



**"HAVE
YOUR
SAY"**



NATIONAL TRANSPORT STRATEGY

PROTECTING OUR CLIMATE AND IMPROVING LIVES

Draft for Consultation



transport.gov.scot/NTS2
#NTSHaveYourSay

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Chapter 1 – Foreword

I'm delighted to present to you our new draft National Transport Strategy (NTS2), which sets out an ambitious and compelling vision for our transport system for the next 20 years, one that protects our climate and improves lives.



This draft Strategy advocates a vision for Scotland's transport system that creates great places – a sustainable, inclusive and accessible transport system which promotes prosperity, health and fairness for all of our citizens. It sets out key priorities to support that vision: promoting equality; taking climate action; helping our economy prosper; and improving our health and wellbeing. Within these priorities there is greater focus on promoting equality and taking climate action. Importantly, the Strategy signals the future direction of transport and provides the context within which any future decisions should be made.

The 2016 NTS refresh acknowledged the pace of change in the 10 years since the publication of the original Strategy in 2006. If anything, that pace – and the extent of this Government's ambition – has accelerated in the period since the refresh: our National Infrastructure Mission has committed us to increase overall infrastructure spending, to deliver a long term boost to Scotland's economy; in response to the global climate emergency, we're now in an environment where the drive to low carbon transport is essential to our future wellbeing; spending on active travel has doubled; and the rate of technological advance is astonishing. There is also a recognition that transport has a critical role to play in reducing inequality and helping to meet the ambitious Child Poverty targets that the Scottish Government has set.

The Scottish Government has worked on the development of this Strategy with an extensive and wide-ranging network of partners: from local government to academic experts; from third sector, interest and action groups to business and industry. We have reached out to groups and areas across the country to hear the views of a wide range of users of the transport system.

This collaborative approach – on a scale unprecedented in the transport arena – means that everyone has a shared ownership for implementing and driving the impact of the Strategy in the years ahead. In our cities, towns, and in our remote and rural areas and islands, and whether it's those who deliver infrastructure and services or everyday users of those services, there's a role for all of us to play in effectively delivering on the vision and outcomes.

Our Strategy is one that embodies vital priorities and outcomes, but is responsive to change; that encourages each of us to take responsibility for our transport decisions – but is deeply conscious of the connections between us; and that supports

Scotland's inclusive economic growth and sustainably connects us to the world, helping us to look to the future with ambition and confidence.

I look forward to hearing your views on our draft NTS2.

A handwritten signature in black ink, appearing to read 'Michael Matheson', with a stylized flourish at the end.

Michael Matheson MSP
Cabinet Secretary for Transport, Infrastructure and Connectivity

Chapter 2 – A vision for transport in Scotland

Our Vision

We will have a sustainable, inclusive and accessible transport system, helping deliver a healthier, fairer and more prosperous Scotland for communities, businesses and visitors.



Promotes equality

- Will provide fair access to services we need
- Will be easy to use for all
- Will be affordable for all



Takes climate action

- Will adapt to the effects of climate change
- Will help deliver our net-zero target
- Will promote greener, cleaner choices



Helps our economy prosper

- Will get us where we need to get to
- Will be reliable, efficient and high quality
- Will use beneficial innovation



Improves our health and wellbeing

- Will be safe and secure for all
- Will enable us to make healthy travel choices
- Will help make our communities great places to live

Our vision for Scotland's transport system is that: We will have a sustainable, inclusive and accessible transport system, helping deliver a healthier, fairer and more prosperous Scotland for communities, businesses and visitors.

This Strategy is for all of Scotland, recognising the differences between our cities, towns, remote and rural areas and islands. It draws heavily on the latest evidence and has been developed through a collaborative approach involving a wide range of partners. An extensive engagement exercise involving individuals, businesses and third sector organisations has been essential. It is a Strategy for the whole transport system (people and freight) both why we travel and how those trips are made,

including walking, wheeling¹, cycling, and travelling by bus, train, ferry, car, lorry and plane.

We all have a responsibility for delivering the Strategy and making sure it is a success. From local and central governments and regional transport partnerships implementing policies, to businesses and individuals taking account of their actions and impacts when making travel decisions.

We all need to work together across boundaries to add value and ensure its success, including involving all people in our society in decision-making and empowering communities to play a vital part in the delivery process.

Our vision is underpinned by four Priorities, each with three associated Outcomes. Our vision will be the basis upon which we take major strategic decisions and evaluate the success of our transport policies going forward. All four Priorities are interlinked to deliver the vision. For example, Improving our Health and Wellbeing through promoting active travel will help us Take Climate Action. Similarly Helping our Economy Prosper through increasing sustainable and inclusive economic growth will help us Promote Equality.

Since 2007, the Scottish Government's purpose has been the promotion of sustainable economic growth as highlighted in the previous National Transport Strategy. The Government's Economic Strategy has increased the focus on inclusive growth, where increasing prosperity is combined with greater equality. This means creating a society that offers equal opportunity for all and ensures that the benefits from a stronger economy are shared fairly. Inclusiveness and equality are at the heart of our new Strategy.

We are also facing a global climate emergency. The Scottish Government is therefore proposing an ambitious statutory target of net-zero emissions by 2045. Transport will play a key role in achieving this important target and the contribution that transport can make is clearly reflected throughout this Strategy.

Promotes equality

Everyone in Scotland will share in the benefits of a modern and accessible transport system. Transport plays an important part in delivering the fully inclusive society we want – outcomes are as important as opportunities. While we promote equality, our actions will simultaneously tackle inequalities and help reduce poverty, in particular child poverty. Our transport system:

- Will provide fair access to services we need: we have a duty to advance equality of opportunity and outcome, including the protected characteristics of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation. We will ensure that our most disadvantaged communities and individuals have

¹ Wheeling: refers to travelling by wheelchair.

fair access to the transport services they need. The transport system will enable everyone to access a wide range of facilities and services.

- Will be easy to use for all: people have different needs and capabilities. Our transport system will recognise these and work to ensure that everyone can use the system with as little effort as possible.
- Will be affordable for all: people have different incomes and our transport system will not exclude people from mobility by making it unaffordable. We will target action to deliver the Strategy towards those needing most help.

Takes climate action

People will be able to make travel choices that minimise the long-term impacts on our climate and the wellbeing of future generations. We face a global climate emergency. Scotland must transition to a net-zero emissions economy for the benefit of our environment, our people and our future prosperity. Our transport system:

- Will adapt to the effects of climate change: in Scotland we are already experiencing the impacts of climate change and we will adapt our transport system to remain resilient and reduce the harmful effects on future generations.
- Will help deliver our net-zero target: the Climate Change Bill, currently before the Scottish Parliament, includes an increased ambition to reduce greenhouse gas emissions, with a net-zero emissions target by 2045. Transport is currently the largest contributor to Scottish emissions, this will be tackled through a range of actions including an ambition to phase out the need for new petrol and diesel cars and vans by 2032.
- Will promote greener, cleaner choices: over the next 20 years, Scotland will see a continued transformation in transport where sustainable travel options are people's first choice. We will reinforce the Sustainable Travel Hierarchy to promote and design our transport system so that walking, cycling and public and shared transport are promoted and take precedence ahead of private car use.

Helps our economy prosper

Scotland will have a transport system that will help deliver sustainable, inclusive economic growth enabling the whole country to flourish. Transport plays a key role in delivering Scotland's Economic Strategy. It enables firms to have efficient access to suppliers and customers. It allows people fair and affordable access to reach the jobs where they can be most productive and boost household incomes through improving access to employment. Our transport system:

- Will get us where we need to get to: network and services will be integrated effectively with spatial and land use planning and economic development, and adapt to changing requirements of people, businesses and visitors.
- Will be reliable, efficient and high quality: everyone needs to be confident about how long a journey will take, and that it will be simple and comfortable to make. We will be able to plan our lives, to get to work on time, access education and training and to deliver goods efficiently and keep businesses running smoothly.
- Will use beneficial innovation: new products, services and technologies are developing fast and altering our lives and our places dramatically. We will seize opportunities to improve our transport system and realise economic ambitions.

Improves our health and wellbeing

Scotland's transport system will be safe and enable a healthy and fit nation.

Our transport system needs to be safe and secure and give users trust and confidence that they will reach their destinations without threat. It should also allow people to make active travel choices to improve their health and wellbeing and seek to reduce health inequalities. It should support our Public Health Priorities². Our transport system:

- Will be safe and secure for all: the prevention and reduction of incidents, on the transport system will continue to be a priority.
- Will enable us to make healthy travel choices: active modes will be a preferred method of travel and have a significant positive effect on individual health and wellbeing. This will reduce the social and economic impact of public health problems such as mental health, obesity, type-2 diabetes, and cardio-vascular diseases.
- Will help make our communities great places to live: cleaner and greener places and networks will encourage walking, wheeling and cycling. This will deliver more social interaction, support local businesses and services and create vibrant communities.

We are witnessing a dramatic and rapid change in transport. Innovation coupled with improvements in technologies are fundamentally changing the provision of services and bringing opportunities that couldn't be imagined only a few years ago. Just as the introduction of trains and the motor car revolutionised travel in the 19th and 20th centuries respectively, new innovations and emerging technologies will have similar effects this century, impacting significantly on the supply of transport and the changing needs and demands of our people, communities and businesses.

² Scotland's public health priorities, 2018, <https://www.gov.scot/publications/scotlands-public-health-priorities/>

We will embrace these developments, but the fundamental needs of the users of our transport system will be unchanged over the next 20 years. People, communities and businesses will want the same from the transport system in the future as today, that is to provide the fundamental function of linking people and places in ways that are reliable, affordable and safe.

Our Strategy will be a catalyst for change. By focusing on our priorities and delivering the outcomes we want to achieve, Scotland will have a transport system that demonstrates to the world that it is open for business. It will be resilient, reliable and ensure the efficient movement of our businesses and people to generate sustainable economic growth. Businesses will have good access to suppliers and customers. People will have good access to employment opportunities and services. These factors combined will improve our productivity, competitiveness and, ultimately, our economic growth and long-term prosperity.

However, while our transport system needs to support Scotland's economic ambitions, to succeed, this growth must be inclusive and improve people's lives. The transport system will, crucially, enable opportunities for all and allow Scotland's citizens equal access to services they need. Nobody in Scotland will be disadvantaged by our transport system. This includes the young, the old, those on low incomes and disabled people. The Strategy will also account for our different regional needs to ensure that those living in rural, remote or island communities are well connected and have equitable access to services as those in the rest of the country.

Scotland's future transport system will get people to where they need to get to, but without the significant adverse environmental impacts that much of the system currently does. Scotland will continue to be a responsible global citizen with a moral obligation to contribute to the challenge of climate change and to influence others to do the same. People's travel choices will not have significant adverse impacts on the long-term future of our planet and the wellbeing of future generations. We have ambitious statutory targets to tackle the global climate emergency and new technologies emerging to make vehicles less dependent on fossil fuels will contribute to our success in achieving them. But that will not be enough – we will not be building infrastructure to support forecast demand – we will reduce the need to travel by unsustainable modes in line with the Sustainable Travel Hierarchy.

The people of Scotland will be able to travel in towns and cities without concerns about air quality affecting their health. Scotland's people will live in places that have the best air quality in Europe.

In addition, Scotland's transport system will be designed with sufficient walking and cycling options to help us become a healthier nation and tackle medical problems caused by poor levels of activity. Scotland's transport system will enable a healthy and fit nation.

People will feel safe on Scotland's transport system. It will minimise the impact of transport incidents on users and their families. It will also be secure. People will have

trust in the system they are using and be confident that the privacy of their personal information is not under threat.

This Strategy signals the direction in which we want to move. It provides the strategic framework within which future decisions on investment options will need to be made. It does not identify or present specific projects, schemes, initiatives or interventions. In appraising and prioritising investments, for example, the second Strategic Transport Projects Review (STPR2), the 2020 Infrastructure Investment Plan and the transport elements of the update to the Climate Change Plan will all need to consider, assess and identify how options support this Strategy. The findings of these Reviews and Plans will then be presented in a Delivery Plan, demonstrating how each option will contribute to the NTS2 Priorities.

Chapter 3 – Current and emerging challenges

In recent years we have seen a number of positive trends in transport.

- **Drive to net-zero emissions.** 41% of respondents say they would consider buying an electric car or van compared to 36% in 2016³. There are currently over 11,000 Ultra-Low Emission Vehicles (ULEVs) licensed in Scotland, of which 10,858 are plug-in vehicles⁴. Figures show⁵ that ULEVs made up 2% of new cars registered in Scotland in 2018 and there was a 46% growth in registrations of ULEVs in Scotland in 2018 compared to the previous year, 20% higher than the rest of the UK.
- **Active travel delivery.** Funding has doubled and this is improving delivery of the ambitious and inclusive walking and cycling projects in Scotland to help create high quality places and communities that support health and wellbeing⁶.
- **Increase in rail travel.** Passenger journeys on ScotRail services increased by 4% to 98 million in the 2017-18 financial year. This was 31% higher than in 2007-08. New areas of the country have been connected to the rail network through the delivery of projects such the reintroduction of the Borders Railway and the Airdrie to Bathgate line. The negative environmental impacts of rail are being reduced and journey times being improved through electrification, including between Edinburgh, Glasgow and Stirling.
- In 2016, Scotland's first national ten-year **Accessible Travel Framework**⁷ was launched to improve travel access for disabled people. The purpose of the Framework is to support disabled people's rights by removing barriers and improving access to travel; and ensuring disabled people are fully involved in decisions to improve all aspects of travel. The first Annual Delivery Plan was published in June 2019 with the aim of addressing quicker the issues identified in the Framework.
- **Traveline Scotland**, Scotland's national public transport information service, had 35 million hits on its website in 2017. This was an increase of 21% on 2016 and by 245% since 2012.
- **Linking our cities.** Significant investment in major road and rail projects has funded the completion of the central Scotland motorway network, and is delivering reduced rail journey times between our cities. The Queensferry Crossing (including the cross-Forth public transport corridor), the Aberdeen

³ Transport and Travel in Scotland 2017

⁴ Department for Transport figures (December 2018)

⁵ Society of Motor Manufacturers & Traders (SMMT)

⁶ Active Travel Taskforce delivery plan

⁷ Scotland's 10-year Accessible Travel Framework, 2016.

Western Peripheral Route and targeted investments in the trunk road network have been delivered.

- **Scotland's roads are getting safer** and we also have one of the safest rail networks in the world⁸. In 2018, total reported road casualties fell by 11%⁹ compared to 2017; at around 8,400 casualties, these levels are at their lowest since annual records began in 1950.
- **Total air passenger and freight traffic in Scotland has increased** as our international connectivity has improved and new links to a range of destinations across the globe have been introduced. We have also improved accessibility between Scotland's cities and the Highlands and Islands, and from Scotland to other parts of the UK, where it is difficult to travel to do business and return in a single day by more sustainable alternatives. All of this is increasing the competitiveness and performance of our businesses and ensuring foundations for future success and growth. However, it is important we balance the need for accessibility and direct connectivity with our commitment to tackling the global climate emergency.
- The introduction of the **Road Equivalent Tariff** fares system on Clyde and Hebridean ferry services has reduced the cost of ferry travel, improving islanders' access to important mainland services and employment opportunities, as well as to visit friends and families. Lower fares are also encouraging a greater number of visitors to Scotland's islands.

Notwithstanding these positive developments, Scotland's transport system continues to face a number of challenges: many people encounter problems when trying to access the services they need; businesses still face congestion and delays when reaching their customers; and vehicles continue to emit greenhouse gases and pollute the places we live and work. If this Strategy is to be a catalyst for change and deliver our vision and Outcomes it must successfully tackle these challenges, as set out below.

Poverty and child poverty

Between 2015 and 2018 over one million Scottish citizens were living in relative poverty each year, including almost one in four children¹⁰. End Child Poverty estimate that this rate rises to over 40% in some parts of Glasgow¹¹. In addition to this, recent research¹² has stated that over one million Scots also live in areas that are at risk of transport poverty¹³.

⁸ The GB railway network as a whole, which incorporates Scotland's. Source ORR

⁹ Scottish Transport Statistics, 2019

¹⁰ Poverty and Income Inequality in Scotland: 2015-2018, Scottish Government, 2019

¹¹ <http://www.endchildpoverty.org.uk/poverty-in-your-area-2019/>

¹² Transport Poverty in Scotland, Sustrans 2016

¹³ People here are deemed to be at risk of transport poverty when they don't have access to essential services or work due to limited affordable transport options.

