

## **Report to Partnership Meeting 7 February 2020**

### **CONSULTATION**

#### **Infrastructure Commission for Scotland – Key Findings Report**

##### **Purpose of Report**

To introduce a summary of the Infrastructure Commission for Scotland's Key Findings Report in particular with respect to transport infrastructure in the Highlands and Islands.

##### **Introduction**

The independent Infrastructure Commission for Scotland (ICS) was proposed as part of the Scottish Government's Programme for Government and its remit set out in December 2018.

The Commission was tasked with advising on the priorities for investment over the next 30 years to meet economic growth and societal needs and how this might be delivered. The ICS will support Scottish Government's delivery of its National Infrastructure Mission and the development of its next Infrastructure Investment Plan to run until 2023.

The ICS will advise on the key strategic and early foundation investments that are needed to significantly boost economic growth and support the delivery of Scotland's low carbon objectives and achievement of its climate change targets.

The Scottish Government's definition of infrastructure includes both economic and social infrastructure that covers transport, energy, telecoms, water, waste, flood defences, housing, education, health, justice and culture. The ICS also considered Scotland's natural assets in its definition of infrastructure.

The Advisory Commission published its Phase 1 Key Findings Report at the end of 2019. A copy of the Sector Summary section on Transport is attached as an appendix to this report.

##### **Key Findings Report**

In preparing the Key Findings Report, The ICS has highlights that net zero carbon and inclusive economic growth are two key policy areas which have a significant bearing on infrastructure. The focussing of infrastructure decisions on these areas of policy it argues will lead to very different outcomes compared with past investment, and the nature, purpose and focus of infrastructure investment over the 30 year horizon is likely to change fundamentally as we aim for an inclusive net zero carbon economy. It states that most of the evidence in relation to the impact of infrastructure is focused on traditional GVA type outcomes which are not seen as the sole measures of success and opportunities of net zero carbon or inclusive economic growth. Given

the urgency of the transition, this means Scotland have to take some infrastructure decisions according to agreed principles for which detailed empirical evidence may not yet be available as well as take immediate steps to develop that new evidence base. The Phase 1 report therefore provides an opportunity to set out an overall 30-year infrastructure vision to support and enable an inclusive net zero carbon economy and establish some short and longer-term actions to achieve this.

The three key recommendations relating to Transport are highlighted below;

1. The Scottish Government should ensure that its new National Transport Strategy and Strategic Transport Projects Review 2, which are due to be published during 2020, fully reflect the need to deliver an inclusive net zero carbon economy and consider the infrastructure and the use of it as a holistic system. This should include:
  - Aligning strategic investment decisions to address fully the requirement for demand management, a substantial increase in the proportion of journeys made by active travel, and opportunities for shared mobility as well as a much greater role for public transport.
  - For such roads investment that is made as part of the above, a presumption in favour of investment to future proof existing road infrastructure and to make it safer, resilient and more reliable rather than increase road capacity.
2. Investment decision making based on the above framework will require a significant change to investment guidance. Therefore, by the end of 2021, the Scottish Government and Transport Scotland should develop a new investment appraisal and decision-making process, incorporating necessary changes to the current Scottish Transport Appraisal Guidance (STAG) and Investment Decision Making Guidance.
3. To enable a managed transition to an inclusive net zero carbon economy road infrastructure, the Scottish and UK Governments should immediately commit to work together to establish a charging/payment regime alternative to the existing fuel and road taxation based structure. The Scottish Government should also consider additional options that could provide a more stable long term investment regime for the management and maintenance of road infrastructure to meet the priorities identified in 14 above.

### **Implications of Key Findings Report for HITRANS area**

The focus of the ICS Phase 1 Report on the challenges placed in addressing the two policy areas of net zero carbon and inclusive growth are welcomed. However, while the regional forum report of the Highlands and Islands key stakeholder session in Inverness captures many of the key issues relating to the regions connectivity, the Phase 1 report fails to address these directly.

We welcome the recognition that there should be a presumption in favour of future proofing the existing road infrastructure with the strategic road infrastructure improvements identified in the HITRANS Regional Transport Strategy relating to the need to address safety and resilience through investment to bring these routes up to existing trunk road standards.

