6 a day (or £4 for an English or Scottish concessionary card holder).[6] This type of approach could be adopted at sites in the HITRANS region.

Option 8F	Bus-based Park & Ride to 'honeypot' tourist sites				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓✓	✓✓	✓✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓

[6] https://snowdonia.gov.wales/visit/snowdon/pen-y-pass-car-park/

Option 8F	Bus-based Park & Ride to 'honeypot' tourist sites	
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	✓✓
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	○
	Island Communities Impact Assessment	✓
	This option would have a range of positive equalities impacts, including the expansion of bus service provision and reducing the impact on communities where major tourist sites are located.	

5.9.19 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would make a highly positive contribution against a range of criteria. By creating alternative travel opportunities to visitor sites (ideally aligned with increased parking restrictions), it would tackle the negative impacts of over-demand on the physical **environment** and **health, safety and wellbeing** in places such as Glenfinnan. This would contribute to **SO6** in particular.
- It would also serve to expand public transport provision in the region, often in some of the most rural areas, contributing to **SO2** and **SO3**. Furthermore, through addressing what can often be a chaotic experience for visitors at certain sites, it would improve the quality of transport in the region, supporting **SO4**.
- Depending on network design at each site, there could also be **climate change** mitigation benefits, and more generally it would embed access by public transport to popular sites in the long-term, supporting **SO1**.
- From a **deliverability** perspective, the primary challenge would be designing a financially sustainable bus network, and ramping this up in peak season to meet demand (e.g., securing enough buses and drivers, finding appropriate sites for P&R etc). **Affordability** could present a challenge given the extreme variation in visitor demand across the year in the region.

Recommendation: The traffic management and parking problems at several tourist sites around the region have become so severe that marginal increases in provision or tighter enforcement alone may do little to resolve the problem. This option presents a different way of tackling the issue, providing a 'carrot' to go with the 'stick' of increased parking enforcement and charges and it should therefore be **considered further in the RTS**.

5.10 Strategy Theme 9: Decarbonising our transport and mitigating the effects of climate change

5.10.1 Decarbonising the transport networks in the region and mitigating the effects of climate change will be a central focus of the RTS. Whilst a key objective at all levels of government in Scotland, there are particular features of the HITRANS region which make decarbonisation challenging, including the geography, range of modes of transport and commercial provision of some transport services. The RTS must identify these challenges and set the strategy by

which the region will realise its objectives. The options included under this Strategy Theme are as follows:

- **Option 9A:** Zero emission buses
- **Option 9B:** Decarbonisation of the railway network
- **Option 9C:** Decarbonisation of the aviation network within the HITRANS region
- **Option 9D:** Vehicle pooling or vehicle sharing
- **Option 9E:** Encourage zero emission vehicle uptake and use

5.10.2 It should be noted that decarbonisation of the ferry fleets within the HITRANS region is captured in **Option 5G: new vessels**. Whilst it is possible to decarbonise existing vessels (e.g., the proposed conversion of MV *Shapinsay* to hydrogen), the age of most vessels in the region's ferry networks means that this will be uneconomical relative to procuring new tonnage.

Option 9A: Zero emission buses

5.10.3 Bus vehicle quality varies considerably across the HITRANS region, with many buses approaching the end of their operational life. As with much of Scotland, vehicle quality tends to be better on inter-city routes and in larger urban settlements, with older and lower quality buses operating in more rural areas. This option therefore seeks to progressively replace the existing largely diesel bus fleet with zero emission buses, which under prevailing regulations would also be fully accessible.

Option 9A	Zero emission buses				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓✓	✓✓✓	✓✓	○	✓✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓
Equalities	Public Sector Equality Duty				✓✓✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓✓
	Island Communities Impact Assessment				✓✓
	Bus vehicle replacement would be predicted to significantly enhance accessibility for people with protected characteristics, including older people, those with disabilities, and				

Option 9A	Zero emission buses
	those travelling with children. Beneficial impacts would also be predicted in relation to each of the equalities frameworks.

5.10.4 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would evidently make a highly positive contribution to **SO1**, and indeed is one of the most important measures in decarbonising transport within the region. It would by extension also perform well against the **climate change** and **environment** criteria. It should though be noted that the impact with regards to whole life carbon when the embedded / operational and end-of life emissions are considered is more complex.
- There would also likely be some modal shift towards public transport resulting in fewer car trips and thus furthercarbon savings. There is the potential for indirect negative **environmental** impacts through the provision of the infrastructure required for the alternative fuel sources.
- A beneficial consequence of this option is that it would significantly improve the quality, physical accessibility and safety of the bus fleet across the region, contributing to both **SO4** and **SO6**.
- Additional fully accessible vehicles would also result in a major benefit in terms of **equality and accessibility** which in turn could result in a range of **health, safety and wellbeing** benefits for those who were previously excluded from travel due to accessibility issues, including reduced social exclusion, enhanced independence, and improved health outcomes. The reduction in emissions would also deliver positive **health** impacts.
- **Affordability** is a key consideration with this option. Most bus routes in the region are very 'thin' and receive significant public support. Replacing the existing bus fleet will ultimately be largely funded by the public sector, either through grants or increased contract prices (subsidy).
- There are several **deliverability** considerations in relation to this option including the phasing of new vehicle delivery. On the one hand, there is an argument that the oldest vehicles which are routinely used in the most remote areas should be targeted first (for maximum emissions reductions) but the passenger benefits would be most significant if investment on busier routes is prioritised.
- This option would garner a high level of **public acceptability** (so long as fares do not increase to reflect the investment) as current vehicle quality is highly variable across the region.

Recommendation: It is essential that the large bus fleet in the region is decarbonised over the Strategy lifetime and this option should thus be **considered further in the RTS**.

Option 9B: Decarbonisation of the railway network

5.10.5 Rolling stock used in the HITRANS region operates exclusively on diesel (although the LNER *Azuma* units are bi-mode and are operated as electric services from Edinburgh Haymarket south). Moreover, the majority of the units used were built between the 1970s and 1990s, with only the Class 170 stock built this century. With the Class 15x and HST fleet approaching the end of their operating life, there is an opportunity to decarbonise the railway network in the region.

Option 9B	Decarbonisation of the railway network				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**

Option 9B	Decarbonisation of the railway network				
	✓✓	✓✓✓	✓✓	✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓
	Rail network decarbonisation would not in itself have equalities impacts, but the introduction of new rolling stock would provide an opportunity to deliver improved physical accessibility.				

5.10.6 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- As with decarbonisation of the bus fleet, this option would contribute strongly to **SO1** and the **climate change**, **environment** and **health, safety and wellbeing** criteria.
- Whilst the primary focus here is decarbonisation, the replacement of older (although well maintained and presented) rolling stock would provide a once in a generation opportunity to improve the quality of the service, contributing to **SO4**, **SO6** and the **economy** and **equality and accessibility** criteria.
- New rolling stock is expensive, particularly when pursuing innovative traction systems. However, whilst this could present an **affordability** challenge, life expiry of the current units over the RTS period will make this a necessary investment regardless of the decarbonisation need.
- From a **deliverability** perspective, there is not yet a clear front runner in terms of the most attractive power system for future rolling stock. In addition, the railway is managed at the national level and this, combined with the costs of asset replacement, mean that the solution will have to be funded and delivered by central government, albeit with inputs from regional and local stakeholders.

Recommendation: Decarbonisation of the railway network is an important component of overall Scottish decarbonisation plans. Moreover, the impending life expiry of the Class 15x and HST stock present an opportunity to redesign service provision in the region. This option should therefore be **considered further in the RTS**.

Option 9C: Decarbonisation of the aviation network within the HITRANS region

5.10.7 The aviation network in the HITRANS region – both commercial and contracted – is operated using hydrocarbon fuels. Decarbonising aviation is therefore an important component of the overall package of measures to deliver the region's commitments to net zero.

5.10.8 It is important to note here that, with the exception of Transport Scotland, Argyll and Bute, Highland and Orkney PSO services, all air services in the region are provided on a commercial basis. Whilst HITRANS can make the case to commercial providers to decarbonise their fleets, the primary opportunity in this sector rests with the decarbonisation of contracted (PSO) services.

5.10.9 It is worth noting at the outset that the Sustainable Aviation Test Environment (SATE), the UK's first low carbon test environment at an operational airport, is based at Kirkwall Airport. A successful demonstration flight of a six-seater plane running on a hybrid battery and internal combustion engine was trialled in 2021. Meanwhile, Britten-Norman is planning to introduce its first zero-emission Islander in 2026.