The Scottish Parliament has legislated for significant reductions in child poverty both in the short-term (2023 interim targets) and longer-term (2030 targets). Scotland's Tackling Child Poverty Delivery Plan¹⁴ recognises the importance of transport in contributing towards the targets set by the Child Poverty (Scotland) Act both through its impact on increasing income from employment and reducing household costs. The Plan also commits 'all areas of transport policy – including active travel, major projects, networks and travel concession schemes – to consider how they can best support the delivery of the child poverty targets set out in the Child Poverty Act and assist in addressing inequality'. The Strategy looks to make its own contribution, at a strategic level, to achieving the targets.

Transport clearly has a vital role to play in helping people trapped in poverty. It can represent a significant cost in terms of accessing essential services or maintaining social connections with friends and family. It also plays a crucial part in supporting people's ability to access employment opportunities.

Yet, in many cases, those on low incomes are excluded from maintaining social connections or accessing employment opportunities due to the affordability and availability of transport options. The single most important factor regularly cited by those on low incomes as the greatest transport-related barrier is its cost. This was affirmed through the engagement undertaken to inform this Strategy.

Average weekly household expenditure in Scotland on transport and vehicles in 2016-18 was £68.20, representing around a seventh of total household expenditure. The figure has fallen slightly from a peak of over 15% in 2012-14 but it still represents a significant proportion of people's income¹⁵.

People in low income households are more likely to travel by bus, while those in higher income households are more likely to use a car. 44% of people living in a household with less income than £10,000 use a bus at least once per week, compared to 16% for those with an income greater than £40,000¹⁶. 37% of households with less than £10,000 have access to one or more car. This rises to 97% for those with an annual household income of £40,000 or above¹⁷.

Public transport is therefore very important to those on low incomes, yet in many areas of high social deprivation public transport options can be limited and relatively expensive. This can further impact on poverty. For example, if access to large supermarkets is constrained by public transport availability, it can mean that people have restricted shopping options where prices may be higher. The Strategy will ensure there is fair and affordable access to the services people need.

¹⁴ Every Child, Every Chance: The Tackling Child Poverty Delivery Plan 2018-2022

¹⁵ ONS weekly household spend on transport and vehicles relative to weekly household income

¹⁶ Transport and Travel in Scotland, 2018, Table 28, Adults use of local bus and train services in the past month, 2017

¹⁷ Scottish Transport Statistics No. 37, 2018, Table 1.20: Households with a car or van available for private use, 2017

Social isolation

Globally, we are more connected than ever before, with advances in technology allowing us to keep in touch with people across the world in many ways and at any time. However, despite this, many people still feel socially isolated, with 6% of adults having contact with family, friends or neighbours less than once or twice a week¹⁸. In addition, many disabled people feel trapped due to the lack of accessible transport, particularly in rural areas.

There is increasing recognition of social isolation and loneliness as major public health issues that can have a significant impact on a person's physical and mental wellbeing. There is evidence showing social isolation and loneliness are experienced across Scotland¹⁹.

*A Connected Scotland*²⁰ is the Scottish Government's national strategy for tackling social isolation and loneliness and building social connections. The vision to tackle social isolation is for a Scotland where individuals and communities are more connected, and where everyone has the opportunity to develop meaningful relationships regardless of age, status, circumstances or identity.

Transport can play a crucial role in keeping people connected, allowing them to socialise, access services and meet with friends and family face-to-face. Transport essentially allows people to be socially active and therefore positively impact on their wellbeing. Good active travel facilities also provide opportunities for recreation, for people walking, wheeling, running or cycling, whether together or individually to enhance their health and wellbeing.

Gender inequalities

Complex travel behaviour

Much evidence across the UK and Europe shows that women are constrained by a number of barriers that shape how they travel and their experiences of those journeys. The gendered division of labour means that women tend to take on a disproportionate level of care and domestic tasks, compared to men, in addition to full or part-time work²¹. Due to this, women are more likely to make multi-stop and multi-purpose trips, known as 'trip-chaining', combining travel to work with trips for other purposes such as taking children to school, looking after family members or shopping²².

¹⁸ Scottish Household Survey, 2017

¹⁹ Our Voice Citizen's Panel (2017). Survey on relationships with health and social care professionals, shared decision-making, how loneliness affects people in Scotland, and how well services are working locally. p.46. URL: <https://www.ourvoice.scot/697/documents/1058>

²⁰ Connected Scotland Strategy, 2018, <https://www.gov.scot/publications/connected-scotland-strategy-tackling-social-isolation-loneliness-building-stronger-social-connections/>

²¹ ONS (2016) Women shoulder the responsibility of 'unpaid work'

²² Department for Transport (2014) National Travel Survey: Trip Chaining: 2002-2014

In England in 2014, 14% of women travelling to work during the morning peak did not go directly from home to work, compared to 7% of men. Women were more likely than men to go to work via school. Women who work part-time were more likely to have a multi-stop journey than women that work full-time or men, whatever their working status²³. It is necessary, therefore, that women's complex travel behaviour is properly understood in order to ensure fair access to the transport system for a group that comprises the majority of the population and to assist in tackling the gender pay gap in Scotland as outlined in the Scottish Government's Gender Pay Gap Action Plan.

Poverty and gender

Women in Scotland are much more likely than men to be part-time workers (44% compared to 15%) with over 75% of Scotland's part-time workforce being female²⁴. Women are also more likely to be in low-paid work, with 64% of people paid below the Living Wage being female²⁵. In particular, lone parents, the vast majority of whom are women, are more likely to be living in poverty than other single working-age adults in Scotland²⁶. Therefore, it is vital to consider transport poverty with gender in mind. Indeed, there are close links between women's poverty and child poverty so promoting gender equality will be good for tackling child poverty too.

Feelings of safety and fear of violence

The ways in which feelings of safety and fears of violence, including sexual violence, may shape women's travel behaviour should also be considered²⁷. Women are more likely than men to feel very or fairly worried about being sexually assaulted, and are also less likely to report feeling very or fairly safe walking alone at night compared to men (66% compared to 89%)²⁸. Women are also more likely to report receiving unwanted sexual attention (for example, sexual comments, wolf-whistling, staring, or exposure) or feeling unsafe in public compared to men²⁹.

The changing transport needs of young people

The evidence also shows that younger people (aged 17-29) are travelling less domestically³⁰. The reasons for this are not necessarily to do with transport, but they certainly impact on it. Some of the reasons include:

- many young people are communicating more by social media rather than in person and therefore have less need to travel

²³ Department for Transport (2014) National Travel Survey: Trip Chaining: 2002-2014

²⁴ House of Commons Library (2019) Briefing paper: Women and the Economy

²⁵ SPICe (2016) The Living Wage: Facts and Figures

²⁶ Poverty and Income Inequality in Scotland 2015-18

²⁷ Equally Safe Strategy, Scottish Government 2016

²⁸ Scottish Crime and Justice Survey 2018

²⁹ YouGov (2016) End Violence Against Women Survey

³⁰ Is the urbanisation of young adults reducing their driving? Chatterjee et al., 2018

- more young people are undertaking further and higher education, having to spend more on housing and delaying entering employment, therefore having less resources to spend on travel

The engagement undertaken with Young Scot to inform the Strategy revealed that key issues for young people include the availability and cost of public transport and personal safety when using services.

Ageing population

Adapting the transport system to reflect the changes in the structure of Scotland’s population and the evolving needs of the different age groups presents significant challenges.

Scotland’s population is ageing. In 2016, 440,000 people in Scotland were over the age of 75. By 2040, this figure is projected to grow to 790,000, an increase of nearly 79%³¹.

Scotland’s older population is predicted to increase

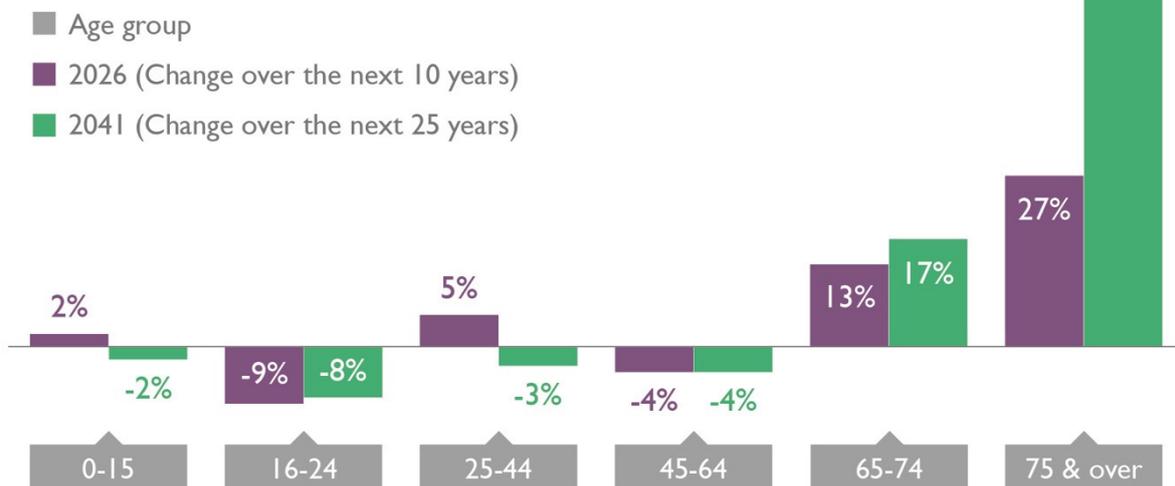


Figure 1: Projected population change by age group

While historically people have tended to travel less as they got older, older people now are healthier, fitter, wealthier and more mobile compared with previous

³¹ The estimated data, for the period 1981-2016, is taken from the National Records of Scotland (NRS) Mid-Year Population Estimates. The projected data, for the period 2017-2041, is from the Projected Population of Scotland (2016-based).

generations. They are likely to want to travel more and our transport system needs to support this to ensure older people are not socially isolated.

A Fairer Scotland for Older People: A Framework for Action³², has been developed to challenge the inequalities that older people face as they age and to celebrate older people in Scotland. The Framework highlights the importance of the National Concessionary Travel Scheme, that it is greatly valued and works well for cardholders for a number of reasons, including making financial savings, reducing isolation, engendering a sense of greater independence and increasing confidence in their own ability to travel. Community transport³³ plays an important role in providing flexible and accessible community-led solutions in response to unmet local transport needs for older people.

The extensive engagement undertaken as part of developing the Strategy revealed that factors impacting on older people were inaccessible vehicles (including taxis, buses and trains), journey comfort, frequency of bus services and poor integration between different transport services.

Disabled people

The proportion of adults with a long-term limiting mental or physical health condition or disability is increasing as the population ages. Between 2008 and 2017, the proportion of women who were disabled increased from 28% to 34%. Over the same period, the proportion of men who were disabled increased from 23% to 29%³⁴.

While there is a National Concessionary Travel Scheme for those eligible, disabled people are more likely to experience transport poverty relative to people without disabilities. Also, a lower proportion of disabled people are in employment compared to those who are not disabled.

³² A Fairer Scotland for Older People: A Framework for Action, April 2019, <https://www.gov.scot/publications/fairer-scotland-older-people-framework-action/>

³³ Community transport refers to services provided on a not for profit basis by voluntary groups or social enterprises. It can include voluntary car schemes, community bus services, school transport, hospital transport, dial a ride, wheels to work and group hire schemes, some of which are also available commercially or by local authorities.

³⁴ Scottish Health Survey 2017 edition, 2018

The increasing proportion of Scottish adults with a long-term limiting mental or physical health condition or disability

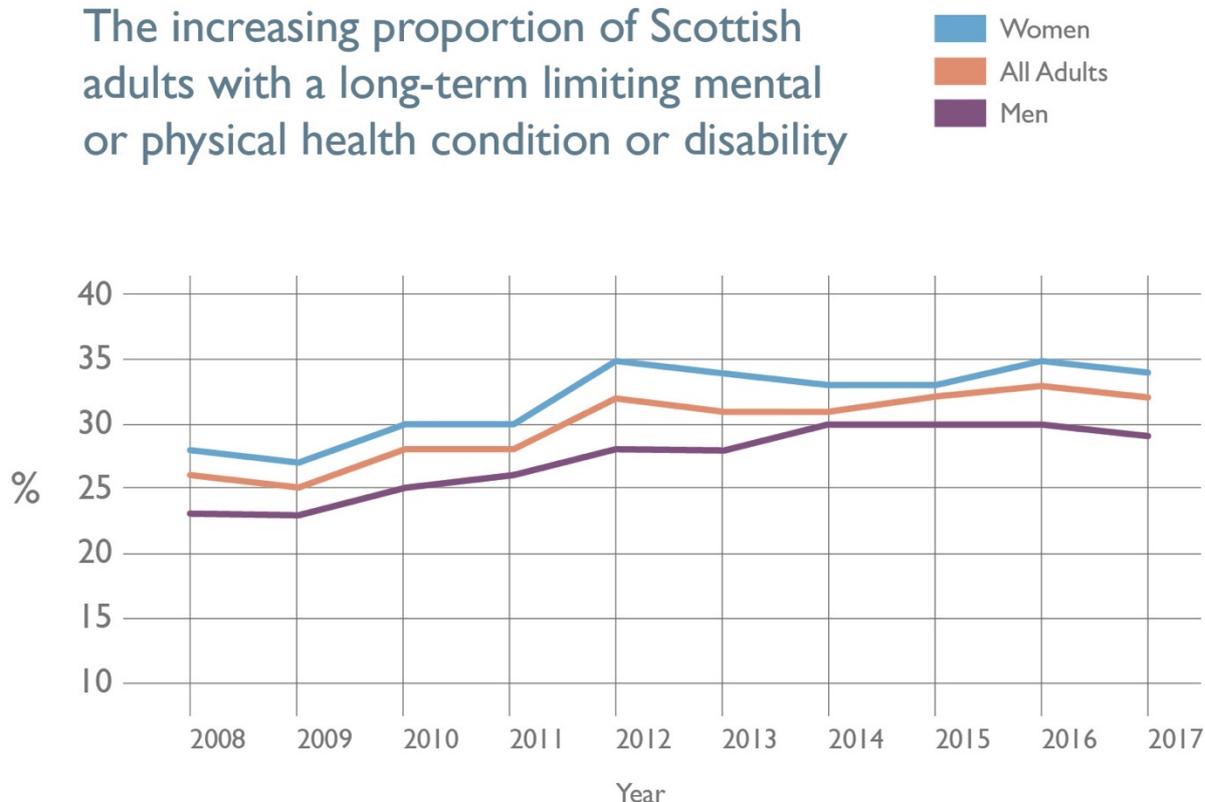


Figure 2: Percentage of adult population who have a long term limiting mental or physical health condition³⁵

Disabled people have the same rights as every other citizen³⁶ to equal access to employment and healthcare and to participate in learning, social, leisure and cultural activities in order to live life to the full.

However, barriers to travel can create considerable problems for disabled people. Key challenges that the transport system must address include:

- being able to access accurate and relevant travel information both before and during the journey
- being able to access public transport interchanges
- being able to access public transport vehicles
- being able to interchange between all modes
- concerns regarding safety and comfort on the public transport network

³⁵ Scottish Health Survey 2017 edition, 2018

³⁶ United Nations Convention on the Rights of Persons with Disabilities

These barriers lead to lower levels of travel amongst disabled people and contribute to a range of impacts that are not inevitable. Community Transport can have an important role to play in meeting the transport needs of disabled people.

Scotland's regional differences

Transport challenges differ across areas and regions of Scotland. The transport barriers facing those living in towns and cities in the Central Belt, for example, will not necessarily be the same as those in towns and cities in other parts of Scotland or, indeed, the many remote, rural and island communities. In addition, different areas of the country may have their own transport requirements to meet their inclusive growth objectives. These challenges will need a range of solutions and models of governance to deliver them.

Cities and Towns

Our cities are growing. A limited supply of affordable city centre housing has led to more suburban areas with greater numbers of housing developments impacting on travel needs and patterns, particularly to city centres. If past trends continue, then our cities will see increases in housing and population over the next 20 years³⁷. The populations of many of our towns are also growing, particularly those within the central belt and commuting distances of our cities.

These changes are putting various pressures and demands on our transport system as the number of people increase and their patterns of travel change to reflect different lifestyles. More people wanting to access our city centres, often by private car, is impacting on air quality. To reflect this, Scotland's four biggest cities are introducing low emission zones which, through the restrictions on the most polluting vehicles, will ultimately affect ways of accessing our cities and the services they provide. The growing demand for greener public spaces with improved local air quality and improved safety for active travel will also affect vehicular access and our choice of travel in built up areas.