The second recommendation relates to the need for a significant change in investment guidance with an update of the existing appraisal and decision making process. This is something which HITRANS and local authority partners have consistently highlighted. However, for this to have meaningful impact on forthcoming infrastructure priorities it should be addressed prior to the preparation of the Strategic Transport Projects Review 2 (STPR2).

The final key recommendation is for the establishment of a charging / payment regime to replace the existing fuel and road taxation structure. It is essential that any solution reflects the different functions of the road infrastructure between rural and urban areas of Scotland.

Finally, while the Sector Summary on transport describes the transport network and baseline for each mode, the report only mentions 'islands' in the context of energy distribution. It is vital that any future work ensures that island and rural proofing of policies and recommendations is fully considered.

## **RISK REGISTER**

### RTS Delivery

Impact - Positive

Comment – The ICS is a Programme for Government commitment and therefore offers an opportunity to establish key RTS priorities within wider policy context.

### Policy

Impact – Positive

Comment – The ICS will help shape infrastructure investment in the coming years and decades. This offers an opportunity to make a case for the infrastructure choices that can deliver a fairer Scotland where the Highlands and Islands performs as well as the Scottish average in terms of socio economic outcomes.

### Financial

Impact – Neutral

### Equality

Impact – Positive

Comment – A fairer and more inclusive Scotland should be a priority for the ICS.

## **RECOMMENDATIONS**

Members are invited to:

1. note the report
2. delegate the preparation of a response to the Key Findings Report on behalf of the Partnership to the Partnership Director and Chair.

**Report by:** Neil MacRae  
**Designation:** Partnership Manager  
**Date:** 29<sup>th</sup> January 2020

**Appendix 1: Infrastructure Commission for Scotland: Key Findings Report – Sector  
Summary: Transport**





Part B:  
Sector Summaries  
(continued)

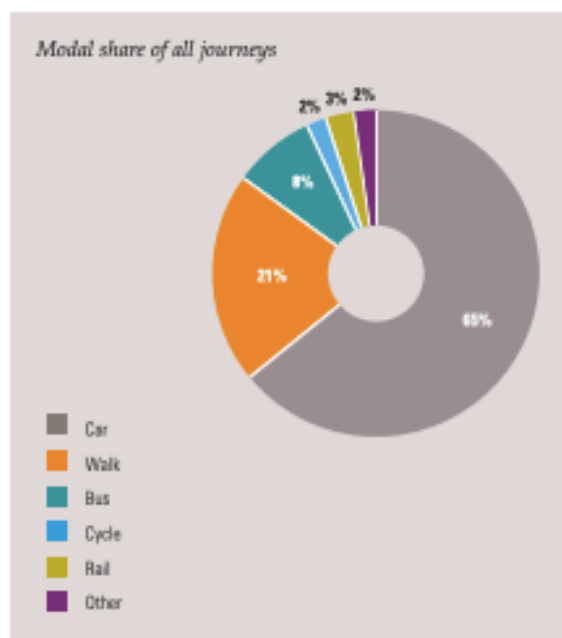
# Transport

## 4.1 Background

Good connectivity is believed to be a key component in both supporting and growing Scotland's economy. We expect to be able to move around quickly and easily and by many modes on a system that is reliable and resilient, we expect that deliveries can be made to our shops to keep them fully stocked, and business expects that goods and products made in Scotland can reach their market efficiently and on time. The cost of travel represents a significant proportion of the average Scottish household budget, with some 14% of household spend being on travel.

But creating, managing and maintaining that connectivity and associated transport systems is complex and multifaceted – and as the recent Glasgow Connectivity Commission noted, there is no single recipe for success. Moreover, if Scotland is to achieve its aims of delivering an inclusive net zero carbon economy, much will depend on the final shape, structure and implementation of its new National Transport Strategy (NTS) and Strategic Transport Projects Review 2 (STPR2). It is therefore encouraging that both the draft NTS and the initial development of STPR2 are signalling a clear focus on delivering these outcomes. However, until final decisions are taken on the strategy and review, this issue remains unresolved.

14% of Scottish household spend is on travel



## 4.2 Scotland's Transport System

The key elements of Scotland's transport system are as follows.

