

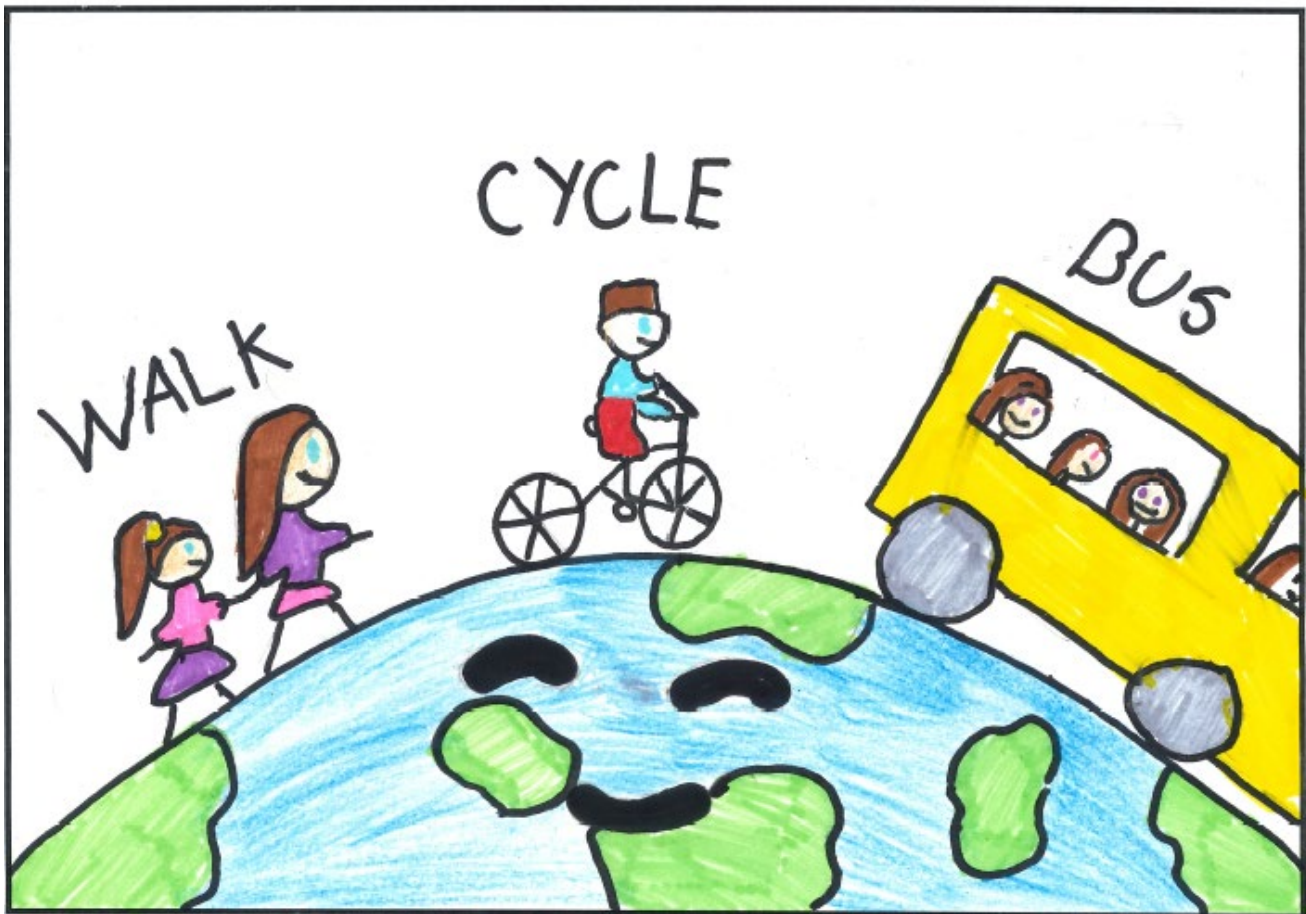


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Reducing car use for a healthier, fairer and greener Scotland

A route map to achieve a 20 per cent reduction in car
kilometres by 2030



Picture by Sarah Tokou (P7), from St Mary's Primary School in Largs.

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Foreword

We are delighted to jointly present Scotland's draft route map to achieve a national reduction in car kilometres, in order to enable healthier, fairer and more sustainable lives.

The route map is published in response to the Scottish Government's Climate Change Plan update commitment to reduce car kilometres by 20 per cent by 2030, to meet Scotland's statutory obligations for greenhouse gas emissions reduction by 2045. However it also recognises the benefits that re-thinking the way we travel can have on our individual and community health and wellbeing, as well as the fairness of our society and the inclusiveness of our economy.

The route map builds on the vision for Scotland's transport system set out in the second National Transport Strategy, aimed at protecting our climate and improving our lives. However, it acknowledges that people's travel behaviours are shaped by the wider context in which they live and services they need to access. Our route map to reduce car use therefore includes a range of non-transport policies interventions, including the provision of good connectivity and digital access to services; the way we plan and invest in our public places; where we locate key services such as healthcare; and how we support our children and young people to make healthy, fair and sustainable travel choices from an early age.

The route map does not aim to eliminate *all* car use. We recognise that would not be realistic or fair, especially for journeys undertaken by disabled people or in rural areas where sustainable travel options may not always be available or practical. Rather, the route map encourages all of us to reduce our overreliance on cars wherever possible and identifies four key behaviours that we want everyone in Scotland to consider each time we plan a journey: make use of sustainable online options to **reduce your need to travel**; **choose local destinations** to reduce the distance you travel; **switch to walking, wheeling, cycling or public transport** where possible; and **combine a trip or share a journey** to reduce the number of individual car trips you make, if car remains the only feasible option. The route map sets out the interventions we are putting in place to make it easy for people to take these actions.

The Scottish Government and COSLA have co-developed the route map in recognition of the need for joint ambition and action at both a national and local level. We have also sought input from key groups and networks to try to ensure it reflects the needs and aspirations of people across Scotland. The draft route map is now published for public consultation. Beyond the consultation period we are committed to continuing a national conversation on sustainable travel, working collaboratively

with regional and local partners, as well as businesses, communities and individuals, to take urgent action to address climate change in a fair and inclusive way.

Implementation of the actions in this route map will help transform the way we live in Scotland by 2030. In addition to meeting our climate change commitments we will experience a new localism in our villages, towns and city neighbourhoods; communities and places that are safer for people of all ages to travel by walking, wheeling and cycling, while acknowledging a more limited level of car use will continue, especially for those who are disabled or live, study and/or work in some rural and remote locations; longer journeys that are predominantly made by convenient and affordable public or shared transport; and greater use of sustainable online access to key services and opportunities, where appropriate. By reducing car use we will create a healthier, fairer and greener Scotland for everyone.

Executive Summary

Our Target

In response to the global climate emergency, Scotland's Climate Change Plan update in 2020 set out a world-leading commitment to reduce car kilometres by 20 per cent by 2030. Transport accounts for 29 per cent of Scotland's greenhouse gas emissions, with cars making up 38 per cent of those transport emissions. Carbon-reduction modelling has concluded that it will not be possible to reach net zero emissions through technological solutions alone. Reducing car use is essential in order for the transport system to be decarbonised at a pace that meets the statutory emissions targets set by the Scottish Parliament.

Wider Benefits

Reducing the dominance of private cars offers significant benefits both to individuals and wider society, including improved health and wellbeing, reduced inequalities and more inclusive economic prosperity. Reducing car use will also improve our public places, making them more attractive, safer and healthier spaces in which to live, work and spend leisure time.

Opportunities for Change

Scotland's hosting of the 2021 United Nations Climate Change Conference (COP26) has led to increased public awareness of the need to tackle climate change. Over 90 per cent of Climate Assembly members, selected to be representative of the Scottish population, agreed that Scottish Government needs to 'support the transition from car use to public and active travel', and over 60 per cent supported a recommendation to 'phase in increased road taxes for private car use and use the revenue to subsidise public transport'.


Cars currently make up over 75 per cent of total traffic volumes on our roads and the majority of all journeys in Scotland are made by car. We recognise that some private car use will need continue, especially for people in certain geographical areas and those with certain disabilities. However a significant proportion of existing car journeys have the potential to be made in other ways. A recent public opinion survey found around 50 per cent of respondents agreed it would be possible not to use their car for common trip types. Furthermore, around 30 per cent of households in Scotland and 60 per cent of households on the lowest incomes do not have access to a car. We must take further action to enable more people to safely access goods, services, amenities and social connections, without the need for private cars.

Our Actions

We are committed to taking action across the full range of Scottish Government policy areas that will enable individuals and organisations to choose healthier, fairer and more sustainable travel options. This document has been developed by the Scottish Government and the Convention of Scottish Local Authorities (COSLA). It recognises the need for ongoing collaboration and partnership working between national, regional and local government as well as groups and organisations across Scottish society in order to deliver a *national* shift in travel behaviours, without stipulating a uniform 20 per cent kilometre reduction in all geographical areas. We will also seek to work with the UK Government on reserved matters, such as the successors to motoring taxation, which we believe has a key role to play in reducing car use going forward.