Option 9C	**Decarbonisation of the aviation network within the HITRANS region**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓✓	✓✓✓	✓	✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓
	Air network decarbonisation would not in itself have equalities impacts, but the introduction of new aircraft could, depending on design, provide an opportunity to deliver improved physical accessibility.				

5.10.10 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- As the primary benefit of this option is the decarbonisation of the inter-island fleet (as a minimum), it records a major positive with respect to **SO1** and benefits with respect to the **climate change, environment** and **health, safety and wellbeing** criteria.
- It is likely that new aircraft would deliver improved physical access **(equality and accessibility)** and reliability **(SO6)** but this is design-dependent.
- From an **affordability** perspective, it is likely that the cost of PSO contracts will increase as the current BN2 Islander aircraft in service will be heavily written down and thus their lease costs will be far less than those for new aircraft.
- From a **deliverability** perspective, these aircraft could be secured through the contracting process reducing the procurement and contract management effort associated with specifying and tendering for the aircraft (although alternative models where the public sector owns and leases the aircraft do exist in Scotland).
- It should be noted that HIAL, with funding from the Scottish Government, purchased two new DHC6-400 Twin Otter aircraft in 2015. As relatively new and directly owned assets, their replacement may be a longer-term proposition.

Recommendation: There are significant opportunities emerging in the aviation industry with respect to aircraft decarbonisation. This option should therefore be **considered further in the RTS**, particularly with regards to the opportunity to procure new aircraft via the PSO contracting system.

Option 9D: Vehicle pooling or vehicle sharing

5.10.11 Vehicle-pooling is ride sharing where people with similar travel requirements share one vehicle rather than make separate trips. Vehicle-pooling can be undertaken informally between friends / colleagues (as is highly common in islands), coordinated by an employer, or formally through an online platform or app that matches people who have no other connection other than similar travel requirements.

5.10.12 Vehicle sharing can remove the need for vehicle ownership. Instead, users access shared vehicles through a vehicle sharing organisation that provides a fleet of vehicles in their local area. Vehicles can then be booked online or via a smartphone app. The operator provides fuel, parking and maintenance with users paying a fee each time they use the vehicle.

5.10.13 This option therefore seeks to develop / extend pooling and sharing arrangements in the region.

Option 9D	Vehicle pooling or vehicle sharing				
STAG Criteria	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility
	✓	✓	✓	✓	×/✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓

Option 9D	Vehicle pooling or vehicle sharing	
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	×/✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	○
	Island Communities Impact Assessment	✓
	Vehicle pooling and sharing is predicted to have some potential equalities benefits where new opportunities for accessibility for people with protected characteristics are presented. There may be challenges for some people if the system is implemented with digital access systems. Beneficial impacts would also be predicted for some people with socio-economic disadvantage and generally for remote and island communities where reliance on private transport is greatest.	

5.10.14 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would make a moderate positive contribution to **SO3** and **SO4** in terms of widening access to and improving the quality of shared transport, with particular benefits for remote and island communities where reliance on private transport is greatest.
- Increased levels of vehicle-pooling should deliver positive **climate change, environment** and **health, safety and wellbeing** benefits due to reduced vehicle kilometres. However, there could also be a negative impact where vehicle sharing or pooling leads to people making trips by ICE vehicles that they either previously did not make or made by other more sustainable modes.
- There would be **economic** benefits including positive TEE benefits and wider impacts as a result of enhanced access to employment. The delivery of a formal vehicle sharing scheme may also open-up tourism opportunities generating further value.
- There is potential for beneficial **equality and accessibility** impacts where the option offers affordable and enhanced accessibility for disadvantaged groups, such as non-car owners and communities with poor public transport connectivity. However, on the other hand, there may be disbenefits if booking systems are primarily based around app-based technology as this would be less accessible to those who do not own smart devices or cannot easily use them e.g., the elderly, those on lower incomes etc.
- It should be noted that, whilst formal pooling and sharing schemes would generate revenue, it is unlikely that this will cover scheme costs. Public sector capital investment and potentially an operating subsidy may be required, giving rise to **affordability** and **deliverability** issues.

Recommendation: This option offers a potential alternative means of shared transport provision is the region and should be **considered further in the RTS**.

Option 9E: Encourage zero emission vehicle uptake and use

5.10.15 The Scottish Government is aiming to phase out the need for new petrol and diesel cars by 2030. Electric vehicles (EVs) are seen as the future of road transport and offer significant potential for reduced carbon emissions albeit they still have whole life carbon impacts, from manufacturing to disposal. However, there are a number of factors hindering uptake. Despite

lower running costs, EVs are significantly more expensive to purchase than ICE vehicles. This restricts market uptake and introduces an inequality whereby those on lower incomes are either excluded from the market or are disproportionally affected due to a higher proportion of their income being spent on EV ownership. In addition, there are relatively few EV chargers in the region overall, although provision varies by authority (e.g., Orkney has one of the highest number of chargers per capita in the UK). The electrical grid in the region, and in particular in the most remote areas, is unlikely to have sufficient capacity to support the wholesale transition of the transport network to EVs at present. A range of other low and zero emission fuels are also emerging.

5.10.16 In order to support zero emission vehicle (ZEV) uptake and use, this option focuses on providing incentives to support ZEV purchase and extending the EV charging network / undertaking electrical grid capacity measures to support such improvements where required.

Option 9E	**Encourage zero emission vehicle uptake and use**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×/✓✓✓	✓✓✓	✓✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×/✓✓✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	Supporting the uptake of EVs and charging points is not predicted to have significant equalities impacts for people with protected characteristics, children and young people or for people living with socio-economic disadvantage although it has potential to make EV access more affordable and to reduce the negative externalities of ICE vehicle use. It may also support adoption of new accessible vehicles including buses.				

5.10.17 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would deliver a positive impact with respect to **SO1** and the **climate change**, **environment** and **health, safety and wellbeing** criteria through lower tailpipe emissions (although the net carbon impact when the whole vehicle lifecycle is considered is more complex). However, it is possible that this option would encourage people to purchase a vehicle which they otherwise would not with a resultant shift from public transport and active travel to car use. This would have a negative impact in terms of reducing overall car kilometres. There is also the potential for indirect negative **environmental** impacts

through the provision of the infrastructure required for EV charging, particularly where large-scale grid improvements are necessary, or other fuel types.

- Local incentives and infrastructure provision would help reduce the existing inequality in access to EVs (and ZEVs more generally) due to affordability and would therefore result in **equality and accessibility** benefits.
- From a **deliverability** perspective, a key challenge to-date has been the provision of EV infrastructure, which has been patchy, lacking a coherent national strategy and standards. Modernising and extending provision of chargers requires a national approach and associated funding settlement, or a commercially delivered solution. Similarly, there would be a requirement for clarity on capital funding and the tariff structure for use of EV chargers.

Recommendation: Catering for and indeed encouraging the growth of ZEVs in the region is a priority for HITRANS, and thus this option should be **considered further in the RTS.** However, it is essential that any commitment made in the RTS sits beneath a coherent national position in relation to infrastructure provision, funding and management.

5.11 Strategy Theme 10: Embracing new technologies

5.11.1 Travel in the HITRANS region changed significantly in the 1960s and 1970s. The upgrading of major roads such as the A9, the construction of river and estuarial crossings, the conversion of many ferry routes to Ro-Ro and the growth in regional aviation provided new opportunities for travel and improved journey quality. Since that period, the pace of change has been much slower, with travel at the end of the 2000s not dissimilar to the 1970s in terms of journey times, routes, means of travel etc. However, over the last 10 years or so, the rapid growth in technology combined with wider societal change (accelerated by COVID-19) has changed travel behaviour across the HITRANS region and beyond. This Strategy Theme is therefore focused on options for embracing new technologies over the lifespan of the next RTS.

5.11.2 The options included under this Strategy Theme are as follows:

- **Option 10A:** Mircomobility
- **Option 10B:** Mobility-as-a-service
- **Option 10C:** Connected and Autonomous Vehicles
- **Option 10D:** Autonomous buses

Option 10A: Micromobility

5.11.3 Micromobility refers to the use of a range of small, lightweight vehicles, including bikes, e-bikes, electric scooters and electric skateboards. Micromobility devices can be human-powered or electric and can be privately-owned or available through a shared fleet.

Option 10A	Micromobility				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓

Option 10A	Micromobility	
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.	✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.	✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓✓
	Micromobility sharing schemes are predicted to enhance opportunities for protected characteristics groups and people in each equalities framework (including reduced island differential impacts and improved health) provided they are applied consistently and designed to meet requirements for access for all.	