More vehicles also means more congestion, and businesses located in or supplying firms in city centres are seeing increasing journey times, thus impacting on costs and overall business performance. Due to these congestion effects there is a growing recognition of the need to tackle the volume of vehicles through measures to effectively manage demand and encourage more sustainable travel options.

Many of Scotland's most disadvantaged communities are in cities, particularly in suburban areas. Yet, many of them are now having to travel longer distances to access employment opportunities as significant numbers of jobs tend to be in city centre locations. There is also a strong link between deprivation and low levels of car ownership, meaning that many in our cities depend on public transport services to access employment opportunities and other key services such as

³⁷ National Records of Scotland Population Projections

health. Yet, it has traditionally been a challenge to provide effective transport services in low-density suburban areas.

Remote, Rural and Island Communities

Island communities and those living in remote and rural areas face many different transport challenges when carrying out their daily lives compared to those living in less rural areas of the mainland and urban areas. Currently, the cost of transport on the islands and in remote rural areas is much higher, relative to income, than in the rest of Scotland. Journey times are often long and can require multiple interchanges, including an overnight stay, adding further costs. In addition, integrated ticketing is not always available, meaning that multiple tickets are required, further adding to price and complexity. These challenges are not restricted to remote rural areas but can also occur in rural areas relatively close to our towns and cities.

Rural households tend to drive more frequently than urban households³⁸, in many cases due to the limited public transport options available. Forecasts of declining population in many remote, rural and island communities in Scotland could result in lower population densities and make it more challenging for public transport operators to deliver viable services on a commercial basis. However, there is also growing interest in reversing this trend in rural areas where sustainable solutions can be found. Community transport can make an important contribution to this.

Some island communities also face the challenge of residents currently being unable to travel to and from Scotland's cities in the same day while undertaking a day's work³⁹.

Research has shown⁴⁰ that the minimum income that households require for an acceptable standard of living in Scotland's island communities is well above that required in the rest of the UK, and in many cases higher than in other areas of rural Scotland. The distribution of deprivation⁴¹ is also different in rural areas. Factors resulting in additional costs for households in island communities compared to the rest of the UK include:

- longer commuting distances compounded by higher fuel prices
- the additional cost of occasional trips to the mainland
- additional ferry/air costs for inter-island travel

³⁸ Scottish Transport Statistics No 37, 2018, Table 11.10: Frequency of driving for people aged 17+: 2017

³⁹ Convention of Highlands & Islands support an ambition for an affordable day return to a city.

⁴⁰ A Minimum Income Standard for Remote Rural Scotland, 2013, <http://www.hie.co.uk/regional-information/economic-reports-and-research/archive/a-minimum-income-standard-for-remote-rural-scotland.html>

⁴¹ As measured by Scotland's Social Index of Multiple Deprivation

Longer commutes to work combined with more expensive fuel typically adds £30 to £40 per week to costs when compared to rural England⁴². When people need to travel between islands to access work, ferry trips can incur additional costs.

Island communities can also face additional freight costs, such as to get goods to market or importing energy sources or building materials and labour. Additional charges for deliveries can also be a challenge.

Evidence shows that a greater share of people in remote rural and accessible rural areas find accessing services less convenient⁴³. There are urban and rural locations within Scotland where the current level of public transport provision, including accessible transport, and connectivity issues can act as barriers to accessing employment, education or training opportunities. Satisfaction with public transport in large urban areas was 79%, compared to only 48% in accessible rural areas⁴⁴. A particular issue for rural areas is the lack of transport acting as a barrier for young people accessing education, training and employment and link to long term out-migration⁴⁵. The challenges faced by island communities are clearly recognised and the Islands (Scotland) Act will ensure that authorities need to consider the impact of their work on Scotland's islands.

Global climate emergency

We are facing a global climate emergency and we need to significantly reduce our greenhouse gas emissions. Scotland is leading the way and the Scottish Parliament is currently considering a target of net-zero emissions by 2045. This is an ambitious legally binding target and transport needs to play its part to ensure it is delivered.

In the last five years, reductions in emissions from the power sector have enabled Scotland to reduce its overall emissions. However, this has led to the proportionate share of Scotland's emissions from transport increasing substantially. Transport is currently Scotland's largest sectoral emitter, responsible for 37% of Scotland's total greenhouse gases in 2017.

The factors affecting transport emissions are numerous and complex. The economic downturn in 2008 was a contributing factor to a fall in emissions, alongside fuel efficiency improvements and fluctuations in the price of oil. Between the 2007 peak and 2013 the trend in emissions from transport was downward. However, since 2013 there has been an increase each year, despite more efficient vehicles, due to an increase in vehicle kilometres driven.

⁴² A Minimum Income Standard for Remote Rural Scotland, 2013, <http://www.hie.co.uk/regional-information/economic-reports-and-research/archive/a-minimum-income-standard-for-remote-rural-scotland.html>

⁴³ Transport and Travel in Scotland 2017, Table 33: Access to services that respondents thought were very or fairly convenient: 2016

⁴⁴ Scottish Household Survey 2017, supplementary analysis

⁴⁵ HIE survey, 2018

Share of greenhouse gas emissions by mode in Scotland 2017

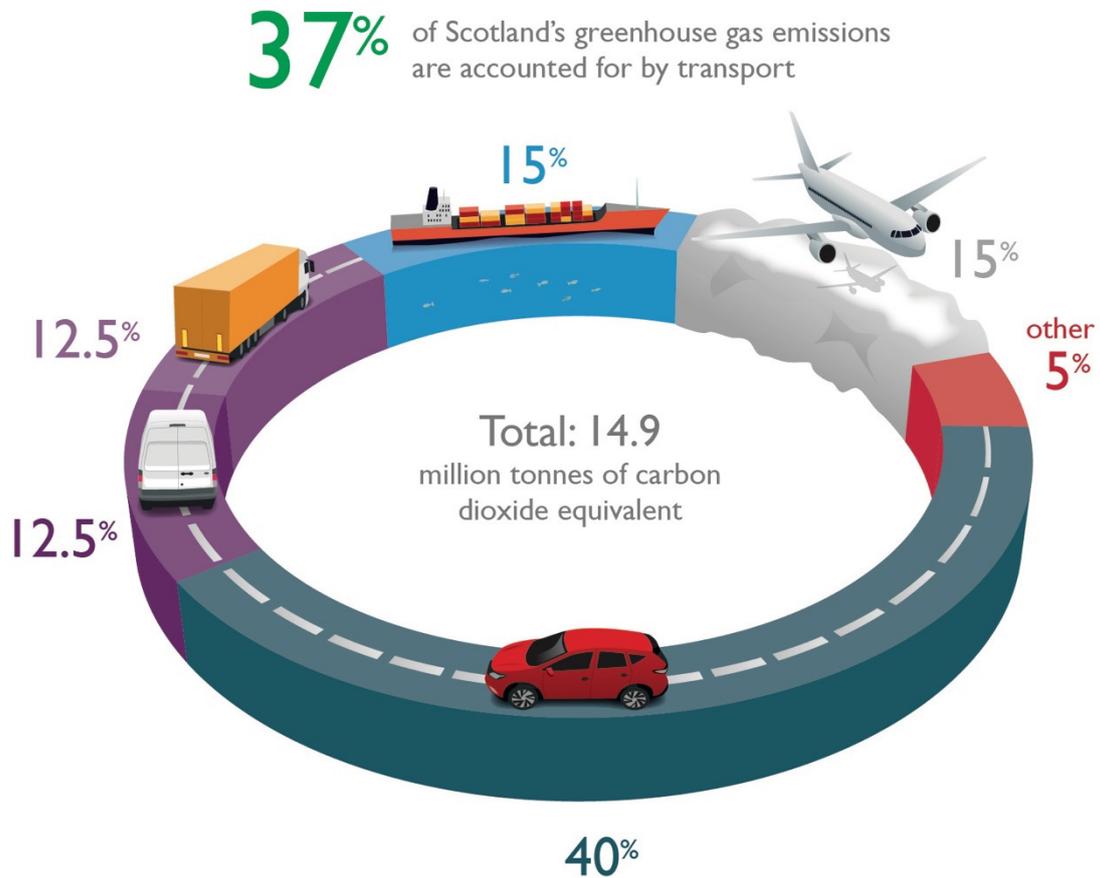


Figure 3: Share of greenhouse gas emissions by mode in 2017⁴⁶

The largest source of transport emissions is cars at 40% followed by aviation and shipping which are both 15%. In addition, 25% of emissions were generated by a combination of Light Goods Vehicles (LGVs) and Heavy Goods Vehicles (HGVs)⁴⁷.

Car remains the dominant mode of transport in Scotland. In 2017, 65% of all journeys were made either as drivers or passengers in a car or a van⁴⁸. This was up from 64% in 2016 and 61% in 2012.

The proportion of single occupancy car trips also shows an underlying increasing trend. The figure of 66% in 2017 compares with the figure of 64% in 2012 and 62% in 2007.

⁴⁶ National Atmospheric Emissions Inventory 1990-2017

⁴⁷ National Atmospheric Emissions Inventory 1990-2017

⁴⁸ Scottish Transport Statistics No. 37, 2018, <https://www.transport.gov.scot/publication/scottish-transport-statistics-no-37-2018-edition/sct01193326941-14/>

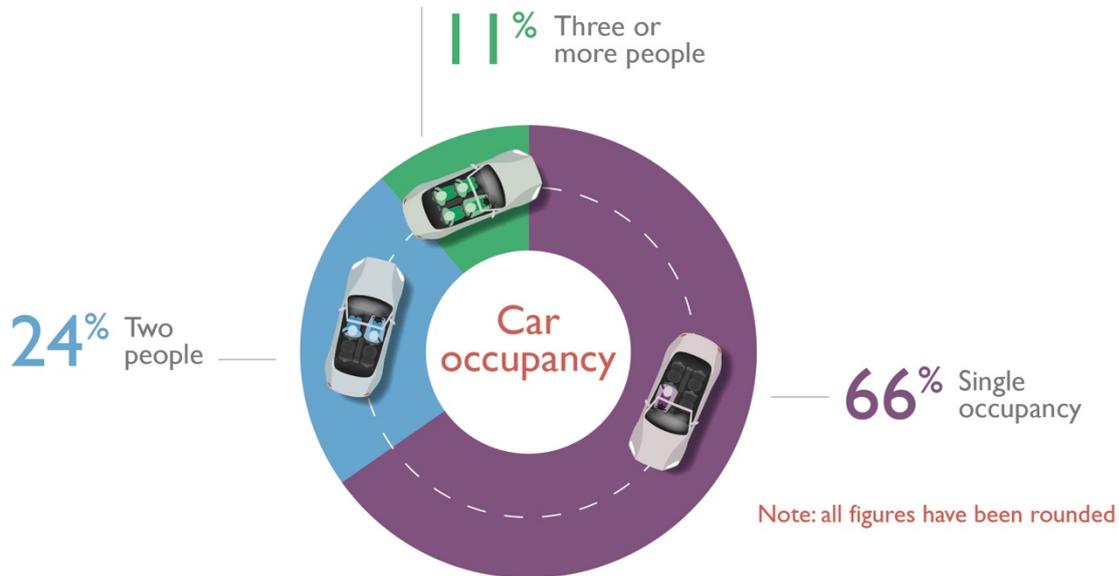


Figure 4: Car occupancy rates 2017⁴⁹

The Strategy must tackle the global climate emergency and contribute to the ambitious targets that have been laid out. The ambition to phase out the need for new petrol and diesel cars and vans by 2032 and the continued application of the Sustainable Travel Hierarchy will see a significant reduction in emissions. In addition, the STPR2 and the transport element of the Climate Change Plan will assess future investment decisions against their contributions to supporting this Strategy, and in particular how they impact against our Takes Climate Action outcomes and wider climate change targets.

Just transition

As we transition to a low-carbon economy we must ensure that this is done in a way that is fair, in accordance with the Just Transition⁵⁰ principles to:

- support environmentally, and socially sustainable jobs
- support low-carbon investment and infrastructure
- develop and maintain social consensus through meaningful engagement with workers, communities, NGOs, business, industry and any other relevant groups
- make all possible efforts to create decent, fair and high-value work in a way that does not negatively affect the current workforce and overall economy

⁴⁹ Transport and Travel in Scotland 2017, Table TD9

⁵⁰ <https://www.gov.scot/groups/just-transition-commission/>

- contribute to resource efficient and sustainable economic approaches which help address inequality and poverty

Aviation

To be productive, competitive and successful economically Scotland needs to be well-connected. Aviation will continue to play a key role in Scotland's connectivity, both in international terms and within Scotland and the UK. We recognise the importance of regional airlines operating between Scotland and places where rail is not a real alternative for businesses, such as to the south west of England.

We also want to make it easy for the rest of the world to visit and do business in Scotland. International visitors make a significant contribution to our tourist industry.

However, the environmental impacts of aviation need to be recognised and offset if we are to achieve the net-zero target. While this will be a challenge, there are real opportunities to work with the aviation sector to help Scotland succeed.

Ongoing advances in engine and airframe technology mean aircraft can fly further, more quietly, and more efficiently than ever before. We are exploring the potential for all-electric propulsion to be the standard for shorter Highlands & Islands routes in the future. Scotland's airports can also take measures to reduce emissions on the ground from both aircraft and vehicles. There are many opportunities that can be explored to minimise the negative environmental impacts of the aviation sector.

Adapting to climate change

In addition to minimising the future impacts of transport on our climate, our transport system needs to adapt to climate change impacts. Climate change directly impacts the transport sector through the increasing number of more severe and more frequent extreme weather events and the disruption they cause to the transport system, such as erosion of our coastal areas, landslides and rising water levels⁵¹. Importantly, it is recognised the disruption often disproportionately impacts on vulnerable communities with fewer and less resilient transport options.

In recent years, there have been several weather events which have led to significant disruption and resulted in high economic costs. Perhaps most notable amongst these is the Beast from the East in February 2018 which was the costliest weather event in seven years. The extreme weather cost the UK economy at least £1 billion per day as gridlocked roads, no trains and no buses meant many workers were unable to access employment⁵².

The Strategy needs to ensure that the resilience of the transport network is enhanced, so that new transport projects and policies deal effectively with the predicted changes and that existing networks are adapted to deal with increased

⁵¹ Scotland Climate Change Adaptation Programme 2, (SCCAP2) publication planned for later 2019

⁵² Freezing Weather costs UK economy £1bn a day, P Inman, G Topham, and A Vaughan,

rainfall to shelter bridges from high winds, and are capable of dealing with temperature extremes.

Technological advances

Innovation and developments in technologies, digital connectivity and data storage are significantly impacting on services and bringing new opportunities. For example, connected and autonomous vehicles, the development of ULEVs including the ambition to phase out the need for new petrol and diesel cars and vans by 2032, dynamic demand responsive transport and Mobility as a Service⁵³.

There are many benefits likely to arise from technological advances and Scotland should be prepared to take advantage. For example, market opportunities could be generated in the development of software and digitisation of manufacturing processes. There will also be opportunities in the supply chain of manufacturing vehicles and parts for connected and autonomous vehicles as well as ULEVs and firms in Scotland should prepare to capitalise on these.

There will also be direct benefits to the transport system that we should take advantage of to make our operations more efficient. For example, advanced safety and braking features will provide an opportunity to make Scotland's road network safer with fewer accidents.

Innovation and advanced technologies could allow less space between road vehicles while enhancing safety, therefore enabling greater capacity and less congestion without increasing the physical size of the network. This could, in turn, present opportunities to improve business performance and lead to higher growth.

Autonomous vehicles could make public transport more viable in certain areas. Driver costs can account for over a third of total costs, and without these public transport services could be introduced where they are currently not commercially viable. However, it is possible that autonomous vehicles could have negative impacts⁵⁴. For example, additional journeys by self-driving cars, when they return to their collection points after dropping people off, could lead to increasing levels of road congestion. This could be amplified if costs of using autonomous vehicles are lower than current travel costs, leading to more journeys.

It should be added, however, that in the short-term electric and autonomous vehicles may be relatively expensive compared to current vehicles and people should not be excluded as improvements in technology are introduced.

There is work underway to explore alternative forms of rail traction, in particular hybrid and hydrogen technology, which will provide considerable opportunities to

⁵³ A Time of Unprecedented Change in the Transport System, The Government Office for Science, 2019

⁵⁴ A Time of Unprecedented Change in the Transport System, The Government Office for Science, 2019

make our rail system more efficient and less costly. Similarly, the use of alternative fuels in the bus sector is growing.