We have developed a framework of sustainable travel behaviours that is applicable in both rural and urban settings as well as for those with a variety of mobility needs. These are: **reducing the need to travel**, such as by using online options to access goods, services, amenities and social connections, if these cannot be accessed locally in a sustainable way; **living well locally**, by choosing local destinations which can make it easier to switch to more sustainable modes and will reduce distances driven if a car is still used; **switching modes** to walk, wheel, cycle or public transport where feasible; and **combining trips or sharing journeys** with another person (in line with prevailing public health guidance) if car use remains the only feasible option. The aim is to empower people to choose an option that fits their circumstances and travel needs.

Our route map sets out the actions we will take between now and 2030 to support each of these four behaviours. In the near-term these are predominantly actions to encourage alternative behaviours. We are, however, committed to exploring options to further discourage car use, including developing a Car Demand Management Framework, based on further research into equitable options to discourage car use, by 2025.

Reducing the need to travel	Living well locally	Switching modes	Combining or sharing car trips
<p>Using online options may be particularly important in rural or island communities, where distances may be greater to local services, as well as for purchasing goods that are more difficult to transport by active travel or public transport. Reducing travel can also save time and money.</p> 	<p>Particularly important in urban and suburban areas as well as towns and villages. Accessing goods, services, amenities and social connections locally benefits local economies and helps revitalise communities.</p> 	<p>Switching to walking, wheeling, cycling or public transport may be more feasible if a local destination has already been chosen. Active modes and public transport provide opportunities for physical activity which benefits physical health and mental wellbeing.</p> 	<p>Particularly important in some geographical areas, for people with specific disabilities and for certain trip-purposes, where an alternative mode is not feasible. Sharing with others* can provide opportunities for social connection which can boost wellbeing.</p>  <p>*COVID-19 permitting</p>



Category Key: ● Investment, ● Legislation

Illustration includes a selection of key interventions, a full list of interventions can be found in the Route Map document.

I. Background

I.1 Aim and Outline

This is a strategic document that sets out the interventions we will put in place to support people to live healthier, fairer and more sustainable lives by choosing alternatives ways of accessing goods, services, amenities and social connections. While the publication of the route map supports a national conversation on sustainable travel, the document is aimed predominantly at national, regional and local stakeholders. We will also engage with businesses, communities and individuals as part of the national conversation going forwards.

In the first section of our route map we introduce the policy context that has led to the target, as well as the benefits that we will gain from achieving the target; in the second section we describe the current situation and evidence that has been used to inform our framework of interventions; in the third section we describe the package of interventions and in the fourth section we outline the future work that we will undertake, including additional work with national, regional and local-level partner organisations. Additional background information is provided in the route map annex.

I.2 Guiding principles

The first principle of our route map is that it is **collaborative**. It has been developed jointly with the Convention of Scottish Local Authorities (COSLA) and this reflects the key role that partnership working with local government and Regional Transport Partnerships, as well as with our delivery partners, public sector organisations and businesses, will play in achieving our target. It is recognised that there is further collaborative work to do to ensure that national-level policy is effectively translated into meaningful local-level change, including through the inclusion of the target in Regional Transport Strategies.

Secondly, the approach is **not one-size fits all**. It is a national ambition, but it will require a bespoke, place-based approach to create the conditions for travel behaviour change in communities and settlements of varying types and scales across the country. While a large percentage of the population of Scotland is clustered in urban centres, we recognise that in rural areas and island communities it may be more difficult for individuals to replace existing car trips with other modes, particularly where the current level of accessible public transport provision and connectivity is limited. Interventions that focus on alternative digital and hub-based models to allow people to access goods, services, amenities and social connections, as well as opportunities to combine and share car trips will be particularly relevant in these areas. It is important to remember that the percentage reduction target is for

an overall national reduction, and we do not expect car use in rural and island community areas to necessarily reduce at the same rate as in towns and cities.

Thirdly, it is underpinned by our commitment to a **just transition**¹ to zero greenhouse gas emissions as well as to the **community wealth building**² principles of creating benefits and opportunities equally for people across Scotland. This will be achieved by empowering communities to join our national conversation on sustainable travel. People will be supported to make alternative travel choices that help strengthen local economies and allow everyone to share in the benefits of taking climate action, while ensuring that those least able to pay are not unfairly burdened and that existing inequalities are tackled, not exacerbated.

1.3 Policy context

Scotland's Climate Change Plan update (CCPu), published in December 2020, sets out a commitment to reducing car kilometres by 20 per cent by 2030, to enable us to meet our net zero emissions target by 2045³. Transport is Scotland's largest sectoral emitter, accounting for 29% of total greenhouse gas emissions⁴. Within transport, the mode of travel that produces the most CO₂ is car use. In 2018, cars accounted for 38 per cent of Scotland's transport emissions.⁵ Further information on the modelling behind the 20 per cent reduction target is provided in the route map annex.

The CCPu states that while technological solutions will be key in some areas, transformational change is also required, with behaviour change and demand management needed to meet our emissions reduction targets.⁶ This is because transport is a derived demand – where people live, work, learn and access goods, services, amenities and social connections are all key to the need to travel. In order to reduce car kilometres we need to take action to address the location of services and facilities and to enable increased online access, as well as supporting people to change the mode by which they make existing journeys. This reduction will require cross-sectoral effort that goes beyond transport policy.

In parallel with the CCPu, the Scottish Government's National Transport Strategy (NTS2) sets 'taking climate action' as one of its four key priorities⁷. The NTS2 also outlines the Sustainable Investment Hierarchy with 'reducing the need to travel unsustainably' places at the top. This is complemented by the Sustainable Travel Hierarchy which promotes walking, wheeling, cycling, public transport and shared transport above private car use⁸.

The forthcoming second Strategic Transport Projects Review (STPR2)⁹, alongside other national plans such as our fourth National Planning Framework (NPF4)¹⁰, CCPu¹¹, Infrastructure Investment Plan (IIP)¹² and National Strategy for Economic

Transformation¹³ will help to deliver the vision, priorities and outcomes for transport set out within NTS2.

STPR2 is a whole-Scotland, objective-led, evidence-based review of the performance of the strategic transport network across all modes – walking, cycling, bus, rail, road and wider island connectivity. It will set out how the recommended investments will contribute to net zero greenhouse gas emissions and inclusive prosperity, as well as delivering on the other NTS2 priorities for our transport system: to reduce inequalities; take climate action; and improve our health and wellbeing.

As we continue to lead a green recovery from the pandemic, it has never been more important that we take evidence-based decisions regarding how Scottish Government invests public money. Investing in policy and infrastructure, both transport and non-transport, that supports reduced levels of car use is essential in order to deliver a healthier, fairer and more prosperous Scotland for our communities, businesses and visitors.

1.4 Social context

The COVID-19 pandemic continues to significantly impact every area of life in Scotland and the recovery from the pandemic presents us with an opportunity to live and work differently. During the initial lockdown when traffic volumes were much lower many people had the opportunity to experience the benefits of quieter, less polluted streets that for many felt safer and more pleasant to walk and cycle in. People also had the opportunity to explore how their needs, in terms of access to goods, services, amenities and social connections could still be met while travelling less and staying closer to home.

Some people in certain job roles were able to shift to working from home, and survey data from July 2021 shows that 38 per cent of people think that they will work from home more often in the future¹⁴. While flexible working can have important impacts for reducing commuter travel, as well as helping people to gain the social and wellbeing benefits of living more locally, it is recognised that home working will not be feasible for many job roles, nor will it be practical for individuals with desk-based roles who lack home environments suitable for work. Furthermore, there is a potential for any emissions savings from reduced travel to be offset by increased home energy emissions¹⁵, and so we must continue to facilitate sustainable commute options, in addition to enabling people to work from home where feasible.

It is important to recognise that, while the immediate impact of the pandemic on travel behaviours has been significant, the longer-term impacts, which might still be felt by 2030, are estimated to be small when compared to the level of economy-wide change needed to meet Scotland's emissions targets¹⁶. We must therefore capitalise

on the opportunities seen through recent, temporary changes in travel behaviour and support individuals with the policy and infrastructures changes that are needed to enable more significant reductions in car use going forward.

1.5 Just transition

We recognise that there will be some people for whom reducing car use, particularly in the short-term, will be more challenging, including those in rural and island community areas; individuals with specific disabilities or businesses for whom car use may be more necessary. However we also recognise the inequity of a status quo that facilitates car use at the expense of other modes, when those on lower incomes as well as younger and older people, women, disabled people and certain minority ethnic groups are less likely to have access to a car^{17,18}. Widening access to private vehicles would only increase the prevalence of the negative external impacts of cars, which we know already fall disproportionately on the most vulnerable in society¹⁹.

