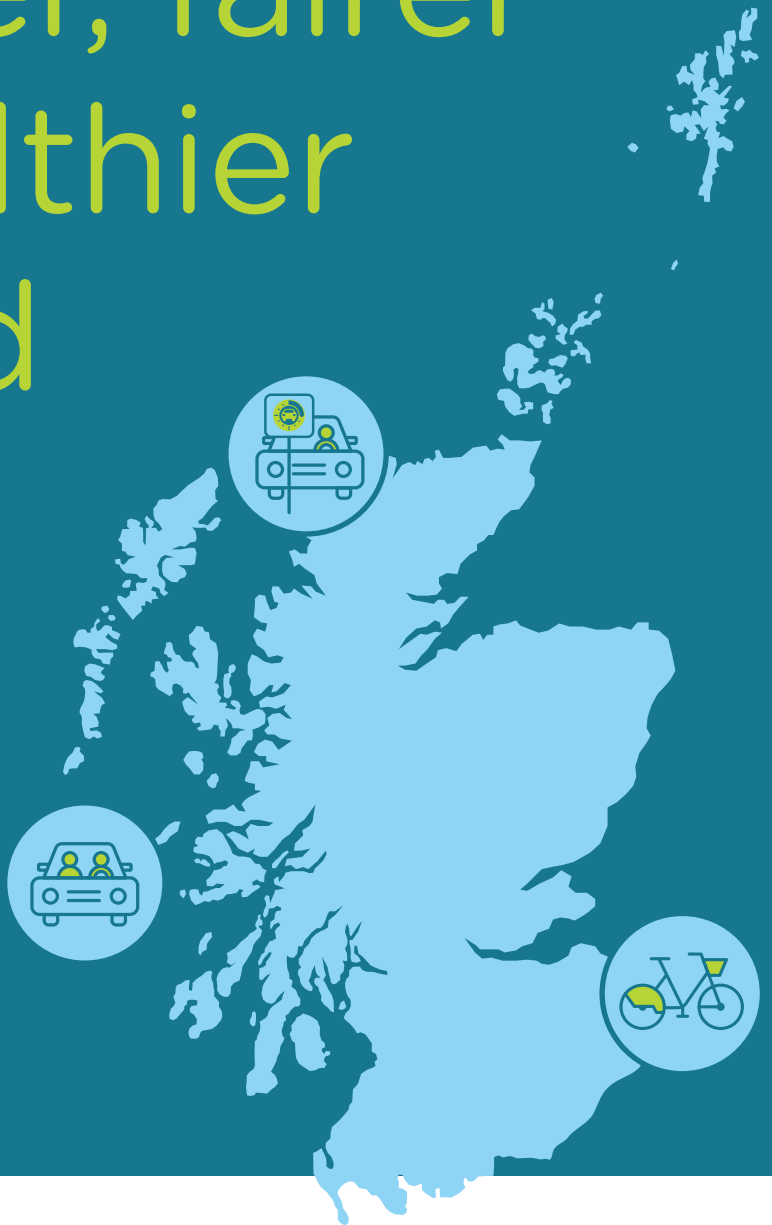


A Shared Mobility Vision: a greener, fairer and healthier Scotland



Overview

Transport is now Scotland's largest emitting sector, contributing 37% of greenhouse gases. The largest source of transport emissions is cars. Taking decisive action to tackle emissions in this sector, and crucially shifting away from Scotland's over reliance on private car use, is vital to tackling the climate emergency.

The Committee on Climate Change has warned that Scotland is in danger of missing its interim emissions targets and that urgent, immediate action is required now if we are to achieve net zero emissions by 2045.

The Scottish Government has committed to phasing out the sale of new petrol and diesel cars by 2032. This presents a huge opportunity to encourage the uptake of electric vehicles. Car clubs are leading the way in providing access to electric vehicles for communities and businesses who otherwise would not be able to afford them.

As highlighted in the National Transport Strategy, Scotland needs not only cleaner cars but fewer cars if we are to tackle some of the serious environmental challenges we are facing.

CoMoUK is a charity that promotes the environmental, economic, health and social benefits of shared transport for the public good. We support the development of shared modes of transport including car clubs, bike share, ride share and demand responsive transport as an alternative to private car ownership and use. This is achieved through advocacy, research and development.

Now spanning two decades, CoMoUK's evidence base demonstrates the ways in which shared transport is playing an important role in tackling climate change by reducing emissions, reducing congestion and helping protect public health by improving air quality.

Shared mobility can also make communities more sustainable, particularly Scotland's diverse rural communities and can help tackle a range of socio-economic barriers such as transport poverty, by offering lower cost options of getting around.