5.11.4 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Micromobility would contribute to several of the Strategy Objectives through widening network coverage, choice and quality for non-car-based travel (**SO2**, **SO3** and **SO4**), whilst also supporting a just transition to a post-carbon and more environmentally sustainable transport network (**SO1**).
- Where modal shift occurs, the option could help reduce greenhouse gas emissions through fewer car kilometres, resulting in a minor benefit with respect to the **climate change** and **environment** criteria. The wider availability and greater uptake of micromobility could also result in positive **health outcomes** and enhanced levels of **wellbeing** amongst the population, particularly if vehicle kilometres are reduced.
- This option could also have an **economic** benefit as a result of opening up tourism opportunities, including green / eco-friendly tourism which is a growth area across much of the region. It could also help people access employment opportunities they could not otherwise access.
- There would also be **equality and accessibility** benefits as the delivery of a coordinated scheme would help overcome some of the economic and other barriers which prevent people taking up new forms of mobility.
- From a **deliverability** perspective, public sector funding would be required to provide grants, whilst the delivery of a scheme may be dependent on a subsidy as the system may not be commercially viable even in a larger urban area such as Inverness – there are therefore **affordability** challenges.
- There are also legislative and safety issues surrounding electric scooters which would need to be taken into consideration before any decisions are taken to introduce scooter sharing schemes in the region. Currently, it is illegal to ride an electric scooter on a footway or road in the UK although they are subject to trials within four Future Transport Zones in England. It is anticipated that these will establish the foundations for regulations

that will enable use of electric scooters and open-up opportunities to introduce scooter sharing schemes across the country.

Recommendation: Micromobility is a growth area and this option should therefore be considered further within the RTS. However, the commercial challenges associated with a scheme of this nature in a large and sparsely populated region would need to be carefully considered in a business case.

Option 10B: Mobility-as-a-service

5.11.5 Mobility as a Service (MaaS) allows users to plan, book, and pay for multiple transport services (including public transport, car clubs, access to active travel, taxi, demand responsive transport, etc.) as packages based on their needs instead of buying these in a series of individual purchases. The concept moves away from relying on personally owned models of transportation towards being able to access various modes of transport through a single platform. MaaS is still an emerging concept and is yet to be widely implemented. The fundamental components of MaaS are:

- **Multi-modal:** integration between multiple modes of transport including public transport, active travel, and shared mobility solutions.
- **Payment solutions:** users are able to pay for their travel across a range of modes directly through the MaaS platform with integrated multi-modal ticketing solutions in-built.
- **One platform:** for everything including travel information, booking, ticketing and payments.
- **Integration:** bringing together customers, transport providers, public sector, payment processors, telecommunication companies and the platform owners.
- **Digital:** an online platform supported by telecommunications technology.
- **User-focused:** centred around demand from customers and personalised to their needs.

5.11.6 HITRANS currently operates the Go-HI app for residents and visitors in rural Scotland, which allows users to plan, book and pay for end-to-end multi-modal journeys in a single transaction using their smartphone or desktop devices. The platform offers instant access to book buses, trains, taxis, demand responsive transport, car clubs, air travel and car hire, with bicycle hire and ferries being added to the app as the project expands. The app therefore provides a basis for the further development of this option.

Option 10B	Mobility-as-a-service				
STAG Criteria	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility
	✓	✓	✓	○	×/✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				✓
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○

Option 10B	Mobility-as-a-service	
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	×/✓
	Fairer Scotland Duty	×/✓
	Child Rights and Wellbeing Duty	○
	Island Communities Impact Assessment	✓
	MaaS offers potential equalities benefits as a result of providing an enhanced public transport offering. It would though be important to ensure that digital-based approaches are accessible to people with protected characteristics and people who cannot access digital services.	

5.11.7 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- Like micromobility, MaaS would contribute to several of the Strategy Objectives through widening network coverage, choice and quality for non-car-based travel (**SO2**, **SO3** and **SO4**), whilst also supporting a just transition to a post-carbon and more environmentally sustainable transport network (**SO1**, **climate change** and **environment** criteria). It records larger benefits against **SO3** and **SO4** than mircomobility as it provides a wider range of choices for the users. The reduction in emissions due to the use of environmentally sustainable transport modes would also result in positive **health, safety and wellbeing** impacts.
- There could be a positive or negative impact with respect to **equality and accessibility**. On the one hand, MaaS does not need people to own their own vehicle and could be beneficial for those without access to a car. It could also potentially support people with disabilities by allowing them access to information, opportunities to customise / request support for their journey and potentially providing real–time remote support on route. On the other hand however, there may be disbenefits if booking systems are primarily based on app-based technology as this would be less accessible to those who do not own smart devices or cannot easily use them e.g., the elderly, those on lower incomes.
- From a **deliverability** perspective, MaaS remains an emerging concept and there are a number of uncertainties and barriers to delivery, including:
  - Data sharing and the extent to which an open data environment can be achieved.
  - Whether a top down or bottom-up approach should be taken to delivering MaaS.
  - The most appropriate Governance models (e.g., public / private partnership, etc.).
- Whilst HITRANS is currently playing a role facilitating an early MaaS system in the region, there is a wider need for government and bodies like MaaS Scotland to guide and shape MaaS provision. In addition, the provision of a platform with greater functionality would depend on sufficient commercial interest. It is also important to acknowledge that an issue with any web-based shared mobility scheme in the region, such as a MaaS platform, is that mobile phone reception and broadband speeds can be variable, particularly in more remote areas and some island communities.

Recommendation: Like micromobility, MaaS is growing in prominence and this option should be **considered further in the RTS**.

Option 10C: Connected and Autonomous Vehicles

5.11.8 New vehicles are incorporating increasing levels of automation, where the driver is performing fewer tasks. There are six tiers of automation, ranging from 'no automation' through to Connected and Autonomous Vehicles (CAV), where the vehicle is able to operate and perform functions without human intervention.

5.11.9 Currently, only partially automated vehicles are available on the market. In partially automated vehicles, the system takes control of most driving actions, but the driver is expected to remain alert and intervene where necessary. Higher levels of automation are however being developed and piloted with commercially driven advances in this sector being delivered by organisations such as Tesla, Google and other major firms who are competing to develop fully automated or 'driverless' vehicles. As such, it is plausible that higher standards of automated vehicles will move from pilot projects to operational within the lifetime of the RTS.

5.11.10 This option therefore focuses on the availability and rollout of autonomous private vehicles.

Option 10C	Connected and Autonomous Vehicles				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	×/✓	×/✓	✓✓	×/✓	✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×/✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				✓✓✓
Equalities	Public Sector Equality Duty				? / ✓
	Fairer Scotland Duty				○
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				○
	CAVs may offer longer term opportunities to enhance mobility options for some people with protected characteristics who would otherwise be unable to drive a vehicle. The novelty of the technology may mean it is not an affordable option for people with socio-economic disadvantage (at least within the lifespan of the next RTS) and is not predicted to have material equalities impacts.				

5.11.11 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would contribute strongly to **SO6** as CAVs would materially improve both the efficiency and safety of car-based travel.
- The widescale use of autonomous vehicles has the potential to increase network efficiency and reduce the number of accidents leading to **health, safety and wellbeing** benefits (albeit vehicle kilometres could increase).
- This would lead to **economic** benefits as a result of improved journey times and enhanced journey time reliability. Improved driving efficiency may, however, make driving more attractive to people who may have opted for an alternative mode. There is therefore scope for vehicle kilometres travelled to increase alongside the implementation of automation leading to congestion.
- Since a driving licence may not be required, CAVs have the potential to open-up car ownership and improve accessibility for those who are currently unable to drive their own vehicle due to e.g., age restrictions and / or a disability. There could therefore be a positive benefit in terms of **equality and accessibility**, but this will to a large extent be offset by challenges in relation to vehicle affordability.
- The **environmental** and **climate change** impact of autonomous vehicles would depend on the fuel type used and the extent of efficiency improvements versus any increase in vehicle kilometres travelled.
- From a **deliverability** perspective, the concept of CAVs is entirely market driven. There are concerns about how automated vehicles will replicate human actions and where liability lies, specifically in situations such as traffic collisions and these issues would need to be resolved prior to implementation. As automation is market led, it is paramount that there is a policy framework to ensure that automation is implemented into the transport network at a gradual and sustainable rate and in a manner that seeks to deliver overarching policy objectives.

Recommendation: CAVs are a market driven product and offer potentially significant mobility benefits for the region. This option should therefore be **considered further in the RTS**, but it is essential that the potential negative impact associated with CAVs, such as increased vehicle kilometres, are mitigated as far as practically possible.