Our Strategy embraces innovation and technological advances and using them to our advantage to create more sustainable modes, provide greater and equal opportunities for disadvantaged groups and increase the efficiency and safety of the system. We face the challenges of ensuring that: Scotland is at the forefront of growth in ULEV markets; that there is a fair distribution of investment costs that benefits all consumers; and that Scottish businesses capitalise and benefit from new market and technological opportunities.

Air quality

As well as causing adverse impacts on climate change, our transport system has negative impacts on our local air quality. Transport generates just over one-sixth of Scotland’s total particulate matter (PM10) and over one-third of the total emissions of nitrogen oxides (NOx). The majority of these emissions are caused by road transport.

Emissions of NOx from road transport are reducing but not at the expected rate. Between 2006 and 2016, transport emissions of NOx⁵⁵, PM10⁵⁶, and PM2.5⁵⁷ declined by 37%, 48%, and 54% respectively.

Change in total transport emissions 2006-2016

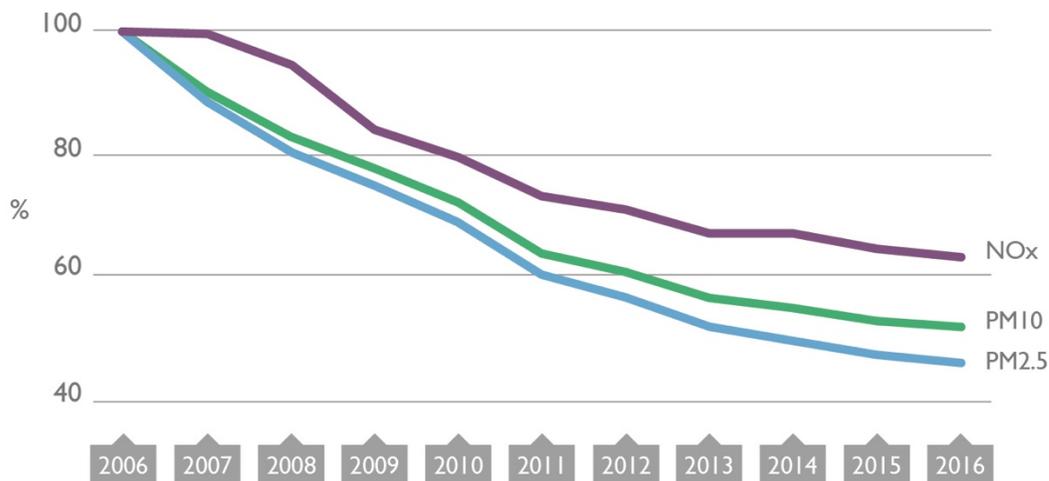


Figure 5: Change in total transport emissions 2006-2016⁵⁸

⁵⁵ NOx refers to oxides of nitrogen, especially as atmospheric pollutants.

⁵⁶ PM10 refers to atmospheric particulate matter (PM) that have a diameter of less than 10 micrometers

⁵⁷ PM2.5 refers to atmospheric particulate matter (PM) that have a diameter of less than 2.5 micrometers

⁵⁸ Scottish Transport Statistics 2018, Table 13.1a <https://www.transport.gov.scot/publication/scottish-transport-statistics-no-37-2018-edition/sct01193326941-16/>

Despite these falls, however, transport, and road transport in particular, remains a significant contributor to poor air quality. Air pollution increases the risks of diseases such as asthma, respiratory and heart disease, particularly for those who are more vulnerable such as the very young and the elderly or those with existing health conditions. Air quality is often worse in areas of deprivation and is a health inequality issue. In 2010, fine particulate matter was associated with around 2,000 premature deaths in Scotland and around 22,500 lost life-years across the population⁵⁹.

Decline in bus use

Bus is a key element in the Sustainable Travel Hierarchy. Bus is also the dominant public transport mode, accounting for three quarters of all public transport trips⁶⁰. It is particularly important to areas which are not served by the rail network, including much of rural Scotland. It can be an important element in multi-modal journeys, for example, as part of the first or final mile of a longer train journey. It also tends to be more active than a car journey as travelling by bus typically involves a walk to or from the bus stop.

Bus continues to be a relatively more sustainable and space-efficient mode of travel and a very flexible form of mass transit which needs to continue to have an important role in providing mobility. A bus can take up to 75 passengers⁶¹ while occupying little more road space than a single car, which, in many cases, may be carrying only one person.

⁵⁹ Cleaner Air for Scotland Strategy, <https://www2.gov.scot/Resource/0048/00488493.pdf>

⁶⁰ Scottish Transport Statistics 2018, chapter 11 headlines

⁶¹ The new enviro400XLB three-axle double deckers vehicles recently introduced in Edinburgh are a UK first and been developed in close collaboration with ADL and chassis manufacturer Volvo can carry up to 100 passengers

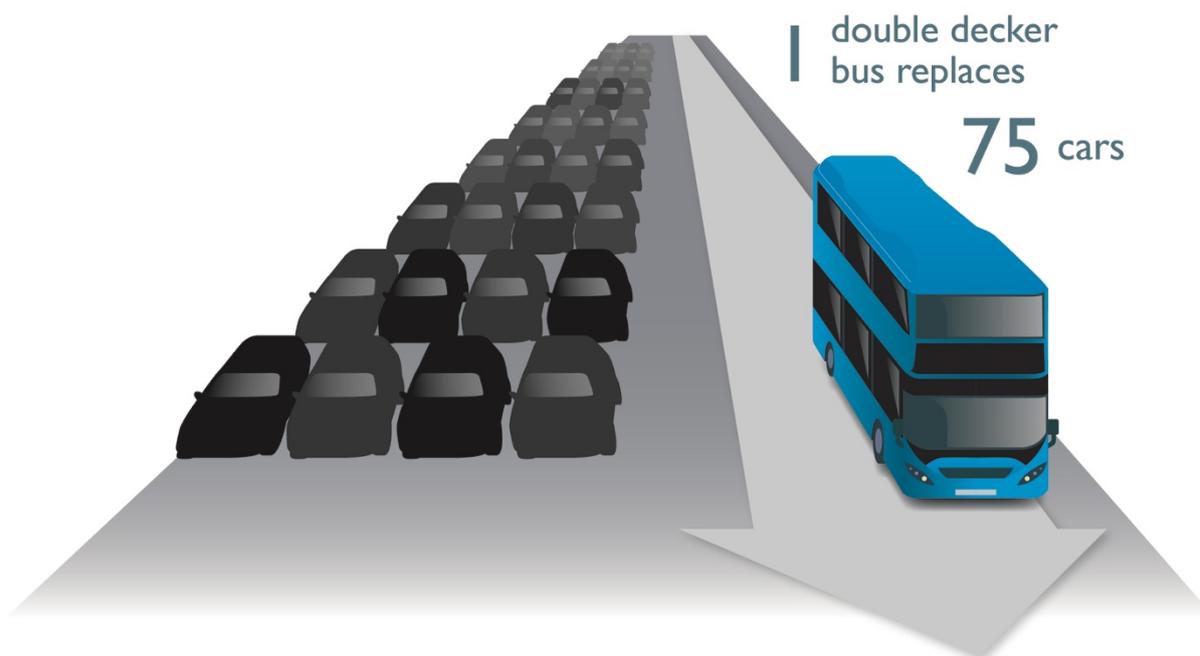


Figure 6: Bus capacity compared to cars with single occupant⁶²

In 2017-18, 388 million journeys were made on local bus services in Scotland. This is down from 394 million (-1.5%) in the previous year and from 487 million (-20.3%) in 2007-08. This trend coincides with an increase of 7.4% in road traffic (vehicle kilometres) in Scotland between 2007-08 and 2017-18.

Bus use generally has been in decline since the 1960s for a number of reasons. One of the reasons for the decline is longer journey times caused by congestion on the road network, particularly in urban areas⁶³. The impact of congestion is illustrated in the figure below on the left. This cycle needs to be reversed to support a growth in bus usage, and the impact of this is illustrated in the figure on the right.

⁶² Improving Air Quality in Towns and Cities – Why buses are an integral part of the solution, Professor David Begg, Greener Journeys, April 2017

⁶³ https://greenerjourneys.com/wp-content/uploads/2016/06/TTBusReport_Digital.pdf

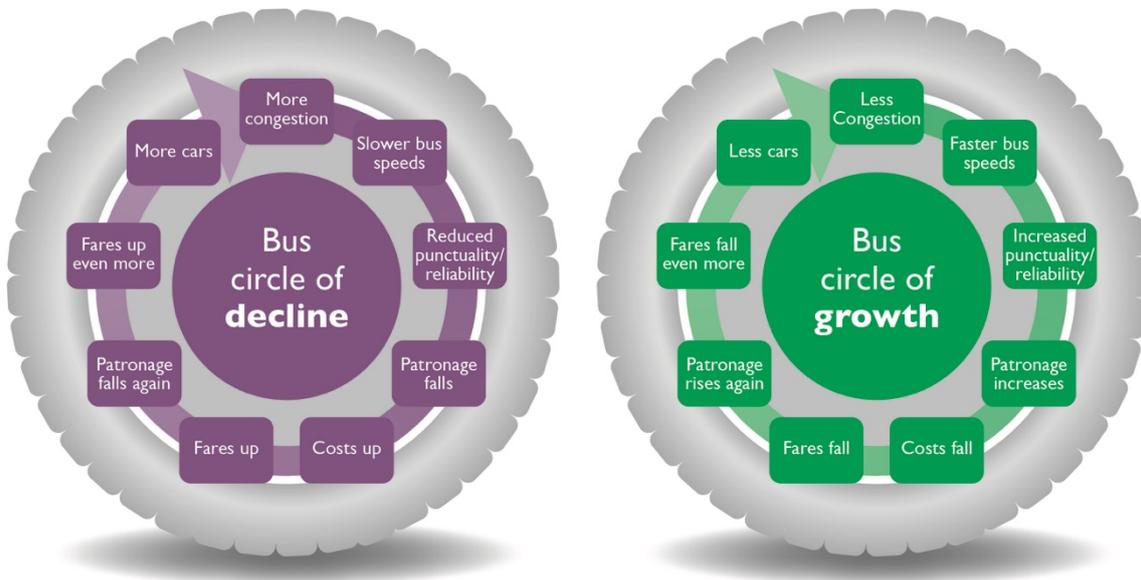


Figure 7: The bus circles of decline and growth

Whatever the causes of the decline in bus use, reducing passenger numbers risk driving down revenues and making some services unviable, resulting in their cancellations and, in some cases, communities being isolated⁶⁴.

Productivity

The latest evidence reveals that Scotland’s productivity is ranked 16th out of 37 amongst the OECD⁶⁵ member countries. This is in the second quartile but below other comparator countries such as Ireland, Belgium and Denmark. While Scotland’s productivity level is not solely driven by the efficiency of its transport system, improvements in transport connectivity between businesses reduces costs and increases productivity, thus generating higher levels of economic growth^{66,67}.

⁶⁴ “Trends in Scottish bus patronage”; 2017, KPMG for CPT Scotland

⁶⁵ OECD – Organisation for Economic Cooperation and Development

⁶⁶ Scotland’s Big Mo: Industrial Strategy, Inclusive Growth and the Future of Mobility, SCDI’s Connectivity Commission, June 2018

⁶⁷ Transport’s role in sustaining UK’s Productivity and Competitiveness: The Case for Action, Sir Rod Eddington 2008

Nominal GDP per hour worked in 2017, OECD countries (USA=100)

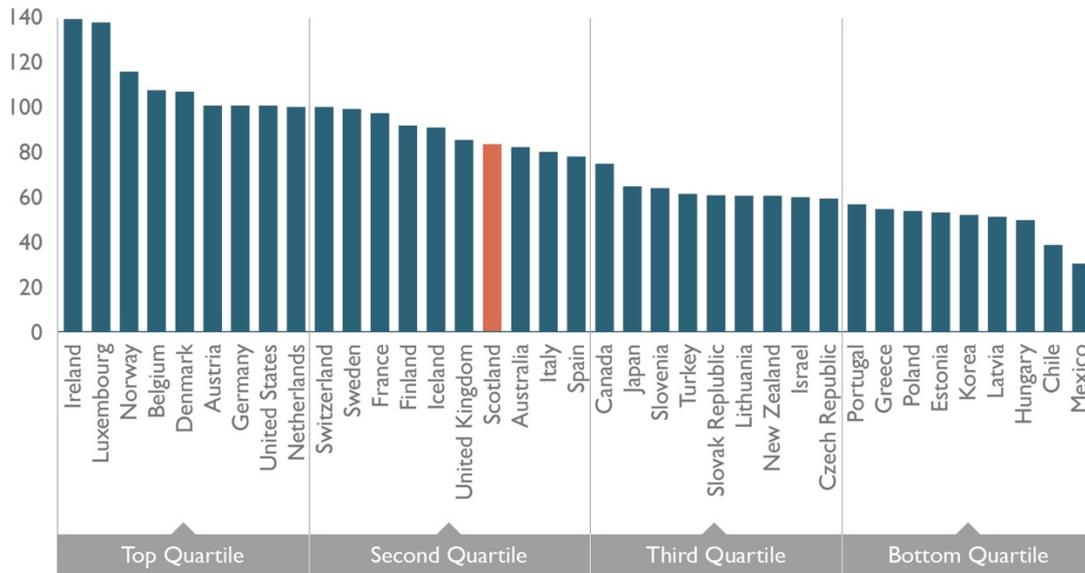


Figure 8: GDP⁶⁸ per hour worked 2017 (USA = 100)⁶⁹

Labour markets

People need transport to access employment, education and training and therefore help reduce the numbers out of work and support Scotland’s ambitions for growth. Transport can also make sure that the skills and experience of those in the labour force are effectively matched with the needs of businesses, helping to increase incomes and improve productivity.

In March 2019, the Scottish employment rate was 75.3%⁷⁰, close to its record high. The unemployment rate was also historically low at 3.4%. This level, however, is not uniform across Scotland. Figures of 1.8% and 2.1% were recorded in the Orkney Islands and Shetland Islands respectively, but the local authorities of East Ayrshire, Glasgow City and Dundee City recorded figures of 5.8%, 5.9% and 6.5% respectively.

While transport access to labour market opportunities is not the sole cause of unemployment, there is evidence⁷¹ that some people out of work see high transport costs to employment locations as a barrier, particularly for the young, those on low incomes and families with children, and limits the employment opportunities and options available.

⁶⁸ GDP – Gross Domestic Product

⁶⁹ Scottish Government Labour Productivity Statistics, 2018 Quarter 3,

⁷⁰ Labour Market Statistics March 2019

⁷¹ The Poverty Alliance Poverty and Transport Event, February 2019

In a recent study of transport poverty issues in Castlemilk in Greater Glasgow, nearly all residents identified issues with the location of appropriate work relative to where they live, but the degree of 'spatial mismatch' was not simply a reflection of distance from areas where there were most jobs. According to the study, while Castlemilk had regular, if not always reliable, bus services into Glasgow city centre where many jobs are concentrated, existing services did not provide direct or quick connections to other key employment locations across the wider city region⁷².

Fair work and skilled workforce

The transport industry is facing various challenges related to skilled labour, both in terms of skills shortages in some areas and needing to retrain and increase skills of workers in other areas. We need to support a fair and inclusive transport sector for employers and the workforce.

An increasing number of workers in the transport sector are retiring or leaving the industry. With a lower number of young people entering the industry to replace them, a skills shortage is developing and there currently exists an increasing demand for suitably qualified and skilled labour. The labour market also faces potential disruption through uncertainties around EU Exit.

For example, there are already issues around the availability of skilled labour in the logistics and distribution sector, with a particular concern around recruiting qualified HGV drivers where industry estimates highlight there will be a UK-wide shortage of between 35,000 to 60,000 drivers by 2020⁷³.

Audit Scotland's *Maintaining Scotland's Roads* report identified that roads authorities are increasingly concerned about the potential effect of staff reductions arising from budgetary constraints. They are concerned at the loss of technical and commercial skills and expertise, an ageing workforce and how they can attract and train new staff. There is no central record of the scale of roads maintenance and transport planning staff reductions over the last few years. But, of the approximately 5,000 council staff currently engaged in roads activities, 40 per cent are aged over 50 years and only 13 per cent are aged under 30 years⁷⁴.