By driving newer, more environmentally friendly vehicles, car club members in Scotland saved 354 tonnes of carbon last year and disposed of 6,700 private vehicles that would have otherwise been on Scotland's roads.¹

Bike share schemes offer a flexible, carbon free, healthy and active form of travel, creating clearer streets and cleaner air. 36% of members said they now use their car much less overall since joining a bike share scheme and 52% reported exercise and health benefits.²

CoMoUK's innovative research, 'A Shared Mobility Vision for Scotland' shows the very considerable extent to which car clubs, ride share and bike share have the potential to help deliver the vision set out in the National Transport Strategy and contribute to the Scottish Government's wider climate goals.

As well as quantifying the potential contribution of shared mobility to sustainable travel in Scotland, this summary report sets out the key recommendations to help make that vision a reality. In developing these recommendations, CoMoUK has consulted widely with shared mobility operators, and active and sustainable travel delivery partners to ensure there is a strong evidence base underpinning them.

With the eyes of the world on Scotland ahead of this year's UN Climate Change Conference (COP26) in Glasgow, now is the time to seize the opportunity and strive for a cleaner and more sustainable future for our country.

1. CoMoUK Car Club Annual Survey for Scotland 2019-20
2. CoMoUK Bike Share Annual Survey for Scotland 2019-20

Introduction

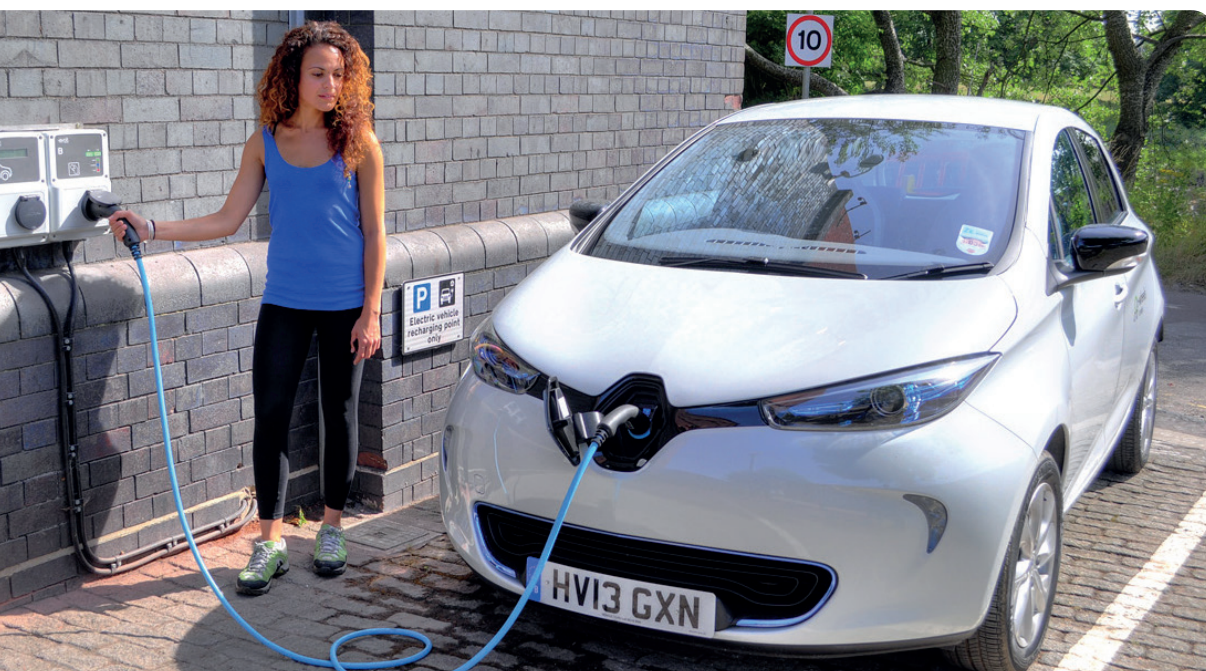
As we enter a new decade there has never been a stronger need to address the fundamental issues around how we travel, how we get to work, how we access services and how we enjoy leisure time. Conflict between the freedom and convenience of personal car use, and the negative impacts on our environment and our transport infrastructure, which disproportionately hits the most vulnerable in our society, is yet to be resolved.

This summary report sets out the key findings of CoMoUK's research into the potential scale and benefits of car clubs, ride share and bike share schemes and their impact on reducing private car ownership and use. A full and detailed report on the methodology and findings can be requested by emailing scotland@como.org.uk.