Our route map has been therefore been developed in line with our commitment to a just transition to a net zero society²⁰, whereby we increase access to goods, services, amenities and social connections through sustainable means, without widening access to private vehicles. We are also committed to ensuring the costs do not burden those least able to pay, and the benefits are felt regardless of where people live, who they are and what they do. It important to remember that the target is for a 20 per cent reduction in total car kilometres across Scotland rather than a target for all regions of Scotland or indeed all individuals within Scotland to achieve the same percentage reduction in car use. It is also important to reiterate that we are committed to maintaining access to goods, services, amenities and social connections by private vehicle for individuals such as those with specific disabilities who lack feasible alternative options.

1.6 Wider benefits of reducing car use

In addition to addressing climate change, a reduction in car use will also support the other three priority areas set out in NTS2: to 'reduce inequalities'; 'help deliver inclusive economic growth'; and 'improve health and wellbeing'²¹. Reducing the dominance of private cars will also improve our public places, making them more attractive, safer and healthier spaces in which to live, work and spend leisure time, as well as contributing to wider priorities set out in our National Performance Framework²².

1.6.1 Reducing inequalities

Transport impacts on equalities by providing access to education, employment, healthcare and the other goods, services, amenities and social connections that

promote prosperity as well as health and wellbeing^{23, 24, 25}. It also impacts on equalities through the unequal distribution of the negative impacts of unsafe or unsustainable transport^{26, 27}. In 2019, at a national level, 60 per cent of households with less than £10,000 annual income had no access to a car, while for those with an annual household income of £50,000 or above, the figure was only 3 per cent.²⁸ While those on low incomes in rural areas are more likely have access to a car than in urban areas, car access in rural areas is by no means universal. Car access and usage is also lower amongst other groups including women, older and younger people, disabled people and people of non-white Scottish or British ethnicities²⁹. Yet for many decades policy and investment decisions have prioritised space and access for car users.

This has meant that people that are unable to use a car can be excluded from safely accessing certain destinations, whilst also suffering the negative impacts from other people's car use. Inequitable transport policy can combine with income inequalities to create transport poverty, whereby people face either the risk of social isolation, or the risk of debt from spending on car use³⁰. By reducing car use in Scotland it will also be possible to reprioritise space and investment in streets and public spaces so that they can be accessed safely and easily by everyone, not just those who have access to cars, thereby helping to address transport poverty and deliver a fairer Scotland. Access by car will remain an option for journeys where no other travel behaviours are feasible.

1.6.2 Helping deliver inclusive economic prosperity towards a wellbeing economy

The efficient and reliable movement of people and goods is essential in order to achieve inclusive economic prosperity. However high volumes of traffic and inefficient road space allocation leads to congestion, which can have a significant negative impact on the economy^{31, 32}. Car use, including the high proportion of single-occupancy car trips and space used for parking, contributes to inefficient use of road space and worsening of congestion. By reducing individual car use we can make street space available for other more space-efficient modes of travel, including walking, wheeling, cycling and bus and coach use, which can help reduce congestion and improve journey times for all road users³³. This is important for the economy overall, but it is particularly important in order to enable *inclusive* economic prosperity, by enabling those without access to a car to travel safely and reliably to reach education and employment opportunities.

Reducing car use can also have economic benefits at a local level, with research showing that investment in public realm improvements, including those to encourage walking, wheeling and cycling, can deliver significant benefits to businesses, with strong evidence that people walking spend more than people arriving by car^{34, 35}.

This can also support *inclusive* economic prosperity, as it helps to ensure local businesses and local more easily accessible jobs are protected.

1.6.3 Improving health and wellbeing

Car use impacts negatively on the health and wellbeing of both car users and non-car users. Pollution from tyre and brake wear, which also occurs from electric vehicles, is a significant contributor to poor air quality, with an estimated 1,700 premature deaths attributed to air pollution in Scotland each year³⁶. Car use also contributes to thousands of road casualties³⁷. Car use reduces people's opportunities for active travel, with physical inactivity known to lead to nearly 2,500 deaths in Scotland annually³⁸. Furthermore, cars contribute to noise pollution and community severance, with traffic and parked vehicles acting as a barrier to community interaction and having a negative impact on the quality of public spaces^{39,40}. It is important to note that the negative impacts of car use including from poor air quality and injury have been found to disproportionately affect more vulnerable members of society, including children and older people, as well as those living in more deprived areas⁴¹.

Car use also contributes to climate change which already impacts on health and wellbeing through the physical and mental impacts of extreme weather events such as heatwaves and flooding⁴². Conversely, freeing up space otherwise used by private vehicles provides opportunities to create more green and open spaces for communities to enjoy, contributing positively to levels of health and wellbeing. In addition, green spaces and active travel infrastructure can assist with sustainable urban drainage, reducing the impacts of flooding, while the planting of street trees can provide shade and help combat urban heat island effects, giving more space to nature and pedestrians and offering greater resilience to extreme weather events.

As outlined in the section on reducing inequalities, transport systems enable people to access the goods, services, amenities and social connections that are essential for good health and wellbeing. A transport system designed around car use can make access more difficult for non-car users, thus limiting their ability to reach health-promoting opportunities⁴³. Creating healthy and sustainable places and communities where people can travel by active travel or public transport is consistently identified as a key action to improve health and wellbeing and reduce health inequalities^{44,45,46}.

A healthy workforce is also an essential part of delivering inclusive economic prosperity. There is evidence that physical activity can help reduce conditions that are important causes of sickness absence, leading to improved productivity and reduced costs for employers⁴⁷. Well-designed places that enable people to travel by

physically active modes have a positive impact on overall health and wellbeing levels and can potentially result in saving to the health and social care systems⁴⁸.

2. Current situation and our approach to change

2.1 Current car use behaviour

According to Scottish Transport Statistics 2020, cars make up over 75 per cent of total traffic volumes on the roads in Scotland, and the majority of all journeys in Scotland are made by car⁴⁹. In 2019, 65 per cent of journeys were made as a car driver or passenger. This proportion has been growing over time, as has overall car kilometres driven. Between 2009 and 2019, the number of car kilometres driven in Scotland increased by 7 per cent, despite the population only increasing by around 4.5 per cent⁵⁰. The proportion of car journeys made with only one person in the car has also grown over time.

It is important to recognise that a small number of longer journeys account for a disproportionate percentage of total car kilometres, with around 4 per cent of trips (those over 55 kilometres) accounting for nearly 30 per cent of the total kilometres driven in 2019. Conversely, despite 45 per cent of trips being under 8 kilometres in length, these accounted for just 12 per cent of trips of total car kilometres in 2019⁵¹. The most common trip purposes by car or van in 2019 were for commuting (28 per cent); shopping (23 per cent); and leisure (19 per cent), with 4 per cent being for education, 3 per cent for business, 1 per cent for holidays and 21 per cent for other purposes⁵². These proportions have been relatively stable over the years preceding the pandemic. Of employed adults in Scotland, 68 per cent travelled to work by car in 2019, while in rural areas this figure was over 80 per cent⁵³.

People living in rural areas are more likely to have access to and use a car, and use it more frequently. In remote rural areas in 2019 over 70 per cent of people aged over 17 drove at least three times per week, compared to only 46 per cent of people living in large urban areas⁵⁴. This can partly be explained by poorer access to frequent and reliable public transport in rural areas, with analysis showing that 84 per cent of rural areas have the lowest level of access to bus services⁵⁵. Yet, while access to cars is higher in rural than urban areas it is by no means universal, with lower income rural households being significantly less likely to have access to a car than higher income rural households. As outlined previously, inequality in access to private cars also extends beyond income, with younger people, older people, women, disabled people and non-white Scottish or British ethnic groups all less likely to have access to a car than the general population⁵⁶.

As well as an inequalities in access to cars, we know that car kilometres are not equally distributed across Scotland's local authority areas, with car kilometres per

head of population being lower in urban local authority areas than in rural local authority areas⁵⁷. For example, while Glasgow is home to 12 per cent of Scotland population only 7.6 per cent of the total car kilometres driven in Scotland are within the Glasgow local authority area, in contrast with the Highland local authority area, where 6 per cent of Scotland's total car kilometres are driven, despite it being home to just 4 per cent of the country's population. It is however acknowledged that not all driving that occurs on rural roads should be classified as 'rural trips', with journey origin and destination data showing that approximately 30 per cent of the total distance travelled comes from trips that both start and end in urban areas, rising to 40 per cent if trips that both start and end in accessible small towns are included as well. Additional data tables and charts can be found in the route map annex.

While the COVID-19 pandemic has created an unprecedented effect on transport and travel in Scotland, with journeys to work particularly affected by temporary workplace closures, car traffic on trunk roads is now close to pre-pandemic levels⁵⁸. The current direction of travel is towards more car kilometres being driven each year, rather than fewer. Reducing car kilometres by 20 per cent by 2030 will not be possible just by focussing on the shortest journeys or commutes to work where it is easier for people to switch to active travel or public transport, but requires a more holistic approach that also supports people to travel less, switch to more local destinations and reduce single occupancy trips wherever possible.