The employment skills required to deliver transport services are changing. Many skills will be replaced as a consequence of technological advances and new innovations, such as the potential shift to autonomous vehicles and ULEVs. While these advances in technology should be embraced, workers will need to be retrained and supported to gain new skills. This will be done in line with Scotland's Labour Market Strategy⁷⁵, Fair Work, Gender Pay Gap, Disability Employment Action Plans

⁷² Tackling transport-related barriers to work in Scotland, JRF, 2018
<https://www.jrf.org.uk/file/51531/download?token=fjanoiXx&filetype=summary>

⁷³ Shortage occupation list 2018

⁷⁴ Maintaining Scotland's roads, 2016, Audit Scotland, http://www.audit-scotland.gov.uk/uploads/docs/report/2016/nr_160804_maintaining_roads.pdf

⁷⁵ Scotland's Labour Market Strategy, 2016

which aim to ensure that our workforce has the suitable skills and resilience to deliver fair, inclusive and sustainable economic growth.

We want Scotland to be a world-leading Fair Work Nation by 2025 and the transport sector has a role to play in delivering the five dimensions of fair work:

- security – payment of the real living wage⁷⁶ to workers, no inappropriate use of zero hour contracts, flexible working arrangements to align with family and caring commitments
- effective voice – enabling workers to have a voice, union recognition, collective pay bargaining
- fulfilment – effective use of skills, investment in training and career advancement
- opportunity – robust fair recruitment and selection procedures, engaging with diverse communities
- respect – policies and procedures which are understood and applied that respect health, safety and wellbeing; respect of behaviours and attitudes

We want to maximise the opportunities that the disruption of new technologies and new markets will create, whilst ensuring we have the right skills in place to support individuals, employers and our economy.

For example, cyber security is a growth industry which is predicted to have as much as 3.5 million unfilled vacancies globally by 2021⁷⁷.

Scotland has the ingredients to capitalise on these opportunities. We now have a highly qualified and highly skilled workforce and this has been improving over time. In 2018, Scotland had more people (47.4%) aged 25-64 who are tertiary level (levels 5-8) educated than any other EU country⁷⁸.

Trade and connectivity

Transport is crucial for our trade and competitiveness, within Scotland, across the UK and internationally. Improving gateways (such as airports, ports and major transport hubs) and the surface access to these gateways supports exporters to grow in existing markets and explore opportunities in new ones.

Scotland has strong trade links with 105 countries across nearly 100 different industries and sectors. Scotland's key export markets include petroleum, petroleum

⁷⁶ The real living wage, is currently paid by a range of transport organisations, see scottishlivingwage.org/accredited

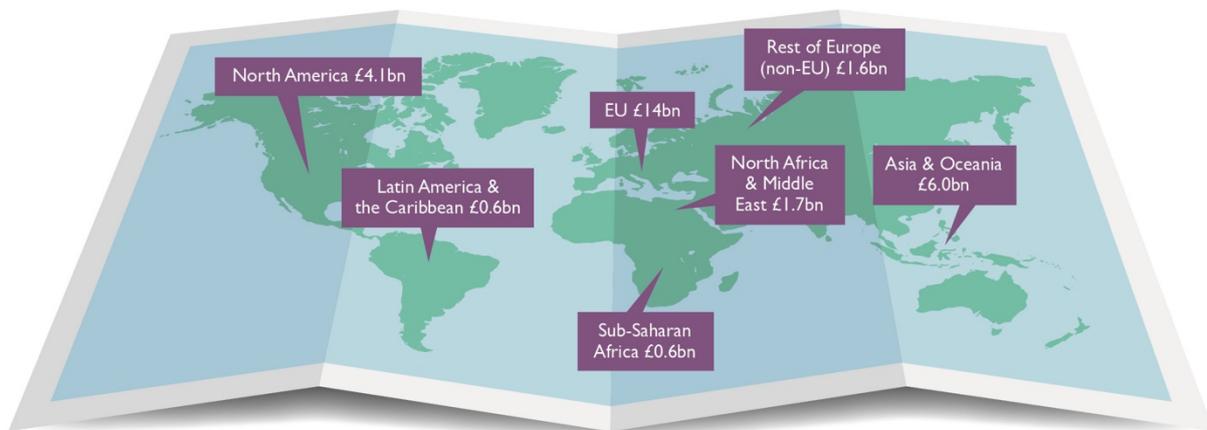
⁷⁷ Cybersecurity Jobs Report 2018-2021

⁷⁸ EUROSTAT, Proportion of tertiary level educated people aged 25-64 year olds, Apr. 2019

products and related materials, food and drink and power generating machinery and equipment, with 38% of all exports in these goods being sent to EU markets.

Scotland traded nearly £53 billion worth of goods in 2017 beyond the UK⁷⁹, with more than half (54%) being exports, the remainder being imports. The £28.7 billion worth of exported goods were destined for markets as shown below⁸⁰.

Destination of Scotland's exports (£ billions)



Top five export countries



Figure 9: Scotland's exports⁸¹

The recently published document *A Trading Nation*⁸² sets out the Scottish Government's plan to increase exports from Scotland from 20% of GDP to 25% of GDP by 2029. The plan sets out 15 top priority countries, with a second grouping of 11 countries with specific sector opportunities, where the Scottish Government and its partners will focus support on exporting. The plan also sets out priority sectors for exporting in Scotland and sets out a business segmentation approach for export support.

To maintain Scotland's competitive position, we need to make it as easy as possible for Scottish firms to do business abroad and for foreign firms to do business here. We also want to make it as easy as possible for the rest of the world to visit and live and work in Scotland. Trade and connectivity with EU and global markets is

⁷⁹ Scotland: A Trading Nation – A plan for growing Scotland's exports, 2019

⁸⁰ Note: the importance of the Netherlands is partly because of the central role of Rotterdam in onward shipment.

⁸¹ Transporting Scotland's Trade, Transport Scotland, 2018

⁸² A Trading Nation – a plan for growing Scotland's exports, Scottish Government 2019

impacted by uncertainty around Scotland's future relationship with the EU as a result of the UK's ongoing activity around EU Exit. There is a particular challenge with the lack of direct freight and logistics routes to the continent, with Scotland currently being dependent on routes via England for the vast majority of imports and exports.

We need to continue what we do well and improve where we can. That means continuing to improve connectivity across Europe particularly with key business cities and those countries important for inbound tourism.

We also want to improve connectivity with global hubs like Heathrow, Amsterdam, Frankfurt and Dubai, recognising that Scotland needs a strong mix of both point to point routes and hub connectivity.

Freight

The effective movement of goods is essential for sustainable economic growth. Businesses need their products to get to market on time and for their supplies to arrive when expected. The efficient movement of freight is also important to consumers, both in terms of delivering goods to shops and, increasingly, direct to homes.

Freight is transported around Scotland by road and rail, as well as air, sea and inland waterways. This complex pattern of movement is influenced by a number of factors, including demands and locations of customers, logistics and supply-chain management, improvements in technology and the governance of transport systems.

Scotland's transport network supports the functioning of over 360,000 businesses. Delays on our transport system have a significant impact on firms that rely on their produce being delivered on time and to the level of quality their customers expect, such as those firms in the farming and fishing sectors.

In 2016, total freight (excluding pipeline and rail) lifted in Scotland was over 271 million tonnes. Road freight made up the largest proportion (204 million tonnes) followed by sea (67 million tonnes) and then air (55,000 tonnes). The vast majority of freight lifted in Scotland (107.6 million tonnes) was carried by road and remained within Scotland.

Our Strategy needs to ensure that freight, as a key part of our transport system, is managed and delivered efficiently to support business performance and contribute to a successful economy.

The number of goods vehicle trips, if left unchecked, are forecast to increase to the year 2037⁸³, however, which will negatively impact on journey times and peak-period delays. Given the economic importance of Scotland's freight haulage industry, these factors will ultimately impact on the performance of the freight sector if not tackled.

⁸³ Transport Forecasts, Transport Scotland 2018

There will also be an impact on the environment. In 2017, HGV emissions were 3.5% higher than in 2016 and 5.2% above the 1990 baseline figure. LGV emissions were 6.5% more than 2016 and 95.6% higher than the 1990 baseline figure. The increase in emissions from light goods vehicles reflects increasing vehicle-kilometres.

Within freight, in the main, larger vehicles are used for long-haul and regional distribution than for urban distribution. Indeed, the majority of road freight is moved in HGVs weighing more than 3.5 tonnes, usually articulated vehicles consisting of separate tractor and trailer units. A particular challenge for long-haul HGVs is the availability of safe and secure overnight parking facilities.

Yet although long-haul makes up the bulk of mileage and uses the largest vehicles, the wider social and environmental impacts of urban and last-mile distribution are more readily visible to the public, as the growth of freight traffic in busy urban areas can worsen congestion and air pollution. While the majority of the last-mile distribution in urban areas is undertaken by light commercial vehicles, and increasingly by bike courier, much of it is still done by HGVs, resulting in negative congestion and air quality impacts. This is particularly problematic at peak times when commuters are travelling to work and children are on their way to school. We recognise that freight is important to the success of our economy, but we must ensure that the negative impacts generated by the movement of goods vehicles are tackled.

Tourism

Transport needs to accommodate an increasing number of people visiting Scotland, many of whom use public transport. In 2018, Scotland welcomed just over 3.5 million overnight visitors from overseas, an increase of over 10% on the previous year⁸⁴.

Transport plays an important part in supporting tourism. It enables people to get to and travel within Scotland and allow them to experience the many sights and experiences our country has to offer. It should also be noted that transport is a reason for tourism in itself. For example, the Forth Bridges, the Riverside (Transport) Museum and the Glenfinnan Viaduct play an important part in attracting people to Scotland.

Tourism, from the UK and beyond, is a major contributor to our economy with over £10 billion spent in 2018⁸⁵. While the majority of tourists visiting Scotland come from within the UK, data shows that overseas visitors typically come from countries with whom Scotland has a strong trade link. In 2017, over 46% of visitors to Scotland came from one of the countries in Scotland's top importers or exporters (China,

⁸⁴ Scotland's Tourism Summary Report, Visit Scotland 2019.
<https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/research-papers-2/2018-national-tourism-stats-summary.pdf>

⁸⁵ *ibid*

France, Germany, Netherlands, Norway and USA). These visitors spent a combined total of £1.2 billion – over half of all international visitor spend in 2017⁸⁶.

Tourists from within the UK mainly arrive by road. Travel by plane is by far the most prevalent mode of transport for international visitors to Scotland. Since 2002, the number of international visitors travelling to Scotland by air has more than doubled (+118%), while travelling by sea and via the Channel Tunnel have remained fairly stable. While travel to Scotland by rail for international visitors is also relatively low, for those travelling within the UK it is higher⁸⁷.

To ensure we continue to welcome a growing number of international visitors we need to retain our important air links and also develop new routes, while also taking measures to minimise the environmental impacts that international tourism generates.

We must recognise that an increasing number of tourists can have impacts on our transport system. People in a number of Scotland's remote, rural and island communities are witnessing deteriorating road networks as traffic increases, particularly the use of much larger and heavier cars, caravans and motorhomes, as well as capacity constraints for taking vehicles on ferries.

It is important then, that while we will continue to welcome visitors to Scotland and benefit from the advantages tourism brings, our transport system must support the increasing numbers and changing trends in the types of holiday people are having and the places they are visiting. For example, we want to accommodate the increasing demand for walking and cycling tourism and also share the benefits across all areas of Scotland.

Digital and energy

Developing a transport system in Scotland that reflects our changing and different needs cannot be achieved in isolation from other key influencing factors. Transport needs to be considered alongside other strategies and initiatives, including energy and digital.

Over the period of this Strategy, the choices that people make about where and when they work will be driven as much by changing digital technologies and communications as it will be by transport. How companies trade and the firms they trade with will also be influenced greatly by these changes. Availability of mobile connectivity across the transport system is a key enabler in the adoption of new digital technologies. For example, improvements in digital travel data provision and

⁸⁶ Transporting Scotland's Trade, Transport Scotland, 2018
<https://www.transport.gov.scot/publication/transporting-scotland-s-trade/>

⁸⁷ *ibid*

ways we access our transport via digital platforms are influencing growth in mobility as a service.

We are seeing significant increases in people working from home and more flexible working patterns. We are also seeing changes in people's shopping habits as more buying is done online and goods delivered to people at home or in their workplace. The behaviours are replacing some personal travel by car or public transport with increased light goods transport. These trends are a result of the increasing use of improved technologies.

The changes in traditional work patterns are, however, creating new and different demands on our transport system as we see, for example, fewer commuters in the regular peak periods. They do, however, generate demand for travel at different times and in different ways, as methods and times of travel and patterns of work change. Where people choose to live in relation to their workplace is also affected.

Our transport system needs energy to work effectively. Scotland is taking a leading role in promoting electric and other low-emission vehicles⁸⁸, with an ambition to phase out the need for new petrol and diesel cars and vans by 2032. This ambition is as much about energy ambition as it is about transport. Similarly, there has and will continue to be a significant programme of electrification of the rail network, with around 75% of daily commutes in Scotland now made on electric trains.

In meeting this ambition, Scotland will need to develop and manage the necessary charging and other network infrastructure, while building awareness and confidence on the part of consumers. It will need to involve experts with responsibility for delivering transport policy, vehicle manufacturers, those responsible for maintaining and operating the networks, transport operators, electricity generators and distributors, as well as the consumers and users of transport services.

The Scottish Energy Strategy: The future of energy in Scotland⁸⁹ sets out two new targets for our energy system by 2030, one of which is the equivalent of 50% of the energy for our heat, transport and electricity consumption to be supplied from renewable sources, and the transport system must play its part.

Spatial planning

Planning and development have a major influence on our transport system. Where we build houses, the places we locate schools and hospitals, and where we build offices and factories to accommodate employment all impact on the choices about the types of journeys we make, when we make them and how we make them.

When planning decisions are made, they need to have the consideration of the impacts on transport as a priority. In identifying sites for development of housing, employment, schools and hospitals transport considerations need to play a crucial

⁸⁸ Switched on Scotland Phase 2: An action plan for growth, Scottish Government 2017

⁸⁹ Scottish Energy Strategy: The future of energy in Scotland, 2017

role and need to do so as early as possible. This includes designing places to reflect where people will be travelling to and from.

Similarly, transport accessibility needs to influence the location and design of development. Transport can help planning and development and also ensure our communities are sustainable. The transport system can put in place options that will discourage people from owning or using cars. It can be designed so that workers in, and visitors to, an area are attracted to public transport or active travel options ahead of private cars. The transport system can also help ensure that places are convenient to get to without having to use a car. Strong links with spatial planning, including the National Planning Framework and local development plans, can help us understand and address these challenges.

For example, across the country only 60% of people consider access to hospital outpatients services to be very or fairly convenient. This drops to 46% in remote rural areas. A particular issue for island residents is the need to use intra-island services and services to the mainland to access health appointments⁹⁰.

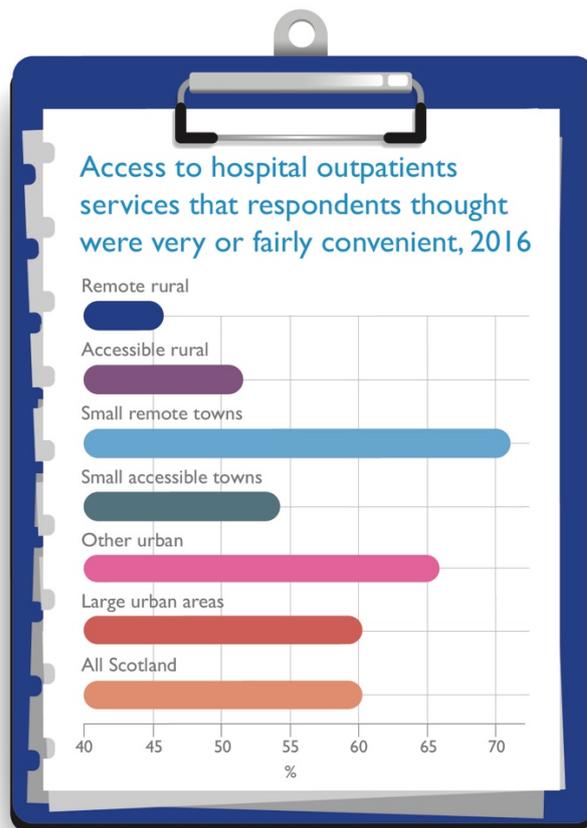


Figure 10: Access to hospital outpatients services⁹¹

⁹⁰ From NTS2 engagement with the Convention of Highlands & Islands and others.