Option 10D: Autonomous buses

5.11.12 One of the immediate opportunities with respect to automation is autonomous buses. Indeed, the UK's first autonomous bus service, CAVForth, launched in May 2023 running between Ferrytoll Park and Ride in Fife and Edinburgh Park Transport Interchange. Given that the driver accounts for a significant proportion of bus operating costs, autonomous buses offer an important opportunity improve the viability of 'thin' routes. Moreover, the demographic profile of bus drivers is ageing and there is an emerging shortage of drivers across the country, so this option could also partially mitigate the risks posed by this.

Option 10D	Autonomous buses				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	×/✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓

Option 10D	Autonomous buses	
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	○
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	✓✓✓
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓
	In the longer-term autonomous buses offer potential for increased bus service coverage and flexibility which would have some predicted beneficial equalities impacts under the frameworks being assessed.	

5.11.13 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would contribute strongly to **SO6** as autonomous buses would materially improve both the efficiency and safety of bus-based travel, subject to any safety issues being worked through as the concept is developed further. By allowing more bus kilometres to be operated for a given cost, this option also has the potential to fundamentally change the dynamics of 'thin' routes and extend public transport coverage. This option would therefore contribute positively to **SO3** and **SO4**.
- Any additional bus operation could lead to increased emissions with a negative impact on the **climate change** and **environment** criteria, although there could be offsetting mode shift benefits, whilst any autonomous bus is likely to be zero carbon in future. This option would therefore likely contribute positively to **SO1**.
- The option may result in some negative **economy** impacts due to a potential reduction in jobs for bus drivers, but there would be benefits to the user if services are enhanced or maintained if under threat. There would also be a benefit in terms of improved network efficiency and a reduced risk of services being withdrawn due to a shortage of drivers (an increasingly prevalent issue in the region at present)
- There could be **equality and accessibility** benefits if network coverage is extended. This would also benefit **health, wellbeing and safety**, although the absence of drivers could pose a security issue if the bus is otherwise unstaffed, particularly for those with protected characteristics.
- **Affordability** could be an issue, with significant capital investment in new autonomous buses and supporting systems required.
- Several of the **deliverability** issues set out in relation to **Option 10C** (Connected and Autonomous Vehicles) apply to autonomous buses. **Public acceptability** in particular will rely on the public having confidence in the safety of the concept.

Recommendation: Autonomous buses, whilst at the very early stage of development, offer significant opportunities for bus services in the HITRANS region. This option should therefore be **considered further in the RTS**.

5.12 Strategy Theme 11: Reducing the cost of travel, particularly for those most in need

5.12.1 A combination of distance, low volumes and, for passenger journeys, the frequent requirement for more than one connection (and sometimes mode) when making a journey means that cost of travel is major issue for those living in the region. This Strategy Theme incorporates a range of options to reduce the cost of travel, particularly for those most in need – these are:

- **Option 11A:** Reduce bus fares
- **Option 11B:** Reduce rail fares
- **Option 11C:** Reduce ferry foot passenger fares
- **Option 11D:** Reduce ferry car fares
- **Option 11E:** Reduce ferry accommodation fares (Northern Isles Ferry Services)
- **Option 11F:** Reduce or remove the cost penalty for interchange between operators and modes
- **Option 11G:** Extend the scope and / or geographic coverage of national fares and funding policies
- **Option 11H:** Reduce the cost of air travel on PSO routes
- **Option 11I:** Reduce the cost of air travel on commercially operated routes

5.12.2 It should be noted that, for each of the above options, there are various means by which fares could be reduced. However, as a strategy document, the RTS is focused on the principle of reduced fares / fares caps rather than the detailed mechanics of how this is delivered, which would be considered in individual studies.

Option 11A: Reduce bus fares

5.12.3 For many communities in the region, the bus in the only means of public transport available to them. This option therefore seeks to reduce the cost disadvantage faced by these communities through reductions in bus fares.

5.12.4 It should be noted that, to support post-pandemic patronage recovery, the UK Government has provided funding to cap single bus fares outside London at £2 until 2023 and thereafter at £2.50 until 2024, at which point the government will review the effectiveness of the policy. Early indications are that this initiative has been successful, with a Transport Focus survey finding that 11% of respondents recorded increased bus use.[7] This could be a potential model for the HITRANS region.

Option 11A	Reduce bus fares				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓

[7] https://www.nationalworld.com/news/traffic-and-travel/when-does-ps2-bus-fare-cap-end-new-finish-date-for-low-cost-fare-as-travel-discount-extended-4098311

Option 11A	Reduce bus fares	
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.	○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.	✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓✓✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓
	Reduced bus fares would benefit some people with protected characteristics and those with socio-economic disadvantage. For many communities in the region, the bus is the only available form of public transport and thus such a measure would make a material difference to transport affordability.	

5.12.5 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would contribute strongly to **SO3**, widening access to improved public transport. Cost of travel is a barrier to many journeys and this measure would help to reduce this barrier for both mainland and island communities.
- Where reduced fares / fares caps helped to make routes more sustainable (at least in terms of passenger numbers, if not revenue), it could provide a more stable bus network encouraging modal shift from the car. This would contribute to **SO1** and the **climate change** and **environment** criteria.
- Whilst there would be **economy** (e.g., reduced cost access to employment) and **health benefits** (e.g., reduced cost access to health facilities), the critical benefit would be in relation to **equality and accessibility**. Transport poverty has been highlighted as a major problem in the region and reducing bus fares would contribute towards addressing this, particularly for groups with a protected characteristic.
- There have been many recent schemes across the UK and Europe that have sought to reduce bus fares, and thus this option is **deliverable**. The major challenge would be **affordability** – national government funding would be required to supplement existing funding for local bus contracts.
- This measure would have a high level of **public acceptability**.

Recommendation: This option provides an important opportunity to reduce transport poverty and inequalities in the region. It should be **considered further in the RTS**.

Option 11B: Reduce rail fares

5.12.6 For communities living adjacent to the railway in the HITRANS region, the train service is their equivalent of a bus, and again may be their only meaningful public transport connection.

Despite the availability of the Highland Railcard, the cost of rail fares can still be more than the bus fare for some. Many island and peninsular residents also seek to connect with rail services at Wemyss Bay, Gourock, Oban, Mallaig, Thurso and Aberdeen, with the cost of their rail ticket often exceeding their ferry fare.

5.12.7 Moreover, residents travelling outwith the region can face significant fare costs as their journeys are generally long distance. In some instances, variable demand-based fares designed to maximise operator yield come into play, sometimes offering reduced costs for advanced booking, but also increasing costs for essential short notice travel.

5.12.8 Reducing rail fares could therefore contribute to reducing the overall cost of travel for trips within and beyond the region.

Option 11B	**Reduce rail fares**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	✓✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓✓✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓
	Reduced rail fares would benefit some people with protected characteristics and those with socio-economic disadvantage. For many communities in the region, rail services are the only meaningful form of public transport and thus such a measure would make a material difference to transport affordability.				

5.12.9 The benefits of this option are broadly equivalent to **Option 11A: Reduce bus fares**. The scale of the benefits may however be slightly larger for those affected, as rail fares are generally higher in absolute terms (albeit the rail user base is smaller than the bus-based equivalent). Moreover, reducing rail fares would make a marginally greater contribution to the **economy** criterion as it would reduce the cost of longer distance travel to and from the region.

5.12.10 The setting of rail fares is determined by the Scottish Government and implemented by Transport Scotland. **Deliverability** is therefore dependent on a commitment and funding provided at that level. This option would clearly give rise to an **affordability** question, but absolute rail volumes in the region are very low and it is likely that its residents will benefit

much less than those in the Central Belt from the pilot removal of peak rail fares (for six months from October 2023 – June 2024).

Recommendation: This option provides an important opportunity to reduce transport poverty and inequalities in the region. It should be **considered further in the RTS.**

Option 11C: Reduce ferry foot passenger fares

5.12.11 With some limited exceptions (e.g., the Corran Ferry), all ferry foot passengers pay a fare for travel. This is a supplementary cost paid by island residents which is additive to onward transport costs when they arrive on the mainland. On several routes, such as those operated by Orkney Ferries, passengers can buy heavily discounted books of tickets. However, being able to do so is reliant on having the money up-front to buy these books, which discriminates against those on lower incomes.

5.12.12 This option is therefore focused on reducing ferry foot passenger fares. Whilst not the primary objective of this option, it should be noted that it could contribute to **Option 5D: Demand management measures – fares based** through widening the differential between travelling as a foot passenger and with a vehicle.