2.1.2 Opportunities for change

Despite current data showing high levels of car use, public opinion surveys tell us that there is public support for change. In a recent survey, 73 per cent of respondents agreed that *'for the sake of the environment, everyone should reduce how much they use their cars'*, whilst 43 per cent agreed that they were *'willing to reduce the amount [they] travel by car to help reduce the impact of climate change'*.⁵⁹

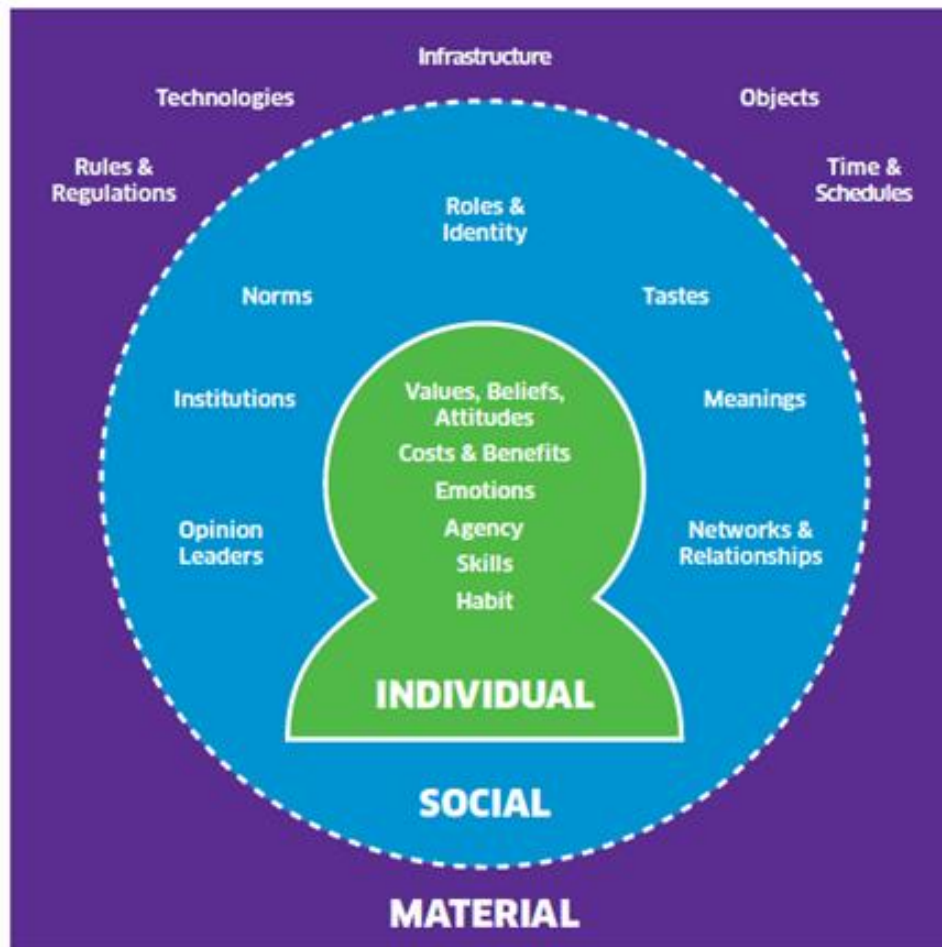
This mirrors the support shown in the latest report from Scotland's Climate Assembly, in which 91 per cent of its members, selected to be broadly representative of the population, agreed with the recommendation that we need to *'provide education for all to support the transition from car use to public and active transport so people recognise the climate impacts and change behaviours willingly'*, in order to tackle the climate emergency in an effective and fair way.⁶⁰ The Climate Assembly also noted that its members support a range of actions to enable a reduction in car use, including *'improvements in our public transport system and economic incentives to ensure it is fair for all'*. Furthermore, 63 per cent of the Assembly members supported a recommendation to *'phase in increased road taxes for private car use and use the revenue to subsidise public transport'*, explaining that this support was because *'our aim is to progressively decrease the number of cars on the road,*

*thereby reducing emissions generated in the production and use of cars*⁶¹. This is consistent with other recent UK research, which found that the public mood on road pricing has moved on since the 2000s, and that in 2021 more people support than oppose road pricing as a concept, with a majority of people agreeing that road pricing would reduce congestion and pollution⁶².

In addition to the findings from the Climate Assembly, research into the attitudes and behaviours of a representative sample of people who live and drive in cities and towns in Scotland found that 70 per cent of respondents agreed that *'it should be possible for everyone to undertake their most frequent journeys without a car'*; while 80 per cent agreed that *'it's important for Scottish Government to enable people to have a good standard of living without needing a car'*. The same survey identified that 71 per cent think that *'people should be able to meet their needs within a 20 minute walk, cycle or local public transport trip from their home'*⁶³. A summary of additional public attitudes and opinions research conducted in relation to the 20 per cent car kilometre reduction target can be found in the route map annex.

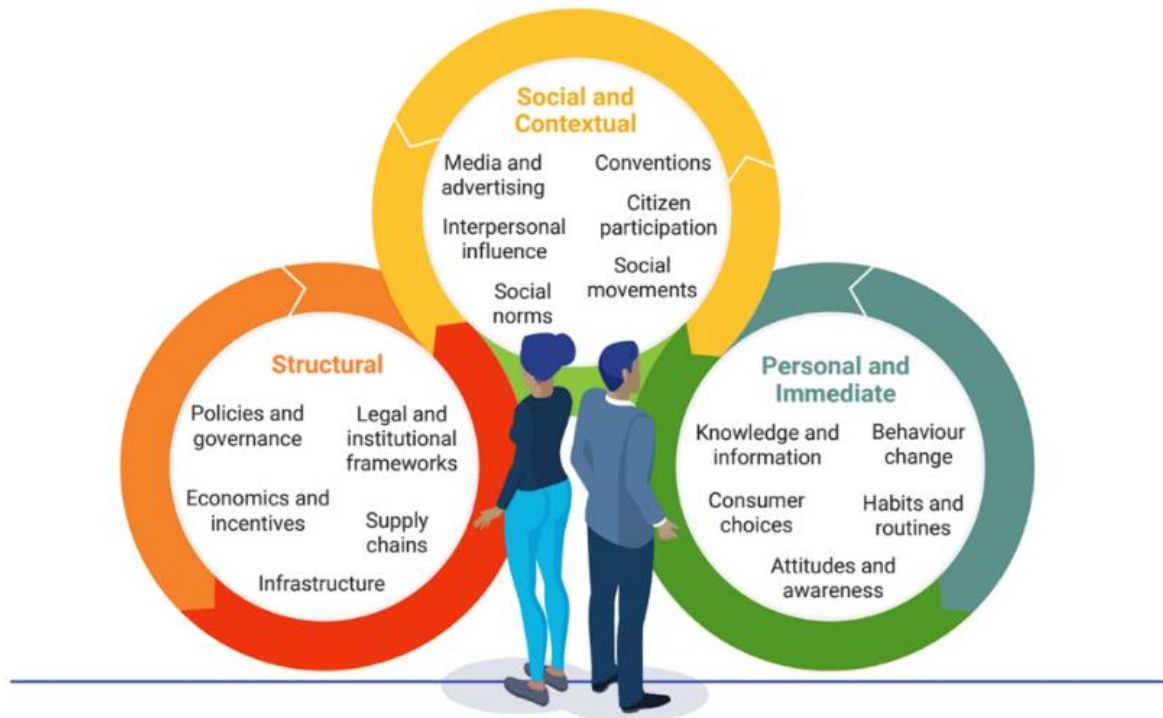
2.2 A framework for reducing car-use

In order to meet the target to reduce car kilometres by 20 per cent, people throughout Scotland must be given the opportunity and conditions to change the way they access goods, service, amenities and social connections; and businesses, public and third sector organisations will need to support their customers, clients and workforce to make those changes. It is the role of government, in collaboration with other key stakeholders, to create a policy landscape of both transport and non-transport policies that enable sustainable travel behaviours to be adopted. *Individual* behaviour change happens in the context of the *social* and *material* environments in which people live, and our route map sets out the interventions that will enable people to adopt better ways of living by creating a social and material context where reduced car use is a normal, easy, attractive and routine behaviour to adopt⁶⁴.



The Individual, Social and Material (ISM) model of behaviour change
Source: Southerton et al, 2011

It is recognised, however, that individual-level and system-level change are interlinked, and that individual and community-level appetite for change are important drivers of system-level policy change^{65,66}. As part of our national conversation on sustainable travel behaviours, we will continue our engagement with individuals, communities, businesses and public and third sector organisations on the importance and value of reducing car use in order to enable healthier, fairer and more sustainable lives.







Interaction between structural, social and personal contexts for change
Source: UNEP DTP Partnership. Emissions Gap Report 2020

The car-use behaviours that contribute to overall car kilometres in Scotland show that it will not be possible to reduce car kilometres by 20% by focussing on a single trip type such as commuting, or a single behaviour such as switching from car to walking or cycling for short journeys. We know that car use is higher in rural areas and that a small number of longer journeys contribute disproportionately to the overall number of car kilometres driven, yet these are the journeys that will be more difficult to switch to alternative modes.