⁹¹ Transport and Travel in Scotland 2016, Table 33

Overall, the transport system and the consideration of the current and future transport needs of people should be at the heart of planning decisions to ensure sustainable places.

Reliability and demand management

A reliable transport system is one where people can access where they want to go, when they want to go there and get there on time. This is particularly important for disabled people with both cognitive and physical disabilities as consistency is of paramount importance.

Businesses also need reliability, in that they should be able to deliver their goods to customers on schedule or with minimal delays as well as receive goods from suppliers at the times needed.

Reduced levels of congestion can improve reliability and journey times for buses and other road users, leading to lower costs, increased levels of productivity and competitiveness, and positively support economic growth. It can also help attract inward investment and help boost trade.

Between 2015 and 2017, 12% of total car driver journeys were delayed. For journeys made for commuting or business purposes, the figure rises to 22% and 16% respectively.

Recent research revealed that some of Scotland's cities experience considerable congestion and associated disruption⁹². Listed below are factors relating to the cost of traffic congestion in Scotland:

- Glasgow was the third most congested city in the UK while Edinburgh was sixth
- in Glasgow during 2017, on average each driver lost 99 hours due to congestion which was a 4% increase from 2016. Congestion costs each driver in Glasgow £736 per annum
- outside of London, Great Western Road in Glasgow was the 9th most congested travel corridor in the UK's cities⁹³
- in Edinburgh during 2017, on average each driver lost 165 hours due to congestion, a 10% decrease from 2016. This was estimated to cost each driver £1,219

The figure below presents percentage change in vehicle kilometres on Scotland's roads since 2007. While the volume of traffic declined between 2007 and 2011 in line with the economic downturn, there have been increases each year since then, with the latest increase in 2017 exceeding 10%. Traffic is forecast to rise further. These

⁹² INRIX 2018 Global Traffic Scorecard <http://inrix.com/scorecard/>

⁹³ The Inrix analysis only focuses on cities and does not account for congestion hotspots outside of cities

increases in traffic volumes will impact negatively on reliability through increased congestion and more roadworks as greater pressure is placed on the operational efficiency of the network.

Annual percentage change in million vehicle kms travelled by road

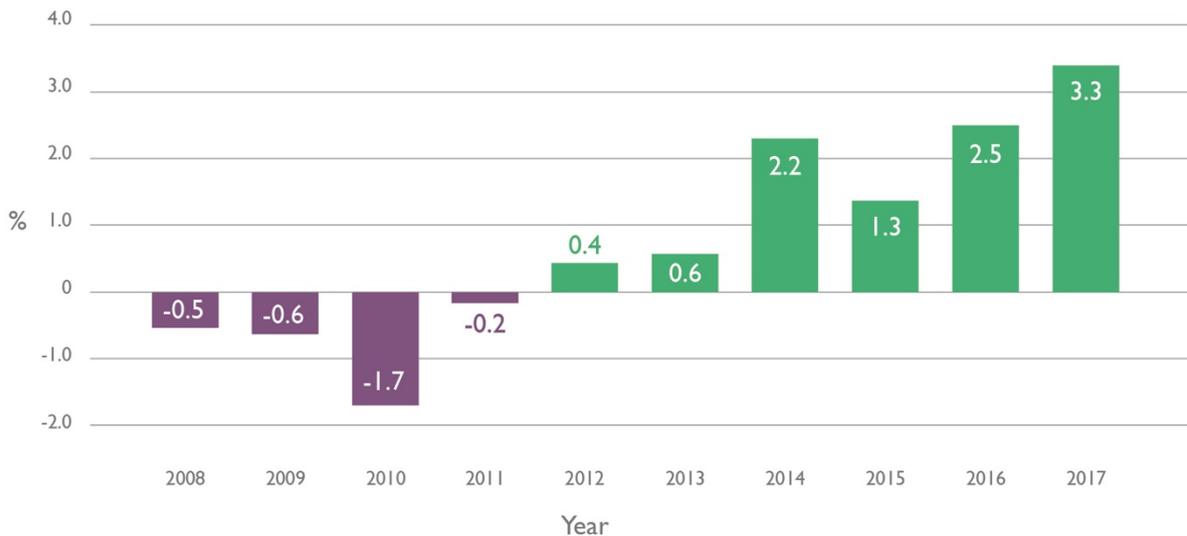


Figure 11: Percentage change in road traffic from base year 2007⁹⁴

The recent and predicted trends in the volume of car trips, and the adverse impacts this will continue to have on the performance of our businesses and the efficiency of our public transport operations, need to be tackled. Not taking steps to effectively manage demand for car use is no longer an option. We need to consider alternatives that encourage single occupancy drivers to shift, whenever possible, from making their journeys by car.

It is recognised that, for many of us, including those with disabilities, using the car is essential and our transport system needs to accommodate that. However, for many others alternatives are available. We all need to take responsibility for their actions and the impacts caused by their travel decisions, firstly by considering whether the journey is necessary and, then, secondly deciding the most sustainable way in which that journey can be made.

Reliability is also an issue on the rail network and data shows that this has declined from a peak of 93% in 2013 to just over 87% in 2019⁹⁵, although this is very much in

⁹⁴ Scottish Transport Statistics No 37 2018, Table 5.1: Traffic (vehicle kilometres) by road class and type

⁹⁵ The Public-Performance-Measure (PPM) is the standard industry measure for reporting performance. It counts all trains which arrive within five minutes of the scheduled performance time (ten minutes for the long-distance TOCs), compared with the number of trains planned to run. The Office of Rail and Road's data reported for Scotland are for the ScotRail franchise proper, which covers 95 percent of the trains run in Scotland.

the context of declining performance in the remainder of the Great Britain railway network as well.

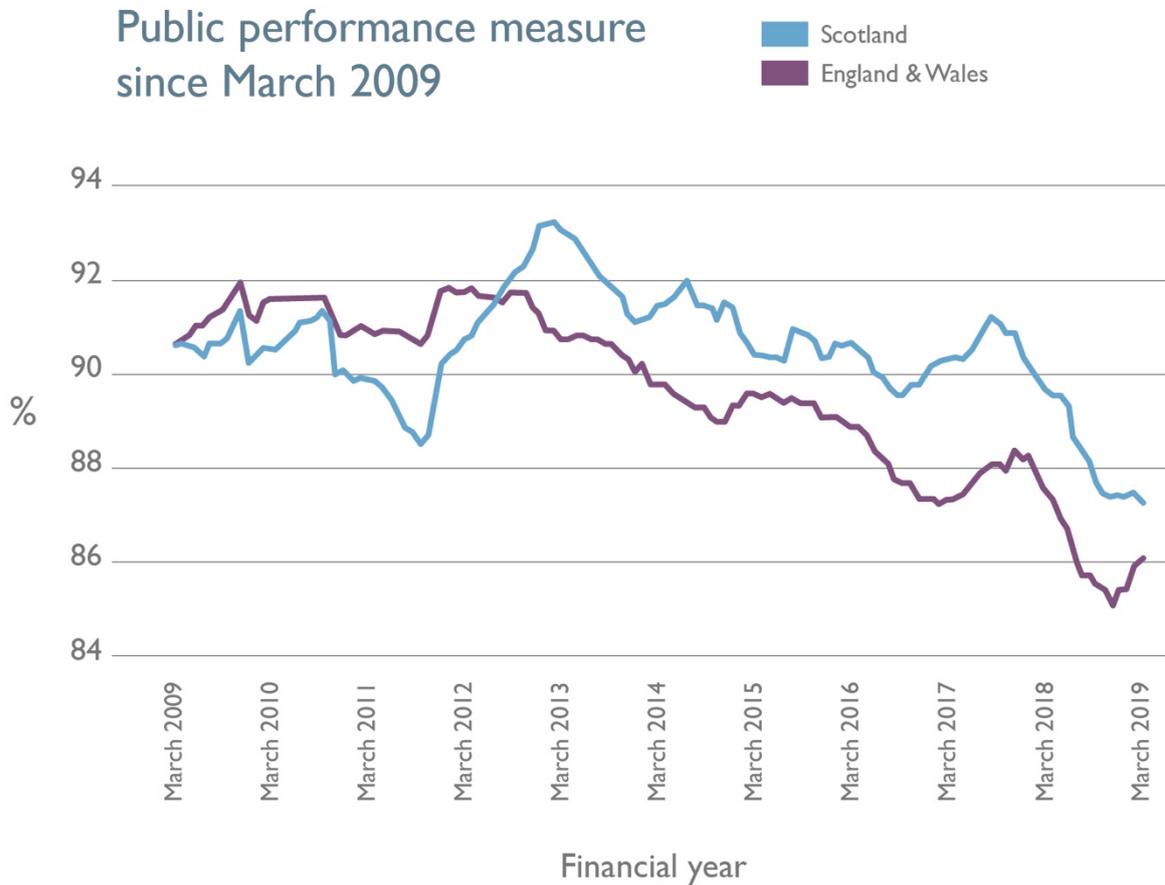


Figure 12: Rail performance

Safety and security

Scotland’s transport system needs to be safe. In 2018, 8,402 road accident casualties were reported in Scotland, a reduction of 11% on 2017⁹⁶. This was also the lowest number of casualties since annual records began in 1950. However, while the overall numbers fell, of these 160 were fatalities – an increase of 10% over the previous year.

Road incidents in Scotland continue to have a significant negative impact on individuals, families and society as a whole. There are also significant inequalities with children in Scotland’s most deprived areas nearly three times more likely to be injured by road traffic than those in the least deprived areas.

When people are travelling they should be able to do so without the fear or threat of crime. Women and disabled people, for example, are more likely to experience transport poverty. They are less likely to drive and more likely to use public transport,

⁹⁶ Key Reported Road Casualties Scotland 2018, Transport Scotland Statistical Bulletin 2019

particularly buses. However, many women and disabled people feel vulnerable when using public transport. This is especially true at bus stops or train stations that have poor lighting, are isolated and not frequently used at certain times of the day or are located in places perceived to be unsafe.

Research has highlighted⁹⁷ that children on foot or bike are more than three times as likely to be involved in a traffic accident in the 20% most deprived areas in Scotland than the 20% least deprived areas.

Our transport system is also becoming increasingly digital. We need to ensure it is secure against cybercrime for users e.g. bank details of rail passengers when booking tickets online, and transport operators who make increasing use of technology and data to operate their services.

Health and active travel

The importance of active travel is becoming more evident as the consequences of physical inactivity are studied. It is estimated that physical inactivity contributes to over 2,500 premature deaths in Scotland each year⁹⁸. According to the Scottish Government, physical inactivity is costing the Scottish NHS around £94.1 million annually⁹⁹. This equates to an average cost of £18 per Scottish resident per year.

A third of Scottish adults do not meet the guidelines for moderate or vigorous physical activity and inequalities exist, with people living in the least deprived areas more likely to meet the Chief Medical Officers guidelines for physical activity¹⁰⁰.

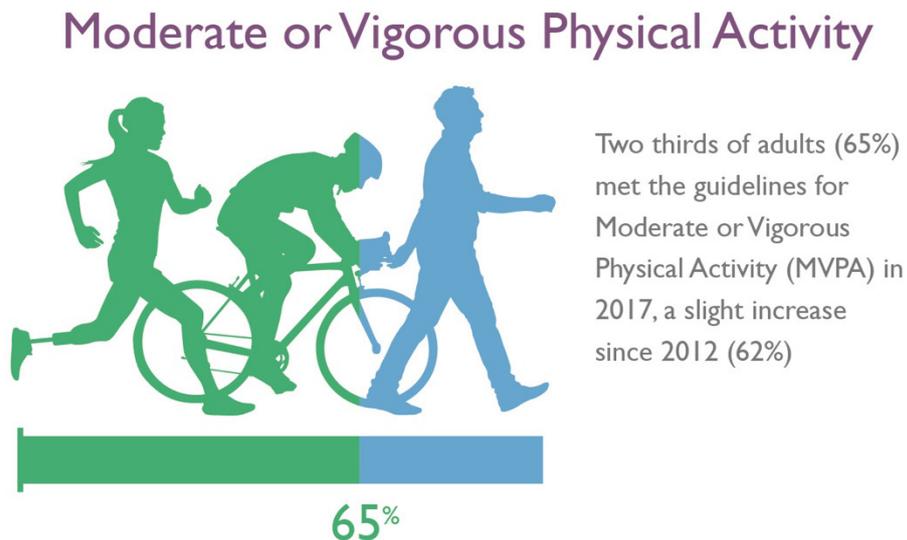


Figure 13: Physical activity

⁹⁷ Investing in cycling to tackle transport poverty and promote equity, May 2019

⁹⁸ Scottish Health Survey: Topic Report: Physical Activity, November 2014

⁹⁹ NHS Health Scotland, 2013

¹⁰⁰ Scottish Health Survey 2017

Over the last few decades our increasing reliance on cars has contributed to Scotland becoming less active as a nation. The figure below shows the latest travel to work mode share in Scotland for 2017¹⁰¹. Overall, over two thirds of commuters travel to work by car or van compared to just 12% who walk and 3% who cycle.

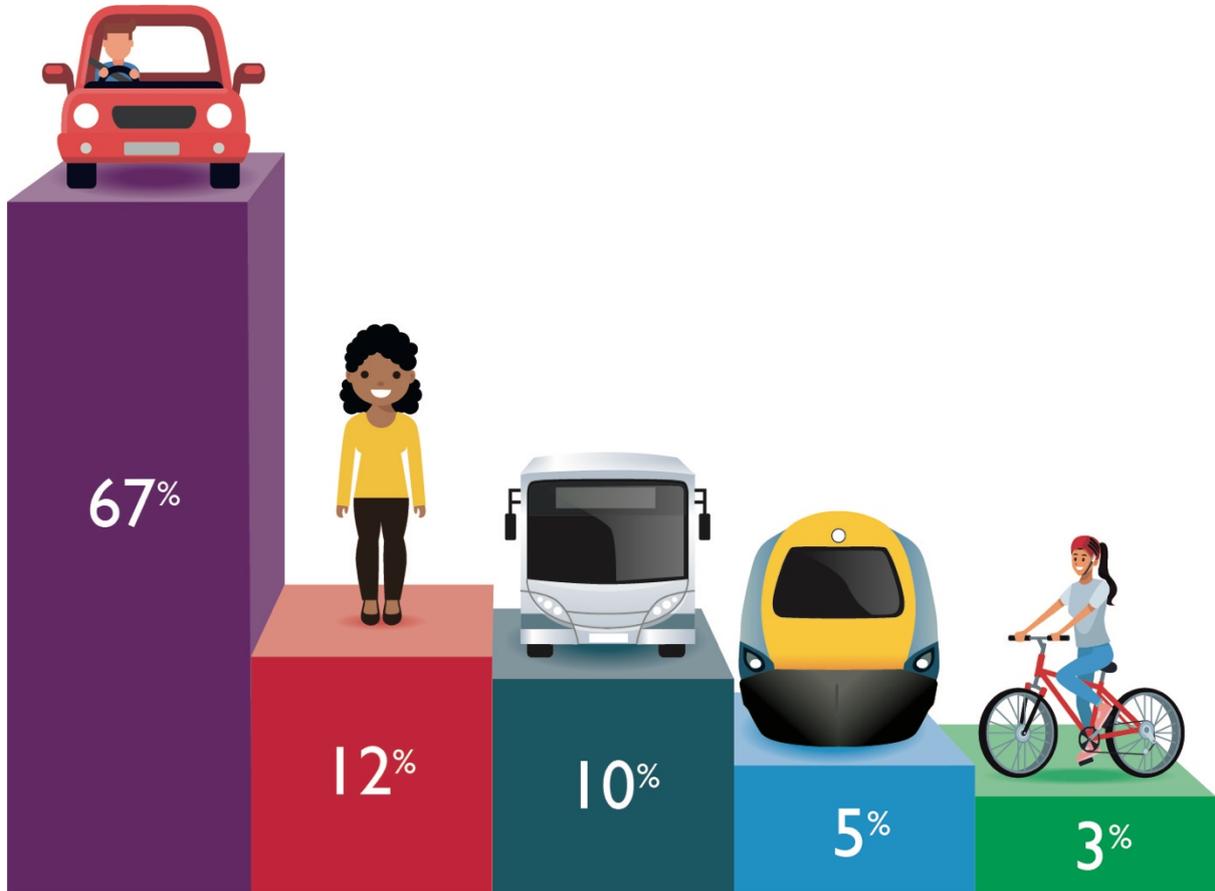


Figure 14: Transport mode share for work in 2017

In 2017 there were 290 million vehicle kilometres travelled on Scotland’s roads by pedal cycles¹⁰². This was 6.5% lower than in 2012.