The research was created by CoMoUK and administered by consultants from Steer. The project was funded by Smarter Choices, Smarter Places, which is a Paths for All's programme to increase active and sustainable travel throughout Scotland. Smarter Choices, Smarter Places is grant-funded by Transport Scotland. Match funding was received from the EU Inter-reg programme SHARE-North.

The objective of the research was to identify:

- the potential for households to switch from private car ownership to use of car clubs, ride share and bike share schemes in Scotland, and the geographical distribution of that potential;
- the scale of enhanced shared mobility provision needed to realise the potential;
- the benefits of additional shared mobility provision as an alternative to private car ownership and use in Scotland; and
- how the enhanced offer might be achieved, and the help required from Scottish Government, local authorities and partners in delivery.



What is shared mobility?

Shared mobility is about using transport rather than owning it. Shared mobility provides alternatives to the private car including car clubs, shared bikes, ride share and demand responsive transport, which have a lower impact on the environment and our transport infrastructure.

As shared mobility works in harmony with public transport and active travel, it can help shift people away from private car dependency, unlocking significant public benefits.

Shared mobility services can help trigger behaviour change with the potential to contribute to; tackling the climate change emergency, reducing congestion and improving air quality.

Each mode also reduces the space required for car parking, leading to more liveable communities and enabling higher density developments to be built.

By providing flexible access to vehicles, without the upfront cost of purchasing a car or a bike, sharing modes can also be a solution to transport poverty for low income households.

As CoMoUK's roster of research demonstrates, shared modes facilitate lower levels of car ownership and encourage travel by public transport, walking and cycling, which in turn helps to address public health concerns such as obesity.

Despite significant progress, shared mobility in Scotland is still at a comparatively early stage of development, with services only available to a relatively small proportion of the population. They have yet to become a widely recognised, mainstream mode of transport. Consequently, further development work is needed if the full benefits that sustainable transport modes can offer are to be achieved.



Definitions

This report focuses on the potential of three shared modes; car clubs, bike share and ride share to deliver wide ranging benefits to the people and places of Scotland and help achieve the aims of the National Transport Strategy.

Car clubs

A car club is a means of sharing a car between people, allowing individual drivers and households all the benefits of access to a car, while reducing and often removing the need for them to own and maintain their own individual vehicle.

Car clubs offer a pay as you drive model where people can access cars for short periods of time. Unlike traditional car rental, cars are located more conveniently, often in on-street locations and can be accessed with a smart card or phone.

There are several different types of car club, ranging from less formal, community-based schemes with a handful of members, through to car clubs with thousands of members and a range of vehicles, including electric vehicles.

Bike share

Bike share is a service in which bicycles are made available for shared use to individuals on a short-term basis.

Models include Public Bike Share, a self-service, on-street system either using a fixed docking station or a dockless method, which allows bikes to be picked up and parked anywhere. For dockless systems payment and unlocking is conducted through an app.

Other models of bike share include workplace pool bikes, railway station hubs, loans, lockers and peer-to-peer sharing.

Ride share

Sharing of journeys in a private car is also known as ride sharing, car sharing or carpooling. This is where individuals may decide to share their trip with other users who are travelling a similar route in order to receive a reduced fare or other incentive.

People share rides informally through networks in neighbourhoods, communities, workplaces and social media.

More formally, ride sharing services are enabled via web and app matching of people offering rides with those who need them.



Key findings: the potential scale of shared mobility services in Scotland



Car Clubs

There are 634,000 households in Scotland that could potentially switch from car ownership to car club membership, alongside use of public transport and active travel.

This would result in the following benefits:



192,900
fewer private cars
on Scotland's roads



87,000
tonnes of carbon
savings of per
annum



363 million
less miles driven
each year



Ride Share

Each year, 49% of all commuter car trips (292,600 trips) in Scotland have the potential to be shared.

This would result in the following benefits:



135,000
tonnes of carbon
savings of per
annum



70 million
fewer car trips
each year



Bike Share

There are 414,114 short car trips (5km or less) each year that have the potential to switch to bike share.

This would result in the following benefits:



64,000
tonnes of carbon
savings of per
annum



199 million
fewer car trips
each year

Calculating the potential scale of shared mobility services in Scotland

Through our research we have calculated the potential for reducing private car use through the growth of car clubs, ride share and bike share schemes in Scotland. Our analysis is based on data from Scotland's 2011 Census and the 2018 Scottish Household Survey. The findings are shown on a local authority and Scotland-wide basis to better inform national, regional and local policy making.

Car clubs

Through our analysis we were able to identify Scottish households that own at least one car, where the characteristics of the household, the drivers within the household, and the trips currently made by private car are such that the trips could feasibly be made using a car club car instead. As a result 643,000 switchable households were identified.