This means we need a holistic framework of interventions to provide car-use reduction options for different trip types in different geographical areas. Our routinely collected trip data has been supplemented by survey and focus group data, described in our route map annex, to help to understand the trip types that people are willing to consider changing, the alternative travel behaviours that they are willing to adopt, the factors that would motivate them and the barriers that might prevent them from changing.

We have also made use of behaviour change theory and the published evidence base on what works in reducing car use and further details of these are provided in the route map annex. Behaviour change research tells us that people are more likely to respond to messages that ask them to 'do' a desirable behaviour, rather than to 'avoid doing' an undesirable behaviour. This has led us to develop a framework of positive sustainable travel behaviours, and to identify a range of transport and non-

transport policies that will support people to adopt one or more of the behaviours. The behaviours have been selected to ensure that there are inclusive car use reduction options that can be adopted in different geographical locations by people with different personal circumstances and travel needs.

Reducing the need to travel	Living well locally	Switching modes	Combining or sharing car trips
<p>Using online options may be particularly important in rural or island communities, where distances may be greater to local services, as well as for purchasing goods that are more difficult to transport by active travel or public transport. Reducing travel can also save time and money.</p> 	<p>Particularly important in urban and suburban areas as well as towns and villages. Accessing goods, services, amenities and social connections locally benefits local economies and helps revitalise communities.</p> 	<p>Switching to walking, wheeling, cycling or public transport may be more feasible if a local destination has already been chosen. Active modes and public transport provide opportunities for physical activity which benefits physical health and mental wellbeing.</p> 	<p>Particularly important in some geographical areas, for people with specific disabilities and for certain trip-purposes, where an alternative mode is not feasible. Sharing with others* can provide opportunities for social connection which can boost wellbeing.</p>  <p><small>*COVID-19 permitting</small></p>

Non-transport digital and place-based interventions are important to support people to reduce their need to travel and to enable them to choose more local destinations for work, shopping and leisure which are the three largest reasons for trips.

Transport policies will be key in supporting people to switch mode or to combine trips or share journeys where alternative modes are not available. Interventions to support people to live well locally are interlinked with those to support mode switching, as walking, wheeling and cycling become more feasible in areas where goods, services, amenities and social connections are accessible within shorter distances. In remote rural areas, policies to support a reduced need to travel, combined with the opportunity to share and combine car trips will be particularly important. We recognise that some behaviours will be more feasible in some geographical locations and for some individuals, including those with specific disabilities. The aim of the route map is to provide interventions that empower people to choose from one or more of the sustainable travel behaviours each time they plan a trip. Each of the desired behaviours also have the potential to provide other benefits to individuals, in addition to contributing to address climate change. For example:

- Making use of sustainable online options can save time and money
- Choosing local destinations can help revitalise local communities
- Switching to walk, wheel, cycle or public transport has health benefits
- Combining trips or sharing a journey with others can improve wellbeing

The sustainable travel behaviours will be supported and encouraged in line with wider government policy objectives to reduce overall greenhouse gas emissions, as

well as objectives to achieve better health and wellbeing and a more inclusive economy. This is important in order to avoid route map interventions resulting in unintended consequences. We will therefore ensure that interventions to support home working are carried out alongside interventions to improve the energy efficiency of people's homes; that interventions to support the use of online services are promoted only when the use of local alternatives are not feasible and where adequate digital infrastructure exists or will be provided, and that car-use reduction interventions are accompanied by wider interventions to decarbonise the public transport and freight sectors, particularly in the case of last-mile delivery.

Interventions to reduce car use have been considered in the context of the Capability, Opportunity and Motivation (COM-B) model of behaviour change⁶⁷, which recognises that for any behaviour to be enacted, people must have *capability*, *opportunity* and be more *motivated* to carry out the desired behaviour than any alternative behaviour. Capability refers to people's psychological abilities (for example, knowledge and mental skills) and physical abilities (for example, dexterity and strength). Opportunity refers to the environment with which people interact, whether it be the physical environment (for example, objects and time constraints), or the social environment (for example, social cues and cultural norms). Motivation refers to mental processes that energise and direct behaviour, including reflective processes (for example, conscious decision making and inference) and automatic processes (for example, feelings and habits). Without all three enablers in place it is unlikely that the desired change will take place.

Effective transport policy, complemented with a place-based approach which provides local, accessible services, must therefore consist of interventions to help overcome barriers and support people's *capability*, by providing them with knowledge of the sustainable travel options that are available; *opportunity*, by providing non-car options that are accessible and safe; and *motivation*, by ensuring non-car options compare more favourably than car, for example in terms of convenience, attractiveness and cost. We have made use of the Nuffield Ladder of Interventions⁶⁸ and Behaviour Change Wheel approach⁶⁹ to identify a range of intervention types and policy options to support individual-level *capability*, *opportunity* and *motivation* to reduce car use.

While zero-emission vehicles have an important role to play in helping us achieve our carbon reduction targets, the wider dis-benefits of using private vehicles mean that our target to reduce car kilometres by 20 per cent includes all types of private car. In line with the NTS2's Sustainable Travel Hierarchy, switching from petrol or diesel to private zero-emission vehicles is likely to be the optimal solution only where more sustainable travel options are unavailable. Interventions to encourage vehicle-switching should therefore ensure that options to switch to digital or local access as well as more sustainable transport modes such as electric cargo cycle, public

transport season ticket or car club membership are facilitated and promoted ahead of a switch to a private zero-emission vehicle.

3. Interventions

3.1 A national conversation on car reduction

The public is already engaged on the issue of climate change and following Scotland's hosting of COP26 there is an opportunity to capitalise on the threat of climate change as the key reason why Scottish Government is taking action on this issue, particularly in relation to actions to discouraging continuation of the status quo. We will build on this momentum with a national conversation on the rationale for the interventions we are putting in place, as well as the benefits that individuals, communities and wider society will experience as a result. Our communication with individuals and organisations, including public, private and third sector stakeholders, will start from the premise that we are trying to achieve a healthier, fairer and more sustainable way of living, particularly for the most disadvantaged members of society, who currently suffer a disproportionate burden of the negative impacts of car use.

While the route map uses a behaviour change approach as its framework, it is not simply about asking the public to change their behaviours, but about creating the right *material* and *social* conditions and providing people with the *capability*, *opportunity* and *motivation* to choose sustainable travel behaviours. Our national conversation on car use reduction will include communications on the actions that Scottish Government is taking at a *system level* in order to support the desired *individual-level* behaviour change.

Our insights from public opinion surveys and focus groups alongside findings from our consultation on the draft route map and impact assessments will be combined with the evidence from the published literature and behaviour change theory to develop and refine our marketing and communications approach, in line with the existing Net Zero Nation Public Engagement Strategy and public facing Let's Do Net Zero campaign. Car reduction messaging will be integrated into messaging on relevant policy measures, such as concessionary bus travel for under-22s, to ensure that individual policies are understood to be part of the wider suite of measures to help people travel more sustainably.

Further analysis will be conducted to help us understand the values underlying the travel behaviours of different population subgroups, to ensure future messaging and communications are tailored as effectively as possible. We will also work with partner organisations to support *social* opportunities for behaviour change, for example by influencing the social and cultural norms of travel in workplaces and education and healthcare settings. We know that behaviours are habit-based, and our

communications will therefore target ‘moments of change’, when the context of individuals’ circumstances change, either intrinsically, due to a change in place of home, school or work; or extrinsically due to a change in local transport infrastructure, availability or pricing.

3.2 Interventions to reduce the need to travel

Supporting the development of, and ensuring fair access to, online options for education, training and employment as well as access to goods, services, amenities and social connections are key in order to reduce people’s need to travel. There is clear value in in-person social interaction, and we do not wish to restrict people’s opportunity to travel, however there will be a range of circumstances where people can be supported to live better lives by freeing up the time and cost associated with travel.

The COVID-19 pandemic has demonstrated the role that digital connectivity can play in enabling many people to work and connect with others remotely and the crisis accelerated the pace of digital adoption in organisations and businesses across many sectors. Scotland’s digital strategy aims to maintain and increase that pace of change, to ensure we remain competitive in a global marketplace. Digital transformation can help reduce the need to travel through remote working and enable businesses and people to access services and networks online.

Changes in working patterns during the pandemic have resulted in much attention on the potential of home working to reduce commuter travel and associated emissions. However we recognise that home working will not be feasible for many job roles, nor will not be practical for those who lack home environments suitable for work. There is a risk that any emissions savings from reduced travel may be offset by increased home energy emissions. Our route map therefore commits to action on flexible and local working rather than home-working specifically, and our interventions to reduce the need to travel are broader than just those that reduce the need to travel to work.