The *Preventing Overweight and Obesity in Scotland Strategy* states that one of the most effective ways to secure the required 30 minutes of moderate activity per day is to reduce reliance on motorised transport, changing the means of everyday travel to walking and cycling.

Many journeys are relatively short and could be undertaken by walking and cycling more often. Just over 33% of journeys under 1km are made by car (either as a

¹⁰¹ Scottish Transport Statistics 2018, Table 11.18: Employed adults (16+) not working from home – usual method of travel to work: 2017. Travel to work by other modes, such as motorcycle, ferry and taxi, make up the remainder.

¹⁰² Transport and Travel in Scotland 2017, Table i: Traffic and passenger numbers in Scotland, 2012 to 2017

driver or a passenger)¹⁰³. This rises to over 50% when the journey is between 1km and 2km.

Small changes in people’s behaviour can have a big impact on individual health and wellbeing. For adults, achieving the recommended amount of 150 minutes of moderate to vigorous physical activity a week helps prevent and manage over 20 chronic conditions such as coronary heart disease, stroke, type-2 diabetes, cancer, obesity, and musculoskeletal conditions. It can also have a significant positive impact on people’s wellbeing¹⁰⁴. Importantly, it is estimated that by getting Scotland active, life expectancy would increase by more than a year, given our current inactivity level¹⁰⁵.

Currently, over a quarter (26%) of children travel to school by car¹⁰⁶. Many of these journeys can be made by walking or cycling. It is particularly important that people learn healthy behaviours when they are young. These behaviours will likely continue into later life. Research shows that around one quarter of children in all age groups between 5 and 15 do not meet physical activity guideline over an average week and this declines with age¹⁰⁷

The proportion of children meeting the physical activity guidelines declined with age

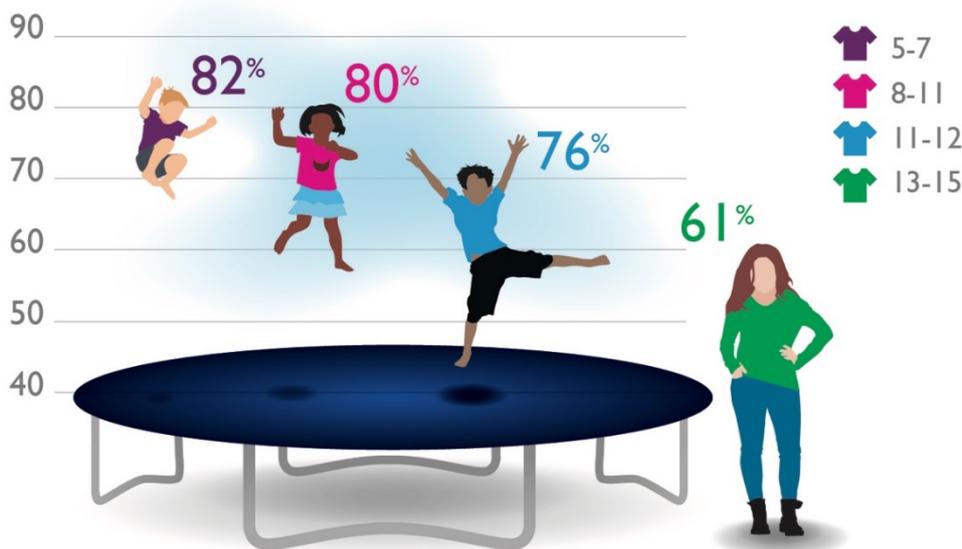


Figure 15: Proportion of children meeting the physical activity guidelines¹⁰⁸

¹⁰³ Transport and Travel in Scotland 2017, Table TD2a: Percentage of journeys by main mode by road network distance 2017

¹⁰⁴ World Health Organization 2018

¹⁰⁵ The Lancet Series: Physical Activity, July 2012

¹⁰⁶ Transport and Travel in Scotland 2017, Table Sum 1: Summary of Scottish Household Survey results

¹⁰⁷ 2016 Scottish Health Survey

¹⁰⁸ 2016 Scottish Health Survey

There are links between poverty and ability to cycle. Household access to bikes increases with household income. 60% of households with an income of £40,000 or more have access to one or more bikes, compared to 16% of households with an income up to £10,000¹⁰⁹. Bicycle access is higher in rural areas than urban areas.

There are also links between household income and people walking just for pleasure or to keep fit. For those living in households with annual income up to £10,000, 58% walk or cycle one or more days per week. For those in households with more than £40,000 annual income the figure rises to 70%.

Information & integration

High-quality journey planning information – both digital and physical – is important to enable a resilient transport system that allows people and goods to get to where they need to get to. Smart ticketing or payment options have been introduced to rail, bus, tram and subway services across Scotland. There are also a few multi-modal journey planners (such as Traveline Scotland) to help those with interchanges make better travel choices and plan their journeys in the most cost effective or time efficient way.

Currently, many people are choosing to travel by car instead of public transport and active travel due to the number of necessary interchanges on their journey. In some cases, their journey is not possible due to a lack of connections or accessible modes of transport. In addition, long wait times, the need for multiple tickets and complex connections deter people from some public transport services resulting in many running below capacity. This is a particular issue for wheelchair reliant transport users.

Resilience

When there are extreme weather incidents, and planned or unplanned events which result in network disruption it is vital that information is given to the public as quickly as possible so that they can act accordingly. It is also vital necessary steps are taken for our more vulnerable travellers. Extreme weather leads to uncertainty about travel conditions for people and businesses. In these situations commuters do not know whether or not they can get to work. In many places goods, including food, cannot be delivered causing significant further disruption.

We need a transport system that is resilient and speedily recovers from disruption, thus minimising impacts of delayed journeys on our networks and users. We need strong resilience planning, which is not just about the physical resilience of our transport system but also about how disruption is managed and the speed of recovery.

¹⁰⁹ Transport and Travel in Scotland 2017, Table 18: Households with bicycles cars/vans available for private use, 2017

Dedicated walking and cycling infrastructure must also be maintained to encourage use. Both trunk and local roads face considerable maintenance backlogs and need significant investment to ensure they are appropriately maintained¹¹⁰. This is also an issue for other parts of the transport system. For example, both our mainland to island and intra-island ferry fleets are ageing. Maintenance will be considered as part of STPR2, taking account of the Sustainable Investment Hierarchy (see Chapter 6), with a focus on maintaining and safely operating existing assets with due consideration of the need to adapt to the impacts of climate change.

Similarly to that for motorised traffic, road condition is vital for cyclists and for buses. And the effective maintenance of our networks is important in reducing disruption and delivering a resilient and reliable transport system.

¹¹⁰ Maintaining Scotland's roads, 2016, Audit Scotland, http://www.audit-scotland.gov.uk/uploads/docs/report/2016/nr_160804_maintaining_roads.pdf

Chapter 4 – Meeting the challenges

Chapter 2 sets out the priorities and outcomes for transport, focusing on promoting equality, taking climate action, helping our economy prosper and improving our health and wellbeing. These are what we want for our transport system in Scotland.

We know that the transport system faces challenges. Transport is about quality of life and prosperity, about connections between people, families and businesses. It is needed so that we can access work and that goods can get to our shops and to markets, in the UK, Europe and beyond. A reliable, resilient and integrated transport system is key to the competitiveness of our businesses and thereby making Scotland a great place to live, work and visit.

Our planet is under unprecedented threat due to the effects of climate change, and we therefore need to change how we plan and use our transport and land use systems. However, we must also expect that the technologies available are constantly being developed, and introduce opportunities that we cannot imagine today. These are the reasons why we need a new National Transport Strategy.

Achieving the individual Outcomes will help address the challenges that have been identified.

Policy development

A collaborative approach involving government, businesses, academics and the third sector was adopted to develop a set of Policies and Enablers that, when implemented, will achieve the Strategy’s Outcomes, thus addressing the current and emerging challenges and delivering the vision.

A **policy** is an appropriate high-level statement of intent aimed at achieving the vision and Outcomes. Further detail is provided through a series of **enablers** which represent mechanisms for delivering the high-level policies.

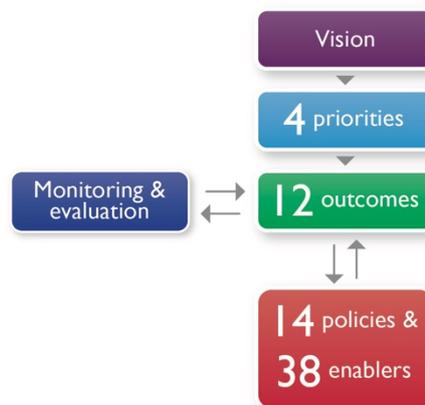


Figure 16: Monitoring & evaluation, enablers, policies, outcomes, priorities and vision linkages

A wide range of evidence was used and analysis undertaken to assess the Policies and Enablers in terms of their performance in achieving the 12 Outcomes. The findings of that exercise are reported in the Policy Assessment report¹¹¹. The Policies and Enablers were also tested, in terms of their public acceptability, through an extensive engagement exercise with a large number of organisations and citizens from island, rural and urban communities across Scotland. The findings of the widespread engagement exercise are presented in a series of supporting documents, namely the Citizens Panels Report, Young Scot Report and Age Scotland Report – see Annex B.

The future, however, remains uncertain. Our society, economy and environment are changing. As an illustration of what the future may look like if trends are left unchecked, traffic forecasts predict, under a worst case scenario, that the number of car trips in Scotland could increase from 1,890 million in 2017 to 2,280 million in 2037, an increase in excess of 20%. Over the same period, goods vehicles trips and total traffic are both anticipated to increase by around 40%¹¹².

In addition, new transport models including Mobility as a Service, connected vehicles, autonomous vehicles, new vehicle engines and their associated opportunities to support local business, services and infrastructure add to this complexity.

We therefore need a Strategy that is not only a catalyst for change, but is flexible and can adapt to this uncertainty. That means the Policies and Enablers developed and assessed to achieve the Outcomes and Priorities and deliver the vision will need to be flexible to be effective, no matter what the future holds.

As part of the assessment, the Policies and Enablers were therefore tested, using a Scenario Planning Tool, to understand how they perform under different plausible futures. These futures include a range of different scenarios, such as where the economy is weak or strong, where society is less or more equal, where the environment has or has not addressed the effects of climate change, or where we have a healthy or unhealthy population that takes high or low levels of active travel. The aim is to understand how effective policies are under different futures and how flexible the policies can be changed as the future changes.

The table below sets out the policies and enablers that have been developed to achieve the Outcomes and address the challenges.

¹¹¹ NTS2 Policy Assessment Report, 2019

¹¹² Transport Forecasts, Transport Scotland 2018

Policy	Enabler
Continue to improve the reliability, safety and resilience of our transport system	Increase safety of the transport system and meet casualty reduction targets
	Increase resilience of Scotland's transport system from disruption and promote a culture of shared responsibility
	Implement measures that will improve perceived and actual security of Scotland's transport system
	Increase the use of asset management across the transport system
Embed the implications for transport in spatial planning and land use decision making	Ensure greater integration between transport, spatial planning, and how land is used
	Ensure that transport assets and services adopt the Place Principle
	Ensure the transport system is embedded in regional decision making
Integrate policies and infrastructure investment across the transport, energy and digital system	Ensure that local, national and regional policies offer an integrated approach across all aspects of infrastructure investment including the transport, digital, and energy system
Provide a transport system which enables businesses to be competitive domestically, within the UK and internationally	Optimise accessibility and connectivity within business-business and business-consumer markets by all modes of transport
	Ensure gateways to and from domestic and international markets are resilient and integrated into the wider transport networks to encourage people to live, study, visit and invest in Scotland
	Support measures to improve sustainable surface access to Scotland's airports and sea ports
Provide a high-quality transport system that integrates Scotland and	Ensure that infrastructure hubs and links form an accessible integrated system that improves the end-to-end journey for people and freight

Policy	Enabler
recognises our different geographic needs	Minimise the connectivity and cost disadvantages faced by island communities and those in remote and rural areas
	Safeguard the provision of lifeline transport services and connections
Improve the quality and availability of information to enable better transport choices	Support improvements and innovations that enable all to make informed travel choices
	Support seamless journeys providing the necessary infrastructure, information and interchange facilities to connect all modes of transport
	Ensure that appropriate real-time information is provided to allow all transport users to respond to extreme weather and incidents
Embrace transport innovation that positively impacts on our society, environment and economy	Support Scotland to become a market leader in the development and early adoption of beneficial transport innovations
Improve and enable the efficient movement of people and goods on our transport system	Ensure the Scottish transport system efficiently manages needs of people and freight
	Promote the use of space-efficient transport
Provide a transport system that is equally accessible for all* * all includes everyone across Scotland but particularly those with protected characteristics of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation and people living in poverty.	Ensure transport in Scotland is accessible for all
	Identify and remove barriers to public transport connectivity and accessibility within Scotland
	Reduce the negative impacts which transport has on the safety, health and wellbeing of people
	Continue to support the implementation of the recommendations from, and the development of, Scotland's Accessible Travel Framework

Policy	Enabler
Improve access to healthcare, employment, education and training opportunities to generate inclusive sustainable economic growth	Ensure sustainable labour market accessibility to employment locations
	Ensure sustainable access to education and training facilities
	Improve sustainable access to healthcare facilities for staff, patients and visitors
Support the transport industry in meeting current and future employment and skills needs	To meet the changing employment and skills demands of the transport industry and upskill workers
	Support initiatives that promote the attraction and retention of an appropriately skilled workforce across the transport sector
Provide a transport system which promotes and facilitates travel choices which help to improve people's health and wellbeing	Promote and facilitate active travel choices across mainland Scotland and islands
	Integrate active travel options with public transport services
	Support transport's role in improving people's health and wellbeing
Reduce the transport sector's emissions to support our national objectives on air quality and climate change	Facilitate a shift to more sustainable modes of transport for people and commercial transport
	Reduce emissions generated by the transport system to improve air quality
	Reduce emissions generated by the transport system to mitigate climate change
	Support management of demand to encourage more sustainable transport choices
Plan our transport system to cope with the effects of climate change	Increase resilience of Scotland's transport system to climate change related disruption
	Ensure the transport system adapts to the projected climate change impacts

Chapter 5 – Transport governance – democracy, decision-making, and delivery

Governance¹¹³ is the way in which organisations are directed, controlled and led. It defines relationships and the distribution of rights and responsibilities among those who work with, and in, the public body, determines the rules and procedures through which objectives are set, and provides the means of attaining those objectives and monitoring performance. Importantly, it defines where accountability lies throughout the public body

For the people of Scotland, being able to influence an organisation's decisions, being reassured that its business is being carried out in an open and transparent way, and having the ability to hold it to account, are key reasons why good governance is important.

Current arrangements

Current transport governance arrangements include international, national, regional, and local tiers. In Scotland, the Scottish Ministers provide overall strategic direction through the National Transport Strategy and have devolved powers transferred to the Scottish Parliament through the Scotland Act 1998, as amended, while some powers and responsibilities remain reserved to the UK Parliament.

Transport Scotland is the national transport agency and is accountable to the Scottish Ministers. As well as providing advice to Ministers and other wider transport-related policy matters, Transport Scotland has operational and project delivery roles, including the management of rail franchises, delivering major rail and road capital infrastructure projects, and operating the National Concessionary Travel Scheme for older and disabled people. Transport Scotland is also the roads authority for the trunk road network (Scotland's motorway and main 'A' road network).

At the regional level, there are seven statutory Regional Transport Partnerships (RTPs) which were established by the Transport (Scotland) Act 2005, with boundaries based on travel-to-work areas, to strengthen the planning and delivery of regional transport so that it better serves the needs of people and businesses. Through working with local authorities and other stakeholders, RTPs take a strategic approach to transport policy, strategy and project delivery in their regions, in line with their statutory Regional Transport Strategies. There are different models of RTPs¹¹⁴, and some also have operational roles, including operating or procuring transport services, smartcard ticketing, and supporting socially necessary bus services. RTPs

¹¹³ <https://www.gov.scot/publications/board-guide-board-members-public-bodies-scotland-april-2015/pages/19/>

¹¹⁴ <https://www.transport.gov.scot/our-approach/strategy/regional-transport-partnerships/>

are overseen by Partnership Boards, made up of councillors from across the region, and expert advisory/observer members agreed by the Scottish Ministers.