In 2019, 30% of car club members disposed of at least one vehicle. If we apply this to 643,000 switchable households, this would result in 192,900 fewer private cars on Scotland's roads. If each of the 630,000 households with the potential to switch reduced their miles driven by 572 miles per year, the total impact of this would be 363 million fewer miles driven per year.

The accumulated carbon savings from each of the potential households switching to pay as you go car use would be 87,000 tonnes per annum. This calculation doesn't take into effect the lower emissions of the miles driven in the car club vehicles which would increase the overall benefits.

Ride share

Currently 68% of Scotland's commuters drive to work by car or van, and 68% of all journeys are single occupancy trips. Our research has explored the potential to dramatically reduce this figure by switching to shared commuter trips.

By analysing Scotland's 2011 Census Travel To Work (TTW) data, which includes information on travel to work by mode, origin and destination for the trip. We identified 140,448,000 trips (49% of all commuter trips) that could switch to car sharing.

If all those currently commuting to work car shared with one other driver (50% of the potential 140,448,000 trips), then there would be 146,300 fewer cars on the roads every day. This equates to 70 million fewer car trips annually, with a reduction of 135,000 tonnes of carbon.

Bike share

Our research explored the potential to increase cycling through greater provision of bike share schemes. From Scotland's 2011 Census data we analysed the number of travel to work (TTW) car trips of cyclable distance (less than 5km). This analysis identified 414,114 short car trips each year that have the potential to switch to bike share.

If all car trips under 5km were made by cycling, there would be an annual reduction of 199 million car trips, with 64,000 tonnes less carbon. This could increase to 324 million car trips and 202,000 tonnes of carbon if all trips up to 10km were converted by switching to an e-bike, which are better for longer distances (5km-10km).

Converting regular travel to work trips to cycling has the added benefit of embedding the habit of regular exercise offering physical and mental health benefits for commuters.

Summary of recommendations

To unlock the potential benefits of shared transport we conclude that there is a need for combined action from shared mobility operators and the Scottish Government, along with regional and local policy makers. Support will also be required from natural allies such as employers, planners, developers, public transport providers, community groups and third sector organisations.

We have produced a detailed set of mode specific actions contained in the full report which can be requested by emailing scotland@como.org.uk.

Our overarching recommendations are set out in the table below. They have been designed to encourage the sustainable development of the shared mobility sector in Scotland so it can play its full part in tackling Scotland's climate, congestion and air quality issues.

In developing these recommendations, CoMoUK has consulted widely with shared mobility operators and active and sustainable travel delivery partners to ensure there is a strong evidence base underpinning them.



Recommendations

Funding and Incentivising

- Funding support:**
 The Scottish Government should commit to a review of how shared mobility fits into wider public transport strategy and how funding mechanisms can be put in place to support operations, especially in lower density neighbourhoods, smaller towns and rural areas.
- Incentivise shared mobility use:**
 The Scottish Government and local authorities should consider introducing a range of incentives to encourage people to give up their private vehicles and choose more sustainable transport options. For example, providing 'Mobility Credits' to convert from older polluting private cars to spend on alternative travel including public transport and shared mobility services.

Infrastructure and the Built Environment

- Planning and placemaking:**
 Shared mobility should be mainstreamed in national and local planning policy, helping to create and establish low car neighbourhoods. Local authorities should ensure there is a requirement to allocate space away from private cars for shared mobility, public transport and active travel through Mobility Hubs at key interchanges and in new developments, with funding from the Scottish Government to support their development.
- Electrification of shared transport:**
 - Shared mobility operators should accelerate the transition to a zero-emission transport system by providing EV car club vehicles and ebikes as standard.
 - The Scottish Government should facilitate the growth and enhancement of the EV charging infrastructure to support an all-electric car club fleet and expanded fleet of e-bikes.
 - Local authorities should incentivise the transition to a zero-emission transport system by offering significantly reduced or zero permit fees for car club EVs, and open access charging networks for car club and bike share operators.

Reducing Emissions

- Low emission zones:**
 Local authorities should incorporate the contribution to clean air from shared mobility modes as a fundamental part of low emission zone design.
- Workplace transport emissions reporting:**
 Local authorities and some large employers currently report their Scope 1 & 2 emission levels whilst all Scope 3 (including grey fleet and commuting emissions) are optional. The Scottish Government should create a requirement for employers to report on their emissions from all employee travel to encourage greater sharing.

Raising Awareness

- Developing the evidence base:**
 Data and evidence on the impacts of shared mobility services should be collected to assist local, regional and national policy making.
- Promotional campaigns:**
 There should be greater collaboration between the public and private sector on the promotion of shared travel modes to the wider public and businesses.