### Roads and Traffic<sup>(xxi)</sup>

The total length of Scotland's road network is around 56,400 kilometres, the vast majority of which – around 80% – comprises minor roads. The remainder of the network comprises non-trunk A roads (13%) and motorway and trunk roads (7%). Responsibility for the management of the motorway and trunk road network rests with the Scottish Government, which spends currently some £620m per annum on road maintenance, lighting and new investments. The local authorities are responsible for managing the non-trunk and minor road network, spending around £300m per annum on maintenance and lighting.

In terms of usage, there are currently some 48 billion vehicle kilometres driven on Scotland's roads annually, of which 39% are on the motorway and trunk road network and 48% on rural roads.

Private cars account for the highest users of the network (75% of distance travelled) followed by light goods vehicles (17%), heavy goods vehicles (5%) and public transport (2%). Cycles represent just 1% of vehicles using the network.

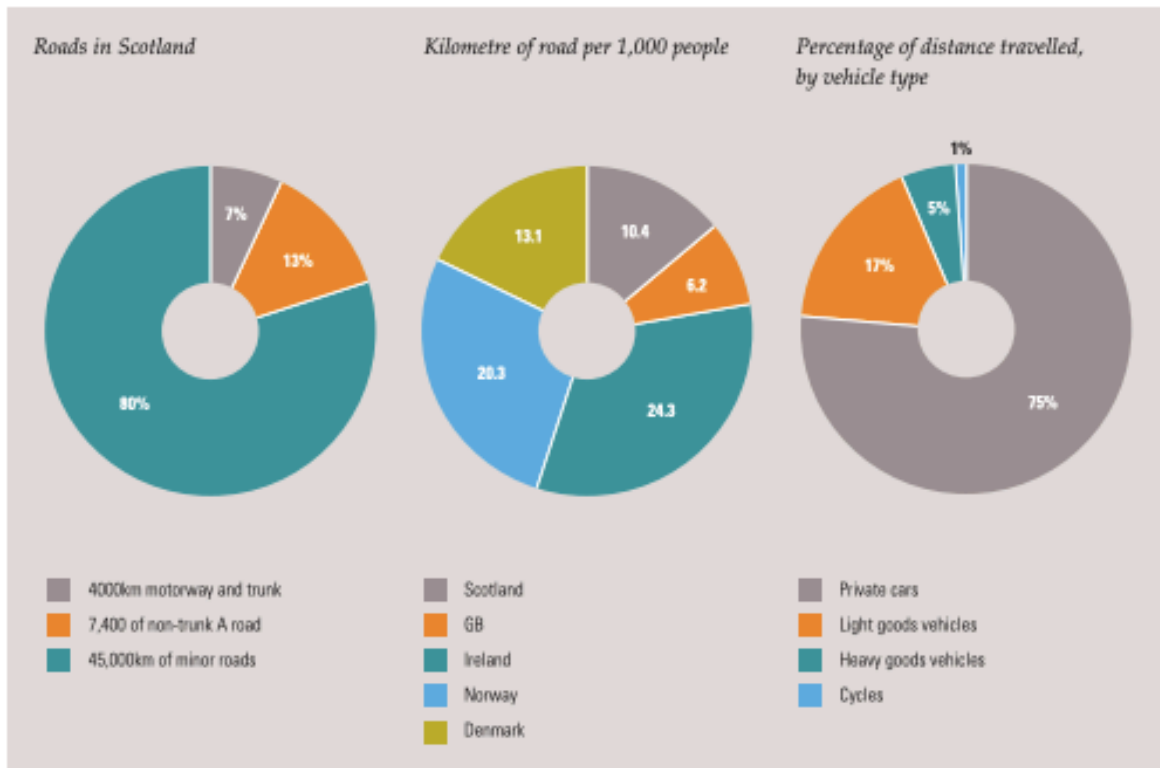
Around 13 billion tonnes/kilometre of freight originating in Scotland was transported by road in 2017, most of which was lifted and delivered in Scotland. As a result, most road freight journeys are relatively short, of 50 kilometres or less. However, around 15 million tonnes of freight are delivered to the rest of the UK and around 180,000 tonnes of goods were transported to international destinations, principally France and the Netherlands.

### Rail<sup>(xxii)</sup>

Scotland's rail network extends to just over 2,800 kilometres in length (of which around 700 kilometres (25%) is electrified) and is served by 360 stations. It is estimated that by the end of 2019, 75% of all ScotRail passenger journeys will be by electric traction. The current ScotRail franchise covers all services within Scotland, operating around 2,400 train services per day and delivering almost 98 million passenger services per year - this represents a 31% increase in passenger journeys over the past 10 years. Services from Scotland to England and Wales are provided by other operators.