At a local level, there are 32 local authorities responsible for transport matters in their areas, including Local Transport Strategies, development and maintenance of the non-trunk road network, traffic management, parking, and the walking, wheeling and cycling network. In addition to activities which have an impact on transport such as land-use planning and economic development, some local authorities also have operational roles including ferry services and supporting bus services. Democratically-elected Councillors oversee the work of local authorities through council committee structures.

There are also a range of Non-Governmental, third-party, third-sector, private and public sector organisations that play key roles in transport across Scotland. The governance arrangements for these organisations will depend on various factors including their legal status, the sector in which they work, their funding arrangements, and the people and communities they serve. These organisations include bus operators, airlines and airport operators, freight transport companies, rail service and infrastructure providers, active travel delivery organisations, community and voluntary transport providers, ferry operators and others. The private sector in particular remains the key provider of transport services across Scotland covering all modes of transport, and supporting activities such as road maintenance, and transport planning and development consultancy services.

Changes since 2006

Since the first National Transport Strategy was published in 2006, there have been a number of key regulatory and other changes which impact on transport governance arrangements. For example, voluntary Regional Economic Partnerships (REPs), stemming from the Scottish Government's Enterprise and Skills Review in 2016¹¹⁵ have been developed in some areas to support the delivery of city region and growth deals and also consider wider economic development opportunities through collaborative working involving local authorities, the private sector, enterprise and skills agencies, tertiary education and the third sector. In some cases, the boundaries of current and proposed REPs do not align with existing transport geographies. The updates to Scottish Planning Policy in 2014 and the recently approved 2019 Planning Bill have also brought forward changes to how land use, transport and infrastructure planning are considered. Transport planning, infrastructure and operations are an essential part of a net-zero carbon and inclusive economic future, and may, with collaborative working, be enhanced by better alignment with current and emerging groupings in other sectors.

Key examples of the influential changes in transport governance arrangements are shown in the figure below:

¹¹⁵ <https://www.gov.scot/policies/economic-growth/enterprise-and-skills-review/>

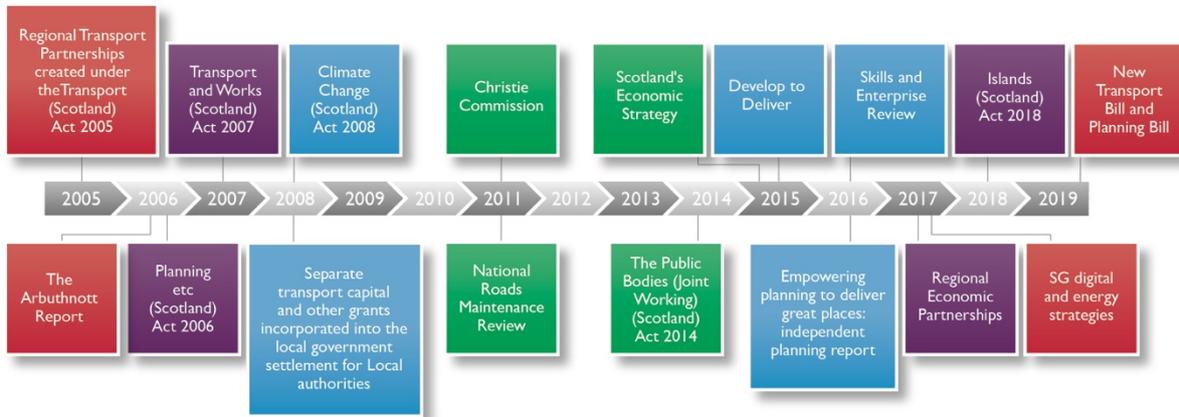


Figure 17: Selected changes in transport governance arrangements since 2005

Emerging challenges

As part of developing the Strategy, a review of transport governance was undertaken by a collaborative working group. The working group, known as the “Roles and Responsibilities Working Group”, comprised Scottish Government officials from transport, planning, economy and community planning, along with external transport and planning professionals, including from local government and regional agencies. Non-Government Organisations were also represented by an active travel delivery body.

To support the assessment of transport governance, a high-level evidence review and a review of best practice considered how transport governance was organised both in the UK and internationally, focusing on countries that have broad compatibility with Scotland, e.g. Norway and New Zealand. It also brought in findings from a review of transport governance models by the World Bank (2013)¹¹⁶ which identified the importance of regularly reviewing governance arrangements to ensure they remained relevant and meaningful, with clear accountabilities. This was caveated by noting that there is no single transferable model of governance as it needs to be determined according to the characteristics of a particular country, e.g. split of public and private sector provision, legal framework, fiscal framework and patterns of travel demand.

A theme which emerged from responses to the NTS Call for Evidence and the work of the Role and Responsibilities Working Group was that a one-size fits all model for transport governance within Scotland was not appropriate, due to the differing transport needs across the country, from urban to rural areas, including our Islands. Another emerging theme was the potential for a more coherent and joined-up

¹¹⁶ <http://documents.worldbank.org/curated/en/816281518818814423/2019-WDR-Report.pdf>

approach to national, regional and local transport together with closer integration between spatial planning, economic development and transport.

These emerging themes align with the Scottish Government and COSLA's recent agreement to adopt the 'Place Principle' as a means of taking a more joined-up, collaborative approach to services and assets within a place to achieve better outcomes for people and communities.

The Roles and Responsibilities Working Group acknowledged that, while there were many individual elements that worked well, the following key challenges need to be addressed:

- financial constraints limiting investment at a regional and/or local level
- lack of support for all transport modes
- limited resource capability and skills
- difficulties working across boundaries and responsiveness to local needs
- disconnect between long-term goals and short-term action
- mixed local accountability, overall leadership and influence
- complex governance arrangements
- lack of ongoing maintenance of assets
- inconsistent and/or unclear accountability
- disconnect with Planning, Economic and Health agendas
- lack of clarity on roles and responsibilities, particularly for the public
- responsiveness to the conflicting pressures of business/public sector

These challenges resonate with the recommendations made in the report *Transport and Poverty in Scotland – Report of the Poverty and Inequality Commission*¹¹⁷ which makes recommendations on accountability, including supporting a review of the accountability models for transport and the involvement of citizens, particularly those with lived experience of poverty, in decision-making.

¹¹⁷ <https://povertyinequality.scot/wp-content/uploads/2019/06/Transport-and-Poverty-in-Scotland-Report-of-the-Poverty-and-Inequality-Commission.pdf>

A way forward

The Roles and Responsibilities Working Group made three broad recommendations to the Scottish Ministers¹¹⁸:

- 1. The case for change has been made and that the current arrangements are no longer sustainable;**
- 2. Our future transport governance arrangements should be on the basis of some form of regional model allowing for variations in approach between different geographic regions; and**
- 3. Governance is a complex issue, and further work needs to be done to develop a model for future transport governance in Scotland that is capable of being implemented.**

Scottish Ministers agreed with the recommendations made by the Group and propose that further collaborative work to look at implementable models will follow on from this consultation to ensure we successfully achieve better outcomes for our citizens, communities, and businesses. The need for accountable governance arrangements to be clearly understandable and accessible to the wider public will be an important part of this work.

From a transport perspective, a regional approach to governance provides an effective means of addressing cross-boundary issues and reflecting travel to work catchments. Moreover, a strong regional approach to transport together with alignment with economic, planning, marine planning, and housing objectives supports approaches to place-shaping.

¹¹⁸ Transport Governance – Taking Better Decisions Relating to our Transport Network, 2019

Chapter 6 – What we will do

We all have a responsibility for delivering the Strategy and making sure it is a success. From local and central governments implementing policies, to businesses and individuals taking account of their actions and impacts when making responsible travel decisions. In order to deliver the Strategy, the Scottish Government will take immediate action in three key areas: Increasing Accountability; Strengthening Evidence; and Managing Demand.

Increasing accountability:

The collaborative approach that has been undertaken to develop this Strategy has been successful and it is key to delivery of the vision and outcomes. In line with the Place Principle¹¹⁹ – we will promote a more joined up, collaborative and participative approach to assets and services to create a better Scotland, to increase accountability we will:

- establish a Transport Strategy **Delivery Board** that will draw together senior representatives across the transport sector to be accountable for the successful delivery of the Strategy
- engage with individuals and communities will be fundamental in informing the implementation of the policies and enablers. We will establish **Transport Citizens' Panels** to better understand the lived experiences of people across Scotland
- continue our **business engagement** to ensure the business voice is also heard and informs the implementation of the policies and enablers
- develop new **transport governance** arrangements on the basis of some form of regional model, allowing for spatial variations, which will focus on achieving better outcomes for citizens, communities, and businesses. We will do this through a 'place-based' approach. We know that people and place are key elements of inclusive growth in order that the economic benefits of improvements to transport delivery and a better alignment between transport, spatial planning and economic development are spread and shared across Scotland's people and communities. The recommendations made by the Poverty and Inequality Commission will inform the development of these transport governance and accountability arrangements

¹¹⁹ <https://www.gov.scot/publications/place-principle-introduction/>



Figure 18: The approach to developing the strategy

Strengthening evidence

Robust but flexible decision making requires evidence to underpin it, as such:

- we will design a robust **monitoring and evaluation** framework to measure and report annually on performance in tackling the challenges and achieving the Outcomes at a national, regional and local level. This will include assessment against the National Performance Framework Outcomes. Proposed headline indicators are currently being developed, drawing on existing and new sources of data and research. Where possible, analysis of the indicators will be broken down to look at demographic, socioeconomic and geographic factors. A summary of the work to-date on indicators is presented in Annex A. The Strategy will be flexible, through the Delivery Board, and adapt to emerging and changing issues
- we will strengthen our analytical approaches to interrogate the increasing volumes of available **data** so that the most up-to-date information continues to be used to ensure the policies designed and implemented are evidence-based and effective. See Annex B. Recognising that the future is uncertain we will continue to adopt a **scenario planning** approach in investment decisions throughout the transport system to ensure transport policies and enablers adapt to make Scotland an attractive place to live and do business
- we will continue to ensure equality of opportunity and outcome and minimising environment effects are at the forefront of decision making for Scotland's transport system as we build on the work delivering our **equalities** duties and **strategic environmental assessment**

Managing demand

To ensure that we create successful places in future we recognise that we need to manage the demand for transport. To do this:

- we will embed the **Sustainable Travel Hierarchy** in decision making, promoting walking, wheeling, cycling, public transport and shared transport options in preference to single occupancy private car use. In doing so Transport Scotland will review and update the Scottish Transport Appraisal Guidance (STAG) and investment decision-making processes. This will strengthen our approach to capturing equalities and sustainable transport impacts. It will be the lens through which Transport Scotland will fulfil its role in the development planning and management functions. Others will be challenged to adopt a similar approach

Prioritising Sustainable Transport

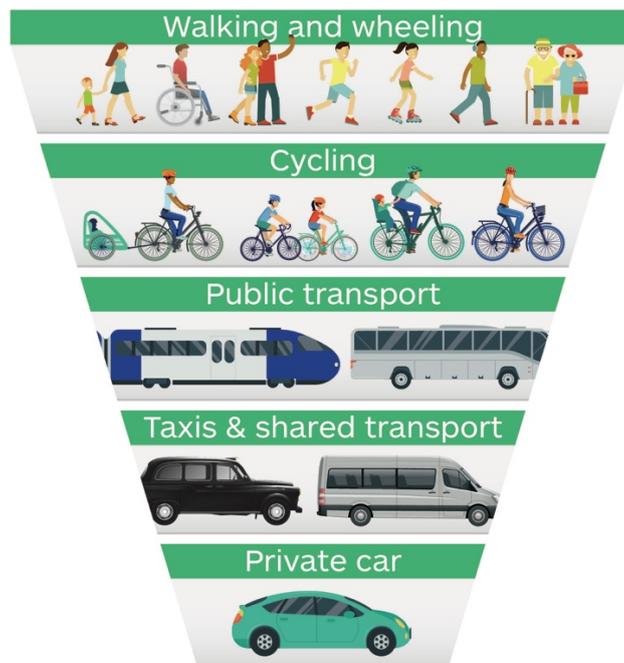


Figure 19: The sustainable transport hierarchy

- at the national level the **Sustainable Investment Hierarchy** will be used to inform budgetary decisions. This will consider: investment aimed at reducing the need to travel unsustainably; investment aimed at maintaining and safely operating existing assets taking due consideration of the need to adapt to the impacts of climate change; investment promoting a range of measures, including innovative solutions, to make better use of existing capacity, ensuring that existing transport networks and systems are fully optimised (these may include technology based, regulatory, fiscal or value engineering solutions to asset renewals); and investment involving targeted infrastructure improvements



Figure 20: The sustainable investment hierarchy

- the way in which the transport system is paid for and funded is complex, but it needs to be fair and sustainable and support wider outcomes. The Scottish Government will take forward a **range of actions**, such as:
 - undertake a review of an extension of the discounts on all public transport available to 16-18 years old and to extend to those under the age of 26
 - support the Green Party amendment to provide legislation for the Work Place Parking Levy which is currently under consideration by Parliament as part of the Transport Bill
 - start a conversation on other approaches to managing demand in Scotland as part of the Big Climate Conversation

Delivery

Working with partners involved in developing the Strategy, we will publish a Delivery Plan to support it, following this consultation period. The Delivery Plan will build on the Policies and Enablers set out in this Strategy.

- for the Scottish Government, a key part of the Delivery Plan will be the update to the **Climate Change Plan**. To inform this we will strengthen our evidence base on the role of behaviour change and technology in delivering pathways to net-zero emissions

- the second **Strategic Transport Projects Review** (STPR2) will set out a 20 year plan for transport investment through the lens of the Strategy's Priorities and in line with the Sustainable Travel and Investment hierarchies. The STPR2 will involve a Scotland-wide appraisal of future transport interventions not only infrastructure. It will use objective-led appraisal process set out in STAG, taking a national overview but contain a regional focus. The STPR2 will provide an evidence base for the new Scottish Ferries Plan, that will also be informed by the first National Islands Plan
- the **Transport Bill** offers an ambitious new model for bus services. It provides local transport authorities with options to influence and improve bus services in their area, ensuring that there are sustainable bus networks across Scotland. The Bill will support local transport authorities to meet local needs and circumstances, whether they wish to pursue partnership working, local franchising or running their own buses. Following Royal Assent, we will continue to work with local transport authorities and RTPs to develop regulations and guidance to support implementation

Annex A – Headline indicators

Priority	Outcome	Indicators
Promotes equality	Will be affordable for all	1. Spend on transport and vehicles relative to income 2. Measure of Transport Poverty – TBC
	Will be easy to use for all	3. Modal share of transport – focus on gender, income, geographic, age, and disability status segmentation
	Will provide fair access to the services we need	4. Accessibility of key services
Takes climate action	Will adapt to the effects of climate change	5. Proportion of petrol, diesel and EV cars and vans registrations
	Will help deliver our net-zero target	6. Use of sustainable transport modes/ modal shift to sustainable modes
	Will promote greener, cleaner choices	7. Rates of walking and cycling for everyday short journeys
Helps our economy prosper	Will get us where we need to get to	8. Connectivity to employment and key services 9. Movement of freight
	Will be reliable, efficient and high quality	10. Satisfaction with public transport 11. Performance measures of public transport modes
	Will use beneficial innovation	12. Indicator to be developed
Improves our health and wellbeing	Will be safe and secure for all	13. Transport casualties and accidents 14. Measure of air quality
	Will enable us to make healthy travel choices	15. Availability of segregated walking and cycling infrastructure
	Will help make our communities great places to live	16. Rates of walking

Annex B – Supporting documents

A series of supporting documents are available

NTS2 Summary leaflet
Consultation response form
SEA Environmental Report (including Non-Technical Summary)
Equality Impact Assessment Record
Equality Impact Assessment Results
Child Rights and Wellbeing Impact Assessment
Fairer Scotland Duty Summary
Islands Communities Assessment
Policy Assessment Technical Report
Citizens' Panels Report
Young Scot Report
Age Scotland Report
Scenario Planning – Process Development Report
Transport Governance – Taking Better Decisions Relating to our Transport Network
National Transport Strategy Review: Review of 2006 National Transport Strategy indicators
National Transport Strategy Early Engagement Consultation Survey – Analysis of Responses to the Public Consultation Exercise
Call for Evidence: Summary Report – January 2018 – Research and Evidence Working Group – National Transport Strategy Review

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