Intervention 1a: Finalising and adopting the Fourth National Planning Framework (NPF4) by summer 2022: In addition to other areas of planning (covered in Intervention 2a below), NPF4 will set out how the planning system should continue to support the roll-out of digital infrastructure across all of Scotland. It will ensure that policies recognise the importance of future-proofing infrastructure provision whilst addressing impacts on local communities and the natural and historic environment, and will look to embed such as approach in Local Development Plans.

Intervention 1b: Extending superfast broadband to 100 per cent of premises in Scotland: Access to good quality digital connectivity is no longer the barrier it once was. The Scottish Government is working to ensure that no-one in Scotland is digitally excluded, either by virtue of where they live or their income. The Reaching 100% (R100) and 4G Infill programmes are extending access to full fibre broadband and mobile services into non-commercial areas, building on the extensive commercial deployment across the country and the Digital Scotland Superfast Broadband (DSSB) programme, which saw over £400 million of public funding invested to extend broadband access to over 950,000 premises across Scotland. The Connecting Scotland programme is getting that technology into the homes of the people who would otherwise face barriers to digital access, providing connectivity, devices and training. We have seen how transformative access to these services can be across rural Scotland. This will unlock opportunities for rural businesses and remote working, as well as building skills, literacy and learning so more people have the skills to connect online.

Intervention 1c: Mapping digital connectivity alongside transport connectivity: The way we use data will also have a part to play in informing our approach. Transport Scotland, in conjunction with the Scottish Government, will integrate data on access to digital connectivity alongside transport connectivity in order to model and assess which parts of Scotland are most reliant on accessing goods and services physically via transport infrastructure. This will be used to inform future infrastructure investment priorities and identify opportunities for transport networks to support digital infrastructure deployment. There is potential for digitalisation of transport networks to measure demand and manage capacity, as well as managing transport assets, and a significant role for data in empowering people to weigh up their own travel choices against carbon footprints.

Intervention 1d: Issuing a refreshed Fair Work First Action Plan in Spring 2022: This will set out our support for the provision of flexible working arrangements where appropriate, as part of our wider commitment to Fair Work and will include a commitment to offer flexible working as a criteria for public sector grants and procurement under our Fair Work First approach, as well as ongoing funding for advice and support to employers on how to provide flexible working patterns for workers.

Intervention 1e: Progressing the Work Local Challenge Programme: This will include exploring opportunities for local work hubs formed by repurposing existing buildings, or by developing new 'pop up' communities. This is in order to create quiet, safe, hygienic and connected work environments for office-based roles, capitalising on the benefits of home-working, by offering greater choice, flexibility and security and enabling companies to create productive work environments for a distributed workforce, while overcoming some of the dis-benefits of working in residential environments.

Intervention 1f: Delivering the NHS Scotland Climate Emergency and Sustainability Strategy's actions to reduce the need to travel⁷⁰: These actions will support a reduced need for travel by patients and visitors, through the continued use and expansion of NHS Near Me; a refresh and modernisation of NHS homeworking policy; the use of 20 minute neighbourhood principles to plan new community health facilities and the exploration of better integrated care to reduce the number of separate appointments and journeys

3.3 Interventions to help people live well locally

In order to achieve a 20 per cent reduction in car kilometres the planning system needs to prioritise and target car-use reduction. Demand for transport, and the choices that people make in relation to car use, are interwoven with how we plan and utilise space for communities and society. While we recognise the long lead times for planning policy to affect change on the ground, particularly in relation to new developments, it is also relevant in relation to more immediate investment, for example as part of regeneration schemes.

The growth in car use over decades has led to places and localities adapting to the dominance of the car, which over time has resulted in car dependency, and environments where the movement and parking of cars dominates, encouraging car use and discouraging the use of other modes. Reducing the car dominance of local places and ensuring that opportunities for education, training and employment as well as goods, services, amenities and social connections can be accessed locally, increases the opportunity for people to choose to travel by walking, cycling or public transport. In geographical areas or for individuals for whom those alternative modes are not feasible, supporting people to access local rather than distant destinations will still help to reduce car kilometres travelled.

Intervention 2a: Finalising and adopting the NPF4 by summer 2022: This will set the direction for plans and decisions to support places which

help realise a Net Zero Scotland including through car use reduction. It references the need for planning and place-making to support the development of more liveable, productive, distinctive and sustainable places. The Framework embeds the Sustainable Travel Hierarchy into plans and decision making in order to promote walking, wheeling, cycling, public transport and shared transport options in preference to single occupancy private car use for the movement of people. In 2022, we will also consult on draft statutory guidance and subsequently put in place new duties to prepare Regional Spatial Strategies which will in turn coordinate with Regional Transport Strategies.

HOW NPF4 WILL SUPPORT CAR REDUCTION WITHIN THE 2030 TIMESCALE

Development timescales mean that it will take time to change the way our places work, but the draft NPF4 is clear about the choices that need to be made now to ensure we are on the right path towards achieving our targets. Once the Scottish Parliament approves the finalised NPF4 and the Scottish Ministers adopt it, as part of the statutory development plan, it will apply directly to all planning decisions. This will have an immediate and significant impact on ensuring that the planning system does all it can to mitigate and adapt to the impacts of climate change, including by planning the use of land in a way which minimises the need to travel as far as possible. In addition, the spatial strategy and policies will be taken forward in new-style local development plans, which will be progressed once regulations and guidance are in place, during 2022. Regional Spatial Strategies, which are not part of the statutory development plan but have a key role to play in aligning with transport planning at a strategic scale, will also play an important role in taking forward the aims of the spatial strategy set out in NPF4.

Intervention 2b: Delivering the Housing to 2040 actions to build stronger and more vibrant communities: This will ensure that houses and places work together seamlessly so that people can live in communities that meet their needs and support their health and wellbeing. The actions include establishing a Place Based Investment Programme for community-led regeneration, community wealth building, town centre revitalisation and the development of 20 minute neighbourhoods; a Place Investment Framework to support the delivery of affordable homes in existing communities, town centres and 20 minute neighbourhoods; and embedding an Infrastructure First approach to development.

Intervention 2c: Continuing to embed the Place Principle, and promote the use of the Place Standard Tool: This will ensure that those

responsible for providing services and looking after assets in a place work and plan together, and with local communities, to improve the lives of people, support inclusive and sustainable economic prosperity and create more successful places. The Climate Lens Place Standard Tool will be of particular value for community engagement in relation to the 20 per cent car kilometre reduction target.

Intervention 2d: Delivering 20 minute neighbourhoods; improved town and city centres and a 'loves local' culture: This will create opportunities for town and city centres to thrive and places where people can have their everyday needs met locally within a 20 minute walk, wheel or cycle from their homes, reducing emissions and encouraging active travel. We will launch a new 'Our Place' website to provide information, tools and resources to help support the development of places and services that improve our health, wellbeing, prosperity and quality of life as well as reducing inequality and protecting our environment. The Town Centre First Principle and the 20 minute neighbourhood concept provide a simple way of conceptualising a place-based planning approach that puts the neighbourhood or community at the heart of the planning process. While most commonly associated with urban areas, the 20 minute neighbourhood approach can be adapted to be applicable to a wide range of settlement types, and applied to both existing and newly designed communities⁷¹.

Intervention 2e: Developing guidance and an appraisal framework for Mobility Hubs: Building on already available best practice and research, this will allow for robust assessment of future funding decisions on mobility hubs and determination of the most appropriate locations and facilities in the Scottish context. Ease of interchange is an important factor in enabling travel by public transport. Mobility hubs are spaces designed specifically to integrate public and shared mobility modes as well as improving the public realm, and providing enhanced facilities and information to benefit local residents and businesses, as well as travellers.

Intervention 2f: Introducing a safer speed limit of 20mph on appropriate roads in built up areas by 2025: This will lead to improvements in road safety and health outcomes, as well as improving place-making, encouraging uptake of active travel, climate change mitigation and place-making. Local Authorities will also be encouraged to deliver more Safe to School initiatives, with the aim

of ensuring every child who lives within two miles of school is able to walk, wheel or cycle safely.

3.4 Interventions to help people switch modes

Recent research on scenarios to meet the transport emissions targets in Scotland outlines that walking must become the preferred mode of transport for short journeys and cycling, using cycles and e-cycles, must be a viable mode for both urban and inter-urban journeys⁷². In Scotland around 50 per cent of journeys are under 5 kilometres, whilst around 30 per cent are under 2 kilometres and 15 per cent are under 1 kilometre⁷³. While such short trips make a smaller contribution to overall car kilometres than longer trips, they are some of the easiest to change and can be an important way to enable people to start to use their cars less.

Public transport, on the other hand, has an important role to play in helping people reduce their car use for both short and long journeys. The impact of COVID-19 on travel demand has had a significant impact on public transport use. We need to support a safe and confident return to public transport that not only supports recovery from the pandemic but also ensures there is a viable and sustainable public transport system for the future, recognising that even in the pre-pandemic period there were public transport network coverage challenges, particularly in, but not limited to, rural areas and island communities.