Most journeys originating in Scotland also have a destination in Scotland (some 91%) with journeys to the North of England (5.6%) and to London (2.3%) the next most common. The ScotRail franchise is the biggest single contract let by the Scottish Government, worth more than £7 billion over its 10-year life.





In terms of rail freight, around 8 million tonnes per annum is carried in Scotland.

### Bus<sup>xxxxv</sup>

The annual number of bus journeys made in Scotland is currently about 390 million, of which one third, (approximately 130 million journeys) are made under the National Concessionary Travel Scheme. There are 1.4 million people who are registered to use this scheme in Scotland.

However, bus use is changing. Over the past 5-years, journey numbers are down by 8%, bus fleet sizes are down by 10% and staff employed by bus operators down 2%. Vehicle kilometres travelled, however, have risen by 2% per annum.

### Air<sup>xxxxv</sup>

The annual number of air movements in Scotland is currently around 480,000, with some 29.5 million passengers using Scottish airports. The

vast majority of these passengers (81%) travel to or from Edinburgh or Glasgow Airports. Over the past 3 years, there has been growth in passenger numbers at each of Scotland's principle airports - Edinburgh, Glasgow, Aberdeen and Inverness.

Although relatively small in gross terms, the quantity of airfreight in Scotland continues to grow. Around 60,000 tonnes of air freight were carried in 2018, compared to 45,000 tonnes in 2011

### Water<sup>xxxxv</sup>

Scottish ports currently handle more than 65 million tonnes of freight per annum and 25% of Scotland's total freight tonnage is carried by ship.

Scottish ferry routes carry around 8.5 million passengers and 3.1 million vehicles per annum, of which around 6 million passengers and 1.5 million vehicles are on the subsidised ferry routes or "lifeline services" serving the Clyde, West Coast and the Northern Isles.

# Transport

## 4.3 How We Choose to Travel

The latest available statistics show that people in Scotland are making fewer trips in 2017 than 10 years ago – 73% reporting travelling the previous day compared with 80% in 2007<sup>xxxxii</sup>. This correlates with the findings in the First Report of the Commission on Travel Demand<sup>xxxxiii</sup> which noted that “we travel substantially less today, per head of population, than we did one or two decades ago.” In addition, the Commission also noted that younger people, and in particular younger males, are far less likely to have a driving licence and to subsequently drive less than previous generations. The reasons for these changes in travel behaviour are complex, but in summary are thought to lie outside transport and have been driven by changes in young people’s socio-economic situations, including increased higher education participation, the rise of lower paid and less secure jobs, a decline in disposable income and rising costs of car ownership. Changing living situations are also playing a part here, with many more young adults living at home for longer. In terms of modal share of all journeys, the private car is still the most prevalent with 65% of all journeys, followed by walking 21%, bus 8%, cycle 2%, rail 3% and other 2%<sup>xxxxiv</sup>.

Of the 525 million journeys made by public transport in 2017, 74% were by bus and 19% were by rail. High income and rural households are more likely to travel to work by car, whereas in urban households, there is a greater degree of modal split reflecting the increased transport choice available<sup>xl</sup>.

## 4.4 Challenges

The key challenge we face is ensuring an appropriate level of effective and efficient connectivity in Scotland to enable:

- > people to move around;
- > business to access markets; and
- > the movement of goods