5.12.13 It should be noted that it is not practical to charge car-based passengers but provide free fares to foot passengers. Whist the vehicle fare could still be applied (which includes the driver), car passengers could walk on as a foot passenger for free. The Corran Ferry is an example of where all passengers, whether on-foot or in a car, travel for free.

Option 11C	**Reduce ferry foot passenger fares**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	✓	✓	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				✓✓✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓✓✓
	Reduced ferry foot passenger fares would benefit some people with protected characteristics and those with socio-economic disadvantage. Such a measure would make a material difference to transport affordability for those on the lowest incomes, particularly where the cost of purchasing a multi-journey book is prohibitive.				

5.12.14 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would be highly positive for island communities, particularly the most remote communities where incomes tend to be the lowest. There are few ferry routes in Scotland where passenger capacity on the ferry is regularly a problem and thus there is significant scope to grow passenger numbers. This option therefore records a major positive with respect to **SO5**.
- It would also contribute to **SO3**, widening access to ferry services for island communities. Cost of travel, including the up-front cost of multi-journey ticket books, is a barrier to many journeys and this measure would help to address this.
- This option could potentially lead to some passengers switching from travelling by or in a car to travelling as a foot passenger, thus contributing to **SO1** and the **climate change** and **environment** criteria. However, it is important to recognise that any such effect would be marginal, as the overall costs of car travel would also reduce as the driver and any passengers would also benefit from reduced fares / fares caps. Indeed, at the margin, this option could actually encourage taking a car on the ferry as the absolute cost of the journey would reduce.
- Whilst there would be **economy** (e.g., reduced cost access to employment) and **health benefits** (e.g., reduced cost access to health facilities), the critical benefit would again be in relation to **equality and accessibility**, particularly for the most remote communities. Transport poverty has been highlighted as a major problem in the islands and reducing ferry passenger fares would contribute towards addressing this, particularly for groups with a protected characteristic.
- From a **deliverability** perspective, any reduction on the Clyde and Hebrides and Northern Isles networks would be the responsibility of the Scottish Government and Transport Scotland. On local authority networks, Councils have the powers to reduce fares, but there would be a cost implication to this and thus **affordability** would need to be explored in more detail.
- This measure would have a high level of **public acceptability**.

Recommendation: This option provides an important opportunity to reduce transport poverty and inequalities in island communities, particularly for the most remote communities. It should be **considered further in the RTS**.

Option 11D: Reduce ferry car fares

5.12.15 For most island residents, taking a car on the ferry on for at least some journeys is essential. It allows them to maximise time off-island and carry items such as luggage, goods purchased on the mainland or livestock in trailers. The absolute level of car fares has long been recognised as a barrier to travel or an additional cost that island residents must bear, despite below average incomes. Indeed, this formed the basis of the Scottish Government's Road Equivalent Tariff policy, first introduced as a pilot in 2008.

5.12.16 There are numerous means by which car fares could be reduced, and this would merit a study in its own right – indeed, the specific dynamics of each route would ideally be considered. It is though important to recognise: (i) the capacity challenges on many routes that this option could exacerbate; and (ii) the risk of unintended consequences, such as causing economic leakage from islands, with more money being spent elsewhere.

Option 11D	Reduce ferry car fares				
STAG Criteria	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility

Option 11D	Reduce ferry car fares				
	×	×	×	✓✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				×
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				○
	Fairer Scotland Duty				○
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓✓✓
	Reduced fares / fares caps for car users may benefit some equalities groups particularly for people who are dependent on use of a car for access to mainland services although it would not benefit those travelling without a car. Reduced travel costs may encourage tourist visits to the region.				

5.12.17 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would be highly positive for island communities, particularly the most remote communities where incomes tend to be the lowest and the ability to take a car is most important. This option therefore records a major positive with respect to **SO5**. That said, the benefit to island communities would be significantly diminished if a growth in demand led to capacity problems and 'crowded out' essential journeys.
- A reduction in car fares would lead to increased car travel, as has been evidenced at length in the *Evaluation of Road Equivalent Tariff on the Clyde and Hebridean Network* study. This option would therefore impact negatively on **SO1** and the **climate change**, **environment** and **health, safety and wellbeing** criteria as a result of the generation of additional vehicle kilometres. However, this would be offset by **economy** and **equality and accessibility** benefits, including the growth in tourism which has been so prominent on the CHFS network. The key issue would be finding a means of reducing car fares that supports essential journeys whilst mitigating the impact of additional vehicle kilometres on ferry services and islands more generally.
- From a **deliverability** perspective, any reduction on the Clyde and Hebrides and Northern Isles networks would be the responsibility of the Scottish Government and Transport Scotland. On local authority networks, Councils have the powers to reduce fares, but there would be a cost implication to this and thus **affordability** would need to

be explored in more detail. For context, RET on the CHFS network was costing the Scottish Government £25m per annum in additional revenue support in 2019.[8]

- This measure would have a high level of **public acceptability**, although this would be negatively affected if capacity pressures or other unintended consequences began to emerge.

Recommendation: This option should be **considered further in the RTS**, but it is essential that an appropriate balance is achieved between supporting essential travel for island communities and the potential negative route and societal consequences of a growth in ferry-based car traffic.

Option 11E: Reduce ferry accommodation fares

5.12.18 This option is focused on reducing overnight accommodation of ferry services from Kirkwall to Aberdeen and Lerwick.

Option 11E	Reduce ferry accommodation fares				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓
	Fairer Scotland Duty				○
	Child Rights and Wellbeing Duty				○
	Island Communities Impact Assessment				✓
	Reduced cabin fares for passengers on Kirkwall to Aberdeen and Lerwick services may benefit some equalities groups, particularly those for whom a cabin is of more importance due to a disability or security concerns and who are on lower incomes. Reduced travel costs may encourage additional tourism visits to Orkney.				

5.12.19 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

[8] *Evaluation of Road Equivalent Tariff on the Clyde on the Clyde and Hebridean Network* (Transport Scotland / Stantec, 2020), p. 4.

- This option would be highly positive for Orkney residents, making the Aberdeen route more competitive with the Pentland Firth routes for travel to the mainland, whilst also reducing the cost of travel to Shetland. This option therefore records a moderate positive with respect to **SO5**. That said, the benefit would be diminished if a growth in demand led to capacity problems and 'crowded out' essential journeys, with particular negative effects on the neighbouring Shetland Islands as this is their sole ferry connection to the Scottish mainland.
- Reducing the cost of cabins specifically would improve **equality and accessibility** by allowing some who cannot afford a cabin to now book. It would also positively impact on **health, safety and wellbeing** by improving personal security for those who currently do not book a cabin and sleep in public areas due to the cost.
- It does have to be noted with respect to this option that cabin capacity on NorthLink services can be pressed for much of the year, but particularly in summer (although this is less of an issue with the sleeping pod lounges). From a **deliverability** perspective, this option therefore presents significant challenges.
- From an **affordability** perspective, reduced fares / fares caps would be implemented through the NIFS contract and subsidy costs to the Scottish Government would therefore increase.

Recommendation: The RTS should **consider this option further** as it addresses a long-term concern amongst island residents with the cost of travel on overnight services from Kirkwall. However, the practical limitations in terms of capacity must be borne in mind and this may therefore be an option to be considered as part of the future replacement of the current Northern Isles fleet.

Option 11F: Reduce or remove the cost penalty for interchange between operators and modes

5.12.20 Many journeys to, from and within the HITRANS region require one or more interchanges, often between modes. For example, a resident of Stornoway travelling to Glasgow without a car could make the journey using a combination of ferry, bus and rail. At present, almost all public transport journeys in the region are payable separately, which is both expensive and inconvenient for the passenger.

5.12.21 This option would seek to address this issue through cross-operator ticket acceptance and reduced end-to-end fares for journeys entailing more than one leg, e.g., through 'Rail and Sail' tickets.

Option 11F	Reduce or remove the cost penalty for interchange between operators and modes				
STAG Criteria	Environment	Climate Change	Health, Safety and Wellbeing	Economy	Equality and Accessibility
	✓	✓	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				✓
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓

Option 11F	Reduce or remove the cost penalty for interchange between operators and modes	
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓✓
	Child Rights and Wellbeing Duty	✓
	Island Communities Impact Assessment	✓✓
	Integrated ticketing would facilitate some additional journeys made by bus, rail and ferry which may have benefits for some people with protected characteristics and for some people in each of the equalities frameworks. It could also reduce the cost of travel, a key issue given the extent of transport poverty in the region.	