Improving connectivity of active travel networks to train and bus stations as well ensuring cycle parking and facilities for on-board cycle carriage can play a pivotal role in enabling people to switch from car to a seamless multi-modal active and public transport trip. It is also recognised that there is a need to consider options for redressing the cost imbalance of public transport in comparison to car use. Along with travel time, cost is the most important factor in determining how people choose to travel. This is particularly important given that rail and bus fares have risen above general inflation over the last decade, whilst motoring costs have not.

This section outlines the range of actions that will support mode shift. Actions related to improved walking and wheeling environments have been covered in section 3.2 above, therefore the following interventions cover the remaining modes of cycle, bus, train and car, as per the order of the Sustainable Travel Hierarchy.

Intervention 3a: Publishing the Cycling Framework and Delivery Plan for Active Travel in Scotland in 2022: While this Framework and Delivery Plan acknowledges the importance of all types of cycling, its focus is on cycling for active travel on everyday journeys and modal shift from the private car. The increasingly urgent need to address both the impacts of climate change and physical inactivity

make it essential that the Framework and Delivery Plan outline ambitious strategic themes and actions that will contribute to reducing the reliance on private cars and the resultant health costs and carbon emissions.

Intervention 3b: Increasing investment in active travel: The Bute House Agreement⁷⁴ set out the commitment to increase the proportion of Transport Scotland's budget that is spent on active travel, so that by 2024-25 at least £320 million or 10 per cent of the total transport budget will be allocated to active travel

Intervention 3c: Investing £50 million on Active Freeways: This will provide high quality arterial active travel corridors enabling sustainable travel between connect centres of activity, outlying neighbourhoods and other major trip attractors in our cities and towns. It is recommended that these focus on high-demand travel corridors and on improving connections to communities for which transport exclusion is currently prevalent. Improved local connections from the main Active Freeway routes will ensure that people are able to access them from their homes, schools, workplaces and other destinations. This will support delivery of the networks of routes that are already under consideration in many of our towns and integrate with existing active travel networks. It will expand and be complementary to the Places for Everyone programme to provide direct, high quality, segregated networks of routes for people travelling actively, whether walking, cycling or wheeling, enabling efficient, swift and safe options for short- and medium-length journeys.

Intervention 3d: Improving access to cycles and the transportation of cycles: This will include the national roll out of a pilot to deliver free bikes to school age children who cannot afford one; continued provision of e-cycle loans and grants and a commitment that support for the purchase of new buses will be, where appropriate, conditional on space being available for bike transport in addition to wheelchair and buggy space.

Intervention 3e: Continuing to take action on road safety, in line with Scotland's Road Safety Framework to 2030 which includes a renewed focus on pedestrians and cyclists: This will include the full range of national deliverables set out in the Annual Delivery Plans of the Road Safety Framework, including a national strategy on 20mph speed limits/zones, a national speed management review and the development of a one year pilot

project with Police Scotland to develop an online reporting system enabling people to upload camera footage of dangerous driving. Local authorities will also be encouraged to deliver more Safe to School initiatives and School Streets timed street closures, with the aim of ensuring every child who lives within two miles of school is able to walk or wheel safely, in line with the Bute House Agreement.⁷⁵

Intervention 3f: Introducing Low Emission Zones (LEZs) in Aberdeen, Dundee, Edinburgh and Glasgow in Spring 2022: This will encourage the use of active and sustainable travel modes when accessing city centres, whilst also supporting the uptake of cleaner vehicles. The LEZ Support Fund offers eligible households up to £3,000 for the safe disposal of an older and more polluting vehicle that does not meet the proposed LEZ standards. Eligible businesses can receive up to £2,500 grant per vehicle suitably disposed of. For households, the grant is comprised of a £2,000 cash grant for the safe disposal of an older vehicle, plus up to £500 'Travel Better' grant per adult for up to two adults in the household. The 'Travel Better' grant can be used to purchase a new or refurbished bike, towards the cost of an e-cycle or adapted cycle, public transport tickets, bike hire membership and credits, and car club membership and credits.

Intervention 3g Continuing our work on review of transport governance: We will continue to develop our review of transport governance, we will also take cognisance of the latest state of the pandemic and the impact on public transport and the future models required to support a viable and sustainable public transport system.

Intervention 3h: Commissioning a Fair Fares Review: This is being conducted in recognition of the fact that public transport fares are increasing as the cost of private car travel is declining. We know that people in low income households are more likely to travel by bus and that existing challenges of living on low incomes can be exacerbated by transport costs. The review will look at the range of discounts and concessionary schemes that are available on all modes including bus, rail and ferry and inform the development of a sustainable and integrated approach to future public transport fares. We are also developing our analysis to assess the policy challenges and options for the future of public transport. This work is being taken forward as part of our Fair Fares Review.

- Intervention 3i: Providing nationwide free bus travel for Scotland's young people aged under 22 from January 2022:** This will encourage ongoing and increased bus use by benefitting around 930,000 young people.
- Intervention 3j: Continuing to provide long-term capital investment to bus transport:** The impact of COVID-19 on travel demand and resultant demand for public transport has had a significant impact on public transport fare box revenue. To date, support of over £1 billion has been provided to support public transport operators during the pandemic to ensure that services remained in place for those who depend on them. Recovery from the pandemic, supported by a safe and confident return to public transport, is crucial to ensure there is a viable and sustainable public transport system for the future. The fare box revenue of our public transport operators, the on-going impact of recovery and the potential budgetary consequences of pressure on fare box revenue highlight the fragility of our public transport system and the need to do everything to protect it. This includes a commitment to invest over £500 million in bus priority measures, including through the Bus Partnership Fund, which will enable local authorities and bus operators to tackle the negative impact of congestion on bus services so that journeys are quicker and more reliable, thereby encouraging more people to travel by bus.
- Intervention 3k: Introducing a Community Bus Fund:** This will support local transport authorities to improve public transport in their areas, including by exploring the full range of options set out in the Transport (Scotland) 2019 Act, including the option for local authority-run services.
- Intervention 3l: Establishing a National Smart Ticketing Advisory Board:** This will advise on a technological standard for smart ticketing and will oversee the delivery of the next generation travel data system to enhance journey planning services and establish bus open data standards.
- Intervention 3m: Investing in the maintenance and enhancement of the rail network:** This will provide an investment of £4.85 billion to maintain and enhance Scotland's railway in the current rail control period, including investment in rail station facility development and improved rail station accessibility as well as on-going electrification and decarbonisation through our Rail Services Decarbonisation Plan⁷⁶ and Rail Investment Strategy⁷⁷.

- Intervention 3n: Supporting integrated journeys at ferry terminals** – This is a STPR2 Phase 1 intervention which involves undertaking a detailed review of key ferry terminals to consider physical integration, timetabling, signing, ticketing and other facilities required to deliver a seamless sustainable transport journey. The review will then recommend a programme of integration improvements to enhance the traveller experience and increase integration between ferry services and other public transport modes.
- Intervention 3o: Pavement parking ban enforcement and other car parking interventions:** We will introduce regulation in 2022 to bring national enforcement of pavement parking bans in 2023, with exemptions as designated by local authorities. We will also work with local authorities to provide support and ensure that local transport strategies fairly consider the needs of climate change, as well as the impact on road users, including pedestrians, cyclists, public transport users and disabled car users in their approach to car parking.
- Intervention 3p: Developing Workplace Parking Levy (WPL) regulations and guidance:** Discretionary local powers to introduce a WPL scheme were included in the Transport (Scotland) 2019 Act, giving local authorities a further tool to disincentivise private car use and promote modal shift. A local transport strategy is a prerequisite for any local authority looking to implement a WPL, and WPL revenue must be hypothecated to support the objectives outlined in the strategy. This helps ensure that the WPL is considered strategically and the funding which it generates goes to helping the travelling public, such as through improvements to public and sustainable transport provision or infrastructure.
- Intervention 3r: Delivering the NHS Scotland Climate Emergency and Sustainability Strategy's actions to increase active travel and the use of public and community transport to NHS sites:** This includes ensuring that new NHS facilities prioritise access for people travelling actively and sustainably; identifying where public transport links to NHS sites need to be improved; and making accessibility by public transport a fundamental consideration in decisions about where to develop new NHS facilities and working with transport stakeholders to realise the NTS2's priorities and outcomes. It includes linking NHS facilities to active travel routes and networks in the wider community; making outdoor spaces and

sites easier, safer and more enjoyable for people to walk, wheel and cycle on including through improving wayfinding; working towards every Health Board achieving the 'Cycling Friendly Employer Award' from Cycling Scotland by no later than 2026; promoting the benefits of active travel and providing travel planning information on how to avoid using a car when accessing NHS sites; and working with Community Transport Association UK and volunteer community transport groups to improve patient access.

Intervention 3s: Continuing the £300,000 annual investment in the Eco-Schools Scotland Programme as part of the Learning for Sustainability Programme: This programme supports young people to learn and engage with climate change from nursery age to adulthood, with content on transport engaging children in and understanding of how people and goods make their way to school and how more sustainable choices can be made.