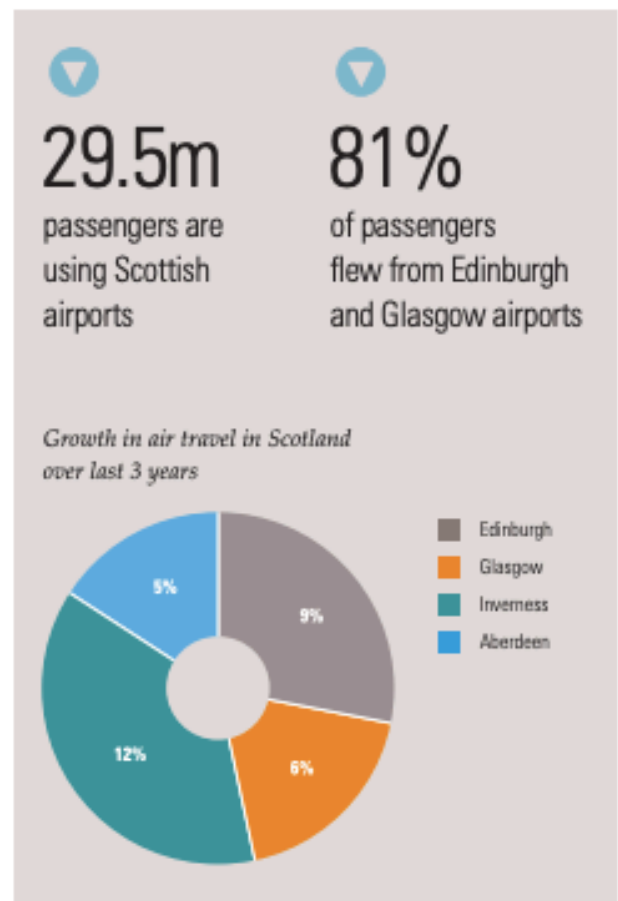
but in a way that delivers a net-zero carbon inclusive growth economy. For the purpose of this report, the following section focusses primarily on issues around road transport. Issues that relate to aviation will require separate consideration and have not been covered here.

As transport is currently a major contributor to greenhouse gas emissions, reducing these emissions will be essential if the Government’s net-zero carbon targets are to be met. The Scottish Government is due to publish its new National Transport Strategy (NTS) and Strategic Transport Projects Review 2 (STPR2) shortly and these provide a timely opportunity for the outcomes of these processes to reflect fully the shift to an inclusive net zero carbon economy by 2045. While the draft NTS and initial work on STPR2 have demonstrated a

clear intent to achieve these aims, it will be important for the final versions to demonstrate how the formulation, prioritisation and implementation of future transport infrastructure plans will deliver safe, affordable, inclusive and efficient net zero carbon solutions to ensure effective connectivity for people, goods and services.

The existing transport hierarchy, which places in order of importance the range of possible interventions that can be made, will be helpful in identifying options to inform transport planning decisions. As a first step the initial focus should be on options which lead to i) management and reduction of demand, followed by ii) increased use of active travel, then iii) increased use of public transport and finally, iv) management of car transport.

A move to ultra-low emission vehicles (ULEVs) will certainly have an impact on reducing greenhouse gas emissions, but a recent report by the UK Energy Research Centre (UKERC) indicates this could be challenging as average carbon dioxide (CO<sub>2</sub>) emissions from new passenger vehicles have been increasing over the past three years<sup>xi</sup>.





There are around  
**525m**  
passenger journeys  
by public transport  
each year

The main types are:

- > Bus (388 million passenger journeys) and
- > Rail (100 million passenger journeys)

This is attributed to a significant rise in sales of larger cars, in particular Sports Utility Vehicles (SUVs) which emit 25% more CO<sub>2</sub> than a medium-sized car – over the past 10 years, the proportion of SUV sales has risen three fold, from just under 7% of total passenger car sales to more than 21%. UKERC concludes that as the majority of these vehicles will be in use for at least the next decade, the cumulative effect of their emissions is going to be felt for some time to come.

Even if a successful transition to ULEVs can be achieved, it is reasonable to assume that the associated traffic management and congestion challenges will not only remain but are likely to increase if the growth in the numbers of registered vehicles continues. However, the introduction of connected and autonomous vehicles might help to mitigate these congestion effects. Connected vehicles, which can communicate directly with other vehicles or with the road network infrastructure, are expected to result in drivers being better informed about their journeys and to assist them in making real time decisions about route selection.

EVs as a percentage  
of total vehicle  
sales, by country







# Transport

“STAG should be reconsidered if...  
journey times may no longer be key  
element of productivity”

Scottish Cities

Increasingly autonomous (driverless) vehicles could, over the longer run, take this to another level and utilise an even wider range of technologies and systems to reduce the need for driver involvement while undertaking a journey. It is believed the impact of such changes could have a significant disrupting effect to current thinking around infrastructure planning and design, travel patterns and the interactions between other modes of transport. Although these concepts and the detailed application of them are still at an early stage of development, the underpinning technology is moving quickly and follows many decades of similar change – we are well used to assisted braking and adaptive cruise control, and support for new manoeuvres is becoming mainstream, for example, self-parking. The UK National Infrastructure Commission<sup>(4)</sup> notes that some estimates suggest self-driving vehicles could be on our roads within the next 10 years, though others predict a much longer timescale. Nevertheless significant change is coming and in spite of uncertainties around timing, preparation is underway. This includes the recently published Connected and Autonomous Vehicles Roadmap, published in December 2019<sup>(5)</sup>.