5.12.22 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This cost implications of multi-leg journeys are one of the deterrents (alongside frequency and length of operating day) that discourage such trips being made by public transport. By reducing or removing this cost barrier, this option would contribute to **SO4**, improving the quality and integration of public transport in the region. There would be particularly beneficial effects on islands **(SO5)**, where the cost of a ferry fare must be added to onward public transport connections.
- Whilst very much at the margin, this option would encourage mode shift from the car to public transport, supporting **SO1** and the **climate change** and **environment** criteria.
- Improving travel choices would support increased access to employment, health and services, particularly for those without access to a car or who would prefer not to drive. This option therefore scores positively with respect to the **health, safety and wellbeing**, **economy** and **equality and accessibility** criteria.
- The primary **deliverability** challenges with this option would be competition and revenue apportionment between operators, as each provider for each leg of a journey would receive less than the standard fare. This would be both challenging to agree and complex to implement, likely requiring an ITSO[9] compliant specification, which would come at a cost to implement and maintain.

Recommendation: This option, and the concept of smart ticketing generally, should be **considered further in the RTS**.

Option 11G: Extend the scope and / or geographic coverage of national fares and funding policies

5.12.23 A consequence of low population density and public transport frequency is that residents of the HITRANS region derive a proportionally lower benefit from national policies and funding streams, e.g., the National Concessionary Travel Scheme – this is a clear inequality. Moreover, there are inequalities between areas within the region associated with anomalies in historic funding and delivery arrangements, the existence of which have little evidential basis. For example, all ferry services in the Clyde and Hebrides and Northern Isles networks are entirely funded by the Scottish Government, whereas the additional cost of local authority

[9] The ITSO specification is a technical platform on which interoperable smart ticketing schemes can be built.

funded ferry services over and above the Grant Aided Expenditure (GAE) settlement from the Scottish Government must be met largely by local authorities from their own resources (although additional Section 70 funding has been provided by the Scottish Government in recent years).

5.12.24 This option is focused on extending:

- The **scope** of national fares policies – for example, where a train or ferry is the main mode of travel in an area due to no / limited bus service provision, there is an argument that the National Concessionary Travel Scheme should be accepted on these services.
- The **geographic coverage** of national or regionally / locally targeted fares policies – for example, expanding eligibility for the Highland Railcard.
- Addressing the **funding** disparities that exist, particularly in relation to local authority funded air and ferry services.

Option 11G	**Extend the scope and / or geographic coverage of national fares and funding policies**				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓	✓	✓✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				○
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				✓✓
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓✓
	Fairer Scotland Duty				✓✓✓
	Child Rights and Wellbeing Duty				✓✓
	Island Communities Impact Assessment				✓✓✓
	Addressing the unequal distribution of benefits from national fares schemes together with inequitable funding arrangements for some transport services would have a highly positive equalities impact, particularly in some island communities, where these two factors combine.				

5.12.25 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would contribute strongly to **SO4** through increasing the number of public transport services which residents of certain areas could use, e.g., if the NCTS was expanded to include rail and ferry. This would have particularly positive impacts on island

communities **(SO5)**. Addressing the funding inequalities faced in relation to the provision of local authority air and ferry services would also be beneficial to island communities.

- As alluded to above, the overwhelming benefit of this option would be reduce regional inequalities and thus this option would score strongly against the **equality and accessibility** criterion. Enabling additional journeys or making existing journeys easier would also provide **health, safety and wellbeing** and **economy** benefits.
- From an **affordability** perspective, there would be an additional cost associated with using the NCTS on rail and ferries, albeit this would be a circular flow of money within the public sector (NorthLink services aside). With respect to funding, there would in theory be no change in operating costs as this would simply be a transfer of responsibility (although different organisations have different operating cost models) or the provision of addition government funding. However, there would be a change in the incidence of the cost from local to national government.

Recommendation: The issue of inequitable funding and the derivation of a lower level of benefit from national schemes has been a long-running area of interest for HITRANS, which has commissioned specific research in this field. This option should therefore be **considered further in the RTS**.

Option 11H: Reduce the cost of air travel on PSO routes

5.12.26 For a small number of island communities, air services provide the lifeline mode of travel and / or fulfil a critical role in meeting specific needs, such as transporting children to and from school or allowing medical professionals to visit an island. Air travel is however generally more expensive than making the journey by sea (or overland in the context of Campbeltown and Caithness) and this option is therefore focused on reducing the cost of air travel on PSO routes.

Option 11H	Reduce the cost of air travel on PSO routes				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	✓	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.				○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.				✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.				○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.				✓✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.				○
Equalities	Public Sector Equality Duty				✓✓
	Fairer Scotland Duty				✓✓✓
	Child Rights and Wellbeing Duty				✓
	Island Communities Impact Assessment				✓✓✓

Option 11H	Reduce the cost of air travel on PSO routes
	Reduced PSO air fares would benefit some people with protected characteristics and those with socio-economic disadvantage. This option would also support some of the most remote and fragile communities in the region and would make a material difference to transport affordability.

5.12.27 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- This option would contribute strongly to **SO3**, widening access to public transport. The cost of travel is a barrier to using air services, meaning the journey can on occasions not be made or is made by a slower ferry, bus or rail connection.
- Evidently, there would be major benefits for island communities **(SO5)**, particularly where air is the main mode of transport, as is the case in North Ronaldsay and Papa Westray. However, as with ferry vehicle fares, there is an important balance to strike in terms of ensuring that finite capacity for essential journeys is not used for non-essential trips. This is particularly the case for the Barra and Kirkwall – Westray / Papa Westray flights, where the journey is a major tourist draw in its own right.
- Whilst there would be **economy** (e.g., reduced cost access to employment) and **health benefits** (e.g., reduced cost access to health facilities), the critical benefit would be in relation to **equality and accessibility**. Transport poverty has been highlighted as a major problem in the region and reducing PSO air fares would contribute towards addressing this, particularly for groups with a protected characteristic.
- The key challenge would be **affordability** as the reduced revenue associated with lower fares would increase the cost to the public sector of delivering services.
- This measure would have a high level of **public acceptability** so long as capacity is effectively managed.

Recommendation: This option provides an important opportunity to reduce transport poverty and inequalities in the region, particularly for some of the most remote and vulnerable communities. It should be **considered further in the RTS**.

Option 11I: Reduce the cost of air travel on commercially operated routes

5.12.28 The economics of the commercial aviation network in the region mean that fares can often be prohibitively high. The Scottish Government's Air Discount Scheme (ADS) provides a 50% reduction on core fares (i.e., pre-tax) for those resident in certain parts of the region when travelling for a purpose other than business. The fares themselves are set by the airline on the basis of market conditions and vary by flight, time of booking etc.

5.12.29 This option would see fares reduced for all travellers, likely through an extension of the ADS scheme, potentially incorporating businesses if a scheme could be derived which aligns with the Subsidy Control Act 2022.

Option 11I	Reduce the cost of air travel on commercially operated routes				
STAG Criteria	**Environment**	**Climate Change**	**Health, Safety and Wellbeing**	**Economy**	**Equality and Accessibility**
	○	○	○	✓	✓✓
Strategy Objectives	**SO1:** To make a just transition to a post-carbon and more environmentally sustainable transport network.				○

Option 11l	Reduce the cost of air travel on commercially operated routes	
	SO2: To transform and provide safe and accessible connections between and within our city, towns and villages, to enable waking, wheeling and cycling for all.	○
	SO3: To widen access to public and shared transport and improve connectivity within and from / to the region.	✓✓
	SO4: To improve the quality and integration of public and shared transport within and from / to the region.	○
	SO5: To ensure reliable, resilient, affordable and sustainable connectivity for all from / to our island, peninsular and remote communities.	✓✓✓
	SO6: To improve the efficiency, safety and resilience of our transport networks for people and freight and adapt to the impacts of climate change.	○
Equalities	Public Sector Equality Duty	✓
	Fairer Scotland Duty	✓
	Child Rights and Wellbeing Duty	○
	Island Communities Impact Assessment	✓✓
	A reduction in air fares on commercially operated routes may increase opportunities for island and remote rural residents to access key mainland services more affordably and, dependent on route capacity, could stimulate visitor trips and tourism. Some people with protected characteristics may benefit as well as some groups with socio-economic disadvantage who would otherwise be unable to afford to travel (or who travel less regularly than they would prefer).	