3.5 Interventions to help people to combine trips or share journeys

Both the Scottish Government and COSLA recognise that there will be some individuals or journey types for whom the private car may remain the only feasible mode of travel, including those in rural areas and island communities, those with specific disabilities and businesses with specific travel needs. In order to support these individuals and businesses to reduce their car use, interventions to promote the combining of trips and support the sharing of journeys with others will be important to help reduce overall car kilometres.

Intervention 4a: Testing the viability of Mobility as a Service (MaaS)¹ in Scotland: This includes the three-year £2 million MaaS Investment Fund⁷⁸ which consists of five pilots of innovative digital data driven solutions, providing people with better information and easier access to sustainable transport options, aiming to make public transport travel a viable alternative to the car. These pilots, run by Hitrans, Tactran, Dundee City Council, the University of St

¹ MaaS can be described as a "digital interface to source and manage the provision of a transport related service(s) which meets the mobility requirements of a customer" (The Transport Systems Catapult, 2016) or indeed as digital transport service platforms that enable users to access, pay for, and get real-time information on, a range of public and shared transport options. These platforms may also be linked to the provision of new transport services (UK Parliament, 2017).

Andrews and SEStran respectively, use digital technologies to improve access to real time journey information, including journey planning, scheduling, retailing and fulfilment methods across multiple modes of transport, including Demand Responsive Transport (DRT) in rural areas. By providing more reliable, personalised and dynamic information about public and shared transport services, MaaS can reduce car dependency and use in the areas surrounding Scotland's towns and cities. We will also continue to engage with the Department for Transport on its future of transport regulatory review specifically on MaaS and micro-mobility vehicles.

Intervention 4b: Re-promoting the benefits of car-sharing and car-cubs post-pandemic: Previous work to promote car-sharing was interrupted by the need to follow COVID-19 guidance on safe travel, however we will resume activity in this once it is safe to do so, as car-sharing has the potential to play a significant role in supporting a reduction in private car dependency and use, and recent research shows that there is still a lack of awareness around them.⁷⁹ The average car sits unused for more than 90 per cent of the time⁸⁰ and the majority of car trips in Scotland (66 per cent) are single occupancy trips.⁸¹ In this context, shared car use can potentially offer a more efficient and sustainable alternative to private car ownership, reduce overall car usage, reduce car kilometres and can make a significant contribution to reducing single occupancy car journeys. CoMoUK data shows car club membership increasing year on year from 19,827 members in 2018/19 to 25,193 (+27 per cent) members in 2019/20 to 30,617 (+21.5 per cent) members in 2020/21. Through grant funding, we are supporting projects to promote car-share schemes and platforms at national and regional level so that when conditions allow, shared transport is more prominent in people's thinking as they consider their transport choices.'

3.6 Exploring further interventions to discourage car use

The sections above have set out the actions that we will take between now and 2030 to enable a significant reduction in car kilometres. These largely include interventions to improve the *material* conditions that will support people's *physical opportunities* to reduce their car use, for example through improved infrastructure and service provision, as well as those to increase *motivation* to switch away from car use, by making alternatives comparatively more attractive, including in terms of convenience

and cost. However an important part of people's motivation to choose one behaviour over another lies in the balance of individual-level benefits and dis-benefits. Incentivising desirable behaviours is unlikely to be sufficient in a context where car use remains highly attractive in terms of individual-level benefits, while the dis-benefits to environmental and population health are largely externalised. Further exploration of equitable options for demand management to discourage car use, including pricing, will be explored through the commissioning of additional research in 2022. This will provide a short-list of options for further exploration and feasibility analysis, and will enable the development of a new Car Demand Management Framework by 2025, which will take into account the needs of people in rural areas and island communities as well as those on low incomes and people with Equality Act protected characteristics.

The current approach to motoring taxation has also been identified as a significant barrier to the decarbonisation of the transport sector. Fuel Duty and Vehicle Excise Duty are reserved to the UK Government and successive UK governments have frozen the rate of Fuel Duty each year since 2010, meaning motorists have benefitted from a significant tax cut in real terms. The need to address the cost of motoring is now widely acknowledged, with the revenues from Fuel Duty declining as the transition to lower emission vehicles continues. The Scottish Government will continue to engage the UK Government on the need for reform of existing taxes related to motoring. This is essential in order to create a tax system that better incentivises the transition to zero emission vehicles, and protects future revenues to fund interventions that support a shift healthier, fairer and more sustainable travel.

3.7 Funding and resource

The costs of delivering Scotland's transport system are significant. In addition, the COVID-19 pandemic has created additional pressure on funding for Scottish Government and local authorities and the future demand for transport, including public transport, remains uncertain. Going forward, there will continue to be significant funding requirements for both central and local government, to achieve net zero commitments across a range of sectors. The transport sector is no exception, placing further pressure on limited budgets. There will need to be a clear focus on matching resource to greenhouse gas emission reduction and ensuring a just transition. While it will be important for people to make fewer journeys by cars and emission-producing vehicles, people will continue to need to travel, and our transport system is important to how we live our lives. We need to manage our transport assets effectively and invest efficiently in the resources needed to maintain and safely operate them, while supporting the transition to net zero. The importance of funding and investment will continue to be considered as part of our work on the delivery of the route map, in the broader context of a just transition to net zero.

4. Future work

4.1 Consultation and continued engagement

The route map sets out a framework for national level policies and interventions to support sustainable travel behaviours, however, local-level actions and commitments will also be key to achieving the ambitious target of reducing car kilometres by 20 per cent by 2030. The route map has therefore been developed in conjunction with COSLA and local authority partners, with input sought from a range of other relevant stakeholders. To date we have run online workshops for transport sector stakeholders, in which we asked for views on the behaviours, audiences and interventions that the route map should focus on. We have followed this up with similar engagement events with COSLA members and Regional Transport Partnerships (RTPs).

Initial public engagement has included focus groups and a public opinion survey as well as a public facing engagement event as part of COP26, and a People's Panel session as part of wider engagement on NTS2. We have also engaged with organisations representing the interests of groups with Equality Act protected characteristics, through our Transport Equality Network, as well as initial engagement with business representatives. The draft route map and associated impact assessments are now published for formal consultation. We will also continue engagement with local authorities, RTPs and other key stakeholders following publication, and we will establish a joint governance structure to oversee our progress towards reaching the 20 per cent reduction target.

4.2 Supporting the regional and local application of interventions

As referenced in section 4.1, it is essential that the policies and interventions set out at national level support and are aligned with regional and local level actions. In line with the commitment set out in the NTS2 we will take a collaborative and participatory approach to delivering the interventions outlined in the route map. Local authorities' contributions, reflective of local circumstances, needs and resources, will be especially critical across the range of interventions set out in the route map, including:

- Continuing to support hybrid working models and digital access to services wherever possible
- Shaping places that are walkable, connected and healthy through land-use planning, alongside communities and local partners

- Promoting active travel and improving infrastructure to make it easier, safer and attractive to walk, wheel or cycle
- Public transport support and provision, including of adequate infrastructure
- Parking and traffic management in tandem with interventions that make sustainable travel accessible for everyone, including using the new WPL powers, where appropriate
- Supporting car clubs and car sharing options
- Educating our young people and promoting behaviour change through information and awareness raising campaigns

We are aware that there is already a significant amount of action being taken by RTPs, local authorities, health boards and third sector partners. Following further engagement with these partners we will identify opportunities for and develop any shared learning or support tools that may be needed to support the implementation of route map interventions within regions, local authorities and individual communities.

While many of the interventions laid out in this route map have funding streams allocated to them, it is also necessary to influence funding decisions taken out with transport as part of the cross-sector approach to supporting reduced car use. STPR2 will set out recommendations for future strategic transport investment decisions, and we will continue working with COSLA and other partners to consider the challenges and opportunities associated with ensuring funding supports sustainable travel behaviours to enable healthier, fairer and more sustainable lives.

4.3 Monitoring and evaluating the progress and impact of the route map

While the route map is not one-size-fits-all, and car usage will not be expected to fall at the same rates in all parts of Scotland, our monitoring of progress will initially be at a national level and will be measured annually, with single national target of reducing the annual number of car kilometres by 20 per cent by 2030 (against a 2019 baseline). We will align monitoring of this outcome with that of the NTS2, as well as RTPs' own monitoring processes. A number of the individual interventions set out within the plan will also have their own monitoring and evaluation frameworks. Our planned consultation and engagement on the draft route map and associated impact assessments will help us to consider the value of monitoring and evaluating against interim or sub-measures and a full monitoring and evaluation plan will be set out alongside the final route map. Consideration will be given to all options with input from stakeholders to explore how the contribution of different parts of Scotland can be measured as part of this national target.

4.4 Areas for further exploration

In developing the route map we have identified a number of transport and non-transport policy areas which may benefit from further exploration and will continue to identify and act on further opportunities as they arise, in conjunction with the recommendations of STPR2, which will inform Scottish Government transport investment priorities up to 2042.

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