However, policies focused on delivering an inclusive net zero carbon economy must not focus solely on zero emission vehicles or connected and autonomous vehicles, but for also on the opportunities for shared mobility and on-demand services as well as a much greater role for evolved public transport in the overall provision of mobility. Changing behaviours and an increased willingness to adopt new ways of accessing and paying for mobility (for example, app-based ride hailing) coupled with the emergence of new modes to support short distance trips and first/last mile trips to key interchanges (for example, e-bikes and on-demand shared transit) have the potential to change connectivity.

The challenge therefore is to consider Scotland's transport infrastructure and the vehicles and services that use it as a holistic system rather than



a series of separate components. This may mean, for example, developing guiding principles that balance across the whole system reductions to private vehicle capacity, or reallocating road space from private vehicles to public transport in favour of increased new road capacity.

For many years, Scotland has utilised the Scottish Transport Appraisal Guidance (STAG)<sup>(6)</sup> to help inform its transport planning decisions. The guidance is well regarded both at home and internationally. It has a particular focus of investment on connections across and with Scotland, improving reliability and journey times and maximising employment and business opportunities. It also considers public transport and sustainability priorities. STAG is complemented by Transport Scotland's Investment Decision Making Guidance.

As illustrated, the scale and rate of infrastructure change required to support the delivery of an inclusive net zero carbon economy within the next 30-years will be considerable. As a consequence, the level of investment that will need to be sustained over a long period will be significant. In parallel, the expected changes are likely to have an impact on the ability to raise revenue – for example, a move to electric powered vehicles away from fossil fuelled vehicles will reduce the amount of fuel duty that can be raised. As a reserved power, fuel duty raises more than £28 billion per year in the UK, £5.7 billion is raised from VAT on fuel duty and Vehicle Excise Duty raises a further £6.5 billion<sup>(7)</sup>. While tax revenue is not generally hypothecated or ringfenced in the UK, it is notable that road users are contributing in the order of 5% of the UK's gross annual tax receipts (£40 billion a year). Losing this revenue would therefore leave a significant gap in the country's resources that would need backfilling through other means.

Finally, while it is likely that a level of road freight is inevitable – as goods require distributing at a local level to the destination – there is potentially



greater scope to increase volumes of freight transported by other modes. Rail freight levels have dropped significantly from the highs achieved during the early part of this century. However, at that time the rail network was carrying large volume of coal and minerals, for which there is now no longer a market as we have moved to cleaner fuels.

Scotland also has limited container connectivity from the two terminals at Grangemouth and Greenock now that the Rosyth/Zeebrugge route is no longer operating. As a result, many products manufactured in Scotland for export to international markets must be transported to deep water

ports such as Liverpool, Felixstowe or Southampton for onward shipping. During its engagement, the Commission heard that enhanced deep water port facilities in Scotland would make it easier and quicker for industry to get its goods exported to market.

Key issues summarised here are incorporated into a number of recommendations at Part C, most specifically those relating to Leadership, Place, Heat and Transport, Digital and Technology and Independent Long Term Advice.

The total spending on transport in Scotland in 2017/18 was around £3 billion, comprising:

- > **£2.1 billion** by the Scottish Government
- > **£0.8 billion** from the local authorities

Spending on roads



**£620m**

by Scottish Government  
on motorways and trunk  
roads (capital and  
maintenance works)



**£221m**

by local authorities  
on local roads



**£63m**

by local authorities  
on street lighting



**£755m**

on rail services



**£200m**

on the National  
Concessionary  
Travel Scheme

In addition, the Scottish Government spent around



# Transport



In 2017:

- > 67 million tonnes of freight was handled by Scottish ports
- > 25% of Scotland's total, freight tonnage was carried by water
- > There were 8.5 million passengers and 3.1 million vehicles carried on Scotland's ferry routes