5.12.30 The main points emerging from the appraisal of this option against the Strategy Objectives and STAG criteria are as follows:

- A reduction in air fares would increase travel choices for island and remote mainland residents, contributing positively to **SO3** and **SO5**. It should again though be noted that many island routes are facing capacity pressures, and demand could be crowded-off flights unless the airline took a commercial decision to operate additional services.
- Once again, the primary benefit of this option is to reduce inequalities. Residents of the HITRANS region have lesser access to low-cost air services than elsewhere in the UK, which is a function of the market dynamics. In island communities, the choice is often between an expensive flight and a long ferry crossing, with onward connections by road or public transport. This option would therefore record a positive **equality and accessibility** benefit.
- Reducing the cost barrier of travelling to and from island communities would deliver an **economy** benefit, particularly if any fares reduction included businesses.
- Further reductions in commercial air fares would have **affordability** considerations, as this would involve a transfer of public funds to private companies. Funding would come from the Scottish Government and thus this is not a decision that rests within the hands of HITRANS or its constituent members.
- This option is **deliverable** and could build on the existing ADS. However, it should be noted that ADS for business was previously withdrawn on European state aid grounds and further work would be required to establish whether this could be reintroduced under the new subsidy control regime.
- This measure would have a high level of **public acceptability** so long as capacity is effectively managed.

5.12.31 It should be noted that a variant of this option would be to consider introducing a PSO where there is considered to be a 'market failure', with excessively high fares being one potential justification for this. Fares can be specified in these contracts which are awarded to the most economically advantageous bidder, to whom a subsidy is paid. Such an arrangement could potentially be implemented for flights to, from and within the region if a market failure can be determined. HITRANS would need to undertake work to inform a decision on whether this is something they wish to pursue and it has to be recognised that current fares reflect the commercial realities of 'thin' air routes. Moreover, a PSO could have unintended consequences, including a loss of network benefits which currently exist (e.g., the resilience offered by a large fleet of aircraft).

Recommendation: This option should be considered further in the RTS as a means of reducing the high cost of air travel in the region.

6 Strategic Environmental Assessment

6.1 Overview

6.1.1 The Environmental Assessment (Scotland) Act 2005 ('the 2005 Act') requires Responsible Authorities, including RTPs such as HITRANS, to assess the likely significant effects on the environment of implementing relevant and qualifying plans and programmes, as defined within the Act. This assessment must also examine the likely significant effects of implementing reasonable alternatives to the plan or programme under consideration. The assessment is carried out by following a staged process of reporting known as Strategic Environmental Assessment (SEA).

6.1.2 The SEA process is being undertaken in tandem with the development of the emerging RTS to allow key environmental issues to inform the content of the RTS. An RTS SEA Scoping Report (Stantec, May 2021) ('the SEA Scoping Report') was produced at the outset of the project and was consulted on with SEA Consultation Authorities from 30th June 2022 for a 35-day period. The SEA Scoping Report set out a proposed SEA Framework and methodology to underpin all stages of the SEA. The SEA objectives were identified are as follows:

- **Climate Change:** Respond to the climate emergency by decarbonising infrastructure, promoting natural infrastructure, facilitating a low carbon economy and adapting to accommodate the effects of climate change.
- **Air Quality and Amenity:** To maintain air quality, reduce concentrations of harmful atmospheric pollutants and minimise exposure to noise and vibration.
- **Biodiversity, Geodiversity and Soil:** Conserve, protect, restore and enhance biodiversity and geodiversity interests, including through safeguarding designated and non-designated sites, species, soil resources and habitats and by protecting and enhancing green infrastructure.
- **Water, Flood Risk and Resilience:** Conserve, protect and enhance water environments, water quality and water resources, whilst adapting to climate change and reducing flood risks.
- **Cultural Heritage:** Conserve, protect and enhance the historic environment, designated and non-designated cultural assets and promote the Highlands and Islands' distinct culture.
- **Landscape:** Protect and enhance the landscape character, townscape character, seascape character and visual amenity.
- **Accessibility and Connectivity:** Facilitate appropriate connectivity and affordable access for all to employment, education, facilities and services, and social and leisure opportunities, including tourism.
- **Inclusive Growth:** Improve social and economic prosperity for all by enhancing productivity and competitiveness and through reducing socio-economic inequalities.
- **Human Health:** Improve the health of the resident and workplace population, including with respect to physical and mental health and social wellbeing.
- **Material Assets:** Manage, maintain and where possible improve the efficient and effective use of natural resources, ecosystem services, land and infrastructure to meet identified needs.

6.1.3 In order to ensure key environmental issues and policy drivers are captured within the options, a high-level assessment of the options against these SEA objectives was undertaken and is summarised in the table below. For the purpose of the assessment a single tick (✓) is provided where there is potential for a positive impact and a single cross (×) is provided where there is potential for a negative impact. At this stage in the process, given the options are

strategic in nature, it is difficult to identify the overall magnitude of some of the potential effects, and in some cases even the general direction of the effect. The impact of each option will depend on the extent to which an option is implemented, where and how it is implemented, and the level of environmental mitigation provided. At this stage, therefore, it is only possible to provide a broad indication of potential effects. These impacts would need to be considered in more detail as options are further developed.

6.1.4 The following working assumptions are also included in table which follows:

- Poor air quality has not been identified as a major problem in the HITRANS region, and thus this criterion is generally marked with a neutral score.
- It is assumed that most options that do not include physical works are neutral with respect to biodiversity, geodiversity and soil; water, flood risk and resilience; cultural heritage; and landscape.

Table 6.1: Compatibility of options with SEA Objectives

ID	Option Package	Climate change	Air quality and amenity	Biodiversity, geodiversity, and soil	Water, flood risk and resilience	Cultural heritage	Landscape	Accessibility and connectivity	Inclusive growth	Human health	Material assets
Strategy Theme 1: Transforming our communities and reducing the impact of transport upon them											
1A	Reallocation of road space to active travel	✓	✓	○	○	○	○	✓	✓	✓	✓
1B	Implementation of measures to reduce traffic levels and the impact of that traffic	×/✓	×/✓	○	○	○	○	✓	✓	×/✓	○
1C	Management of parking demand through parking restrictions and enforcement	○	✓	○	○	○	✓	✓	✓	✓	○
1D	Land-use planning measures	✓	✓	○	○	○	○	✓	✓	✓	✓
Strategy Theme 2: Connecting our communities											
2A	Improvements to existing walking and wheeling routes	✓	✓	○	○	○	○	✓	✓	✓	✓
2B	Improvements to existing cycling routes	✓	✓	○	○	○	○	✓	✓	✓	✓
2C	Invest in new 'greenfield' active travel routes	✓	✓	×	×	×	×	✓	✓	✓	✓
2D	Widen the availability of cycling through reducing cost and improving bicycle availability	✓	✓	○	○	○	○	✓	✓	✓	✓
2E	Promote walking, wheeling and cycling as a means of travel	✓	✓	○	○	○	○	✓	✓	✓	✓
Strategy Theme 3: Enhancing public transport connectivity to / from: (i) Inverness; (ii) our sub-regional centres; (iii) Scotland's other cities and beyond											
3A	Reduce bus journey times	✓	○	○	○	○	○	✓	✓	✓	○
3B	Additional timetabled bus services	✓	○	○	○	○	○	✓	✓	✓	○
3C	DRT or EDRT to enhance fixed routes	×/✓	○	○	○	○	○	✓	✓	✓	○
3D	DRT or EDRT to replace fixed routes	×/✓	○	○	○	○	○	✓	✓	✓	○

ID	Option Package	Climate change	Air quality and amenity	Biodiversity, geodiversity, and soil	Water, flood risk and resilience	Cultural heritage	Landscape	Accessibility and connectivity	Inclusive growth	Human health	Material assets
3E	Reduce rail journey times	✓	○	○	○	○	○	✓	✓	✓	○
3F	New railway stations	✓	○	×	×	×	×	✓	✓	✓	✓
3G	New heavy rail routes	✓	○	×	×	×	×	✓	✓	✓	✓
3H	Increased rail service frequency	✓	○	○	○	○	○	✓	✓	✓	○
3I	Discounted / quota taxi journeys	×	○	○	○	○	○	✓	✓	✓	✓
Strategy Theme 4: Improving the integration, quality of and access to public and shared transport											
4A	Introduce a single and easily recognisable brand for transport and travel in the HITRANS region	✓	○	○	○	○	○	✓	✓	○	✓
4B	Improve access to public transport for those travelling with a bicycle	✓	○	○	○	○	○	✓	✓	✓	○
4C	Improve bus-to-bus integration	✓	○	○	○	○	○	✓	✓	✓	✓
4D	Improve bus / rail integration	✓	○	○	○	○	○	✓	✓	✓	✓
4E	Improve bus / ferry integration	✓	○	○	○	○	○	✓	✓	✓	✓
4F	Improve bus / air service integration	✓	○	○	○	○	○	✓	✓	✓	✓
4G	Improve the quality of facilities at bus stations and bus stops	✓	○	○	○	○	○	✓	✓	✓	✓
4H	Improve access to and the quality of the onboard experience on existing buses	○	○	○	○	○	○	✓	✓	✓	✓
4I	Improve rail / ferry integration	✓	○	○	○	○	○	✓	✓	✓	✓
4J	Improve access to and the quality of the on-train experience	✓	○	○	○	○	○	✓	✓	✓	✓
4K	Improve the quality of facilities at railway stations	○	○	○	○	○	○	✓	✓	✓	✓

ID	Option Package	Climate change	Air quality and amenity	Biodiversity, geodiversity, and soil	Water, flood risk and resilience	Cultural heritage	Landscape	Accessibility and connectivity	Inclusive growth	Human health	Material assets
4L	Improve access to and the quality of ferry services	○	○	○	○	○	○	✓	✓	✓	✓
4M	Improve physical access to inter-island air services	○	○	○	○	○	○	✓	✓	✓	✓
4N	Improve the customer experience for those less able	○	○	○	○	○	○	✓	✓	✓	○
4O	Improve public transport information	✓	○	○	○	○	○	✓	✓	○	✓
4P	Improve ferry-to-ferry and ferry-to-air integration	○	○	○	○	○	○	✓	✓	✓	✓
4Q	Improve digital coverage in the region	○	○	○	○	○	○	✓	✓	✓	✓
4R	Increase the number of disabled parking bays	○	○	○	○	○	○	✓	✓	○	✓
4S	Improve the quality and safety of taxi travel	○	○	○	○	○	○	✓	✓	✓	✓
4T	Mobility hubs	✓	✓	✓	○	○	○	✓	✓	✓	✓
Strategy Theme 5: Providing connectivity that supports our island and peninsular communities											
5A	Convert Lo-Lo routes to Ro-Ro	○	○	×	×	×	×	✓	✓	✓	✓
5B	Reduce ferry journey times	×	○	○	○	○	○	✓	✓	○	○
5C	Improve ferry booking and ticketing arrangements	○	○	○	○	○	○	○	○	○	✓
5D	Demand management measures – fares-based	○	○	○	○	○	○	×/✓	✓	○	○
5E	Make the most efficient use of existing vessels	✓	○	○	○	○	○	✓	✓	✓	○
5F	Additional sailings with existing vessels or additional vessels	×	○	○	○	○	○	✓	✓	×	○
5G	New vessels (excluding harbour works)	✓	○	○	○	○	○	✓	✓	✓	✓
5H	7-day a week ferry and / or inter-island air services	×	○	○	○	○	○	✓	✓	✓	○

ID	Option Package	Climate change	Air quality and amenity	Biodiversity, geodiversity, and soil	Water, flood risk and resilience	Cultural heritage	Landscape	Accessibility and connectivity	Inclusive growth	Human health	Material assets
5I	Work towards a 'meaningful day' on-mainland and on-island	×	○	○	○	○	○	✓	✓	✓	○
5J	Improve ferry service reliability (assuming no harbour works)	○	○	○	○	○	○	✓	✓	✓	✓
5K	Provide additional seat capacity on PSO air services	×	○	○	○	○	○	✓	✓	✓	○
5L	Work with commercial airlines to provide additional flights	×	○	○	○	○	○	✓	✓	○	○
5M	Develop new air routes	×	○	○	○	○	○	✓	✓	○	○
5N	Improve the reliability of inter-island air services	○	○	○	○	○	○	✓	✓	○	✓
5O	Island and peninsular fixed links	×/✓	×/✓	×	×	×	×	✓	✓	✓	✓
Strategy Theme 6: Improving the efficiency of transport networks and supply-chains and reducing their impact on our communities											
6A	Reduce ferry freight fares	×	○	○	○	○	○	○	✓	○	○
6B	New freight-only vessels / new vessels with an increased freight capacity	×	○	○	○	○	○	✓	✓	○	✓
6C	Prioritise ferry capacity for freight / demand management to provide additional capacity for freight	○	○	○	○	○	○	×	×/✓	○	○
6D	Dedicated freight sailings	×	○	○	○	○	○	○	✓	×	○
6E	Support the growth in rail freight	✓	○	○	○	○	○	○	✓	✓	✓
6F	Support the growth in waterborne freight	✓	○	○	○	○	○	○	✓	✓	✓
Strategy Theme 7: Improving the safety, reliability and resilience of our road and rail networks											
7A	Improve road maintenance	○	○	○	○	○	○	○	✓	✓	✓
7B	Improve the resilience of the road network	✓	○	×	×	×	×	✓	✓	✓	✓

ID	Option Package	Climate change	Air quality and amenity	Biodiversity, geodiversity, and soil	Water, flood risk and resilience	Cultural heritage	Landscape	Accessibility and connectivity	Inclusive growth	Human health	Material assets
7C	Introduce measures to improve road safety	×	○	×	×	×	×	✓	✓	✓	✓
7D	Improve rail service reliability	○	○	○	○	○	○	✓	✓	○	✓
7E	Improve rail network resilience	✓	○	○	○	○	○	✓	✓	✓	✓
7F	Improve travel information for motorists and ferry passengers (driving to the ferry)	○	○	○	○	○	○	✓	✓	✓	✓
7G	Reduce road-based journey times to / from: (i) Inverness; (ii) our sub-regional centres; and (iii) Scotland's other cities and beyond	×	×	×	×	×	×	×/✓	×/✓	×	✓
Strategy Theme 8: Facilitating sustainable visitor travel demand											
8A	Improve active travel options for those travelling to / from tourist destinations	✓	✓	○	○	✓	✓	✓	✓	✓	✓
8B	Improve public transport interchange experience for visitors	○	○	○	○	○	○	✓	✓	✓	✓
8C	Provide additional rail service capacity in peak season	✓	○	○	○	○	○	✓	✓	✓	✓
8D	Improve parking provision, management and enforcement at key tourism destinations	×	✓	○	○	✓	✓	✓	✓	✓	✓
8E	Targeted road improvements where there is high seasonal demand	×	×	×	×	×	×	✓	✓	✓	✓
8F	Bus-based Park & Ride to 'honeypot' tourist sites	✓	✓	✓	○	✓	✓	✓	✓	✓	✓
Strategy Theme 9: Decarbonising our transport and mitigating the effects of climate change											
9A	Zero emission buses	✓	✓	○	○	○	○	○	✓	✓	✓
9B	Decarbonisation of the railway network	✓	✓	○	○	○	○	○	✓	✓	✓
9C	Decarbonisation of the aviation network within the HITRANS region	✓	○	○	○	○	○	○	✓	✓	✓

ID	Option Package	Climate change	Air quality and amenity	Biodiversity, geodiversity, and soil	Water, flood risk and resilience	Cultural heritage	Landscape	Accessibility and connectivity	Inclusive growth	Human health	Material assets
9D	Vehicle pooling or vehicle sharing	✓	✓	○	○	○	○	✓	✓	✓	✓
9E	Encourage zero emission vehicle uptake and use	×/✓	✓	○	○	○	○	✓	✓	✓	✓
Strategy Theme 10: Embracing new technologies											
10A	Micromobility	✓	✓	○	○	○	○	✓	✓	✓	✓
10B	Mobility-as-a-service	✓	✓	○	○	○	○	✓	✓	○	✓
10C	Connected and Autonomous Vehicles	×/✓	✓	○	○	○	○	✓	✓	✓	✓
10D	Autonomous buses	✓	✓	○	○	○	○	✓	✓	×/✓	✓
Strategy Theme 11: Reducing the cost of travel, particularly for those most in need											
11A	Reduce bus fares	✓	○	○	○	○	○	✓	✓	✓	○
11B	Reduce rail fares	✓	○	○	○	○	○	✓	✓	✓	○
11C	Reduce ferry foot passenger fares	✓	○	○	○	○	○	✓	✓	✓	○
11D	Reduce ferry car fares	×	○	○	○	○	○	✓	✓	×	○
11E	Reduce ferry accommodation fares (Northern Isles Ferry Services)	○	○	○	○	○	○	✓	✓	✓	○
11F	Reduce or remove the cost penalty for interchange between operators and modes	✓	○	○	○	○	○	✓	✓	✓	○
11G	Extend the scope and / or geographic coverage of national fares and funding policies	○	○	○	○	○	○	✓	✓	✓	○
11H	Reduce the cost of air travel on PSO routes	○	○	○	○	○	○	✓	✓	✓	○
111	Reduce the cost of air travel on commercially operated routes	○	○	○	○	○	○	✓	✓	○	○